

**Date and Time:** Monday 9 September 2024 18:12:00 CEST

**Job Number:** 233039369

**Documents (100)**

1. [*COP21: UN spotlights importance of protecting forests and agriculture to improve livelihoods, feed the world*](https://advance.lexis.com/api/document?id=urn:contentItem:5HHB-DDV1-F0K1-N4V8-00000-00&idtype=PID&context=1516831)

**Client/Matter:** -None-

**Search Terms:** accounting and emissions or accounting and land or accounting and forest or accounting and greenhouse gas or emissions and land or emissions and forest or emissions and greenhouse gas or land and forest or land and greenhouse gas or forest and greenhouse gas

**Search Type:** Terms and Connectors

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| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

2. [*Indonesia pledges 29 percent emissions cut by 2030*](https://advance.lexis.com/api/document?id=urn:contentItem:5H11-4H21-JBV1-X382-00000-00&idtype=PID&context=1516831)

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3. [*Amazon deforestation report is major setback for Brazil ahead of climate talks Report showing 16% increase in tree destruction underscores climate threat and is a disappointing result for government efforts to combat deforestation*](https://advance.lexis.com/api/document?id=urn:contentItem:5HGB-2241-JCJY-G032-00000-00&idtype=PID&context=1516831)

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4. [*Forestry is climate-smarter and more profitable than beef*](https://advance.lexis.com/api/document?id=urn:contentItem:5GR5-TWJ1-JCW9-2072-00000-00&idtype=PID&context=1516831)

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5. [*Deforestation slows, &#39but we need to do better&#39 on sustainable forest use &#8211 UN agriculture chief*](https://advance.lexis.com/api/document?id=urn:contentItem:5GW1-RP11-JD3Y-Y142-00000-00&idtype=PID&context=1516831)

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6. [*Myanmar to expand forest area to fight climate change - minister*](https://advance.lexis.com/api/document?id=urn:contentItem:5HHS-PXX1-JC8S-C545-00000-00&idtype=PID&context=1516831)

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7. [*Rate of global forest loss halved: UN report*](https://advance.lexis.com/api/document?id=urn:contentItem:5GW5-N6G1-DY93-M1SF-00000-00&idtype=PID&context=1516831)

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8. [*>>>ANSA/ BCFN foundation calls for sustainable food, agriculture Barilla centre proposes adoption of 'double pyramid'*](https://advance.lexis.com/api/document?id=urn:contentItem:5JRC-VTB1-F143-44KN-00000-00&idtype=PID&context=1516831)

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9. [*Climate Change: Farmers urged to plant forests*](https://advance.lexis.com/api/document?id=urn:contentItem:5HH4-XV91-F0BB-S14B-00000-00&idtype=PID&context=1516831)

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10. [*Terra Global Capital raising $100m anti-deforestation fund - exclusive*](https://advance.lexis.com/api/document?id=urn:contentItem:5GJ3-2D81-F0CX-91S5-00000-00&idtype=PID&context=1516831)

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11. [*Forest-destroying palm oil powers cars in EU: report*](https://advance.lexis.com/api/document?id=urn:contentItem:5JX3-W7G1-DY93-M1G5-00000-00&idtype=PID&context=1516831)

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12. [*Protecting trees is key to any agreement Tropical rain forests are crucial to our effort to curb global temperature rises*](https://advance.lexis.com/api/document?id=urn:contentItem:5HK0-YC21-DYS1-0115-00000-00&idtype=PID&context=1516831)

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13. [*10 reasons why agriculture is key to combating climate change Global warming's impact on food production is one of the hot topics to be discussed by world leaders in Paris at COP21*](https://advance.lexis.com/api/document?id=urn:contentItem:5HH5-PBR1-JCJY-G2NN-00000-00&idtype=PID&context=1516831)

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14. [*Researchers question Brazil 's climate change goals through deforestation limits*](https://advance.lexis.com/api/document?id=urn:contentItem:5H9K-JP51-DYRV-30YW-00000-00&idtype=PID&context=1516831)

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15. [*From dream to nightmare*](https://advance.lexis.com/api/document?id=urn:contentItem:5K2X-18M1-JD09-30J3-00000-00&idtype=PID&context=1516831)

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16. [*Seeing the wood for the trees: 10 highlights of new forests study FAO 's most detailed study of forests yet shows deforestation down but not out*](https://advance.lexis.com/api/document?id=urn:contentItem:5GWW-JP41-JCJY-G3TC-00000-00&idtype=PID&context=1516831)

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17. [*New UN Web Tool Demonstrates Climate Benefits of Protecting Apes*](https://advance.lexis.com/api/document?id=urn:contentItem:5JJ4-9KW1-JD3Y-Y3HY-00000-00&idtype=PID&context=1516831)

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18. [*Minister must act now on the 30% drop in forestry planting rates*](https://advance.lexis.com/api/document?id=urn:contentItem:5K2T-2NK1-JCW9-21G8-00000-00&idtype=PID&context=1516831)

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19. [*Emissions set to soar as love of steak takes off in Asia*](https://advance.lexis.com/api/document?id=urn:contentItem:5HD3-SN51-DY93-M181-00000-00&idtype=PID&context=1516831)

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20. [*Climate change: Is forest renewal the best way to tackle global warming? Next week's crucialclimate summit in Pariswill debate how we cancut carbon emissionsbefore it's too late. Butwhat about the natural weapon at our disposal in the fight against global warming: reforestation?*](https://advance.lexis.com/api/document?id=urn:contentItem:5HG4-5S01-F021-63NK-00000-00&idtype=PID&context=1516831)

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21. [*Asia Pulp & Paper joins CDP initiative to drive sustainable production across supply chain*](https://advance.lexis.com/api/document?id=urn:contentItem:5H06-PN81-JCF9-231V-00000-00&idtype=PID&context=1516831)

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22. [*National climate targets signal 'unprecedented momentum' for climate agreement in Paris - UN report*](https://advance.lexis.com/api/document?id=urn:contentItem:5HBK-Y1V1-F0K1-N13W-00000-00&idtype=PID&context=1516831)

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23. [*Miguel Arias Cañete, EU Commissioner for Climate Action and Energy: Interview*](https://advance.lexis.com/api/document?id=urn:contentItem:5WS6-C4N1-DXYV-72XK-00000-00&idtype=PID&context=1516831)

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24. [*COLUMNIST*](https://advance.lexis.com/api/document?id=urn:contentItem:5HPV-Y2N1-JBVM-Y257-00000-00&idtype=PID&context=1516831)

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25. [*Biofuels plant in Hawaii is the first in U.S. to be certified as sustainable*](https://advance.lexis.com/api/document?id=urn:contentItem:5JSJ-NDS1-DYR7-C36C-00000-00&idtype=PID&context=1516831)

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26. [*QUANTUM LEAP: Taking action on global warming*](https://advance.lexis.com/api/document?id=urn:contentItem:5H34-VJM1-JCJY-G2V5-00000-00&idtype=PID&context=1516831)

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27. [*Exclusive: land-clearing surge in Queensland set to wipe out Direct Action gains - report In just three years the rate of clearing will create enough additional carbon dioxide emissions to cancel out emissions savings the government says it will make by paying farmers $670m to stop cutting down trees*](https://advance.lexis.com/api/document?id=urn:contentItem:5JT4-MMS1-JCJY-G365-00000-00&idtype=PID&context=1516831)

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28. [*Danone sets "ambitious" carbon emissions policy*](https://advance.lexis.com/api/document?id=urn:contentItem:5HC1-3VJ1-JDNW-40Y1-00000-00&idtype=PID&context=1516831)

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29. [*Brexit could halt climate change deal*](https://advance.lexis.com/api/document?id=urn:contentItem:5K3W-FCF1-JBVM-Y3X2-00000-00&idtype=PID&context=1516831)

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30. [*Bog rap turns heat on peat NORTH WALES PUPILS STAR IN YOUTUBE VIDEO*](https://advance.lexis.com/api/document?id=urn:contentItem:5HHH-PBW1-DY9P-N0WF-00000-00&idtype=PID&context=1516831)

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31. [*Coal's true impact on GHG emissions.*](https://advance.lexis.com/api/document?id=urn:contentItem:5JSY-G151-F0PT-M008-00000-00&idtype=PID&context=1516831)

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32. [*Ireland faces pressure over emissions Kenny tells Hollande that Ireland will sign up to 'measurable and achievable targets'*](https://advance.lexis.com/api/document?id=urn:contentItem:5HGY-4WW1-DYS1-0149-00000-00&idtype=PID&context=1516831)

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33. [*A more sustainable approach is needed*](https://advance.lexis.com/api/document?id=urn:contentItem:5J50-XT61-F15H-C209-00000-00&idtype=PID&context=1516831)

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34. [*- L'OREAL ANNOUNCES ITS NEW 'CARBON BALANCED' AMBITION FOR 2020 GROUP*](https://advance.lexis.com/api/document?id=urn:contentItem:5GVC-V601-F0K1-N0SN-00000-00&idtype=PID&context=1516831)

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35. [*Ireland expected to miss 2020 EU targets on emissions*](https://advance.lexis.com/api/document?id=urn:contentItem:5J82-2V01-JCW9-23S8-00000-00&idtype=PID&context=1516831)

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36. [*What the Paris climate deal means for Southeast Asia*](https://advance.lexis.com/api/document?id=urn:contentItem:5HMT-GH91-F03R-N33G-00000-00&idtype=PID&context=1516831)

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37. [*How long before we can't see the sea for the trees on the Wild Atlantic Way?*](https://advance.lexis.com/api/document?id=urn:contentItem:5JJ9-2DG1-JC8Y-83TF-00000-00&idtype=PID&context=1516831)

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38. [*- University of Aberdeen - Livestock sector key to mitigating greenhouse gases*](https://advance.lexis.com/api/document?id=urn:contentItem:5JCF-44X1-F0K1-N14X-00000-00&idtype=PID&context=1516831)

**Client/Matter:** -None-

**Search Terms:** accounting and emissions or accounting and land or accounting and forest or accounting and greenhouse gas or emissions and land or emissions and forest or emissions and greenhouse gas or land and forest or land and greenhouse gas or forest and greenhouse gas

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39. [*IN October, our beloved puffin was [...] COLUMNIST*](https://advance.lexis.com/api/document?id=urn:contentItem:5HKW-BPS1-JBVM-Y54V-00000-00&idtype=PID&context=1516831)

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40. [*EU drive for 'green' biodiesel has increased emissions, study finds*](https://advance.lexis.com/api/document?id=urn:contentItem:5JM9-H7V1-JCJY-G0XG-00000-00&idtype=PID&context=1516831)

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41. [*Australia's carbon emissions are increasing, government report shows A report quietly released on Christmas Eve shows Australia's emissions rose by about 1% in 2014-15, compared with the previous year*](https://advance.lexis.com/api/document?id=urn:contentItem:5HPF-5171-F021-60N1-00000-00&idtype=PID&context=1516831)

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42. [*Business and Climate Summit London, 28-29 June 2016*](https://advance.lexis.com/api/document?id=urn:contentItem:5K5V-9H41-JDJN-60XR-00000-00&idtype=PID&context=1516831)

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43. [*Aviation biofuel industry expanding in US*](https://advance.lexis.com/api/document?id=urn:contentItem:5HMY-27F1-JCN4-H0GF-00000-00&idtype=PID&context=1516831)

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44. [*Countryfile - 5:36 PM GMT*](https://advance.lexis.com/api/document?id=urn:contentItem:5K51-D5P1-JBH6-C0WV-00000-00&idtype=PID&context=1516831)

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45. [*Swedish report urges EU to halve its meat consumption to meet eco goals*](https://advance.lexis.com/api/document?id=urn:contentItem:5J6B-6921-JCW9-24V3-00000-00&idtype=PID&context=1516831)

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46. [*The planet's dangerous appetite for meat A switch to reduced-meat diets would be a win-win situation for human health and the environment*](https://advance.lexis.com/api/document?id=urn:contentItem:5HWY-R2G1-JC8Y-80YF-00000-00&idtype=PID&context=1516831)

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47. [*Union's declaration at Climate Summit:*](https://advance.lexis.com/api/document?id=urn:contentItem:5HJT-WJG1-JCG2-C1M0-00000-00&idtype=PID&context=1516831)

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48. [*Demand for meat has become a global threat*](https://advance.lexis.com/api/document?id=urn:contentItem:5HG7-58P1-DXXV-40P2-00000-00&idtype=PID&context=1516831)

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49. [*Should we all go vegan if it will save the planet?*](https://advance.lexis.com/api/document?id=urn:contentItem:5J3S-XMJ1-DY9P-N13W-00000-00&idtype=PID&context=1516831)

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50. [*Countryfile - 5:37 PM GMT*](https://advance.lexis.com/api/document?id=urn:contentItem:5K51-D5P1-JBH6-C0V3-00000-00&idtype=PID&context=1516831)

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51. [*At climate summit in Washington, UN officials call to take action 'to the next level'*](https://advance.lexis.com/api/document?id=urn:contentItem:5JPK-PFS1-F0K1-N0TM-00000-00&idtype=PID&context=1516831)

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52. [*Let's put these climate control talks on ice Negotiations to prevent global warming have achieved little. We must now focus on how to deal with its effects*](https://advance.lexis.com/api/document?id=urn:contentItem:5HHR-8XF1-F021-650K-00000-00&idtype=PID&context=1516831)

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53. [*Growing more grass could be key to hitting emission targets Soil under grassland can be used to 'lock up' carbon dioxide, says Royal Irish Academy*](https://advance.lexis.com/api/document?id=urn:contentItem:5JP4-HHT1-JC8Y-844M-00000-00&idtype=PID&context=1516831)

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54. [*Countryfile - 5:36 PM GMT*](https://advance.lexis.com/api/document?id=urn:contentItem:5K51-D5P1-JBH6-C0W3-00000-00&idtype=PID&context=1516831)

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55. [*World Meat Free Day 2016: Would eating less meat really combat climate change? If every Briton went vegetarian, we could cut our greenhouse gas footprint by 25 per cent*](https://advance.lexis.com/api/document?id=urn:contentItem:5K0R-1SN1-F021-62KP-00000-00&idtype=PID&context=1516831)

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56. [*The secretive trade agreements that could scupper climate change ?action? Global trade deals like TTIP and TPP will lead to an increase in greenhouse gases and negate any agreement on climate change*](https://advance.lexis.com/api/document?id=urn:contentItem:5HGW-RG91-F021-6505-00000-00&idtype=PID&context=1516831)

**Client/Matter:** -None-

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57. [*£10m fund will support groups to set up green projects*](https://advance.lexis.com/api/document?id=urn:contentItem:5H3C-4WF1-JDMP-B2FJ-00000-00&idtype=PID&context=1516831)

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| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

58. [*New fertilisers will be a 'game changer' - Teagasc Environmentally friendly nitrogen set to reduce burden of EU emissions targets*](https://advance.lexis.com/api/document?id=urn:contentItem:5K0W-VPT1-JBVM-Y3F6-00000-00&idtype=PID&context=1516831)

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| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

59. [*Food at COP21: three new initiatives spotlight food insecurity, soils, waste Food was high on the agenda at the Paris climate talks this week-here are some of the highlights*](https://advance.lexis.com/api/document?id=urn:contentItem:5HHS-YCB1-JCJY-G00D-00000-00&idtype=PID&context=1516831)

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| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

60. [*Countryfile - 00:01 AM GMT*](https://advance.lexis.com/api/document?id=urn:contentItem:5K6M-6X51-JBH6-C4S6-00000-00&idtype=PID&context=1516831)

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61. [*Eat less meat to avoid dangerous global warming, scientists say Research led by Oxford Martin School finds widespread adoption of vegetarian diet would cut food-related emissions by 63% and make people healthier too*](https://advance.lexis.com/api/document?id=urn:contentItem:5JBV-P5N1-JCJY-G2Y9-00000-00&idtype=PID&context=1516831)

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62. [*Master Plan A Way Out of the Climate Trap*](https://advance.lexis.com/api/document?id=urn:contentItem:5GV5-08H1-JB4C-N0M1-00000-00&idtype=PID&context=1516831)

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63. [*Brazilian columnist assesses climate change summit outcome*](https://advance.lexis.com/api/document?id=urn:contentItem:5HMK-57X1-JC8S-C4MV-00000-00&idtype=PID&context=1516831)

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64. [*Climate change campaigners welcome China's plan to halve meat consumption*](https://advance.lexis.com/api/document?id=urn:contentItem:5K2C-M9Y1-JCJY-G264-00000-00&idtype=PID&context=1516831)

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65. [*Creed in battle with EU over carbon emissions from farming*](https://advance.lexis.com/api/document?id=urn:contentItem:5FGB-HTC1-F0BB-S248-00000-00&idtype=PID&context=1516831)

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66. [*-[CDP press release] Climate action reaches tipping point as corporate 'A Listers' revealed*](https://advance.lexis.com/api/document?id=urn:contentItem:5HBP-28G1-JD3Y-Y1S3-00000-00&idtype=PID&context=1516831)

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67. [*Solar park thrown out after plans labelled harmful to rural outlook*](https://advance.lexis.com/api/document?id=urn:contentItem:5J70-26S1-JCG2-C2Y4-00000-00&idtype=PID&context=1516831)

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68. [*Irish livestock sector must work towards a secure and sustainable food system*](https://advance.lexis.com/api/document?id=urn:contentItem:5JBT-C2V1-JCW9-23FR-00000-00&idtype=PID&context=1516831)

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69. [*BBC Radio 4 - 8:06 PM GMT*](https://advance.lexis.com/api/document?id=urn:contentItem:5HNN-CTM1-JBH6-C49X-00000-00&idtype=PID&context=1516831)

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70. [*Climate change and the continual demand for economic growth*](https://advance.lexis.com/api/document?id=urn:contentItem:5JRR-NJ31-JCJY-G02V-00000-00&idtype=PID&context=1516831)

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71. [*St Helens Biffa depot unveiled as first in £1.5m food waste scheme Waste services specialist aims to cut amount of food sent to landfill with new handling stations*](https://advance.lexis.com/api/document?id=urn:contentItem:5J0J-1JJ1-JCJY-G2XN-00000-00&idtype=PID&context=1516831)

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72. [*How Do Agricultural and Food Production, Distribution and Consumption*](https://advance.lexis.com/api/document?id=urn:contentItem:5HJB-HW31-DYTG-N1BR-00000-00&idtype=PID&context=1516831)

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73. [*Protector of the land how one farmer takes 'holistic' approach to producing beef*](https://advance.lexis.com/api/document?id=urn:contentItem:5HM2-T7W1-DYS1-02BG-00000-00&idtype=PID&context=1516831)

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74. [*Report shows urgent need need for Irish agriculture to change to produce healthy food with low emissions*](https://advance.lexis.com/api/document?id=urn:contentItem:5K7C-90S1-F15K-20WB-00000-00&idtype=PID&context=1516831)

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75. [*Meat eating could save the planet*](https://advance.lexis.com/api/document?id=urn:contentItem:5HNW-8191-F021-61HS-00000-00&idtype=PID&context=1516831)

**Client/Matter:** -None-

**Search Terms:** accounting and emissions or accounting and land or accounting and forest or accounting and greenhouse gas or emissions and land or emissions and forest or emissions and greenhouse gas or land and forest or land and greenhouse gas or forest and greenhouse gas

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| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

76. [*Protease reduces environmental impact of broiler production*](https://advance.lexis.com/api/document?id=urn:contentItem:5GYB-62Y1-DXG5-Y2G1-00000-00&idtype=PID&context=1516831)

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77. [*Haze affecting Thai tourism industry*](https://advance.lexis.com/api/document?id=urn:contentItem:5H6V-Y3H1-F03R-N062-00000-00&idtype=PID&context=1516831)

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| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

78. [*Kenny: We need time to hit carbon targets*](https://advance.lexis.com/api/document?id=urn:contentItem:5HH3-CC61-JCJY-G3PX-00000-00&idtype=PID&context=1516831)

**Client/Matter:** -None-

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| **Content Type** | **Narrowed by** |
| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

79. [*Carbon reduction clock is ticking for farming*](https://advance.lexis.com/api/document?id=urn:contentItem:5H05-KPG1-DY9P-N1JJ-00000-00&idtype=PID&context=1516831)

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| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

80. [*Getting wind of a problem: Giving antibiotics to cattle causes greenhouse gases released by COW PATS to double*](https://advance.lexis.com/api/document?id=urn:contentItem:5JVM-3391-F021-63XW-00000-00&idtype=PID&context=1516831)

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81. [*Richard Godwin: Should we all go vegan if it will save the planet?*](https://advance.lexis.com/api/document?id=urn:contentItem:5J3S-82R1-F021-64XM-00000-00&idtype=PID&context=1516831)

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| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

82. [*Parties must unite to turn climate ambition into firm climate action*](https://advance.lexis.com/api/document?id=urn:contentItem:5JJ9-PW31-F0PR-91BD-00000-00&idtype=PID&context=1516831)

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| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

83. [*Making the case for pasture-grazed beef*](https://advance.lexis.com/api/document?id=urn:contentItem:5J2P-0R21-JCG2-C1V7-00000-00&idtype=PID&context=1516831)

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| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

84. [*What the Paris climate deal means for clothing*](https://advance.lexis.com/api/document?id=urn:contentItem:5HNC-8SR1-JDNW-408J-00000-00&idtype=PID&context=1516831)

**Client/Matter:** -None-

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| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

85. [*Shifts in transitional protein solutions Millennials are the drivers of change in many areas of food production - Part II*](https://advance.lexis.com/api/document?id=urn:contentItem:5N8W-X6F1-DYG1-P3JG-00000-00&idtype=PID&context=1516831)

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| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

86. [*Environmental Pressure To Boost Renewables Sector*](https://advance.lexis.com/api/document?id=urn:contentItem:5H9B-9W51-F0J5-80F7-00000-00&idtype=PID&context=1516831)

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87. [*Fossil fuel use must fall twice as fast as thought to contain global warming - study Available carbon budget is half as big as thought if global warming is to be kept within 2C limit agreed internationally as being the point of no return, researchers say. Climate News Network reports*](https://advance.lexis.com/api/document?id=urn:contentItem:5J5G-HPK1-F021-63P4-00000-00&idtype=PID&context=1516831)

**Client/Matter:** -None-

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| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

88. [*New seeding recipe will dramatically boost grasslands*](https://advance.lexis.com/api/document?id=urn:contentItem:5HRS-4TW1-JCW9-22K1-00000-00&idtype=PID&context=1516831)

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| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

89. [*EMISSION IMPOSSIBLE As EU leaders discuss emissions cuts, battlelines are being drawn up between the Irish agricultural sector and the environmentalists, says John Mooney*](https://advance.lexis.com/api/document?id=urn:contentItem:626G-R2F1-JCBW-N0WW-00000-00&idtype=PID&context=1516831)

**Client/Matter:** -None-

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90. [*Golf: Scottish Open Highlights - 11:51 PM GMT*](https://advance.lexis.com/api/document?id=urn:contentItem:5K6M-6X51-JBH6-C4KP-00000-00&idtype=PID&context=1516831)

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91. [*ROAD TO NEW GLOBAL CLIMATE DEAL*](https://advance.lexis.com/api/document?id=urn:contentItem:5HH4-HR01-F12F-F53C-00000-00&idtype=PID&context=1516831)

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92. [*FARMING POLL 2015: Sore points for three out of four farmers*](https://advance.lexis.com/api/document?id=urn:contentItem:5H0M-TBW1-F0BB-S26N-00000-00&idtype=PID&context=1516831)

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93. [*Climate change must be halted, now Heating the planet is an ecocrime*](https://advance.lexis.com/api/document?id=urn:contentItem:5H88-7DG1-JCM4-64F5-00000-00&idtype=PID&context=1516831)

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94. [*Official 'greenspeak' masks Ireland 's poor environmental performance The final part of our series on agriculture and climate change highlights how difficult it is to reduce emissions while increasing agri-production*](https://advance.lexis.com/api/document?id=urn:contentItem:5H1M-WKN1-JC8Y-801M-00000-00&idtype=PID&context=1516831)

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95. [*New world agriculture census round to kick off in 2016*](https://advance.lexis.com/api/document?id=urn:contentItem:5HBK-Y1S1-F0K1-N4VP-00000-00&idtype=PID&context=1516831)

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| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

96. [*Food production cut by warm-weather farming Scientists suggest that with warmer temperatures, farmers plant many fewer crops than they used to*](https://advance.lexis.com/api/document?id=urn:contentItem:5J80-C2T1-F072-44HS-00000-00&idtype=PID&context=1516831)

**Client/Matter:** -None-

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| **Content Type** | **Narrowed by** |
| News | Timeline: 20 jul 2015 tot 20 jul 2016; Locatie: International; Plaats van publicatie: Europe; Taal: English |

97. [*Food security atforefront of climate treaty*](https://advance.lexis.com/api/document?id=urn:contentItem:5JP5-XG61-JB14-73JJ-00000-00&idtype=PID&context=1516831)

**Client/Matter:** -None-

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98. [*BBC News - 5:27 PM GMT*](https://advance.lexis.com/api/document?id=urn:contentItem:5K51-7GH1-JBH6-C08D-00000-00&idtype=PID&context=1516831)

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99. [*Gardeners' World - 07:00 AM GMT*](https://advance.lexis.com/api/document?id=urn:contentItem:5K6G-3G91-JBH6-C17C-00000-00&idtype=PID&context=1516831)

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100. [*When table and trough compete*](https://advance.lexis.com/api/document?id=urn:contentItem:5K2X-18M1-JD09-306F-00000-00&idtype=PID&context=1516831)

**Client/Matter:** -None-

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# [***COP21: UN spotlights importance of protecting forests and agriculture to improve livelihoods, feed the world***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HHB-DDV1-F0K1-N4V8-00000-00&context=1516831)

M2 PressWIRE

December 2, 2015 Wednesday

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**Length:** 635 words

**Body**

December 1, 2015

The impacts of climate change on ***forests*** and ***agriculture*** were in the spotlight today at the United Nations climate change conference (COP21), as new alliances among organizations and stakeholders were announced aiming to eliminate natural deforestation and ***forest*** degradation, and to prevent threats to sustainable farming and people's livelihoods.

Many of the events on the second day of the global gathering in Paris, France took place in the context of the Lima-Paris Action Agenda (LPAA) - a joint undertaking by the Governments of Peru and France, the Office of UN Secretary-General Ban Ki-moon and the UN Framework Convention on Climate Change (UNFCCC), the organizer of the current conference, the 21st meeting of the Convention's States Parties. The Action Agenda was launched in December 2014 by the previous meeting of the UNFCCC parties in Lima, Peru.

As highlighted in a press release issued by UNFCCC, the LPAA aims to strengthen climate action beyond COP21, by "mobilizing robust global action towards low carbon and resilient societies and providing enhanced support to existing initiatives."

During the two-week conference, 12 thematic focus events are being organized to expose how climate issues affect various sectors and to suggest relevant solutions to tackle them. On Tuesday, with ***forests*** and ***agriculture*** taking center stage, leaders from governments, the private and public sectors, civil society and indigenous peoples voiced their environmental concerns.

This included how ***agriculture***, forestry and other ***land*** uses are responsible for nearly a quarter of all ***greenhouse gas*** ***emissions*** - about half of that from deforestation and ***forest*** degradation, mostly driven by demand for food and wood products and inequities and inefficiencies in the use of ***land*** for their production.

"***Forest*** countries in partnership with other governments, the private sector and civil society are set for an increased international effort to eliminate natural deforestation and ***forest*** degradation in a few decades," said Peru's Minister of the Environment Manuel Pulgar-Vidal speaking at a press conference.

"The success of the LPAA and its action area on ***Forests*** relies on effective synergies between state and non-state actors, between investment and ***forest*** management - all together rallied behind sustainably managed ***forests*** as a common goal," he added.

According to UN estimates, approximately one billion people depend directly on ***forests*** for their livelihoods and each year, approximately 12 million hectares of ***forest*** are destroyed. This loss of ***forest*** cover is said to be responsible for roughly 11 per cent of global ***greenhouse gas*** ***emissions***.

Meanwhile, governments and organizations, including the UN Food and ***Agriculture*** Organization (FAO) and the International Fund for ***Agricultural*** Development (IFAD), announced six new cooperative initiatives that aim to protect the long-term livelihoods of millions of farmer and reduce ***greenhouse gas*** ***emissions***.

The entities highlighted how ***agriculture*** is one of the sectors most seriously affected by extreme climate but it also ***accounts*** for 24 per cent of ***greenhouse gas*** ***emissions*** which cause climate change.

The initiatives focus on four key areas: soils in ***agriculture***, the livestock sector, food losses and waste, and sustainable production methods and resilience of farmers. The new partnerships are expected to deploy money and know-how across both developed and developing nations to help hard-pressed farmers become key actors in the global drive to achieve a low-carbon, climate-resilient future.

UNFCCC said today's events reveal the "effective and concrete progress" that can be made when a wide, international set of stakeholders work together to build resilience and low-carbon systems of production in ***agricultural*** and food systems.

**Load-Date:** December 2, 2015

**End of Document**



[***Indonesia pledges 29 percent emissions cut by 2030***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5H11-4H21-JBV1-X382-00000-00&context=1516831)

Agence France Presse -- English

September 25, 2015 Friday 7:02 AM GMT

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**Length:** 446 words

**Dateline:** Jakarta, Sept 25 2015

**Body**

Indonesia has pledged to cut its ***greenhouse gas*** ***emissions*** by 29 percent by 2030 through stepping up protection of ***forests*** and boosting the renewable energy sector, but observers criticised the plan as lacking in detail.

Indonesia, one of the world's biggest ***greenhouse gas*** emitters, said it would reduce deforestation, restore degraded ***forests***, and lift the share of renewable energy to almost a quarter of the national energy mix in a decade, according to the country's official UN filing.

The sprawling archipelago is home to vast tracts of tropical rain ***forest*** but much has been felled in recent years, to be sold as timber and to make way for palm oil and pulp plantations, greatly increasing the country's ***emissions***.

The 29 percent reduction by 2030 is relative to a business-as-usual scenario without climate action, according to the pledge filed on Thursday, the latest to be submitted ahead of UN talks on a climate rescue pact in December in Paris.

With international assistance, such as financing, the pledge raises the target to a 41-percent cut by 2030. Previously in 2009, Indonesia had vowed to cut ***emissions*** by 26 percent by 2020.

"Beyond 2020, Indonesia envisions an even bolder commitment to ***emission*** reductions," said the country's UN submission, known as an Intended Nationally Determined Contribution (INDC).

However, think-tank the World Resources Institute (WRI) said the document lacked key information, such as an estimate of financial assistance needed to reach the 41-percent target, and did not go into detail about how to tackle recurring ***forest*** fires that contribute greatly to Indonesia's ***emissions***.

The pledge was released as Indonesian slash-and-burn ***agricultural*** fires send smog floating over Southeast Asia, with neighbouring Singapore on Friday closing all schools as air quality deteriorated to hazardous levels.

The illegal fires, mostly set to clear ***land*** for plantations, are an annual occurrence and Jakarta has come under pressure to do more to stop them.

"The government has taken positive steps in the process of developing the INDC, but it can be further improved with more details to ensure the plan's effectiveness," said Nirarta Samadhi, head of the Indonesia office of WRI.

Indonesia is the world's fifth-biggest ***greenhouse gas*** emitter if ***forest*** loss is taken into ***account***, according to the WRI.

More than 70 governments have so far submitted their INDCs, which will form the backbone of a universal climate pact to be forged at a November 30-December 11 United Nations conference in the French capital.

The deal will seek to limit global warming to two degrees Celsius (3.6 degrees Fahrenheit) over pre-Industrial Revolution levels.

**Load-Date:** September 26, 2015

**End of Document**



[***Amazon deforestation report is major setback for Brazil ahead of climate talks; Report showing 16% increase in tree destruction underscores climate threat and is a disappointing result for government efforts to combat deforestation***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HGB-2241-JCJY-G032-00000-00&context=1516831)

The Guardian

November 27, 2015 Friday 6:16 PM GMT

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**Section:** WORLD NEWS

**Length:** 593 words

**Byline:** Jonathan Watts in Rio de Janeiro

**Body**

Trees covering an area more than seven times the territory of New York City have been cleared in the Brazilian Amazon over the past year, in a major setback for government efforts to combat deforestation.

Related: Half of tree species in the Amazon at risk of extinction, say scientists

The grim statistics from Brazil's environment ministry, which were released on Thursday, underscore the growing climate threat posed by deforestation ahead of a United Nations conference in Paris that aims to reduce global carbon ***emissions***.

Satellite data revealed that 5,831 square kilometers of ***land*** was cut down or burned in the Brazilian Amazon in year to 1 August: a 16% increase on the destruction of the previous 12 months.

This is the second acceleration in three years, following almost a decade of impressive declines. That suggests the state's efforts - which include high-tech monitoring, stiffer financial penalties and boots on the ground - are having a diminishing impact.

Going into the Paris conference, that is bad news for Brazil and a worrying trend for the planet. Deforestation ***accounts*** for about 15% of ***greenhouse gas*** ***emissions***.

The increase is the result of weaker government regulation, particularly the relaxation of the ***Forest*** Code ; dams, roads and other infrastructure projects; the growing strength of the ***agricultural*** lobby ; and the faltering economy, which is driving more people to illegally log timber and clear ***land*** for cattle and crops.

Environment minister Izabella Teixeira acknowledged the figures were worse than expected.

"It was a surprise, particularly the increase in Mato Grosso," she said in reference to the state that has long been on the frontline of ***forest*** clearance. "Pressure for more logging is again strong and coming from ***agriculture*** and livestock activities."

Mato Grosso is the biggest grain producing state in Brazil. Deforestation also rose in Rondônia and Amazonas. These areas have been the focus of operations against illegal loggers by public prosecutors and federal police. But despite a flurry of arrests, investigators admit that the system of monitoring is undermined by corruption and legal loopholes.

Government officials stress the overall improvement in the past decade. Average rates of deforestation over the past four years have fallen by 80% compared to the peak in 2004. This is a far better trend than those in Amazonian countries such as Peru, Bolivia and Ecuador, or other nations with giant ***forests***, such as Indonesia or Russia.

Brazil, which is home to 65% of the Amazon ***forest***, is committed to zero illegal deforestation by 2030, though conservationists say much of the Amazon will have been cleared by then.

The impact of deforestation is not limited to carbon ***emissions***. Earlier this month, researchers warned that 57% of the 15,000 Amazonian tree species - including Brazil nut, wild cacao and açai - face extinction at current rates of ***land*** clearance.

On Friday, international conservation groups called on Brazil to step up its fight against illegal ***land*** clearance and to provide better incentives for sustainable production and ***forest*** restoration.

"One the eve of climate change talks in Paris, these figures provide a stark reminder that the war on deforestation is far from won," said Damian Fleming, head of Amazon programmes for the World Wildlife Fund.

"Deforestation continues to erode the world's most important biome for biodiversity, and remains a major source of ***greenhouse gas*** ***emissions***. The Brazilian government should boost efforts to protect the country's irreplaceable ***forests***."

**Load-Date:** November 27, 2015

**End of Document**



[***Forestry is climate-smarter and more profitable than beef***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5GR5-TWJ1-JCW9-2072-00000-00&context=1516831)

Irish Examiner

August 20, 2015 Thursday

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**Section:** SUPPLEMENTS

**Length:** 706 words

**Body**

So, on the one hand, we have optimistic projections for our food sector out to 2025, based substantially on increased dairy and beef sectors, and on the other hand, we are likely to be emitting increased quantities of methane ***greenhouse gas***, preventing us from attaining our climate change targets.

How can this conundrum be resolved?

How Climate Smart ***Agriculture*** can come to the rescue is being considered by a think-tank in the Institute of International and European Affairs (IIEA) in Dublin. They are due to present a comprehensive report for policymakers next year, including how we compare with competitors, and clear policy prescriptions on what needs to be done.

A central role in this project is being taken by Joseph Curtin, an economist in the IIEA, but also in the Department of ***Accounting*** and Management at UCC.

Beef Sector Unsustainable

One of the issues we may have to face, which the think-tank may consider, is whether our beef industry should continue to grow.

Or should it be allowed or encouraged to downsize.

Most of our farms engaged in cattle and sheep production cannot produce an acceptable income. And most of their income is EU subsidies.

The farms engaged predominantly in suckler beef production yielded an average income of only 10,300 in 2014.

Farms predominantly involved in cattle fattening yielded an average income of just 13,800.

These income figures include various EU subsidies, which exceed the farm income achieved from cattle farming.

In other words, without the subsidy, these farms would not have generated income.

The beef industry therefore is not economically sustainable .

Neither is it environmentally sustainable because of its ***greenhouse gas*** ***emissions***.

The dairy sector is defensible, because it does provide (in a normal year!) adequate incomes on farms, thanks to growing demand for dairy-based products to feed expanding world populations. In contrast, beef products contribute little to reducing or ending world hunger.

In order to maintain or even increase our output of dairy products, while also reducing our share of ***greenhouse gas*** ***emissions***, we might have to sacrifice our beef sector or a goodly chunk of it.

Other countries will be faced with similar choices for example, coal mining in the USA.

What would happen to the cattle farmers and the ***land***?

There may be a climate-smart alternative short rotation forestry.

Forestry an Alternative

Ireland has one of the lowest percentages in the EU of ***land*** devoted to forestry.

There has been a long term policy aim to increase this percentage, but this policy is clearly failing.

A stated objective of Government policy is to expand the productive ***forest*** area to about 1.25 million hectares, or 18% of the ***land*** area, by 2046.

This would require annual afforestation of 16,000 hectares per annum.

The current programme to increase forestry planting to about 7,300 ha annually for the next six years is less than half the planting rate required to meet the 18% ***forest*** area target in 2046.

But annual planting of the order of 20,000 ha has been achieved in Ireland in the past, and is therefore technically and logistically feasible.

Forestry is climate-smart because it absorbs carbon, and planting 20,000 ha per annum would reduce ***agricultural*** ***emissions*** by half, according to Teagasc.

In the past, forestry did not count as an ***agricultural*** enterprise for getting the Single Farm Payment, but that changed in recent years. Also, there is now EU agreement on the potential of forestry for offsetting against ***greenhouse gas*** ***emissions***.

Finally, forestry pays. Studies have shown that the economic return over a 15-20 year period for short rotation forestry is substantially greater than for beef.

Short rotation forestry has yet another advantage.

Ireland also has to meet increasingly difficult targets in the energy sector, forcing us to generate more energy from renewable resources such as hydro, wind and biomass.

Short rotation forestry to fuel existing Bord na Mona fuelled power stations would be substantially cheaper than a corresponding increase in wind energy. Wind power requires almost six times the investment in forestry and would contribute little to rural development.

The case for replacing our sucklers with trees gets stronger and stronger.

**Load-Date:** August 20, 2015

**End of Document**



[***Deforestation slows, &#39but we need to do better&#39 on sustainable forest use &#8211 UN agriculture chief***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5GW1-RP11-JD3Y-Y142-00000-00&context=1516831)

FinancialWire

September 7, 2015 Monday

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**Length:** 744 words

**Body**

While the world's ***forests*** continue to shrink as populations increase and woodlands are converted to ***agriculture*** and other uses, over the past 25 years, the rate of net global deforestation has slowed down by more than 50 per cent, the United Nations Food and ***Agriculture*** Organization (FAO) said in a report published today.

Some 129 million hectares of ***forest*** - an area almost equivalent in size to South Africa ¬- have been lost since 1990, according to FAO's most comprehensive ***forest*** review to date, The Global ***Forest*** Resources Assessment 2015. It covers 234 countries and territories and was presented at this week's World Forestry Congress, which kicked off today in Durban, South Africa.

The FAO study noted however, that an increasing amount of ***forest*** areas have come under protection while more countries are improving ***forest*** management. This is often done through legislation and includes the measuring and monitoring of ***forest*** resources and a greater involvement of local communities in planning and in developing policies.

"***Forests*** play a fundamental role in combating rural poverty, ensuring food security and providing people with livelihoods. And they deliver vital environmental services such as clean air and water, the conservation of biodiversity and combating climate change," said FAO Director-General Jose Graziano da Silva, launching the report in Durban.

He noted an "encouraging tendency towards a reduction in rates of deforestation and carbon ***emissions*** from ***forests***," as well as improved information that can inform good policy, noting that presently national ***forest*** inventories cover 81 per cent of global ***forest*** area, a substantial increase over the past 10 years.

"The direction of change is positive, but we need to do better," the FAO Director-General cautioned. "We will not succeed in reducing the impact of climate change and promoting sustainable development if we do not preserve our ***forests*** and sustainably use the many resources they offer us," he added.

FAO's report stresses the critical importance of ***forests*** to people, the environment, and the global economy. The ***forest*** sector contributes about $ 600 billion annually to global gross domestic product (GDP) and provides employment to over 50 million people.

The report also noted that Africa and South America had the highest net annual loss of ***forests*** in 2010-2015, with 2.8 and 2 million hectares respectively, but the report notes how the rate of loss has "substantially decreased" from the previous five year period.

Globally, natural ***forest*** area is decreasing and planted ***forest*** area is increasing and while most ***forests*** remain publicly owned, ownership by individuals and communities has increased. In all cases FAO stresses the importance of sustainable ***forest*** management practices.

"The management of ***forests*** has improved dramatically over the last 25 years. This includes planning, knowledge sharing, legislation, policies - a whole range of important steps that countries have implemented or are implementing," said Kenneth MacDicken, leader of FAO's Global ***Forest*** Resources Assessment Team.

He underscored how since 1990 the designation of additional ***forest*** ***land*** for conservation increased by some 150 million ha and that ***forest*** in protected areas has increased by over 200 million hectares.

Currently, ***forest*** area primarily designated for biodiversity conservation ***accounts*** for 13 percent of the world's ***forest***, or 524 million hectares, with the largest areas reported in Brazil and the United States.

Over the last five year period Africa reported the highest annual increase in the area of ***forest*** for conservation while Europe, North and Central American and North America reported the lowest compared to previous reporting periods, while the increase reported by Asia for 2010-2015 was lower than that reported for 2000-1010 but higher than the increase reported in the 1990s.

Deforestation and ***forest*** degradation increase the concentration of ***greenhouse gases*** in the atmosphere, but ***forest*** and tree growth absorbs carbon dioxide which is the main ***greenhouse gas***. FAO notes how a more sustainable management of ***forests*** will result in a reduction in carbon ***emissions*** from ***forests*** and has a vital role to play in addressing the impacts of climate change.

FAO has estimated that total carbon ***emissions*** from ***forests*** decreased by more than 25 per cent between 2001 and 2015, mainly due to a slowdown in global deforestation rates.

(Distributed by M2 Communications ([*www.m2.com*](http://www.m2.com)))

**Load-Date:** September 7, 2015

**End of Document**



[***Myanmar to expand forest area to fight climate change - minister***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HHS-PXX1-JC8S-C545-00000-00&context=1516831)

BBC Monitoring Asia Pacific - Political

Supplied by BBC Worldwide Monitoring

December 4, 2015 Friday

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**Length:** 870 words

**Body**

Text of report by Myanmar newspaper The Myanmar Times website on 4 December

Though it emits very little ***greenhouse gas*** - and what is emitted is offset by its ***forests*** - Myanmar is affected more than almost any other country in the world by climate change, the country's delegates will tell the Paris climate conference.

About 20 Myanmar government officials are already in Paris or are on their way to make the government's case to the United Nations Climate Conference, said U Nay Aye, director general of the Ministry of Environmental Conservation and Forestry's Environmental Conservation Department.

Myanmar will tell the international community that while its ***greenhouse gas*** (GHG) ***emissions*** will almost certainly increase in the coming decades, it plans to undertake a number of steps to minimize the increase, and prepare for the effects of climate change. In particular, it will maintain its ***forests*** so it remains a net GHG ***emissions*** "sink".

The Paris conference, which started on 23 November, will run to 11 December.

"The first delegates left on 23 November. U Win Tun, minister for environmental conservation and forestry, will lead the delegation until 5 December. Deputy Minister Daw Thet Thet Zin will make the presentation on the Intended Nationally Determined Contribution (INDC) of Myanmar, which includes the country's plan for climate change mitigation and adaption," he said.

The government submitted its plan to the UN Framework Convention on Climate Change in September, and will present it to the conference between 7 and 11 December.

"With the largest standing ***forests*** on mainland Southeast Asia, Myanmar currently absorbs more ***greenhouse gases*** than it emits, thereby already making a significant contribution to global efforts to tackle climate change," the plan says.

"However, we are currently in the process of rapid industrialisation and increasing urbanisation, which will lead to an increase in our ***emissions*** of ***greenhouse gases***.

"We therefore intend to implement a series of policies and actions to maintain the harmony between growth and mitigating climate change."

U Nay Aye said that 54.3 per cent of GHG ***emissions*** from Myanmar are from the forestry sector, while ***agriculture*** and livestock released 30.7pc of total carbon ***emissions***. Another 10.6pc of ***emissions*** came from the energy sector, while solid waste and industry ***accounted*** for only 3.8pc and 0.6pc respectively.

He said Myanmar would commit to minimising ***emissions*** growth by prioritising the forestry, ***agriculture*** and energy sectors.

"Reserved and protected public ***forest*** area will expand to 20.29 million hectares, 30pc of total ***land*** area in 2030 from the current 16.23 million hectares [24pc]. Protected areas will also increase to 10pc of national ***land*** area in 2030 from 6.6pc," he said.

While Myanmar's forestry sector tends to get attention for illegal logging of valuable hardwoods for export, the felling of trees for firewood and charcoal production is also a major driver of deforestation and carbon ***emissions***.

U Nay Aye said one measure to reduce firewood and charcoal use is fuel-efficient stoves. From 2001 to 2014-15, about 286,000 were distributed, with another 260,000 fuel-efficient stoves to be distributed across the county by 2030.

U Nay Aye said increased hydroelectric generation and renewable energy to light up villages would also reduce ***emissions***, and hoped for technical assistance, funding and capacity-building for human resources from the international community.

However, the generation of electricity will be a contributor to GHG ***emissions*** growth. In particular, Myanmar plans to source about one-third of its electricity from coal by 2030 in order to increase the electrification rate to 80pc. However, 38pc is forecast to come from hydropower, while 30pc of electricity provided to rural areas under a development plan targeting an estimated 6 million people will come from renewable sources.

Green Lotus, a French NGO promoting sustainable development in Myanmar, stated that the country is one of the smaller emitters, with 300kg of carbon dioxide emitted per person per year. This is far below the regional level, with Vietnam emitting 1.5 tonnes of carbon dioxide per person, and Thailand 4.7 tonnes.

Myanmar is more affected by the consequences of climate change than its neighbours. According to the Global Climate Risk Index 2015, published by German Watch, Myanmar is the second-most-affected country by climatic events in the world.

Green Lotus listed some of the proposals made by civil society organisations as follows: forming a climate change committee at the national level; establishing a national fund to support CSOs and activities related to climate change mitigation and adaptation; prioritising decentralised renewable energy solutions and increasing the share of renewable energy in energy development planning; improving farmers' technical capacity-building in "climate-smart" ***agriculture***, prioritising public transportation over cars; encouraging the construction sector to promote energy efficiency and conservation in design and construction; and protecting and conserving biodiversity and encouraging community forestry management.

Source: The Myanmar Times website, Rangoon, in English 04 Dec 15

**Load-Date:** December 4, 2015

**End of Document**



[***Rate of global forest loss halved: UN report***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5GW5-N6G1-DY93-M1SF-00000-00&context=1516831)

Agence France Presse -- English

September 7, 2015 Monday 10:18 AM GMT

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**Length:** 639 words

**Dateline:** Durban, South Africa, Sept 7 2015

**Body**

The rate at which the world is losing its ***forests*** has halved, but an area of woodland the size of South Africa has still been lost since 1990, a UN report revealed Monday.

Improvement has been seen around the globe, even in the key tropical rainforests of South America and Africa, according to a surprisingly upbeat ***Forest*** Resources Assessment (FRA), which is released every five years

Despite the good news, it points out that since 1990, the world had lost ***forests*** covering some 129 million hectares -- an area the size of South Africa.

"Even though, globally, the extent of the world's ***forest*** continues to decline... the rate of net ***forest*** loss has been cut by over 50 percent," said the report by the UN's Food and ***Agriculture*** Organization (FAO).

The assessment was released at the World Forestry Congress in the South African port city of Durban, host to the 14th edition of the conference.

"FRA 2015 shows a very encouraging tendency towards a reduction in the rates of deforestation and carbon ***emissions*** from ***forests*** and increases in capacity for sustainable ***forest*** management," said FAO director-general Jose Graziano da Silva.

"The direction of change is positive, with many impressive examples of progress in all regions of the world."

WWF International director for ***forests***, Rod Taylor, said the report presented "good news at one level, but the question is how sustainable that is".

"Even with the reduced rate we still have unacceptable levels of ***forest*** loss," Taylor told AFP.

WWF said that without "bold and urgent action" up to 170 million hectares -- the size of Germany, France, Spain and Portugal combined -- could be wiped out in the next 20 years.

Greenpeace International executive director Kumi Naidoo told the congress that "little progress has been made in fulfilling pledges to... completely eliminate deforestation."

- Planted ***forests*** increase -

Apart from offering oxygen, fuel and building material, trees store important quantities of carbon, which, if released, contribute to global warming.

Halting deforestation is a key focus of UN negotiations for a global pact to limit disastrous climate change caused by ***greenhouse gas*** ***emissions***.

The UN talks are designed to secure a deal to be signed by world leaders in Paris in December.

In 1990 the world had 4,128 million hectares of ***forest*** covering 31.6 percent of the global ***land*** area, the ***forest*** report said.

By 2015 this had decreased to 3,999 million hectares, covering 30.6 percent -- a net loss of some 129 million hectares.

The net annual rate of loss -- which takes into ***account*** the planting of new ***forests*** -- has slowed from -0.18 percent in the 1990s to -0.08 percent over the last five years.

Planted ***forest*** area has increased by more than 110 million hectares since 1990 and now ***accounts*** for seven percent of the world's ***forest*** area.

The biggest loss of ***forests*** occurred in the tropics, particularly in South America and Africa, although even there the rate of loss "has decreased substantially in the past five years", the report said.

Natural ***forest*** will probably continue to decline, but "due to growing demand for ***forest*** products and environmental services, the area of planted ***forests*** is likely to continue to increase in coming years".

The conclusions raised questions of whether alarm bells sounded over ***forest*** loss have been overplayed, but the report's team leader, Kenneth MacDicken, said the FRA had led a change in attitude over deforestation.

"The FRA has since 1948 reported ***forest*** area change -- including the loss of ***forest*** area in the tropics.

"Actions in response to this information have helped slow the rate of ***forest*** loss -- and in some countries have resulted in increased ***forest*** area," MacDicken told AFP from his base in Rome.

Better information from new ***forest*** inventories had also "greatly improved our understanding of ***forest*** change", he said.

**Load-Date:** September 8, 2015

**End of Document**



[***>>>ANSA/ BCFN foundation calls for sustainable food, agriculture; Barilla centre proposes adoption of 'double pyramid'***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JRC-VTB1-F143-44KN-00000-00&context=1516831)

ANSA English Media Service

May 9, 2016 Monday 6:09 PM CET

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**Length:** 734 words

**Dateline:** Rome

**Body**

(ANSA) - May 9 - The Barilla Center for Food & Nutrition (BCFN) outlined ***agriculture***'s many contributions to the environmental problems the world faces and presented its proposals for a system that is sustainable for humankind and the planet at the World Food Research and Innovation Forum.

The BCFN Foundation, an independent food think tank created by Barilla, pointed out that tropical deforestation linked to the expansion of farmland produced the equivalent of 3.6 billion tonnes of carbon dioxide ***emissions*** each year.

It said that ***agriculture*** is having an unprecedented impact in terms of ***greenhouse-gas*** ***emissions***, with the equivalent of around 6.2 billion tonnes of CO2 ***emissions***, to maintain its position as the top ***greenhouse gas***-emitter ahead of the energy and transport sectors.

***Agriculture*** is also top when it comes to how ***land*** is used - almost 40% of global ***land*** surface area is taken up by ***agricultural*** and livestock activities and 70% of global freshwater is used to irrigate crops, leading to a big loss in biodiversity.

"We have to reconnect primary ***agricultural*** production to the food system," said Riccardo Valentini, a member of the BCFN Foundation's advisory board and professor of ***forest*** ecology at Italy's Tuscia University (Università della Tuscia).

"It's necessary to return to the real value of food, which cannot only be represented by market value, but must also include the costs and benefits of environmental externalities.

"For example, the value of sustainable production that does not have an impact on the planet's resources and the nutritional value of the food must be remunerated all along the supply chain".

Indeed, the BCFN highlights that our greatest impact on the environment stems from what we eat and put on our plates every day.

If one only considers ***greenhouse-gas*** ***emissions***, food makes the biggest contribution to climate change, ***accounting*** for 31% of the total, more than heating (23.6%) and transport (18.5%).

Meat consumption is especially significant as it is responsible for 12% of total ***emissions***, while milk-dairy products contribute 5%.

Limiting the consumption of animal protein to twice a week (rather than daily consumption) and making more room for cereals and legumes could save up to 2,300 grams of CO2 a day.

That would be a 750 kilo annual reduction in CO2 ***emissions*** per person, the equivalent of a 5,600km journey in a medium-sized car, or a trip from Milan to Moscow and back.

Furthermore, ***greenhouse-gas*** ***emissions*** from farming have increased by 20% since 1990 and they have doubled since 1960.

Therefore, our food choices have a fundamental role in safeguarding our planet, the BCFN says.

Therefore, the adoption of the BCFN's double food and environment pyramid - a model promoting the Mediterranean diet, demonstrating its benefits for the health of mankind and the environment - should be one of the first steps in the path towards safeguarding the planet and human health.

But the issue of food and diet cannot be separated from that of sustainability.

With this in mind, the first problem to address is that of protecting soil.

According to the United Nations Food and ***Agriculture*** Organization (FAO), 25% of the world's soil is seriously damaged and only 10% shows some sign of improvement.

In the last 40 years alone, 30% of farmland has become infertile.

Yet simple solutions like increasing the variety of crops, instead of concentrating solely on soy and maize, would contribute to restoring nutrients in the soil and help farmers for big and small companies to obtain higher yields per hectare, the BCFN says.

It should be considered that in less than 10 years' time, by 2025, three million people will not have drinking water while today, 70% of fresh water is destined for ***agricultural*** and food production.

The latter of those ***accounts*** for 23% of total ***greenhouse gas*** ***emissions***.

The BCFN says, therefore, that it is fundamentally important to grow the most sustainable forms of ***agriculture*** that are capable of effectively combining production volumes, product quality and environmental, economic and social sustainability, improving the efficiency of the use and conservation of natural resources.

It is also necessary to propose a model of ***agriculture*** that safeguards and improves fairness and the quality of social wellbeing in rural areas and implement responsible, effective policies for the sustainability of the agro-food system, the BCFN says.

**Load-Date:** May 9, 2016

**End of Document**



[***Climate Change: Farmers urged to plant forests***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HH4-XV91-F0BB-S14B-00000-00&context=1516831)

Irish Examiner

December 1, 2015 Tuesday

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**Section:** IRELAND

**Length:** 358 words

**Body**

Ireland is one of the few countries on the planet where cows outnumber people, which ***accounts*** for surprisingly high ***greenhouse gas*** ***emissions***.

RTÉ s Ear to the Ground programme has revealed how ***agriculture*** now ***accounts*** for over one third of ***greenhouse gases*** ***emissions***.

Ireland has committed to reducing, by 2020, ***greenhouse gases*** like methane and carbon dioxide by 20%, and 40% by 2030, at the same time as the country is gearing up to expand dairy and beef production.

To offset the carbon produced by our cows, farmers are being encouraged to plant ***forests*** which act as the planet s lungs that absorb carbon dioxide from the atmosphere as they grow.

In tonight s show, climate expert Joseph Curtin, from the Institute of International and European Affairs, said it was very hard to increase dairy and beef production without ramping up our carbon footprint, and without costing billions in fines.

A member of the Government s new advisory council on climate, he said planting forestry on loss-making beef farms would help to offset the carbon footprint.

We have loss-making beef farms where we can look at forestry as a a potential solution, said Mr Curtin. This would give us a double carbon dividend.

If you take a beef farm which isn t a profitable going entity, there is very attractive ***forestation*** programmes.

You would be sucking carbon into the atmosphere on one hand and reducing ***emissions*** from beef on the other hand.

We need to get our incentive system right so we are incentivising things that are good for farm income and good for the environment.

Kim McCall said his farm captures more carbon than his 70 beef cows and 80 ewes emit through his growing ***forests*** on his old-style farm which uses very little bought-in foodstuffs or fertiliser. The Kildare farmer, who has won environmental farmer of the year seven times, believes farmers should be rewarded for keeping their carbon ***emissions*** down. Farms like this and I m sure there are hundreds like it are actually carbon sinks. We re actually providing a service to the country and we re not getting rewarded because we re locking up carbon.

Ear to the Ground, tonight, RTÉ One, 8.30pm

**Load-Date:** December 1, 2015

**End of Document**



[***Terra Global Capital raising $100m anti-deforestation fund - exclusive***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5GJ3-2D81-F0CX-91S5-00000-00&context=1516831)

Agri Investor

July 27, 2015 Monday

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**Length:** 493 words

**Body**

Terra Global Capital is raising $100 million for its Terra Bella Fund, the firm's first private equity fund that provides early-stage capital to smallholders to reduce deforestation in developing countries, according to Leslie Durschinger, the fund's chief investment officer.

Terra Bella is expecting an initial close by the end of the year at $50 million and expects to double that amount at final close, which is likely to happen within the next two years, Durschinger told Agri Investor. Durschinger said the fund has raised a bit over $25 million to date and it will take three years from final close to fully invest the capital.

The targeted investor base is "a combination of institutional investors who have a track record in and desire to invest in private equity and are eager or will be able to be out on the risk curve in developing countries' ***agriculture*** and climate change mitigation, where the fund will make its investments," Durschinger said.

Besides pension funds and endowments the fund is also targeting impact investors: "There is not only a huge environmental component of the investment, but there are also social benefits generated through fund investments." The fund's investment range is $1 million to $10 million per project.

It will derive revenue from the equity and debt investments it makes in ***forest***-linked ***agricultural*** crops but also from the carbon credits it will get from reducing deforestation and sustainable cultivation. The fund's main income stream will come from its crops investments, with the income from ***emission*** reductions functioning as an add-on.

"The investments we make in smallholder ***agriculture*** will provide communities with income streams and reduce ***greenhouse gas*** ***emission*** reductions. The greenhouse benefits are quantified and audited by a certified third party. The ***emission*** reductions can then be sold into the emerging carbon markets," Durschinger explained.

Terra plans to invest in five to 10 projects with the funding from the first closing, then up to 30 projects throughout the fund's life. Terra Bella Fund has a traditional PE fund structure, with a term of 12 years and re-investment taking place up to year eight.

Some of the high value crops in which the fund will invest in include coffee, cocoa, tree nuts, shea, "super foods", non-timber ***forest*** products and natural rubber.

The fund's "mission" to reduce ***emissions*** resulting from deforestation comes from Terra spotting it as an under-represented sector. According to the fund manager, ***forest*** and ***agriculture*** ***emission*** reduction ***account*** for only 1 percent of market, compared to the 19 percent contribution that deforestation and ***agricultural*** ***emission*** make to global climate change.

Investments will be made in a wide range of geographies include Africa, South East Asia, Latin and South America.

Founded in 2006, San Francisco-based Terra Global focuses on ***forest*** and ***agriculture*** ***greenhouse gas*** ***emissions*** analytics, advice and finance.

27.07.201510:14

**Load-Date:** July 27, 2015

**End of Document**



[***Forest-destroying palm oil powers cars in EU: report***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JX3-W7G1-DY93-M1G5-00000-00&context=1516831)

Agence France Presse -- English

May 31, 2016 Tuesday 8:32 PM GMT

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**Length:** 570 words

**Dateline:** Paris, May 31 2016

**Body**

Palm oil produced on tropical plantations that drive deforestation has become a major biofuel for vehicles in the European Union, industry figures released Tuesday by an environmental group revealed.

