Earth Is Warmer Today Than During 70 to 80 Percent of the Past 11,300 Years.

http://www.nsf.gov/news/news summ.jsp?cntn id=127133&org=NSF&from=news

Addressing Climate Change Challenges in Africa; A Practical Guide Towards Sustainable Development.

http://www.unep.org/roa/amcen/docs/publications/guidebook CLimateChange.pdf

Climate Change in Africa: Adaptation, Mitigation and Governance Challenges http://www.unicef.org/esaro/Climate Change in Africa.pdf

A summary of global warming and climate change myths and how to counter them: <a href="https://www.skepticalscience.com/argument.php">https://www.skepticalscience.com/argument.php</a>

"Climate change is real. It is happening right now, it is the most urgent threat facing our entire species and we need to work collectively together and stop procrastinating." Leonardo DiCaprio,

Public Figure, Actor, Founder of the Leonardo DiCaprio Foundation, and United Nations Messenger of Peace on Climate Change

10 things journalist should know about climate change and sustainable development

- 1. How we know what we know about the climate?
- 2. The difference between climate and weather
- 3. How humane activities affect the climate
- 4. Impacts of climate change
- 5. Mitigation and adaptation
- 6. Use climate change story-telling to contribute to REDD+ (reducing emissions from deforestation and degradation)
- 7. The intergovernmental Panel on Climate Change (IPCC) and UNFCCC

- 8. The UN Framework Convention on Climate Change
- 9. Paris Agreement

https://unfccc.int/process/the-paris-agreement/what-is-the-paris-agreement

 Sustainable Development Goals – No One Left Behind https://www.un.org/esa/socdev/rwss/2016/full-report.pdf

#### **PROBLEMS:**

### Why is the climate changing?

- Greenhouse Gases, the Greenhouse Effect and Global Warming
- What emits greenhouse gases?
  - Power generation (25% of all emissions), transport, industrial activities, deforestation and agriculture.
- What else affects the global climate?

Besides greenhouse gases, the sun's rays, El Nino and La Nina, clouds, volcanoes,...

# Three critical ways global warming create problems

- Erratic precipitation
- Extreme events (heat waves, tropical cyclones, extreme rainfall, floods,...)
- Rising seas (reasons: high atmosphere temperatures -> higher ocean temperatures -> molecules expand -> increase total volume. Second, higher temperatures melt ice sheets)

Hard to realize an event is the result of climate change.

# What climate change affects agriculture and food security?

- Threaten crops and livestock across the region.
- Indirect effects by affecting the pollinator, pests, weeds and parasites -> rising food prices, reduced food security and increased malnutrition.

# How climate change affects human health?

- World Health Organization's fact sheet on climate change and health, updated in July 2017. http://www.who.int/mediacentre/ factsheets/fs266/en/
- Hunger and malnutrition

- Water-borne diseases
- Vector-borne diseases

# What is climate change going to cost?

- Loss of lives
- Loss of ecosystem services
- Costs of mitigating climate change and moving towards low-carbon economies
- Cost of adapting agriculture, health and other sectors to the impacts of climate change
- Costs of tackling health problems
- Damage to infrastructure and crops from extreme weather events

#### **SOLUTIONS**

### How can we limit climate change?

- Mitigation: plant and protect forests
  - Countries gain credits for reducing emissions.
- REDD+ in Asia and the Pacific
- Climate-friendly sustainable renewable energy
  - o Using renewable energy instead of fossil fuels
    - "renewable energy is obtained from the continuing or repetitive currents of energy occurring in the natural environment and includes non-carbon technologies such as solar energy, hydropower, wind, tide and waves and geothermal heat, as well as carbon-neutral technologies such as biomass."
    - Solar power
    - Hydroelectric power
- Using energy more efficiently -> lower energy demand by up to 25% by 2020
- Biofuels
  - Prop: opportunity to grow traditional food crops and produce biofuels with little conflict.
  - Cons: many biofuels are bad for the climate (process of growing materials to convert into some biofuels are fossil-fuel intensive.
- Agroforestry: combination of agriculture and forestry
- Soil fertility management

# How can we adapt to the impacts of climate change?

"adaptation refers to adjustments

in ecological, social or economic systems in response to actual or expected climatic stimuli

and their effects or impacts. It refers to changes in processes, practices and structures to moderate potential damages or to benefit from opportunities associated with climate change".

- Adapting agriculture to climate change
- Adapting through education
- Adapting towns and cities

#### **CLIMATE CHANGE POLICIES AND PLANS**

- What does the UNFCCC require governments to do in Asia and the Pacific?
  - Mitigation: Clean Development Mechanism (<a href="http://www.cdmpipeline.org/cdm-projects-region.htm#2">http://www.cdmpipeline.org/cdm-projects-region.htm#2</a>)
  - Adaptation
  - Communication, information and learning

### **REPORTING ON CLIMATE CHANGE**

- Seven quick tips for finding stories to report:
  - Follow the money
  - Localize the global
  - Wear climate change glasses and report from new angles
  - Follow the pack
  - Read journals
  - Stay updated and keep track of information flows
  - Get connected
- Ten quick tips for better stories
  - Know your audience
  - o Team up
  - Localize the jargon
  - o Be visual
  - Get a second opinion
  - Quote varied voices
  - Get reactions
  - Humanize
  - Do justice to press releases
  - Tell success stories