**Chapter 2 Supporting Information**

**Table S2.1. Full list of predictor variables. Some variables were removed from the analysis prior to modelling due to collinearity. Variables cover the time period 1993 – 2015. GDP = Gross Domestic Product, USD = US Dollars, UNCTAD = United Nations Conference on Trade and Development, CNIS = Cambodian National Institute of Statistics, FAO = Food and Agricultural Organisation, RASCE = Rubber Association Singapore Commodity Exchange, ESACCI = European Space Agency Climate Change Initiative**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Predictor variable** | **Units** | **Resolution** | **Source** | **Details** |
| *Economy* |  |  |  |  |
| GDP per capita | Billions USD | National | World Bank | Constant 2010 rates |
| GPD growth | % | National | World Bank | Constant 2010 rates |
| GNI per capita | USD | National | World Bank | Gross National Income per capita. Calculated as gross national income divded by the mid-year population at current USD rates |
| Foreign Direct Investment | Millions USD | National | UNCTAD | Inward and outward flows and stock |
| Agricultural sector value of GDP | % | National | CNIS | Proportion of national GDP |
| Industrial sector value of GDP | % | National | CNIS | Proportion of national GDP |
| Development flows to agriculture | Millions USD | National | FAO | Donor development investment flows, other official flows, and private donor flows at constant 2016 prices to all agriculture and forestry sub-sectors |
| Development flows to environment | Millions USD | National | FAO | Donor development investment flows, other official flows, and private donor flows at constant 2016 prices to general environment protection |
| *Commodity prices* |  |  |  |  |
| Agricultural Raw Materials | Index | Global | IMF | Price index for global agricultural raw materials including timber, cotton, wool, rubber, and hides |
| Crop Production | Index | National | FAO | Relative level of the aggregate volume of agricultural production for each year in comparison with the base period 2004-2006 |
| Non-food agricultural production | Index | National | FAO | Relative level of the aggregate volume of non-food agricultural production for each year in comparison with the base period 2004-2006 |
| Forestry production | m3 | National | FAO | Total production values for industrial roundwood, non-coniferous tropical wood, other industrial roundwood, sawlogs and veneer logs (coniferous and non-coniferous), and sawnwood (coniferous and non-coniferous |
| Price of rice | USD/ton | Global | World Bank | Median annual global market price of rice |
| Price of corn | USD/ton | Global | World Bank | Annual global market price of corn |
| Price of rubber | USD/ton | Regional | RASCE | Monthly regional market value of rubber on the Singapore Exchange |
| Price of sugar | USD/ton | Global | World Bank | Annual global market price of sugar |
| *Producer prices* |  |  |  |  |
| Producer price of Rice | USD/ton | National | FAO | Farmgate prices for Cambodian producers |
| Producer price of rubber | USD/ton | National | FAO | Farmgate prices for Cambodian producers |
| Producer price of cassava | USD/ton | National | FAO | Farmgate prices for Cambodian producers |
| Producer price of corn | USD/ton | National | FAO | Farmgate prices for Cambodian producers |
| Producer price of sugar | USD/ton | National | FAO | Farmgate prices for Cambodian producers |
| *Control* |  |  |  |  |
| Forest remaining | km2 | National | ESACCI | Total forested area |
| Population density | pax/km2 | National | FAO |  |

**Table S2.2. Hypothesised relationships between predictor variables and forest loss**

|  |  |
| --- | --- |
| **Variable** | **Hypothesis** |
| *Economic development* |  |
| GDP | Increases in national economic development and wealth will increase forest loss |
| GDP growth | The rate of GDP growth will affect the rate of forest loss |
| FDI | Increased foreign investment will increase forest loss (e.g. through economic land concessions) |
| Agricultural sector proportion of GDP | As the agricultural sector’s contribution to GDP increases, so will forest loss (reflecting increases in agro-industrial concessions). |
| Alternative hypothesis: as the agricultural sector’s contribution to GDP decreases forest loss will increase (reflecting urbanisation and urban expansion) |
| Development flows to agriculture | Increased investment into the agricultural sector will increase forest loss (agricultural expansion) |
| Alternative hypothesis: Increased investment into the agricultural sector will decrease forest loss (increased productivity and intensification of existing agricultural land) |
| Development flows to the environment | Increased investment into the environment sector will decrease forest loss |
| *Commodities* |  |
| Crop production index | Increases in crop production will increase forest loss |
| Non-food production index | Increases in non-food agricultural production will increase forest loss |
| Median rice price | Increases in the price of rice will increase forest loss |
| Median rubber price | Increases in the price of rubber will increase forest loss |
| Median corn price | Increases in the price of corn will increase forest loss |
| Median sugar price | Increases in the price of sugar will increase forest loss |
| Production value from forestry | Increases in the production of forestry products will increase forest loss |
| *Producer prices* |  |
| Producer price, rubber | Increases in the producer price of rubber will increase forest loss |
| Producer price, cassava | Increases in the producer price of cassava will increase forest loss |
| Producer price, corn | Increases in the producer price of corn will increase forest loss |
| Producer price, sugar | Increases in the producer price of sugar will increase forest loss |
| Producer price, rice | Increases in the producer price of rice will increase forest loss |
| *Control* |  |
| Population density | Human population density will affect forest loss |
| Forest remaining | Forest loss will be affected by the raw quantity of forest remaining – i.e., forest loss will decrease as the total amount of forest remaining decreases |