In 2014, nearly half of the palm oil used in Europe wound up in the gas tanks of cars and trucks, according to data compiled by the EU vegetable oil industry association Fediol, and obtained by Brussels-based NGO Transport & Environment.

Second only to rapeseed as a biofuel, overall palm oil use in EU countries jumped six-fold from 2010 to 2015, ***accounting*** for a 34 percent increase in biodiesel consumption during that period, the figures showed.

Palm oil is also found in food, animal feed and cosmetics, but use in these sectors has dropped in Europe, in part due to pressure from environmental groups on major corporations.

Up to now, how palm oil was distributed across products in the EU was not known.

"We now know why the industry is withholding these numbers," said Jos Dings, executive director of Transport & Environment.

"They show the ugly truth of Europe's biofuel policy, which drives tropical deforestation, increases transport ***emissions***, and does nothing to help European farmers," he said in a statement.

Rules set in place in 2009 require that 10 percent of energy for transport in all EU countries comes from renewable sources by 2020.

- 10 million litres a day -

In practice, that has meant biofuels, since electric-powered vehicles ***account*** for a negligible percentage of energy in the transport sector.

Recent research, however, has shown that the climate impact of so-called "first generation" biofuels -- mainly rapeseed, palm, sunflower and soy oil -- is in fact greater than for fossil fuels, once deforestation is taken into ***account***.

These biofuels also compete for ever-scarcer ***land*** needed to grow food.

Produced mostly in Malaysia and Indonesia, palm oil causes three times more ***greenhouse gas*** ***emissions*** per unit of energy than diesel fuel, according to a recent analysis.

Recognising that the continued use of these crops clash with goals for slashing ***greenhouse gas*** ***emissions***, The EU last year imposed a cap -- seven percent -- on the biofuels produced from food crops.

They have also established sustainability criteria for such fuels, and encouraged the development of so-called "advanced" biofuels made from municipal waste, recycled cooking oil or ***agricultural*** waste.

Transport & Environment and other green groups have called for the removal of food-based biofuels from the EU's transport energy mix after 2020.

The Fediol figures showed that 3.5 billion litres of palm oil were burned as fuel in 2014, some 10 million litres per day.

Fediol director general Nathalie Lecocq confirmed the figures for EU biodiesel from palm oil, and that they had never been published.

The numbers were "rough estimates for internal working purposes," she said by email.

Lecocq also said that "only certified sustainable palm oil can be used to produce biodiesel."

"This ensures that today, European biofuels are the most sustainable biofuels in the world," she added.

Many NGOs question whether these standards are met in practice.

Deforestation from all sources is responsible for about 12 percent of the ***greenhouse gases*** that drive global warming.

Clear-cutting and burning to make way for palm oil plantations also cause health-wrecking pollution and destroy some of the planet's richest "hotspots" for biodiversity.

**Load-Date:** June 1, 2016

**End of Document**



[***Protecting trees is key to any agreement; Tropical rain forests are crucial to our effort to curb global temperature rises***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HK0-YC21-DYS1-0115-00000-00&context=1516831)

The Irish Times

December 10, 2015 Thursday

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**Section:** IRELAND; Pg. 4

**Length:** 827 words

**Byline:** Frank McDonald

**Body**

Preserving the Amazon and other tropical rain ***forests*** by halting their destruction must be a key element of any agreement at COP21 because of their vital role as "carbon sinks". Indeed, this could cut global carbon ***emissions*** by an estimated five billion tonnes every year, helping to avert dangerous climate change.

According to Richard Houghton, senior researcher at the Woods Hole Research Center in Massachusetts, this finding adds to a growing body of scientific work indicating that a greater focus on tropical ***forests*** could be one of the world's best chances of staying below the threshold of a 2 degrees Celsius global temperature rise.

Lead author of a study published in the latest issue of *Nature Climate Change*, he said "feasible improvements in tropical ***forest*** management could bridge the gulf between today's rampant fossil fuel ***emissions*** and a sustainable future", noting "indigenous ***forest*** peoples have a crucial role to play".

Tropical ***forests*** can absorb and store huge quantities of carbon to offset a large proportion of global greenhouse ***emissions*** if they are protected, Houghton said.

"The research also identifies a key way to make it happen - supporting indigenous ***forest*** peoples in their guardianship of their ancestral ***forests***."

**Suffocating smog**

For decades, tropical ***forests*** have been under attack around their edges by timber logging, palm oil producers, pulp paper manufacturers and agribusiness interests seeking to clear ***land*** for cattle. Fires in degraded ***forests*** of Indonesia regularly cause suffocating smog and threaten the habitat of orangutans.

"Tropical deforestation releases more ***greenhouse gases*** each year than the entire EU and destroys the world's most efficient system for carbon capture and storage," according to Nancy Birdsall, president of the Washington-based Center for Global Development and Pedro Pablo Kuczynski, former prime minister of Peru.

"We need to re-imagine tropical ***forests*** as a public utility like electricity, producing a service people and governments, including in the rich world, want to buy," they said in a report called *Look to the* ***Forests***. "The problem for the world is that ***forest*** destruction, often illegal, generates huge profits in the short term."

But the ambition of halting deforestation is realistic, according to another scientific paper published in this month's DEC *Global Change Biology* journal.

It notes that Brazil - the guardian of Amazonia - managed to cut its annual ***forest*** ***emissions*** by more than one billion tons of carbon between 2004 and 2009.

"Brazil shows it can be done, and done quickly," said Alessandro Baccini, one of the study's co-authors. "It requires strong political will, however, and that's an ingredient that too often is missing, not only in tropical countries but also in developed countries, which need to help finance the effort."

Norway has contributed $1 billion to Brazil's Amazon Fund in recognition of its achievement in reducing deforestation in the Amazon region by 70 per cent over the past decade - without sacrificing ***agricultural*** output or economic growth - and pledged at COP21 to extend this aid programme until 2020.

But Doug Boucher, of the Washington-based Union of Concerned Scientists, said an 18 per cent decrease in Amazon deforestation in 2014 had been "wiped out" by a 16 per cent increase this year. "We're almost exactly back to where things were two years ago, with an annual deforestation level of 5,831sq km."

**Biodiversity**

At the core of ***forest*** negotiations at COP21 is the UN's concept of "REDD+", which involves payments based on ***emission*** reductions that have been measured, reported and verified relative to baselines and subject to various safeguards to protect biodiversity and the rights of indigenous ***forest*** communities.

REDD+ (shorthand for Reducing ***Emissions*** from Deforestation and ***Forest*** Degradation) got a major boost last week, with an announcement from Norway, Germany and the UK of additional commitments of $5 billion to pay tropical countries for "verified performance" under the programme.

But there is not universal agreement on REDD+ at COP21. On Monday, California governor Jerry Brown was accosted by two women from the Global Alliance Against REDD, which claims that it really stands for "Reaping profits from Evictions, ***land*** grabs, Deforestation and Destruction of biodiversity".

Distributing cards saying "No REDD! No CO2lonisalism! No to the Privatization of Nature!", one of them shouted at Brown that California was backing a UN programme that was a "political and environmental nightmare". The governor replied: "If you know of any abuses, we will not tolerate that at all."

Significantly, 14 tropical countries have signed up for the "Lima Challenge" to cut the rate of loss of natural ***forests*** globally by at least half before 2020 and strive to end natural ***forest*** loss by 2030.

As deforestation ***accounts*** for 10 per cent of global ***emissions***, it's in all of our interests that they achieve these objectives.

**Load-Date:** December 9, 2015

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[***10 reasons why agriculture is key to combating climate change; Global warming's impact on food production is one of the hot topics to be discussed by world leaders in Paris at COP21***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HH5-PBR1-JCJY-G2NN-00000-00&context=1516831)

The Guardian

December 1, 2015 Tuesday 5:42 PM GMT

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**Section:** FAO PARTNER ZONE

**Length:** 965 words

**Body**

Governments of more than 190 nations will converge in Paris from 30 November to 11 December at the United Nations Climate Change Conference (COP21), with the aim of reaching a historic agreement to reduce global ***greenhouse gas*** ***emissions*** and averting the disastrous effects of climate change.

As talks centre on smart ways to cut ***emissions***, attention is turning towards the role of ***agriculture*** and the management of natural resources to ensure global warming does not exceed pre-industrial levels by more than 2°C.

Scientists believe that any greater temperature rise would be catastrophic for the planet, exceeding survival thresholds of crop, tree and fish species. Climate change threatens to derail efforts to end poverty and hunger, and achieve the sustainable development goals.

Here are 10 reasons why a focus on ***agriculture*** is integral to action on climate change.

**The poorest are hit hardest**

Climate change disproportionately affects the world's poorest countries - particularly small island developing states, landlocked countries, arid and semi-arid areas - where people are most dependent on natural resources. In a cruel twist, these countries have contributed the least to causing climate change.

**Food producers are most vulnerable**

Drought, floods, sea level rises, and hurricanes destroy crops, livestock and fish resources and devastate ecosystems, irrigation systems and infrastructure. Family farmers, pastoralists, fisherfolk and foresters - the same people who provide the bulk of the planet's food - are those whose lives and livelihoods will be most affected.

**A threat to global food production**

***Agricultural*** production needs to increase globally by an estimated 60% by 2050 to meet projected demands for food and feed from a growing and changing world population. However, scientists predict that production may fall by as much as 2% each decade for the rest of this century as a consequence of rising temperatures. The socio-economic impact could be devastating.

**Stressing the planet**

The expected increase in extreme weather events will only add to the challenge of current food production systems, which are already under stress through degradation of ***land*** and water resources and loss of biodiversity and ecosystem services resulting from unsustainable practices. Today, a third of farmland is degraded, up to 75% of crop genetic diversity has been lost and 22% of animal breeds are at risk. More than half of fish stocks are fully exploited, and in the first decade of this century, some 13m hectares of ***forests*** were converted into other ***land*** uses each year.

**Reducing *agriculture*'s carbon footprint**

***Agriculture***, forestry and fisheries can make a significant contribution to global mitigation efforts by reducing their carbon footprint, adopting low ***emission*** growth strategies and enhancing carbon storage in soils, ***forests*** and aquatic systems. While ***agriculture*** and deforestation ***account*** for about a quarter of global ***greenhouse gas*** ***emissions*** from human activities, ***forests*** retain as much carbon as in the whole atmosphere, and soil makes up the greatest pool of terrestrial organic carbon. The ***agricultural*** sector has considerable transformational potential as it is uniquely positioned to simultaneously address all three dimensions of sustainability.

**Agro-ecology schooling**

Sharing knowledge with farmers on agro-ecological approaches and how to adapt them to local conditions through farmer field schools and other networks can have a positive long-term impact on climate change. For some time now, FAO has been working with countries and partners in developing and promoting approaches that avoid deforestation, overfishing and focus on improving soil fertility and increased ecosystems services that lower ***emissions*** while ensuring human and ecosystem well-being.

**Transforming food systems**

Modern food systems are heavily dependent on fossil fuels. Moving away from dominant input-intensive food systems and pursuing climate-resilient approaches to ***agriculture*** can contribute to reducing ***greenhouse gas*** ***emissions***. However, the cost of shifting to sustainable ***agricultural*** practices will require long-term public and private investment and cannot be borne alone by poor farmers, fisherfolk, foresters, and indigenous communities.

**Saving energy**

One third of the food the world produces is lost or wasted. That amounts to about US$2.6 tn per year, including $700 bn of environmental costs and $900 bn of social costs. Reducing food losses through improved access to post-harvest technologies, and reducing waste through consumer education and initiatives like FAO-UNEP's Save food can help cut the energy bill. Ultimately, the agri-food value chain will have to gradually decouple from fossil fuel dependence to deliver more food with less and cleaner energy.

**The big picture**

Action on climate change must be part of the bigger picture of sustainable development, taking into ***account*** the fight against hunger and poverty while investing in renewable resources. Nearly 80% of the world's poor live in rural areas, and most depend on ***agriculture*** for their living. Achieving zero hunger by 2030 largely depends on ensuring that ***agricultural*** systems and rural communities are healthy, productive, sustainable, and resilient in the face of climate change.

**Measuring and monitoring**

A better understanding of the influence of a changing climate on ***agricultural*** sectors has to be the first step. Providing essential information for climate change adaptation planning and reporting on ***greenhouse gas*** ***emissions***, FAO has developed tools for assessing the impact of climate change, monitoring natural resources and harmful ***emissions***.

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**Load-Date:** December 1, 2015

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[***Researchers question Brazil's climate change goals through deforestation limits***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5H9K-JP51-DYRV-30YW-00000-00&context=1516831)

BBC Monitoring Latin America - Political

Supplied by BBC Worldwide Monitoring

November 5, 2015 Thursday

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**Length:** 1261 words

**Body**

Text of report by leading, centre-left Brazilian newspaper Folha de Sao Paulo website on 30 October

[Article by Marcelo Leite: "Study Questions Brazilian Climate Goal"]

Sao Paulo -A letter from Brazilian researchers in the magazine Science on Friday 30 October hits the nail on the head: it will be very difficult to meet the national targets announced by President Dilma Rousseff in late September to combat climate change by 2030.

The correspondence signed by Raoni Rajao and Britaldo Soares-Filho, from the Federal University of Minas Gerais, the UFMG, is directed at the deforestation figures behind the Intended Nationally Determined Contributions or INDC as they are known in English, the bureaucratic tag for the goals of each country.

Without a restrictive regulation of the possibilities offered by the ***Forest*** Code (Codigo Florestal) and measures such as the expansion of protected areas, an area of 198,000 square kilometres of native vegetation, an area the size of Parana state, would disappear within 15 years, warns the UFMG group.

The Ministry of the Environment (MMA) says that the estimates of Rajao and Soares-Filho are overestimated because they are based on wrong assumptions about the code.

The losses projected by the researchers of 13,200 km2 per year would occur in all the national biomes, but especially in the Amazon (5,700 km2/year) and the cerrado tropical savanna area (5,300 km2/year).

But that is only taking into ***account*** the legal deforestation. In the cerrado alone, where owners can cut up to 80 per cent of their areas, there would be an area of 400,000 km2 of ***land*** that could be devastated with due authorization.

Zero Deforestation

To comply with the INDC and cut ***emissions*** of ***greenhouse gases*** by 43 per cent by 2030 compared with 2005 levels, Dilma has promised to eliminate illegal deforestation in the Amazon. In other words, authorized felling would continue.

On the other hand, the carbon released into the atmosphere by the destruction of the ***forest*** would need to be recaptured -by recuperanting ***forest*** elsewhere, for example -to reach zero net ***emissions***. The Amazon would then cease to be a major source of climate pollution in the country and would generate a surplus to offset growing ***emissions*** in the energy and ***agricultural*** sectors.

"However, it is unlikely that the current policies and additional actions announced by (the government of) Brazil based on changes to ***land*** use (deforestation) will be sufficient to achieve the ***greenhouse gas*** cuts," write Rajao and Soares-Filho in Science.

Their biggest concern relates to the environmental reserve quotas (CRA) set out in the ***Forest*** Code. This marketable title guarantees that a given private area will have its native vegetation kept untouched for a certain period.

Inflated quotas

According to the code, the CRA can be purchased by those with a negative ***forest*** balance, an environmental liability. For example, a landowner who has deforested more than the law allows and needs to replenish their legal reserve, which they can do by recovering an area or purchasing a quota.

If the cost of the CRA is too high, as the UFMG duo predicts, the prices of the title will fall and no one will have an incentive to replant the requisite area. Instead, the facility created could even encourage further deforestation.

In the estimations of the UFMG's Remote Sensing Centre, in the Amazon alone, more than 550,000 km2 could be supported by these titles. In Brazil as a whole, 1.3 million km2 would be on offer, 15 per cent of the country. The problem, it diagnoses, lies primarily in two CRA sources provided for in the code: small farms and conservation areas (national ***forests*** and state parks, for example).

The first were amnestied in the modification of the ***Forest*** Code and do not need to pay outstanding legal reserve debts. Furthermore, CRAs can be issued based on what they have a remaining of native vegetation.

This amounts to a "***forest*** pedalling" of up to 554,000 km2, claim Rajao and Soares-Filho. Something similar would occurr with private areas within the protected areas that were expropriated by the government but not compensated: in the form of the CRA, another 169,000 km2 could be dumped on the market, depreciating it.

On the other hand, according to the estimates of the UFMG, the demand (environmental liabilities to be corrected) in the entire country would not reach 47,000 km2. In other words, the supply would be almost 28 times greater than the demand.

To avoid this imbalance, Raoni Rajao says that regulation should restrict the use of CRAs on small farms or protected areas and prevent environmental damage compensation outside of the State and the biomes. "In our view, there is still time to format a strong market for environmental compensation, especially in view of the INDC."

Questionable Assumptions

"This offer has been overestimated in the UFMG estimate," retorts Antonio do Prado, a Special Adviser at the Ministry of the Environment, "because their assumptions are wrong." According to Prado, the spirit of the law in the case of the ***Forest*** Code does not authorize the use of CRAs to compensate smallholdings with a negative balance of legal reserve.

The title could be used for the payment of environmental services -a hydroelectric plant interested in keeping ***forests*** to ensure the production of water, for example -but not to compensate for environmental damage. "A deficit cannot be used to make up another deficit."

Prado says that the restriction should be explained in a future decree, but that this regulation is still under review in the MMA. As for using CRAs as ballast in specific areas not compensated within protected areas, he would only say that the issue is still under discussion in the government.

More Doubts

Another group, from the National Institute for Space Research (INPE), on Thursday (29 October) published in the journal Global Change Biology a study of the Amazon rainforest (bit.ly/1P7Agvz) which also includes data showing the difficulty of achieving Brazil's goal for the climate with regard to deforestation.

The study, whose lead author is Ana Paula Dutra de Aguiar, generated three scenarios on the future of the Amazon.

In the first (A), the most optimistic one, the conservation measures provided for in the ***Forest*** Code would not only be fulfilled but would be exceeded. In this case, the Amazon would cease to emit carbon and would become a sinkhole.

In the second (B), the intermediate, the code would be obeyed, but legal deforestation would remain at 4,000 km2 annually after 2020, and the legal reserves would be offset by CRAs. In B, the region would continue emitting carbon -a total of 14 billion more tons of CO2 between 2015 and 2050 than in scenario A.

In the third (C), the pessimistic one, there would be a retrogression in environmental policies, disrespecting the code and with high rates of deforestation. In this scenario, the additional ***emission*** of CO2 over 35 years would be 33 billion tons -more or less what the entire world emits each year by burning fossil fuels.

"It's not impossible, but it will require a great effort. According to our calculations, only with the ***Forest*** Code would there be no net ***emissions*** (in the Amazon)," says Aguiar. "The whole point is there needs to be more discussion (on the INDC). What is the environmental gain of this (***forest*** compensation)?"

The researcher did not say, but could have said: Brazil will only be able to meet the INDC commitment on paper, and at the cost of losing biodiversity.

Source: Folha de Sao Paulo website ([*www.folha.com.br*](http://www.folha.com.br)) in Portuguese 30 Oct 15

**Load-Date:** November 5, 2015

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[***From dream to nightmare***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5K2X-18M1-JD09-30J3-00000-00&context=1516831)

Development and Cooperation

October 31, 2015 Saturday

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**Length:** 1135 words

**Byline:** Leonardo Rossi

**Body**

Argentina used to breed free-ranging cows on open grasslands, but its ranchers have shifted to industrial meat production in fattening corrals. This change has increased problems like deforestation and carbon ***emissions***.

Internationally, Argentina is known for its excellent beef, a result of cattle bred on the wide grass ***lands*** of the Pampa region. However, things have changed considerably in the past decades. The economy has been restructured with a focus on grain exports. Soy beans matter especially. About 90 % of cattle breeding is now geared to the domestic market (see box) in Argentina.

Grain cultivation requires ***land***, and as a consequence, animal production is now done with more intensive methods. Cows are kept in closed pens. These fattening corrals are also called feedlots. The environmental consequences are immense.

A contaminating industry

In general, the ranching industry is considered a great polluter. According to the Food and ***Agriculture*** Organization of the United Nations (FAO), it ***accounts*** for almost 15 % of human-caused ***greenhouse-gas*** ***emissions***. The FAO states that the production of meat and cow milk causes the greater part of these ***emissions***, with 41 % and 29 %, respectively."

The UN agency points out that beef production of South America in particular emits around 1 billion tons of carbon dioxide (CO2)" annually, which equals 15 % of total ***emissions*** produced by the global stockbreeding sector. A report by the Inter-American Institute for Cooperation on ***Agriculture*** (IICA) states that ***agriculture*** is responsible for almost 45 % of Argentina's climate gases, and cattle production alone ***accounts*** for almost 30 %.

A report by Alianza del Pastizal" (Grasslands Alliance), a collective of civil-society organisations, maintains that each step in the production chain must be considered to understand the impact on climate change. Methane that results from cows' digestion is only part of the problem. Changes of landuse and feedstuff production matter too. The NGOs argue that the ***emissions*** of the industrialised processes are 12 times higher than those of free-range cows on grassland" (also note article by Christine Chemnitz and Barbara UnmA1/4ssig in D+C/E+Z e-Paper 2015/07, p.18ff.).

In the fattening corrals, many animals are kept on limited ***land***. Depending on the business model, 100 to 500 cows stay on a single hectare. In the past, cows were free to use one to 10 hectares throughout the year, depending on region, climate and grass.

Saladillo is a small town in rural Buenos Aires province. It is called the capital of the feedlots". In the past ten years, more than a dozen of these establishments were started here. The environmental impact is terrible. Gabriel Arisnabarreta, an agronomist and owner of a small family farm, lives in Saladillo. He has founded a civil-society environmental organisation, Ecos de Saladillo", which deals with these issues.

The enormous quantity of manure and urine which is accumulated in the feedlots cannot be transformed by micro-organisms in the ground. It filters through to the aquifers and contaminates the groundwater," Arisnabarreta says. The huge amount of rotting dung in a small space expels gases like methane or nitrous oxide which stink, are poisonous and make life nearly impossible here."

Dung used to be a blessing for the soils", Arisnabarreta adds, but the fattening corrals have turned it into a serious problem". A feedlot of 10,000 animals with an average weight of 200 kilos each produces 100,000 kilos of manure and urine per day. The civil-society activist insists that micro-organisms in the soil cannot transform such vast amounts into nutrients. A full grown cow weighs more than 500 kilos.

Claudio Sarmiento, an agronomist from the Universidad Nacional de Rio Cuarto, which is based in the middle of the Pampa, agrees: In pastoral animal husbandry, manure is not a problem, on the contrary, it is a benefit. Each cow produces around 4,000 kilos of dung per year and about the same in urine, which the animal distributes evenly, thereby increasing the fertility of the soil." (also see article by Cornelia Heine in D+C/E+Z e-Paper 2015/08, p.38f.) Things are different in feedlots, the researcher points out: The nitrogen of the cow urine converts into nitrates, which dissolve in the water and filter down to the groundwater." Such contamination is unhealthy.

Moreover, 3 million hectares of ***forest*** were destroyed in the past decade to make space for grain production and grazing ***land***. On the other hand, areas which historically produced excellent Argentinian beef are now used to grow grain that is exported to feed cattle in Europe and Asia. According to official data, 20 million hectares are used for soy production today, and 95 % of the harvest is exported.

Better options

***Forest***-pasture systems have been on the rise in the last few years. According to the INTA (Instituto Nacional de Tecnologia Agropecuaria), an Argentine institution concerned with agro-technological development, they are in use on 34 million hectares, which include commons and indigenous ***land***. There is a great variety of ***forest***-pasture systems.

Fifty families who live in an area called La Libertad (Freedom) in Cordoba province are an example. Their community-owned ***land*** is part of the Chaco Arido, a ***forest*** that gets little rain. Horacio Britos belongs to the Movimiento Campesino de Cordoba, a local farmers movement. He appreciates that the La Libertad community practices cattle ranching with natural feed stuff." The cows feed on grass, but also on fruits and leaves. The animals wander off some kilometres and return a few days later," the agronomist says.

Virgin ***forests*** matter because they prevent desertification. They can be used for traditional and indigenous, extensive animal husbandry. A healthy ***forest***, Brito says, is resilient even when there is little rain. Deforested ***land***, however, is prone to soil erosion.

Towards the future

Climate experts predict that from 2020 to 2029, Argentina will have two to eight percent more rainfall than the historical average in the centre and east of the country, while rainfall will decrease by up to 12% in the northeast. Average temperatures are expected to rise by 0.7 to 1.2 degrees.

If Argentina is to contribute to slow down this trend, it must take livestock production into ***account***. Environmentalists have several proposals:

- The government should prioritise ***forest*** protection and adopt a different economic model accordingly.

- It would make sense to boost natural production, for instance by granting tax advantages to farmers depending on how meat is produced. Laws that stimulate a rotation of ***land*** use, in order to avoid monoculture, would be helpful.

- Industrial feedlots should be prohibited, because the country has the natural conditions for producing high-quality meat.

**Load-Date:** June 23, 2016

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[***Seeing the wood for the trees: 10 highlights of new forests study; FAO's most detailed study of forests yet shows deforestation down but not out***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5GWW-JP41-JCJY-G3TC-00000-00&context=1516831)

The Guardian

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**Section:** FAO PARTNER ZONE

**Length:** 945 words

**Body**

The planet's ***forests*** continue to shrink but their rate of loss has slowed in recent years, according to a new UN report presented at the World Forestry Congress in Durban, South Africa from 7 to 11 September.

The Global ***Forest*** Resources Assessment 2015, the most detailed study of ***forests*** that the Food and ***Agriculture*** Organization of the United Nations (FAO) has produced to date, reveals that 129 million hectares of ***forest*** - an area close to the size of South Africa - have been lost since 1990.

However, deforestation, literally the act of clearing ***forest***, has more than halved in the past 25 years as increasing numbers of ***forests*** have come under protection and improved management.

The report, which covers 234 countries and territories, is published ahead of two major summits this year in which the value of ***forests*** will be a central theme: the post-2015 summit in New York, where world leaders will gather between 25 and 27 September to adopt new global Sustainable Development Goals (SDGs) for the next 15 years; and the Conference of the Parties of the United Nations Framework Convention on Climate Change (COP21) from 30 November to 11 December, when governments will meet in Paris amid high hopes of reaching a climate agreement.

***Forests***, which are critically important to the global economy, local livelihoods and the environment, feature prominently among the SDGs. A dedicated goal, SDG15, reads "Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage ***forests***, combat desertification, and halt and reverse ***land*** degradation and halt biodiversity loss".

A natural fit with the new sustainability agenda, ***forests*** contribute to decent livelihoods for millions while providing clean air and water, conserving biodiversity and mitigating climate change.

**Here are 10 highlights of the report**

***Forest*** loss

The planet's ***forest*** cover is shrinking as world population increases and ***forest*** ***land*** is converted to ***agriculture*** and other uses. In 2015, ***forests*** make up 30.6 percent, or 3 999 million hectares of the world's ***land*** areas, compared to 31.6 percent, or 4 128 million hectares, in 1990.

Deforestation slowdown

The annual rate of deforestation has slowed from 0.18 percent in the early 1990s to 0.08 percent in 2015, contributing to a reduction in total carbon ***emissions*** of more than a quarter between 2001 and 2015. While trees and ***forests*** absorb carbon dioxide in the atmosphere, deforestation and ***forest*** degradation increase the concentration of ***greenhouse gases***.

Variety of life

***Forests*** harbour most of Earth's terrestrial biodiversity. However, deforestation, chiefly caused by conversion of ***forest*** ***land*** to ***agriculture*** and livestock areas, is threatening the variety of life on our planet. ***Forest*** area primarily designated for biodiversity conservation now ***accounts*** for 13 percent of the world's ***forest***.

Renewable energy

***Forests*** are renewable. As woodfuel reliance continues and global demand for wood increases, ***forests*** can help to provide the planet's growing global population with environmentally friendly fuel, fibre, and food, as well as essential ecosystem services.

An economic treasure

The ***forest*** sector contributes about $600 billion annually to global GDP and provides employment to over 50 million people, of which nearly 13 million work in the ***forest***. ***Forests*** make vital contributions to local economies where both industrial and community forestry provide crucial sources of income. They play an important role in combating poverty, ensuring food security and providing decent livelihoods.

Under cover

***Forests*** are increasingly coming under protection and more countries are improving ***forest*** management. Additional ***forest*** ***land*** for conservation has increased by 150 million hectares since 1990, with ***forest*** in protected areas increasing by over 200 million hectares.

Natural and planted ***forest***

Natural ***forests*** make up 93 percent of total ***forest*** area. The proportion of planted ***forest*** is increasing in the world, now representing 7 percent of total ***forest*** area.

***Forests*** in the tropics

Of the world's climatic regions, the tropics have lost the greatest proportion of ***forest*** cover since 1990. Rich in biodiversity, tropical ***forests*** are home to more than half the planet's living species. Compared to a quarter of a century ago, there are now fewer trees per person in all regions except temperate climes, where net ***forest*** area has actually increased.

Africa, South America losses

Africa and South America are the continents recording the highest levels of deforestation, with annual levels in 2010-2015 of 2.8 and 2 million hectares respectively. Despite continued ***forest*** loss in the regions, the figures represent a decrease in the rate of deforestation.

***Forests*** and islands

Small island states may possess less than one percent of the world's ***forest*** area, but they make up six of the top ten countries in the world with the highest percentage of ***land*** area covered by ***forest***. Their role is crucial in soil and water protection and disaster risk resilience. Coastal and mangrove ***forests*** are vital for marine habitat and for protection from coastal erosion.

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[***New UN Web Tool Demonstrates Climate Benefits of Protecting Apes***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JJ4-9KW1-JD3Y-Y3HY-00000-00&context=1516831)

M2 PressWIRE

April 15, 2016 Friday

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**Body**

April 15, 2016

NEW YORK, United States of America -- A new web-based tool, launched in Liberia's capital Wednesday, shows how protecting great apes in Africa and Asia can help countries fight climate change. The online app superimposes maps of great ape ranges and of ***forest*** carbon stocks, allowing policymakers to better identify conservation priority areas.

The tool was launched by the Great Apes Survival Partnership (GRASP) and the United Nations Collaborative Programme for Reducing ***Emissions*** from Deforestation and ***Forest*** Degradation (UN-REDD Programme).

The GRASP - REDD+ Mapping Project was introduced at the GRASP Regional Meeting - West Africa, which brought together partners from nine West African countries to discuss key conservation issues in the region.

Achim Steiner, Executive Director of the United Nations Environment Programme (UNEP), said "Collaborative efforts are critical to achieving the Sustainable Development Goals. Addressing both great ape habitat conservation and ***forest*** protection through the cooperation between these two UNEP-supported global programmes is a prime example of a more integrated approach to sustainability that demonstrates the potential for co-benefits."

Harrison S. Karnwea, Managing Director of Liberia's Forestry Development Authority (FDA) called the GRASP-REDD+ Mapping Project an importance resource.

"This will help us a great deal here in Liberia," he said. "It will help us in determining which areas are important and should receive our highest priority. Conservation is a great resource, and applying it scientifically in this way is very innovative."

The GRASP - REDD+ Mapping Project is designed to identify priority areas for implementing REDD projects while also considering co-benefits for the conservation of great apes. The maps are designed to help decision-makers, climate specialists and conservation organizations access data and link the carbon and great ape layers with other context data.

GRASP and UN-REDD worked with the Max Planck Institute for Evolutionary Anthropology to develop the on-line tool, which can be accessed through the Ape Populations, Environments and Surveys (A.P.E.S.) database, a web-based decision support system primatdbext.eva.mpg.de/redd.

"It is increasingly important that conservation efforts work closely together, particularly in areas of mutual concern," said GRASP coordinator Doug Cress. "You cannot protect apes in Africa or Asia without also protecting the ***forests*** in which they live, and this project does an excellent job of emphasizing the overlap. GRASP and UN-REDD have a number of shared priorities, and we will further intensify our collaboration."

The GRASP-REDD+ Mapping Project places special emphasis on potential corridor areas that could link fragmented and endangered great ape populations and have the potential for reforestation.

Carbon stocks in ***forests*** perform essential ecological functions and supply clean water and air. The loss of these stocks through ***agricultural*** development, logging and fires can ***account*** for up to 20 per cent of global ***greenhouse gas*** ***emissions***. In order to limit the impacts of climate change, it will be necessary to reduce ***emissions*** from the ***forest*** sector.

About GRASP

GRASP is the unique alliance of 102 national governments, research institutions, conservation organizations, United Nations agencies, and private companies committed to the long-term survival of great apes and their habitat in Africa and Asia. Great apes are found in 21 countries across Equatorial Africa and two more in Asia, but their numbers are in steep decline due to habitat loss and human encroachment. All great ape species - chimpanzees, gorillas, orangutans and bonobos - are classified as endangered or critically endangered. For more information, visit un-grasp.org or contact [*info@grasp.org*](mailto:info@grasp.org)

About UN-REDD

The UN-REDD Programme is the "United Nations Collaborative Programme on Reducing ***Emissions*** from Deforestation and ***Forest*** Degradation (REDD+) in Developing Countries". The Programme was launched in 2008 and builds on the convening role and technical expertise of the Food and ***Agriculture*** Organization of the United Nations (FAO), the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP). The UN-REDD Programme supports nationally led REDD+ processes and promotes the informed and meaningful involvement of all stakeholders, including indigenous peoples and other ***forest***-dependent communities, in national and international REDD+ implementation. For more information visit un-redd.org.

Distributed by APO (African Press Organization) on behalf of United Nations Environment Programme (UNEP).

**Load-Date:** April 15, 2016

**End of Document**



[***Minister must act now on the 30% drop in forestry planting rates***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5K2T-2NK1-JCW9-21G8-00000-00&context=1516831)

Irish Examiner

June 23, 2016 Thursday

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**Section:** SUPPLEMENTS

**Length:** 1358 words

**Body**

A recent Forestry Service report showing a 30% drop in the forestry planting rate amounts to a serious setback for the forestry industry.

It s a frustrating result for stakeholders promoting forestry as a suitable option for marginal ***land*** use in Ireland.

It s the first full year of the 2014-2020 private forestry programme which has generous planting grants for both farmers and non-farmers.

The new programme should offer an attractive alternative ***land*** use for the substantial number of farmers who strive to make a livelihood from cattle and sheep in marginal ***land***.

However, for reasons best understood by farmers themselves, the forestry planting option continues to languish.

Probably the single greatest afforestation deterrent for these farmers is the statutory replanting obligation implemented by the Forestry Service.

Most farmers would be reasonably disposed to tie up their marginal ***land*** for 35 or 40 years, in order to produce a mature crop of conifer trees. However, many landowners have serious issues with being legally obliged to replant their ***land*** in perpetuity.

This obligation extends forestry to second and third generation ownership, and beyond.

That creates problems in ownership succession and in transfer of forestry property to family members who become legally obliged to replant the inherited property at substantial cost, without planting grants or forestry premiums to assist them.

Replanting grants and premiums for second rotation forestry after clear felling could revitalise the afforestation programme, by helping to neutralise the replanting obligation disincentive.

These payments would give new owners inheriting ***forest*** ***land*** the resources to plant and properly manage a second rotation crop.

Government grants and premiums for second rotation forestry would also encourage timber processors, who currently have to import logs from Scotland, to supplement the limited native supply.

Of course, there are many other forestry issues for farmers, and they include plantation damage by wind-blow and storms.

This is likely to develop into a subject for major on-going debate in the industry.

Since November 2015, at least six active storms hit the south and west, accompanied by torrential rainfall creating the exact conditions to facilitate wind-blow damage to forestry.

Since Storm Darwin in February 2014, there is an urgent need to re-appraise the tree species we plant in exposed sites, especially along perimeter areas exposed to the prevailing winds from the south, south west and west.

Storm Darwin damage to Irish ***forests*** was put at 1%, but it amounted to 100% in some plantations in the south and west of Ireland. Substantial areas of semi-mature forestry had to be cut away and replanted, causing significant financial loss to owners.

The only similarity between forestry and cereal crops is that both can be badly affected by storms and heavy rainfall.

However, today s tillage farmers have advanced technology and improved management to prevent lodging of cereal crops. This outcome is also achievable in forestry, if effective measures are taken at the planting stage.

The expensive lessons learned in Storm Darwin suggest that Sitka spruce fared poorly and, in many instances, couldn t survive the storm in exposed areas with wet ground conditions.

In some of these plantations, Sitka spruce consistently blew over, taking a mat of shallow ground surface with it.

In my experience, a mixture of larch and Scots pine coped best, possibly due to a deeper rooting structure than Sitka spruce.

Sufficient flexibility for innovative anti-storm measures is required in the broad partnership between ***land*** owners, the state and planting contractors.

For example, innovative measures I have recently seen to prevent storm damage in a newly-developed plantation included a special wind-break of trees along the perimeter exposed to the prevailing wind.

The wind-break had seven rows of trees. Three rows of poplar (chosen for their deep roots) are planted along the outer perimeter of the windbreak, with two rows of Scots pine in the centre, and two rows of larch on the inside.

The rest of the plantation inside the storm break was planted with Sitka spruce, and a small amount of larch and Scots pine.

Another measure was to construct water channels or drains in a north west to south east direction, to facilitate thinning without exposing the plantation to the prevailing south/south-westerly winds.

Planting grants should be adjusted to take ***account*** of the extra cost of implementing these measures.

From a farmer perspective, the urgent need to prevent wind-blow and storm damage shows that we need an advisory forum with input from the best expertise in the forestry industry drawn from bodies like the Forestry Service, Coillte, COFORD, Teagasc, and timber processors.

Coillte, a state-owned company, manages the largest plantation in Ireland, as owners of 485,000 hectares of forestry, and has accumulated considerable knowledge. It is vital that the knowledge pool gained by Coillte from years of experience be made accessible to private forestry owners. The new forestry Minister needs to look at this.

Given that large-scale private forestry planting only began in the 1980s, there is still a substantial knowledge deficit amongst farmers in relation to many aspects of forestry growing.

An advisory forum in conjunction with farmer grower groups would be invaluable for delivering knowledge directly to farmers, and is one of the most effective ways to reverse the decline in planting rates, in addition to increased funding for forestry (PRSI and USC charges should be abolished, and forestry premiums should be restored to 20 years duration).

Confidently looking forward in forestry

As a timber pallet manufacturer based in mid-Cork, Diarmuid Cohalan soon became aware of the importance of forestry which can be grown on marginal ***land***, maturing at 35 years providing saw-logs to the timber processing industry, and creating an additional income stream to farmers.

He says forestry growing is an essential component of an important indigenous industry, with high-grade saw-logs currently worth 70-75 per tonne on the ***forest*** roadside.

As a forestry grower and member of a large forestry growers group, he is convinced that with increased investment from the state, much more of our marginal ***land*** will be considered for forestry growing in the future, when increased afforestation can play a crucial role to offset ***greenhouse gas*** ***emissions***, which could otherwise incur huge national fines.

More ***forests***, more jobs, and less ***greenhouse gas***

Long before climate change became an urgent issue, we knew forestry absorbs and stores carbon from the atmosphere, for as long as the forestry crop is still growing.

The COFORD forestry research body estimates that new forestry plantations established in 1990 sequestered 2.2 million tonnes of carbon dioxide per year to the end of 2012.

In terms of Ireland s fines for exceeding carbon ***emissions*** from 2020 onwards, the new 1990 ***forests*** would have saved the Irish Exchequer more than 40 million per year.

Forestry is one of our best options to counter-balance our carbon ***emissions***, an even more pressing need since the Paris climate change summit of December, 2015.

Meanwhile, forestry and the timber industry are worth 2.29 billion per year to the Irish economy, according to the Irish Forestry and Forestry Product Association (IFFPA).

IFFPA says the sector employs over 12,000 people, mostly in timber processing in rural Ireland.

Department of ***Agriculture*** Food and Marine (DAFM) statistics at the end of 2014 showed almost 21,000 private forestry owners in Ireland. When spouses and family members are taken into consideration, this figure could be well over 60,000 people depending or partially depending on forestry growing for an income.

A study in 2014 by University College Dublin estimated that an annual afforestation programme of 15,000 hectares would create 490 jobs, mostly rural, in ***forest*** establishment, ***forest*** management, timber harvesting, road haulage, and timber processing.

For every 100 of these jobs, an extra 70 full-time equivalent jobs would be generated elsewhere.

**Load-Date:** June 22, 2016

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[***Emissions set to soar as love of steak takes off in Asia***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HD3-SN51-DY93-M181-00000-00&context=1516831)

Agence France Presse -- English

November 17, 2015 Tuesday 3:29 AM GMT

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**Length:** 926 words

**Dateline:** Jakarta, Nov 17 2015

**Body**

Climate change is the last thing on Maya Puspita Sari's mind as she tucks into a steak and splurges on ice cream, products that were once a luxury but are now a growing staple in the diets of millions of Indonesians.

But the livestock sector is a major contributor to climate change -- ***accounting*** for 14.5 percent of the total global amount of ***greenhouse gas*** ***emissions*** caused by human activity according to the UN Food and ***Agriculture*** Organization -- more than those produced from powering all the world's road vehicles, trains, ships and planes combined.

***Emissions*** are predicted to jump dramatically as demand skyrockets -- the FAO predicts consumption of meat and dairy is expected to have risen 76 per cent and 65 per cent respectively by 2050.

Nowhere is this insatiable appetite growing faster than in Asia, where a huge, new middle class is consuming animal products like never before as tastes change and incomes rise.

Consumers in China and India are driving this trend but demand in emerging economies such as Indonesia -- a country of 250 million with a rapidly growing middle class -- is also tipped to explode.

For consumers like Sari, a 31-year-old accountant living in the cosmopolitan capital Jakarta, livestock products that were once rarely consumed outside major religious holidays, if at all, are now in abundant supply.

She grew up in rural Sumatra eating red meat once or twice a year, with little on offer besides rendang, a traditional spicy beef stew.

"Meat is no longer a luxury now and there are so many choices, like steak," she told AFP. "In Jakarta you can find all kinds of ice cream, yoghurt and other dairy products. It's great."

Christabelle Adeline Palar, a 25-year-old editor at a travel magazine, barely remembers eating meat as a child but now with a disposable income and an array of options, she knows what she wants.

"It's always meat," she said of her daily food choices, "except for days where I need to be more thrifty.

- Growing appetite -

Indonesians still consume less meat than their Asian neighbours -- averaging 2.7 kilograms per person every year, compared to 8 kilograms in Malaysia -- but this is changing. London-based think tank Chatham House ranks Indonesia a top-ten nation for forecast growth in beef, pork and chicken consumption by 2021.

Jakarta and its affluent, densely populated suburbs lead the way in meat consumption. People there -- often young with cash to spare -- eat around 12 kilograms of meat annually.

"Not only can they afford it, but there are many cafes and restaurants in the city that serve meat," Asnawi, chairman of the Indonesian Association of Meat Traders (APDI), who like many Indonesians goes by one name, told AFP.

Dairy producers are also optimistic. The Indonesian Association of Milk Producers says the market potential for dairy in Southeast Asia's largest economy is "tremendous", while New Zealand's Fonterra declared Indonesia one of its most important global markets when it opened its first local factory in September, predicting soaring demand as the "large and increasingly affluent population" seeks new products.

Nearly 90 per cent of Indonesia's dairy is imported, mainly from New Zealand and Australia, but local producers are also riding the wave as consumption grows.

"Our family only had about 20 cows when we first relocated here. Now we have 70," dairy producer Rahmat said from his small ranch on the outskirts of Jakarta.

- Curbs on consumption -

Ruminant animals emit huge amounts of methane, a gas that is more than 20 times more efficient than carbon dioxide in trapping the sun's heat, through belching and flatulence. Nitrous oxide, another potent ***greenhouse gas***, is also released by manure and fertilisers.

Growing population, urbanisation and incomes will increase global demand for meat and dairy, the FAO says, creating a "pressing" need to reduce the livestock sector's environmental footprint.

A 2013 report by the UN body says ***emissions*** could be reduced by 30 percent if farmers adopted better practices -- including quality feed, good manure management and improved breeding and animal health. But a recent review by the International Panel on Climate Change found the greatest potential for cutting ***emissions*** is a change in consumer habits.

Last year a report by Chatham House warned: "Dietary change is essential if global warming is not to exceed 2C," -- the UN target to limit average global warming -- but public awareness about the link between livestock and climate change remains poor.

In Indonesia, where livestock consumption is just taking off, president Joko Widodo has stated he wants the nation to be self-sustainable in beef production with 2019 the target, according to media reports.

The creation of more cattle ranches could add to deforestation of a ***land*** already decimated by demand for palm oil, paper and rice. This year swathes of Southeast Asia choked in a thick haze as a result of slash and burn farming, releasing more ***greenhouse gases*** each day than all US economic activity.

Greenpeace Indonesia's Bustar Maitar said: "In Brazil, (livestock) farming activities are conducted on a massive industrial scale. If that's what we're aiming for, of course it would affect our ***forests***."

But convincing people not to eat beef and yoghurt to prevent global warming could be a hard sell when public awareness of climate change is limited.

WWF Indonesia's Nyoman Iswarayoga told AFP: "Our public does not even understand the link between ***forest*** fires and ***emissions***, let alone meat consumption. Changing lifestyles and mindsets takes time."

**Load-Date:** November 17, 2015

**End of Document**



[***Climate change: Is forest renewal the best way to tackle global warming?; Next week's crucialclimate summit in Pariswill debate how we cancut carbon emissionsbefore it's too late. Butwhat about the natural weapon at our disposal in the fight against global warming: reforestation?***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HG4-5S01-F021-63NK-00000-00&context=1516831)

Independent.co.uk

November 26, 2015 Thursday 8:02 PM GMT

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**Section:** ENVIRONMENT

**Length:** 2486 words

**Byline:** Boyd Tonkin

**Body**

As the old green mantra goes, "think globally, act locally." That helps to explain why, on a gusty and showery November day, I'm not for the moment pondering the fate of Borneo or Brazil but gazing out over the young woodlands that spread over the site of a decommissioned surface coal mine in Leicestershire. Cycle routes now criss-cross this refurbished ground and, even today, visitors fill the Hicks Lodge café. Photographs from the 1990s still depict a hellish late-industrial wasteland, the face of the earth scraped and flattened into swathes of ugly black scar-tissue. These days, as Sam Lattaway - head of landscape and biodiversity for the National ***Forest*** - has just told me, Hicks Lodge is "probably the best place in the area for bird-watching. If you're up there in the summer, you will hear skylarks, you will see lapwings. Twenty years ago, when I worked in mining, that was an operating open-cast mine."

Our home-grown National ***Forest***, which is gradually greening more than 200 square miles of Staffordshire, Leicestershire and Derbyshire, ranks as a tender sapling in a vast, dark wood. As the great climate-change circus rolls into Paris for the "COP21" conference of the United Nations, the vital role of the world's woods as both casualties of environmental ruin and potential saviours of the planet has begun to creep into the sunlight of public debate. Year by year, the loss of ***forests*** contributes an estimated 17 per cent of all ***greenhouse gas*** ***emissions***: more than every mode of transport. Conversely, the ability of trees to store carbon dioxide in natural sinks - "carbon sequestration" - means that tropical ***forests*** alone may remove about a fifth of the chief cause of global warming.

Some of the science remains contested, while profit-driven schemes to "offset" greenhouse ***emissions*** by planting distant trees arouse the ire of green campaigns. Even the measurement of deforestation triggers commotion in activist copses. In September, the UN's Food and ***Agriculture*** Organisation (FAO) issued its latest "Global ***Forest*** Resources Assessment". The study calculated that, since 1990, the planet's total ***forest*** coverage has declined from 4.13 billion hectares to around 4 billion. Yet those 129 million lost hectares, "a total area about the size of South Africa", hide the good news. The rate of loss has slowed by over 50 per cent. FAO director-general José Graziano da Silva reports a positive "direction of change", with "many impressive examples of progress in all regions of the world".

Green shoots of recovery, perhaps? Cue a storm of dissent about data-gathering methods, with heated exchanges over (say) the value of reports by individual states against remote assessment by satellite. Do the optimists or the pessimists fail to see the wood for the trees? At any rate, the FAO records that, still, "the world's ***forests*** store an estimated 296 gigatonnes of carbon", but that degradation has cut capacity by 17.4 gigatonnes since 1990.

Whatever the figures, the carbon-storage treasure secreted in our woodlands is now beyond serious dispute. Dr David Coomes, reader in ***forest*** ecology and conservation at Cambridge University, confirms that "there is no question that ***forests*** serve globally as major sinks of carbon". Despite kneejerk doom-and-gloom, he points to successful programmes to limit deforestation and repair degradation in Brazil. "For the past seven or eight years, it's definitely been a source of inspiration and a good example of why we should not despair. They have protected large areas of the Amazon and committed resources to the restoration of the Atlantic ***forest***." Although no panacea, ***forest*** renewal still looks like one of the sharpest weapons in the scanty armoury of large-scale measures to mitigate climate change. To Dr Coomes, "the silver bullet is still flying. We ought to continue to be optimistic about this."

We need every bullet we can find. This summer, more than 120,000 ***forest*** fires on carbon-rich peatlands in Indonesia pushed the country's daily CO2 ***emissions*** above those of the US. They struck at least 560,000 people with respiratory ailments, killed a minimum of 22, blanketed South-east Asia in the worst toxic haze since 1997 - and, most likely, made a future fortune for the oil-palm barons behind many of the criminally-set blazes. ***Greenhouse-gas*** statistics aside, the eyes and lungs of scores of millions have just experienced the scourge of deforestation.

Compared with the inferno of Sumatra, or the wilderness of parts of Amazonia, an afforestation project like Britain's National ***Forest*** may look about as fragile as a twig in a typhoon. Its new woodlands, which began to rise in the early 1990s, knit together former pit villages, market towns, clay-and-gravel works and farmland into a patchwork of varied landscapes. The area has seen 8.5 million trees planted and its "***forest*** cover" - not always uninterrupted woods - rise from 6 to 20 per cent. These 7,000 hectares of fresh woods will cancel out 2.7m tonnes of CO2 ***emissions*** over 50 years.

Last year, the ***forest*** welcomed almost eight million visitors: to lakes, commons and leisure facilities, as well as into the woods. In English usage, the ***forest*** has always meant more than the trees. For Lattaway, "I think of '***forest***' more in the medieval sense, rather than wall-to-wall trees." To John Everitt, chief executive of the National ***Forest*** Company (an agency sponsored by the Department of Environment), "the principles we want to promote are building on those traditions of having a mixed, mosaic landscape. We're not trying to create intensive forestry here."

National ***Forest*** planting of English oak in Feanedock Wood, Derbyshire (Ross Hoddinott/2020VISION)

Literally, as well as figuratively, great oaks sprout from tiny acorns. The seedlings of the 1990s now reach above adult heads. Everitt notes that "at the outset, you've got trees that are a foot tall in the ground. Taking people to that and saying, 'This is a ***forest***', is quite a leap of faith." Now, "the next generation are planting young trees in an emerging ***forest***. We've carried a generation with us." Meanwhile, buzzards fly in the sky and otters swim in the rivers. Lattaway has a wishlist of further reintroductions: woodpeckers, owls, but sadly not red squirrels. This low-conifer landscape simply would not suit them. "Admittedly, they tend to be quite charismatic species that people are going to get excited about. You're not going to find many slugs on that list."

Everyone - in the developed world at least - loves trees and wants to see more. As an aesthetic choice or a social duty, reforestation predates the discoveries of climate science by centuries. In his classic ramble through the ***forests*** of the world, Wildwood, the nature writer Roger Deakin quotes WH Auden: "A culture is no better than its woods." Governments began to grasp the value not only of keeping but reviving them long before the news of global warming hit.

Read more

Past five years were warmest on record, report warns

In England, which contrary to Robin Hood myth has largely lacked dense woodland for most of its recorded history, protection dates back at least to the "Charter of the ***Forest***" in 1217. That mandated penalties for "waste and assart": unauthorised felling and enclosure. In modern times, the much-maligned Forestry Commission began its march in the 1920s. It covered tracts of treeless terrain with the drab coniferous carpet that earned it such a bad name.

In contrast, traditional broadleaf species - such as oak, ash and birch - ***account*** for 87 per cent of plantings of the National ***Forest***. As Lattaway makes clear, no one wants monocultural plantations. "You can plant trees willy-nilly. The challenge is creating new woodlands that contribute to wildlife, to public access, to health and welfare." In Britain as a whole, ***forest*** cover has reached 12 per cent: low by world standards, but a steep increase on a century ago.

Some other countries have gone much further, much faster. On a visit to Korea, I was astonished, and delighted, by the picturesque wooded hills that - against every expectations of a concrete Asian metropolis - not only surround Seoul but stretch down almost into the gardens of the city-centre royal palaces. They did not just survive by chance. More than anywhere else on Earth, South Korea re-grew its lost ***forests*** as a state priority after the ravages of the Korean War and breakneck modernisation. Under the National Reforestation Programme begun by President Park in 1962, cover rose from 35 per cent in the mid-1950s to 64 per cent today. It took paternalistic, even authoritarian, oversight, under the slogan: "Cutting trees is evil; planting trees is patriotic." But it worked.

Above all, Korea regained its ***forests*** because the country got rich. A recent report by the Korean ***Forest*** Service on the lessons learned from its half-century of re-greening charts the reduction of losses through wood-fuel harvesting, illegal logging or slash-and-burn ***agriculture***. It concludes that "the underlying cause of all of these drivers was poverty". Hence the thorny paradox of many reforestation schemes. More affluent people no longer need to chop or burn down woodlands. Yet, as in Korea, the pursuit of affluence may have helped to raze those ***forests*** in the first place. Korea has had six post-conflict decades to study the problem and systematically address it. Elsewhere, time is running out.

Read more

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Optimism for Paris climate talks - but global deal is only first step

As the clock ticks towards a level of global warming beyond the UN threshold of two degrees, advocates of climate-change mitigation have sought a quicker fix. Set up in 2005, under the UN's Kyoto Protocol, the so-called REDD+ mechanism allows for the creation of a "compliance carbon" market. Those assets stored in CO2-neutralising trees have become a tradeable resource. CO2-belching corporations can purge their ***emission*** sins in freshly seeded woods. REDD+ remains intensely controversial. Radical ecologists deplore the marketisation of a natural process, and the potential injustice of trapping poor people in a cash-***forest*** that they merely curate for a pittance.

Serious money has certainly fallen in love with tall trees. The London-based Permian Global, for instance, finances ***forest*** recovery projects in Latin America and Asia run according to "the highest social and environmental principles", and sells the "high-quality verified carbon credits" they generate. It is headed by Stephen Rumsey: a life-long conservationist, and formerly a pension-fund manager and head of debt markets for Barclays. State actors also play their part. A billion-dollar deal with the Norwegian government helped Brazil to slash its ***forest*** loss. "Economically, it's not going to work against oil-palm" in still-smoking Indonesia, says Dr Coomes about the REDD model of transactions. However, "it could be effective against cattle-ranching" in Amazonia. "It's not a be-all-and-end-all, but that's no reason to discount it altogether. It's a financial mechanism to protect the ***forests***, and there aren't many of those."

Back at the National ***Forest*** HQ in the former pit village of Moira, John Everitt has begun to pilot a carbon-finance project on a more neighbourly scale. "We want to move away from the idea of 'trading'," he explains. "If you plant trees, in 50 years' time they will have sequestered an amount of carbon. That carbon has value, and that value can be charged out to people who want to pay for it." Companies will "have to make a commitment to keeping the trees for a 50-year period". Lattaway admits: "Offsetting makes me nervous. It shouldn't be greenwash. You minimise and you mitigate wherever you can. And whatever's left over that you can't avoid, you offset that." Above all, Everitt wants local businesses - many attracted by the amenities of the ***forest*** - to balance out their CO2 ***emissions*** by investing, quite specifically, in their own woody backyard.

***Forest*** life and death: fire fighters and local civilians struggle to put out fires in ***forest*** and peatlands in Central Kalimantan, Indonesia, last month (AFP/Getty)

On both its ethical and economic branches, the carbon-offset business has a lot of growing still to do. Clearer, and less contentious, are the social benefits that woodlands bring. Around the National ***Forest***, schoolchildren plant trees; families dedicate them to loved ones; farmers and landowners raise woods to diversify their income. ***Forest*** industries support 300 jobs; leisure and tourism over 4,000 more. Everitt cites the grounds of a stately home that, newly ***forested***, can now host livery stables, festivals, weddings, shoots. A 75-mile walkers' route snakes across this mix-and-match landscape: not a spectacular showcase, but a patchwork re-greening that runs with the grain of the past. Lattaway insists that "we're not removing the evidence of what was there before". The "Black to Green" project celebrates local mining history: "We don't want to wipe that out of existence." Spoil heaps, as yet unclothed in trees, still dot the country around Moira and Donisthorpe. No one wants to re-name nearby Coalville.

Everitt contrasts his mission with the conservation paradigm of, say, an officially designated Area of Outstanding Natural Beauty. "We're creating heritage, whereas a lot of those other places have heritage that they're protecting. I think it's a really interesting distinction." To Lattaway, "it's a plus-point for us, a selling point. Every time you come, it will have changed."

Even magnified a thousand-fold, across the tropical carbon sinks of Kalimantan, Madagascar or Minas Gerais, in Brazil, initiatives such as the National ***Forest*** can hardly hold back the ***emissions*** tide. That will take the sort of binding global deal that Paris aims to deliver. As Dr Coomes reminds me, "The bottom line is that any seemingly intractable problem cannot be solved overnight."

Still, new woods, wherever they grow, bring new hope - locally or globally. Like the living things they are, they also change. Healthy ***forests*** mature, mutate, even die. "The woods decay," as Tennyson wrote in Tithonus. "The woods decay and fall." They may also rise again, as in this modestly mingled coal, clay and farming country of the Midlands. "At the risk of throwing off silly sound bites," says Lattaway, "this is just the next stage of evolution."

**Load-Date:** November 26, 2015

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[***Asia Pulp & Paper joins CDP initiative to drive sustainable production across supply chain***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5H06-PN81-JCF9-231V-00000-00&context=1516831)

Progressive Media - Company News

September 21, 2015 Monday

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**Section:** PAPER AND BOARD; Government and Public Interest

**Length:** 306 words

**Highlight:** Asia Pulp & Paper (APP) is now a part of the CDP’s ‘Road to Paris' initiative, which intends to endorse a global timeline for reducing the loss of natural ***forests*** in half by 2020, and completely eliminate the loss by 2030.

**Body**

Asia Pulp & Paper (APP) is now a part of the CDP's 'Road to Paris' initiative, which intends to endorse a global timeline for reducing the loss of natural ***forests*** in half by 2020, and completely eliminate the loss by 2030.

The joint initiative undertaken by CDP and We Mean Business aims to promote low-carbon economy in order to secure sustainable economic growth.

APP has joined the initiative, which comprises other members as well, to move ahead with a universal climate agreement before the UN Climate Change Conference (COP21) which will be hosted in Paris in December.

The members intend to eliminate commodity-driven deforestation from their supply chains, which ***accounts*** almost 15% of global ***greenhouse gas*** ***emissions***.

The firms will co-ordinate to focus on sustainable production of ***agricultural*** commodities, including soy, palm oil, leather, beef, timber, and pulp.

APP has already been following a 'zero deforestation commitment' across its supply chains since February 2013.

The firm also intends to phase out around 7,000ha of commercial plantation for protecting carbon-rich peatlands in Indonesia, as announced in August.

APP sustainability managing director Aida Greenbury said: "As a signatory to the 'Road to Paris' initiative, we have demonstrated our continued commitment to protecting the world's remaining ***forests***.

"Ambitious targets such as zero deforestation can be agreed to, implemented and achieved by global companies, many of those operating in emerging economies. Our view is that wherever a company is involved in the ***forest*** supply chain, they should be committing to fight climate change and deforestation.

"We look forward to working with CDP and the We Mean Business Coalition to help spread this message during Climate Week in New York, as well as the United Nations Climate Change Conference in Paris in December."

**Load-Date:** September 22, 2015

**End of Document**



[***National climate targets signal 'unprecedented momentum' for climate agreement in Paris - UN report***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HBK-Y1V1-F0K1-N13W-00000-00&context=1516831)

M2 PressWIRE

November 9, 2015 Monday

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**Length:** 790 words

**Body**

November 6, 2015

Implementation of the national climate plans prepared by countries ahead of the Paris climate meeting will limit ***greenhouse gas*** (GHG) ***emissions*** by 2030, but a new climate agreement can encourage further action that will be necessary to limit global temperature rise to 2 degree Celsius by 2100, according to a new United Nations Environment Programme (UNEP) report.

The sixth ***Emissions*** Gap Report is an assessment undertaken by a team of leading scientists and modelling experts from around the world.

It presents a study of the Intended Nationally Determined Contributions (INDCs) submitted by 146 countries party to the UN Framework Convention on Climate Change (UNFCCC) by 1 October - and up to 88 per cent of global GHG ***emissions*** in 2012. At present, 155 countries have submitted their plans.

According to the UN, these INDCs will form the basis of the agreement expected to be reached at the 21st Conference of the Parties to the UNFCCC, COP 21, to be held in Paris, France starting at the end of November.

UNEP's new report underlines that the national targets represent GHG ***emission*** reductions of four to six gigatonnes of carbon dioxide equivalent per year in 2030 compared to projected ***emissions*** under current policy trajectories. However, an additional 12 gigatonnes are required to close the gap and maintain a "likely chance" of staying below the 2 degree Celsius target.

"The challenge is to bend the ***emissions*** trajectory down as soon as possible to ensure that the net zero ***emissions*** goal in 2060-2075 is within reach," the UN's environmental programme underlined in a press release.

Meanwhile, UNEP Executive Director Achim Steiner said the current INDCs, combined with policies over the last few years, present a real increase in ambition levels and demonstrate an unprecedented commitment and engagement by member states in tackling this major global challenge.

"The INDCs assessed in this ***Emissions*** Gap report signal a breakthrough in terms of international efforts to bend the curve of future ***emissions***," he explained. "While in themselves not sufficient to limit global temperature rise to the recommended level of 2 degrees Celsius this century, they represent a historic step in the direction of decarbonizing our economies. However, in order to close the gap it is essential that the Paris Agreement adopt a dynamic approach in which ambitions, the mobilization of climate finance and other forms of cooperation can be adjusted upwards at regular intervals."

If all INDCs are fully implemented, UNEP says the 2030 ***emissions*** gap would still be 12 gigatonnes of carbon dioxide equivalent, putting the world on track to a temperature rise of around 3 degrees Celsius by 2100, and bringing significant climate impacts. However this scenario assumes that nations would not review and further accelerate efforts in subsequent years. The report also shows the uncertainties that exist for different scenarios based on the best available scientific evidence, and recommends early action on climate to keep costs as low as possible and avoid deeper and more challenging cuts later.

The UNEP report also found that implementation of the INDCs will likely have benefits beyond the estimated reductions to GHG ***emission*** levels as new climate policies and actions are being galvanized by the process. It shows that the preparation of the INDCs has incentivized the exploration of links between development and climate, and the development of new national climate polices, and may be considered as the first step in a transition towards low-carbon economies.

In the meantime, the Paris agreement could build on and support these processes and provide the framework for mobilization of the enhanced mitigation efforts required, the report says.

In addition, it highlights how enhanced energy efficiency - with a particular emphasis on industry, buildings and transport - and expanded use of renewable energy technologies for power production will be critical. Other key sectors emphasized in the studies include forestry, ***agriculture*** and waste.

In recognition of the significant opportunity for climate change mitigation through ***forest***-related actions, the report also includes a focus on REDD+, a mechanism being developed by Parties to UNFCCC to reward developing countries for reducing ***emissions*** from deforestation and ***forest*** degradation. ***Forest*** loss reached 7.6 million hectares per year between 2010 and 2015, and reportedly ***accounts*** for the largest portion of ***emissions*** from ***land*** use.

Finally, the report finds that the impact of actions by International Cooperative Initiatives - such as the C40 Cities Climate Leadership Group, the Compact of Mayors, and the Cement Sustainability Initiative - can also be significant.

**Load-Date:** November 9, 2015

**End of Document**



[***Miguel Arias Cañete, EU Commissioner for Climate Action and Energy: Interview***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5WS6-C4N1-DXYV-72XK-00000-00&context=1516831)

Oxford Business Group: Articles

August 2015

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**Length:** 678 words

**Body**

**Interview: Miguel Arias Cañete**

**What is the EU's commitment under the UN Framework Convention on Climate Change?**

**MIGUEL ARIAS CAÑETE:**The EU has been at the forefront of international efforts to fight climate change, and is committed to helping secure an ambitious global climate deal in Paris in December 2015. Our leaders have agreed on a legally binding target to reduce EU ***greenhouse gas*** ***emissions*** by at least 40% by 2030 compared to 1990. Urgent action is needed to reduce ***emissions*** and manage risks. This will require stronger provisions for international cooperation in terms of adaptation, and different forms of support to countries most vulnerable to the adverse effects of climate change. The people of Papua New Guinea understand the consequences of climate change. They and others in the Pacific are on the front line, and are already witnessing the adverse impact first hand.

The EU ***accounts*** for less than 9% of total global ***emissions*** so action by all countries, including emerging economies, is necessary. Paris presents a unique opportunity. It is vital that it delivers an ambitious, legally binding agreement applicable to all countries that will help the world avoid dangerous climate change.

The EU is seeking an agreement containing fair and ambitious commitments from all parties that responds to today's global economic and geopolitical realities. To be robust and credible, the agreement also needs to deliver common rules for transparency and accountability, with systems to monitor, report and verify progress towards meeting targets. The new agreement must be capable of keeping the world on track to its goal of limiting the global temperature rise to below 2°C. To ensure this, all ***emissions*** reductions commitments should be reviewed and strengthened every five years in light of progress and the latest data.

**Could EU policies on renewables serve as an example for the emerging Asia-Pacific economies?**

**ARIAS CAÑETE:**Renewable energy is an essential part of the EU's vision for a sustainable and climate change resilient future and will play a key role for all economies in the transition to low-carbon development. Renewables underpin every dimension of the Energy Union strategy we launched in 2015. They will contribute to decarbonising our economy, making our power system more flexible, improving our energy security and lowering our energy bills. EU member states design their own domestic renewable energy policies, as they are best-placed to choose the mix that suits their needs.

Renewable energy provides 15% of the EU's energy. We aim to increase this to 20% by 2020 and to at least 27% by 2030. Setting bold targets has paid off, giving industry the predictability it needs for efficient investment in stimulating innovation and reducing the costs of technologies. Such policies could also prove very effective in the Asia-Pacific region, particularly given its rich solar, hydro and wind resources.

**What EU initiatives are tackling deforestation and unsustainable *agriculture* in PNG?**

**ARIAS CAÑETE:** The EU recognises the threat deforestation poses in PNG to one of the world's most significant areas of intact tropical ***forests***. We are supporting PNG's ***Forest*** Authority in its efforts to identify areas affected by deforestation, unsustainable ***agriculture*** and illegal logging, and to establish effective measures to deal with these. We are also supporting the University of PNG as it creates the first PNG ***Forest*** Monitoring Portal, which will provide accurate images showing ***forest*** extent, and the locations where activities causing deforestation and degradation are occurring.

These projects will help alleviate the effects of climate change. PNG can contribute to tackling these issues by reinforcing its environmental and forestry governance. We also invite our partners to consider joining the ***Forest*** Law Enforcement, Governance and Trade process. This voluntary scheme will strengthen sustainable and legal ***forest*** management, and will help to mitigate the serious risk that climate change poses to the Asia-Pacific region and to all of us.

**Load-Date:** March 12, 2020

**End of Document**



[***COLUMNIST***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HPV-Y2N1-JBVM-Y257-00000-00&context=1516831)

The Journal (Newcastle, UK)

December 28, 2015 Monday

Edition 1, National Edition

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**Section:** NEWS; Pg. 19

**Length:** 696 words

**Byline:** KATE THICK

**Body**

STUCK in bed with a tummy bug on Christmas Day proved an ideal time to investigate the complicated parallel universes and sub-universes regarding food production, distribution and consumption. Malnutrition affects three million people in the UK and costs the NHS an estimated £5bn a year. The European Nutrition for Health Alliance estimates that up to 40% of patients in the UK are malnourished upon hospital admission. The NHS dreads winter, with admissions, many elderly, multiplied by the fall-out from cuts to benefits and care.

There are 27% fewer hungry people in the world today than at the turn of the century. Even though access to food has improved, roughly one in three people worldwide is malnourished in one form or another. Food systems and poor diets ***account*** for the 795 million people who are hungry and the two billion who currently suffer micronutrient malnutrition, for 45% of deaths among children under the age of five, and the 1.9 billion who are overweight and obese.

The World Bank says we need to grow 50% more food by 2050 to feed nine billion people while finding ways to reduce carbon ***emissions*** from ***agriculture***. Others argue we already grow enough food for 10 billion people but storage losses affect the global south, and overconsumption and waste affect the north.

Oxfam warned that as many as 50 million people across the world face potential hunger, disease, and water shortages by early 2016 due to climate change.

The statistics are scary; 38% of the planet's cropland is degraded, 11% of the irrigated area is salt contaminated, 90% of the biodiversity of the 20 main staple crops has been lost, nitrogen fertiliser produces 6% of ***greenhouse gases*** and its runoff creates 400 marine dead zones.

In Africa and Asia, protecting small-scale farmers and pastoralists, who manage 60% of ***agricultural*** ***land*** and produce 50% of the planet's food, could be central to climate resilience but the clearing of ***land*** for feed production and pasture is a huge problem as it releases CO2 into the atmosphere as ***forests*** are felled and soils disturbed. The UN Food and ***Agriculture*** Organisation estimates 70-90% of global deforestation is due to the industrial scale growing of monocultures for export. Almost half the world's population eats rice every day. Subsidies and trade-distorting support of ***agriculture*** destabilise international commodity markets and retail prices, mostly at the cost of the poor.

Chemical ***agriculture*** and a global food system, including its transport, are responsible for 40% of all ***greenhouse gas*** ***emissions***. According to the UN, livestock production alone is responsible for 17% of global ***greenhouse gas*** ***emissions***.

Meat is a preferred food for most populations. But advocating less meat consumption makes for a politically unpopular message even if it is factory farmed and dosed with hormones and antibiotics.

Over 40% of good ***agricultural*** ***land*** globally is for growing grain for meat and dairy production, so better then to eat more plant proteins. Buying seasonal fruit and vegetables from local farmers is good for the economy and the environment.

It is not just what you eat, but also how it was grown or fed, and how it reached your table. Vegetables can require more resources per calorie than you would think - aubergines, lettuce, celery and cucumbers look bad when compared to factory farmed chicken - but 20 servings of vegetable have less ***greenhouse gas*** ***emissions*** than one serving of beef.

Science will help. Worldwide we are slowly turning to renewable energy. Meat is being 'grown' in vats from stem cells using little energy or water.

We are developing strains that endure harsher conditions; 'scuba rice' which can survive underwater for two weeks, drought-resistant maize, and a robust variety of bean rich in iron to tackle malnutrition.

Retailers are becoming more involved in projects to prevent waste and pass on surplus food to charities but UK supermarkets, farms and factories throw out over seven million tonnes of food annually.

Our shelves may be heaving with food but not much of it contributes to the health of us or the planet.

It is not just what you eat, but also how it was grown or fed, and how it reached your table

**Load-Date:** December 28, 2015

**End of Document**



[***Biofuels plant in Hawaii is the first in U.S. to be certified as sustainable***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JSJ-NDS1-DYR7-C36C-00000-00&context=1516831)

International New York Times

May 16, 2016 Monday

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**Section:** FINANCE; Pg. 19

**Length:** 906 words

**Byline:** DIANE CARDWELL

**Dateline:** KEAAU, Hawaii

**Body**

**ABSTRACT**

An audit has resolved doubts in the industry, at least for one plant, about the products' ultimate ability to reduce carbon ***emissions***.

**FULL TEXT**

The trucks roll in and out of the plant at a business park nestled near papaya farms and a ***forest*** preserve on the Big Island here, an operation that transforms waste cooking oils, animal fats, fruit and seeds into biodiesel fuel, nearly 13,000 gallons a day.

Owned by Pacific Biodiesel, an industry pioneer, the plant was designed with an eye toward conserving water and energy and avoiding environmental harm.

But after about $20 million and four years of operation, a central question about the plant, and the industry as a whole, has persisted: Do biofuels ultimately reduce carbon ***emissions***?

''We're worried that the efforts to ramp up our use of biofuels are actually doing a lot of damage and digging the climate hole deeper,'' said Jonathan Lewis, a lawyer focused on climate change at the Clean Air Task Force.

Now, the biodiesel industry's backers say they have an answer, at least for this modest plant. The Sustainable Biodiesel Alliance, a nonprofit industry group, commissioned an audit of the plant's sustainability by an independent company, and the result was yes. It was the first United States-based certification of sustainability granted for a biodiesel plant, according to the alliance.

The certification is intended to help clean fuel producers distinguish themselves to customers seeking green products - a kind of Good Housekeeping Seal of Approval for the environmentally conscious.

For biofuels, the environmental benefits of which have fallen under increasing scrutiny in recent years, that differentiation is ever more important, executives and advocates say.

''There are lots of different ways of making biodiesel - lots of different feedstocks - and some have been more sustainable than others,'' said Jeff Plowman, chairman of the alliance's certification committee. ''Much like the organic labeling or non-G.M.O. labeling, it gives consumers some information to make a choice,'' a reference to nongenetically modified organisms.

A decade or so ago, biofuels seemed to have great potential to help wean the country off fossil fuels to reduce ***greenhouse gas*** ***emissions***. Plants absorb carbon dioxide as they grow, making them essentially carbon-neutral if used for fuel, the thinking went.

Starting in 2005, the United States government approved requiring biofuels to be blended into the gasoline supply at increasing volumes, a move that, with generous grants and subsidies, helped spur their production.

But much of that was ethanol from food crops like corn and sugar cane, which led to criticisms. Using those crops for fuel can drive up the price of food and animal feed and release more carbon dioxide into the atmosphere as farmers clear ***land***, including rain ***forests***, to grow more of those crops to meet the increasing demand. And although biodiesel differs from ethanol - it derives from oils rather than sugars and works in conventional diesel engines - it, too, can fall into a similar cycle.

''It's a bunch of small economic steps, but if the end result is deforestation of a tropical ***forest***, there's a massive carbon pulse when you do that,'' Mr. Lewis, the Clean Air Task Force lawyer, said.

As a result, producers have been migrating toward so-called advanced biofuels, which are generally made from plant or animal feedstocks that do not compete with food uses, but they have proved difficult and expensive to produce.

In addition, climate change specialists say, there may simply not be enough ***agricultural*** waste to produce significant quantities of biofuel without causing other environmental problems, and it is important to ***account*** for what would have happened to the waste material had it not been funneled into fuel.

At the same time, debate over the usefulness of biofuels, especially corn ethanol, in reducing ***greenhouse gas*** ***emissions*** has intensified, with studies drawing conflicting conclusions.

But here in Hawaii, where leaders have pushed aggressively to embrace renewable energy sources, the Pacific Biodiesel plant avoids many of these problems, climate specialists say.

The company makes its fuel from local waste products, including restaurant cooking oils and grease and ***agricultural*** products like macadamia nuts - turned into oil - considered unsuitable for market.

Here at the refinery, the oils move through stainless steel tanks and columns as they are processed and distilled into fuel. Methanol, a chemical used in the refining, is recycled, and the company is trying to develop local markets for byproducts like glycerin and potassium salts, which can be used as fertilizer.

As for the biodiesel itself, it does not travel very far: The company sells almost all of it to customers in Hawaii, rather than shipping it long distances.

The company is working to develop new feedstocks, and it is experimenting with safflower, sunflower and jatropha plants. But it also focuses on materials that can have nonenergy uses.

''As we're growing energy crops, we're bringing the cattle industry with us because we need them to take all of this protein meal,'' said Robert King, who founded the company in 1995 with his wife, Kelly.

''It's a complicated puzzle, and you have to have all the pieces, but it does all fit together,'' Mr. King added. ''In order to reinvent ***agriculture*** in Hawaii, which we have to, this is how we're going to get it done.''

**Load-Date:** May 15, 2016

**End of Document**



[***QUANTUM LEAP: Taking action on global warming***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5H34-VJM1-JCJY-G2V5-00000-00&context=1516831)

MailOnline

October 6, 2015 Tuesday 12:43 AM GMT

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**Section:** INDIANEWS

**Length:** 992 words

**Byline:** DINESH C SHARMA

**Body**

India has finally announced a set of goals it intends to achieve on the environment front in order to ward off adverse impacts of global climate change.

This is an international obligation under the climate talks which have been going on for close to two decades now.

In the diplomatic jargon, this commitment is called 'Intended Nationally Determined Contribution' (INDC), which is nothing but a set of voluntary actions different countries intend to take to reduce ***greenhouse gas*** ***emissions*** between 2021 and 2030.

Once all the countries make their commitments and this data is collated, we will know if these intended actions would actually help prevent the planet from becoming warmer and if that will help prevent catastrophic impacts of climate change.

INDC was devised as a compromise during climate talks two years ago because countries have consistently failed to agree on mandatory targets.

One of the key commitments that India has made is to reduce '***emissions*** intensity' of its gross domestic product (GDP) by up to 35 percent by 2030 from 2005 level. Simply put, ***emission*** intensity is the ratio of ***emissions*** to GDP.

However, it is possible that while a country's ***emission*** intensity may reduce, its actual ***emissions*** may be increasing due to several factors.

Since all major polluters are talking of reducing ***emission*** intensity - not ***emissions*** per se - India has also done the same.

Another goal India has committed is to produce about 40 percent of its electric power from non-fossil fuel-based energy resources by 2030, subject to help in the form of transfer of technology and low cost finance from Green Climate Fund and other sources.

In addition, more trees will be planted to act as sinks of carbon to the tune of 2.5 to 3 billion tonnes.

The goal on renewable energy appears ambitious, given the slow progress of renewable sources like solar and wind in the past. The inclusion of hydro and nuclear power in non-fossil list is problematic because hydropower generation through large projects is not climate-friendly and can cause large scale ecological harm if not properly implemented.

Nuclear power has a long gestation period, safety issues, and social costs given negative perceptions about it. In addition, availability of nuclear fuel is subject to geopolitical factors. It is also not clear which renewable energy source will ***account*** for how much in the 40 per cent power from non-fossil sources projected by the Ministry of Environment in the INDC document.

Regarding the role of ***forests*** to act as carbon sinks, it is puzzling that on the one hand existing ***forests*** tracts are being cleared for coal and other mining, infrastructure projects, and industry, and on the other the government is promising to enhance ***forest*** cover for climate mitigation.

Overall, it seems the goals are clear but the pathway is diffused. For the sake of this planet, we now need real action on the ground to reduce ***emissions*** and not clever carbon ***accounting*** systems.

Climate-friendly actions are needed in every sphere of activity - from industry and transport to ***agriculture***. That's the only way to prevent climate catastrophe in future.

A study reinforces what we've always believed: face-to-face communication is a better way of social interaction than communication via digital means, particularly for older people.

Study participants who met in person with family and friends were less likely to be depressed compared with participants who emailed or spoke on the phone.

The gains people derived from face-to-face socialising are long lasting, according to the study published Journal of the American Geriatrics Society.

It was found having little face-to-face social contact almost doubles the risk of having depression two years later. Having fewer phone conversations, or email contact, had no effect on depression.

200 species found in the Himalayas

Over 200 new species of plants and animals have been discovered in the Eastern Himalayas in just five years. The region spanning Bhutan, north-east India, Nepal, the far north of Myanmar, and the southern parts of Tibet is home to rare biodiversity.

The new discoveries include 133 plants, 39 invertebrates, 26 fish, 10 amphibians, one reptile, one bird and one mammal species.

An interesting rare find is blue dwarf 'walking' snakehead fish (Channaandrao) which can breathe atmospheric air and survive on ***land*** for up to four days.

Then there is the bejeweled lance-headed pit viper (Protobothrops himalayansus) - which could pass as a crafted piece of jewellery, according to a report released by the World Wildlife Fund for Nature this week.

While discovery of new species is great news, the report warns that biodiversity in the region is threatened. Just 25 per cent of the original habitats remain intact and hundreds of species in the Eastern Himalayas are considered globally endangered.

Real meets reel in The Martian

The announcement relating to the presence of water on Mars by NASA last week coincided with the release of Hollywood movie, The Martian, leading to speculation it was somehow linked with the movie's promotion.

The movie takes forward NASA's work on exploration of the red planet and extends it to a scenario in 2030s when astronauts are regularly travelling to Mars and living there.

Jim Green, director of planetary science, and Dave Lavery, program executive for solar system exploration at NASA, gave scientific inputs, while astronaut Tracey Caldwell-Dyson provided guidance to actress Jessica Chastain as she prepared for her role in the film.

The agency says dozens of its scientists and engineers are working on technologies - shown in the film - that humans will need when they begin to explore Mars like growing plants, water recycling, advanced rovers, ion propulsion, power generation using Radioisotope Thermoelectric Generators (RTGs) etc.

For instance, astronauts in the International Space Station have grown lettuce - a landmark towards space farming.

**Load-Date:** October 6, 2015

**End of Document**



[***Exclusive: land-clearing surge in Queensland set to wipe out Direct Action gains - report; In just three years the rate of clearing will create enough additional carbon dioxide emissions to cancel out emissions savings the government says it will make by paying farmers $670m to stop cutting down trees***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JT4-MMS1-JCJY-G365-00000-00&context=1516831)

The Guardian

May 18, 2016 Wednesday 5:12 AM GMT

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**Section:** AUSTRALIA NEWS

**Length:** 1464 words

**Byline:** Lenore Taylor Political editor

**Body**

A ***land***-clearing surge in Queensland is set to create additional carbon dioxide ***emissions*** in just three years that are equivalent to those the federal government claims it is avoiding by paying other farmers more than $670m to stop cutting down trees, according to a new analysis.

The Queensland ***land*** clearing along with weakening ***land*** clearing laws in several other states are threatening Australia's chances of meeting the climate change targets it pledged in Paris last year and raising questions about the Coalition's Direct Action climate policy.

Related: Australia's biggest banks pump billions into fossil fuels despite climate pledges

A new study of Australian tree-clearing by environmental services company CO2 Australia - obtained by Guardian Australia - has quantified the recent blow-out in greenhouse ***emissions*** from the weakened laws, after a decade in which declining tree clearing played a key role in Australia meeting its climate change commitments.

The Queensland Labor government wants to repeal laws passed by Campbell Newman's government that led to the sudden rise in tree clearing, but may not succeed in doing so and is facing fierce resistance from the Liberal National party and others.

***Land*** clearing in Queensland, along with weakening ***land*** clearing laws in several other states, is threatening Australia's chances of meeting the climate change targets it pledged in Paris last year.

Tentative moves by federal environment minister Greg Hunt's department to assess whether the clearing contravenes federal laws have also prompted a backlash - particularly from his own National party colleagues.

But the CO2 study, commissioned by the Wilderness Society, shows the turnaround in clearing threatens to wipe out ***emission*** reductions bought by the Turnbull Government's Direct Action scheme and jeopardise Australia's chances of meeting its promise to reduce greenhouse ***emissions*** by 26-28% by 2030.

The study quantifies the impact on ***emissions*** of the discrepancy between the federal government's data on Queensland ***land*** clearing and state government data, as well as the absence of accurate national data to predict ***land*** clearing ***emissions*** as NSW and Western Australia also move to relax their rules.

Part of the blow-out in ***emissions*** from ***land*** use and tree clearing was quietly acknowledged in the federal government's latest report on Australia's greenhouse ***emissions***, released a few days before Christmas, which projected that ***emissions*** from ***land*** clearing would rise 24% from 2013 levels, from an average 37m tonnes to an average 46m tonnes a year up to 2020 and 44m tonnes a year between 2020 and 2030.

In 2013-14, 300,000 hectares were cleared in Queensland alone, double the rate in 2011-12. Between 2012 and 2015 ***land*** clearing ***emissions*** in Australia rose 11 times faster than any other sector.

But Queensland government data also released last year revealed a far higher rate of clearing than the federal data would suggests, a rate that would take national ***land*** clearings ***emissions*** to 55m tonnes a year between 2020 and 2030.

At that rate ***land*** clearing would emit an additional 118m tonnes of carbon dioxide over that decade - on top of the higher rates the federal government is already factoring in - a blow out of over 10% on the reductions the government pledged to make by 2030 in the agreement forged last December in Paris.

Professor Stuart Phinn, director of the remote sensing research centre at the University of Queensland, said Queensland's approach was "world's best practice."

"The Queensland approach is based on a long time series of satellite imagery, tied to field measurements of the amount of vegetation on the ground," he said. "It's been developed over 15 years."

Both studies use Landsat satellite imagery, but in Queensland field officers drive out to check that changes in the satellite images are being correctly interpreted.

The federal government insists its national data collection system has been ticked off as compatible with the United Nations climate change ***accounting*** process.

Hunt's office has been contacted for comment.

But Lyndon Schneiders, national campaigns director of the Wilderness Society, says the new data shows Australia is "lying to the world and lying to ourselves" about the true state of greenhouse ***emissions***.

"***Land*** clearing across the country has spiralled out of control in the last three years... at exactly the same time as the national government is spending up to $2.7bn, in large part by trying to reduce ***land*** clearing," he said.

"... the state governments, particularly in Queensland and also in NSW, are handing out tree clearing permits like confetti.

"The whole system is in disrepair. We are making commitments as a nation... yet we are relying on data that is completely different to the data that is being generated out of the states, so we are lying to the international community and we are lying to ourselves."

The CO2 report confirms that at the same time ***land*** clearing laws are also being weakened around the country and in many states, there is patchy data to quantify the increase in tree clearing or its impact on greenhouse ***emissions***. It says there is no connection between what the states are doing with vegetation management laws and what the federal government is promising to achieve in reducing greenhouse ***emissions***.

"There is a conflict between the ***emission*** reduction objectives of the Australian government... and the recent trend for state and territory regulatory reform that has, in a number of cases, reduced barriers to vegetation clearing," the CO2 report says.

"There currently appears to be little incentive for state and territory governments to seriously consider the ***greenhouse gas*** implications associated with vegetation management... reform."

In New South Wales, the Baird government is scrapping the Native Vegetation Act, which prevents the broad-scale clearing of native vegetation. Conservation groups have walked out of talks on replacement legislation because it offers what they consider to be unacceptably weak protections.

In 2013, the Western Australian native vegetation regulations were relaxed to allow up to five hectares of clearing at a time, without a permit, and the re-clearing of regrowing ***forests*** up to 20 years old.

The Queensland government, concerned about the ***land*** clearing rates, also requested that Hunt's department write to some landholders with ***land*** clearing permits asking for information about possible breaches of the federal Environment Protection and Biodiversity Conservation Act, but those letters prompted a fierce backlash from ***agricultural*** groups and from National Party senator Barry O'Sullivan who attacked the "green activist inclinations" of the federal department.

In late December, the federal environment department wrote to the landholders saying it was "concerned" that some of the clearing could have an impact on one of the "matters of national environmental significance" the EPBC act is designed to protect. These include nationally-listed threatened species, migratory species, and the Great Barrier Reef marine park, but not greenhouse ***emissions***.

The federal department then sent another letter to the landholders three weeks ago expressing "deep regret" if the previous letter had caused them distress.

"We are keen to ensure, at the minister's direct request, that all assistance is provided to ensure you are able to continue your business as soon as possible, in accordance with the law," the February 5 letter states.

Up until 2013 ***land*** clearing rates in Australia were declining and that was the primary reason Australia had been able to meet climate change goals.

Australia "overshot" the ***greenhouse gas*** reductions it promised under the Kyoto Protocol largely because of ***land*** clearing restrictions in Queensland that had already been agreed at the time. This allowed Australia to "carry over" 128m tonnes of ***emissions*** reductions into the second stage of the international process, which ends in 2020, and meant we could easily meet the target we had promised for that date. Five other big developed countries announced in Paris that they had voluntarily cancelled ***emission*** reduction "credits" achieved by overshooting their first Kyoto protocol greenhouse targets, but Australia refused to follow suit.

Over its first two auctions the ***emissions*** reduction fund has paid around $670m to buy 51m tonnes of ***land*** sector ***greenhouse gas*** abatement, according to the Clean Energy Regulator. Much of that - but not all of it - was avoided tree clearing. The blow-out in ***land*** clearing ***emissions*** contained in the national figures, but using the Queensland government figures for that state, adds 18m tonnes of ***emissions*** each year, undoing the ERF-purchased ***land*** sector ***emissions*** reductions in just three years.

**Load-Date:** May 18, 2016

**End of Document**



[***Danone sets "ambitious" carbon emissions policy***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HC1-3VJ1-JDNW-40Y1-00000-00&context=1516831)

just-food global news

November 11, 2015 Wednesday 8:31 PM GMT

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**Length:** 497 words

**Byline:** Dean Best

**Body**

Danone has announced a target for zero net carbon ***emissions*** "within its full scope", which also includes ***agriculture***.

The Activia maker said the "long-term" commitment covered its "direct and shared scope of responsibility". In other words, carbon ***emissions*** from manufacturing, packaging and logistics but also areas where others contribute, including in ***agriculture***. Danone said areas where it "shares responsibility" ***account*** for 65% of its ***emissions***.

Danone said the pledge means it would be covering "the full scope of its carbon footprint", which the company revealed amounts to 18.8 million tons.

The French food giant did not provide a specific date by which it expects to achieve zero net carbon ***emissions***, although the policy estimates that point could be reached around 2050.

However, Danone said it wanted to cut ***emissions*** by 50% between 2015 and 2030. The company also commited to starting to reduce ***emissions*** in absolute terms before 2025. The group believes it will reach "peak full scope" ***emissions*** between 2020 and 2025.

"To help find solutions to this game-changing challenge, we must take global view of the food chain," Pascal De Petrini, executive vice president for strategic resource cycles at Danone, said. "By viewing carbon as a cycle, we can not only reduce our ***emissions***, but also offer solutions to promote carbon sequestration in soils, ***forests*** and mangroves through ***agricultural*** practices and ecosystem restoration activities that reduce ***greenhouse gas*** ***emissions***. This approach demands continuous improvement to spark innovation and spread best practices. With hands-on pragmatism and small-scale experimentation, we can scale up tools to solve the complex climate change challenges within the food chain."

Danone outlined "five priorities" to help it meet the targets. One is to reduce its "full scope" carbon ***emissions***. However, the list also includes developing "carbon-positive" initiatives to capture carbon in natural ecosystems.

The group said it would work to "fully eliminate deforestation impacts" from its supply chain by 2020, "build resilience" into its food and water cycles and offer "preferred and healthier diet options produced in a resource-efficient way, using sustainably-sourced ingredients".

In the full document to outline its new policy, Danone underlined why it sees a link between diet and the environment. In a section headed "a healthier diet is part of the solution to reduce ***greenhouse gas*** ***emissions***", the Cow & Gate maker wrote: "The way we produce and consume food has a major impact on our ecological footprint. Industrialized food systems have become a major driver of climate change, requiring huge amounts of energy to produce fertilizers, and to process, package, transport and preserve food. We believe that major changes are required in the way food is grown and distributed, as well as new approaches to meet the challenge of increasing products' nutritional benefits whilst reducing their impact on natural resources."

**Load-Date:** November 11, 2015

**End of Document**



[***Brexit could halt climate change deal***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5K3W-FCF1-JBVM-Y3X2-00000-00&context=1516831)

Irish Independent

June 28, 2016 Tuesday

Edition 1, National Edition

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**Section:** FARMING;NEWS; Pg. 16

**Length:** 370 words

**Body**

IN BREXIT fallout news, EU governments might not see the publication of the Commission's climate change proposals by July 20, as expected.

The Commission intends to table proposals as a follow-up to the international climate agreement in Paris in January, which requires a 30pc reduction in ***greenhouse gas*** ***emissions*** by 2030 in sectors not covered by the ***emissions*** trading scheme such as ***agriculture***, as part of an overall aim to reduce total ***emissions*** by 40pc by 2030.

Climate chief Miguel Arias Cañete is preparing two pieces of legislation, one on effort sharing by non-ETS sectors, and one on how forestry can help offset the need for ***emissions*** cuts.

Mr Cañete appeared before MEPs in the European Parliament's ***agriculture*** committee last week, before the UK referendum, to say the EU was on track to deliver the proposals before the summer break.

Timetables However, senior EU sources say that all timetables are out the window following the Brexit vote.

At the parliamentary hearing, Mr Cañete outlined the proposals in brief, saying he would keep ***land*** use, ***land*** use change and forestry (known as the LULUCF sector) as a separate pillar under the rules.

He said he would "update and simplify" the ***accounting*** rules on LULUCF and look at "enhancing existing flexibility" to allow for LULUCF credits to offset ***emissions*** in the ***agricultural***, transport and building sectors.

"The ***agricultural***, forestry and ***land*** use sectors are very much part of the solution," Mr Cañete said.

"The Commission recognises that member states which have a very high share of ***agricultural*** non-CO2 ***emissions*** face disproportionate pressure to achieve the targets," he added.

"Allowing the use of LULUFC credits to offset ***emissions*** in the effort-sharing decisions should help to alleviate those challenges."

However, he said "only those type of credits that fulfil ***accounting*** standards of high environmental integrity" would be allowed and that access to such credits "cannot be unlimited".

Ireland is one of several member states that is pushing for maximum flexibility in ***accounting*** rules.

It is looking to ensure that afforestation, which is being used as a key carbon sink, can substitute for the need for more drastic reductions in ***emissions*** from farming.

**Load-Date:** June 28, 2016

**End of Document**



[***Bog rap turns heat on peat; NORTH WALES PUPILS STAR IN YOUTUBE VIDEO***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HHH-PBW1-DY9P-N0WF-00000-00&context=1516831)

Daily Post (North Wales)

December 3, 2015 Thursday

Edition 1, National Edition

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**Section:** FARM AND COUNTRY;NEWS; Pg. 8

**Length:** 448 words

**Byline:** ANDREW FORGRAVE

**Body**

A MADCAP rap video featuring North Wales kids is attempting to make peat bogs sound cool and interesting.

Pupils from Pentrefoelas and Ysbyty Ifan schools performed the five-and-a-half minute YouTube video to highlight the importance of peatland restoration.

Led by Llanfrothen rap artist Ed Holden, aka Mr Phormula, and with Welsh language lyrics, the youngsters join in the refrains while showcasing the value of Welsh upland bogs via a series of hand-written cards.

The video, "Fy enw i yw Peat! - My name is Peat!", is still awaiting YouTube sensation status but the enthusiasm of its young stars is infectious.

Its release coincides with a ramping up of upland ditch blocking and peatland restoration as the Welsh Government strives to hit its carbon reduction targets.

Cardiff has an ambitious target of getting all peatlands in Wales into restoration management by 2020, as more than half of the country's peatlands remain in poor condition.

As a result, Welsh peat continues to be a major source of ***greenhouse gas*** ***emissions***, releasing around 550,000 tonnes of carbon into the atmosphere every year.

This is roughly equivalent to Anglesey's annual CO2 ***emissions***.

Natural Resources Wales (NRW) has begun to reverse the trend through management agreements with farmers, while schemes such as Tir Gofal, Glastir and the Nature Fund are also making a difference.

"Restoring peatlands is essential," said Peter Jones, NRW member of the Welsh Peatlands Action Group.

"If all carbon in peatlands was to be lost to the atmosphere it would be equivalent to almost 15 years' worth of Wales's total CO2 ***emissions*** - or 97 years' worth of CO2 ***emissions*** from Welsh ***agriculture*** and ***land*** use."

At this week's UN Climate Change conference, Paris, natural resources minister Carl Sargeant will outline the progress being made in Wales.

In recent years, around 750km of bog ditches have been blocked across Welsh peatlands to restore and re-wet them.

Much of this work has focused on the uplands of Migneint, Hiraethog, Elennydd and Berwyn, and lowland sites on Anglesey and the Llyn Peninsula.

These ditches were dug between the 1940s and 1980s to drain them for ***agriculture*** and forestry - but dry peatlands release carbon.

Peter Jones said conservationists could not rest on their laurels. "Well over half of our peatlands remain in poor condition," he said. "There's still a substantial amount of ditch blocking to do."

" Adding impetus to restoration efforts was last week's launch of a new UK Peatland Code, designed to encourage private sector investment into peatland restoration.Peat bogs ***account*** for just 10% of the UK's ***land*** area but they store about 3bn tonnes of carbon, 20 times that of Britain's ***forests***.

**Graphic**

Blocked ditches on AngleseyStills from the "My Name Is Peat!" rap video

**Load-Date:** December 3, 2015

**End of Document**



[***Coal's true impact on GHG emissions.***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JSY-G151-F0PT-M008-00000-00&context=1516831)

Modern Power System

May 1, 2016

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**Section:** Pg. 4

**Length:** 294 words

**Body**

One-quarter of all ***greenhouse gas*** (GHG) ***emissions*** is produced by the combustion of coal, according to revised data published by Ecofys and ASN Bank.

The two firms have updated a publically available flow chart\* showing the sources and composition of global GHG ***emissions***. It shows that half of the ***emissions*** from fossil fuel combustion comes from coal, while industrial activities such as chemicals, petrochemicals, and iron and steel production ***account*** for 29% of GHG production.

The World GHG ***Emissions*** Flow Chart was originally launched in 2000 by the World Resources Institute. It was last updated in 2013 using data from 2010, and has now been updated by Ecofys and ASN Bank using data from 2012.

The data shows that ***greenhouse gas*** ***emissions*** grew from 48 629 megatonnes in 2010 to 51 840 megatonnes in 2012, Ecofys revealed in a press statement.

Compared to the previous flow chart, the updated version shows that carbon dioxide ***emissions*** from fossil fuels and industrial processes increased by two per cent to 67% cent in total.

The flow chart also shows that ***emissions*** from deforestation in 2013 amounted to almost eight per cent. This is a slight reduction compared to 2010, when deforestation was responsible for over ten per cent of total GHG ***emissions***.

Direct ***emissions*** ***account*** for 36% of the global total. These include ***emissions*** of methane from activities such as ***agriculture***, landfill and oil and gas extraction, while the production of carbon dioxide from forestry and various other activities connected to changes in the use of ***land*** ***account*** for 20% of the global total. Buildings ***account*** for 18% and transport 14.5%.

\*Report available for download at: [*http://www.ecofys.com/en/news/*](http://www.ecofys.com/en/news/) quarter-of-global-***greenhouse-gas***-***emissions***-stems-from-coal-combustion/.

**Load-Date:** May 17, 2016

**End of Document**



[***Ireland faces pressure over emissions; Kenny tells Hollande that Ireland will sign up to 'measurable and achievable targets'***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HGY-4WW1-DYS1-0149-00000-00&context=1516831)

The Irish Times

November 30, 2015 Monday

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**Section:** FRONT PAGE; Pg. 1

**Length:** 573 words

**Byline:** Lara Marlowe, Harry McGee, Suzanne Lynch

**Body**

HARRY McGEE Ireland faces fresh pressure from EU member states and the European Commission over its high level of ***agricultural*** ***emissions***, Taoiseach Enda Kenny said ahead of the climate talks opening in Paris today.

The Taoiseach said while Ireland secured a unanimous commitment by the European Council last year that its dependence on ***agriculture*** would be acknowledged in the calculation of EU ***emission*** targets, this was now being interpreted differently by the commission.

Speaking in Brussels on the eve of the COP21 summit, he said he had communicated to French president François Hollande that Ireland would sign up to "measurable and achievable targets".

But he said there was "quite a deal of technical challenge ahead" for Irish officials in Paris to ensure the outcome was "fair and balanced and sustainable in Ireland's case".

**Special treatment**

It is understood a number of member states, including east European countries such as Hungary, raised concerns in recent months about special treatment for Ireland. The commission also raised questions about the interpretation of the deal, according to officials.

France deployed 120,000 security force personnel nationwide for the duration of COP21. Nearly 3,000 police are stationed at the summit site at Le Bourget.

The French government had hoped to avoid violent demonstrations by invoking the state of emergency declared in the wake of the November 13th attacks. But dozens of men wearing dark clothing and hoods threw stones, bottles, flower pots and candles that had been left at a memorial for the November 13th victims at riot police, who used tear gas and charged the demonstrators. More than 170 people were detained overnight.

An unprecedented urgency surrounds the 12-day conference, because if action is not taken, it will become impossible to limit the rise in global temperatures to two degrees compared to the pre-industrial era.

"This COP21 will not be a real success unless the 195 countries gathered in Paris reach a universal and legally binding accord on the reduction of ***greenhouse gas*** ***emissions***," said Laurent Fabius, the French foreign minister and president of the conference. "That is the most complicated part."

The word "binding" has created friction with the US and other parties to the conference. President Barack Obama would face stiff opposition from Republicans in Congress to a compulsory treaty requiring ratification. "The fact the accord must be 'legally binding' is not contested," Mr Fabius said, "even if there can be different degrees of obligation."

**Committed**

The Taoiseach is one of more than 150 heads of state and government attending the opening of opening of COP21. In his speech, Mr Kenny will confirm Ireland is fully committed to the EU target of a 40 per cent reduction in ***emissions*** by 2030.

However he will insist the accord not "compromise our capacity for food production". ***Agriculture*** ***accounts*** for 30 per cent of Irish ***emissions***.

In what was hailed as a significant breakthrough for the Government, Ireland secured commitment at the EU summit of October 2014 that the "multiple objectives of the ***agriculture*** and ***land*** use sector, with their lower mitigation potential", should be acknowledged in EU targets on climate change.

Ireland argued that the country's ***forests***, boglands and other habitats that absorb carbon should be ***accounted*** for in the calculation of ***emissions*** to compensate for the high level of ***agricultural*** ***emissions***.

**Load-Date:** November 30, 2015

**End of Document**



[***A more sustainable approach is needed***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5J50-XT61-F15H-C209-00000-00&context=1516831)

Scotsman

February 23, 2016 Tuesday

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**Length:** 819 words

**Byline:** Professor Davy Mccracken

**Body**

Farmland has an vital role to play in tackling flooding and climate change writes Professor Davy McCracken

Farmland has an important role to play in tackling flooding and climate change. However, for it to do so effectively our farming systems will need to change significantly.

For years intensive arable and dairy farming has been in the lowlands, while our rugged uplands have been home to more than six million hardy sheep, able to withstand the tough climate.

While these systems evolved to help feed a growing population, they now face challenges, especially as our climate is now very visibly changing.

Farming practices need to change. Not only to help reduce ***greenhouse gas*** ***emissions*** but also to adapt to the marked changes in Scotland's climate and more extreme weather events.

In addition, while there can be marked differences in the ***agricultural*** and environmental challenges facing lowland or upland farming systems, common to both are concerns about water quality and flooding. The way farmland is managed can have important implications for the scale and severity of flooding experienced by communities alongside our rivers and burns.

Taking into ***account*** what is referred to as climate change mitigation and adaptation will strongly influence the future structure of our lowland and upland farming systems. So, in what ways do our farming systems need to change?

Firstly, more investment will be needed to help upland farms restore degraded peatlands in the hills and establish more woodland at lower levels.

Peat soils in Scotland contain almost 25 times as much carbon as all other plant life in the UK. The carbon stored in Scottish soils, especially in peat and peaty soil, is equivalent to more than 180 years of our ***greenhouse gas*** ***emissions*** at current ***emission*** rates. Healthy peatlands lock up carbon while absorbing and storing more. They can also act as giant sponges, holding back water during periods of high rainfall.

These fragile habitats have been damaged in recent decades through natural erosion and by drainage carried out during attempts to make the ***land*** fit for farming and forestry. Restoring degraded peatlands by re-vegetating bare areas and blocking ditches to re-wet the peat stops the processes causing ***emissions*** of greenhouse gasses like carbon dioxide and methane.

Peatland restoration also alleviates flooding by slowing down water flowing off the hill. It improves water quality by reducing the amount of sediment. Finally, once peatlands start to function properly again, there are major nature conservation benefits for the wide range of plants and animals relying on them.

Secondly there is a need to establish more woodland on the lower parts of our upland farms. This would make more shelter available to livestock exposed to increasing extreme weather events. It would also provide more wildlife habitats and if trees are planted in the right places, also help reduce downstream flooding by holding back the water from saturated moorlands.

Down in the lowlands the focus must shift to increasing the variety of habitats on our farms, both to improve biodiversity and to reduce the flood risk. The challenge on lowland farms is to maintain profitable food production while increasing the diversity of habitats like woodlands, unmanaged field margins, wetlands and wooded riversides. These would benefit both farmland biodiversity and help capture nutrients and soil escaping from fields into watercourses.

Finally combining some of these elements with recreating meanders on rivers, establishing field storage ponds to retain flood water, and managing those fields to reduce soil and water run-off would also provide ways of mitigating flood events by slowing the flow of water through the lowlands.

A two-day conference being held in Edinburgh on 1 and 2 of March (What future for our farming systems? Environmental challenges and integrated solutions) will seek to address these complex issues and encourage debate on the benefits to be gained from more sustainable resource use and greater integration of different ***land*** uses on lowland and upland farming systems.

The conference is the 11th in a series of biennial ***Agriculture*** and the Environment conferences organised by Scotland's Rural College (SRUC) and the Scottish Environment Protection Agency (Sepa), in association with the Centre for Ecology & Hydrology (CEH), ***Forest*** Research, the James Hutton Institute (JHI) and Scottish Natural Heritage (SNH).

Upland and lowland farming are markedly different but they have one thing in common - in order to be truly sustainable they will need to change substantially. Only then can they increase their resilience to the numerous future challenges they, and we, are facing.

SEE ALSO

{[*http://www.scotsman.com/the-scotsman/opinion/comment/friends-of-the-scotsman-invitation-from-the-editor-1-2943334*](http://www.scotsman.com/the-scotsman/opinion/comment/friends-of-the-scotsman-invitation-from-the-editor-1-2943334) | • More information on becoming a Friend of The Scotsman | More information}

**Load-Date:** February 23, 2016

**End of Document**



[***-L'OREAL ANNOUNCES ITS NEW 'CARBON BALANCED' AMBITION FOR 2020 GROUP***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5GVC-V601-F0K1-N0SN-00000-00&context=1516831)

ENP Newswire

September 4, 2015 Friday

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**Length:** 990 words

**Body**

Clichy - Reinforcing its commitment to fighting climate change, L'Oreal announces its ambition to become a 'carbon balanced' company by 2020.

Through its sustainable sourcing projects, the Group aims to generate carbon gains corresponding to the amount of ***greenhouse gas*** ***emissions*** linked to its activities.

This announcement was made in the presence of Nicolas Hulot, Special Envoy of the President of the Republic of France for the Protection of the Planet and President of the Nicolas Hulot Foundation and Christian de Perthuis, Professor at the Paris Dauphine University and founder of the Climate Economics Chair.

Jean-Paul Agon, Chairman and CEO of L'Oreal, said, 'Three months from the COP 21, this renewed commitment shows L'Oreal's will to taking part in the fight against climate change. This initiative demonstrates the Group's capacity to leverage its innovation power in order to address a major environmental challenge alongside its suppliers and communities. Companies must play a leading role in the quest for solutions to the challenges of our time.'

Nicolas Hulot, Special Envoy of the President of the Republic of France for the Protection of the Planet and President of the Nicolas Hulot Foundation for Nature and Mankind, said, 'Companies have a responsibility and a historic opportunity to fight global warming. If COP 21 is able to forge a coordinated commitment of countries and businesses to enter into a low-carbon economy, this would mark a new chapter in the history of mankind.'

Christian de Perthuis, Professor at the Paris Dauphine University and founder of the Climate Economics Chair, who chairs the committee of carbon experts put together by L'Oreal, said, 'Voluntary initiatives that explore low-carbon business models, like those of L'Oreal, are an invaluable asset in terms of experimentation and innovation. For them to become more widespread, the COP 21 would have to result in an international agreement that provides the right economic incentives.'

Since 2005, L'Oreal has managed to reduce the CO2 ***emissions*** of its operations by 50% in absolute terms, while increasing its production by 22% over the same period. By 2020, L'Oreal intends to continue its programme of reducing CO2 ***emissions***, with an objective of a 60% reduction, and has decided to accompany this programme with an innovative plan for delivering carbon gains in cooperation with its raw material suppliers.

Towards a low carbon sourcing model

Several projects have already been launched to transform the Group's sourcing programmes into lowcarbon models: improving energy efficiency in the supply chains, promoting productive low-carbon ***agricultural*** practices and ***forest*** management projects.

In the villages of Burkina Faso where almost 22,000 women harvest the nuts used to produce shea butter, L'Oreal will help them adopt improved cook stoves which require less wood consumption. This initiative will help reduce the activity's carbon footprint, contribute to fighting deforestation and result in economic savings for producers. It will be carried out in partnership with the Olvea group, L'Oreal's historical sustainable supplier of shea butter.

In the Jambi province of Indonesia, where L'Oreal sources the patchouli used in the composition of perfumes, a partnership has been developed with Firmenich to create a unique and certified sustainable model, whereby patchouli and cinnamon plants are grown together. The aim is to optimise the use of ***agricultural*** ***land***, by providing the producers with an additional regular source of income, therefore avoiding the extension of farmland and consequently limiting deforestation.

A new carbon ***accounting*** methodology and a committee of international experts

To assess this new process, which will be progressively extended to all the Group's sustainable sourcing programmes, L'Oreal has drawn inspiration from international standards for carbon offsetting. To ensure that the programmes are effective, and to guide the teams in the development of this project, L'Oreal has put together an expert committee of international carbon specialists chaired by Christian de Perthuis, Professor at the Paris Dauphine University and Founder of the Climate Economics Chair. This committee will meet once a year to monitor the ad hoc scientific methodology used and evaluate the results which will be published annually.

About L'Oreal

L'Oreal has devoted itself to beauty for over 105 years. With its unique portfolio of 32 international, diverse and complementary brands, the Group generated sales amounting to 22.5 billion euros in 2014 and employs 78,600 people worldwide. As the world's leading beauty company, L'Oreal is present across all distribution networks: mass market, department stores, pharmacies and drugstores, hair styling salons, travel retail and branded retail. Research and innovation, and a dedicated research team of 3,700 people, are at the core of L'Oreal's strategy, working to meet beauty aspirations all over the world and attract one billion new consumers in the years to come. L'Oreal's new sustainability commitment for 2020 'Sharing beauty with all' sets out ambitious sustainable development objectives across the Group's value chain.

About Sharing Beauty with All

L'Oreal's Sharing Beauty With All sustainability program announced by Jean-Paul Agon in October 2013 sets out four strategic commitments: - innovation, so that 100% of L'Oreal products have an environmental or social improvement; - production, to reduce ***greenhouse gas*** ***emissions*** in absolute terms, water consumption and waste per finished product by 60%; - consumption, raise consumers' awareness of the environmental and social impacts of their consumption; - developing sustainably to share growth to benefit collaborators, suppliers and communities around us.

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[Editorial queries for this story should be sent to [*newswire@enpublishing.co.uk*](mailto:newswire@enpublishing.co.uk) ]

**Load-Date:** September 4, 2015

**End of Document**



[***Ireland expected to miss 2020 EU targets on emissions***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5J82-2V01-JCW9-23S8-00000-00&context=1516831)

Irish Examiner

March 8, 2016 Tuesday

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**Section:** IRELAND

**Length:** 478 words

**Body**

Its EU target for 2020 is to reduce ***greenhouse gas*** ***emissions*** from the non-***emissions*** trading scheme (non-ETS) sector by 20% on 2005 levels.

The non-ETS sector covers ***emissions*** from ***agriculture***, transport, residential, commercial, non-energy intensive industry, and waste sectors.

Figures released by the Environmental Protection Agency (EPA) show Ireland s non-ETS sector ***emissions*** are projected to be between 6% and 11% below 2005 levels by 2020, compared to the 2020 target of 20%.

As a result, the country is unlikely to meet 2020 EU ***greenhouse gas*** ***emission*** targets .

The agency noted that although Ireland has overachieved in terms of annual obligations in the early years of the compliance period (2013-20), it will not be sufficient to meet the compliance obligations.

As a result, Ireland is expected to breach annual obligation targets in 2016 or 2017, depending on the level of implementation of ***emission*** reduction policies and measures.

The EPA also said that, even with the full implementation of policies and measures out to 2020, these will not be enough for the country to meet the 2020 targets.

Projected increased ***emissions*** from the ***agriculture*** sector impacted by the Food Wise 2025 Strategy and growing transport sector ***emissions***, dominate the projected ***emissions*** trend.

***Agriculture*** and transport are projected to ***account*** for 76% of Ireland s non-ETS sector ***emissions*** in 2020.

For the period 2014-20, ***agriculture*** ***emissions*** are projected to increase by around 6% to 7%.

Transport ***emissions***, meanwhile, are also likely to show strong growth over the period to 2020 with a 10% to 16% increase on 2014 levels.

The EPA director general, Laura Burke, said a balance must be struck between a focus on economic growth and reducing ***emissions***.

The adoption of the Paris Agreement on climate change in December provides an ambitious, legally binding framework for global action on climate change, said Ms Burke.

In addition Ireland has taken a national policy position that commits us to reducing our carbon ***emissions*** by 80% in 2050 on 1990 levels across the electricity generation, built environment and transport sectors while achieving carbon neutrality in the ***agriculture*** and ***land*** use sectors.

New obligations to reduce ***greenhouse gas*** ***emissions*** for 2021-30 are being negotiated this year at EU level.

The further away Ireland is from the 20% reduction target in 2020, the more difficult it will be to hit compliance targets for the following decade.

Ms Burke said that, based on the current projections, the country faces considerable challenges to become a low-carbon economy .

Ireland must follow a pathway to decarbonising energy, transport, and heating.

We must break our dependence on fossil energy infrastructures.

He continued: In addition the ***agriculture***, forestry, and ***land***-use sectors should achieve effective ***greenhouse gas*** ***emissions*** neutrality by 2050.

**Load-Date:** March 8, 2016

**End of Document**



[***What the Paris climate deal means for Southeast Asia***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HMT-GH91-F03R-N33G-00000-00&context=1516831)

Deutsche Welle World

December 18, 2015 Friday 4:30 PM EST

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**Length:** 1443 words

**Body**

Dec 18, 2015( Deutsche Welle World: [*http://www.dw.de/top-stories/world/s-1429*](http://www.dw.de/top-stories/world/s-1429) Delivered by Newstex) <nl/> Countries in Southeast Asia are among the most vulnerable to global warming. Now that a landmark global climate deal has been reached, DW examines how this may impact both the environment and the regional economy. Given its heavily populated coastlines, Southeast Asia is particularly susceptible to extreme weather events brought about by climate change.<nl/>

The main threat facing the region is sea-level rise and the increased intensity of tropical cyclones. The combination of these two could have detrimental economic and development costs, said Bill Hare, Director of Germany-based Climate Analytics, a non-profit climate science institute.<nl/> "We are already seeing an increased intensity of storms such as Typhoon Haiyan in the Philippines two years ago which killed at least 6,300 people, left 11 million homeless and destroyed the economy and infrastructure across a large swath of the island archipelago," Murray Hiebert, the deputy director of the Sumitro Chair for Southeast Asia Studies at the Center for Strategic and International Studies (CSIS), told DW.<nl/> Key livelihood sectors along the Mekong River - including ***agriculture***, fisheries, aquaculture and livestock - are most at risk during severe weather, while economies such as Laos, Thailand and Vietnam, collectively risk $16 billion (14.8 billion euro) annually due to the impacts of climate change, according to a report released this year by USAID.<nl/> And the impact of freak weather patterns - such as typhoons, droughts, destructive storms and intense precipitation - may be even worse than initially thought. While representatives from over 190 nations were negotiating a global climate deal in Paris, the Manila-based Asian Development Bank (ADB) issued a report warning that economic losses from climate change-related incidents in Southeast Asia could be 60 percent higher than previously estimated. <nl/> The ADB paper points out that the five countries that collectively ***account*** for 90 percent of regional ***greenhouse gas*** (GHG) ***emissions*** - Indonesia, Malaysia, the Philippines, Thailand and Vietnam - may lose up to 11 percent of their gross domestic product (GDP) by the year 2100, compared to their 2009 projection of seven percent.<nl/> "As we learn more about the specific impacts of climate change, we are realizing just how vulnerable Southeast Asia is," David Livingston, an associate at the Energy and Climate Program at the Carnegie Endowment for International Peace, told DW.<nl/> "Record temperature levels seen in the warmer months of 2015 throughout the region will exacerbate in the decades ahead, with some countries, including Singapore and Indonesia, becoming virtually uninhabitable for certain days of the year by the end of the century," Livingston added.<nl/> The deal offers hope<nl/> One of the main goals of the landmark climate deal, reached on December 12 in the French capital, is to pursue efforts to limit global temperature rise to 1.5 degrees Celsius over pre-industrial levels.<nl/> By highlighting this target, the agreement addresses the concerns of low-lying, vulnerable countries and also seeks to prevent or minimize potential damage due to extreme weather.<nl/> But even if warming is kept below 2.0 degree Celsius by 2100, that would commit Southeast Asia to a sea-level rise of about 75 centimeters, said environmental analyst Hare. "More dramatically, if countries were not meeting their ***emissions*** pledges, in a business-as-usual scenario, sea-level in the region could rise as high as above 100 centimeters," the expert warned.<nl/> Another important element of the Paris accord is a pledge by developed nations to muster billions of dollars per year, starting in 2020, to help poorer countries cope with the effects of climate change. <nl/> "Given the fact that developed countries have pledged to support developing countries to the tune of $100 billion (92.3 billion euro) annually from 2020 on, the Paris climate deal has created an expectation in Southeast Asia that national efforts to curb global warming will, indeed, be financially supported," Moritz Kleine-Brockhoff, project director of the German Friedrich Naumann Foundation for Freedom in Indonesia, told DW.<nl/> Although critics of the Paris climate accord have been quick to point out the non-binding nature of the financial support pledges, Livingston said that there is still reason for hope.<nl/> "Countries will come together every five years, starting in 2020, to review their pledged commitments and consider amendments or extensions to these commitments. Because the process is intended to be transparent, methodologically sound, and visible, there is the potential for international pressure to lead to more ambitious commitments from many countries in the years ahead than would otherwise be the case," Livingston said.<nl/> Tackling deforestation<nl/> The vast sums of international financial support, although not immediately available, would be hugely beneficial to the developing Southeast Asian countries who have less financial capacity to reduce carbon ***emissions*** and develop energy efficient technology. <nl/> The ADB report points out that although climate stabilization might involve substantial initial costs, the benefits it brings would greatly impact the region in the long run and far outweigh the original financial investment.<nl/> As for concrete steps to reduce ***emissions*** in Southeast Asia, scaling down the rate of deforestation in Indonesia - one the world's top five emitters of carbon dioxide - is among the most urgent issues which needs to be addressed.<nl/> "Deforestation, the conversion of peat ***lands*** into palm oil plantations, as well as ***forest*** fires in Indonesia are the main sources of GHG ***emissions*** in Southeast Asia," asserts Brockhoff. "Indonesia's President Joko Widodo has promised to save remaining rainforest. But it remains to be seen whether this promise will be followed by action."<nl/> The destruction caused by deforestation and ***forest*** fires is also poorly publicized and has not received the attention it deserves, analyst Livingston noted.<nl/> "The tropical peat ***lands*** and ***forest*** fires ablaze throughout Indonesia resulted in the ***emission*** of nearly a gigaton of GHG ***emissions*** in just a few weeks - more than the entire annual ***emissions*** of Germany," Livingston said. "This was truly a full-scale environmental disaster that much of the world didn't notice. It's the worst such fire in Indonesia since 1997." <nl/> Regional cooperation needed<nl/> Besides combating deforestation, analyst Hiebert said, the region, as a whole, needs to switch from inefficient coal-fired power plants to cleaner forms of energy such as gas and possibly nuclear, solar and wind energy.<nl/> Furthermore, Carnegie's Livingston added, governments in the region have to take measures to tackle pollution caused by oil production.<nl/> "Southeast Asia is also an area with extensive oil refining capacity and is home to various crude oil resources ranging from light, low-sulfur oils to heavy, sulfurous crude oil grades. These countries may wish to incorporate policies to ensure that the carbon intensity and local pollution associated with oil production and use declines over time," he explained.<nl/> Moreover, experts say more regional cooperation is required to tackle climate-related problems in Southeast Asia such as deteriorating air quality. Since regional air circulation means that pollution in one country would easily be transmitted to its neighbors, wealthier countries like Singapore, which experienced an intense haze for several days due to the ***forest*** fires in Indonesia, might be more motivated to help its neighboring countries.<nl/> "For a city-state that aspires to attract global capital and human talent, Singapore has an overriding interest in improving the level of environmental governance in neighbors such as Indonesia," Livingston added.<nl/> Climate expert Hare believes the most prominent measure to reduce ***emissions*** in the region is the removal of fossil fuel subsidies, which in 2014 totaled around $36 billion.<nl/> "These subsidies entail a major fiscal burden for many governments. Therefore removing them would reduce GHG ***emissions*** without affecting future GDP growth, in addition to giving some leeway to implement additional low-carbon policies," he argued.<nl/> Another relevant measure, he said, is the introduction of fuel standards in the transport sector. "This measure will provide significant co-benefits in terms of air quality improvement, and reduced fuel consumption."<nl/>

**Load-Date:** December 18, 2015

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[***How long before we can't see the sea for the trees on the Wild Atlantic Way?***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JJ9-2DG1-JC8Y-83TF-00000-00&context=1516831)

The Irish Times

April 16, 2016 Saturday

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**Section:** WEEKEND; Pg. 6

**Length:** 828 words

**Byline:** Michael Viney

**Body**

The coast northwards from Thallabawn forms a good slice of Co Mayo's Wild Atlantic Way. An expanse of windswept, often rushy fields stretches as far as Louisburgh, with a greener, lusher fringe onwards in the shelter of Clew Bay. The road offers long, wide-open views of the ocean and its islands, and of mountains, near and far. But how long before we can't see the sea for the trees?