**Table S2.3. European Space Agency Climate Change Initiative satellite bands. Bands highlighted in green were grouped to represent “forest cover”.**

|  |  |
| --- | --- |
| Value | Label |
| 0 | No data |
| 10 | Cropland, rainfed |
| 11 | Herbaceous cover |
| 12 | Tree or shrub cover |
| 20 | Cropland, irrigated or post-flooding |
| 30 | Mosaic cropland (>50%) / natural vegetation (tree, shrub, herbaceous cover) (<50%) |
| 40 | Mosaic natural vegetation (tree, shrub, herbaceous cover) (>50%) / cropland (<50%) |
| 50 | Tree cover, broadleaved, evergreen, cosed to open (>15%) |
| 60 | Tree cover, broadleaved, deciduous, closed to open (>15%) |
| 61 | Tree cover, broadleaves, decisuous, closed (>40%) |
| 62 | Tree cover, broadleaves, deciduous, open (15 - 40%) |
| 70 | Tree cover, needleleaved, evergreen, closed to open (>15%) |
| 71 | Tree cover, needleleaved, evergreen, closed (>40%) |
| 72 | Tree cover, needleleaved, evergreen, open (15 - 40%) |
| 80 | Tree cover, needleleaved, deciduous, closed to open (>15%) |
| 81 | Tree cover, needleleaved, deciduous, closed (>40%) |
| 82 | Tree cover, needleleaved, deciduous, open (15 - 40%) |
| 90 | Tree cover, mixed leaf type (broadleaved and needleleaved) |
| 100 | Mosaic tree and shrub (>50%) / herbaceous cover (<50%) |
| 110 | Mosaic herbaceous cover (>50%) / tree and shrub (<50%) |
| 120 | Shrubland |
| 121 | Evergreen shrubland |
| 122 | Deciduous shrubland |
| 130 | Grassland |
| 140 | Lichens and mosses |
| 150 | Sparse vegetation (tree, shrub, herbaceous cover) (<15%) |
| 152 | Sparse shrub (<15%) |
| 153 | Sparse herbaceous cover (<15%) |
| 160 | Tree cover, flooded, fresh or brakish water |