A map in the spring edition of Teagasc's journal*TResearch* accompanies an article, "The potential availability of ***land*** for afforestation in the Republic of Ireland", by Niall Farrelly and Gerhardt Gallagher. Both are eminent foresters, and Dr Gallagher developed the first model of carbon uptake in Irish ***forests***.

Their challenge was to find enough spare ***land*** for forestry to help soak up the extra ***greenhouse gases*** from new ***agricultural***-production targets (mostly lots more cattle) set by the Government. To achieve a "carbon-neutral ***agricultural*** sector" by 2050, planting is to be expanded to some 1.25 million hectares, or 18 per cent of the Republic. This would mean planting 16,000 hectares a year to 2046.

"Whether such planting rates are possible," said the authors' original paper (in *Irish Forestry* 2015, volume 72), "is very uncertain, given the recent decline in afforestation from 23,000 hectares per year to just over 6,200 hectares in 2013; significant efforts will be necessary to stimulate ***land***-use change . . ."

To find the extra hectares meant poring over the national map of ***land*** use, using a geographic information system and lots of current data, to exclude everything from sprawling suburbs and profitable farming to unsuitable soils, fishery-sensitive areas and nature conservation zones. It came down to patches, some quite extensive, of marginal and unimproved ***land***, such as hillsides, around, and among, the Republic's good farms.

Much of it is in Cos Monaghan, Cavan and Leitrim, with more big patches in Cos Kerry, Limerick and west Cork. But the stretches of Atlantic coast also catch my eye, from the blobs of pale green at the north of the Mullet Peninsula and south of Louisburgh to much of coastal Clare, right down to Loop Head, the tip of the Dingle Peninsula and at the ends of scenic promontories of west Co Cork.

The is the first such study in 25 years, but for all the "multiple data sets" it takes into ***account*** the changing climate does not figure. "Wind" and "storm" appear nowhere, nor the "windthrow" that has toppled so many thousands of trees in rain-soaked soils. Quite aside from what blocks of conifers can do to the scenery, the greatly increased risk of such losses must surely deter much private investment in planting.

Irish forestry was privatised in the 1980s, with the introduction of EU-subsidised grants to farmers for professional planting and the first 20 years of maintenance.

One aim was to encourage forestry on better ***land*** rather than on peatland. Farmers and investor interests did indeed respond, reaching a peak of annual planting - more than 17,000 hectares - in 1995. The State's share of ***forests***, run by Coillte, has fallen from 85 per cent in 1980 to not much more than 50 per cent.

***Forests*** now cover more than 10 per cent of the ***land***, and the shift to private ownership on better soils has improved the share of broadleaves to some 30 per cent by 2012. But many of the 20,000 new owners had no interest beyond the grants, no knowledge of forestry management, and not much real desire to grow trees.

Even though ultimately profitable timber is the obvious hope, Teagasc estimates that only some 6,000 hectares of the private plantations are being thinned annually to achieve commercial yields. On the other hand, stands left unthinned are less at risk of windthrow.

Sitka spruce and lodgepole pine still lead the ***forest*** species most tolerant of constant coastal wind, but how they are grown or mixed with broadleaves could be heading for change to "continuous cover forestry", or CCF. In this system, widely promoted in Europe after wind damage in the 1990s, only single or small groups of trees are removed at intervals, allowing an understorey of younger trees to develop. This "close to nature" approach keeps a continuous ***forest*** cover, ending the clear-felling and replanting that has scarred so many landscapes.

While some 10,600 hectares of ***forest*** are now under some form of CCF, notably in private holdings in Co Wicklow, how it might fit conditions on the Atlantic coast remains to be seen. CCF is now also management policy in Coillte's broadleaf ***forests*** and "amenity areas", such as Gougane ***Forest***, in Co Cork. In north Mayo, beside Ballycroy National Park, it has abandoned a mountainside of regenerating lodgepole pine to nature's own version of CCF. Its tangled branches will be given to "challenging and adventurous recreation" for those tired of looking at the sea.

Michael Viney's *Reflections on Another Life*, a selection of columns from the past four decades, is available from irishtimes.com/ irishtimesbooks

**Load-Date:** April 15, 2016

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[***-University of Aberdeen - Livestock sector key to mitigating greenhouse gases***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JCF-44X1-F0K1-N14X-00000-00&context=1516831)

ENP Newswire

March 24, 2016 Thursday

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**Length:** 590 words

**Body**

A team of scientists led by CSIRO researcher Dr Mario Herrero, and including Professor Pete Smith from the University of Aberdeen, have found that the global livestock sector offers a significant opportunity to mitigate ***greenhouse gas*** ***emissions*** while maintaining the economic and social benefits of the sector.

The global livestock sector supports about 1.3 billion producers and retailers around the world, and is a significant global economic contributor. New analysis, published today in Nature Climate Change, estimates that livestock could ***account*** for up to half of the mitigation potential of the global ***agricultural***, forestry and ***land***-use sector, which is the second largest source of ***emissions*** globally, after the energy sector.

Dr Herrero said that this new ***account*** of the mitigation potential for the global livestock sector is the most comprehensive analysis to date as it considers both the supply and demand sides of the industry. A key finding is that it shows that for the livestock mitigation to be the most effective it needs to be part of a comprehensive effort across the ***agricultural***, forestry and ***land*** use sectors. Additionally, finding the most sustainable and healthy levels of livestock product consumption in human diets is a crucial part of this mitigation potential.

Professor Smith said: 'The projected levels of meat consumption cannot be sustained, so demand for meat and other livestock products will need to be managed. Nevertheless, livestock will retain a role in the healthy and sustainable diets of the future, and the sector has an important economic and social role, particularly in developing countries.'

Dr Herrero added: 'We need to balance the optimal levels of consumption to achieve good health outcomes and maintain the economic and social benefits, while also capitalising on the mitigation potential the livestock sector offers.'

Dr Herrero said that sustainably intensifying livestock production is one way to maintain production levels while capitalising on the mitigation potential of the ***agricultural*** sector.

'We've found that there are a number of ways that the livestock sector could contribute to global ***greenhouse gas*** mitigation. Approaches like the adoption of new management strategies and production techniques could help to increase the productivity of the sector while reducing ***greenhouse gas*** ***emissions***, and maintaining food security,' he said.

'We need to increase the adoption of these different strategies by making sure that we have the right incentives. Practices that increase livestock, crop and pasture productivity, if well managed and regulated, could not only reduce the ***greenhouse gas*** ***emissions*** from livestock, but also offer other related benefits like improved environmental health.

With the global drive for curbing global ***emissions*** rapidly after the Paris Conference of Parties, including livestock in the mitigation agenda should be high on the agenda.

The research was published today in Nature Climate Change and carried out in partnership between CSIRO, the International Institute for Applied Systems Analysis, CGIAR Climate Change ***Agriculture*** and Food Security Research Programme, Colorado State University, the University of Aberdeen, Chalmers University of Technology, Pennsylvania State University, FAO, Wageningen University, Karlsruhe Institute of Technology, the International Livestock Research Institute, University of Oxford, the PBL Netherlands Environmental Assessment Agency.

[Editorial queries for this story should be sent to [*newswire@enpublishing.co.uk*](mailto:newswire@enpublishing.co.uk) ]

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[***IN October, our beloved puffin was [...]; COLUMNIST***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HKW-BPS1-JBVM-Y54V-00000-00&context=1516831)

The Journal (Newcastle, UK)

December 14, 2015 Monday

Edition 1, National Edition

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**Section:** NEWS; Pg. 17

**Length:** 733 words

**Byline:** KATE THICK

**Body**

IN October, our beloved puffin was added to the red list of species at risk of extinction, the flooding of nesting burrows being a major factor.

The future of Britain looks wet. Climate change is implicated in the heavy rainfall and floods last week. Some flood-prone areas of the UK may be beyond protection from extreme events, becoming uninhabitable. We are woefully unprepared.

The basic science is simple. A warming atmosphere holds more moisture, oceans heat up and increase in volume; 2015 will be the warmest year on record. The supertanker of global energy-related ***emissions*** needs turning within the second half of this century.

They must have known today is my birthday.

Nothing warms this girl's heart more than an outbreak of international consensus.

The French foreign minister who presided over the UN climate negotiations in Paris must be a diplomatic genius.

Water boils most fiercely just before it disappears.

There was a lot of kicking and screaming before delegates reached the finish line; hopefully the accord will send a clear signal to industry and financial investors that the shift to clean energy sources is inevitable.

Bill Gates committed to the largest green innovation fund ever, mayors of 1,000 cities committed to 100% renewable energy by 2050, and the talk in business circles was all about opportunity, rather than cost. It's amazing.

Leaders will have to live up to their pledges. R egardless of how fast we limit fossil fuels, we will need to invest in technologies to capture CO2 from the atmosphere. T he ***greenhouse gas*** reduction promises made in Paris - even if kept - could still result in warming of up to 3C. Almost 1C of warming is already locked in.

To stay at 1.5C, most scientists think the world must remove greenhouse ***emissions*** already in the atmosphere, using processes that remain uncertain. The idea is that peer pressure holds countries to ***account*** and builds the trust that means they agree to deeper cuts over time.

Oxfam says the poorest half of the world's population - 3.5 billion people - is responsible for only 10% of carbon ***emissions***, despite being the most threatened by storms, droughts and other weather shocks linked to climate change, and the deal offers a "frayed lifeline" to the world's poorest and won't cut ***emissions*** fast enough. Climate change could push more than 100 million people into extreme poverty by 2030 by disrupting ***agriculture*** and spreading diseases such as malaria.

My biggest quibble is with what was barely mentioned in Paris; environmental refugees, people fleeing their homes on ***account*** of natural disaster.

The consequences of climate change are going to be very, very costly.

Unless governments agree to keep fossil fuels in the ground, they will undermine the agreement they have just made. China is now the world's largest greenhouse emitter and India is the fourth largest; they have lots of coal. Our Government gives the fossil-fuel industry nearly £6bn a year in subsidies, almost twice the financial support it provides to renewableenergy providers.

Cynics say the agreement is unenforceable. True, but the agreement defines goals and spurs thinking about the deep transformations in energy and ***agriculture*** required and, increasingly, governments have nowhere to hide; satellites can check CO2 in the atmosphere and measure the size of a ***forest***.

Little substantive will happen under the Paris accord until 2020. Meanwhile, mountain glaciers will continue to melt, oceans acidify, the sea-level will rise further, droughts and flooding may worsen.

Our world is set to change despite the efforts of negotiators in Paris but the agreement points to where the world needs to be going and, long-term, we could avoid the worst impacts of global warming and ecological disaster. There is hope now with the whole world on a agreed course, with ever better technology and a much greater flow of financing to developing countries.

Back home, we can do our bit. Livestock farming destroys habitats and creates around 14% of the world's ***greenhouse gas*** ***emissions***. Rainwater sinks into the soil much faster under trees than under pasture. Intensive grazing compacts and erodes soil, speeding water run-off. The Dutch, protected by dukes and dams, can cope with rising seas and storms.

So eat less meat, get planting, help dig a ditch, install some solar panels and hector your MP for state spending on renewable energy and carbon capture.

**Load-Date:** December 14, 2015

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[***EU drive for 'green' biodiesel has increased emissions, study finds***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JM9-H7V1-JCJY-G0XG-00000-00&context=1516831)

telegraph.co.uk

April 25, 2016 Monday 5:34 PM GMT

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**Length:** 485 words

**Byline:** By Emily Gosden, Energy Editor

**Body**

The use of supposedly 'green' biodiesel to hit EU renewable energy targets has actually significantly increased ***greenhouse gas*** ***emissions***, a new study finds.

By 2020, continued use of biodiesel derived from vegetable oil will increase total EU transport ***emissions*** by almost four per cent compared with using its fossil fuel alternative, according to analysis by Transport & Environment, a green group.

That is roughly equivalent to putting an extra 12 million cars to the road, it says.

Countries across Europe have blended small percentages of biofuels into petrol and diesel in recent years in an attempt to cut ***emissions*** and to hit the EU's renewable energy directive (RED), which requires 10 per cent of transport energy to come from renewable sources by 2020.

Biodiesel's impact: ***emissions*** of an extra 12m cars on our roads - study [*https://t.co/5HNBfuiaig#Biofuels#ILUCpic.twitter.com/Zv34piKtda*](https://t.co/5HNBfuiaig#Biofuels#ILUCpic.twitter.com/Zv34piKtda)

- TransportEnvironment (@transenv) April 25, 2016

But Transport & Environment says the EU's own studies show that producing biodiesel from food crops - in particular soy and palm oil - is significantly worse for the environment than producing regular diesel.

This is largely due to the knock-on effects on ***land*** usage of using food crops for fuel, which can result in rainforests or other habitats being cleared to make way for more food crops, so actually increasing ***emissions***.

Producing crop-based biodiesel has an ***emissions*** footprint on average 1.8 times the size of fossil fuel based diesel, it says.

The EU revised the RED last year to take ***account*** of widespread concerns about the impacts of ***land*** use change, saying that biofuels from crops grown on ***agricultural*** ***land*** could count for a maximum of seven per cent toward the 10 per cent target.  It is encouraging countries to instead use 'advanced', non-food crop biofuels.

But Transport & Environment says its analysis takes ***account*** of these changes, and that the overall effect of the policy is still likely to be harmful.

It estimated that the use of bioethanol from crops as an alternative to petrol would marginally reduce overall transport ***emissions***, by about 0.5 per cent, while the use of advanced biofuels could contribute a two per cent reduction.

However, set against the four per cent increase in ***emissions*** due to biodiesel the net impact of the EU biofuel will still be an overall increase in transport ***emissions*** of about 1.4 per cent, it said.

Jos Dings, executive director of Transport & Environment, said: "The European Commission has finally revealed that Europe's policy failure in stimulating bad biofuels is even more spectacular than previous scientific research indicated.

"We should phase out the mandating, subsidising and zero-carbon ***accounting*** of these fuels at European and national level after 2020."

A spokesman for the European Commission declined to comment on the analysis.

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[***Australia's carbon emissions are increasing, government report shows; A report quietly released on Christmas Eve shows Australia's emissions rose by about 1% in 2014-15, compared with the previous year***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HPF-5171-F021-60N1-00000-00&context=1516831)

The Guardian

December 26, 2015 Saturday 7:19 AM GMT

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**Section:** AUSTRALIA NEWS

**Length:** 360 words

**Byline:** Guardian staff

**Body**

Australia's ***greenhouse gas*** ***emissions*** increased in 2014-15, a report released with obscure timing by the Australian government has shown.

Related: What does the Paris climate agreement mean for Australia? | Lenore Taylor

The December 2015 quarterly update of carbon ***emissions***, which covers the period to the end of June 2015, was released with no fanfare on Christmas Eve. The quarterly update forms part of Australia's international reporting of its ***emissions***

It shows that Australia's ***emissions*** increased by 0.8% last financial year compared with the previous one, and 1.3% when ***land*** use and deforestation were taken into ***account***. Australia generated 549.3 mega-tonnes of carbon dioxide in 2014-15.

The Australian government promised at the Paris climate talks to reduce ***emissions*** by 26% to 28% by 2030 and will likely come under pressure to do more after the world agreed to work to keep the global temperature rise to 2C.

The report points to increases in electricity, stationary energy (excluding electricity), transport, fugitive ***emissions***, and industrial processes and product use. However it says there was a steep decline - 3.8% - in ***emissions*** from ***agriculture***.

***Emissions*** from electricity generation rose 3% in 2014-15, despite demand from consumers remaining flat in 2014-15. Power generation from black coal increased by 1.4%, and brown coal generation increased by 9.7%.

Related: Australia could increase ***emissions*** 26% and still meet Kyoto pledge, says climate group

Electricity from wind and other renewables (excluding small-scale solar) increased 12.2% on the previous 12 months, but hydroelectric generation fell by 30.3%.

Electricity generation was the largest source of ***emissions***, ***accounting*** for 34% in 2014-15.

Prof Will Steffen from the Climate Council told Fairfax Media the December figures showed Australia needed to urgently wean itself off coal to meet its global commitments.

"If we're putting more into the atmosphere than the year before, than we're heading in the wrong direction," he said. "We've got to drop ***emissions*** fast. We've got to get out of fossil fuels very quickly, coal first - there can no new coalmines anywhere in the world."

**Load-Date:** December 26, 2015

**End of Document**



[***Business and Climate Summit London, 28-29 June 2016***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5K5V-9H41-JDJN-60XR-00000-00&context=1516831)

The Malta Independent

July 7, 2016

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**Length:** 1206 words

**Body**

By Vanya Walker-Leigh in the City of London

A thousand business and finance leaders from 39 countries meeting last week in the City´s 12th century Guildhall expressed strong determination to combat the looming threat of climate change disaster by fast tracking low-carbon innovative technologies and investment strategies.

The second Business and Climate Summit, co-sponsored by UK and international institutions and networks reviewed the private sector´s next steps after the adoption last December of the Paris Agreement by the 21st Conference (COP 21) of the 196 Contracting Parties to the UN Framework Convention on Climate Change. The Agreement was subsequently signed by 175 political leaders (including Malta´s Prime Minister) at a ceremony at the UN in New York on 22 April.

However, its entry into force - mandating post-2020 actions on mitigation, adaptation, loss and damage, financial flows, technology transfer and capacity building with 5-year international reviews of related national policies - requires ratification by 55 nations ***accounting*** for 55 per cent of global ***greenhouse gases***. ***Accounting*** for over 40 per cent, US and China have pledged early action, but so far only 19 nations ***accounting*** for 0.18 per cent of ***emissions*** have actually ratified.

A key provision of the Paris Agreement commits governments to hold the increase in the global average temperature to well below 2 °;C above pre-industrial levels and to "pursue efforts" to limit the temperature increase to 1.5 °;C - implying an unparalleled technological revolution to rapidly slash ***greenhouse gas*** ***emissions*** from industry, transport, energy production, ***agriculture*** and ***forest*** management. (Provisional commitments tabled last year with the UNFCCC secretariat by 189 nations put the planet on a disastrous track towards over 3C.)

France´s Environment Minister and COP 21 president, Segolène Royal, urged entry into force before the next COP in Marrakesh, Morocco (7-18 November, 2016) and will continue pressuring EU nations to complete procedures by then. (Only France and Hungary have ratified so far, while parliamentary sources cannot indicate a date for Malta´s ratification).

Co-chair of the 26-country, 90-company Carbon Leadership Coalition, Ms. Royal urged the rapid adoption of a universal carbon price - strongly supported by a 35 top business leaders hosted by President Hollande in Paris last month. France recently legislated for such a price as well as for companies to disclose their carbon footprint and climate change related activities.

The outgoing UNFCCC Executive Secretary, Christiana Figueres hailed broad business support as having enabled an ambitious Paris Agreement, but urged much more dialogue and co-operation between national private sectors and governments to propel the urgently needed albeit "unstoppable" transformation. "We are working against the clock" she warned while urging Brexit-stunned Britain to "keep calm and transform on".

Jean-Dominique Senart, Chief Executive Officer of Michelin advocated for a set of global sectoral commitments to be made at COP 22 by business and government ministers while emphasising the imperative to mobilise world citizens support for climate change action. "I fear that if after COP 22 things don´t go through we may hit lack of credibility, which will discourage businesses to make major decisions."

France´s chief climate change negotiator, Ambassador Laurence Tubiana emphasised that governments "have to not only deliver the policy framework for 2030 but clear mid-century strategies consistent with the below 2c target. A key dimension is social transition - needing a much broader discussion than to-day. Not to create strong resistance in society is one of the major risks we face."

Ninety trillion dollars are needed over the next 15 years for sustainable climate-resilient infrastructure - two-thirds of the total for developing and emerging countries - according to Felipe Calderon, former President of Mexico and Chair of the Global Commission on the Economy and Climate. "We cannot continue building in the same dirty way - low-carbon building will cost five per cent more but can be fully offset by savings in operational costs. Solar and wind can now compete with fossils in more and more regions, we are aware of air pollution costs, yet 1,500 coal plants are in various stages of construction and planning worldwide. We need to stop it."

In its report "The Business End of Climate Change" launched here, the We Mean Business Coalition stated that by 2030 the private sector could ***account*** for 60 per cent of the ***emission*** reductions up to 2030 posted in the 189 Intended Nationally Determined Contributions - some 10 billion tonnes of CO2 - if all of world business signed up to the Coalition´s five key initiatives. These are Science Based Targets, RE 100 (100 per cent Renewable Energies), ZeroDeforestation EP100 (a 100 per cent increase in energy productivity) and the Low Carbon Technology Partnership.

A business leaders´ climate change summit in Marrakesh will issue a statement according to Miriem Bensalem-Chaqroun, President of Morocco´s General Business Confederation (Confédération Générale des Entreprises du Maroc). Casablanca Finance City will also organise a high-level Climate Finance Day 2016 on 4 November to be followed by an event of the International Finance Development Club, a global network of national, subregional and international development banks..

Due to widespread constrained government financial resources, about 85 per cent of the $90 trillion infrastructure investment posited by Felipe Calderon will have to be sourced in the private sector; green investments have to rapidly move from niche to mainstream said Antonio Simões, HSBC´s Chief Executive, responsible for the UK and Continental Europe. "The total stock of green bonds is currently about $60bn, while we need an annual average of $5 trillion."

"In particular we need to unlock private sector finance to world´s major urban areas - 75 per cent of CO2 ***emissions*** come from cities, already housing half the world´s population and two-thirds by 2050. HSBC is meanwhile working with the insurance industry and the V-20 group of finance ministers from the 43 most vulnerable developing nations with a combined population 1.6bn to create a funding mechanism which pools their needs and risk profiles - the basis for a securitised product for private investors."

Several speakers and panelists indicated that some though not all major oil companies were ´rethinking´ their future strategies, to scale back (though not eliminate) fossil fuels in favour of non-polluting renewable energies and energy efficiency.

World trade rules also need to be reviewed for compatibility with the Paris Agreement goals, but "we don´t have what we want to negotiate, only a general goal with no specifics", the World Trade Organisation´s Director-General Roberto Azevedo admitted. John Danilovich, Director-General of the International Chamber of Commerce urged the need to start an already suggested dialogue on trade and climate, as a key topic at the next WTO ministerial meeting in September as well as of Germany´s Group of 20 presidency next year.

[*http://imgs.syndigate.info/542/1594/11/146787988010.jpeg*](http://imgs.syndigate.info/542/1594/11/146787988010.jpeg)

**Load-Date:** July 7, 2016

**End of Document**



[***Aviation biofuel industry expanding in US***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HMY-27F1-JCN4-H0GF-00000-00&context=1516831)

ICIS Chemical News

December 18, 2015 Friday

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**Length:** 845 words

**Body**

alaska airlines biofuel Seattle-Tacoma International Airport is among the first in the US poised to curb carbon ***emissions*** on a large scale with jet biofuel. (Image: Port of Seattle/Alaska Airlines)

HOUSTON (ICIS)--Boeing, Alaska Airlines and the Port of Seattle this week signed an agreement to launch a study that will work toward a long-term goal of utilising aviation biofuel in all flights in and out of the Seattle-Tacoma International Airport (Sea-Tac).

The $250,000 Biofuel Infrastructure Feasibility Study will be managed by the port and finished toward the end of 2016. It will examine costs and upgrades needed to create a system that will deliver a blend of regular jet fuel and aviation biofuel to the airport.

Conventional jet fuel recently has fallen to 11-year low prices, which could make the more sustainable but also more costly aviation biofuel less attractive to some would-be buyers. Conversely, the project partners have noted that the volatility of oil prices could make aviation biofuel more attractive. A UN board hopes to adopt international ***emissions*** standards for the aviation industry early in 2016.

The Federal Aviation Administration (FAA) aims for the US to use 1bn gal/year of sustainable alternative jet fuel by 2018. The Environmental Protection Agency (EPA) proposed in June to add jet fuel to the Clean Air Act, putting it on the list of ***greenhouse gas*** contributors.

In the Sea-Tac project, Boeing, which has a large presence both in Washington state and in the developing biofuels industry, said on Wednesday that it will provide knowledge about fuel types, technology and producers. The commercial airplane producer hopes that aviation biofuel will ***account*** for 1% of global jet fuel demand by 2016.

[1]Alaska Airlines has been in involved in the biofuel industry for years. Starting in 2011 the airline had flights with 20% aviation biofuel blends made from cooking oils and animal fats. In 2016, the airline plans to utilise alcohol-to-jet fuel and ***forest***-industry waste fuels.

Other companies are making strides toward sustainable aviation fuels as well. FedEx and Southwest Airlines have both signed agreements with a biorefinery in Oregon in the past 15 months.

Colorado-based [2]Red Rock Biofuels uses ***forest*** residue to create the fuel. The feedstock includes bark, pine needles and branches from timber and saw mill operations. The company reported that its first plant should turn about 140,000 dry tons of ***forest*** feedstock into 12m gal/year of renewable jet, diesel and naphtha fuel.

FedEx will take 48m gallons of the blended fuel at its Oregon hub beginning in 2017. [3]Fedex says the fuel will be half-biofuel, half-conventional jet fuel. Southwest's agreement includes 3m gal/year of the fuel, the first of which is expected to be delivered in 2016.

Another upcoming biofuels company called Fulcrum has reached an agreement with United Airlines this year. United invested $30m in the company, adding to a 2014 investment by Cathay Pacific Airlines, which is in a decade-long agreement with the biofuels company that involves 375m gallons of fuel. Fulcrum's refinery will be built in [4]northern Nevada.

The US Department of Energy will have involvement in several of these projects, along with the US Navy and US Department of ***Agriculture*** (USDA). The USDA created an initiative called Farm to Fly with Boeing and airline trade group [5]Airlines for America.

"As leaders in aviation biofuels, this will send a signal to airlines and biofuel producers that Sea-Tac airport will be ready to integrate commercial-scale use of aviation biofuels," Port of Seattle Commissioner John Creighton said of the agreement on Wednesday.

"Biofuel infrastructure will make Sea-Tac airport an attractive option for any airline committing to use biofuel, and will assist in attracting biofuel producers to the region as part of a longer-term market development strategy," he added.

Currently, conventional jet fuel at Sea-Tac comes from Anacortes, Washington, by pipeline and the airport does not have a redundant fuel supply in place. Sea-Tac used 451m gallons of fuel in 2014 and maintains about nine days of fuel supply at a time.

Pushback from the refining industry is likely, as it is common with renewable fuels. There is consistent friction between the American Petroleum Institute (API), which says renewable fuels are bad for gasolines and engines. The Renewable Fuels Association supports ethanol being blended into motor fuels.

fuel farm The tank farm at Sea-Tac can hold up to nine days of jet fuel for the airport at one time. (Image: Port of Seattle/Alaska Airlines)

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1. [*http://www.alaskaair.com/content/about-us/sustainability-report/environment/****emissions****-fuel/aircraft/fuel-we-use.aspx*](http://www.alaskaair.com/content/about-us/sustainability-report/environment/emissions-fuel/aircraft/fuel-we-use.aspx) 2.   [*https://www.icis.com/subscriber/news/2015/12/09/9951610/joule-absorbs-red-rock-in-bid-to-raise-funds-reduce-risk/*](https://www.icis.com/subscriber/news/2015/12/09/9951610/joule-absorbs-red-rock-in-bid-to-raise-funds-reduce-risk/) 3.   [*http://about.van.fedex.com/blog/biofuels-take-flight-with-fedex-infographic/*](http://about.van.fedex.com/blog/biofuels-take-flight-with-fedex-infographic/) 4.   [*https://www.icis.com/subscriber/news/2015/05/05/9882668/us-fulcrum-bioenergy-to-build-waste-to-fuels-refinery-in-nevada/*](https://www.icis.com/subscriber/news/2015/05/05/9882668/us-fulcrum-bioenergy-to-build-waste-to-fuels-refinery-in-nevada/) 5.   [*http://airlines.org*](http://airlines.org)/

**Load-Date:** December 19, 2015

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[***Countryfile - 5:36 PM GMT***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5K51-D5P1-JBH6-C0WV-00000-00&context=1516831)

TVEyes - BBC 1 London

July 3, 2016 Sunday

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**Section:** U.K. NATIONAL; Lifestyle

**Length:** 748 words

**Anchors:** John Craven

**Highlight:** Countryfile reports on rural and envionmental issues in the United Kingdom. By visiting different parts of the British countryside the presenters uncover the topics of wildlife, conservation, farming, food production and social history.

**Body**

**Speech to text transcript:**[[1]](#footnote-2)1

And is the plan eventually to have it back in the water and sailing and competing? Yes, she's been painted up to go back in the water. And a fantastic sight she will look. Yes, she will, she will be a big sail, big crew and a big sight.

Well, a lick of paint is giving this old girl a new lease of life. Hopefully she'll soon be back in the water where she belongs - a working reminder of the rich history of this estuary. Now, it's claimed that ***agriculture*** emits more ***greenhouse gases*** than traffic. So, what's been done to solve the problem? Here's Tom. It's hard to believe, when you look at this pastoral scene, that these animals could be harming the environment. But when it comes to climate change, in fact they are. Now, that's because around the world, growing and producing the food we eat is responsible for around a third of dangerous ***greenhouse gas*** ***emissions***. Now a new report says that if farm-related ***emissions*** aren't tackled, then the first legally binding global climate plan agreed in Paris last year will be breached. And the world would be unable to avoid catastrophic climate change. So, what's causing these harmful ***agricultural*** ***emissions***? This has to be the most hi-tech cow shed I've ever seen. Yes, these are respiration chambers. We use them to measure the oxygen that a cow consumes and the methane and other gases she produces. Professor Chris Reynolds of the University of Reading says that cows are a major emitter of methane, a potent ***greenhouse gas***. One thought, we've come up to the front-end. Is that the right place to be? Well, it is in terms of where the methane is emitted from the cow. Virtually all the methane a cow produces is eructated, or belched, as opposed to coming from the back end of the cow. Why is it that cows and sheep, I gather, produce so much methane? So, the cow's stomach has billions of microorganisms that help her digest her feed. Specific microbes that ***account*** for that methane production. Right, and that's just a pretty much inevitable fact of the biology of ruminants like cows. It's part of what makes a ruminant a ruminant. On average, the estimate is that, for a lactating dairy cow, she would be producing about 600 litres of methane a day. COWS LOW That means in one year, a cow emits enough energy to drive an average car about 2,000 miles. But that's just part of the problem. Alongside methane, mainly from cattle and sheep, nitrous oxide is emitted into our environment, largely from heavily fertilised crops. Overall, ***agricultural*** ***emissions*** are far more than jokes about farting cows. Professor Lord Krebs certainly isn't amused. He advises the government on tackling climate change and says that farm-related ***emissions*** are a serious problem. Why is it important that farming now gets to grips with its climate change responsibility? Well, if we're serious about the Paris Agreement, we've got to tackle all ***greenhouse gas*** ***emissions***, and ***agriculture*** and ***land*** use change ***account*** for between a fifth and a quarter of the world's ***greenhouse gas*** ***emission***. We are farming, after all, to feed people, and we're going to have many more people on this planet. How much more difficult does that make this problem? It's what some people have called the perfect storm. We've got a growing population, going up to probably 9\ billion by mid-century. As people get richer from countries like China, they switch from a plant-based diet to a meat-based diet. And meat has a much bigger environmental footprint than a plant-based diet does. Everybody needs food, and we want delicious and nutritious food, we've got to produce it with a lower environmental impact. In total, ***agricultural*** ***emissions*** make up around 9% of the UK's ***greenhouse gases***. The question of how to minimise these ***emissions*** while still being able to feed a growing population is something ***agriculture*** has been grappling with for some time. And six years ago, the industry introduced voluntary action plans. So far, two thirds of farmers have changed the way they work. You really get an idea of the scale of it when you come round. Yes. This must have cost you a wee bit. Julian Gold is one of them. Across his 1,500 acres of arable ***land*** in Oxfordshire, he's gone big to become more efficient. We're standing next to an extraordinary machine here, but how does something like this help you reduce your ***greenhouse gas*** ***emissions***?

**Load-Date:** July 3, 2016

**End of Document**



[***Swedish report urges EU to halve its meat consumption to meet eco goals***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5J6B-6921-JCW9-24V3-00000-00&context=1516831)

Irish Examiner

February 29, 2016 Monday

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**Section:** SUPPLEMENTS

**Length:** 449 words

**Body**

Swedish scholars David Bryngelsson and Stefan Wirsenius have published a report which suggests EU citizens should be pushed to eat poultry and pork, whose husbandry produces significantly less ***greenhouse gas*** ***emissions***.

The report s authors suggest people will not have to cut out meat altogether, but will have to be more selective in their diet.

They state that producing 1kg of protein from dairy results in ***emissions*** four times greater than for an equivalent amount of poultry.

The report, How Can The EU Climate Targets Be Met? A Combined Analysis of Technological and Demand-Side Changes In Food and ***Agriculture*** , was published in the February issue of Food Policy journal.

Cuts, by 50% or more, in ruminant meat (beef and mutton) consumption are, most likely, unavoidable if the EU targets are to be met, the report states.

***Emissions*** from manure storage can all but be eliminated if the facilities are covered and waste gases are flared (burned off). But reducing the amount of food thrown away only cuts ***emissions*** from food and ***agriculture*** by 5%-10%.

The Swedish study takes into ***account*** commitments made by the EU at the COP21 sustainable innovation forum in Paris in December.

The EU is seeking a 20% cut in ***greenhouse gas*** ***emissions*** (versus 1990 levels); to generate 20% of all EU energy from renewables; and to achieve 20% more energy efficiency.

The researchers at Chalmers University of Technology and Sweden s Technical Research Institute focused their report on GHG ***emissions*** from ***agriculture***.

They stated that farming contributes to 10% of the total EU s ***greenhouse gas*** ***emissions***.

This is largely down to two ***greenhouse gases***: Methane from livestock digestion and stored animal manure; and nitrous oxide from organic and mineral nitrogen fertilisers.

The report says ***emissions*** from the production of fertilisers can be halved if factories used the latest technologies. As a first step, they advise farmers to cover over all manure containers.

The production of livestock and fodder globally generates more than three billion tonnes each of carbon dioxide equivalent.

In 2014, according to Eurostat data, Germany, Spain, France and the United Kingdom had the highest number of livestock.

The largest number of pigs was recorded in Germany and Spain (28.3 and 26.6 million animals respectively); cows in France (19.3 million head) and sheep (23.0 million head) in the UK.

The Irish Cattle and Sheep Association has suggested that enhanced supports for forestry and energy crops such as miscanthus would encourage farmers to move some of their focus out of livestock.

The ICSA suggests these improved grants could lead to a 5% reduction in the share of ***land*** use devoted to livestock in Ireland.

**Load-Date:** February 29, 2016

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[***The planet's dangerous appetite for meat; A switch to reduced-meat diets would be a win-win situation for human health and the environment***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HWY-R2G1-JC8Y-80YF-00000-00&context=1516831)

The Irish Times

January 21, 2016 Thursday

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**Section:** FEATURES; Pg. 12

**Length:** 1064 words

**Byline:** Conor Purcell

**Body**

Last year marked the centenary of the general theory of relativity, but it appears Albert Einstein also showed great foresight when he said, "Nothing will benefit human health and increase the chances for survival of life on Earth as much as the evolution to a vegetarian diet."

With the recent announcement by the World Health Organisation that processed meats are highly carcinogenic, and the success of last month's UN COP21 talks on climate change, it could be time to consider reducing meat consumption as a matter of both national and international policy.

In October, the World Health Organisation published a report outlining that processed and cured meats such as bacon and sausages are among some of the most carcinogenic products, although the risk of actually developing cancer from them is low. Red meats were also indicated as a probable cause of cancer. The report outlines that colorectal, stomach, pancreatic and prostate cancers can all be linked to diets high in these cured and processed meats.

It is also known that meat-rich diets might be a contributor to coronary heart disease, type II diabetes, and other conditions that reduce human life expectancy.

An article last year in the journal *Nature*, "Global diets link sustainability and human health", indicates that a fish-based diet reduces the risk of type II diabetes by 25 per cent, improving to 40 per cent for full-blown vegetarians. Pescetarians (fish eaters) and vegetarians also have a 10 per cent reduced risk of cancer compared with omnivores. The message is clear: processed and red meats increase our risk of life-threatening diseases.

At the same time, as a taste for meat grows in emerging nations, the relatively recent rapid development of the meat industry has become a major contributor to climate change.

**The methane problem**

What is often overlooked is that global food production is a greater ***greenhouse-gas*** contributor, and therefore threat to humanity, than all the world's transport combined. This is partly because meat, in particular beef production, generates huge amounts of methane via livestock ***emissions***, and methane is a far more potent and dangerous ***greenhouse gas*** than carbon dioxide.

Global food production and ***agriculture*** ***account*** for about 25 per cent of all ***greenhouse-gas*** ***emissions***. The clearing of areas for ***agricultural*** use reduces the vegetation that otherwise acts as a carbon sink (storage of carbon in the ***land*** rather than the atmosphere), and effectively increases carbon-dioxide levels. These ***land*** clearances also enact species extinction and are therefore considered a major environmental disaster.

The same study in *Nature* shows that pescetarians and vegetarians are responsible for significantly less ***greenhouse gas*** ***emissions*** than their omnivorous neighbours. This implies that in a hypothetical exclusively vegetarian world, ***greenhouse gas*** ***emissions*** from food production would be substantially reduced. A vegan diet is responsible for even less ***greenhouse-gas*** ***emission***. The article states: "There are plausible solutions to the diet/environment/health trilemma, diets already chosen by many people that, if widely adopted, would offer global environmental and public health benefits."

According to lead author David Tilman of the department of ecology at the University of Minnesota, "We showed that the same dietary changes that can add about a decade to our lives can also prevent massive environmental damage."

So the problem with meat is twofold, with negative implications for health, and for the climate and environment. This means that dietary change, specifically a move towards reduced-meat diets, is essential if governments intend to keep their populations healthy and global warming under the proposed safe limit of two degrees. A switch to reduced-meat diets appears to be a win-win situation, and in the long run would save governments massively on healthcare costs, and increase life expectancy.

Therefore, to protect populations from cancer, and also to reduce ***greenhouse-gas*** ***emissions*** in order to mitigate the effects of climate change, governments will need to develop initiatives to advertise the health benefits of a reduced-meat diet. Such initiatives might include taxation on meat products, as well as TV, radio and online awareness campaigns, perhaps even including new years' resolutions.

Such dietary changes might become necessary if governments are to make any progress towards reducing cancer rates and the negative effects of global warming.

For this reason, reduced meat economies, with increased emphasis on vegetable-based diets, should be included in global health and climate-change discussions, alongside smoking and obesity. And we need divestment from fossil fuels and investment in renewable energies.

Dr Conor Purcell is a postdoctoral researcher at Prof Jennifer McElwain's programme for experimental atmospheres and climate at University College Dublin. He specialises in future climate change prediction

**Meat production Big environmental beef**

Over the past 50 years the global meat industry has experienced massive increases in production. Between 1963 and 2014, meat production rose from 78 million tons to more than 300 million tons - a fourfold increase.

Major causes are the growing markets for meat, particularly in Asia, where population expansion into urban centres has promoted the development of the meat industry on large scales. That's not to say that meat production hasn't risen in western nations too.

Most people are unaware that food production and ***agriculture*** contribute to an estimated 25 per cent of ***greenhouse-gas*** ***emissions***, with a large part of this from meat production itself. Fifteen per cent of ***greenhouse gases*** are attributed to the global meat industry, and ***land*** use for livestock grazing amounts to more than 25 per cent of the Earth's ice-free surface.

In particular, beef production is the main cause of these gas ***emissions*** - methane in this case, which is emitted by cows.

This all means that our increasing appetite for meat is contributing enormously to global warming, and the problems associated with a changing climate. Last month's UN COP21 conference on climate change in Paris agreed on a united deal to reduce reliance on fossil fuels and to invest in renewable energies.

It appears any significant step forward would include an action plan to reduce meat consumption and production.

**Load-Date:** January 20, 2016

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[***Union's declaration at Climate Summit:***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HJT-WJG1-JCG2-C1M0-00000-00&context=1516831)

Carmarthen Journal

December 9, 2015 Wednesday

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**Section:** BUSINESS:***AGRICULTURE***; Pg. 6-7

**Length:** 414 words

**Body**

NFU Cymru, along with its English and Sottish colleagues and the Ulster Farmers' Union made the following declaration for the 2015 Paris Climate Summit:

***Agriculture*** is unique. It supplies food, stores carbon and generates renewable energy. Farming is on the frontline of climate change impacts, being particularly vulnerable to extreme weather events.

However, ***agriculture*** in the UK has significant potential to address the challenge of producing for the future as well as tackling climate change.

The ***emissions*** profile of ***agriculture*** is fundamentally different from that of other sectors because ***greenhouse gases*** are emitted from inherently variable, biological processes linked to all kinds of ***agricultural*** production.

Producing more with less is key; through more efficient use of inputs and reduced environmental impact, but there is no 'one size fits all' solution. Farming needs a fair share of water and better protection of ***agricultural*** ***land*** from flooding, in order to give farmers the confidence to invest for an increasingly uncertain future.

The UK Farming Unions (NFU, NFUS, UFU and NFU Cymru) call upon the UK Government and the Devolved Administrations, together with European and world leaders to acknowledge the unique capacity within the ***agricultural*** sector for tackling climate change, feeding a growing population and providing a range of other ecosystem services as the climate changes.

Our key asks:

Advance improvements in farm productivity and efficiency, where appropriate through sustainable

intensification, in order to enhance ***agriculture***'s resilience and reduce its ***greenhouse gas*** footprint.

Strengthen research that supports the ***land***-based sector, and ensure that developments and breakthroughs are effectively and rapidly translated into commercially viable advice for farmers.

Unlock the huge potential contribution of ***land***-based renewables to national energy security — including solar, wind, mini-hydro, anaerobic digestion and other forms of sustainable bioenergy — recognising the substantial diversification income opportunity that renewable energy brings.

Ensure that carbon ***accounting*** systems 'credit' the added mitigation benefits that ***agriculture*** can deliver, through carbon storage and renewable energy export.

Use sound scientific evidence when including ***agriculture*** in future national and international

climate agreements.

Recognise the complex economic and public policy goals for ***agriculture*** that exist beyond climate change adaptation and mitigation.

**Load-Date:** December 9, 2015

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[***Demand for meat has become a global threat***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HG7-58P1-DXXV-40P2-00000-00&context=1516831)

Financial Times (London, England)

November 27, 2015 Friday

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**Section:** FT REPORT - MANAGING CLIMATE CHANGE; Pg. 6

**Length:** 851 words

**Byline:** Clive Cookson

**Highlight:** ***Agriculture*** Farmers' role as contributors to ***greenhouse gas*** ***emissions*** is being overlooked, says Clive Cookson

**Body**

Largely hidden from the debate about man-made ***greenhouse gas*** ***emissions*** and the contribution of different sectors of human activity to climate change is one of the biggest culprits: ***agriculture*** - and meat production in particular.

Estimates vary somewhat, depending on what is included, but papers from the Intergovernmental Panel on Climate Change suggest that farming and associated changes in ***land*** use ***account*** currently for 20 to 25 per cent of global warming.

The most important contribution comes from the livestock sector which is responsible for 14.6 per cent of global ***greenhouse gas*** ***emissions***, according to research published this week by Chatham House, the London-based policy institute. That is equivalent to ***emissions*** from all the road vehicles in the world.

Chatham House argues that a worldwide shift to "healthier diets" with less meat must play a part in the battle against global warming. "There is a compelling case for . . . addressing meat consumption," its report says. "However, governments are trapped in a cycle of inertia. They fear the repercussions of intervention, while low public awareness means they feel no pressure to intervene."

Farmers are discussed far more as potential victims of climate change than as direct contributors to the problem. "Our study shows that livestock farming is off the radar for most people as a big source of ***greenhouse gases***," says Laura Wellesley, co-author of the Chatham House report.

Not one national ***emissions*** reduction plan submitted ahead of the Paris climate summit featured a cut in meat consumption, she adds: "Governments are afraid to interfere in lifestyle choices for fear of public backlash."

The big difference between ***agriculture*** and the other sectors responsible for global warming is the chemical nature of its ***emissions***. The energy industry, transport, manufacturing and construction sectors contribute mainly by emitting carbon dioxide derived ultimately from fossil fuels, which is the most important ***greenhouse gas*** overall.

***Agriculture*** and food production also emit substantial amounts of carbon dioxide. A new report by Lux Research of Boston estimates that producing 1kg of beef protein requires 380 megajoules of primary energy, the equivalent of three gallons of petrol.

But the most damaging aspect of ***agriculture*** is its generation of two other ***greenhouse gases***, methane and nitrous oxide, both of which have a much more powerful atmospheric warming effect, when measured molecule for molecule, than carbon dioxide.

The biggest single emitter is the bovine digestive system. The grass and other plants eaten by cattle and, to a lesser extent, other livestock undergo a process known as enteric fermentation. This produces large amounts of methane, about 100kg per year for an average cow, which is burped, belched and farted out of the animal. That amounts to a lot of methane from the world's 1.5bn cattle; the US Environmental Protection Agency says it ***accounts*** for almost a third of ***agriculture***'s ***greenhouse gas*** ***emissions***.

Smaller ruminant animals, such as sheep and goats, are somewhat less ***emission***-intensive than cattle. Pigs and chickens are much less harmful as meat sources than beef because their digestion releases relatively little methane.

In addition to methane directly emitted by animals, manure is a significant source of methane and nitrous oxide as it decomposes. Arable farming also emits these gases, for example through the breakdown of nitrogenous fertilisers and the activity of some crop roots and associated microbes in the soil - particularly in rice paddies - but the quantities are less than those from livestock.

There are technical ways to cut such ***emissions***, the EPA says. Feeding practices and other livestock management changes can reduce the amount of methane produced by live animals, for instance by improving pasture quality and breeding more productive cattle. Manure can be processed in ways that control decomposition; the resulting methane can even be captured and burnt as a source of renewable energy.

Chatham House authors welcome such moves, but they say the main requirement is action by governments to cut meat consumption - a campaign that would chime with evidence that a diet containing more plant-based protein sources would be beneficial for health too. Last month a report by the World Health Organisation identified red meat as a probable and processed meat a definite cause of cancer.

In the developed world meat consumption per capita has reached a plateau, though at excessive levels, Chatham House says. The average inhabitant of an industrialised country eats twice as much meat as experts deem healthy; in the US the multiple is nearly three times.

But the real threat for the future comes from the "protein transition" playing out across the developing world and especially in China, where rising incomes are leading people to eat more meat. "Reducing meat consumption is a real win-win for health and for the climate," says Ms Wellesley. "As governments look for strategies to close the Paris ***emissions*** gap quickly and cheaply, dietary change should be high on the list."

**Load-Date:** November 26, 2015

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[***Should we all go vegan if it will save the planet?***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5J3S-XMJ1-DY9P-N13W-00000-00&context=1516831)

The Evening Standard (London)

February 17, 2016 Wednesday

Edition 1, National Edition

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**Section:** EDITORIAL; OPINION COLUMNS; Pg. 15

**Length:** 578 words

**Byline:** Richard Godwin

**Body**

THE most interesting thing about Leonardo DiCaprio's triumph at the Baftas was the manner in which he celebrated. At the banquet, the star of The Revenant demanded his own special menu and busied himself with an aubergine tian, a quinoa salad and a coconut crÈme brûlée with fresh raspberries. We can only imagine the excesses that followed.

DiCaprio is - we believe - a vegan. Gwyneth Paltrow claims that he was the one who set her on the path to spirulinamunching virtue. Once upon a time, avoiding all animal products would have been an eccentric look for a Hollywood leading man. Vegetarianism, sure, but veganism seemed a little... shall we say cranky? ( Joke: How can you tell a vegan? You can't, they tell you!).

But DiCaprio represents a slight change of emphasis. A less heralded screen role last year was his introduction to Cowspiracy: The Sustainability Secret, a crowd-funded documentary that's building a cult following on Netflix - clean-eating queen Ella Woodward raved about it when I interviewed her recently.

While the film doesn't flinch from horrible things in abattoirs, its focus is less on animal suffering or veganism's health benefits (they have lower rates of obesity, diabetes, cardiovascular disease and many types of cancer) but on the environmental impact of the meat industry.

The genial presenter Kip Anderson offers stunning facts: livestock and their byproducts ***account*** for 51 per cent of global greenhouse ***emissions*** (far more than vehicle exhausts); meat-rearing is responsible for 90 per cent of Amazonian destruction; ***emissions*** from ***agriculture*** are predicted to increase 80 per cent by 2040. And no, organic stuff isn't much better.

Anderson concludes with direct invective - go vegan and save the planet - and increasing numbers of young people are taking him at his word. As his co-director Keegan Kuhn put it: "Water use, deforestation, soil, ***forest*** erosion, ocean dead zones - all of these things could stop immediately if we all chose to stop supporting this industry. Virtually no other lifestyle change has that sort of impact."

Even if you take a less sensational approach (the UN puts the ***greenhouse gas*** ***emissions*** figure at 24 per cent), it's hard to argue with the basic contention. The first response is usually more like a yelp: "But bacon! But Roquefort!" Perhaps this builds into a more coherent defence of community, tradition and evolutionary heritage, or a more considered ***agricultural*** perspective. The fact remains that billions of us eat in a way that's unsustainable, and we could do better.

Which leads us to a more profound question. Will change come by millions of individuals choosing to alter their habits? Or would we be better off investing in collective action? For there are surely legislative avenues that could be explored - carbon and water taxes, sustainability incentives, advertising restrictions - as well as vested interests that could be challenged. Change is cultural, true, but there's no surer way of changing a culture than changing a law.

That's not to say that eating less meat isn't a worthwhile personal choice - hey, no animal products were consumed in the lunch break of this column. But the problem with our obsessive emphasis on lifestyle is that it then becomes a matter of pure individualism. Of shopping. It means we judge and blame each other for ruining the planet while virtue-signalling our own meat-free consciences. And eating is political, just like everything else.

@richardjgodwin

**Load-Date:** February 17, 2016

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[***Countryfile - 5:37 PM GMT***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5K51-D5P1-JBH6-C0V3-00000-00&context=1516831)

TVEyes - BBC 1 North West

July 3, 2016 Sunday

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**Section:** U.K. REGIONAL TV; Lifestyle

**Length:** 789 words

**Anchors:** John Craven

**Highlight:** Countryfile reports on rural and envionmental issues in the United Kingdom. By visiting different parts of the British countryside the presenters uncover the topics of wildlife, conservation, farming, food production and social history.

**Body**

**Speech to text transcript:**[[2]](#footnote-3)1

in Paris last year will be breached. And the world would be unable to avoid catastrophic climate change. So, what's causing these harmful ***agricultural*** ***emissions***? This has to be the most hi-tech cow shed I've ever seen.

Yes, these are respiration chambers. We use them to measure the oxygen that a cow consumes and the methane and other gases she produces. Professor Chris Reynolds of the University of Reading says that cows are a major emitter of methane, a potent ***greenhouse gas***. One thought, we've come up to the front-end. Is that the right place to be? Well, it is in terms of where the methane is emitted from the cow. Virtually all the methane a cow produces is eructated, or belched, as opposed to coming from the back end of the cow. Why is it that cows and sheep, I gather, produce so much methane? So, the cow's stomach has billions of microorganisms that help her digest her feed. Specific microbes that ***account*** for that methane production. Right, and that's just a pretty much inevitable fact of the biology of ruminants like cows. It's part of what makes a ruminant a ruminant. On average, the estimate is that, for a lactating dairy cow, she would be producing about 600 litres of methane a day. COWS LOW That means in one year, a cow emits enough energy to drive an average car about 2,000 miles. But that's just part of the problem. Alongside methane, mainly from cattle and sheep, nitrous oxide is emitted into our environment, largely from heavily fertilised crops. Overall, ***agricultural*** ***emissions*** are far more than jokes about farting cows. Professor Lord Krebs certainly isn't amused. He advises the government on tackling climate change and says that farm-related ***emissions*** are a serious problem. Why is it important that farming now gets to grips with its climate change responsibility? Well, if we're serious about the Paris Agreement, we've got to tackle all ***greenhouse gas*** ***emissions***, and ***agriculture*** and ***land*** use change ***account*** for between a fifth and a quarter of the world's ***greenhouse gas*** ***emission***. We are farming, after all, to feed people, and we're going to have many more people on this planet. How much more difficult does that make this problem? It's what some people have called the perfect storm. We've got a growing population, going up to probably 9Â½ billion by mid-century. As people get richer from countries like China, they switch from a plant-based diet to a meat-based diet. And meat has a much bigger environmental footprint than a plant-based diet does. Everybody needs food, and we want delicious and nutritious food, we've got to produce it with a lower environmental impact. In total, ***agricultural*** ***emissions*** make up around 9% of the UK's ***greenhouse gases***. The question of how to minimise these ***emissions*** while still being able to feed a growing population is something ***agriculture*** has been grappling with for some time. And six years ago, the industry introduced voluntary action plans. So far, two thirds of farmers have changed the way they work. You really get an idea of the scale of it when you come round. Yes. This must have cost you a wee bit. Julian Gold is one of them. Across his 1,500 acres of arable ***land*** in Oxfordshire, he's gone big to become more efficient. We're standing next to an extraordinary machine here, but how does something like this help you reduce your ***greenhouse gas*** ***emissions***? All our machines are ten metres wide, including our combine harvester, and everything operates on the same set of wheelings. About 80% of the soil in our fields never, ever gets trafficked by any machines. And that's really important to preserve the soil's natural structure. By not disrupting the earth, gases stored in the growing cycle can remain locked in the ground. So that means the nitrogen can be doing its work in terms of growing better crops, rather than leaking into the atmosphere and contributing to climate change. Exactly. I think it's a win-win because you've got to think long-term in farming. When we get weather events like this, droughts and storms, your crop yields are much more robust if you've got quality soils. Also we're using less diesel in the tractors. It's cutting our costs. So you don't think you have to be a sort of climate change-fighting evangelist to go down this route. No, because it's going to pay It might take a few years, but it's going to pay back eventually. THUNDER RUMBLES Despite farmers like Julian taking action, a perfect storm is brewing. Since 1990, the UK has seen just a 16% drop in ***emissions*** from ***agriculture***, which is poor compared to other sectors. So to really make a difference,

**Load-Date:** July 3, 2016

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[***At climate summit in Washington, UN officials call to take action 'to the next level'***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JPK-PFS1-F0K1-N0TM-00000-00&context=1516831)

M2 PressWIRE

May 6, 2016 Friday

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**Length:** 675 words

**Body**

May 5, 2016

Recalling that just two weeks ago, 175 countries came to the United Nations to sign the historic Paris Agreement on climate change, Secretary-General Ban Ki-moon today said it is time to take climate action to the next level.

"We need to accelerate the speed, scope and scale of our response, locally and globally," Mr. Ban told participants of the Climate Action Summit 2016 in Washington D.C, a two-day meeting that started today and aims to strengthen the multi-stakeholder approach to climate implementation.

In particular, it is expected to deepen and expand the action coalitions of government, business, finance, philanthropy, civil society and academic leaders launched at the Secretary-General's Climate Summit 2014 in New York.

"I have been looking forward to this event because it is about solutions - innovation and imagination; collaboration and partnerships between the public and private sectors. Today as never before, the stars are aligning in favour of climate action. Everywhere I look, I see signs of hope," he said.

Noting that the current Summit would focus on six, high-value areas of multi-stakeholder partnership: sustainable energy; sustainable ***land***-use; cities; transport; and tools for decision-making, the UN chief underscored that strong partnership would be needed at all levels to tackle those challenges.

"No sector of society and no nation can succeed alone. I encourage you to collaborate. Innovate. Invest. Together we can build the world we want," he said.

The signing of the Paris Agreement on 22 April received overwhelming support from all regions of the world; never before had so many countries signed an international accord in one day.

Adopted in Paris by the 196 Parties to the UN Framework Convention on Climate Change (UNFCCC) at a conference known as COP21 last December, the Agreement's objective is to limit global temperature rise to well below 2 degrees Celsius, and to strive for 1.5 degrees Celsius. It will enter into force 30 days after at least 55 countries, ***accounting*** for 55 per cent of global ***greenhouse gas*** ***emissions***, deposit their instruments of ratification.

"Two of the world's largest emitters - China and the United States - have pledged their continued commitment and collaboration," Mr. Ban stressed, noting that leaders must turn the "promise of Paris" into action and implementation as soon as possible.

The UN chief also announced that in September, on the margins of the G20 meeting, he intends to co-convene a meeting in China similar to this one to further solidify coalitions.

Also speaking at the event, the President of the World Bank Group, Jim Yong Kim said there is no time waste.

"Political agreements are critical but they are just the beginning. We must regain the sense of urgency we all felt on the eve of COP21. Inaction means we will not meet our targets set in Paris, and the global temperature will soar above 2 degrees Celsius. That would spell disaster for us, for our children, and for the planet," he warned. Mr. Kim highlighted the World Bank Group's Climate Action Plan, developed soon after the Paris agreement, which aims to increase its support in a range of areas - from water to crowded cities and from ***forests*** to ***agriculture***.

"One part of our plan is to help countries put a price on carbon, which will create incentives for investments in renewable energy and in energy efficiency," he explained. "In many parts of the world, we have seen the price of renewables like solar and wind falling fast - so fast that they are now competitive with fossil fuels. Private sector investments are pouring in. But we need to expand these breakthroughs and help countries establish the right policies that will drive down the cost of renewable energy even further."

Over the course of two days, the Summit is expected to drive high-level engagement with "global luminaries" addressing plenary sessions on how to deliver on climate commitments and embed the transformation agenda across the globe in government, key sectors and among the general population.

**Load-Date:** May 6, 2016

**End of Document**



[***Let's put these climate control talks on ice; Negotiations to prevent global warming have achieved little. We must now focus on how to deal with its effects***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HHR-8XF1-F021-650K-00000-00&context=1516831)

thetimes.co.uk

December 4, 2015 Friday 12:01 AM GMT

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**Section:** IRISH OPINION

**Length:** 842 words

**Byline:** Cormac Lucey

**Body**

I knew that things were coming to a head at the UN Climate Change Conference when RTE's redoubtable George Lee was lifted out from his post at the Farm Centre, where he was reporting on the Irish Farmers' Association crisis, and dropped into Paris last weekend.

According to the organising committee, the objective of the event is to achieve, for the first time in more than 20 years of negotiations, a binding and universal agreement on climate change from all the nations of the world.

The great and the good have assembled to take part. They include 138 heads of government. Mary Robinson is there, Enda Kenny attended and even the Prince of Wales is due to make an appearance.

The conference must confront several problems. Despite previous attempts to curb climate change - the Kyoto Protocol was concluded in 1997 - man-made carbon dioxide ***emissions*** continue to grow and grow. This has occurred despite many warnings.

In March 2009, Prince Charles told 200 business leaders in Rio de Janeiro that the world has "less than 100 months" to save the planet. That was 78 months ago. Such warnings have prompted a change of course in the developed world, especially in western Europe. With the 2009 Renewable Energy Directive, the European Union aims to generate 20 per cent of its energy needs from renewable sources by 2020. Ireland's target is for 16 per cent of our gross final consumption to come from renewables in four years from now.

However, there are several issues with these goals. If the future is to be solar-powered, problems will arise because of cloud and the issue of matching supply with demand. Solar energy generates the most power in the middle of the day during the summer months, but western Europe's demand for energy peaks in the dark evenings of our winter months.

Wind energy is also problematic because it is intermittent. It depends on varying wind strength, so even if we try and conserve wind power we will still have to rely on fossil fuels as a source of energy on standby for when the wind drops. This is both expensive and inefficient.

The biggest issue is that the targets were adopted unilaterally. While we can indulge in righteousness, the stated cause of the problem - man-made CO2 ***emissions*** - continues to grow as the rest of the world becomes more industrialised. The UN conference in Paris is supposed to come up with a binding treaty that changes this, but that prospect is very unlikely.

China, the world's largest emitter of ***greenhouse gas*** ***emissions***, is expected to double its CO2 ***emissions*** over the next 15 years. India, the third largest emitter, is expected to treble its output by 2030. The danger is that, in order to demonstrate some tangible progress, the EU will set even more ambitious targets for itself. That could pose problems for Ireland, and especially for our agribusiness sector.

Ireland had agreed to cut ***emissions*** by 20 per cent between 2005 and 2020, but the Irish and European environmental bodies believe that we are now on track to achieve a reduction of just 3 per cent. Our transport sector ***accounts*** for 30 per cent of our ***emissions*** and is set to grow significantly, but it's in the ***agriculture*** sector - 45 per cent of ***emissions*** - where our real difficulties lie. Ireland has large herds of cattle that create methane gas, and we are planning to expand our cattle industry even further. NGOs have said that a 25 per cent cut in beef production would halve ***greenhouse gas*** ***emissions***.

The immediate economic danger is that we will have to buy carbon credit permits for missing out on the agreed targets, while even more ambitious targets are set for the future. To really get to grips with the problem, we may have to consider the establishment of more ***forests***.

A key obstacle in persuading our citizens of the need for such drastic measures is that there still remain doubts among the public about the science of global warming. For all of the talk of unprecedented global warming, the world has in fact been heating up for 200 years, ever since the Little Ice Age, between 1350 and 1800. The rise in temperature of half a celsius between 1975 and 1998 was no greater than that recorded between 1910 and 1940.

My fear is that the science underpinning global warming is correct, but has become hopelessly politicised and its potential exaggerated. On top of that, policy makers can only offer voters pain today in return for some sort of gain tomorrow, which is not a politically appetising offering. There is also the difficulty of persuading the developed world to reduce ***emissions*** when the developing world is fast expanding them.

Worse yet, it seems that policy makers have been too slow to react to the impact of CO2 ***emissions***. The world faces a rise of 2C (35F) between now and the end of the century, at the very least. While their goal is to prevent global warming, it seems to me that their attention (and ours) might be better spent on devoting greater resources to cope with its effects. That would mean a lot less political posturing and a lot more scientific research and development.

**Load-Date:** December 4, 2015

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[***Growing more grass could be key to hitting emission targets; Soil under grassland can be used to 'lock up' carbon dioxide, says Royal Irish Academy***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JP4-HHT1-JC8Y-844M-00000-00&context=1516831)

The Irish Times

May 4, 2016 Wednesday

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**Section:** IRELAND; Pg. 8

**Length:** 614 words

**Byline:** Dick Ahlstrom

**Body**

Cattle eat grass and

emit tonnes of ***greenhouse gases***, making it difficult for Ireland to meet its international climate-change commitments.

However, growing more grass might provide a way to achieve our ***emission*** targets and help slow global warming.

Ireland's huge livestock population means about a third of its ***greenhouse gas*** ***emissions*** come from ***agriculture***. The challenge is how to reduce the carbon dioxide and methane releases without having to put limits on meat production. The solution might come down to nothing more complicated than growing more grass.

The soil under grassland has the ability to capture and lock up carbon dioxide, and the Royal Irish Academy believes this carbon-capture could offset the carbon released by livestock.

The academy's climate change and environmental sciences committee has prepared an "expert statement" on this carbon offset and how it could help bring down our net ***agricultural*** carbon footprint.

The problem is there is not a lot of research that proves soil can be made to hold more carbon, says Prof Gerard Kiely, head of civil, structural and environmental engineering at University College Cork. He is the primary author of the committee-approved but as yet unpublished statement.

"There is evidence that grassland soils sequester carbon, but this is not currently recognised when dealing with carbon inventories anywhere in the world. The IPCC [Intergovern- mental Panel on Climate Change] does not accept it," Prof Kiely said.

**Forestry**

Sequestration of carbon in forestry is long established and is taken into ***account*** when calculating a country's national ***greenhouse gas*** discharges.

The research has been done for forestry but not for grasslands, Prof Kiely said. Without evidence it would be impossible to convince the IPCC to accept grassland sequestration.

Allowing the offset would be a major benefit given Ireland had the largest proportion of ***land*** under grass across Europe, said Prof Kiely, who is based in UCC's Environmental Research Institute.

Ireland has 67.1 per cent of ***land*** under grassland, but only 15.2 per cent under woodland and shrubland. In contrast, Sweden is allowed to offset the carbon locked up in the 76.6 per cent of its territory that is woodland or shrubland, thus helping it to achieve ***emission*** targets.

"What we feel is that there is potential here [for grassland sequestration] and if properly quantified then Ireland, with its large amount of grassland coverage, would benefit from proving this carbon sequestration," Prof Kiely said.

There is considerable research from Germany that quantifies grassland carbon offset. Scientists from the Technical University of Munich measured soil "carbon saturation" and found that soils were only holding about half as much carbon as they could.

Their study, *Global Change Biology*, said that if the soils of Bavaria were able to be pushed to saturation, they would hold about 400 million tonnes. This represents about four times all the ***greenhouse gases*** Bavaria releases in a year.

**Current *emissions***

Ireland has binding ***emission*** targets for 2020, but the Environmental Protection Agency warned in March that it would not make them. Ireland would not be even half-way to the targets on the basis of current ***emissions***, so being able to include grassland sequestered carbon would be a major help.

Winning a reversal of the IPCC position on grassland depends on conducting the research to prove sequestration happens and at the correct level, Prof Kiely said.

For this reason he has called for a concerted effort to bring research to bear on the questions involved. This would require "a national effort of soil carbon monitoring across the country for a period of years".

**Load-Date:** May 3, 2016

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[***Countryfile - 5:36 PM GMT***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5K51-D5P1-JBH6-C0W3-00000-00&context=1516831)

TVEyes - BBC 1 Wales

July 3, 2016 Sunday

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**Section:** U.K. REGIONAL TV; Lifestyle

**Length:** 474 words

**Anchors:** John Craven

**Highlight:** Countryfile reports on rural and envionmental issues in the United Kingdom. By visiting different parts of the British countryside the presenters uncover the topics of wildlife, conservation, farming, food production and social history.

**Body**

**Speech to text transcript:**[[3]](#footnote-4)1

And is the plan eventually to have and sailing and competing? Yes, she's been painted up to go And a fantastic sight she will look. Yes, she will, she will be a big sail, big crew and a big sight.

Well, a lick of paint is giving this old girl a new lease of life. a working reminder of the rich history of this estuary. Now, it's claimed that ***agriculture*** emits more ***greenhouse gases*** It's hard to believe, when you look at this pastoral But when it comes to climate change, in fact they are. and producing the food we eat is responsible for around a Now a new report says that if farm-related ***emissions*** aren't in Paris last year will be breached. binding global climate plan agreed avoid catastrophic climate change. So, what's causing these harmful ***agricultural*** ***emissions***? This has to be the most hi-tech cow shed I've ever seen. We use them to measure the oxygen that a cow consumes Professor Chris Reynolds of the University of Reading says that cows are a major emitter of methane, a potent ***greenhouse gas***. One thought, we've come up to the front-end. Well, it is in terms of where the methane is emitted from the cow. as opposed to coming from the back end of the cow. Why is it that cows and sheep, I gather, produce so much methane? So, the cow's stomach has billions of microorganisms that help Specific microbes that ***account*** for that methane production. fact of the biology of ruminants like cows. On average, the estimate is that, for a lactating dairy cow, COWS LOW a cow emits enough energy to drive an average car about 2,000 miles. But that's just part of the problem. Alongside methane, mainly from cattle and sheep, nitrous oxide is emitted into our environment, fertilised crops. Overall, ***agricultural*** jokes about farting cows. Professor Lord Krebs certainly isn't amused. and says that farm-related ***emissions*** are a serious problem. Why is it important that farming now gets to grips with its Well, if we're serious about the Paris Agreement, and ***land*** use change ***account*** for between a fifth We are farming, after all, to feed people, How much more difficult does that make this problem? We've got a growing population, going up to As people get richer from countries like China, And meat has a much bigger environmental footprint than delicious and nutritious food, we've got to produce it with In total, ***agricultural*** ***emissions*** make up around 9% of the UK's The question of how to minimise these ***emissions*** something ***agriculture*** has been grappling with for some time. So far, two thirds of farmers have changed the way they work. This must have cost you a wee bit. Julian Gold is one of them. Across his 1,500 acres of arable We're standing next to help you reduce your ***greenhouse gas*** ***emissions***?

**Load-Date:** July 3, 2016

**End of Document**



[***World Meat Free Day 2016: Would eating less meat really combat climate change?; If every Briton went vegetarian, we could cut our greenhouse gas footprint by 25 per cent***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5K0R-1SN1-F021-62KP-00000-00&context=1516831)

The Independent (United Kingdom)

June 13, 2016 Monday 11:29 AM GMT

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**Section:** ENVIRONMENT

**Length:** 880 words

**Byline:** Mike Berners-Lee

**Body**

With the food system ***accounting*** for up to a third of global ***greenhouse gas*** ***emissions***, anything that reduces its impact will make a big difference to the climate.

It is a system riddled with inefficiencies and waste. Humans don't simply eat food straight out of the ground, of course. It's harvested, stored, processed - or fed to animals who are in turn slaughtered and processed - and finally packaged and delivered. Each of these stages uses energy, which means ***emissions***.

In very rough terms, the world grows about 6,000 calories per person a day in edible crop harvest. That is about three times the 2,000 calories a day that end up getting to be eaten by humans. This would be enough to feed everyone if we shared it round perfectly, which we don't, so some people go hungry while others eat more than is good for them.

So what happens to the massive 4,000 calories per day gap between field and fork and what has this got to do with going vegetarian or even vegan?

Read more

Meat industry creates as much ***greenhouse gas*** as all vehicles combined

Here, again in rough numbers, is how the missing calories can be ***accounted*** for:

About 900 are ***agricultural*** waste, much of which is simply left in the ground. Supply exceeds demand or the crop is deemed not able meet customer standards.

About 500 go to biofuels. This is not necessarily a bad thing, but it is something we need to keep a very close eye on if we are ever to achieve a low-carbon world. If free market forces were allowed to do their thing we could see a huge shift from food crops to more profitable fuels, at the expense of nutrition in poorer countries.

Around 600 calories are then lost in post-harvest waste. This is mainly an issue in developing countries and is inherently solvable, at face value, through the provision of such things as sealed containers to keep food dry.

Chicken is a significantly more efficient energy source than beef

So far in the story from field to plate there is still a plentiful 4,000 calories per day left for feeding people. Around 1,700 of these are fed to animals. The animal diet is further supplemented with a substantial amount of grass, some but not all of which is grown on ***land*** that could alternatively be used to grow yet more human food.

Animals - some more than others - add an intrinsic inefficiency into the food chain, using up energy for such things as walking around and keeping warm (per kilo of meat, poultry do a lot less of less of this through their lives than cows, making chicken a significantly more efficient energy source than beef). A mere 500 calories per person per day come back out of the animal food system as meat and dairy foods. So the inefficiency of our meat and dairy diet leads to a loss of 1,200 calories per person per day, excluding any grassland that could be used for edible plant crops. And meat consumption is rising fast in developing countries.

Read more

World Meat Free Day 2016: Why vegetarianism could be our future

Veganism grows by 360 per cent in Britain: David Haye, Novak Djokovic and Venus Williams among athletes choosing to go meat-free

Vegetarian recipes for Meat Free May

To finish off the story, around 800 calories are lost to processing, distribution and household waste, of which the biggest element is household waste in developed countries - the homes of most of the people reading this are included here. Inadequate sharing of the remaining 2,000 that humans actually eat means that some people end up obese while others are hungry.

Seen in this way, the world food system looks to be brimming with opportunities for improvement. If we can get organised - which of course is not at all easy - we ought to be able to use new technologies and deploy best practices to increase yields, as well as cutting out most of the 2,300 calories that are wasted. Even with a rising population - and even with climate change adversely affecting ***land*** fertility in some areas - we ought to be able to feed everyone while improving biodiversity and increasing the biofuel output somewhat.

Our animal intake puts a huge and growing pressure on the food and ***land*** system. If the world went vegan overnight we might be able to feed several billion more people and double biofuel production, even without tackling waste or improving yields.

We need to be asking how plants can become more aspirational foods than cows. But if we are still going to eat meat, stick to chicken which has only about one-tenth of the carbon footprint per kilo of Brazilian beef. This is partly because a chicken is a more energy-efficient meat producer, partly because chickens don't ruminate, or chew the cud (which emits methane, roughly doubling the footprint of a cow) and partly because chicken farms are less strongly associated with deforestation.

Our studies of the footprint of UK dietary choice have shown that going vegetarian might cut the ***greenhouse gas*** footprint by 25 per cent. However the same reduction can also be made through modest actions split across what for most UK people are the three most important things you can do to cut your food carbon: reduce meat, switch type of meat and, of course, cut waste.

Mike Berners-Lee​ is Visiting Researcher, Lancaster Environment Centre, Lancaster University.This article originally appeared on The Conversation

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**Load-Date:** June 13, 2016

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[***The secretive trade agreements that could scupper climate change ?action?; Global trade deals like TTIP and TPP will lead to an increase in greenhouse gases and negate any agreement on climate change***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HGW-RG91-F021-6505-00000-00&context=1516831)

The Guardian

November 30, 2015 Monday 5:04 AM GMT

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**Section:** GUARDIAN SUSTAINABLE BUSINESS

**Length:** 837 words

**Byline:** Devlin Kuyek

**Body**

While all the focus and hope for tackling climate change is on COP 21 in Paris, starting today, secretive global trade deals are already negating any commitments that might be made at the summit.

The texts from the various trade agreements, including the Trans-Pacific Partnership (TTP), make it clear that they will increase production, trade and consumption of fossil fuels.

Related: Transatlantic trade deal will undermine climate talks in favour of big business | Mark Dearn

What we know of the EU trade deals with Canada (Ceta - Comprehensive Economic and Trade Agreement) and the US ( TTIP - Transatlantic Trade and Investment Partnership) points to significant increases in European fossil fuel imports from North America, and a restriction of the policy space to promote low-carbon economies and renewables.

Trade deals are particularly bad news when it comes to food and climate change. The global food system is already responsible for around half of global ***greenhouse gas*** ***emissions***. The World Bank is projecting that ***emissions*** from ***agriculture*** and food could ***account*** for as much as 70% (pdf) of total allowable ***emissions*** to keep below a 2C temperature rise by 2050, if governments continue to ignore the problem.

If we are going to deal with climate change, we have to overhaul the global food system. But a new generation of trade deals will amplify ***emissions*** from the food system.

**Trade deals and *emissions***

At a most basic level, trade deals are designed to open up markets and increase trade of the highest emitting foods - meat and dairy. For example, TPP will boost US pork and beef exports to Asia and US dairy exports to Canada. TTIP is expected to open Europe's border to more US beef. Australia's dairy exports to China, up 300% in the past eight years, are a big reason why the two countries just signed a trade pact. The flow of cheap imports resulting from these deals will play a part in increasing global consumption of meats by 76% by 2050.

Trade agreements also favour food production from intensive farms and large-scale plantations. When China joined the World Trade Organisation and opened its market to soybean imports the result was a dramatic expansion of soybean plantations in the ***forests*** and savannahs of the southern cone of Latin America and a corresponding rise in intensive pig production in China, fed on the imported beans.

New trade deals will likely do the same for maize imports. Meanwhile, the EU economic partnerships with Africa threaten to undercut traditional backyard poultry, perhaps the lowest emitting source of meat on the planet, with frozen cuts of industrial chicken from Europe, which are high up on the ***emissions*** scale. Obama has just retaliated against attempts by South Africa to protect its own local poultry industry.

Some of the most serious impacts from trade deals result not so much from the immediate lifting of trade restrictions but the creation of new advantages for foreign investors that lead to longer term changes in what and how people eat.

Related: Biggest food and drink companies found to be ignoring impact on climate

Once Mexico began implementing the North American Free Trade Agreement (Nafta), investment from foreign food companies and retailers flooded in, bringing with it a drastic increase in the consumption of processed foods that are high on the ***emissions*** scale, partly because of all the packaging but mainly because these foods are made with high ***emissions***, imported ingredients, such as powdered milk and palm oil.

The trade deals also contain measures that allow food companies to challenge popular initiatives that are good for the climate but impinge on their profits. "Buy local" programmes, with their obvious benefits to fighting climate change, are generally considered discriminatory and trade distorting under free trade doctrine. The TTIP, for instance, may forbid initiatives to support the use of local foods in public services like schools and hospitals.

The same is true of initiatives to support "green" purchasing or programmes to require purchasing from small- and medium-sized enterprises in the name of mitigating climate change. Both of these types of effort can be contested by companies as discriminatory, under the investor-state dispute mechanisms contained in many trade agreements.

While we can say that ***agriculture*** has been getting more attention in climate change discussions over the past two years, this has yet to result in a comprehensive assessment of the role of our food systems, much less in meaningful government action. What governments have presented so far is sparse and heavily dominated by the industry's most polluting companies, as can be seen in the Global Alliance for Climate Smart ***Agriculture***, a group dominated by the fertiliser lobby.

In trade agreements, where the real binding commitments are made and subjected to corporate-led dispute settlement, governments are moving in the opposite direction and not even acknowledging the mismatch between their trade and climate agendas.

**Load-Date:** November 30, 2015

**End of Document**



[***£10m fund will support groups to set up green projects***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5H3C-4WF1-JDMP-B2FJ-00000-00&context=1516831)

Aberdeen Press and Journal

October 7, 2015 Wednesday

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**Section:** BUSINESS; FARM/FOOD; News; Pg. 38

**Length:** 360 words

**Byline:** Gemma Mackenzie

**Body**

The Scottish Government yesterday launched a new £10million scheme to help kick-start joint environmental projects.

The Environmental Co-operation Action Fund, which forms part of the Scottish Rural Development Programme, aims to support the costs of planning and setting up co-operative environmental projects.

Farm Minister Richard Lochhead said: "People who work the ***land*** are the custodians of Scotland's magnificent natural environment. Our country's stunning landscapes, iconic wildlife and diverse ecosystems are world-renowned and underpin our rural economy.

"This fund will support collaborative projects aimed at increasing biodiversity, improving water quality and managing flooding - measures that will not only protect the environment, but help it thrive and flourish. And, with the ***agriculture*** and ***land*** use sector ***accounting*** for a fifth of Scotland's ***greenhouse gas*** ***emissions***, this scheme will also contribute to Scotland's world-leading climate change targets as part of the greenest Common ***Agricultural*** Policy (Cap) we have ever had."

The first application round for the new scheme opened yesterday and will close on January 15, 2016.

Farmers, foresters and other ***land*** managers are invited to apply for support to help plan, facilitate and oversee "landscape-scale environmental projects involving co-operating groups". Funding will be targeted towards projects which meet government environmental priorities including control of invasive non-native plant species, deer management and woodland creation.

The government said once a co-operative group had been formed, it could then apply for further support from the Agri-Environment Climate Scheme and/or Forestry Grant Scheme to help fund on-the-ground work.

Forestry Commission Scotland has also confirmed it will run a forestry co-operation option as part of the Forestry Grant Scheme.

Applications to ECAF will be assessed on a competitive basis by the government's Rural Payments and Inspections Division (RPID), Scottish Natural Heritage, the Scottish Environment Protection Agency and Forestry Commission Scotland.

Successful applicants will be offered for contracts for up to five years from 2016.

**Load-Date:** October 7, 2015

**End of Document**



[***New fertilisers will be a 'game changer' - Teagasc; Environmentally friendly nitrogen set to reduce burden of EU emissions targets***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5K0W-VPT1-JBVM-Y3F6-00000-00&context=1516831)

Irish Independent

June 14, 2016 Tuesday

Edition 1, National Edition

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**Section:** FARMING;NEWS; Pg. 5

**Length:** 496 words

**Byline:** DARRAGH MCCULLOUGH ; LOUISE HOGAN

**Body**

IRISH ***agriculture*** got a major break in the last week with the news that a combination of new environmentally friendly fertilisers and revised ***accounting*** systems will significantly reduce the sector's ***greenhouse gas*** ***emissions***.

Teagasc researchers working in partnership with Northern Irish scientists have established that the current ***emissions*** model for farming over-estimated the contribution of chemical and organic fertiliser by as much as 85pc.

As a result, ***agriculture***'s ***emissions*** will fall by 750,000t, or nearly 4pc from the current total.

"This is all peer reviewed so the data can be adopted by the EPA straight away. Every country that produces its own verifiable data is entitled to use it, just as the likes of New Zealand have already done," said Dr Karl Richards, Teagasc's head of soils and ***land*** use at Johnstown Castle.

At an industry update in Dublin on Friday, Teagasc experts also revealed that a new type of nitrogen fertiliser could reduce farm ***emissions*** by another 750,000t if it is widely adopted by farmers.

An enzyme inhibitor that slows the conversion of urea to ammonium have been shown to reduce the emmissions of N2O by over 70pc. The gas is one of the most serious climate altering gases.

In addition, the additive reduces the losses of ammonia by almost 80pc.

"This is a real game changer, and we are pretty excited about it," said Dr Richards.

Crucially, the new type of urea is already available to farmers here at prices that are similar to current rates for either urea or CAN.

One of the better known brands is KAN from Koch, but it is believed that other major fertiliser brands here are planning to offer the product in the near future.

"It's a complete no-brainer for farmers because they are getting better bang for their buck because more of the nitrogent that they apply will actually end up in the plant rather than going up into the sky," said Dr Richards.

Trials Teagasc trials on four different sites with the product over the last three years have shown that the product produced similar grass and barley yields to CAN.

Farmers and policy makers had feared the worst ahead of the EU's 2020 deadline to reduce ***emissions*** by 20pc. It was believed that the ***agriculture*** sector ***accounted*** for 33pc of the country's climate-changing gas production.

Department of ***Agriculture*** officials were warning the new farm minister that "much of the low hanging fruit has already been picked" as the industry increased output, while simultaneously being told to reduce ***emissions*** to 20pc less than the levels in 1990.

"We are approaching the limit of achievable efficiencies," warned Minister Michael Creed's officials in briefing documents.

"It will be difficult to maintain the downward trajectory in overall ***emissions*** figures."

Minister Creed said that his department was in negotiations at EU level to ensure Ireland 's target was reasonable. "Things like the Beef Data and Genomics Programme will deliver more over a period of time. But there is a limit," he said.

**Load-Date:** June 14, 2016

**End of Document**



[***Food at COP21: three new initiatives spotlight food insecurity, soils, waste; Food was high on the agenda at the Paris climate talks this week-here are some of the highlights***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HHS-YCB1-JCJY-G00D-00000-00&context=1516831)

The Guardian

December 4, 2015 Friday 2:01 PM GMT

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**Section:** ENVIRONMENT

**Length:** 1114 words

**Byline:** Emma Bryce

**Body**

It's become a catch-22 of our times: the global food system is both a villain and a victim of climate change. ***Agriculture*** ***accounts*** for almost a quarter of global ***greenhouse gas*** ***emissions***, and yet floods, drought, and the planet's increasing climatic variability play with the fate of our food. Continuing on the current climate trajectory will mean a future of profound food insecurity, especially for developing nations.

This week, these concerns have been prominent on the agenda at the COP21 climate talks in Paris. For the first time at a COP conference, ***agriculture*** had its own dedicated focus-day, held on Tuesday by the Lima-Paris Action Agenda (LPAA), a partnership established between France and Peru to showcase and strengthen on-the-ground climate action in 2015 and beyond. "For years, ***agriculture***, food systems, including oceans, including ***forests***, have been knocking hard at the door-and now there's movement starting," said David Nabarro, former special representative of food security and nutrition for the United Nations, at the LPAA ***agriculture*** press briefing on Tuesday afternoon.

That door should have been yanked open a long time ago, considering that our food systems are due to bear so much of the brunt of climate change. But there are strong signs of progress. The world needs creative solutions if we are to reduce ***agricultural*** impact and feed everyone on the planet (an estimated nine billion by 2050)-and some of the best have recently been aired at the talks.

Here are three that caught my eye: each places our global food system squarely on the climate table.

Charting future insecurity

The first step in prioritising food systems is to confront what will happen if we don't. On Tuesday at COP21 the World Food Program and the U.K.'s Met Office Hadley Centre launched a new, interactive mapping tool that predicts, in unprecedented detail, how future climate scenarios could influence food security, especially in the world's developing nations. Based on five years of meteorological and ***agricultural*** research, the Food Insecurity and Climate Change Vulnerability Map shows how food security could change at the individual country level, either worsening or improving depending on three variables that users can tweak on the map: time scale (you can choose between the present day, 2050s, 2080s), ***emissions*** (low, medium, high), and adaptation (high, low, none).

As a starting point, the map could help countries forecast their food security risk and inform their planning, says Richard Choularton, chief of climate and disaster risk reduction at the World Food Programme. "The results of the analysis can provide some insight into vulnerability at the national level, when the specific factors behind the index are unpacked." For example, in one country road access might emerge as the main limit on food security, in another it might be the variability of rainfall.

The map also shows what can be achieved if reduced ***emissions*** are paired with increased adaptive measures-like climate-smart ***agriculture***-to make food systems more secure. "What's most important, especially in the context of Paris, is that mitigation or adaption alone is not enough," Choularton says. "We need a very serious combination of both."

Keeping soil carbon on lockdown

The planet's soils naturally hold vast quantities of carbon-two to three times more carbon than the air. Releasing it through unsuitable, soil-degrading ***agricultural*** techniques will contribute to climate change and also reduce soil health-but, if we keep more carbon locked in the soil, it has the power to both mitigate climate change and increase ***agricultural*** productivity.

On Tuesday as part of the Lima-Paris Action Agenda, hundreds of partners joined to launch ' 4/1000 ', an initiative designed to increase the storage of carbon in the earth: "If we were to increase the amount of carbon in the soil by just 0.4% then we would compensate entirely for the increase of carbon in the atmosphere-just to show how huge the potential is," says Frank Rijsberman, CEO of the CGIAR Consortium of International ***Agricultural*** Centers, one of the partners contributing to the initiative. As part of 4/1000 the CGIAR itself is proposing a $225 million project that aims to increase carbon storage by promoting better farming techniques in developing world ***agriculture***. Methods like agroforestry and reduced soil tillage could keep carbon enclosed in the soil, leading to a 20 percent boost in yields, and in theory offsetting ***greenhouse gas*** ***emissions*** by 15 percent. The benefits will be three-pronged, says Rijsberman: "We will mitigate ***greenhouse gas*** ***emissions***; adapt ***agriculture*** to climate change and thus improve food security; and improve ecosystem functioning."

Global brainstorm on food waste

An estimated 1.3 billion tons of food is lost and wasted annually between farm and fork, producing 3.3 Gigatons of carbon dioxide equivalent each year. On Tuesday at COP21, the Food and ***Agricultural*** Organization (FAO) and the International Food Policy Research Institute announced that to counter it, they're launching a new platform that will encourage G20 member countries, the private sector, and NGOs to pool their resources toward the goal of fighting food waste. Today, that new forum-called the G20 Technical Platform on the Measurement and Reduction of Food Loss and Waste -goes live.

The platform is designed to "provide up to date information on policy, strategy and actions for food loss and waste reduction, and share best practices across countries-something which is badly needed," says Anthony Bennett from the Rural Infrastructure and Agro-industries Division at the FAO. G20 member countries-which include China, Brazil, South Africa, the United Kingdom, and the United States-along with other countries, will be encouraged to use the forum to share what works for them in cutting food waste, and what doesn't. As the platform grows, it will also feature a database of low-cost, accessible technologies available to tackle this problem. The hope is that the platform will become a place where countries can unite and ultimately scale up their efforts to reduce the global impact of food waste.

These are just three of the many projects worth knowing about: as part of the Lima-Paris Action Agenda, several other food-focused initiatives were launched this week, touching on everything from low-carbon beef to the sustainable management of marine food systems. You can read more about those at this link: [*http://newsroom.unfccc.int/lpaa/****agriculture****/press-release-lpaa-focus-****agriculture****-at-cop21/*](http://newsroom.unfccc.int/lpaa/agriculture/press-release-lpaa-focus-agriculture-at-cop21/)

**Load-Date:** December 4, 2015

**End of Document**



[***Countryfile - 00:01 AM GMT***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5K6M-6X51-JBH6-C4S6-00000-00&context=1516831)

TVEyes - BBC 2 Wales

July 11, 2016 Monday

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**Section:** U.K. REGIONAL TV; Lifestyle

**Length:** 757 words

**Anchors:** John Craven

**Highlight:** Countryfile reports on rural and envionmental issues in the United Kingdom. By visiting different parts of the British countryside the presenters uncover the topics of wildlife, conservation, farming, food production and social history.

**Body**

**Speech to text transcript:**[[4]](#footnote-5)1

largely from heavily fertilised crops. Overall, ***agricultural*** ***emissions*** are far more than jokes about farting cows. Professor Lord Krebs certainly isn't amused. He advises the government on tackling climate change and says that farm-related ***emissions*** are a serious problem.

Why is it important that farming now gets to grips with its climate change responsibility? Well, if we're serious about the Paris Agreement, we've got to tackle all ***greenhouse gas*** ***emissions***, and ***agriculture*** and ***land*** use change ***account*** for between a fifth and a quarter of the world's ***greenhouse gas*** ***emission***. We are farming, after all, to feed people, and we're going to have many more people on this planet. How much more difficult does that make this problem? It's what some people have called the perfect storm. We've got a growing population, going up to probably 9Â½ billion by mid-century. As people get richer from countries like China, they switch from a plant-based diet to a meat-based diet. And meat has a much bigger environmental footprint than a plant-based diet does. Everybody needs food, and we want delicious and nutritious food. We've got to produce it with a lower environmental impact. In total, ***agricultural*** ***emissions*** make up around 9% of the UK's ***greenhouse gases***. The question of how to minimise these ***emissions*** while still being able to feed a growing population is something ***agriculture*** has been grappling with for some time. And six years ago, the industry introduced voluntary action plans. So far, two thirds of farmers have changed the way they work. You really get an idea of the scale of it when you come round. Yes. This must have cost you a wee bit. Julian Gold is one of them. Across his 1,500 acres of arable ***land*** in Oxfordshire, he's gone big to become more efficient. We're standing next to an extraordinary machine here, but how does something like this help you reduce your ***greenhouse gas*** ***emissions***? All our machines are ten metres wide, including our combine harvester, and everything operates on the same set of wheelings. About 80% of the soil in our fields never, ever gets trafficked by any machines. And that's really important to preserve the soil's natural structure. By not disrupting the earth, gases stored in the growing cycle can remain locked in the ground. So that means the nitrogen can be doing its work in terms of growing better crops, rather than leaking into the atmosphere and contributing to climate change. Exactly. I think it's a win-win because you've got to think long-term in farming. When we get weather events like this, droughts and storms, your crop yields are much more robust if you've got quality soils. Also we're using less diesel in the tractors. It's cutting our costs. So you don't think you have to be a sort of climate change-fighting evangelist to go down this route. No, because it's going to pay It might take a few years, but it's going to pay back eventually. THUNDER RUMBLES Despite farmers like Julian taking action, a perfect storm is brewing. Since 1990, the UK has seen just a 16% drop in ***emissions*** from ***agriculture***, which is poor compared to other sectors. So to really make a difference, do we need to put more radical options on the menu? Maybe reducing the amount of red meat and dairy in our diets, or a complete overhaul of how we farm. Later on - after my lunch, of course - I'll be finding out. Mile upon mile of dramatic coastline. Rolling fields and acres of woodland. Pembrokeshire's landscape is glorious. But look a little deeper and you'll see the British countryside isn't perfect. It's beset by issues from tree disease to climate change, from affordable housing to rural jobs. But here, in a quiet corner of Pembrokeshire, there's a group of people who are dealing with all of those. Western Solar is a small company of passionate individuals doing their bit to make the world a better place. And this is the perfect location to start. Even on a grey day, it's one of the best places in the UK to harvest energy from the sun. So the company built Wales' first solar farm. It not only produces electricity, it also generates funding for their next big project. For that, they've taken advantage of another local resource - trees. These are larch. Now, across Wales, six million are being felled because of larch tree disease. It's a disaster for the landscape, but it also presents an opportunity. Some of those trees ended up here

**Load-Date:** July 10, 2016

**End of Document**



[***Eat less meat to avoid dangerous global warming, scientists say; Research led by Oxford Martin School finds widespread adoption of vegetarian diet would cut food-related emissions by 63% and make people healthier too***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JBV-P5N1-JCJY-G2Y9-00000-00&context=1516831)

The Guardian

March 21, 2016 Monday 7:01 PM GMT

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**Section:** ENVIRONMENT

**Length:** 761 words

**Byline:** Fiona Harvey

**Body**

Growing food for the world's burgeoning population is likely to send ***greenhouse gas*** ***emissions*** over the threshold of safety, unless more is done to cut meat consumption, a new report has found.

A widespread switch to vegetarianism would cut ***emissions*** by nearly two-thirds, it said.

In three decades, ***emissions*** related to ***agriculture*** and food production are likely to ***account*** for about half of the world's available "carbon budget" - the limited amount of carbon dioxide and its equivalents that can be poured into the atmosphere if we are to hold global warming to no more than 2C.

While energy generation, transport and buildings have long been a target for governments, businesses and campaigners looking to reduce ***emissions***, the impact from food production has often been left out. But on current trends, with intensive ***agriculture*** increasingly geared towards livestock rearing, food production will be a major concern.

The research, led by scientists at the Oxford Martin School, found that shifting to a mostly vegetarian diet, or even simply cutting down meat consumption to within accepted health guidelines, would make a large dent in ***greenhouse gases***.

Adhering to health guidelines on meat consumption could cut global food-related ***emissions*** by nearly a third by 2050, the study found, while widespread adoption of a vegetarian diet would bring down ***emissions*** by 63%.

The additional benefit of going further, with the widespread adoption of veganism, brought a smaller incremental benefit, with ***emissions*** falling by about 70% in the projections.

Such steps would also save lives, argued Dr Marco Springmann, lead author of the study, entitled Analysis and valuation of the health and climate change co-benefits of dietary change, and published in the Proceedings of the National Academy of Sciences on Tuesday.

"Imbalanced diets, such as diets low in fruits and vegetables and high in red and processed meat, are responsible for the greatest health burden globally and in most regions," he said. "At the same time, the food system is responsible [currently] for more than a quarter of all ***greenhouse gas*** ***emissions***, and therefore a major driver of climate change."

More than 5m premature deaths could be avoided globally by 2050 if health guidelines on meat consumption were followed, rising to more than 7m with a vegetarian diet and 8m on veganism. These steps, if widely followed, could also reduce global healthcare costs by $1bn a year by mid-century.

Intensive livestock-rearing is a major cause of ***greenhouse gases***, in part because of the methane produced by the animals and the massive slurry pits that accompany large farms. It also diverts water and grains to animal-rearing, which is less efficient than directing the grains towards direct human consumption.

Non-intensive rearing of livestock, such as raising animals on marginal ***land***, could be "an interesting proposal" that would allow meat-eating at lower levels with less environmental harm, said Springmann. "That is one of the discussions that could spring up as a result of our research."

Individuals were often confused by health messaging, food labelling and the availability of foodstuffs, he added, meaning that many people do not realise the harm that over-consumption of meat may be doing them. As populations around the world have grown more prosperous, with the rise of middle class societies in areas that have emerged from poverty, people have tended to switch their diets to include more meat as they have grown richer.

Governments agreed at a landmark climate conference in Paris in December to hold global warming to no more than 2C above pre-industrial levels, with an aspiration of an even lower target, of 1.5C. However, the exact measures that will be required to meet the global goal, and nationally set ***emissions*** targets, have yet to be fully worked out.

Linking health and climate change in challenging our eating habits could have more effect than focusing on each of these issues alone, said Springmann. "By combining the two benefits, you have a more powerful impact. I think this will make more of an impression," he said.

"We do not expect everybody to become vegan. But the climate change impacts of the food system will require more than just technological changes. Adopting healthier and more environmentally sustainable diets can be a large stop in the right direction.

"The size of the projected benefits should encourage individuals, industry and policymakers to act decisively to make sure that what we eat preserves our environment and health," he said.

**Load-Date:** March 21, 2016

**End of Document**



[***Master Plan; A Way Out of the Climate Trap***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5GV5-08H1-JB4C-N0M1-00000-00&context=1516831)

Handelsblatt Global Edition

September 3, 2015 Thursday

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**Section:** POLITICS

**Length:** 1687 words

**Highlight:** Barack Obama wants it, Angela Merkel too: An exit from coal, gas and oil in order to stop global warming. A report by Berlin climate experts say it is possible to do this without sacrificing prosperity.

**Body**

Heat waves, dying glaciers, floods of Biblical proportions - the consequences of climate change are becoming ever more dramatic. And these phenomena are no longer only harbingers.

In the meantime, there is scarcely a day when further shocking news does not alarm the public.

During May and June, thousands of people died from temperatures of up to 50C (122F) in India and Pakistan. At the beginning of August, entire areas in those countries, as well as in Myanmar, were swamped by monsoon rains. California is suffering from the worst drought in 1,200 years. Around the world, glaciers are melting at a record pace, along with the Antarctic ice sheet, which holds 70 percent of the world's supply of fresh water.

In scientific terms, it is not possible to determine to what extent the climate catastrophes are due to coincidental weather phenomena and how much they are due to climate change. But the great majority of researchers are unanimous: Humanity is vigorously heating up the globe by emitting larger and larger amounts of ***greenhouse gases***, particularly carbon dioxide, into the atmosphere.

The National Oceanic and Atmospheric Administration, the U.S. climate agency, announced recently that this June was the hottest worldwide since weather data was first recorded in 1880. It was 0.88C above the average value for the 20th century.

So it's high time to take action.

In June, the heads of seven leading industrial nations worked their ponderous way through to this recognition at the G7 Summit in Elmau in Bavaria, where they had been invited by German chancellor Angela Merkel.

After they had allowed many climate conferences of the United Nations to end without a result, the leaders now made a historic promise: In order to limit the ***emission*** of carbon dioxide (CO2) to an amount the climate can bear - 2C - the world is supposed to bid complete farewell to coal, oil and natural gas by the end of this century.

The U.S. president, Barack Obama, said that climate change is no longer a problem of the next generation: "We have to take action - right now."

But is it realistic to call on the world economy to turn its back on carbon?

"If all these various proposals are adopted, the MCC experts argue that the decline in consumption would be a mere 0.06 percent per year."

Will electricity still flow, cars run and machines operate if we don't burn any more coal or oil? Or can we only save the climate if we renounce growth and prosperity?

Answers to these questions have been given by the renowned Mercator Research Institute on Global Commons and Climate Change (MCC).

On behalf of the business magazine WirtschaftsWoche, the Berlin climate experts used studies by the Intergovernmental Panel on Climate Change to develop a scenario in which the exit from the CO2 era costs almost no decline in economic growth.

The experts show where the fulcrum lies in order to apply the lever in the energy sector, industry, cities and ***land*** use and to meet the goal of an increase of only 2C.

If the consequences are to remain manageable, the Earth cannot be permitted to warm by more than that amount in relation to the level before the beginning of industrialization.

The challenge is huge. Around 15,000 billion tons of CO2 are contained in fossil fuels still in the ground. According to the head of MCC, Ottmar Edenhofer, no more than 1,000 billion tons of it can be allowed to reach the atmosphere. Otherwise the two-degree goal becomes endangered.

At the moment, all countries together emit around 32 billion tons of CO2. If things continue at this rate, the remaining CO2 budget would be used up in 30 years at the latest.

But what is the best way to stop the extraction of coal, oil and natural gas? Mr. Edenhofer proposes that the economy be required to make extremely high payments for every ton of CO2 emitted.

In 2030, $90 would be due per ton. Today the price in Europe under the ***emissions*** trading scheme is $8, payable by only the biggest emitters such as power and steel companies. At the higher amount, "extraction would no longer be profitable, and investments would instead go into clean technologies," the economist argues.

He is also convinced that emerging nations like China and India have to cooperate in worldwide ***emissions*** trading. Especially because they number among the top three climate culprits - along with the United States.

And he calls upon rich G7 countries like Japan, Germany and the United States to support emerging and developing nations in the shift to green energy. "Without transfer payments, there won't be any effective climate policy."

According to the MCC analysis, politicians have room for maneuver when it comes to deciding how to lower ***emissions*** in individual sectors.

Some measures would encounter resistance in the population - this much is clear. It would even be possible to retrieve CO2 from the atmosphere. But the technologies that come under consideration here are controversial, for instance, storing ***greenhouse gases*** permanently underground.

If governments refrain from this method because they fear the response of voters, they would then have to radically reduce the use of carbon fuels in the transport sector in order not to exceed the two-degree limit. That could result in costs rising by as much as 240 percent.

But if politicians follow the path suggested by the Berlin experts, the reduction in consumption in relation to a policy of continuing as before would be manageable - and the Earth would be saved.

The experts at MCC have come up with various proposals for turning this around, covering five sectors: ***Agriculture***, energy, industry, cities and transport.

The first area, ***agriculture***, is responsible for around a quarter of climate change.

In order to reach the climate change targets, ***agriculture*** and forestry would need to stop emitting ***greenhouse gases*** by 2050 at the latest and also contribute to removing CO2 from the atmosphere, for example, through reforestation programs.

One example of how to address the issue is underwater farms, such as that operated by Sergio Gamberini near Genoa in Italy. Under Perspex he grows strawberries, garlic and basil. The upsides to his undertakings are evident. For every ton of food that is grown undersea, no ***forest*** has to be cut down, no greens have to be destroyed to have acres and pastures.

Another area for improvement is food waste. Half the world's food is ending up on garbage dumps. If this could be eliminated, it would cut 6 billion tons of CO2 ***emissions***. Meanwhile, switching to eating vegetables and fruit rather than meat could cut up to 7 billion tons.

A second area is to improve efforts to capture CO2 generated by energy production from the atmosphere. The Swedish company Bioreco, for example, captures the CO2 emitted in the production of biofuels and stores it 2,000 meters underground.

According to MCC, the energy sector, one of the biggest producers of ***greenhouse gases***, has to reduce these ***emissions*** by 105 percent by 2050. However, there may not be enough space to store all of the captured CO2.

That is why the sector needs to turn away from fossil fuels. According to the MCC analysis, renewables, nuclear energy and fossil-fuel production using carbon cature and storage technologies have to provide 80 percent of energy by 2050.

A third area the MCC experts looked at is industry. Factories swallow tons of energy but more efficient technology can reduce the amount of ***greenhouse gases***.

One company that is making strides here is Alunorf, one of the world's biggest aluminum factories, based in Neuss, in Germany's Rhineland region. Owner Thomas Geupel has invested EURO 7.6 million in buying better ovens for his company, which save time, energy and CO2.

MCC estimates that factories like Alunorf have to reduce their ***emissions*** by almost half by 2050 to reach the climate targets.

The fourth area that the climate experts tackle is cities, which contribute 6 percent of the world's CO2 ***emissions***. As a result of increased urbanization and growing prosperity, cities will need three times as much energy by 2050. Nevertheless, they need to reduce their ***emissions*** by a fifth, according to the MCC report.

One city that is making efforts now is Helsinki. Rikhard Manninen, head of the Finnish capital's urban planning agency, has developed a concept to make the city greener by 2050.

Even though he expects the city' population to grow by a third to around 860,000, the city won't produce any more CO2 ***emissions***. To do this, he and his team of architects and city planners want to keep cars from moving in the center of the town. Streets will be car-free and used only by pedestrians and bikes.

The fifth area the analysis looked at is transport, which currently ***accounts*** for 14 percent of ***greenhouse gas*** ***emissions***. MCC says that ***emissions*** in the transport sector need to be reduced by 5 percent by 2050.

There needs to be an increase in the uses of cars and buses that do not run on fossil fuels, such as electric cars that run on hydrogen batteries. Ships and airplanes could also increasingly turn to biofuels, the experts say.

If all these various proposals are adopted, the MCC experts argue that the decline in consumption would be a mere 0.06 percent per year. Applied to Germany, this would mean that in 2014, the economy would have grown around EURO 2 billion more slowly in relation to 2013 - with an economic performance of a good EURO 2,900 billion.

Mr. Edenhofer believes this is money well spent: "Our future ought to be worth that much to us."

The article first appeared in the business magazine WirtschaftsWoche. Anna Gauto, Andreas Menn and Jürgen Rees contributed to this article. To contact the authors: [*politik@wiwo.de*](mailto:politik@wiwo.de)

WHY IT MATTERS

Governments are struggling to come up with ways to fight climate change that do not threaten economic well-being.

FACTS

Experts at the Berlin-based Mercator Research Institute on Global Commons and Climate Change (MCC) have drawn up a climate change analysis.They came up with proposals to reduce CO2 ***emissions*** by 2050 that would require only a 0.06 percent decline in consumption.The proposals cover ***agriculture***, industry, the energy sector, cities and transport.



**Load-Date:** September 3, 2015

**End of Document**



[***Brazilian columnist assesses climate change summit outcome***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HMK-57X1-JC8S-C4MV-00000-00&context=1516831)

BBC Monitoring Latin America - Political

Supplied by BBC Worldwide Monitoring

December 17, 2015 Thursday

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**Length:** 948 words

**Body**

Text of report by leading, centre-left Brazilian newspaper Folha de Sao Paulo website on 14 December

[Column by Fernando Meirelles: "New Environmental Consciousness Might Be On Its Way"]

The cards are on the table. The good news is that this time all countries are on board.

The agreement is better than what was expected as it mentions for the first time a 1.5 degrees centigrade [C] as the desired heating ceiling and a commitment of 100 billion dollars a year, at least, for the adaptation and mitigation of the climate effects in the poorest countries.

The bad news is that if all the countries fulfil what they have proposed in their INDCs [Intended Nationally Determined Contributions] (pollutant ***emission*** reduction targets for each one), the planet might heat up between 2.7EsC and 3.3EsC, which means a catastrophe.

In two words: congratulations for the agreement, but it sucks. There is, however, a glimpse of hope: the revisions of the ***emission*** targets for each country planned for every five years.

If these targets become more ambitious in their new versions, it will still be possible to limit warming to 1.5EsC. This is very bad, but it is the best possible.

It is very bad because, in this scenario, many corals will die, and there will be huge losses of biodiversity and ocean life.

Glaciers will disappear, increasing by hundreds of millions the number of climate refugees and the number of conflicts resulting as a consequence. The sea level could rise by up to one meter. Can Copacabana resist? Drought, floods. But I will stop here.

I will spare you the repetition of the list of what awaits us and try to somewhat summarize what closely observing this COP21 and parallel activities was like.

When news began to become unbearable, the solution was to flee to the tents of the "observers," where hundreds of NGOs, research institutes, universities, banks, and civil society representatives exposed their projects and ongoing actions.

The number of people involved in some aspect of the climate issue has multiplied every meeting. This and the certain euphoria in the air, did not go unnoticed to anyone.

There were projects ranging from floating artificial islands to host the homeless living on the coast lines, new building systems, up to campaign to save the mangroves.

At a project financing panel, a lecturer at Harvard said we are living an intellectual revolution.

He identified and showed that in the past three years there has been a change of appetite in the business world, which is understandable.

There is talk of investments amounting to trillions of dollars in the world to adapt to the new situation.

The figures change depending on who mentions them, but it is true that the world's money will change hands in the next decade. Candidates for this race are on the go and many of them were in Paris.

The market is monolingual and is already talking their language. For us, mortals, it is great news to know that many of them will become billionaires overnight selling photovoltaic panels or batteries, without the consent of the Arabs.

BRAZIL

Cities, transportation, the recovery of degraded ***lands***, the planting of ***forests*** and ***agriculture*** were the main themes present.

What a pity Brazil's ***Agriculture*** Minister, Katia Abreu, did not come to join her colleagues here. Her area ***accounts*** for 20 per cent of ***greenhouse gas*** ***emissions*** in the world. It is true that she is not negletful: in October she launched the so-called "Sustainable Rural Area" project which refers to healthy practices for small and medium size producers.

A total of $26 million are for healthy practices, compared to 94.5 billion reais for the ***agricultural*** industry, which spends much of that in fertilizers and pesticides.

Nitrogen fertilizers release nitrous oxide (N2O), one of the gases that contribute the most to aggravate the greenhouse effect.

As it turns out, Brazil did very well in the meetings but, in practice, we are still going in the opposite direction.

The Great Green Wall, which is a replanted ***forest*** area 27 km wide by 6,500 kilometres long which will cross Africa from the Atlantic to the Red Sea, through 12 countries, is one of the most impressive projects I saw worth mentioning.

In addition to containing the Sahara, it creates a green axis of food production and opportunities for the inhabitants.

The $100 billion per year to aid the poor countries can be used to implement this and other good projects.

At least in that this crisis could have a positive side: turn crisis into opportunity.

AWARENESS

In the 1970s, we talked about the end of the world and the coming of age of Aquarius, when a new awareness would arise. There was in fact the possibility of a nuclear war destroying the planet, but after that I never thought about the subject again. At least until now. I realized that there are already many who are experiencing catastrophes.

We know, in the cases of disaster, that something triggers in the heart or human soul and we start to act as flocks, and not as individuals.

At these times, no one hesitates to donate, to stack up bags or get a foot in the mud to help those who are buried.

I witnessed this feeling at this COP21. Seeing thousands of people hanging around the corridors trying to find solutions, proposing other economic systems, or trying to recover what was already considered lost, struck me that, after all, this might be that new awareness surfacing. That was not all work.

It comes from below, but also seems to have finally touched the top. The prognosis continues to suck, but there is something very new and promising in the air. There is a will. Realizing this was my redemption.

Source: Folha de Sao Paulo website ([*www.folha.com.br*](http://www.folha.com.br)) in Portuguese 14 Dec 15

**Load-Date:** December 17, 2015

**End of Document**



[***Climate change campaigners welcome China's plan to halve meat consumption***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5K2C-M9Y1-JCJY-G264-00000-00&context=1516831)

telegraph.co.uk

June 21, 2016 Tuesday 4:53 AM GMT

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**Length:** 481 words

**Byline:** By Neil Connor

**Body**

Climate change campaigners have welcomed new guidelines which urge Chinese  consumers to eat 50 per cent less meat, even though food experts say enticing the country's growing urban middle classes away from beef and pork will be a huge challenge.

The Chinese Nutrition Society last month called on consumers to reduce the amount of animal-based food they eat from about 300 grams to 200 grams a day and their meat consumption from about 62 kg to 27 kg per year.

The Beijing-backed health agency hopes the guidelines will help ward off a growing obesity and a diabetes time-bomb in China, while global warming campaigners believe they could also result in huge benefits for the planet.

Arnold Schwarzenegger and James Cameron are leading a campaign to reduce meat consumption for the good of the environmentCredit: WildAid

A reduction in livestock would help save ***land*** and water resources and would also reduce the ***emission*** of methane, a highly potent ***greenhouse gas***.

"Livestock emits more than all transportation combined," said James Cameron, the Hollywood movie director, who is fronting a campaign led by advocacy group WildAid which is aimed at helping to reduce meat consumption.

"China's move to cut meat consumption in half would not only have a huge impact on public health, it is also a massive leadership step towards drastically reducing carbon ***emissions*** and reaching the goals set out in the Paris Agreement."

But the new guidelines have changed only marginally from those that were released in 2007, and since then China has been rapidly increasing its consumption of meat, particularly in urban areas.

Can we change your mind about meat?

China's Ministry of ***Agriculture*** said last June that Chinese were eating less than nine kilograms of meat annually in 1978.

While the average Chinese meat eater consumes only about half of what an average American or Australian eats, the world's most populous country was eating twice as much meat as the US by 2012.

"Beef consumption alone has doubled over the last decade," said Paul French, author of Fat China: How Expanding Waistline Will Change a Nation.

"Urban China is fat, and getting fatter - fast," he said.

Professor Yang Yuexin, President of the Chinese Nutrition Society, said: "Our national meat consumption is increasing every year. The increase is mainly from livestock such as pork and beef."

By 2050, food-related ***emissions*** could ***account*** for half of all ***greenhouse gas*** ***emissions*** the world can afford if global warming is to be limited to less than 2C, an Oxford University study said in March.

Switching to a plants-based diet could see a reduction in food-related carbon ***emissions*** by up to 70 per cent, the report said.

The food system is "a major driver of climate change," said Dr Marco Springmann, from the Oxford Martin Programme on the Future of Food, which led the study.

READ MORE ABOUT:

* Asia

1. China
2. Climate change
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**Load-Date:** June 21, 2016

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[***Creed in battle with EU over carbon emissions from farming***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5FGB-HTC1-F0BB-S248-00000-00&context=1516831)

Sunday Business Post

June 19, 2016

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**Length:** 440 words

**Byline:** Michael Brennan

**Highlight:** Fight expected to be one of the state’s biggest battles this year with the EU

**Body**

***Agriculture*** minister Michael Creed is trying to convince the EU that the millions of trees planted here over the past three decades will make up for the rise in ***agriculture*** ***emissions***.

He is involved in what will be one of the state’s biggest battles this year with the EU, which is seeking to get agreement on reducing carbon ***emissions*** in member states by this summer.

The state is currently projected to miss its 2020 targets, which the Environmental Protection Agency says could result in it being forced to pay a bill of “hundreds of millions” of euro for carbon credits by the EU.

The ***agriculture*** sector is being targeted because it ***accounts*** for 30 per cent of the state’s carbon ***emissions*** – compared to an average 10 per cent in other more industrialised EU states.

Creed is hoping to convince the EU that carbon saved by the planting of millions of trees on 312,000 hectares of ***land*** since 1990 should be taken into ***account***.

A spokesman for Creed said he had very positive discussions with climate action commissioner Miguel Arias Canete and ***agriculture*** commissioner Phil Hogan recently.

“The EU recognises that Irish dairy production has the joint lowest carbon footprint (with Austria) in the EU, and that beef production is one of the lowest,” he said.

However, overall ***emissions*** from ***agriculture*** are due to increase by up to 7 per cent during the 2014-2020 period.

There is understood to be considerable scepticism at EU level about some of Ireland’s arguments for getting a lower ***emissions*** reduction target for the ***agriculture*** sector.

Another issue is that objections have emerged in some parts of the country to farmland being planted with trees. Fianna Fáil TD Marc MacSharry said wealthier farmers from other counties were buying up ***land*** in Leitrim to claim state grants for planting trees.

He said this was affecting local farmers who wanted to expand their own farms.

“The forestry service has ambitious targets for planting. We all agree with the strategy but you can’t do it all in one part of the country,” he said.

The European Commission is expected to issue proposals next month on how each state should contribute to the overall target of reducing ***greenhouse gas*** ***emissions*** by 40 per cent on 1990 levels by 2030.

As well as pushing to get tree planting counted towards ***emissions*** reduction targets, the government’s position is also saying there is not much it can do to get farmers to reduce the size of their herds. This is diplomatically referred to as the “lower mitigation potential of the ***agricultural*** sector”.

It is being supported by the Irish Farmers’ Association, which has a strong lobbying operation in Brussels.

**Load-Date:** June 20, 2016

**End of Document**



[***-[CDP press release] Climate action reaches tipping point as corporate 'A Listers' revealed***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HBP-28G1-JD3Y-Y1S3-00000-00&context=1516831)

ENP Newswire

November 10, 2015 Tuesday

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**Length:** 768 words

**Body**

Three weeks ahead of COP21, the UN climate change conference, when national leaders meet to agree a global deal to reduce carbon ***emissions*** and limit global temperature warming, disclosures from the world's largest listed companies reveal the extent to which corporations have shifted their strategies over the past five years to become part of the solution to the climate challenge.

The international not-for-profit CDP - which holds the most comprehensive set of global corporate environmental data - has today issued its annual Climate Change Report on behalf of 822 investors representing US$ 95 trillion.

The new publication includes the 2015 Climate A List, which comprises those companies identified as A grade for their actions to mitigate climate change. Nearly 2,000 companies submitted information to be independently assessed against CDP's scoring methodology; 113 have made the list, which features brands from around the world such as, Apple, Microsoft and Google, the three largest by market capitalization.

CDP's executive chairman and co-founder Paul Dickinson says: 'The influence of the corporation is mighty. The momentum of business action on climate change suggests we have reached a tipping point, where companies are poised to achieve their full potential. They need ambitious policy at both a national and international level that will support them in this regard and will catalyze participation from industry at scale.'

CDP charts the changed corporate landscape over five years, comparing data from 1,997 companies this year, with 1,799 in 2010. Companies globally are taking action and making investments to prepare for the transition to a low carbon economy. For example, at 94%, nearly all companies assign board or senior management responsibility to climate change and three quarters offer incentives for improving climate performance.

Nine of every ten companies now have activities in place that are lowering their carbon output, compared with less than half in 2010. The percentage of businesses with targets to reduce the intensity of their ***greenhouse gas*** ***emissions*** has also more than doubled.

Meg Whitman, President and CEO at Hewlett Packard Enterprise, formerly Hewlett-Packard, which has achieved A List status this year, says: 'We must take swift and bold action to address the root causes of climate change. This means disrupting the status quo - changing the way we do business, holding ourselves and others ***accountable***, and creating innovative solutions that drive a low-carbon economy.'

The growing momentum among the corporate world is coinciding with increasing engagement on climate change from the investor community. If the recently introduced landmark pension fund voting guidelines known as the Red Lines are applied, failure to disclose to CDP may put chairpersons' jobs at risk. And more investors are betting on a sustainable future: US$ 21.4 trillion was invested in 2014 in funds with environmental, social and governance mandates, up 61% in two years1.

Companies are responding to investor needs by improving the quality of the data they report through CDP. However, notable by their absence in CDP's analysis are ***Agricultural*** Bank of China Ltd, Berkshire Hathaway, and Facebook the three largest by market capitalization companies that have failed to disclose to investors via CDP.

1According to the Global Sustainable Investment Alliance: [*http://www.gsi-alliance.org/wpcontent/uploads/2015/02/GSIA\_Review\_download.pdf*](http://www.gsi-alliance.org/wpcontent/uploads/2015/02/GSIA_Review_download.pdf)

About CDP

CDP, formerly Carbon Disclosure Project, is an international, not-for-profit organization providing the only global system for companies and cities to measure, disclose, manage and share vital environmental information. CDP works with market forces, including 822 institutional investors with assets of US$ 95 trillion, to motivate companies to disclose their impacts on the environment and natural resources and take action to reduce them. CDP now holds the largest collection globally of primary climate change, water and ***forest*** risk commodities information and puts these insights at the heart of strategic business, investment and policy decisions. Follow us @CDP to find out more.

About The Climate A List

The Climate A List denotes the companies that publicly disclose through our climate change program and are leading the way globally in their actions to reduce ***emissions*** and mitigate climate change in the past CDP reporting year.

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[Editorial queries for this story should be sent to [*newswire@enpublishing.co.uk*](mailto:newswire@enpublishing.co.uk) ]

**Load-Date:** November 10, 2015

**End of Document**



[***Solar park thrown out after plans labelled harmful to rural outlook***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5J70-26S1-JCG2-C2Y4-00000-00&context=1516831)

Somerset Standard and Guardian

March 3, 2016 Thursday

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**Section:** NEWS:ENVIRONMENT; Pg. 14

**Length:** 381 words

**Body**

Plans for a solar park on farm ***land*** near the village of Nempnett Thrubwell have been rejected by Government minister Greg Clark.

The application, which would have seen solar panels covering nine-and-a-half hectares of ***land*** near Howgrove Farm, had been refused by Bath and North East Somerset Council.

Applicants Green Switch Developments appealed the decision and because of the proposal's significant impact on the green belt site the Secretary of State for Communities had the final say and agreed with the decision of his inspector Anne Jordan.

The inspector said that the solar park was an inappropriate development in the Green Belt and very special circumstances are required to justify such development.

The appeal took into ***account*** a well used footpath which crosses the site and the inspector felt that the solar arrays would urbanise the rural outlook enjoyed by walkers and the security fencing would alter the character of the route.

The scheme would have generated 4.76MW of electricity per year, saving some 2,380 tonnes of CO2 ***emissions***, would contribute towards renewable energy and CO2 ***emission*** reduction targets both locally and nationally.

Both Mr Clark and Ms Jordan decided the proposal would contribute towards targets for renewable energy generation and reducing ***greenhouse gas*** ***emissions***.

But they placed substantial weight on the harm that would arise to the Green Belt by way of inappropriate development, and that harm would occur to openness and to the purposes of including ***land*** in the Green Belt.

Mr Clark was also concerned about the harmful impact upon visual amenity in local views from the public footpath.

He considers that the limited amount of higher grade ***agricultural*** ***land*** that would be put out of full productive capacity for the duration of the scheme adds further weight against the proposal.

Both the Secretary of State and the planning inspector decided the scheme's benefits did not clearly outweigh the harm to the Green Belt and the other harm identified and that the very special circumstances that would have allowed it to go ahead did not exist.

The application had also been opposed by parish councils and local people concerned about extra traffic and also the potential dangers from glare to planes on the flight path to Bristol Airport.

**Load-Date:** March 3, 2016

**End of Document**



[***Irish livestock sector must work towards a secure and sustainable food system***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JBT-C2V1-JCW9-23FR-00000-00&context=1516831)

Irish Examiner

March 21, 2016 Monday

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**Section:** BUSINESS

**Length:** 759 words

**Body**

Given the proportion of Irish ***emissions*** related to ***agriculture***, as an industry we can expect further challenge as part of the debate on ***emissions*** mitigation, and rightly so.

Due to mega trends of population growth and climate change, countries will have to examine ways of producing foods that are climate resilient, nutrient dense and which optimise the use of renewable resources.

Grass-based Irish livestock production will play a significant role in providing a robust and sustainable food production model for consumers.

***Agriculture*** ***accounts*** for approximately 19% of global ***greenhouse gas*** ***emissions***, allowing for carbon sequestration and ***accounting*** for ***land*** use change.

Energy at 75% ***accounts*** for most of the remainder, so it is important that we place ***agricultural*** ***emissions*** in their proper context in any climate change debate.

Any balanced examination should recognise that beef farming provides significant economic benefits to rural Ireland with Dawn Meats alone spending more than 450m in local communities annually.

Many consumers choose beef as a source of high-quality protein, which is appetite-sating and helps with weight control when consumed as part of a healthy balanced diet.

It provides many important nutrients such as iron, zinc, potassium, and B vitamins, with grass-fed beef having substantially greater nutrient levels of omega 3 fatty acids, and conjugated linoleic acid.

The fact that ruminants convert grass into human edible protein is fundamental to food security and, as highlighted by the Food and ***Agriculture*** Organisation, 70% of the world s ***agriculture*** area is covered by grass.

In Ireland, this figure is 80%, with Europe at 40%.

It is regularly reported that the conversion of feed intake to produce beef is not the most efficient.

The relevance of this point must be questioned, given that pasture based livestock consume renewable grass resources that otherwise would go unexploited.

In addition, grasslands act as a carbon sink and livestock farming can help reverse carbon ***emissions*** through rotational grazing and help offset the natural ***emissions*** produced by livestock grazing these same pastures.

In the EU, the average CO2 output per kilogram of beef is 22.1kg, whereas, in Ireland, it is 14% lower.

Simply swapping an Irish cow for an animal produced somewhere else in Europe will actually increase the overall global carbon footprint for the same volume of beef production.

Thus, should Irish climate targets propose pushing beef production to Europe or other parts of the world which are more reliant on cereals and soybeans, this will place additional pressure on food supply chains.

Industry is already making significant progress in carbon efficiency and Dawn Meats is playing its part as one of the first members of Origin Green and sponsor of the Bord Bia Origin Green Programme which is the world s leading sustainability programme in quality food production.

Dawn s 2020 targets of reducing water and energy intensity by 40% and ***emissions*** intensity by 50% are in excess of national and EU targets.

Dawn Meats has also pioneered and supported a number of other important initiatives such as the Better Farm Programme, which promotes profitable and sustainable beef production through improving technical efficiency within the farm gate.

Dawn Meats has also established a suckler-beef farm at Newford, Co Galway, designed to promote innovative practices that enhance on-farm sustainability.

During the period from 2008 to 2014, Dawn Meats also facilitated an independent study on Irish and British farms which demonstrated that an average reduction of 23% in carbon ***emissions*** could be achieved by measuring, managing, and tracking farm inputs.

Significant environmental improvements are being made on livestock farms and a recent report from Carnegie Mellon University in the USA found that because of the lower calorie density of fruit and vegetables, in the USA a lower meat diet resulted in both a higher water and energy footprint.

The issue of carbon ***emissions*** must be considered in a holistic context, leveraging an abundant national grass resource, considering efficiency, economics and food security.

It is clear the Irish livestock sector can play a key part in the local and global solution to both climate change and food security.

For this reason, Dawn Meats was delighted to host the recent first annual Great Agri-Food Debate in UCD with McDonald s and Bord Bia, which opened the floor to the next generation of agri-food leaders to share their thoughts on one of the most important issues of our generation.

**Load-Date:** March 21, 2016

**End of Document**



[***BBC Radio 4 - 8:06 PM GMT***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HNN-CTM1-JBH6-C49X-00000-00&context=1516831)

TVEyes - BBC Radio 4

December 22, 2015 Tuesday

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**Section:** U.K. NATIONAL RADIO

**Length:** 606 words

**Body**

**Speech to text transcript:**[[5]](#footnote-6)1

You didn't 17 98 in his famous treaties that essentially as a problem of population growing faster than the capacity of food production to grow we proved him wrong for 220 years Britain but in the last 20 years actually the grave has been slowed down even the most optimistic people in science no meat production skews all of you can rule more plants but if you're feeding half of the biggest gripe the most powerful basic source of food for the planet if you feel half of that mammals closely you bonkers and secondly it doesn't add up we need to stop them and quicker we can how plants getting down our throats the better sending plants from slow-growing animals or even found scoring as these and efficient use of resources how their hearts return the animals into has cities action Rossi is there enough calories and burn calories as a production bring in is allocated and great modelling has been done over the last 10 years the shows that the rich should beginning to meet have to reduce consumption one come to a notion of a picture of harmony micrograms grams per person per day per year where we'll have to bridge so let's see the trans carry on with his they're actually going to be a problem what can happen when is something in common use of scanners may this is happening because I didn't have any such a busy man you've missed it is a really be normally for at least 10 years you then the world reports have been pointing out a very fundamental important point which is that animals ***account*** for a huge proportion of ***agriculture*** its ***greenhouse gas*** ***emissions*** and I kissed a single biggest emitter of ***greenhouse gas*** ***emissions*** roughly 17 18 19 % of ***greenhouse gas*** ***emissions*** so some western power or if we don't include a culture change and frankly you were commuting soon as that that's not enough easy and that's what I do not belong to now that's what happened because I'm an object to it very differently so one or two to is that from a cold start as if we set aside that we just talk about use of the planet's calories missiles could get that the carbon thing when it comes there are lots of there was run when is it can become a problem just from pure halt production of food when we India China and Brazil for Americans to beat so much world can raise of up against a wall of the people reduce stopping this is about distribution of resources and if you like to know ocean of rationing of how much ***land*** space how much resources to the person normally in highly productive areas say middle of France for southern England were ok you can see changed and edible beat bolton wanderers much for quite a long time most of the scenario point now been really big crises middle of the century the problem won't affect you son went for me but thanks to already happening elsewhere not we've got to start grooving responsible citizenship think there are restaurateurs such as you yourself and others reportedly thought leadership section to put need to the inch of the place rather than Greg hunks of of couples on a plate we've Fetter shies me it's crazy this is stupid actually it's not necessary but if you wanted keep beating his plates keepy small quantities a very good and high winds produced is as important as with the meter to people like me to have wanted to see to it that time it has been something the

**Load-Date:** December 22, 2015

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[***Climate change and the continual demand for economic growth***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JRR-NJ31-JCJY-G02V-00000-00&context=1516831)

The Guardian

May 11, 2016 Wednesday 10:25 PM GMT

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**Section:** ENVIRONMENT

**Length:** 1451 words

**Byline:** Letters

**Body**

The agreement reached at the COP21 Paris climate change talks is certainly a great improvement on anything that has gone before ( One paragraph at a time: how the deal was done to save the planet, 14 December). Whether it is enough to save the planet (to be more precise, save the human race from catastrophe; the planet will look after itself) is questionable. Apart from the question of actual implementation of even the agreed measures (themselves expected to achieve only a 2.7C limit) there are many factors not taken into ***account***. Barack Obama says the deal will create " more jobs and economic growth ". But growth, even "green growth", is precisely the problem. We live on a finite planet with finite resources which we are already exploiting to the limit and beyond. The aim must be to achieve a steady-state economy, with resources fairly shared, but that is incompatible with capitalism's growth imperative.

A glaring omission is the effect of the many armed conflicts currently ongoing, The money allocated to tackling climate change is still dwarfed by that devoted to the means of death and destruction, currently $1.75tn annually. These conflicts themselves contribute to climate change: the US military is the biggest single corporate user of fossil fuels, a large proportion by high-flying jets, where the warming effect is variously estimated as from 1.7 to 4.0 times that at ground level. They inhibit attempts to deal with people's real problems, the effects of global warming among many others. Mass migration, from a variety of causes including conflict and climate change, is another major problem that is ignored in the Paris agreement. There is still a very long way to go to ensure the future of the human race. Frank JacksonFormer co-chair, World Disarmament Campaign

· The Paris accord has been hailed as a diplomatic triumph because the alternative is too awful to contemplate. Nevertheless the atmosphere does not respond to political craft and strategic compromise, it only responds to the laws of physics which are uncompromising and potentially lethal for most species on Earth, including our own.

All of the really tough decisions - such as carbon taxes, country-specific limits and financial penalties - have been shelved, which will allow countries such as India, China and even the UK to carry on burning fossil fuels while paying lip-service to the need to reduce ***emissions***. Instead the goal of 1.5C and even 2C will now rely on unproven and currently non-existent technologies such as nuclear fusion, carbon capture with storage or carbon negative technologies. I pray these will come in time but how many people would get on a flight in the hope that someone can defuse the bomb before it blows up? Dr Robin Russell-JonesStoke Poges, Buckinghamshire

· While the agreement on tackling climate change is welcome, the big test, and the most challenging, will be the implementation. There are substantial business opportunities here, with countries supporting research and development into alternative energy and energy saving being the winners.

In order to develop this commercial opportunity and contribute to global ***emission*** reduction the UK government needs to reverse some of the decisions taken since it came to power. These include: divesting from renewables: privatising the Green Investment Bank; performing a monumental U-turn on the UK's £1bn carbon capture and storage (CCS) competition; reducing subsidies for improving energy efficiency; reducing the requirement for developers to build energy-efficient homes; making fracking easy to achieve and windfarms difficult; and continuing to subsidise fossil fuels.

The UK could be taking a lead, and developing a substantial commercial advantage, instead of backtracking on everything the coalition achieved. David BecketNewcastle-under-Lyme, Staffordshire

· The Paris climate talks followed a pattern that is familiar in international environmental negotiations. At the start of the conference tough commitments and ambitious targets were proposed, including on ***forest*** conservation and the transfer of environmentally clean technology to developing countries. Over the next two weeks many of these were weakened with caveats and, in some cases, quietly abandoned as delegates edged towards a politically acceptable compromise. This is the so-called convoy principle: everyone stays together, but all move at the speed of the slowest. Most disappointing of all is the failure to agree legally binding ***greenhouse gas*** ***emission*** reduction commitments. Without this, the pledge to limit the global temperature rise to less than 1.5C above pre-industrial levels remains purely aspirational. David HumphreysReader in environmental policy, Open University

· The key phrase in Bill McKibben's piece ( Climate deal: the pistol has fired, so why aren't we running?, 14 December) is "You have to raise the price of carbon steeply and quickly", or else the necessary switch to renewable energy will not happen.

In other words, people have to vote for much higher petrol prices, much higher gas and electricity bills and far more expensive air travel. Or, which would be equally unpopular, we could ration these goods. Clearly, neither of these things are going to happen, so can we please stop fooling ourselves that the human race is capable of cutting ***greenhouse gas*** ***emissions*** by enough to prevent runaway climate change.

Therefore, we need to urgently start investing in other approaches, such as geoengineering, carbon scrubbing and reforestation. Otherwise, we do face disaster. Richard MountfordHildenborough, Kent

· Mitchell Anderson argues that cheap oil is the key to beating climate change ( Opinion, theguardian.com, 11 December), but his logic is flawed. In a free market the cheaper fossil fuels are burned first, then more expensive ones. This process does not end until the rising fossil-fuel price crosses the falling renewables price. The total amount of CO 2 (and methane) cumulatively emitted depends on this crossover point; a lower oil price pushes it further into the future, increasing total ***emissions***. The most efficient way to bring forward the crossover, at the same time creating robust, distributed economic value, is a revenue-neutral carbon tax. Professor Nick CowernOswaldkirk, North Yorkshire

· We congratulate the leaders of our world on agreeing to limit the rise in global temperatures to 2C or, hopefully, 1.5C - a clear signal to transform our global economy to decrease ***emissions***. We in the ***agricultural***/scientific sectors have a key role in meeting this transformation by finding sustainable solutions to feeding the ever growing population, particularly in the dry tropics of Asia and Africa. For example, new drought-tolerant varieties of chickpea planted by Ethiopian farmers will lift 0.7 million people out of poverty and have a positive environmental impact.

In addition to climate change, these two continents are already facing the additional, but associated, problems of gender inequality, poverty, political instability etc. We need to redouble our efforts to leverage demand-driven innovation, partnerships and policies that ensure the poor can adapt to climate variability. The hard work starts now. Dr David Bergvinson, Professor Chandra Madramootoo and Dr Nigel PooleInternational Crops Research Institute for the Semi-Arid Tropics (Icrisat)

· Last week it was announced in the journal Nature Climate Change that world carbon ***emissions*** fell by 0.6%. This fall was attributed to the decline in Chinese manufacturing.

The world's politicians pontificate about how to tackle the causes and remedy this problem which is blamed on the industrialised nations.

But surely the answer is obvious: let's buy fewer Chinese goods. Apart from continuing this downward trend in ***emission*** reductions it would make China a much healthier place to live and it would also boost our manufacturing, jobs and economy immeasurably. Simple.

These goods may cost a bit more, but compared with the 10% extra we have added to our fuel bills and are forced to pay to meet EU ***emission*** targets plus the reduction in benefit payments as our unemployed obtain jobs, this could be a win-win policy.

However, there is a problem called the EU, which would do everything in its power to prevent this. Gary FedtschyschakClayton, Staffordshire

· What power, what kinetic energy we have seen in the rivers of Cumbria these last weeks! How many generating plants are there along their banks? I read that small ones need be no larger than a domestic garage. Howard HiltonAudlem, Cheshire

· Join the debate - email [*guardian.letters@theguardian.com*](mailto:guardian.letters@theguardian.com)

**Load-Date:** May 11, 2016

**End of Document**



[***St Helens Biffa depot unveiled as first in £1.5m food waste scheme; Waste services specialist aims to cut amount of food sent to landfill with new handling stations***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5J0J-1JJ1-JCJY-G2XN-00000-00&context=1516831)

liverpoolecho.co.uk

February 2, 2016 Tuesday 6:10 AM GMT

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**Section:** NEWS

**Length:** 394 words

**Byline:** By Neil Hodgson

**Body**

Waste services provider Biffa is creating a network of strategic food waste transfer stations across the UK in a £1.5m programme, with its St Helens depot the first to be unveiled.

The strategy is part of the firm's bid to lead the market in anaerobic digestion innovation.

Four new food waste transfer stations will be used to collect and sort food waste before it is sent to be treated at the company's anaerobic digestion plants in Staffordshire, Leicestershire and West Sussex.

The addition of the transfer stations will enable Biffa to process more food waste, in less time, creating huge efficiencies in the process of ultimately converting it into renewable energy.

The first transfer station has now been installed inside Biffa's existing state-of-the-art waste transfer plant in St Helens, which was built in 2011.

The upgraded facility now has the capability to process general household food waste as well as meat-based food waste produced by businesses.

Further transfer stations are planned in Yorkshire, the South West, the South East and Scotland.

Chris Savage, general manager of Biffa's anaerobic digestion plant at Cannock, one of the largest anaerobic digestion plants in Europe, said: "The UK generates around 15 million tonnes of food waste each year, with businesses in the food service sector ***accounting*** for just under half of this.

"Sadly, 40% of this waste is currently lost to landfill due, in part, to a lack of regulation which would enforce food waste segregation among businesses as well as a lack of facilities to collect food waste.

"Biffa has a long-term commitment to diverting food waste away from landfill. Our investment into the new transfer stations will create great efficiencies in the collection and preparation of food waste before it is sent to our anaerobic digestion plants.

"There, the waste is treated and converted into renewable energy which is exported to the National Grid, as well as an energy rich 'liquid gold' digestate derivative which farmers can apply to ***agricultural*** ***land***."

Disposing of food waste responsibly is becoming increasingly important as landfill diversion becomes the focus of waste management policy.

Research by the Waste and Resources Action Programme (WRAP) says the UK could reduce ***greenhouse gas*** ***emissions*** by 27m tonnes and businesses could save £2bn, if we achieve zero food waste to landfill by 2020.

**Load-Date:** February 2, 2016

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[***How Do Agricultural and Food Production, Distribution and Consumption***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HJB-HW31-DYTG-N1BR-00000-00&context=1516831)

Regional Press Releases: London

December 6, 2015 Sunday 3:40 PM BST

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**Length:** 659 words

**Body**

Offer Solutions to Some of the World's Most Pressing Environmental

Concerns?

***Agriculture*** Writers, Business Editors, Environment Writers

PARIS--(Business Wire)--December 06, 2015

The UN Environment Programme's initiative 'The Economics of Ecosystems and Biodiversity' (TEEB) has initiated a project aiming to show how different food systems and practices can impact the environment, health outcomes and culture.

``We can't afford taking a 'business-as-usual' approach any longer,'' says Guillermo Castilleja, Chair of the Global Alliance for the Future of Food, one of the project's key funders. ``How we produce, distribute and consume food will need to change if we want to address pressing global challenges like climate change, how to feed a growing population, and access to good food for all.''

Experts have long pointed to the fact that the day-to-day operations of food and ***agriculture*** systems are the cause of significant external costs, amounting to some of the highest natural and social capital costs (including health) of any single sector - GHG ***emissions*** from livestock are just the tip of the (melting) iceberg.

Alexander Müller, Study Lead for TEEB for ***Agriculture*** and Food (TEEBAgFood) says the project approach looks to uncover and put a value on some of the invisible costs and benefits of food production, distribution, consumption and waste: ``There's a cost to implicitly valuing the services nature provides at zero, or close to zero, or not factoring in how farming practices impact the ***land***, the people that work it, and communities.''

There are other studies that look at food production and the ``real cost of food'' when considering the hidden costs of food production, but this is the first of this scale, aiming to capture the values of ecosystems services, biodiversity and human well-being across global ***agricultural*** systems, where a variety of farming, distribution, consumption and waste practices are used.

Müller says that the TEEBAgFood Interim Report presents a valuation framework that will compare global food systems with consideration of dependencies and benefits associated to things like ***land*** use change, water consumption, ***greenhouse gas*** ***emissions***, air, ***land*** and water pollution, and waste, along with health impacts from the use of fertilizers and growing obesity rates, as well as impacts on cultural heritage.

``We're incorporating the voices of stakeholders along the entire food chain, from farm to fork, as well as policy-makers and those already involved in the movement towards a true cost ***accounting*** of food. We don't want to reinvent the wheel; we want to facilitate change,'' says Müller.

The study has been commissioned by the United Nations Environment Programme (UNEP) and is being led by Alexander Müller, Former Assistant Director General of the Food and ***Agriculture*** Organization of the UN (FAO), and a group on renowned international experts in agri-food supported by the UNEP TEEB Office in Geneva. The Interim Report will be presented as part of the Global Landscapes Forum in Paris on Sunday, December 6th.

Funding partners include the Global Alliance for the Future of Food, the European Commission and the Government of Norway.

The Economics of Ecosystems and Biodiversity is a global initiative focused on ``making nature's values visible.'' Its principal objective is to mainstream the values of biodiversity and ecosystem services into decision-making at all levels.

The Global Alliance for the Future of Food is a coalition of foundations committed to leveraging resources to help shift food and ***agriculture*** systems towards greater sustainability, security and equity.

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**Load-Date:** December 6, 2015

**End of Document**



[***Protector of the land how one farmer takes 'holistic' approach to producing beef***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HM2-T7W1-DYS1-02BG-00000-00&context=1516831)

The Irish Times

December 15, 2015 Tuesday

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**Section:** IRELAND; Pg. 9

**Length:** 456 words

**Byline:** Barry Roche

**Body**

As he walks his ***land*** overlooking the sea at Ardfield near Clonakilty in Co Cork, Tommy Moyles speaks about seeing a peregrine falcon in full dive after its prey, and how choughs have returned and are thriving on the larvae in dung now that his farm has been converted from tillage to beef.

Describing his approach to beef farming as "holistic", Mr Moyles (34) sees his role in ***agriculture*** as being as much about being a protector of the ***land*** as a producer of premium beef from his 65-strong Simmenthal herd.

And he is also keenly aware of the impact of climate change - a Nuffield Scholarship which allowed him to travel to the United States, Australia and Africa to see farming in other climes led him to appreciate how fortunate Irish farmers are to operate in such a favourable environment.

"I visited one farm in Queensland where one summer they had plenty of rainfall and good grass growth.

"The following summer there was no rain at all and the ***land*** was baked dry and yet they manage to make a living there farming. It's all about adapting to your conditions."

Irish ***agriculture***, with 6.5 million cattle and 3.5 million sheep, ***accounts*** for 32.6 per cent of Ireland's total ***greenhouse gas*** ***emissions***.

This is the highest of any developed country but the high figure is skewed, Mr Moyles argues, by the fact that Ireland does not have any heavy industry.

He acknowledges Ireland must try to reduce its carbon ***emissions*** by 40 per cent by 2030. At first glance, this seems incompatible with plans to expand the Irish dairy herd from 1.2 million animals to 1.5 million by 2025 but he says the move needs to be put in an international perspective.

"It's a big expansion but we visited the International Livestock Research Institute in Kenya where they're hoping to get smallholders to go from milking one cow to two cows; it doesn't seem a lot at first but they have 10 million smallholders so that's 10 million more cows."

**Cool heads**

Mr Moyles reckons it is a time for "cool heads" in ***agriculture*** on the climate change debate but he is not averse to farmers adapting.

He points out that, with a strong clover content in his grass, he has reduced his artificial nitrogen usage from 26 tonnes to 14 since 2012.

He is quick to acknowledge he is fortunate to be able to put cattle out to grass for about 300 days a year due to the mild climate, thus reducing the need for grass silage and other fodder indoors but he believes farmers don't always appreciate "the power that is in grass".

"Feeding cattle on grass produces less methane ***emissions*** than cattle on grass silage, for example.

"Grazed grass has a higher digestibility and lower ***emissions*** so we have an advantage over countries where animals are fed indoors and we should capitalise on that."

**Load-Date:** December 14, 2015

**End of Document**



[***Report shows urgent need need for Irish agriculture to change to produce healthy food with low emissions***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5K7C-90S1-F15K-20WB-00000-00&context=1516831)

Farming Life

July 14, 2016 Thursday

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**Length:** 835 words

**Body**

The new IIEA/RDS report on "climate smart ***agriculture***", which has been launched by Michael Creed TD, Minister for ***Agriculture***, Food and the Marine.

It shows that Irish ***agriculture*** urgently needs to transition towards producing far healthier food with far lower climate ***emissions***.

Farmers must be supported to use less polluting methods that can support increasing biodiversity and water quality.

This is a very different direction from current policy. The report shows the stark need for large changes in Irish ***agriculture*** away from its current livestock focus.

A different course is needed to help address the pressing challenges of increasing global food security and ensuring climate stability.

These realities challenge directly the misleading rhetoric and misguided facts in Department of ***Agriculture*** statements and in Bord Bia's Origin Green marketing programme, which inaccurately claim that business-as-usual, livestock-focused ***agriculture*** is climate smart and sustainable.

Overall, current Irish ***agriculture*** is neither climate smart nor sustainable.

An Taisce's Natural Environment Officer, Fintan Kelly, said: "This report makes it clear that a healthy planet requires a shift away from large-scale red meat and dairy production and consumption and also that a healthy diet means consuming far less of highly climate-polluting and ***land*** intensive foods such as beef and sheep-meat.

"Unfortunately, government policy is focused in exactly the opposite direction to this report's analysis by programmes that increase climate ***emissions*** and detract from food security, environmental integrity and public health."

Fintan Kelly continued: "Current policy is unfairly prioritising the profits of the major food producers that export beef and infant formula milk powder predominantly to relatively wealthy consumers.

"It is failing to protect the well-being of very many farmers, the health of the public and the world's poorest people.

"It is failing to deliver reductions in ***emissions*** and to redress the serious negative impacts of ***agriculture*** and forestry on biodiversity and water quality.

"These policies need to change in accord with producing healthy food distributed fairly on a planet with a stable climate future."

The IIEA/RDS report supports An Taisce's stance that total ***emissions*** from ***agriculture*** need to fall steadily and rapidly to meet climate targets, including Ireland's commitment to serious and urgent climate action in line with the Paris Agreement.

Efficiency gains will not lead to cuts in ***emissions*** if there are more cattle. Ireland's herd is now expanding to over seven million cattle with a 30% planned increase in higher ***emissions*** dairy cattle.

The new report emphasises the importance of reducing ***emissions*** to increase food security and reduce hunger and the need for coherent approaches.

Feeding fertiliser-boosted grass and feed to ruminant animals, cattle and sheep, produces large amounts of methane, a very potent ***greenhouse gas*** adding significantly to global warming. This is not climate smart ***agriculture***.

Furthermore, the significant additional compliance costs for failing to meet EU ***emissions*** targets to 2020 and 2030 are likely to be borne by the Irish taxpayer even though most of the consumers of Irish beef and dairy are in other nations.

However, the IIEA/RDS report fails to fully detail the shortcomings in the current policy plan to allow increased afforestation and biomass energy use to make up for the projected failure in ***emissions*** reduction from continued, large-scale, livestock ***agriculture***.

This plan is contrary to climate science which shows that forestry cannot provide the essential permanent removal of carbon dioxide that forestry cannot provide.

It also depends on deeply flawed EU ***accounting*** for ***emissions*** from burning biomass that are incorrectly being counted as carbon neutral when in fact it often has very high ***emissions***.

Speaking for An Taisce, Fintan Kelly continued: "A different food future is possible, one that supports farmers to produce more food and that genuinely addresses food security with far lower impacts on climate and the environment.

"A rapid transition, away from large scale livestock production, is needed toward more mixed farming with high nature value grazing, higher value-added outputs in specialised areas where markets welcome extensive rather than intensive production systems, and increased native forestry.

"Ireland's ***agriculture*** would then really begin to cut ***emissions*** and deliver for healthy diets. Farmers, the public and the environment that sustains us would benefit greatly from this change."

Despite some confusing contradictions evident in its opening framing, in its main section this report solidly details the research-supported reasons why Ireland's current ***agriculture*** is failing to be climate smart, and why it is not delivering for public health, global food security or for the security of farmers.

The current policy increases the likelihood of future shocks in the food system here and in much poorer nations.

**Load-Date:** July 14, 2016

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[***Meat eating could save the planet***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HNW-8191-F021-61HS-00000-00&context=1516831)

The Guardian

December 23, 2015 Wednesday 6:12 PM GMT

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**Section:** ENVIRONMENT

**Length:** 679 words

**Byline:** Letters

**Body**

George Monbiot's demonisation of meat eating ( Your festive meal could be worse than a long-haul flight, 23 December) is oversimplified and misleading. Factory farming is wasteful and horrific but other forms of livestock-rearing such as pastured grazing provide a highly nutritious source of food using ***land*** that is often unsuitable for horticulture. Pound for pound, pastured meat proteins are more diverse than those of cereals and are similar in terms of water use and carbon ***emissions***. Livestock has an essential role in farming practices like permaculture, which may offer the only viable alternative for sustainable food production, utilising stubble and fertilising fields left to fallow. Pastured animals can improve soil health and repair damage done to it by incessant tilling, provided they are stocked at an appropriate level. Fatty meat provides almost three times the calories per kilogramme as cereals and contains almost every nutrient essential to the human body. Three billion people eat meat-free diets, and 4 billion suffer malnutrition. This does not make a case for going vegetarian.

Without doubt, the rich world needs to eat less meat, but the developing world also deserves to have a share of it. Steppe and other grassland converted to cereals supported huge populations of wild, methane-emitting herbivores, and is essentially neutral at sustainable levels (ie not artificially supported with feed). Similarly, termites emit twice the methane as livestock, but there is no great push for termite eradication. It is the intensity of meat production supported by oil energy that is the problem. Hence, the carbon costs of factory farming systems ultimately derive from the fossil fuels used to grow feed and artificially support the lives of these poor animals, and it must be stopped, if only for the sheer cruelty of the animals' treatment. Chris BrauschKatikati, New Zealand

· As an omnivore who reuses our leftovers and grows quite a lot of fruit and vegetables, I am getting increasingly exasperated by George Monbiot's selective quotation of low-grade literature about meat production. Meat production ***accounts*** for about a seventh of current greenhouse ***emissions***, which could be reduced with simple mitigation measures. Anaerobic digesters have been around since the 1970s - developed to help poor farmers cook in their huts without choking on wood smoke, reducing deforestation in the process. Had the EU not succumbed to vested interests, this technology could have transformed meat production. How about some seasonal cheer next year by campaigning to reduce food waste by banning ever more confusing and complex interlinked supermarket offers, so that good meat does not end up being binned? David NowellFellow of the Geological Society, New Barnet, Hertfordshire

· Farmers here in Britain, and indeed around the world, already know they are on the frontline of climate change. "All aspects of food security are at risk," according to the Intergovernmental Panel on Climate Change. It's no wonder then that farmers representing different farming systems and sizes were at the Paris climate conference, all united by the message that farming is important and that the new COP21 agreement needed to acknowledge this.

Real action is being taken by farmers to tackle climate change. ***Greenhouse gas*** ***emissions*** from UK ***agriculture*** have reduced by about 20% since 1990 and farmers are committed to continuing to play their part through the ***Greenhouse Gas*** Action Plan, helping the UK to meet its Climate Change Act target. It is not possible in a short letter to convey the breadth of work that the NFU's members are undertaking to address George Monbiot's concerns. But I hope that he can be inspired, like I am, by the farmers I meet - the majority of whom are trying every day to do the best job they can, but often have their efforts go unnoticed or unrewarded. Dr Ceris JonesNFU climate change adviser

· Join the debate - email [*guardian.letters@theguardian.com*](mailto:guardian.letters@theguardian.com)

**Load-Date:** December 23, 2015

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[***Protease reduces environmental impact of broiler production***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5GYB-62Y1-DXG5-Y2G1-00000-00&context=1516831)

World Poultry (English)

September 25, 2015

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**Section:** ARTICLES; Vol. 31; No. 7

**Length:** 1645 words

**Byline:** Fabian Brockotter

**Highlight:** The main motivation so far for using protease in broiler production has been to reduce feed costs without any loss of animal performance. The reduction of soy in the diet leads to a reduction for all of the environmental impact categories associated with broiler production.

**Body**

By Dr Adam Smith, market development manager,  Feed Enzymes EMEA Animal Nutrition & Health DSM

Although livestock production has generally been considered to have various negative environmental impacts, broiler production has often been found to be relatively friendly to the environment. This does not mean, however, that broiler production systems do not have features that require special attention in terms of their environmental consequences. A better control of nitrogen ***emissions***, such as ammonia and nitrous oxide that contribute to global warming and nitrate leaching is one area of concern. Such ***emissions*** can occur at many stages of the poultry production chain, including the growing of crops for feed, bird housing and during manure management (Figure 1). Some ***emissions*** can have repercussions that are relatively local, for example ammonia can have harmful effects in and close to poultry buildings, while others, such as nitrous oxide, have a global impact.

The popularity of poultry meat is growing steadily across the globe, with increases in world population, urbanisation and disposable income thought to be the primary contributors. These days it is often the meat of choice for health-conscious consumers looking to reduce the animal fat in their diet. In addition, it does not pose an issue on religious or cultural grounds, unlike some other types of meat. Consequently, in order to keep up with demand and successfully increase output without damaging the environment, the broiler industry will need some operational changes. The ***emission*** of nitrogen is recognised especially as a major environmental problem and its impact is seen in three major areas; global warming potential, eutrophication potential and acidification potential.

**Global Warming Potential**

Global Warming Potential (GWP) is a measure of the ***greenhouse gas*** ***emissions*** to the atmosphere. Man-made ***greenhouse gas*** ***emissions*** are thought to be primarily responsible for global warming, causing the atmosphere to trap higher than usual amounts of outgoing long wavelength (thermal) radiation, translating into higher temperatures. The main sources of GWP are carbon dioxide (CO2) from fossil fuel and ***land*** use changes, nitrous oxide (N2O) and methane (CH4). The sum of GWP per functional unit is more commonly known as the ‘carbon footprint’. N2O is generated from oxidation/reduction of nitrogen compounds in poultry litter during drying, storage and composting and is proportional to the amount of nitrogen excreted in animal waste.

**Eutrophication Potential**

Eutrophication Potential (EP) is used to assess the over-supply of nutrients reaching water systems through leaching, run-off or atmospheric deposition. Eutrophication can occur in both aquatic and terrestrial ecosystems. In terrestrial ecosystems, the nutrient enrichment of soils through ***agriculture*** can eventually lead to drinking water contamination and soil acidification. The main sources are nitrate (NO3-) and phosphate (PO43-) leaching into water and ammonia (NH3) ***emissions*** to the air. Both NO3- and NH3 ***emissions*** are associated with broiler production. NO3- from the application of nitrogen to crops and NH3 is released from litter in the poultry house and when spread on fields.

**Acidification Potential**

The Acidification Potential (AP) is predominantly an indicator of potential reduction of soil pH. The main source is ammonia ***emissions***, together with sulphur dioxide (SO2) from fossil fuel combustion. When SOx and NOx are released into the atmosphere, they can mix with rainwater, forming the acids H2SO4 and HNO3. ***Agricultural*** NH3 ***emissions*** also cause acidification, due to conversion of NH3 into nitric acid in the atmosphere. Acid rain is a threat to plants, animals, humans, general soil, water biology and even buildings. The release of NH3 from litter in both the poultry house and when spread on fields once again plays an important role.

The use of an in-feed mono-component protease, such as Ronozyme ProAct, has proven to be very successful in the fight against nitrogen ***emissions*** due to their ability to improve the amino acid digestibility of commonly used feed ingredients. Ultimately, a more efficient use of protein in feed ingredients translates into less nitrogen excretion in manure, as diets lower in protein can be followed without any loss in the economic performance of the broiler. An additional benefit of re-formulating feeds with a protease is that the amount of soybean in a broiler diet also tends to fall. This has positive consequences for GWP as normally it means the resulting diets have a lower content of ingredients grown in areas of recent ***land***-use change, which in turn means less CO2 ***emissions***.

**Life cycle assessment**

A systematic quantitative approach is essential to effectively evaluate the environmental impact of complex livestock systems such as broiler production. A methodology called Life Cycle Assessment (LCA) is often used to assess holistically the environmental impact of changes in such systems. It takes into ***account*** all the processes in a production chain, starting from the production of the raw materials and ending with waste disposal. For each process, specific data relating to the consumption of resources and the production of potentially harmful ***emissions*** are collected. It can be used as an effective tool to compare the environmental implications of enzyme-assisted processes compared to conventional ones. A recent LCA study has quantified the overall environmental impact when Ronozyme ProAct is added to the feed used in standard indoor broiler production.

**Everything is taken into *account***

This LCA assessment was undertaken for typical soya-based diets without protease, containing standard protein content (control), and compared with a diet that was supplemented with protease. In the protease supplemented diets, the protein and amino acid content was also reduced, in line with the digestibility improvements seen with the enzyme. Seven separate trials were evaluated in all and two scenarios were assessed – the feed production chain and the broiler production chain. Data used for the feed production chain included feed crop production, additive production, ingredient and feed processing, ingredient transport and fertiliser production. Whereas data for the broiler production chain took into ***account*** everything related to feed production plus energy use in housing the broilers, broiler house ***emissions***, storage and ***land*** spreading of the manure, broiler breeder production and hatching. Information for the analysis was sourced from the broiler industry, wherever possible, and it was assumed that all manure was used as a fertiliser.

The results of the analysis of the feed production chain showed that, with protease supplementation, a reduction was seen for all of the environmental impact categories evaluated (Figure 2). The reduction was particularly significant for GWP, reaching a 12% reduction in some cases, with an average of 5%. The main reason for this improvement was a reduced level of soya in the diet when feeding a protease. This was associated with a decrease in CO2 ***emissions***, stemming from ***land***-use changes relating to soya production and its subsequent transport. Small but significant improvements were also seen in EP and larger ones in AP.

When the whole production chain was taken into ***account*** (Figure 3), there was a large reduction in both EP and AP. The largest improvement was seen for the AP, with a maximum reduction of 9% and an average of 5%. This was linked to lower housing and manure ***emissions***, with a particular reduction in NH3. By improving the digestibility of amino acids in protein ingredients, proteases can lead to a reduction of nitrogen in manure, resulting in reduced ammonia ***emission***, which in turn affects both the AP and EP.

**Effective and practical**

The main difference between a normal diet and a protease supplemented diet is a reduction in the amount of soya used. The reduction of environmental impact through this approach is often higher compared with other nutritional studies aiming to reduce soya in broiler diets. For example, the use of realistic inclusions of peas to replace soya reduced the GWP of broiler production by about 4%, but with other European protein sources (beans/sunflower) the reduction was smaller or non-existent. The performance of the birds in these studies was also assumed to have remained unchanged. If, as may be expected with the use of such alternative crops, growth was reduced, the environmental benefits would be even smaller. This indicates that when aiming to improve the environmental performance of broilers, the use of a protease in feed is one of the more promising nutritional strategies, either used alone or combined with other dietary alterations or changes in animal husbandry. Compared with non-nutritional methods aimed at reducing the ammonia ***emissions*** arising from poultry, use of a protease can also be considered more practical, as it requires no change in building design or need for capital investment.

**Combined environmental and economic benefits**

The main motivation for using protease in broiler production has been to reduce feed costs without any loss of animal performance. It now seems clear that such economic benefits are associated with a significant reduction in environmental impact. In certain regions of the world, where regulation determines the amount of nitrogen which can be applied to ***land***, the economic advantages may be further enhanced by the environmental benefits. Protease will not only influence the profitability of an operation, it will also allow an increase in birds reared per unit of ***land*** while complying with environmental legislation requirements. Together with improved air quality for both birds and workers through reduced ammonia ***emissions***, the use of a protease becomes an important nutritional strategy.

**Graphic**

With the supplementation of protease, the level of soya in feed can be reduced, effectively reducing the Global Warming potential up to 12%.

photo: Henk Riswick

**Load-Date:** September 18, 2015

**End of Document**



[***Haze affecting Thai tourism industry***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5H6V-Y3H1-F03R-N062-00000-00&context=1516831)

Deutsche Welle World

October 23, 2015 Friday 1:42 PM EST

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**Length:** 1141 words

**Body**

Oct 23, 2015( Deutsche Welle World: [*http://www.dw.de/top-stories/world/s-1429*](http://www.dw.de/top-stories/world/s-1429) Delivered by Newstex) <nl/> After engulfing Singapore, and parts of Malaysia and Indonesia, thick haze from ***forest*** fires is also causing severe pollution in southern Thailand, and impacting the nation's crucial tourism industry. DW examines. "It's considered a crisis.

It's the worst in 10 years." These are the words of Halem Jemarican, head of the Environment Office in Songkhla, speaking to AFP about the worsening haze situation in the southern Thai province. "The key factor is the wind. It's strong at the hot spot origins but when it reaches Thailand the winds weaken so the haze stays around for longer," he added.<nl/> Caused by ***forest*** fires in Indonesia, the thick smock, which has already shrouded parts of Malaysia and Singapore for two months, has also reached hazardous levels in the five southern Thai provinces of Songkhla, Satun, Pattani, Surat Thani and Yala, making the areas dark and foggy.<nl/> "In Songkhla the dust concentration is three times above the healthy level," Siegfried Herzog, head of the regional office of the German foundation Friedrich-Naumann-Stiftung in Bangkok, told DW. In fact, the pollution index recently hit a record-high reading of 365 in the province. A reading of 101-200 is unhealthy; 201-300 is very unhealthy and above 300 is hazardous.<nl/> As a result, many people in the area have begun wearing masks on the streets and there has been an inundation of patients going to the hospital with pulmonary problems, coughing and wheezing, as Paul Chambers, director of research at the Institute of Southeast Asian Affairs in Chiang Mai, told DW. <nl/> Thai authorities have responded to the crisis by temporarily closing schools, dispensing face masks, and issuing warnings to vulnerable people such as children, the elderly and people with illnesses not to leave their homes. Thai Prime Minister Prayuth Chan-ocha also ordered the deployment of rain-making planes to temporarily clear the air.<nl/> Tourist areas affected<nl/> The next provinces up the peninsula, Narathiwat, Phuket and Phangnga, have dust levels within acceptable margins, but are coming close to the limit. As a result, the tourism industry is starting to feel the impact of the prolonged haze as Phuket and Surat Thani boast pristine tropical beaches which are popular among tourists.<nl/> "With the Indonesian haze conditions much more protracted this year than normal, concerns are escalating that the impact of the haze could extend for at least some more weeks," Rajiv Biswas, Asia-Pacific Chief Economist at global analytics firm IHS, told DW.<nl/> "December is a crucial peak season for the Thai tourism industry, and if the haze continues during November, it could affect tourism bookings as tourists try to avoid the haze-affected tourism destinations in Southeast Asia," the economist added. <nl/> In fact, some tour operators have already complained about several flights packed with tourists being delayed or diverted due to unsafe conditions, as well as about holiday plans being canceled.<nl/> Concerns<nl/> There are also reports of water transportation in some districts of Satun being impeded and of boat navigation becoming increasingly difficult in Phangnga.<nl/> "This is a big issue as shipping tourists around Ao Phangnga (Phangnga Bay) is an important source of income. As we are on the tail end of the rainy season, its low season for tourism so the impact is not that big yet, but if the problem persists it will be painful," said Bangkok-based expert Herzog. <nl/> Tourism is a crucial part of the Thai economy, contributing around 10 percent of GDP taking into ***account*** output and employment multiplier effects throughout the economy. And with the Thai economy already weak due to the impact of political turmoil during 2014 on investor and consumer confidence, economist Biswas believes that, "If the haze conditions damage the tourism sector this will be a further drag on the already weak economic outlook."<nl/> A man-made problem<nl/> The thick, dirty, white haze that has blanketed parts of Southeast Asia is not a new phenomenon, but has intensified this year.<nl/> Although Indonesia is normally one of the rainiest places in the world, climate experts say the fires have been exacerbated this year by the effects of the "El Niño" weather phenomenon - a change in ocean and atmosphere patterns in the Pacific which has drawn rain away from the archipelago. <nl/> The fires are usually man-made and caused by firms and smallholder farmers who engage in illegal slash-and-burn practices as a relatively inexpensive means to clear and prepare vast tracts of ***land*** in Indonesia's Sumatra and Kalimantan islands.<nl/> Indonesia has struggled for years to contain the fires which not only release ***greenhouse gases*** into the atmosphere but also affect wildlife, the rain ***forest*** as well as the quality of life and economy of local residents and neighboring countries.<nl/> Following increased pressure and calls for greater accountability, Jakarta finally ratified last September the 2002 ASEAN Agreement on Trans-boundary Haze Pollution, which requires the parties involved to implement measures to prevent, monitor, and mitigate this kind of pollution.<nl/> Yet, it seems that regional governments are still struggling to find a lasting solution to the problem. The issue has not only heightened tensions between Indonesia and neighboring states, but also had a significant economic impact on the region, not only due to flight cancelations and a spike in medical costs, but also because of the destruction of the rain ***forest*** and damage to crops and vegetation.<nl/> How to tackle the issue?<nl/> Despite deploying about 25,000 personnel and aircraft to fight the fires, Indonesia seems to continue to struggle to contain the ***agricultural*** fires which, according to a disaster management official, could last until the end of November. <nl/> As a result, Jakarta has accepted help from other countries, including Malaysia, Singapore, Australia, Russia and China. "Just now, two giant Russian planes arrived to help douse fires," analyst Herzog told DW, adding he believes President Jokowi seems more willing to combat the problem than his predecessors.<nl/> The Thai Ambassador to Malaysia, Damrong Kraikruan, was recently quoted as saying he believed the haze problem will be discussed at the 13th ASEAN Ministerial Meeting on the Environment and Related Meetings to be held in Vietnam next week.<nl/> According to analyst Herzog, strengthening the ASEAN mechanisms to support Indonesia is probably the best route to take, especially since Indonesia is taking the problem more seriously nowadays. "Nationalist sensitivities are always a problem, so working via ASEAN might be the best way to tackle the issue," he said.<nl/>

**Load-Date:** October 23, 2015

**End of Document**



[***Kenny: We need time to hit carbon targets***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HH3-CC61-JCJY-G3PX-00000-00&context=1516831)

thetimes.co.uk

December 1, 2015 Tuesday 12:37 AM GMT

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**Section:** IRISH NEWS

**Length:** 495 words

**Byline:** Niamh Lyons

**Body**

The taoiseach promised legislation and an increase in funding to help Ireland meet long-term carbon ***emission*** targets yesterday.

However, Enda Kenny also asked EU heads of state for more time to reach the 2020 target, blaming Ireland's recession and reliance on ***agriculture*** for its lack of progress.

Mr Kenny defended Ireland's record of investing in green measures and asked other leaders to commit themselves to a legally binding target on global warming.

The climate change negotiations in Paris have gathered representatives from 195 countries to discuss the reduction of global carbon ***emissions***. The 21st conference of parties to the UN Framework Convention on Climate Change (COP21) had provided political leaders with a unique opportunity, Mr Kenny said.

"We need plenty of ambition but one that is tempered with reality," Mr Kenny said. "We are serious about achieving fair and sustainable targets but we need space in order to achieve that.

"We have lost a decade of investment in our country that cannot be recovered. Until we have an economic engine to help us to change structures and continue to invest in research and innovation for more sustainable ways of doing ***agriculture***; that presents us with a challenge."

EU law requires Ireland to reduce its ***greenhouse gas*** ***emissions*** by 20 per cent by 2020, and 40 per cent by 2030. It is set to miss both of these targets. The ***agricultural*** and food sectors ***account*** for 30 per cent of the country's ***emissions***.

Mr Kenny said that Ireland had a "national long-term vision" to substantially cut CO2 ***emissions*** by 2050. The government was developing a National Mitigation Plan that would provide "carbon neutrality in the ***land*** sector that does not compromise our capacity for food production," he said, adding that new legislation would target ***emission*** reductions in four areas: ***agriculture***, energy, buildings and transport.

He also added that (EURO)34 million was provided to fund green measures last year, despite Ireland's recent economic trouble.

"We are also examining ways to mobilise private finance from Ireland, to further contribute to the 2020 goal," he said.

"I hope that we are serious about putting in place a legally binding agreement on climate change that will underpin our actions on the goals already agreed and enhance our ability to reach them. This requires action by everybody - big and small.

"We should leave Paris with an ambitious and binding agreement that will ultimately limit global temperature increase to less than 2 degrees above pre-industrial levels."

The Green Party accused the government of "shaming" the country, warning that the coalition will be judged on actions, not words.

"The government are being seen as a laggard, not a leader on climate change, and are shaming us internationally. They have spent huge amounts of political capital pleading with the EU to be recognised as a special case, and get off the hook on EU 2030 ***emissions*** targets," Eamon Ryan, the Green Party leader, said.

**Load-Date:** December 1, 2015

**End of Document**



[***Carbon reduction clock is ticking for farming***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5H05-KPG1-DY9P-N1JJ-00000-00&context=1516831)

Irish Independent

September 22, 2015 Tuesday

Edition 1, National Edition

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**Section:** FARMING;NEWS; Pg. 28

**Length:** 576 words

**Byline:** ALAN MATTHEWS

**Body**

CARBON has rarely weighed heavily on the minds of Ireland's farmers, not even dairy farmers hoping to significantly increase their production following the end of milk quotas.

But carbon should be a concern because Ireland, as part of the EU's climate and energy policies, has limits on the total amount of carbon it can release to the atmosphere in the form of ***greenhouse gases***.

These limits will bite in the remaining years of this decade. By 2020, the EPA estimates that the sectors covered by our national ***emissions*** ceiling, which include ***agriculture***, will be releasing 6-11pc more ***emissions*** than allowed under that ceiling. By 2020 ***agriculture*** will be responsible for 45pc of those ***emissions*** in Ireland, with transport the next most important sector.

This ceiling is set as part of an internal burden-sharing agreement under the EU's Effort Sharing Decision, which allocates the total EU ceiling between the EU member states. Ireland's 2020 target is to reduce its ***emissions*** by 20pc compared to 2005.

The EU has begun to put in place its climate policy targets for 2030. The European Council has agreed to an overall target reduction of 30pc in ***emissions*** from the sectors covered by Management Agency. During the years 2007-2012, (EURO)100m was spent to purchase carbon credits although, because of the economic downturn, there has been no need to purchase further credits since 2009.

Purchasing international credits only makes sense if there are no opportunities to reduce ***emissions*** within Ireland at a lower cost.

However, Teagasc has identified a number of opportunities within ***agriculture*** to reduce ***emissions*** at low or even negative cost, that is, where reducing carbon ***emissions*** can also help to raise farm income.

These opportunities fall broadly under three headings: improving the efficiency of production systems; identifying technologies to reduce ***emissions*** directly; and integrated ***land*** management.

Improving the efficiency of production systems reduces the carbon intensity of production directly. Examples include reducing disease incidence, using sexed semen in animal reproduction and extending the grazing season.

A growing number of farmers are now using the Carbon Navigator to benchmark their carbon performance.

Identifying areas for improvement will both help to improve farm productivity and contribute to higher incomes.

Technological solutions to reduce ***emissions*** are now intensively researched, and we can expect a stream of promising innovations in the future. Examples include novel fertilisers to reduce nitrous oxide ***emissions***, modifying rumen bacteria to release less methane, and using anaerobic digestion of slurry to reduce ***emissions*** and produce bioenergy.

***Agriculture*** is unique in that it can also act as a sink for carbon ***emissions*** as well as an ***emissions*** source. Sinks are where ***land*** use activities help to store or sequester carbon from the atmosphere.

For example, forestry and grasslands can sequester carbon dioxide.

Conversion of grassland to forestry can help to sequester carbon, while conversion of grassland to tillage will release carbon from the soil.

Managing ***land*** use to reduce net ***emissions*** will be increasingly important in Ireland because credits earned in this way will be allowed to offset our national ***emissions*** ceiling in the period after 2020.

Alan Matthews is Professor Emeritus of European ***Agricultural*** Policy at Trinity College Dublin.

***AGRICULTURE*** WILL ***ACCOUNT*** FOR 45PC OF CARBON ***EMISSIONS*** IN IRELAND BY 2020

**Load-Date:** September 22, 2015

**End of Document**



[***Getting wind of a problem: Giving antibiotics to cattle causes greenhouse gases released by COW PATS to double***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JVM-3391-F021-63XW-00000-00&context=1516831)

MailOnline

May 25, 2016 Wednesday 12:01 AM GMT

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**Section:** SCIENCE

**Length:** 1250 words

**Byline:** ABIGAIL BEALL FOR MAILONLINE

**Body**

* Antibiotics are routinely used to improve livestock health and growth

1. But this practice may have unintended impacts on the environment
2. New study shows cow dung releases almost double the methane when the cows are being treated with antibiotics

Antibiotics are used to help tackle infections in both humans and animals, but their overuse has led to growing fears of bacteria becoming resistant to the drugs.

Yet is also seems the use of antibiotics is also having a negative impact on the environment too.

Researchers have discovered an unexpected side-effect of the use of antibiotics in ***agriculture*** - the drugs cause cows to produce dung that is almost twice as gassy as normal.

Methane ***emissions*** from livestock are estimated at about 2.2 billion tonnes of carbon dioxide equivalent.

'In the United States, methane from cattle makes up about a quarter of total ***emissions***,' Tobin Hammer, lead author of the study told MailOnline.

It ***accounts*** for about 80 per cent of ***agricultural*** methane and 35 per cent of the total anthropogenic methane ***emissions***, according to the United Nations.

The study shows antibiotics can affect the microbial ***emissions*** of ***greenhouse gases*** from cow dung by affecting the microbes in cows' stomachs.

'The routine practice of administering antibiotics to livestock can have unexpected consequences for dung biota and ***greenhouse gas*** ***emissions*** from ***agriculture***,' researchers said in the study published in the Proceedings of the Royal Society B: Biological Sciences.

A team of researchers in Colorado gave antibiotics to a group of ten cows to test these effects.

'Antibiotic treatment raised methane fluxes from dung, possibly by altering the interactions between methanogenic archaea and bacteria in rumen and dung environments,' the researchers said.

They found treating cows with antibiotic almost doubles the amount of methane coming from their dung.

'The large (1.8-fold) increase in methane ***emissions*** from the dung of cattle treated with antibiotics has not been documented, despite the considerable literature on methane production from ***agricultural*** systems,' the researchers said.

The researchers think the patterns may be explained by competitive dynamics among gut microbiota.

In the gut of ruminants and other mammals, methanogenic archaea may compete with bacteria for hydrogen, which is often scarce.

Some antibiotics are generally less effective against archaea, which include methanogens found in mammalian digestive tracts.

WHAT CAUSES THE EXTRA METHANE?

The researchers think the patterns may be explained by competitive dynamics among gut microbiota.

In the gut of ruminants and other mammals, methanogenic archaea may compete with bacteria for hydrogen, which is often scarce.

Some antibiotics are generally less effective against archaea, including methanogens isolated from mammalian digestive tracts.

This means  by specifically suppressing bacteria in the gut and subsequently in dung, antibiotics might enable methanogens to outcompete bacteria for hydrogen, increasing their methane output.

Therefore, by specifically suppressing bacteria in the gut and subsequently in dung, antibiotics might enable methanogens to outcompete bacteria for hydrogen, increasing their methane output.

Even though methane occurs in lower concentrations than carbon dioxide, it produces 21 times as much warming as carbon dioxide.

It ***accounts*** for 20 per cent of the 'enhanced greenhouse effect', according to the BBC Weather Centre.

This study is the first evidence that antibiotics increase the ***emissions*** of methane.

'We did not measure belching in this study, and future studies will have to look at this directly, but we think that the antibiotic-induced increase in methane ***emissions*** we found in dung will apply to belching as well,' lead author Tobin Hammer told MailOnline.

'Our findings call for analyses at larger scales that take other factors into ***account***, such as the relative importance of dung versus belching in gas ***emissions***, and the global extent and purpose of antibiotic use in livestock production,' the researchers said.

Other researchers have looked at ways of reducing the amount of gas produced in livestock's guts.

A recent study suggested that feeding cows oregano may help cut the amount of gas they release when they belch and fart.

The team behind the most recent research hopes in future the problem will be monitored more closely to work out what the extent of the impact of antibiotics in livestock is on global warming.

'Antibiotics will always be necessary for treating infections, but I do think we should reduce the amount of antibiotics used, especially for growth promotion,' Mr Hammer said.

'There is already a lot of evidence that ***agricultural*** use of antibiotics can favor the evolution of antibiotic resistance, and our study shows that there are other issues - namely, an increase in methane ***emissions*** from dung, and changes to the microbiome of nontarget wildlife.

'I should note that this effect may differ depending on the particular class of antibiotic that's used, and in our study we focused on a single compound.'

THE PROBLEM OF ANTIBIOTIC RESISTANCE

Antibiotics are one of the most important drugs in the medical armoury, used to treat everything from minor bacterial infections such as conjunctivitis to life-threatening illnesses including pneumonia, meningitis and septicaemia.

But increasingly bacteria that cause these infections are becoming resistant to the drugs.

This is for a number of reasons, including the use of broad spectrum antibiotics (those that are used to treat a wide range of bacteria) when a narrower spectrum one (effective only against specific infections or families of bacteria) might have been enough, and because many patients fail to finish their prescribed course.

It's getting so bad that antibiotic-resistant bacteria could kill more people than cancer within decades. That was the stark warning last week from Chancellor George Osborne as he called for countries to offer multi-billion pound 'prizes' for firms that develop new drugs.

In fact, antibiotic resistance is already here right now, causing problems in GP surgeries and hospitals in the UK.

WHY SEA ICE IN ANTARCTICA HAS INCREASED WHILE THE ARCTIC MELTS

While sea ice cover in the Arctic has been in melting, Antarctica has seen an increase.

Now a new Nasa-led study says the geology of the region and the Southern Ocean are responsible for the difference.

The research came to the conclusion after combining data on sea surface temperature, ***land*** form and ocean depth to study the physical processes on sea ice cover.

They found that two persistent geological factors - the topography of Antarctica and the depth of the ocean surrounding it - are influencing winds and ocean currents.

This drives the formation of Antarctica's sea ice cover and helps sustain it.

'Our study provides strong evidence that the behaviour of Antarctic sea ice is entirely consistent with the geophysical characteristics found in the southern polar region, which differ sharply from those present in the Arctic,' said Son Nghiem of Nasa's Jet Propulsion Laboratory.

The study revealed that as sea ice forms and builds up early in the sea ice growth season, it gets pushed offshore and northward by winds.

This forms a protective shield of older, thicker ice that circulates around the continent.

**Load-Date:** May 25, 2016

**End of Document**



[***Richard Godwin: Should we all go vegan if it will save the planet?***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5J3S-82R1-F021-64XM-00000-00&context=1516831)

standard.co.uk

February 17, 2016 Wednesday 11:01 AM GMT

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**Section:** COMMENT

**Length:** 986 words

**Byline:** Richard Godwin

**Body**

The most interesting thing about Leonardo DiCaprio's triumph at the Baftas was the manner in which he celebrated.

At the banquet, the star of The Revenant demanded his own special menu and busied himself with an aubergine tian, a quinoa salad and a coconut crème brûlée with fresh raspberries. We can only imagine the excesses that followed.

DiCaprio is - we believe - a vegan. Gwyneth Paltrow claims that he was the one who set her on the path to spirulina-munching virtue. Once upon a time, avoiding all animal products would have been an eccentric look for a Hollywood leading man. Vegetarianism, sure, but veganism seemed a little... shall we say cranky? (Joke: How can you tell a vegan? You can't, they tell you!)

But DiCaprio represents a slight change of emphasis. A less heralded screen role last year was his introduction to Cowspiracy: The Sustainability Secret, a crowd-funded documentary that's building a cult following on Netflix - clean-eating queen Ella Woodward raved about it when I interviewed her recently.

While the film doesn't flinch from horrible things in abattoirs, its focus is less on animal suffering or veganism's health benefits (they have lower rates of obesity, diabetes, cardiovascular disease and many types of cancer) but on the environmental impact of the meat industry.

The genial presenter Kip Anderson offers stunning facts: livestock and their byproducts ***account*** for 51 per cent of global greenhouse ***emissions*** (far more than vehicle exhausts); meat-rearing is responsible for 90 per cent of Amazonian destruction; ***emissions*** from ***agriculture*** are predicted to increase 80 per cent by 2040. And no, organic stuff isn't much better.

Anderson concludes with direct invective - go vegan and save the planet - and increasing numbers of young people are taking him at his word. As his co-director Keegan Kuhn put it: "Water use, deforestation, soil, ***forest*** erosion, ocean dead zones - all of these things could stop immediately if we all chose to stop supporting this industry. Virtually no other lifestyle change has that sort of impact."

Even if you take a less sensational approach (the UN puts the ***greenhouse gas*** ***emissions*** figure at 24 per cent), it's hard to argue with the basic contention. The first response is usually more like a yelp: "But bacon! But Roquefort!" Perhaps this builds into a more coherent defence of community, tradition and evolutionary heritage, or a more considered ***agricultural*** perspective. The fact remains that billions of us eat in a way that's unsustainable, and we could do better.

Which leads us to a more profound question. Will change come by millions of individuals choosing to alter their habits? Or would we be better off investing in collective action? For there are surely legislative avenues that could be explored - carbon and water taxes, sustainability incentives, advertising restrictions - as well as vested interests that could be challenged. Change is cultural, true, but there's no surer way of changing a culture than changing a law.

That's not to say that eating less meat isn't a worthwhile personal choice - hey, no animal products were consumed in the lunch break of this column. But the problem with our obsessive emphasis on lifestyle is that it then becomes a matter of pure individualism. Of shopping. It means we judge and blame each other for ruining the planet while virtue-signalling our own meat-free consciences. And eating is political, just like everything else.

Macca's no party blagger

We've all been there: out on the street with no place on the guest list. The velvet rope. The implacable bouncer. The desperate need to come up with a line that will clear your way. Something like: "How VIP do we gotta get?"

At least that's what Paul McCartney tried when a doorman prevented him from entering a Grammys after-party.

But what gets me is McCartney's second comment: "We need another hit."

He immediately lets self-doubt creep in, you see? A true blagger would have calmly informed the bouncer that his boss, Paul McCartney, was inside and he had an important message to pass on.

Parents needsecurity tobring up kids

A study by the Centre for Economics and Business Research has calculated the cost of raising children in Britain - and guess what? It's most expensive in London. Once you factor in childcare, education (state), food, clothing, plus a bit of wool for them to play with, you're looking at £253,638 before their 21st birthday.

The least you can say is that some of these costs are negotiable. The one which is not - and absent from the study - is housing. A survey for this paper found that 42 per cent of London's 1.4 million twentysomethings feel that rising prices mean they will never afford to raise children here.

Traditionally, we've seen homeownership as a prerequisite to having babies but what matters more is simple security. You need to know that your landlord isn't going to kick you out with two months' notice, or raise your rent way beyond inflation.

And you need policymakers who don't front-load young people's lives with debt and insecurity in the hope that they'll sort out the mess later.

Hunt has created a morale vacuum

On the same day that he gave up pretending to negotiate and imposed an unsafe contract on junior doctors, Health Secretary Jeremy Hunt announced that he would launch an inquiry into their low morale. For many it seemed a cruel joke - his manipulations and misdirections over the past few months have often seemed like a deliberate attempt to crush doctors' morale. "I just can't really see the point in carrying on," said a disconsolate friend, who is studying for oncology exams.

If NHS workers seem heartbroken it's because they are romantic about their jobs - why else would you study for years to work in a service which the Government seems dedicated to running down? If Hunt wants to get to the bottom of why they feel so betrayed, he could start by examining his own motives.

**Load-Date:** February 17, 2016

**End of Document**



[***Parties must unite to turn climate ambition into firm climate action***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JJ9-PW31-F0PR-91BD-00000-00&context=1516831)

The Herald (Glasgow)

April 16, 2016 Saturday

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**Section:** Pg. 17

**Length:** 801 words

**Body**

WHEN world leaders sign the new deal to tackle climate change at the UN next Friday it will mark an important step on the road to dealing with this huge global problem. It is also a clear recognition by countries across the world, including Scotland, of the need to take urgent action.

The historic deal was agreed by 196 nations at the UN climate change summit in Paris in December. They have committed to limiting the global temperature rise to well below 2C and to drive efforts to keep the increase to 1.5C above pre-industrial levels. The Paris Accord includes the promise by wealthy industrialised nations to provide $100 billion (£70.5bn) per year to help vulnerable countries adopt clean energy and cope with the impacts of climate change.

The deal comes as global temperatures continue to rise and many poor countries continue to be hit first and hardest. NASA announced that 2015 was the hottest year since we started keeping track, shattering the record set only 12 months previously.

For many of the world's poorest people such changes in climate can lead to homes, lives and jobs being destroyed by more frequent and severe storms, floods and droughts. Increasingly erratic weather can make it ever harder for subsistence farmers to produce food as once predictable rains do not come, or flash floods wash away their crops.

In recent years Scotland's political parties have recognised the urgent need for action. The Scottish Parliament unanimously passed world-leading climate change legislation. We have helped thousands of people in vulnerable communities overseas through the Climate Justice Fund. It is recognised that Scotland, as a rich industrialised nation which built its economy on burning huge amounts of fossil fuels, has a clear moral obligation to deal with the problem.

Despite this welcome commitment and commendable progress in areas such as renewable electricity, Scotland has missed its annual carbon ***emissions*** targets to date. Too few policies have been brought forward to secure ***emissions*** reductions. The next Scottish Government must embrace a low carbon future with the rewards for our health, economy, and built and natural environment that that could bring.

Ahead of the elections on May 5, we want to know what the different political parties will do to make sure action to tackle climate change is a priority. In the new era of ambition following the Paris Accord, Scotland's political parties will come together on Monday night for an online climate debate organised by Stop Climate Chaos Scotland. It's hosted by Herald columnist and broadcaster David Torrance and the event will be streamed live online from 7pm. Parties will be challenged to outline what they will do, if elected, to make sure Scotland plays its part in achieving climate security for the future.

There is much to debate. What policies will the different parties put forward relating to transport, warm homes, energy, low carbon infrastructure and ***agriculture***?

Transport ***accounts*** for a quarter of Scotland's ***greenhouse gas*** ***emissions***.Government spending is still overwhelmingly skewed towards the private car. We believe the next Scottish Government should introduce measures to discourage the use of the private car where low carbon alternatives exist. By increasing walking and cycling opportunities we would also secure the added health benefits of a more active population.

We need multi-billion pound investment and a clear, well-structured scheme to ensure every home in Scotland meets a decent standard of warmth and energy efficiency. Heating our buildings currently ***accounts*** for over half of Scotland's climate ***emissions***, but only a tiny three per cent of that heating demand comes from renewable sources. Investing in low-carbon infrastructure, such as district or community heating schemes and renewable-powered heat would create jobs, help provide warm homes and could dramatically cut ***emissions***.

The Scottish Government wants to reduce Air Passenger Duty to encourage more people to fly despite knowing that this would increase carbon ***emissions*** from this highest ***emission*** form of transport. Instead of creating yet more advantages for the airline industry, any changes to Air Passenger Duty must decrease, not increase, ***emissions*** from the ever-expanding sector.

***Agriculture*** ***accounts*** for almost a quarter of Scotland's climate ***emissions***. We are looking for commitment to an ambitious ***land*** use strategy which includes food, forestry and peatlands. We can significantly decrease ***emissions*** from ***agriculture***, and improve biodiversity and water quality.

It will be fascinating to hear how the different parties will tackle the above issues, and turn climate ambition into climate action.

Tom Ballantine is the chair of Stop Climate Chaos Scotland (SCCS). To watch the debate go to bit.ly/Climate\_Debate

**Load-Date:** April 16, 2016

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[***Making the case for pasture-grazed beef***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5J2P-0R21-JCG2-C1V7-00000-00&context=1516831)

Western Morning News

February 10, 2016 Wednesday

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**Section:** NEWS:ENVIRONMENT; Pg. 4-5

**Length:** 613 words

**Body**

An organisation helping to prepare farmers for changes to the climate have found that farms producing beef off grass are far less damaging to the environment than was once believed.

Farming Futures reports that extensive grazing may be carbon neutral or positive and that when the true benefits to ecosystem services and human health are included extensive livestock production is the best use of grassland to produce food.

The findings echo what many Westcountry beef farmers have been saying for years - that grazing livestock on pasture is the best way to produce top quality meat with high environmental and animal welfare standards.

Farming Futures says: "The climate and food security debates are inseparable, and there have been calls to reduce meat consumption to cut ***emissions*** from livestock and divert arable food production to feeding people more directly.

"However, many ***agricultural*** grasslands and grass-based habitats are not capable of growing arable crops for direct human consumption. Grazing by livestock, therefore, is the only way to turn grass into human-edible food."

The latest findings reverse the view that intensive production methods, where cattle are fed a high proportion of cereal-based feed, have lower ***emissions*** than more extensive production where the diet is predominantly grass-based.

It says when the wider aspects of sustainable ***land*** use are considered and the impact on water and carbon storage are taken into ***account***, extensive grazing systems come out best for the environment.

Research carried out on National Trust farms found the best performing carried a conventional suckler herd on a mixed farm where cattle grazed pasture but were also fed a moderate amount of additional feed, including potatoes and sugar beet pulp. Manures were exported to the arable business; transferring the carbon burden to arable crops and making the beef enterprise appear more efficient.

The research compared such a farm with overseas alternatives. It reports: "Using ***emissions*** data alone, US feedlot production appeared to be relatively carbon-efficient compared with NT non-intensive and organic farms. This is largely because grain-fed cattle produce less methane, and have shorter life spans than grass-fed cattle.

"However, when allowance is made for carbon sequestration, the UK and US pasture-based systems in the scenario performed better."

And comparison with cattle rearing in Brazil, on the Cerrado is a vast tropical savannah covering about a fifth of the country, showed that when all factors were considered, UK grazing on pasture produced far 'greener results.

The report says: "Around 74% of Brazilian beef cattle for EU markets are sourced from the central Cerrado region. The clearance of woody vegetation from the Cerrado results in a significant biomass carbon loss equivalent to 167 tonnes of CO2e per hectare.

"The Cerrado appears to be a reasonably carbon-efficient production system - on a par with the NT farm average. However, when recent ***land*** use change is ***accounted*** for, it has the worst carbon footprint by far."

The findings are detailed in a National Trust paper, "What's your beef". It concludes: "We will continue to press for more formal and robust market mechanisms that reward farmers for the wider ecosystem benefits - including reduced ***greenhouse gas*** production - that extensive, grass-fed beef clearly brings.

"We need to future-proof all our farming, and a dash for maximised beef production in the face of increasing population demands risks long-term damage to the farmed and wider environment. Finding ways to make it pay for farmers to pursue extensive, grass-fed beef systems will become increasingly important."

**Load-Date:** February 12, 2016

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[***What the Paris climate deal means for clothing***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HNC-8SR1-JDNW-408J-00000-00&context=1516831)

just-style global news

December 19, 2015 Saturday 9:26 AM GMT

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**Length:** 916 words

**Byline:** Mark Rowe

**Body**

The global clothing industry should engage with the new Paris climate change deal, say experts, who warn that a warming planet imperils not only the raw materials the industry needs but also poses an existential threat to the sector's prevailing business model.

The apparel industry must react quickly to the Paris climate change accord if it is to head-off the gravest impacts of global warming, experts have warned.

The agreement, struck on 12 December at the 21st session of the Conference of the Parties (COP) to the UN Framework Convention on Climate Change (or COP 21), calls on all nations to hold the increase in the global average temperature to well below 2&deg;C above pre-industrial levels.

It outlines several implications for the apparel sector, whose contribution to climate change is dominated by the requirement for burning fossil fuel to create electricity for heating water and air in production processes such as dyeing and finishing, laundering and ***land*** use for resources.

COP21 worker provision a "considerable achievement"

"The Paris conference has definitely been pertinent to the industry. We're one of the most energy intensive industries," says Orsola de Castro, co-founder of UK-based Fashion Revolution, which promotes sustainable textiles.

Dr Sally Uren, CEO of London-based sustainability group Forum for the Future, said that the Paris agreement had direct implications for the apparel sector that required swift action. "The apparel sector sees and feels that it is on a burning platform when it comes to sustainability," she says.

"Paris sends a clear message to the apparel industry about the need to rapidly decarbonise its manufacturing facilities and bring down the carbon footprint of the goods themselves."

The agreement has also raised another challenge facing the apparel sector - measures to reduce the carbon ***emissions*** involved in farming: much of the carbon footprint in cotton production happens in the growth phase, in farming, and in the final end use by consumers.

"Bringing down the ***agricultural*** footprint is equally important," says Uren. "But the hardest bit is in stopping us, the consumers, from buying things over and over again."

Uren praises efforts by companies such as Levi Strauss & Co, which has produced jeans that use dramatically less water in the production process. "The major brands are looking for opportunities to make lower-carbon products fashionable," she says.

"The biggest challenge will be a business model based on fast fashion and cheap labour. They need to get away from the narrative that people always buy clothes that can be easily and affordably be replaced."

Level playing field

Proponents of the final Paris agreement say that it puts in place mechanisms to address the issue of a level playing field for industry ***emissions*** between Europe, the US and China - where, according to management consultants McKinsey, approximately US$177bn in apparel exports were generated in 2013.

Article 4 of the accord says that all countries will aim to reach global peaking of ***greenhouse gas*** ***emissions*** as soon as possible, "recognising that peaking will take longer for developing country parties."

To respond, argue experts, is in the apparel industry's own interests, as a changing climate is forecast to involve droughts, temperature shifts and other impacts that will make apparel production more difficult and costly.

"It's true to say that climate change is already impacting the apparel sector," says Uren. "It's manifesting itself in terms of water shortages, and extreme heat. That is a major issue for workers' rights. The use of air conditioning just compounds the energy intensity."

Industry impacts

A report issued before the Paris conference by bankers HSBC, 'No Water, More Trade Offs', identified climate factors that threatened the apparel industry in China, a country in which 32% to 75% of hides, wool, cotton, chemical fibre and silk are either made in or pass through China as imports.

These include drought. China dominates the water-intensive global cotton industry, ***accounting*** for around a quarter of global cotton lint output. But the report found that climate change is altering historical patterns of water availability: droughts in southern China may leave less water available in the north.

A July 2015 report by McKinsey, 'East Africa: the Next Hub for Apparel Sourcing?' suggested that a segment of the cotton industry might relocate from China to Ethiopia, which was deemed to have 3.2m hectares of ***land*** with a suitable climate for cotton cultivation.

Bangladesh's apparel sector also faces an increase in hurricanes across the Bay of Bengal, documented by a 2014 World Bank report, 'Turn Down the Heat', which says that by 2040 shifting rain patterns could leave some areas under water and others without enough water for power generation and irrigation.

Francesco Marchi, director general of European clothing and textile industry association Euratex, says such weather patterns, combined with rising costs in Asia, could lead to more apparel companies near-sourcing and relocating to or near Europe.

Uren agrees. "We may well even see an increase in on-shoring [where companies relocate into Europe and the US]. China has had strict environmental laws for some time but they are now going to be enforced. Manufacturers of apparel there will soon find that standards are as high as in other parts of the world. "

Clothing sector helps China to green its growth Adidas tops list of greenest textile supply chains in China

**Load-Date:** December 21, 2015

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[***Shifts in transitional protein solutions; Millennials are the drivers of change in many areas of food production - Part II***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5N8W-X6F1-DYG1-P3JG-00000-00&context=1516831)

Fleischwirtschaft International

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**Section:** EATING HABITS; Pg. 41;; No. 5

**Length:** 5454 words

**Body**

**ABSTRACT:**

By Henk Hoogenkamp Growing numbers of transformative changes, with increasing meat and dairy consumption, as well as rising demand for food and nutritional quality, will put additional pressure on the ***agricultural*** eco-systems. To meet world needs by 2030, it is estimated that about 40% more food must be produced from less ***land*** and fewer inputs such as chemical pest control, less water, and less fertiliser. On top of that, the inequities between developing and affluent societies must be solved in order to improve economic and societal imbalances.

**FULL TEXT:**

***Agricultural*** productivity rates have failed to keep up with global population growth. Overuse of priceless fresh water poses not only serious environmental hazard, but also a risk to social and political stability. It is inevitable that water scarcity could cause certain food shortages in the next decennia. In 2015 and beyond, water withdrawals will in certain world regions be in excess of sustainable supply and this discrepancy will only widen.

The world of soy transition

Soybean cultivation can serve as an example of how difficult it will be to navigate the world of future requirements and its environmental impact. The average EU citizen consumes 61kg of soy yearly, 93% (57kg) of which is embedded as animal feed in the animal-derived foods that most consumers eat daily. By far the highest amount of embedded soy (109g per 100g) is present in chicken breast meat (Fig.1), closely followed by eggs (55g of soy per 100g), pork chops (51g of soy per 100g of meat), hamburgers (46g of soy per 100g of meat) and cheese (25g of soy per 100g of product).

Although soy is an essential part of the global food supply, these high-protein crops have negative ecological and environmental impact if grown irresponsible. There is no doubt that the explosive growth of the soy crop has come at the expense of millions of hectares of grassland, ***forest***, savannah and wilderness taken away and converted to ***agriculture*** harvest ***land*** around the world. In particular South America has been affected, destroying most valuable eco-systems such as the Amazon. In addition, in 2015 about 95% of all soybeans harvested in the US will be of GMO origin.

When it comes to protein, consumers have a lot to choose from. Plant protein ingredients like derived from legumes, cereals, vegetables, and fruits are rapidly transforming into a valuable functional and nutritional cost-effective ingredient in various food formulations (Box). A good protein has a handful of components: stellar nutrition, great flavour, process adaptability, versatility and performance in more ways than one. Plant proteins - or vegetable proteins - are widely regarded as functional and versatile. There is no question that the harvest needs to transform plants into premium and sustainable protein foods to nourish the world.

It is clear that modern consumers want more lean protein in their diet, and many are looking to lower the cost of protein sources. In theory, plant proteins should be less expensive, although in reality this is not always true, especially when it concerns so-called high moisture extruded meat analog foods. More consumers are willing to look beyond animal-based proteins to satisfy their need for protein. While generally the interest in protein is growing, plant-based meat-alternatives are emerging as a viable option. The number of grocery shoppers that seek out protein-enriched foods is increasing, and many are willing to pay a premium for these foods, especially when formulated from natural wholesome components.

Sustainable as well as renewable food production is a fundamental human need. There are basically two options to feed the world: to get more food out of the ***land*** currently farmed, or increase the hectares or acreage to farm on. Nevertheless, sustainability will still depend on whether farming can successfully continue to produce food over the long term with little or no damage to environment including deforestation, depleting groundwater, and inefficient use of nitrogen and phosphorus fertilisers. Take note that phosphorous fertiliser is a finite resource. In addition, global warming and carbon dioxide ***emissions*** could ultimately be the deathblow to sustainability.

Whichever choice is made, it will need to be coupled on concerted efforts to feed fewer crops to raise animals as well to significantly reduce food waste. To secure sufficient food for the fast growing world population, the answer might well be that mega-farms are the most appropriate way to move forward. Hence, the environmental impact of large-scale meat and dairy production, with livestock estimated to produce over half of the world's ***greenhouse gases***.

Too fat and too skinny

Never before has food been such a global issue. Both sides of the spectrum show overweight and obese people sharing the planet with chronically malnourished and hungry populations. All things considered, the bottom line is how to produce more food from less ***land***, reduce waste, and improve equal access to wholesome food at less price volatility.

Besides the availability of sufficient cropland, food waste, spoilage, politics and economics are increasingly infringing upon the basic human right of access to food for a great many of the underprivileged of the world citizens. According the Joint UN report (September 2014) slightly more than 800 mill. people are still chronically undernourished. Asia - the world's most populous region - is the home of the majority of the hungry, 525mill. people and most of the balance is in sub-Saharan Africa. Hunger kills more people than malaria, tuberculosis and aids combined. Actually, hunger kills about 1.3mill. more people than cancer. Hunger reduction requires sustained political commitment and an integrated approach that needs to include public and private collaboration. This is especially true for the vulnerable, particularly to address the micronutrient deficiencies in mothers and children under five years of age.

Almost every country in the world, affluent and poor, faces a serious public health risk due to malnutrition, either from undernutrition, obesity or micronutrient deficiencies. The cost of poor nutrition is huge: stressed health systems, premature death and a severe drag on economic progress. (UN FAO/WHO, Nov. 2014). Food fortification is needed to combat undernutrion and malnutrition.

Governments are presently shelving possible solutions for the looming food shortages because of the current financial crisis. Currently, so many political and financial issues are hounding governments that they no longer have the stomach to tackle issues causing future food uncertainties and possible shortages. For now, it seems that food security has moved to the back burner.

There is little doubt that providing enough food, particularly sufficient protein, for the rapidly increasing world population is a challenging task. The fact is that more than 500mill. people are suffering from protein deficiency, while emerging research also pinpoints that the aging population will require extra protein supplementation in their diet to prevent sarcopenia.

Undoubtedly, the sustainable ***agricultural*** production of food of animal origin represents the biggest environmental challenge. The love of consumers for meat might well be on a collision course with the need to rebalance the consumption of more resource-efficient plant proteins. In other words, it is time to actively move to a more environmentally balanced diet to reduce the consumption of foods with a higher environmental impact such as meat and dairy.

Health and environmental agendas are not always aligned with the current dietary recommendations. For example, in affluent countries, the recommended amount of meat consumption is significantly less than the current levels. People are encouraged to eat more vegetables, fruits, whole grains, low-fat dairy products, and omega-rich seafood. Instead they consume more processed foods containing hidden levels of sugar, sodium, transfat, and refined grains. The price differences between healthy and unhealthy foods are widening and may contribute towards food insecurity and increasing health inequalities. The latter could further exacerbate social inequalities in health.

Americans are at the top of the global carnivores. US consumption of beef per person is 38kg in 2014, while chicken consumption is at 45kg per person. The overall meat consumption stands at 122kg a year, which is considerable more than the average body weight of an adult. When these numbers are extrapolated on the world population, the question of sustainability is an easy answer.

Especially consumers in developing countries such as China, India, Indonesia are gobbling up more meat and dairy products (Fig.2). It is mainly increased purchasing power that is intensifying appetite for protein. This is especially true for consumers in emerging economies. To "feed and meat", livestock farmers expand their production and heavily rely on sharply increased harvests of the main crops soy, corn, wheat and rice.

China in transition

In developing and poorer countries, protein deficiency remains a problem for at least one billion people - or some 15% of the world population. Yet, as income rises, meat and dairy are foremost sources of protein that people prefer (Fig.3). Despite the fact that international organisations would like to reduce meat intake, the opposite will happen. For example, in 2015 worldwide meat consumption will rise 2.0% a year over the next decade (USDA). The United Nations FAO has projected that the average person will consumer about 45kg of meat, versus 40kg in 2007, and 35kg in 1991.

Continued Chinese growth in meat demand and a willingness of consumers to spend more will further drive consumption including the creation for value-added meat products. As a matter of fact, premium priced beef is the fastest growing meat choice in China, ahead of poultry and pork. The Chinese beef market has grown by almost 5.0% from 1995 to 2015, compared to pork growth 3.5% and poultry 3.4% over the same time frame. To put these numbers in a different perspective: per capita consumption pork 40kg, poultry 13kg and beef 6kg (2015). The total Chinese per capita meat consumption of 59kg in 2015 will increase significantly in the years ahead with beef prices outpacing those of pork and poultry.

A country in rapid transition such as China usually is confronted with opposite medical observations. Improved nutrition has made Chinese markedly taller on average since 2000, with women grown more than men. The average height of fully-grown men increased 4mm to reach 167.1cm and women grew by an average of 7mm to 155.8cm. These are significant growth numbers and mostly the result of increased animal protein intake such as meat and dairy. However, with more prosperity also come signs that China is shifting to typical western chronic diseases. Smoking, excessive alcohol use, insufficient physical exercise and high sodium and increased fat consumption are the main causes. About 30% of Chinese adults are overweight and more than one in ten are obese, a number that is quickly reaching Western "standards".

Chinese citizens have more disposable income, which allows buying more meat and processed foods. Unfortunately, there is lack of nutritional education and subsequently very few Chinese know about the importance of a balanced diet and the importance of regular physical activity.

Sustainable livestock farming

Needless to say that the sharp increase in demand for dairy and meat products has raised environmental and ecological concerns. The UN estimates that livestock production is responsible for about 15% of global greenhouse ***emissions***. It is clear that it can be argued that meat especially is a relatively ineffective source of protein, and that it would be smarter to convert ***agricultural*** crops directly into food, instead of feeding and raising animals first. However, animals should be part of a sustainable and ecologically balanced ***agricultural*** infrastructure, and its products contribute to a nutritionally sound and good-tasting healthy diet.

There is no question that the sustainable production and consumption of animal-origin foods is the biggest environmental challenge. The Western world, spoiled with high levels of meat availability at relatively low prices, cannot point fingers at developing countries considering that they also increase consumption of these premium high-impact animal protein based foods and meat products. After all, many developing countries have been deprived of eating quality meat and enjoying dairy foods. With the increasing economic standard in developing countries, it is very likely that the consumption of animal origin foods will rise exponentially through at least 2050. In fact, it is projected that the world meat and dairy consumption to increase by at least 50% as compared to the 2015 numbers.

Although food production ***accounts*** for about 8% of the ***greenhouse gas*** ***emissions***, in general terms, animal-based foods are responsible for more ***greenhouse gas*** ***emissions*** than plant-based foods. For example, while beef ***accounts*** for only 4% by weight of the food available, it contributes 36% of the associated ***greenhouse gases***. Cattle - which have a long outgrow cycle - don't efficiently convert plant-based feed into muscle meat and/or milk. Growing feed often involves the use of fertilisers and other substances through energy-intensive processing methods. In addition, cows release lots of methane and their manure also releases this potent ***greenhouse gas***.

Cows in particular are not very efficient at converting feed to muscle protein for human consumption. Compared to other farmed and harvested animals such as hogs and poultry, beef produces 5times more heat-trapping gases per calorie, takes 11times more water for irrigation and uses 28times the ***land***. In addition, cows burb major amounts of methane, a ***greenhouse gas*** that is significantly more potent than carbon dioxide (Journal Proceedings of the National Academy of Sciences, July 21, 2014).

Actually, pork, poultry, dairy and eggs all have comparable environmental footprints. US government data calculate air and water ***emissions*** and how much water and ***land*** are used in the lifetime production of the harvested animals: beef, pork, poultry, dairy and eggs. This calculation gives a rather accurate environmental cost profile of different meats and other types of animal proteins.

The finite amount of ***agricultural*** ***land***, the availability of clean water combined with resource depletion will force policy makers to rebalance diets towards more plant-based foods. In other words, they will accept the need to reduce the consumption of foods with a higher environmental impact such as meat and dairy, and increase lower-impact foods such as quality plant proteins derived from cereal grains, legumes, potato, vegetables and fruits.

For the future of food security, most especially in developing countries where people do not get enough protein, it is essential not to rely on farmed animals as the primary source. By relying less on an inefficient meat protein-delivery system, people should instead utilise the nutritive value of the world's five major commodity crops - rice, corn, wheat, soy and potatoes. Moreover, the many other plant proteins in the world can be further explored for the production of meat alternatives that could fundamentally reshape our food supply.

Protein quality

Most plant proteins show a conversion factor of 30% to animal-derived protein sources such as those present in meat, dairy, and eggs. In order to match the animal protein sources, the way forward is to blend different types of plant proteins in order to optimise and harmonise nutritive values and obtain advantageous amino acids content. For example, wheat and rice protein typically have low lysine levels, and blending other plant protein sources like pea, soy, algae, and canola can boost these lower levels.

For now, soy plant protein is the world's main source to deliver functionality, immunological characteristics, and nutritive values. However, pea protein and rice protein is rapidly making advancements in formulated food products, especially in specific categories such as "all-natural" allergen-free and gluten-free.

The plant protein industry was surprised about the new measuring protein quality by the Food and ***Agriculture*** Organization of the United Nations (FAO/2013) recommending using the Digestible Indispensible Amino Acid Score (DIAAS) as the new preferred method, as opposed to the Protein Digestibility Corrected Amino Acid Score (PDCAAS), which favoured plant protein and especially soy protein.

The new DIAAS method clearly demonstrates the superiority of dairy protein over plant proteins. Rice protein may be the exception because of its high levels of arginine and leucine - the highest levels in all cereals and grains. This feature will make rice protein ideally suitable not only as a stand-alone protein for hypoallergenic foods but also as a partner for dairy protein with special relevance to the nutrition in general and to special food segments such as clinical nutrition, sports performance, weight management and sarcopenia.

Protein and, to a lesser extent, fibre are parts of a larger trend of consumer concerns about the benefits of foods. This trend can be clearly seen on labels where protein is increasingly given a more prominent position. Protein enrichment is the new buzz in affluent societies. Protein and fibre have a very positive consumer perception and increased awareness, although these ingredients mean differently to various people.

Protein definitely has the widest range of consumer acceptance, ranging from muscle building to weight loss. For most consumers, quality protein equates strength, endurance and prolonged energy including mental and cognitive alertness. The truth is, in relation to consumer appeal and perception; plant protein ingredients still have a long way to go. There is little doubt the dairy protein - especially whey protein - is seen as the golden standard to which every other protein comes second. The plant protein ingredient manufacturers, specifically soy protein companies, need to learn to be more modest in their claim to fame. Soy proteins are indeed unique but, when it comes to nutrition, they often perform nutritionally better when blended with other sources of protein, especially whey protein, meat protein and egg albumen.

Protein continues to go from strength to strength, even without specific accompanying health claims. Everyday food products, like breakfast cereals, nutri-bars, beverages, hybrid meat including meat-free, and plant protein-enhanced dairy foods are ideal platforms to deliver these dietary protein solutions. Fruit smoothies including protein beverages appeal to consumers throughout the day, gaining popularity as a breakfast cereal replacement in the hurried morning hours.

In a sense, protein is often seen as a "health halo effect" that goes beyond basic nutritive delivery. Food labels usually have a limited lifespan and only go as long as the latest fad lasts. Protein might be an exception to this rule. In the Greek language, "protein" means "first in life", and this has never faded from people's minds throughout history. Protein has always been a component for well-being and survival.

Plant protein is primed to deliver ingredient innovations that can provide consumers with more comprehensive food security as well as advanced food diagnostics monitoring. Food diagnostic ingredient services offer formulation know-how, improve texture and taste, as well as extend shelf life. These plant protein solutions can assist in providing customers with a unique range of effective and cost-efficient formulas as well as nutritive contributions to global food security and ecological sustainability.

Nutrient-dense vegetables, beans, fruits and nuts - specifically walnuts and almonds - make a significant part of a healthy diet, not only to keep the heart healthy but also to manage body weight and avoid long-term degenerative diseases. Such diseases as prostate cancer, colon cancer, heart disease, and macular degeneration can be slowed down or prevented by a healthy and moderate diet. The medical and social costs associated with degenerative diseases will eventually rise to astronomical levels and choices will have to be made as to which patients deserve to receive treatment as well as life extension.

Plant protein-formulated food including hybrid-meat products meet all modern nutritive and organoleptic requirements, and its "all-natural" status provides consumers with multiple positive health benefits (Fig.4). Most of these are not only environment-friendly and ecologically sound, but are also keen in addressing certain looming issues that are presently still under the radar screen: slowing of aging, healthy immune systems, strong energy levels, healthy skin, strong bones, alertness, cancer, and a healthy heart. Just for cancer alone, worldwide trends indicate a rising number of cancers linked to hormones, diet, and reproduction in less developed countries going through rapid economic and societal change, including a shift towards Western dietary habits. Tumors are not detected and diagnosed in developing countries as frequently as in affluent countries. These inequalities between rich and poor countries explain the rapid growing cancer-related deaths.

Capital venture push

More lifestyle choices (vegetarianism/flexitarianism) and livestock welfare are fueling increased demands for meat-free or meat-hybrid foods. New generations of the food-tech ventures aims to change the way people eat. Venture capital firms as well as social media billionaires such as Google co-founder Sergei Brin, and Microsoft's Bill Gates fund start-up food related companies that try to find plant-based alternatives to meat, poultry, and eggs. This trend is now widening and has attracted other major name "investors" including the Twitter founders Biz Stone and Evan Williams as well as venture capitalist Li Ka-Shing. These people look at meat-free with a somewhat different perspective: coupling the ecological wellbeing of the world to strong opportunities for building great financial returns.

"Global health is the cornerstone of global prosperity. With billions of people adding more animal protein to their diets - meat consumption is expected to double by 2050. It seems clear that arable ***land*** for raising livestock won't be able to keep up" (Bill Gates, March 2013 - [*www.gatesnotes.com*](http://www.gatesnotes.com)).

Replacing these animal-based protein sources can significantly reduce ***land***, water, and crops needed to feed animals, while at the same time benefit people's health and reduce outbreaks of diseases. For the next generation, sustainability of food security will be a major challenge. Besides the fundamental economic and technology challenges, the biggest hurdle is how to convince consumers to try the plant-based equivalent of the "real or original" food.

Erratic weather patterns can quickly cause havoc in harvest yields. It does not take much to create an imbalance when projected crop yields of wheat, corn, soy, rice and potatoes do not meet the needs of the world population. The pressure on resources is intensifying, not only due to soaring populations but also because of desertification, droughts, floods, ***land*** grabbing, and lack of GM progress.

Prolonged spells of drought - like happening in California 2010 to 2015 - ultimately require mandatory regulation to draw down water use. Being denied irrigation water, forces farmers to leave ***agricultural*** ***land*** unplanted. Farmers who don't have access to surface water may decide to increase the amount of water pumped from limited groundwater supplies, though this option can only go so far until dead zones start to occur. Limited fresh water supply is a wake-up call and may require drastic action to curb water use ranging from landscaping, lush lawns including golf courses, shower-time, car washing, industry and food production.

The Organisation for Economic Cooperation and Development (OECD) predicts that almost half the world population will be living in areas with high sea water stress by 2030. Based on 2015 estimates, ***agriculture*** is responsible for about 70% of fresh water consumption globally, while the industry requires another 22%. Both the food and meat industries are especially heavy users because water is a key component for nearly every single part of the production process: from outgrow to final point of food consumption. The pressure on food security is further compounded by the availability of suitable ***agricultural*** farmland, biofuels, climate change, clean energy and manpower.

Population surge

The world population in 1950 was about 2.5bn., less than the anticipated 3bn. increases expected by 2050 reaching a total of 9.4bn. people. While developed countries ***accounted*** for close to one-third of the world's population in 1950, they will have only 15% of the total by 2050 since the expected population growth will primarily be in the developing world. The combined populations of China with 1.36bn. people and India with 1.1bn. will reach about 2.5bn. people in 2015.

While China's population will rise slightly, India's population is expected to increase by almost 50%. Together, the two countries will have well over 3bn. people by 2050 and will ***account*** for about one-third of all the people on Earth. If indeed China will relax the "one-child policy" all projections are out of the window and will likely surge well beyond the current estimates.

Contrary to earlier projections, the world's population is likely to soar through the end of 2100. This is largely due to sub-Saharan Africa's higher than expected birth rates. According new statistical models, there is an 80% likelihood that the number of people on the planet will increase to between 9.6 and 12.3bn. by 2100. In this model, the Africa's population will rise to between 3.5 and 5.1bn. by 2100 from about 1bn. today. Big populations and high fertility levels are expected to drive this growth. (Journal of Science, September 2014). Of course, model projections do not take natural disasters into considerations such as a medical catastrophe that potentially could dwindle calculated or projected populations, not to mention mass immigration or geographically driven asylum migration.

Food inflation

The dynamic change of increased basic food prices is not only stressing economies all over the world but also exacerbating hunger and sparking political unrest in poorer countries. Food costs need to be seen in perspective: The cost of growing food ***accounts*** for only 15% of the final consumer price. The balance goes to processing, packaging, marketing, transportation and profit. The forces behind the cost of food and functional ingredients as well as rising energy prices will likely increase the cost of everything else, and the strong demand for meat and dairy in developing countries like China, India, and Southeast Asia (Fig.3). The cost of livestock feed, together with competing demand from ***agricultural*** biomass to manufacture biofuels, can play havoc on both the pricing of staple commodities and specialty crops.

Fortunately, some governments are backpedalling on mandated use of biofuels. Taking food from the mouth and putting it into a car is not something that is sustainable. It's more sensible to limit the use of crop-based biofuels such as corn ethanol and try to make the economics work to produce biofuel harvested from inedible waste. Mandated use of subsidised biofuels not only drives up fuel prices but also reduces fuel efficiency. As such, it is highly questionable if food-to-fuel conversion is sustainable.

How much longer can political inaction continue if even highly affluent countries like the US and UK have increasing numbers of people living off food stamps and receiving emergency food supplies from food banks? Yet, another 2bn.+ people will join planet Earth by 2050. 210.000 more mouths need to be fed every single day. The challenges ahead to manage food security are very complex and totally immense. Even affluent countries like the US will have a total of approximately 50mill. people in 2015 living on government-issued food stamps and food donations, now renamed SNAP (Supplement Nutrition Assistance Program).

Food and ***land*** waste

A new approach is definitely needed to determine how food is grown and shared while securing affordability and ecological sustainability. Of course, one can still argue that the world is capable of growing sufficient food for future generations and that inequality is not a matter of sufficient food but rather of shameful waste.

It is indeed true that a very large amount of food is wasted between harvest and mouth. Ill-harvest, poor storage, hoarding, political maneuverings, processing, point of sale inefficiencies and, last but not least, waste by consumers are all guilty parameters that food does not reach actual consumption. It can therefore be stated that the greater the affluence of society, the higher the food waste. On a worldwide basis, it is estimated that nearly 25% of bread and cereal products waste occur in high-income countries.

US Government data estimate that nearly a third of food available for consumption in the US goes uneaten. Probably similar numbers are true for many EU countries. Consumers don't understand the impact of food waste and most underestimate how much food is thrown away. Although consumers are now more attuned than ever to the purity of ingredients, organic, natural and locally grown, most consumers don't really care about the environmental impacts of food waste. It is estimated that food waste makes up more than 20% of what's in landfills and it is a significant source of methane gas as it rots. (US Environmental Protection Agency/2015). Methane is a potent ***greenhouse gas*** that contributes to global warming. The wasted food ***accounts*** for about 2% of ***greenhouse gas*** ***emissions***, not to mention huge freshwater losses, cropland and fertiliser inefficiencies. (John Hopkins - Public Health, PLOS Journal).

Feeding valuable plant protein to animals with the objective of converting into animal protein - meat, milk and eggs - can be considered as waste to a certain extent. In order to sustain healthy diets for current and future generations, it is essential to capture the abundant nutritional value of plant protein ingredients - such as for example rice bran - that still remains largely wasted.

All these variables make it imperative to put more emphasis on the use of plant protein ingredient solutions, including the use of these proteins to formulate sustainable and healthy foods like meat analogs and formulated meat products. The world can ill-afford to continue business as usual, knowing that about 80mill. more people will live on planet earth every single year with no decline in sight.

To sum: plant-based nutrition is more sustainable with less ***greenhouse gas*** ***emissions***, less use of clean water, and less ever-expanding ***land*** utilisation. Slowly but surely, plant-based foods like meat-free products, will achieve considerable consumer popularity and wellness status (Fig.5). Hopefully the protein paradigm will shift to increased plant protein formulated foods. Yet, don't make the mistake to rule out meat. Meat is not only a valuable source of high-quality protein but also a universal favorite across most societal cultures and will continue to dominate meal solutions for many years to come.

Although meat and dairy consumption in developing countries will skyrocket, plant protein is the new normal. For the sake of health and eco-sustainability, the developed and affluent world has no other choice.

Henk Hoogenkamp is a protein specialist, publicist and author. He has been previously President of DMV USA (now FrieslandCampina), and Senior Director Strategic Technology, DuPont Protein.

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**Vegetable protein = Plant protein**

The collective term vegetable protein was coined (1992) by the soy industry to diffuse negative consumer bias against the word soy. Vegetable protein is misleading and a more accurate catch-all name is plant protein. As a category, plant protein includes some of the following protein types:

Soy = legume protein

Pea = pulse protein

Lupin = pulse protein

Wheat = cereal protein

Oat = cereal protein

Rice = cereal protein

Potato = root protein

Alfalfa = legume protein

Corn = cereal protein (zein)

Fruit seed = fruit protein

**Graphic**

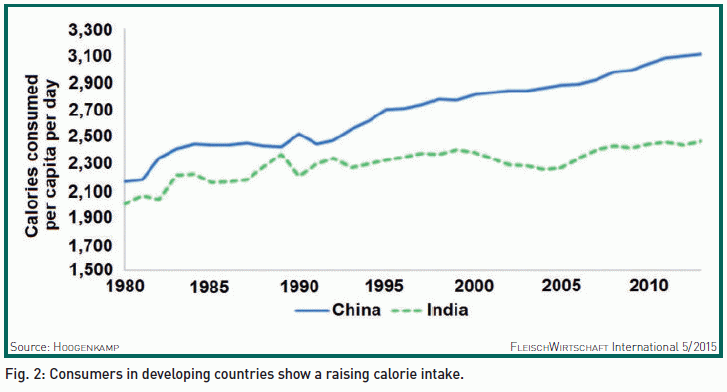


Fig. 2: Consumers in developing countries show a raising calorie intake.

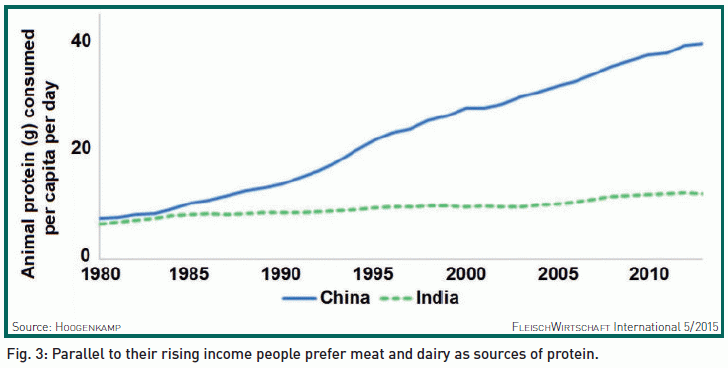


Fig. 3: Parallel to their rising income people prefer meat and dairy as sources of protein.

**Load-Date:** April 10, 2017

**End of Document**



[***Environmental Pressure To Boost Renewables Sector***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5H9B-9W51-F0J5-80F7-00000-00&context=1516831)

Business Monitor Online

November 3, 2015 Tuesday

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**Length:** 856 words

**Highlight:** Growing international pressure on Indonesia to adopt a more stringent environmental policy will boost the country's renewable energy industry and facilitate greater inflows of investment from international financial institutions and governments.

**Body**

*BMI View: Growing international pressure on Indonesia to adopt a more stringent environmental policy will boost the country's renewable energy industry and facilitate greater inflows of investment from international financial institutions and governments. The country's underdeveloped geothermal sector will benefit significantly, and we maintain our view that Indonesia will emerge as Asia's largest geothermal market by the end of our forecast period in 2024.*

The Southeast Asian haze crisis, driven by slash and burn clearing in Indonesia - which has caused severe air pollution in neighbouring countries - has turned the spotlight on Indonesia's environmental sustainability practices. Already a significant emitter of ***greenhouse gases*** (GHG), particularly from slash and burn policies whereby vegetation is cut down and burned as a method of clearing ***land*** for ***agricultural*** purposes, the fires of 2015 have released more GHG every day than the US, according to the World Resources Institute.

|  |
| --- |
| Growing ***Emissions*** Problem |
| ***Emissions*** Profile By Country, 2013 |
|  |
| *LUCF =* ***Land*** *use change and forestry. Source: World Resources Institute* |

Furthermore, Indonesia is reliant on coal for almost 50% of its electricity generation, and given that power demand will surge over the coming decade, the country's ***emissions*** profile is on course to worsen. We expect power consumption to grow by an annual average of 6.9% between 2015 and 2024, driven by robust economic growth and remote island electrification programmes.

|  |
| --- |
| Indonesia Power Demand To Surge |
| Indonesia - Power Consumption & Real GDP Growth |
|  |
| *e/f = BMI estimate/forecast. Source: EIA, BMI* |

The growing recognition of the ***emissions*** problem in Indonesia, catalyzed by the haze crisis and the country's thermal-heavy energy profile, is putting greater international pressure on Indonesia to adopt more stringent environmental policy. The Indonesian government already has targets in place to reduce ***emissions*** and increase the share of renewable sources in the energy mix. However, we believe this mounting environmental pressure will boost the country's renewable energy industry and facilitate greater inflows of investment from international financial institutions (IFIs) and governments - increasing the chances of these climate change targets to be realised.

**Indonesia - Environmental Policy Snapshot**

| ***Emissions*** | **Renewable Energy** |
| --- | --- |
| 26% relative to business-as-usual (BAU) by 2020 | Increase renewables share to 19% of total energy use by 2019 |
| 29% relative to business-as-usual (BAU) by 2030 (41% with international assistance) | Increase renewables share to 25% of total energy use by 2025 |

Source: BMI Research

We have already seen this view play out, as the US government announced on 26 October that there would be greater cooperation between both countries in the energy sector, following President Joko 'Jokowi' Widodo's visit to the White House, which he had to cut short due to the haze crisis. The agreement primarily focuses on promoting investment into clean energy technologies, developing policies that reduce GHG and creating risk reduction programmes. We believe the Indonesia geothermal sector will be a key beneficiary of this partnership, and can capitalise on US companies' wealth of experience in developing geothermal projects. The US is the largest geothermal market in the world by capacity.

In addition, we have also seen the Asian Development Bank (ADB) offer strong support to the Indonesian geothermal industry; previously committing a USD350mn financing package for the construction of the 320MW Sarulla Geothermal Power Development Project in North Sumatra. We expect the Indonesia geothermal industry to be a key recipient of ADB funding over the coming decade, as the development bank targets annual climate financing of USD6bn by 2020 ( *see 'Climate Change, Renewables And Financing Views In Play', October 27).*

|  |
| --- |
| Geothermal Dominating Renewables Mix |
| Indonesia - Non-Hydro Renewables Capacity By Type & Non-Hydro Renewables Generation Contribution |
|  |
| *e/f = BMI estimate/forecast. Source: EIA, BMI* |

As outlined, we believe Indonesia's geothermal industry will benefit significantly from the greater inflows of investment from IFIs and governments. Although we have seen recent progress in the solar and wind sectors in Indonesia, geothermal power will dominate the renewables mix, ***accounting*** for 96% to the total non-hydro renewables electricity mix and over 7% to total generation.

|  |
| --- |
| Vast Potential To Be Tapped |
| Indonesia Geothermal Sites |
|  |
| *Source: BMI* |

Indonesia has vast geothermal potential, estimated at about 28GW (around 40% of global geothermal resource potential) but the country is currently only exploiting around 1.5GW. The government has begun implementing a number of positive regulations to encourage growth in the sector ( *see 'Geothermal To Dominate Renewables Expansion', May 21*) and the improving regulatory environment, combined with increased international funding, will drive Indonesia's geothermal expansion. We expect geothermal capacity to reach 3.9GW by the end of our forecast period in 2024, resulting in Indonesia emerging as Asia's largest geothermal market.

**Load-Date:** November 4, 2015

**End of Document**



[***Fossil fuel use must fall twice as fast as thought to contain global warming - study; Available carbon budget is half as big as thought if global warming is to be kept within 2C limit agreed internationally as being the point of no return, researchers say. Climate News Network reports***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5J5G-HPK1-F021-63P4-00000-00&context=1516831)

The Guardian

February 25, 2016 Thursday 2:28 PM GMT

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**Section:** ENVIRONMENT

**Length:** 873 words

**Byline:** Tim Radford for Climate News Network, part of the Guardian Environment Network

**Body**

Climate scientists have bad news for governments, energy companies, motorists, passengers and citizens everywhere in the world: to contain global warming to the limits agreed by 195 nations in Paris last December, they will have to cut fossil fuel combustion at an even faster rate than anybody had predicted.

Joeri Rogelj, research scholar at the International Institute for Applied Systems Analysis in Austria, and European and Canadian colleagues propose in Nature Climate Change that all previous estimates of the quantities of carbon dioxide that can be released into the atmosphere before the thermometer rises to potentially catastrophic levels are too generous.

Instead of a range of permissible ***emissions*** estimates that ranged up to 2,390 bn tons from 2015 onwards, the very most humans could release would be 1,240 bn tons.

Available levels

In effect, that halves the levels of diesel and petrol available for petrol tanks, coal for power stations, and natural gas for central heating and cooking available to humankind before the global average temperature - already 1C higher than it was at the start of the Industrial Revolution - reaches the notional 2C mark long agreed internationally as being the point of no return for the planet.

In fact, the UN Framework Convention on Climate Change summit in Paris agreed a target "well below" 2C, in recognition of ominous projections - one of which was that, at such planetary temperatures, sea levels would rise high enough to submerge several small island states.

The Nature Climate Change paper is a restatement of a problem that has been clear for decades. Carbon dioxide proportions in the atmosphere are linked to planetary surface temperatures and, as they rise, so does average temperature. For most of human history, these proportions oscillated around 280 parts per million.

The global exploitation, on a massive scale, of fossil fuels drove the expansion of ***agriculture***, the growth of economies, a sevenfold growth in human population, a sea level rise of 14cms, and a temperature rise of, so far, 1C.

To stop temperatures increasing another 3C or more and sea levels rising by more than a metre, humans have to reduce fossil fuel ***emissions***. By how much these must be reduced is difficult to calculate.

The global carbon budget is really the balance between what animals emit - in this context, the word animals includes humans with cars and aeroplanes and factories - and what plants and algae can absorb. So the calculations are bedevilled by uncertainties about ***forests***, grasslands and oceans.

To make things simpler, climate scientists translate the target into the billions of tons of carbon dioxide that, ideally, may be released into the atmosphere from 2015 onwards. Even these, however, are estimates.

There is general agreement that a limit of 590 bn tons would safely keep the world from overheating in ways that would impose ever greater strains on human society. The argument is about the upper limit of such estimates.

Dr Rogelj says: "In order to have a reasonable chance of keeping global warming below 2C, we can only emit a certain amount of carbon dioxide, ever. That's our carbon budget.

"This has been understood for about a decade, and the physics behind this concept are well understood, but many different factors can lead to carbon budgets that are either slightly smaller or slightly larger. We wanted to understand these differences, and to provide clarity on the issue for policymakers and the public.

"This study shows that, in some cases, we have been overestimating the budget by 50 to more than 200%. At the high end, this is a difference of more than 1,000 billion tons of carbon dioxide."

The same study takes a closer look at why estimates of the "safe" level of ***emissions*** have varied so widely.

One complicating factor has been, of course, uncertainty about what humans might do, and another has been about the other more transient ***greenhouse gases***, such as methane and the oxides of nitrogen.

Although short-lived and released in smaller quantities, some of these are potentially far more potent than carbon dioxide as an influence on planetary temperatures.

Complex calculations

But Dr Rogelj and his colleagues found that a significant cause of variation was simply a consequence of the different assumptions and methodologies inherent in such complex calculations.

So the researchers have re-examined both the options and the approaches, and have worked out a global figure that, they suggest, could be relevant to "real-world policy".

It takes into ***account*** the consequences of all human activity, and it embraces detailed outlines of possible low-carbon choices. It also offers, they say, a 66% chance of staying within the internationally-agreed limit.

"We now better understand the carbon budget for keeping global warming below 2C," Dr Rogelj says. "This carbon budget is very important to know because it defines how much carbon dioxide we are allowed to release into the atmosphere, ever.

"We have figured out that this budget is at the low end of what studies indicated before, and if we don't start reducing our ***emissions*** immediately, we will blow it in a few decades."

**Load-Date:** February 25, 2016

**End of Document**



[***New seeding recipe will dramatically boost grasslands***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HRS-4TW1-JCW9-22K1-00000-00&context=1516831)

Irish Examiner

January 1, 2016 Friday

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**Section:** IRELAND

**Length:** 461 words

**Body**

As well as being a more holistic approach to rearing beef and dairy livestock, the recipe could drastically cut the amount of fertiliser going into soils and save farmers a pretty penny.

***Agriculture*** is the biggest contributor to carbon pollution in Ireland, so the varied planting and diet will help achieve a 40% cut in ***emissions*** by 2030.

Caroline Brophy, of NUI Maynooth, spearheaded a big-data project that examined results from mixed planting at 31 sites across Europe, including three in Ireland, where different local climates and environments affect production.

Some of the best results came from planting red or white clover with traditional pasture plants, such as rye grass, like lolium perenne or the dactylis glomerata, commonly known as cock s-foot or orchard grass.

What we saw from the study was any kind of mixing gave a strong diversity effect, she said.

Think of putting two types of species together. If one is deeper-rooted than the other, it is able to go further down for nutrients and water, so you utilise the system better.

On average, there was an 18% increase in yield when types of legumes, such as clover, were mixed in. The study tests whether using a mix of plants, which are fast or slow to establish and take shallow or deep roots, is better than using just one, heavily fertilised grass.

Ms Brophy, a lecturer in NUI Maynooth s department of mathematics and statistics, will next look at how diversity may protect against climate extremes.

If you end up with a summer without much rain or a winter that is colder, how do you cope with that? Are there effective insurance measures you can put in place to protect yourself; so, we are asking can diversity protect against climate extremes? , she said.

Irish ***agriculture***, with 6.5m cattle and 3.5m sheep, ***accounts*** for 32.6% of Ireland s ***greenhouse-gas*** ***emissions***.

Ms Brophy said creating a diverse pasture is nothing knew. They are more resistant to weeds and cope better with changes in local climates, like increasingly dry or wet summers.

Diversity goes back as far as Darwin, she said.

While the project has collaboration with Teagasc, Ms Brophy urged a greater connection with farmers for the testing of planting schemes.

I think it s happening a little bit already. If you have a system that works, why try messing with it, she said.

I don t want to put words in farmers mouths, but I think there is a a small movement towards putting legumes in among the grass. I think the farming community are open to it.

One farmer, Tommy Moyles, from Ardfield near Clonakilty, in Co Cork, has already seized the initiative by turning his ***land*** from tillage to pasture, but allowing a strong clover content in his grass and reducing his artificial nitrogen usage from 26 tonnes to 14 since 2012.

**Load-Date:** January 1, 2016

**End of Document**



[***EMISSION IMPOSSIBLE; As EU leaders discuss emissions cuts, battlelines are being drawn up between the Irish agricultural sector and the environmentalists, says John Mooney***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:626G-R2F1-JCBW-N0WW-00000-00&context=1516831)

The Sunday Times (London)

December 6, 2015 Sunday

Edition 1, Ireland

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**Section:** FEATURES; Pg. 14

**Length:** 1627 words

**Byline:** John Mooney

**Body**

The taoiseach seemed confident and had an assured manner as he briefed journalists at the COP21 global climate summit in Paris last Monday. Ireland, declared Enda Kenny, had struggled to meet its targets to reduce carbon ***emissions*** as a result of the recession, which he described as a "lost decade". It had meant fewer resources being available to invest in climate change research and infrastructure.

The bottom line was that Ireland would need "time and space" to meet stringent EU targets of a 40% reduction in ***emissions*** from 1990 levels by 2030. "We do not want to see a situation where we are limited in what we can produce by the abolition of quotas, only to find food is being produced in countries with inferior standards and higher ***emission*** levels," said Kenny.

Addressing the summit, the taoiseach spoke about Ireland's commitment to cut ***emissions*** by 2050 through the Climate Action and Low Carbon Development Bill, though he warned that any plan could not be allowed to compromise the nation's capacity for food production.

Some environmental campaigners described the bill as a farce intended to distract attention from the government's inaction.

Malcolm Noonan, a Green party spokesman, said: "This bill is almost worse than doing nothing, because it is creating the impression something is being done when it's not. Climate change will be put on the backburner again, as it has throughout this government's term. The bill has no binding targets, sets up a powerless climate change advisory council, is purely aspirational and has no requirements for anybody to do anything."

Kenny's government is accused of exposing Irish taxpayers to the threat of fines of billions of euros if the country fails to reduce carbon ***emissions*** caused by the ***agricultural*** sector, which is responsible for 30% of its total.

Some campaigners compare the relationship between Fine Gael and rural organisations such as the Irish Farmers' Association (IFA) to the one that existed between Fianna Fail and property developers during the Celtic tiger.

Is the government prioritising the interests of big farmers? Should Ireland radically change its ***agricultural*** policies and refocus on forestry and other types of sustainable and ethical farming that are more carbon-friendly? THE United Nations Food and ***Agriculture*** Organisation estimates that livestock farming is responsible for approximately 18% of all ***greenhouse gases*** globally. This is more than ***emissions*** produced by cars, planes and all other forms of transport put together. The problem is more acute in Ireland, as the national herd of cattle is disproportionately large. Ireland has 1.1m dairy cows and more than 5m cattle being reared for beef.

Cattle do not produce CO2 but do belch out between 80kg to 120kg of methane each per annum. Methane is 35 times more powerful than CO2 because it traps more infra-red radiation, which is causing the planet to warm, ice caps to melt, weather extremes, desert expansion and the destruction of wildlife habitats.

***Emissions*** from ***agriculture*** are likely to increase under Ireland's Food Wise 2025 plan which aims to increase the size of the dairy herd. Joseph Curtin, a senior research fellow on climate policy at the Institute of International and European Affairs, estimates that ***emissions*** from the sector will increase by 9% between 2012 and 2020, though the recession has ensured Ireland will probably meet its 2020 targets. He said the real problem concerns Europe's plans to reduce ***emissions*** by 40% by 2030 - a target being negotiated by member states.

"Food Wise 2025 envisages a huge expansion in dairy and this would result in a significant increase in ***emissions***," said Curtin. "The benefits of Food Wise 2025 in terms of job creation and regional development are stated clearly, but the carbon costs, which are certainly available, have not been published."

Curtin estimates that, on current trends, Ireland's ***emissions*** will exceed the 2030 target by about 20m tonnes a year. This could result in the imposition of fines of (EURO)2.5bn. "This assumes we do nothing to reduce ***emissions*** from ***agriculture*** and transport, and that we get a moderate target from ongoing negotiations," he said.

The climatologist believes the government should change the ***agricultural*** landscape in Ireland. Some beef farmers should switch to planting forestry, since trees act as a carbon sink. "If we increased afforestation back to 20,000 ha per annum, we could close the 2030 gap by 6m-8m tonnes. If we retrofit [make more energy efficient] 1m homes we could save another 3m-4m tonnes and create thousands of jobs," he said.

Ireland has only 11% of its ***land*** mass as ***forest*** compared with an EU average of 42%, even though trees grow up to three times faster here than the EU average, according to government figures.

John Sweeney, a leading climatologist, believes Irish farmers are good stewards of the countryside, but are being let down by misguided government policy. "The policies are all short term. The government wants to expand the dairy industry but the price of milk has halved. It's crazy," he said.

"Ireland will always be a good ***agricultural*** country but we have to ask ourselves, what type of ***agriculture***? There are environmental consequences to what we are doing. We've seen the fodder crisis which cost us (EURO)500m. These are not one-off events. These weather extremes are going to become more frequent ... ***Agriculture*** will have to adapt, which might just involve some rethinking."

Sweeney said that Ireland's primary ***agriculture*** industry ***accounts*** for 1.65% of gross national product (GNP). This increases to 7% if agri-food (producing food ***agriculturally***) is added in. He said that the government was happy to allow 1.5m urban households and 3.5m motorists to pay carbon taxes to cover the cost of ***emissions*** by 135,000 farmers.

"This is something that has to be debated in public, rather than quietly pushed under the carpet."

Oisin Coghlan, a spokesman for Friends of the Earth, believes the taoiseach "let the cat out of the bag" in his comments before addressing the COP21. "He was basically saying ***agriculture*** was too important to be compromised by climate change," he said.

Coghlan suspects the government is going to seek a derogation for ***agriculture*** on the 2030 targets, which are still being negotiated. "Compare how the government organised itself to promote jobs after the economic crash and how it has organised itself to take action on climate change," he said. "The action plan for jobs was driven by the taoiseach and his department. It set out an annual plans, quarterly reports and benchmarking, which worked.

"I don't think Ireland is going to be rewarded for its inaction. The EU knows if it gives in to Irish demands to protect our favoured industry, what's to stop the German's demanding a derogation for car manufacturing? If we keep going the way we are, and we do not get a derogation from the EU, we could be fined between (EURO)2bn and (EURO)5bn," he said.

Alan Matthews, a professor emeritus of European ***agricultural*** policy at Trinity College Dublin, asks why transport users are paying for the ***emissions*** of the ***agriculture*** sector. "If you emit a molecule of carbon from driving or from ***agriculture***, it's all the same," he said. "No one is saying you can't expand dairy farming in Ireland, no more than anyone is saying you shouldn't drive to work. But we should have a system of prices that reflects the environmental damage done by everyone. So if there is a carbon tax on fuel, there should be a carbon tax on farm produce."

Matthews has been criticised by the IFA for research he conducted on the beef industry, which concluded much of it would be lossmaking and unsustainable without European subsidies in the form of single farm payments.

"Much beef farming makes no sense whatsoever," he said. "The real problem with encouraging farmers to move into carbon-friendly types of farming is that there is no penalty for beef and dairy farming. Farmers are not forced to consider if there is a cost to the rest of society for their activities."

Harold Kingston, chairman of the IFA's environment and rural-affairs committee, said that the lobby group accepts the science but believes that a "one size fits all" approach to tackling greenhouse ***emissions*** is not feasible.

"I [agree] that some farmers should look at forestry. Certain farms are loss-making on beef, and there are some ***lands*** which would make better economic sense to plant with trees," he said. "But if we don't supply the beef, someone else will. There is no point in debating otherwise. Ireland has a unique environment and particular climate for producing dairy and beef. Grass is our best crop."

Kingston argues that it is not realistic to expect countries which have an ability to produce a certain product to be singled out. "It's a global problem. If you look at rice production, that should be stopped immediately. It's the same with almonds in California. Harvesting almonds uses a phenomenal amount of water," he said.

Asked whether the IFA is too close to Fine Gael, Kingston replied that the association supports the government's ***agriculture*** policies and believes that minister Simon Coveney is doing a good job. "For a long time we weren't listened to. Now we are," he said. The Department of Agri- culture said that projections by the Environment Protection Agency showed that ***agriculture*** ***emissions*** would rise by 2% by 2020.

"The ***agriculture*** sector is not looking for a free pass," it said. "***Agriculture*** will play its part but there is no silver bullet in terms of ***agriculture*** technology or practice that can be globally applied," it said.

The negotiations at COP21 continue this week.

Kevin Myers, page 17

FARMERS ARE NOT BEING FORCED TO CONSIDER IF THERE IS A COST TO SOCIETY FOR THEIR ACTIVITIES

**Graphic**

Mind your carbon footprint there

**Load-Date:** March 13, 2021

**End of Document**



[***Golf: Scottish Open Highlights - 11:51 PM GMT***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5K6M-6X51-JBH6-C4KP-00000-00&context=1516831)

TVEyes - BBC 2

July 10, 2016 Sunday

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**Section:** U.K. NATIONAL; Sport

**Length:** 447 words

**Highlight:** The best of the final-round action from Inverness as many of the world's leading golfers compete for the title in the £3.25 million event. Former winners Luke Donald and Lee Westwood are among the field, along with five-time major champion Phil Mickelson. The event has been closely contested in recent years.

**Body**

**Speech to text transcript:**[[6]](#footnote-7)1

highlights will be available. Zach Johnson defending the title he victory at St Andrews. Then coverage from the women's British Open. Two-day, the Scottish links belong to Alex Noren.

He is the Aberdeen Asset Management Scottish Open champion. Breathtaking beauty and boats for as far as the eye can see. This is the picturesque coast of Pembrokeshire. And every couple of years a flotilla of boats gathers here for a very special celebration of this area's marine heritage. This is just part of that flotilla, and later on I'll be going on board to discover more about it. Helen's cooking up a seaweed-y storm in a surfer's paradise. I add it to baked beans now, I add it to porridge, I add it to everything. Porridge? Yeah. You are so in love with seaweed, it is scary. Tom's looking at why gas ***emissions*** from farms are causing such a problem. ***Agriculture*** and ***land*** use change ***account*** for between a fifth and a quarter of the world's ***greenhouse gas*** ***emissions***. And Adam's transporting some of his cattle to pastures new. It is not a simple process, moving animals - something you can't do on a whim. OK, girls. This is your new home. Pembrokeshire's spectacular shores are famously scenic - one of our landscape's richest treasures. But the coastline is cleft in two by this vast estuary, where four rivers meet and drain into the Celtic Sea. It's called the Daugleddau, and on its banks lies the Port of Milford Haven. A twisting ribbon of wide, deep water, the estuary has shaped local livelihoods and industries. It's one of the world's greatest natural harbours. It's rightly called the Haven, and for as long as there have been boats, they've found shelter on this waterway. David James of the West Wales Maritime Heritage Society takes great pride in the history of his local patch. David. Hello, John, how are you? Fine, thank you. This place has got an amazing seafaring history, hasn't it? Oh, absolutely tremendous. Legend has it the stones for Stonehenge were transported down this very waterway. And at least one prehistoric A lot of the island names have Viking names, like Skomer, Skokholm, and Hubba, a suburb of Milford Haven. And of course it's always been boat building here, shipbuilding. Oh, absolutely. There were two royal dockyards in Pembrokeshire. There was one in Milford that built seven ships for Nelson's navy. But they built a great number of

**Load-Date:** July 10, 2016

**End of Document**



[***ROAD TO NEW GLOBAL CLIMATE DEAL***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HH4-HR01-F12F-F53C-00000-00&context=1516831)

UK Government News

November 25, 2015 Wednesday 11:58 AM EST

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**Length:** 799 words

**Body**

LONDON, Nov. 25 -- Foreign and Commonwealth Office issued the following blog:

The next round of UN climate negotiations kick off in Paris on 30th November. And while these rounds happen annually, this year is particularly significant because the prize is a new global, legally-binding treaty on climate change. Whether that can be achieved, and how ambitious it is, matters to us all.

WHAT IS IT?

The 196 members of the UN Framework Convention on Climate Change (UNFCCC) have committed to agreeing a new deal at Paris which is legally-binding and applicable to all countries. Its ultimate aim is to prevent average global temperatures from rising by more than 2 degrees.

So far, 163 countries have announced commitments to reduce their ***emissions***. I was delighted to see Thailand submit its pledge last month, promising to cut ***emissions*** by 20%. This is a great start, and we and our EU partners will be looking for ways we can help Thailand achieve that goal.

WHY IS IT IMPORTANT?

Climate change is one of the most serious threats facing our world. And it is not just a threat to the environment. It is also a threat to our security, our development and our economic prosperity.

South East Asia is particularly vulnerable to the impacts of climate change. A recent study by the UK Meteorological Office suggested that by 2100, without reducing ***emissions***, the region could face:

\* A 5% increase in days of drought;

\* A 77% increase in inland river flooding; and

\* An 8% decrease in water available for ***agriculture*** (while demand for this grows at 10%).

Thailand has also experienced coastal flooding and a rising sea level in some areas. Dangerous climate change can only be avoided if global ***emissions*** are reduced. The cost of reducing ***emissions*** will be less if all countries move together, and the most effective way to do that is through a global deal, which is transparent and bound by strong rules.

WHAT WILL IT ACHIEVE?

A strong and effective global climate deal in Paris can bring down global ***emissions***, provide the necessary confidence to governments and investors, and keep our goal of limiting global warming to 2degreeC within reach.

A global deal will also provide opportunities. It will encourage innovation and investment in low carbon technology, increase economies of scale in clean energy, and accelerate the growth of the low carbon economy.

But we're not there yet. For a global deal to be effective, it must be:

\* Ambitious. There needs to be a real shift from business as usual to an acceptance that low carbon economies are the only option in the future;

\* ***Accountable***. There should be a regular review process every five years to ensure we're making the necessary progress;

\* Legally-binding. A strong set of rules applicable to everyone is critical to ensuring transparency and increasing certainty for the investments we need;

\* Long-Term. The commitments need to be sustainable and long-lasting.

\* Properly Financed. We need to ensure there is enough finance to help the most vulnerable countries reduce ***emissions*** and adapt to impacts.

WHAT IS THE UK DOING?

We are playing our part. The EU has committed to reduce ***emissions*** by 40% by 2030. The UK will go even further, reducing our ***emissions*** by more than 50% by 2030 and by 80% by 2050. We are working with the EU and international partners to encourage strong and effective action from all.

The UK is one of the largest donors helping the most vulnerable countries develop sustainably and be more resilient to climate impacts: between 2010 and 2016 we are giving pound 4.48bn.

In Thailand, we've been supporting ***emissions*** reduction through a number of projects, including publication of a solar energy roadmap at [*http://www.dede.go.th/ewt\_dl\_link.php?nid=42059*](http://www.dede.go.th/ewt_dl_link.php?nid=42059), and working with the Thailand ***Greenhouse Gas*** Organisation (visit:   [*http://www.tgo.or.th/2015/thai/2015UKModel.php*](http://www.tgo.or.th/2015/thai/2015UKModel.php)) to develop the 'Thailand 2050 ***Emissions*** Pathways Calculator', a web tool which allows anyone to map out their own ***emissions*** future for Thailand by making choices about energy policy and ***land*** use.

IS PARIS THE END OF THE STORY?

A single treaty will not solve climate change. Our aim is to see all countries take on commitments which keep 2 degrees within reach; support the private sector in driving the most cost-effective long-term solutions to this; and help the poorest and most vulnerable to adapt to unavoidable climate change.

Beyond Paris, all countries need to look at what more they can do to push the boundaries of their ambition even further - we all need to see our commitments at Paris as the minimum rather than the maximum that can be achieved. Not an easy task by any means, but one that is possible if we work together. For any query with respect to this article or any other content requirement, please contact Editor at [*htsyndication@hindustantimes.com*](mailto:htsyndication@hindustantimes.com)

**Load-Date:** December 1, 2015

**End of Document**



[***FARMING POLL 2015: Sore points for three out of four farmers***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5H0M-TBW1-F0BB-S26N-00000-00&context=1516831)

Irish Examiner

September 24, 2015 Thursday

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**Section:** SUPPLEMENTS

**Length:** 362 words

**Body**

They are far from happy with publication of their EU direct payments, with 78% of the 569 farmers surveyed as part of the Irish Examiner ICMSA farming survey agreeing this is is an unfair invasion of their privacy.

It s not heard to reason why 63% of those surveyed strongly agree with the statement, and 15% slightly agree.

The information being made freely available on a publicly accessible website angered farmers.

If there was some sort of restriction on who could access the information, perhaps farmers might not be as angered.

Their organisations argued that publishing direct payment information would arouse the interest of criminals who target rural dwellers.

Farmers have said they are not against transparency, or the right of EU taxpayers to check what payments farmers get, but their security concerns are genuine.

Another sore point: suggestions that Irish farmers should cut back production in order to reduce global warming are not well received.

Three out of four in the survey disagreed with the suggestion that Irish farmers should cut back their production to reduce global warming (51% strongly disagreed, 24% slightly disagreed).

Paradoxically, although ***agriculture*** ***accounts*** for a relatively very high 32% of ***greenhouse gas*** ***emissions*** in Ireland, our grass-based production system makes Irish livestock farming more environmentally sustainable than some systems in other countries.

Our farmers know we have the climate to grow grass, and environmentally friendly systems so why should they reduce production?

Farmers are also annoyed at how strictly the Department of ***Agriculture*** implements EU legislation, with 73% of those surveyed agreeing that the Department is too strict (51% strongly agree , 22% agree ).

Perhaps the claw back of money by the Department where payments were overclaimed on ineligible ***lands*** is partly to blame for the anger.

Three out of four farmers are also against the bank s right to repossess a family home, if the mortgage hasn t been paid in over a year.

Only 14% of those surveyed agree with the right of banks to repossess family homes in this circumstance.

Follow this link for more survey findings and analysis Survey methodology

**Load-Date:** September 24, 2015

**End of Document**



[***Climate change must be halted, now; Heating the planet is an ecocrime***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5H88-7DG1-JCM4-64F5-00000-00&context=1516831)

Le Monde Diplomatique (English)

November 1, 2015

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**Length:** 1897 words

**Byline:** Agnès Sinaï

**Highlight:** International diplomacy isn’t dealing quickly or well with mitigating, let alone preventing, global warming. Are there other ways to change our lifestyles and ways of thought?

**Body**

Eko Atlantic, a new city being built on reclaimed ***land*** just outside the Lagos lagoon, may be underwater by the end of the century. Because of global warming, the sea could cover Nigeria’s costal regions, up to 90km inland, and the city could become one of the ruins that help geologists of the future chart the history of our planet.

Three million years ago, in the Pliocene era, the atmosphere contained as much carbon dioxide as it does today; temperatures were 2-4°C higher, sea level 10-20 metres higher. Scientists today are uncertain how fast the Antarctic ice cap will melt. Some scenarios, notably that suggested by the Potsdam Institute for Climate Impact Research, claim that if all fossil fuel reserves are burned, sea level will rise by three metres a century over the next millennium (1). The chemical composition of our atmosphere is exceptional in the context of natural fluctuations of the greenhouse effect over the last million years. A 3°C rise in temperature over the 21st century (the median scenario) is comparable in scale to a glacial-interglacial transition, but much faster, since the last one involved a rise of 1°C every thousand years. Traces of the industrial age — a brief interlude in human history — will still be visible in a millennium; in 3015 the atmosphere will contain 30% of the carbon dioxide it does today.

Humanity is now the main factor governing how our planet functions. In just over two generations, we have become a geological power, and there are signs that our activities are having a lasting impact, comparable to ice ages, volcanic eruptions and meteorite strikes. The geological strata laid down by urbanisation, the damming of river, industry, mining and ***agriculture*** all contain many fossils from this unprecedented era. A feature of the Anthropocene era is the presence of entirely new substances, created since 1945, including radioisotopes, fluorinated gases and the products of biotechnology and nanotechnology. The globalisation of the petrochemical industry has produced a “palaeontology of plastic”, according to University of Leicester geologist Jan Zalasiewicz. Particles of industrial soot have been detected at the North Pole. Industrial enterprise will leave its mark on the soil, the atmosphere and the oceans for millennia.

Climate change is part of what geographer Will Steffen, geochemist Paul Crutzen and historians Jacques Grinevald and John McNeill call the great acceleration of human history (2). This exuberant period, from 1945 to now, coincides with the golden age of oil, decolonisation, and the democratisation of consumption. Negotiations at the UN have been slow to respond to this dynamic process, failing to challenge obsession with production and growth, or to tackle energy, justice and development issues. Preparatory meetings for the coming Conference of Parties (COP) to the 1992 UN Framework Convention on Climate Change (UNFCCC), in Geneva and Bonn, working on texts made complex by a need for unanimous agreement among 196 countries, have been very slow.

**Nature as a store of commodities**

So the negotiations, cut off from reality, have made little headway. Climate change, with its uncertainty and urgency, presents a challenge for environmental diplomacy; climate policies have been unable to create tools and modes of thought adequate to the task. The extent of the denial can be heard in the language, which uses the accountancy rhetoric of economics, where costs and benefits are estimated on the basis of statistical projections. In the belief that growth will continue indefinitely, modern industry treats nature as a store of commodities, or as a source of funds to pay for services rendered by the world’s ecosystems. The 2°C “safe” threshold for warming, on which the UN negotiations are based, is part of this way of thinking and assumes a degree of stability or predictability; the issue is seen as a matter of controlling the climate through human ingenuity and political mobilisation. In reality, it is hard to determine what level of ***emissions*** would be acceptable, and would allow the climate to stabilise. Nobody knows when the tipping point may come.

Political scientists and sociologists of science Stefan Aykut and Amy Dahan describe the profound disconnect between the processes leading to climate change and the multilateral organisations established over the last 20 years as a “reality rift”. It seems futile to attempt to solve problems caused by burning of fossil fuels by targeting the waste they generate without addressing their extraction. The negotiations are targeting CO2 ***emissions*** without addressing economic development, international trade rules or the mechanisms of the world energy system.

The Kyoto protocol even confirms the hegemony of international market mechanisms as a way to protect the environment, by treating the climate as a measureable and homogeneous economic good. The protocol’s flexibility mechanisms are intended to encourage the reduction of ***emissions*** where most economically efficient. This logic of compensation has been extended to ***emissions*** caused by deforestation with the UN’s REDD (reducing ***emissions*** from deforestation and ***forest*** degradation) programme, and the EU ***Emissions*** Trading Scheme, which has been a humiliating failure.

Moreover, UNFCCC has no control over the free trade system established by the World Trade Organisation, whose rules take precedence over environmental protection. This hierarchy can also be seen in the current transatlantic trade negotiations; the negotiations on the free trade agreement between the EU and Canada, which started in 2013, threaten climate policy — Europe is to allow imports of tar sands oil from Canada (3) and according to a study by the US Natural Resources Defence Council, EU imports could rise from 4,000 barrels a day in 2012 to 700,000 by 2020 (4). The Energy East pipeline, built by TransCanada, will supply European refineries in an entirely free transatlantic market.

**Collision of histories**

Historian Dipesh Chakrabarty says the climate crisis reveals the collision between the histories of planet Earth, of human evolution and of industrial civilisation (5), which are unfolding on different scales and at different speeds, forcing modern societies to change their way of thinking. Life on Earth no longer rests on stable foundations. The Anthropocene era has opened up a breach in the history of the Earth, forcing a rethink of human destiny to take ***account*** of the fundamental uncertainty about threshold effects, tipping points, irreversible changes and the possibility that the climate will go out of control.

Under these circumstances, climatologist James Hansen recommends that politicians plan to abandon the use of coal as fuel, not a precaution but as an essential measure that will allow us to hope for the “least worst case scenario”. According to Christophe McGlade and Paul Ekins of University College London, 33% of the world’s oil reserves, 50% of its gas, and more than 80% of its coal should stay buried to avoid global overheating (6). Reserves of fossil fuels economically viable with current extraction technology are equivalent to 2,900 gigatonnes of CO2, three times as much as the ***emissions*** ceiling if global warming is to be limited to +2°C.

There are new movements around the world campaigning against the extraction of minerals and fossil fuels. The Environmental Justice, Liabilities and Trade network records hundreds, from the Niger delta to Yasuní National Park in Ecuador (7). The pope has called for sobriety in an encyclical (8). Thinktanks have proposed per capita ***emissions*** allocations. In India, the Centre for Science and Environment, founded by environmentalist Anil Agarwal and directed by Sunita Narain, makes a distinction between survival ***emissions*** from the cooking stoves of the poor, and luxury ***emissions*** from the vehicles of the rich, and calls for the sharing of common goods. In Ireland, the Foundation for the Economics of Sustainability (Feasta, which also means “future” in Gaelic) suggests rationing fossil energy as a global good: an international climate fund would auction permits to produce a fixed annual quantity each year and distribute the financial benefits equitably.

Chakrabarty emphasises that the climate crisis raises major questions of justice: between generations, small island states and major polluters, past and future, developed countries (historically responsible for most ***emissions***) and industrialising countries. (About a dozen countries and a fifth of the world’s population are responsible for most ***greenhouse gas*** ***emissions***; see map).

The other way is by law. The UN’s Rio+20 conference on sustainable development in 2012 produced a popular movement of 500 organisations with a mission to end the impunity of multinationals. The End Ecocide on Earth movement campaigns for an amendment to the Rome Statute (which established the International Criminal Court in the Hague), to cover the crime of ecocide. A group of legal experts proposes conventions on ecocrime and ecocide (9) to strengthen and harmonise prevention and suppression of such crimes: ecocide would be on a level with crimes against humanity. The report recommends appointing an international prosecutor for the environment, the creation of an international criminal court of the environment, an environmental investigation and research group, and a compensation fund. The purpose of this unprecedented collection of measures, as legal expert Mireille Delmas-Marty writes, is as much to make censure widespread, as to “open us up to the hope of a common destiny” (10).

Agnès Sinaï is a journalist specialising in environmental issues and the editor of *Economie de l’après-croissance: Politiques de l’anthropocène II* (Post-growth Economics: Anthropocene Politics II), Presses de Sciences Po, Paris, 2015.

(1) Ricarda Winkelmann, Anders Levermann, Andy Ridgwell and Ken Caldeira, “Combustion of available fossil fuel resources sufficient to eliminate the Antarctic ice sheet”, *Science Advances,* vol 1, no 8, Washington DC and Cambridge (UK), 11 September 2015.

(2) See Will Steffen, Jacques Grinevald, Paul Crutzen and John McNeill, “The Anthropocene: conceptual and historical perspectives”, *Philosophical Transactions of the Royal Society A,* vol 369, no 1938, 2011.

(3) See Emmanuel Raoul, “Canada’s bitter black sands”, *Le Monde diplomatique,* English edition, May 2010.

(4) Danielle Droitsch, Luke Tonachel and Elizabeth Shope, “What’s in your tank? Northeast and Mid-Atlantic states need to reject tar sands and support clean fuels”, National Resources Defence Council, New York, 22 January 2014.

(5) Dipesh Chakrabarty, “The Anthropocene? Some Rifts in Contemporary Thinking on Climate Change”, paper given at the University of Chicago, 2 October 2013.

(6) Christophe McGlade and Paul Ekins, “The geographical distribution of fossil fuels unused when limiting global warming to 2°C”, *Nature,* no 517, London, 8 January 2015.

(7) See Aurélien Bernier, “Ecuador’s plan falters”, *Le Monde diplomatique,* English edition, July 2012.

(8) See Jean-Michel Dumay, “Francis, the whistleblower pope”, *Le Monde diplomatique,* English edition, September 2015.

(9) Laurent Neyret(ed),“Des écocrimes à l’écocide: Le droit pénal au secours de l’environnement” (From Ecocrime to Ecocide: Criminal Law to the Rescue of the Environment), Bruylant, Brussels, 2015.

(10) ibid.

**Load-Date:** December 1, 2020

**End of Document**



[***Official 'greenspeak' masks Ireland's poor environmental performance; The final part of our series on agriculture and climate change highlights how difficult it is to reduce emissions while increasing agri-production***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5H1M-WKN1-JC8Y-801M-00000-00&context=1516831)

The Irish Times

September 29, 2015 Tuesday

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**Section:** IRELAND; Pg. 8

**Length:** 2487 words

**Byline:** Paddy Woodworth

**Body**

If we can be sure of just one thing, in the complex debates about the linked futures of our environment and our ***agriculture***, it is that the Department of ***Agriculture*** and the farming and food industries have become extraordinarily fluent in "greenspeak".

And no doubt they often speak it sincerely. But it can be very hard to translate what they are saying into satisfactory actions. The word "sustainable" occurs so often in national plans such as Food Harvest 2020 and Food Wise 2025 that it sometimes seems drained of any real meaning.

For example, from the former: "A sustainable ***agricultural*** sector requires that the highest possible returns are secured for the high-quality food produced." If you substitute "super-profitable" for "sustainable" in that sentence, it makes a lot more sense.

Or consider this gem, from the same document: "Ireland's historic association with the colour green is linked to our unspoilt ***agricultural*** landscape." Passing quickly over the grim human and environmental history of our landscapes in the 19th century, a cynic might say the colour green is more closely linked in recent years to the excessive use of nitrate fertilisers that turned some of our fields to an unnaturally luminous shade of emerald - and did great damage to our waterways - than to supposedly healthy habitats.

**Dire performance**

Reports the National Parks and Wildlife Service (NPWS) has sent to the EU Directorate-General for Environment since we joined the EU show that, far from being at the top of the European environmental class, as our ***agricultural*** marketing persistently suggests, our performance is often dire.

The only place to start our journey to environmental recovery is from recognition of this fact. That does not mean that the journey is impossible, or that our ***agriculture*** cannot play a major role in the process. But it can only fulfil that potential when we stop imagining that painful conflicts of interest will vanish if sufficient magical thinking is applied to them.

Nor does it mean we should abandon initiatives such as Bord Bia's Origin Green, though its publicity - Saoirse Ronan drifting through monocultural fields while praising biodiversity - could have won a greenspeak Oscar.

Bord Bia has in fact done sterling work in persuading many farmers and food companies to take the first real steps in considering the totality of their relationship to the environment, and how they might improve it. It has also applied considerable ingenuity to the difficult question of how such improvements can be measured.

As it stands, however, Origin Green gives far too much latitude to the individual producer in deciding how much improvement is actually necessary. We would never accept such latitude in matters of health and safety, for example. Yet our blind insistence on increasing ***emissions*** that accelerate climate change would, in any rational view of things, constitute the mother of all health and safety violations.

Siobhán Egan, senior policy officer for BirdWatch Ireland, was the only environmental NGO representative on the FoodWise 2025 committee. "It was a really frustrating process," she says. Egan finds the published plan "very alarming", and says: "The level of rhetoric being used has no basis in reality and far exceeds what the content of the plan can deliver, yet the rhetoric is what is being presented to the public.

"Sustainability is used as a marketing tool, when what we need is evidence for claims that our ***agriculture*** is sustainable. There was an attitude that we can continue doing what we are doing now, disregarding the reality of significant declines in habitats and farmland species. It was also frustrating because there is a lot of good stuff happening with farming and conservation, but it's not getting adequate support."

She says that the plan needs "a robust environmental assessment", but doubts whether the assessment delivered in September, extraordinarily quickly after a public consultation closed at the end of August, will have any impact at all on the final plan.

**Urgency**

We just do not seem to appreciate the urgency of our situation.

"Climate change is a serious threat," former president Mary Robinson told a meeting at the Irish Institute of European Affairs (IIEA) last February. "It demands a completely new way of doing things, a complete transformation. Business-as-usual, with a little green-ness attached, won't be enough."

Six months closer to the crucial United Nations climate conference in Paris in December, Robinson, the UN's special envoy on climate change, believes we have still not had the "broad debate" that moving beyond business-as-usual requires.

"We in Ireland recognise the importance of the ***agricultural*** sector," she told *The Irish Times*, "but we are not looking at it in the context of how Ireland can see its future in 10, 20, 30 years' time.

"There was the beginnings of such a debate at the Trócaire conference on climate justice. It would be welcome to have a broader debate along these lines . . . I don't want to comment specifically on Irish policy, as a former president, but I just see a great potential for us to understand the importance of the food sector, but also, as a European country, to meet our obligations and cut ***emissions***. At the moment we are kind of doing special pleading but it's not really very convincing."

Robinson believes we already have a good, nationally-funded model for climate-smart ***agriculture***, but we are putting it into practice abroad rather than at home.

"Irish Aid is already doing climate-smart ***agriculture*** in Malawi, Tanzania, Uganda, with all the elements of diverse, bottom-up ***agriculture*** - less meat-producing, more focused on maize and wheat and local plants. It would be very good to be able to align our policy in supporting genuinely climate-smart ***agriculture*** in developing countries and the policies we have in Ireland itself."

Such change, she says, would offer us the opportunity to give world leadership on this issue.

But there is little sign that most of our policymakers have even begun to grasp this kind of message. There is still no clear understanding that the economy is a subset of the environment, not vice versa. We need to adjust our economic thinking to environmental imperatives, or there will be no stable ground on which our children can build any kind of prosperous economy.

Yet we persist in thinking that we can have it all, ever-increasing production and consumption, with just a little environmental tweaking here and there. This thinking appears quite clearly in the "sustainability" section of Food Wise 2025, though this was hardly the intention of the writers.

**Natural resources**

It says: "Future food production systems must be as focused on managing and sustaining our natural resources as they are on increasing production . . . environmental protection and economic competitiveness are equal and complementary: one will not be achieved at the expense of the other."

But what if "increasing production", at least at the rates envisaged in this ***agricultural*** plan, is simply incompatible with sustaining our natural resources? What if "economic competitiveness", of the type proposed in the plan, is itself the antithesis of environmental protection, not its complement?

Our natural capital is finite, but we are behaving as if it were infinite. We live in a world with a volatile climate system that we have changed and are continuing to change with potentially catastrophic consequences.

Yet we treat this crisis as requiring only techno-fixes and eco-labelling, not radical changes in policy and behaviour.

If we took climate change seriously, could we really be drastically increasing dairy production, when we know that ***agriculture*** already generates one-third of all our ***greenhouse gas*** (GHG) ***emissions***?

In fairness, the challenge of GHG ***emissions*** is recognised in Food Wise 2025, but the assumptions and arguments advanced to meet that challenge are not convincing. There is a recurrent assumption that techno-fixes can be found to reduce overall ***emissions***, while continually increasing the production that creates them.

Well, we just might discover the secret of nuclear fusion as well, but it's dangerous to bet so heavily on extraordinary advances in science as our main response to a clear and present danger. Nor do crippling cutbacks at Teagasc suggest that the Government is really serious about this option.

Harold Kingston, chairman of the IFA's Environment and Rural Affairs committee, accepts that "we are in a very tight situation regarding climate change. But I believe we can fix it in our generation, if by fixing it we mean maintaining warming below a 2-degree rise."

He makes a cogent case for the current IFA position: our grass-based dairy and beef production is already among the most carbon-efficient in Europe. If we reduced production, he says, it would simply shift to less carbon-efficient countries to meet market demand. Our farmers would suffer huge losses, and climate would suffer more damage, not less. Our national interest would be damaged, with no gain to the global environment.

**Blaming *agriculture***

He says, with some justice, that "people who are up in arms about climate change sometimes seem to blame ***agriculture*** for everything". He believes that most farmers want to practise conservation, in the sense of passing on their ***land*** in better condition, in every sense, than they found it. But he points out that sustainability must include economic and social well-being, as well as environmental considerations.

Kingston argues that the ***emissions*** targets agreed by the Government put an undue burden on farmers, and that his sector is given no credit for the significant amount of carbon sequestered on ***agricultural*** ***land***.

The counter-argument is that our relative carbon efficiency does not make our substantial agri-***emissions*** cause any less climate change.

A responsible government would not be making an exceptional case for derogation for ***agriculture***, but would be working hard internationally to build institutions that prevent the problem being shifted elsewhere.

And what kind of national interest puts the poorest countries in the world, and our own future generations, at severe risk? Why can we not summon up the imagination to even consider that there might now be a compelling need to place limits on growth? Or that our economic - and dietary - dependence on the mass consumption of beef and dairy products, which we are now selling into cultures that were never dependent on them, and did perfectly well without them, might ultimately be an addiction more dangerous to the livelihoods of our children than heroin?

Of course, we must recognise, as a society, that radically cutting GHG ***emissions*** in ***agriculture*** will have serious impacts on many farm incomes, at least in the short term. We must all be prepared to share that burden, if necessary through increased taxation to subsidise vulnerable farmers through a transition to more climate-friendly kinds of ***land*** management.

**Considerable potential**

There is also considerable potential on productive ***land*** for restoring corridors and patches of native ***forest*** and other habitats of high biodiversity value, the necklaces that are so badly needed to string the jewels of our conservation sites together. Again, such environmentally friendly management must be properly rewarded financially.

There are also opportunities in eco-tourism and recreation. Enterprise and innovation will be needed in spades to make this transition successful. But this task is likely to be much more feasible than attempts to increase dairy production while cutting GHG ***emissions***.

There will be much scope for marketing expertise also, leading consumers to switch from beef and dairy, at least in part, towards cereals, vegetables and fruit. That might cut our soaring health costs - so there could be unexpected benefits along this route.

Meanwhile, the IFA's case that carbon credits and debits on the ***land*** are not being accurately ***accounted*** for certainly deserves to be examined in depth.

These are all complex equations, to be sure. But we need to start working on them. Very urgently.

Paddy Woodworth is the author of *Our Once and Future Planet: Restoring the World in the Climate Change Century* (University of Chicago Press 2013, published in paperback this month) and a founding member of the Irish Forum on Natural Capital Series concluded

**Challenges Adapt to change**

One place where the issues of ***agriculture*** and climate change are on the table is the IIEA/RDS Leadership Forum on Climate Smart ***Agriculture***, an initiative championed by the IIEA's director general Tom Arnold, who also sits on the board of Mary Robinson's Foundation for Climate Justice.

Arnold is in a better position than most to gauge how the discussion will go though he is naturally keen not to close off any options at this stage.

"Our motivation," he says, "is to bring the key protagonists together, to foster a more serious, high-quality debate aimed at clarifying the issues and educating the various parties, and hopefully arriving at sensible and progressive policy prescriptions which could attract the support of the main stakeholders. Whether these are achievable objectives remains to be seen.

"In working towards a final report for the project, there has to be clarity on a number of key issues."

He asks:

What is the objective and fact-based position about Ireland's relative competitive position as a producer of carbon-efficient food?

What are the GHG consequences of the expansion in milk and beef envisioned in Food Wise 2025?

What are the consequences for other economic sectors of ***agricultural*** expansion in the context of ***emission*** commitments for 2020 and 2030?

Arnold accepts that the forum is based on the assumption that it is possible to "square this circle of increasing food production and meeting climate change obligations".

"I am not convinced there is any realistic prospect of a radical change in dietary patterns in the short to medium term in either developed or developing countries, in the same way as I don't think there is any realistic chances of changing in our use of cars in favour of a massive shift to public transport," he says.

But he also agrees that "it is possible to argue that a more radical conclusion is a more reasonable position to reach. I certainly agree we have to move in a direction of changing ***land*** use and indeed supporting more schemes like Burren Life."

Arnold is certainly right to point up the challenge of changing our behaviour. And perhaps the IIEA/RDS debate can indeed square the circle of cutting ***emissions*** while increasing production.

But if it can't, we could do worse than ponder a succinct paraphrase of Darwin's theory of evolution by the marketing and management expert Leon C Megginson: "It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change."

**Load-Date:** September 28, 2015

**End of Document**



[***New world agriculture census round to kick off in 2016***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5HBK-Y1S1-F0K1-N4VP-00000-00&context=1516831)

FinancialWire

November 3, 2015 Tuesday

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**Length:** 616 words

**Body**

Updated and revised FAO guidelines set international standard on collecting data

ROME, Italy -- A new global round of country-driven ***agricultural*** censuses is set to begin in 2016, a large-scale, data collection process that will gather information and statistics on the world's ***agricultural*** sector.

To support the process, FAO today published a set of updated guidelines to assist governments in carrying out their national-level ***agricultural*** censuses, tailored to various different country needs and capacities. This is the latest edition of guidelines which FAO provides every 10 years.

These censuses are crucial for governments to implement evidence-based policies to foster ***agricultural*** and rural development, ensure access to ***land***, improve food security and reduce the adverse environmental impacts of ***agricultural*** activities. Census data are also essential for the private sector to make informed decisions that guide their investments in agri-business activities.

The information collected provides an accurate picture of the ***agricultural*** sector and a reliable sampling frame for current ***agricultural*** surveys. In particular, the censuses entail a complete ***account*** of the structure of the ***agricultural*** sector, including the number and size of holdings, ***land*** use, crop area, crop intensity, irrigation facilities, ***agricultural*** input use, livestock numbers, as well as farmer demographics and employment.

Based on countries' experiences and lessons learnt over previous decades, the new guidelines form part of the FAO coordinated World Programme for the Census of ***Agriculture***, which covers the period 2016-2025. For the first time, the new census programme provides guidance on how to obtain and integrate data on fisheries (capture fisheries activities as aquaculture was already included) and on ***greenhouse gas*** and ammonia ***emissions*** from ***agricultural*** activities.

"The use of these guidelines by FAO member countries ensures that census results are harmonized and internationally comparable, and allows countries to benchmark their performance against others," said Pietro Gennari, FAO Chief Statistician.

"They address the requirements of both developed and developing countries, and provide the foundation for the development of an integrated census and survey programme, for using innovative methods and tools for data collection, and ultimately, for making better informed strategic decisions," he added.

Technology lends a helping hand

The new FAO guidelines advocate an intensive use of information and communication technologies in all census taking operations. In particular, the use of geo-referencing devices, including Global Positioning Systems (GPS) and Geographical Information Systems (GIS), as well as mobile phones and tablets or laptops, provide new opportunities to speed-up the process and improve data quality. Satellite images can also assist where households and ***land*** plots are clearly demarcated.

Mobile phone applications and other user-friendly dissemination tools can help to ensure broader access to census results, and therefore support informed decision-making.

Countries set a new record

The 2006-2015 round marks a new record in the number of countries which have conducted ***agricultural*** censuses, 135 in total as of today. "FAO has technically assisted many of these countries, especially those with more limited statistical capacity, and will continue to supporting its members in the organization of their censuses of ***agriculture*** in line with the new guidelines" said Jay Castano, FAO ***Agricultural*** Census team leader.

Distributed by APO (African Press Organization) on behalf of Food and ***Agriculture*** Organization (FAO).

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**Load-Date:** November 9, 2015

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[***Food production cut by warm-weather farming; Scientists suggest that with warmer temperatures, farmers plant many fewer crops than they used to***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5J80-C2T1-F072-44HS-00000-00&context=1516831)

The Independent (London)

March 8, 2016 Tuesday

First Edition

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**Section:** NEWS; Pg. 18

**Length:** 639 words

**Byline:** STEVE CONNOR SCIENCE EDITOR

**Body**

Rising global temperatures may have a far bigger impact on food production than previously thought, according to a study of how farmers have been responding to a warmer climate over the past decade.

As well as its effects on harvests, scientists found warmer weather changes the behaviour of farmers, who plant fewer crops than they would under normal conditions. This can be more important in lowering overall crop yields than the more-direct influence of warmer or drier weather on growing conditions, the researchers discovered.

Satellite images of how soybean and maize crops were planted and harvested in the Mato Grosso state of Brazil between 2002 and 2008, for instance, found that a temperature rise of just 1°C will lead to an overall reduction in production of 9-13 per cent.

"This is worrisome given that the temperature in the study region is predicted to rise by as much as 2°C by mid-century under the range of plausible ***greenhouse-gas*** ***emissions*** scenarios," said Avery Cohn, professor of environment and resource policy at Tufts University in Massachusetts, a senior author of the study.

Mato Grosso is considered an important emerging "bread basket" for the world and was chosen because it represents the kind of humid, tropical ***agricultural*** region that could be particularly vulnerable to climate change. It already supplies some 10 per cent of global soybean production.

The satellite study, funded by US National Aeronautics and Space Administration (Nasa) and published in Nature Climate Change, investigated how much ***land*** Brazilian farmers chose to sow and how many crops they planted in each growing season, to see how this behaviour was influenced by ambient growing temperatures over the eight-year period.

"If you look at yields alone, you're not looking at all of the information because there are economic and social changes going on as well. You're not taking into ***account*** farmers' reactions to climate shocks," said Professor Leah VanWey, professor of sociology at Brown University in Providence, Rhode Island.

"Had we looked at yield alone, as most studies do, we would have missed the production losses associated with these other variables."

For instance, farmers may choose not to put as much ***land*** into production after a bad season. Or they may choose to avoid "double cropping", a practice common in the tropics were two crops are sown each growing season to maximise annual production.

Using Nasa's MODIS satellite, which monitors the type of ***land*** cover from space, the scientists could see whether one crop or two were grown in any given season by counting the areas that turned green and then brown, then green and brown again - indicating a double harvest.

"The changes in cropping that we quantified with remotely sensed data were stunning. We can use those satellite data to better understand what's happening from a climate, economic, and sociological standpoint," said Jack Mustard, professor of earth and planetary sciences at Brown University.

The scientists estimated in this region a 1°C increase in temperature would result in changes to farming practice, such as less ***land*** used in production and fewer double crops. That would ***account*** for 70 per cent of the drop in food production, with the remaining 30 per cent due to a decline in crop yield.

The researchers said this is why previous studies into the effect of climate change on crop yield may have underestimated the actual impact on food production, especially in emerging countries such as Brazil that do not have ***agricultural*** subsidies.

"This is an ***agricultural*** frontier in the tropics in a middle-income country," Professor VanWey said. "This is where the vast majority of ***agricultural*** development is going to happen in the next 30-50 years. So understanding how people respond in this kind of environment is going to be really important."

**Load-Date:** March 7, 2016

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[***Food security atforefront of climate treaty***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5JP5-XG61-JB14-73JJ-00000-00&context=1516831)

World Poultry (English)

April 26, 2016

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**Section:** ARTICLES; Vol. 32; No. 3

**Length:** 1050 words

**Byline:** Dick van Doorn

**Highlight:** At the end of last year close to 200 participants at the Climate Conference 2015 in Paris voted for a new binding climate agreement. In this agreement food production and security became an integral part of this new global climate treaty, which traditionally revolved around CO2 ***emissions***.

**Body**

By Dick van Doorn

Farmers and producer organisations across the board hailed the fact that food production and security finally made it into the text of the climate treaty. Koert Verkerk, Policy Advisor International Affairs of the Dutch Federation of ***Agriculture*** and Horticulture based in Brussels and the permanent representative of this organisation to Copa Cogeca, the European farmers and Cooperatives organisation, see it as a victory. Colleagues of Verkerk have co-written part of the new agreement in the various negotiating teams. That food production and security have become part of the climate convention is, according to him, a piece of consciousness to say the least. “One does not exclude the other. ***Agriculture*** and horticulture are polluters of the environment, especially the livestock sector. But, both the United Nations (UN), the FAO as the scientific community will see these also as part of the solution to prevent climate change.” With a focus on sustainable poultry farming, ***emissions*** can be reduced. For example, a poultry house can be fitted with an air scrubber to prevent NH3 entering the atmosphere, in breeding programmes there is a lot to be gained in terms of efficiency and manure can be processed into useful products.

**Food security at centre stage**

Separate from the Climate Treaty the UN has drawn up about 30 so-called ‘Sustainable Development Goals’. Verkerk: “Point two of these 30 goals is ending extreme hunger by 2030. This is now also evident in the climate agreement itself.” Basically this means, according to the lobbyist, that preventing climate change may never be at the expense of food production. Suppose a country or association of countries put heavy demands on ***agriculture*** and this is too much at the expense of food production, then these requirements must be relaxed.

Food production and security has since this last climate treaty clearly been put forward as a priority.” Not only is the European Union aware of this, also other countries have adapted their legislation accordingly. Examples are the Food Safety Modernization Act (FSMA) in the USA and the recently published amended food safety law in China to improve food safety. This can mean that climate measures may not lead to a decrease in food security in for example the developed world, but it also means that climate measures must be taken in order to prevent flooding of ***agricultural*** ***land*** in for example Bangladesh.

**Focus on achieving targets**

On the other hand, both the UN and the climate treaty aims at making ***agriculture*** as sustainable as possible. Verkerk: “According to the latest climate agreement the so-called developed countries worldwide must donate at least €100 billion per year to the climate fund. All resulting projects are accompanied by the UN.” How much the livestock sectors will get exactly, is not yet clear, but it is clear that it will have to be used for sustainable farming methods. Verkerk expects that the climate agreement will be translated in future legislation of the 198 countries that signed the agreement. Also in US legislation and the common ***agricultural*** policy (CAP) of the EU. This is providing an opportunity according to Verkerk: “To ensure more sustainable food production and security one needs not so much tougher, but smarter legislation that points the livestock industry in the right direction.”

Last year during Expo Milano 2015 in Italy the core theme was ‘Feeding the Planet, Energy for Life’. One of the topics was that poultry meat combines the advantages of being an affordable and accessible source of protein with low fat content and low carbon ***emissions***. Recent FAO figures show that the poultry sector, which ***accounts*** for 35% of global livestock production, contributes only 7% to the total livestock ***emissions***. This makes poultry one of the most sustainable meat sectors in the world according to Verkerk.

**Future reflections**

Maja Slingerland, on behalf of the Centre for Sustainable Development and Food Security of Wageningen University, finds it gratifying news that food security is now part of the climate treaty of Paris. If we focus on livestock, she stresses that animal manure makes an important contribution to ***greenhouse gas*** ***emissions***. The manure management of free-range chickens is difficult. For poultry in stables careful manure management is possible, including the capture of ***greenhouse gases***. “Anaerobic digestion of manure may be part of the solution and can also deliver bioenergy, so that double climate advantage can be achieved. Within Europe, and preferably also in the USA, Canada, New Zealand and the like, minimum guidelines could be agreed upon so that climate-friendly poultry farmers experience no competitive disadvantage.”

**Food vs feed discussion**

Another concern about the climate aspect of poultry farming is feed production. At some point there would be competition with the production of crops for human consumption. “From the food security argument, less climate change related requirements could be demanded for food crops as suggested above by Verkerk, for example to avoid food becoming too expensive or lower food production in developing countries.” However when for the same crops climate change related restrictions would not be relaxed when it is used as poultry feed, this would lead to the need for segregated supply chains which is expensive and difficult to control especially when the destination of the harvested produce is only decided after production.

Higher climate-related requirements may lead to more creativity in housing and food rations of poultry, which require less fossil fuels.  Slingerland: “Nevertheless, besides climate change goals, other aspects should be kept in mind. A high feed conversion (a lot of meat or egg per kg feed) is for example the most climate friendly, but rightly inhibited by considerations of animal welfare. Poultry farming in developing countries is often not yet industrialised. Additional climate demands on their current poultry farming can, if they are accompanied by high investment, drive up the prices of poultry products making these unattainable for poor people and thus threaten food security.” On the other hand, requirements from the climate agenda may bring the poultry sector in developing countries on a different development path.

**Graphic**

Production of meat has a large environmental footprint, but food security and preventing extreme hunger in the world has to be achieved at all costs.

Of all animal protein production, poultry meat and eggs have the smallest environmental impact.

At some point there will be competition between crops for food or for feed.

**Load-Date:** May 4, 2016

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[***BBC News - 5:27 PM GMT***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5K51-7GH1-JBH6-C08D-00000-00&context=1516831)

TVEyes - BBC 1 North West

July 3, 2016 Sunday

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**Section:** U.K. REGIONAL TV; News

**Length:** 551 words

**Highlight:** The latest national and international news from the BBC.

**Body**

**Speech to text transcript:**[[7]](#footnote-8)1

of the day and we will continue to see this rain starting to push in. Highs of 19 Celsius. The Outlook- turning slightly more settled as we go towards Wednesday and Thursday. That is it from me for now.

I will be back at 10:30pm. Goodbye. Bye-bye. Good evening. It's been a gradual improving weather story through the weekend. Yesterday, we have plenty of heavy downpours. Today, plenty of scenes like the one behind me, sent in from Christchurch in Dorset. We have sunshine and many others will keep late sunshine through the evening. One or two showers still around, mainly across parts of Scotland, and during tonight those showers will be confined to the far north-west. Clear and dry conditions elsewhere with white winds. We are likely to see one or two mist and fog patches through the early hours of Monday, particularly through southern England and Wales. Most places start the day with some sunshine. A bit more cloud for western areas. The cloud through south-west England will drift eastwards across England and Wales after a sunny start the day. Reign initially for Northern Ireland will head across southern Scotland, northern England and north-west Wales. To the south of that, 21 Celsius with light winds should feel warm, fresh conditions further north. We are hopeful things will remain dry at Wimbledon, 19-20 Celsius, spells of sunshine, an isolated chance of an isolated shower. Tuesday looks like an improving story. The rain clears towards the east. Still the chance of a few showers for northern and eastern areas, but drier conditions building from the West and in the sunshine temperatures up to a pleasant 22 Gregg and Chris are back to help us slash the weekly food bill. Let's get to work. They'll look at the mistakes we make... I like my food, but this is embarrassing. What is that?! ..and show us that cheaper food... Anybody can make this dish. And it was less than £2.50. ..might be easier, healthier and tastier than we think. That's perfect rice. I'm not surprised, I'm astounded. Marks out of ten for your mother? Eleven. This is all about breaking habits and learning something new. Eat Well For Less is back... Breathtaking beauty and boats for as far as the eye can see. This is the picturesque coast of Pembrokeshire. And every couple of years a flotilla of boats gathers here for a very special celebration of this area's marine heritage. This is just part of that flotilla, and later on I'll be going on board to discover more about it. Helen's cooking up a seaweed-y storm in a surfer's paradise. I add it to baked beans now, I add it to porridge, I add it to everything. Porridge? Yeah. You are so in love with seaweed, it is scary. Tom's looking at why gas ***emissions*** from farms are causing such a problem. ***Agriculture*** and ***land*** use change ***account*** for between a fifth and a quarter of the world's ***greenhouse gas*** ***emissions***. And Adam's transporting some of his cattle to pastures new. It is not a simple process, moving animals - something you can't do on a whim. OK, girls. This is your new home. Pembrokeshire's spectacular shores are famously scenic - one of our landscape's richest treasures. But the coastline is cleft in two by

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[***Gardeners' World - 07:00 AM GMT***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5K6G-3G91-JBH6-C17C-00000-00&context=1516831)

TVEyes - BBC 2

July 10, 2016 Sunday

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**Section:** U.K. NATIONAL; Lifestyle

**Length:** 507 words

**Anchors:** Monty Don

**Highlight:** Monty is reaping the rewards of the summer when he begins to harvest crops from the vegetable garden and gives tips on extending the flower season in the borders. Carol takes a trip to the seaside to discover why some plants thrive despite being assaulted by salt-laden winds and we make a final visit to Sissinghurst to catch up with Troy Scott-Smith and see the changes that have been made to the garden.

**Body**

**Speech to text transcript:**[[8]](#footnote-9)1

..at this end... ..if we lift that up we can see... there is a bigger harvest from exhibit A, which was grown indoors and had two seed potatoes. Exhibit B, which was largely grown outside and only had one... ..is less, but not that much less. So what I would deduce from that, and this is not a serious trial, is that as long as they're protected from frost, there's not much advantage in growing them in a greenhouse.

Put them outside, earth them up so that the tubers don't get frosted, and the tops are slightly protected, and you'll get a perfectly good harvest. Well, that's the result of my effort to grow spuds in a bag. I know many of you have tried it too, so do let us know how you got on. If you go to our website, you can either drop us an e-mail or go to our Facebook page. And if you can send a picture, so much the better. Now, it's good to have some potatoes, this day of all days, but not enough - I want to see what else I can have for my birthday treat. Come on, Nell. Nelly! Don't need that basket. I love broad beans when they're young and sweet. Now, let's have some beetroot. Small but delicious. Well, that's the main course sorted. Now let's get some pudding. Come on, Nelly - now's your chance. Come on. Good girl. There's a good girl. Thank you. That's really good, cos I can put raspberries in that, now. Good girl! I know everybody loves strawberries and cream, and sees it as a big treat, but for me raspberries are the real treat. And they're just beginning to ripen. Mmm... That's so good. Now, that's it for today, and next week we're back on Wednesday, not Friday - a couple of days earlier - but we are on at our normal time of 8.30. So, see you next Wednesday. Till then, bye-bye. It sparked the greatest transformation in British history. Internet? Pah! It had nothing like the impact of the railways. Life had been the same for centuries but the railways come along and change all of that. Discover how the steam revolution shaped the way we live today. Breathtaking beauty and boats for as far as the eye can see. This is the picturesque coast of Pembrokeshire. And every couple of years a flotilla of boats gathers here for a very special celebration of this area's marine heritage. This is just part of that flotilla, and later on I'll be going on board to discover more about it. Helen's cooking up a seaweed-y storm in a surfer's paradise. I add it to baked beans now, I add it to porridge, I add it to everything. Porridge? Yeah. You are so in love with seaweed, it is scary. Tom's looking at why gas ***emissions*** from farms are causing such a problem. ***Agriculture*** and ***land*** use change ***account*** for between a fifth and a quarter of the world's ***greenhouse gas*** ***emissions***. And Adam's transporting

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[***When table and trough compete***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5K2X-18M1-JD09-306F-00000-00&context=1516831)

Development and Cooperation

July 31, 2015 Friday

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**Length:** 1672 words

**Byline:** Barbara UnmA1/4ssig and Christine Chemnitz

**Body**

Global demand for meat is steadily rising. In the long run, it can only be met by more intensive livestock farming, which would imply feed crops crowding out crops for human consumption, tougher competition for ***land*** and faster climate change. Therefore low-meat diets are indispensable everywhere.

After decades of increase after increase, meat consumption in the industrialised world is moderately recessive. Global demand, however, keeps rising. This development is driven largely by the BRICS countries Brazil, Russia, India, China and South Africa. Together, they ***account*** for 40% of the world population. Meat consumption grew by 6.3% a year from 2003 to 2012 in the BRICS, and is projected to continue to grow by 2.5% a year from 2013 to 2022.

The increase in meat consumption is closely related to rising incomes. In the BRICS, more meat is being eaten, especially by the new urban middle class. A survey by the UN Food and ***Agriculture*** Organization FAO shows that nearly 80% of the additional meat that will be consumed in China by 2030 is attributable to changes in income levels and consumption patterns. Population growth will only cause 11% of the increase. Things are similar in India: 68% of additional meat consumption stems from changes in consumer behaviour, and only five percent from population growth.

Nevertheless, there are marked differences between the two big emerging markets in Asia: India's average per capita consumption is less than a tenth of China's. Vegetarianism has deep cultural, religious and social roots in India. A quarter to a third of Indians say they are vegetarians. However, the number of meat-eaters is growing. Since the start of the economic boom in the early 1990s, the new middle class has been adjusting its lifestyle to the western model, which includes eating meat. Non-veg", as they say in India, has become a status symbol.

If global demand continues to rise at the present rate, the world's farmers and agribusinesses will need to step up meat production from the current 300 million tonnes a year to 470 million tonnes by 2050. That increase is possible only with a fundamental change in production methods. The technology- and capital-intensive methods that dominate livestock farming in the global north are spreading into the lucrative markets of the global south. This means that large-scale operations are growing fast while smallholder farmers are being squeezed out of the market.

As livestock farming is being industrialised, feeding regimes are changing. Theoretically, human beings and ruminants do not compete for food grain is for bread, grass and clover for cows. But to maximise output, intensive livestock farmers make intensive use of high-protein concentrated feeds. For example, more than 40% of the global wheat, rye, oats and maize harvest goes directly into animal troughs. The total amount is nearly 800 million tonnes. Grains, moreover, are supplemented by 250 million tonnes of oil meal, largely from soy beans. The more animals are fed grains and oilseeds, the greater the competition between feed crops and food crops becomes.

Soy is the key source of protein in animal fodder today. According to a WWF study, global soy production has increased tenfold in the last 50 years, surging from 27 to 269 million tonnes. Soy is now being cultivated on more than 100 million hectares of ***land***, which is a larger area than France, Germany, Belgium and the Netherlands combined. The biggest soy producers are the United States, Argentina and Brazil. In 2012 alone, the hectarage used to grow soya increased by an area the size of Mecklenburg-Western Pomerania (a German ***land***) in Brazil and by an area the size of Saxony-Anhalt (another German ***land***) in Argentina.

Twice as much soy

It is far from obvious how all the livestock that would be needed to raise meat production by nearly 200 million tonnes a year might be fed. According to the FAO, soy production alone would almost have to rise to 515 million tonnes, which would mean having to boost yields per hectare or increase the area of arable ***land*** used or both.

Today, three-quarters of global soy production is shipped to China. The EU imports around 35 million tonnes a year, grown on nearly 16 million hectares of ***land***. That is about the same as the total area of arable ***land*** in Germany. Industrial livestock farming therefore does not free up ***land***. On the contrary, it depends on using ever more ***land***. From a nutritional viewpoint, it would make far more sense to eat crops straight from the field rather than use them to feed animals that yield meat. Turning grain and oilseed into meat results in a massive calorie loss. According to the International Assessment of ***Agricultural*** Knowledge, Science and Technology for Development (IAASTD), the ratio of the calorific values of feed and the meat it produces are at best 2:1 for poultry, 3:1 for pigs and 7:1 for cattle. A high-meat diet thus ties up a lot of ***land***.

From a developmental perspective, the increasing global appetite for meat is worrying because it intensifies the competition between table and trough. The growing demand for feed is one of the factors driving up prices in ***agricultural*** markets. The first 13 years of the present millennium saw a relentless rise in those prices; since 2014, the FAO Food Price Index shows a moderate downturn.

For all those who must spend most of their income on food, the effects are dramatic. Rising food prices mean hunger and poverty. Many of the hundreds of millions who go hungry today are smallholder farmers and ***agricultural*** workers in the global south. Upturns in world market prices hardly raise their incomes, however, because ***land***, seed and fertiliser costs are rising too, pushing up production costs.

Moreover, humans and animals compete for not just ***agricultural*** products but also for arable ***land***. The pressure on small-scale farmers is growing because demand for ***land*** is steadily increasing. It largely results from the mounting demand for meat that ***agricultural*** ***land*** prices are rising. ***Land*** has become a very attractive investment, so ever more rural people are at risk of displacement and dispossession (see Michael Windfuhr in D+C/E+Z 2015/05, p.18ff.). The ***land*** rights of small-scale farmers in countries with fragile democracies or under authoritarian rule are particularly at risk. ***Land*** deals are generally opaque, so it is difficult for those affected indigenous groups, small farmers, women, nomads to get information and fight for their rights.

***Land*** changing hands

The ***Land*** Matrix Global Observatory believes that more than 1,000 ***land*** deals have been concluded since the year 2000, resulting in the sale of a total of 39 million hectares. That is an area bigger than Germany. Negotiations are currently being held on around 200 more projects with an aggregate volume of 16 million hectares. Other non-governmental organisations such as GRAIN or Oxfam report purchase of long-term leasing deals on a much larger scale. According to Oxfam, around 230 million hectares of arable ***land*** an area the size of Western Europe changed hands in developing countries between 2001 and 2010. Estimates of how much was paid in total range from $50 billion to $100 billion. The wide gap in the figures shows how difficult it is to establish facts and how important it is to make ***land*** deals more transparent.

More than 80% of all farms worldwide are smaller than two hectares. They use a little over 10% of the world's ***agricultural*** ***land*** and provide an income for more than 500 million farming families. Only two percent of farms have an area larger than 20 hectares, but they ***account*** for nearly 70% of global ***agricultural*** ***land***. Where small farmers continue to be deprived of the most important basis for ***agricultural*** production ***land*** and alternative sources of income are not available to rural communities, people migrate to cities, where many suffer hunger and poverty.

Apart from inflating food and ***land*** prices, industrial livestock farming has other negative impacts. It contributes to climate change, for instance, because it generates ***greenhouse-gas*** ***emissions***, including methane produced by the animals, and massive amounts of carbon dioxide that are released when ***land***-use is switched to feed-crop cultivation. Soil is the second-largest carbon storage facility on earth; it stores more carbon than all the world's ***forests*** together. But when meadows and steppe are turned into arable ***land***, part of the carbon dioxide is released into the atmosphere. Developing countries are affected by climate change in particular, and their options for adapting are limited.

In the book The global chicken", Francisco Mari and Rudolf Buntzel-Cano highlight how industrial livestock farming impacts even more directly on lives in the global south. The authors analyse the effects of European consumer behaviour on various African markets. Europeans like their chicken filleted, and they are prepared to pay a fairly high price for choice cuts. For the rest of the bird, there is virtually no market anymore in Europe, so it is frozen and exported to African countries like Cameroon and Ghana.

Because the expensive cuts alone make poultry farming in Europe profitable, the other parts of the chicken despite shipping and refrigeration costs are sold at such low prices that African producers cannot compete and are squeezed out of the market. Since the initial investment is low, poultry farming is a business that particularly attracts women in developing countries. The destruction of local markets robs them of a measure of financial independence and opportunities for supporting their family.

The question is often raised whether the earth will be able to feed 10 billion people. The answer is yes, but only with sustainable ***agriculture*** and a radical change of diet. Even if it is unfair, not all of the people in the world will be able to eat as much meat as those in the advanced economies are used to eating today.

Reference:

Mari, F., Buntzel, R., 2008: The global chicken. Frankfurt a. M., Brandes and Apsel.

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