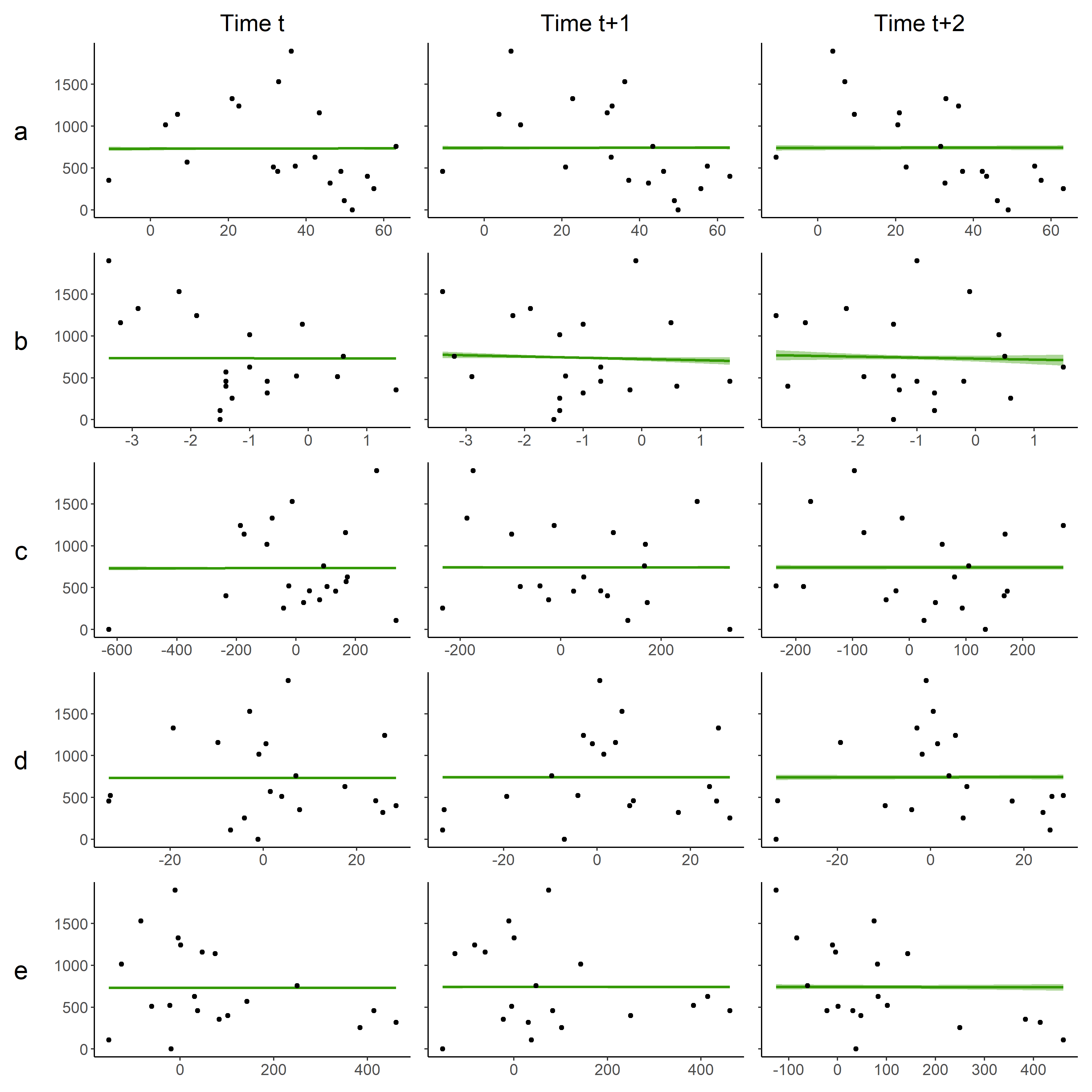
**Table S2.4. Correlation matrix for predictor variables. Values over 0.6 are highlighted in red, and values below -0.6 are highlighted in yellow.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | for\_cov | for\_cov\_perc | gdp | gdp\_gr | gni | fdi | ind\_gdp | agr\_gdp | dev\_agri | dev\_env | pop\_den | armi | cpi | nfi | rice\_med | rub\_med | corn\_med | sug\_med | for\_prod | prod\_rice | prod\_rub | prod\_cass | prod\_corn | prod\_sug | for\_rem |
| for\_cov |  |  | -0.30 | 0.30 | -0.30 | -0.31 | 0.47 | -0.53 | 0.16 | -0.05 | 0.39 | 0.00 | -0.23 | -0.21 | -0.06 | 0.11 | 0.00 | -0.02 | -0.58 | -0.25 | -0.28 | 0.28 | -0.19 | -0.33 | 0.65 |
| for\_cov\_perc | |  | -0.30 | 0.30 | -0.30 | -0.31 | 0.47 | -0.53 | 0.16 | -0.05 | 0.39 | 0.00 | -0.23 | -0.21 | -0.06 | 0.11 | 0.00 | -0.02 | -0.58 | -0.25 | -0.28 | 0.28 | -0.19 | -0.33 | 0.65 |
| gdp | -0.30 | -0.30 |  | 0.40 | 0.99 | 0.25 | 0.12 | -0.22 | -0.01 | -0.01 | -0.51 | 0.30 | 0.35 | 0.00 | 0.19 | 0.22 | 0.23 | -0.15 | 0.14 | 0.41 | 0.63 | 0.26 | 0.57 | 0.19 | -0.60 |
| gdp\_gr | 0.30 | 0.30 | 0.40 |  | 0.39 | 0.20 | 0.12 | -0.30 | 0.27 | 0.14 | 0.00 | 0.30 | 0.28 | -0.06 | -0.20 | 0.37 | 0.02 | -0.22 | 0.12 | -0.02 | 0.11 | 0.52 | 0.60 | -0.09 | -0.03 |
| gni | -0.30 | -0.30 | 0.99 | 0.39 |  | 0.24 | 0.13 | -0.21 | 0.01 | 0.03 | -0.51 | 0.34 | 0.35 | -0.02 | 0.16 | 0.24 | 0.22 | -0.14 | 0.14 | 0.41 | 0.60 | 0.23 | 0.62 | 0.15 | -0.55 |
| fdi | -0.31 | -0.31 | 0.25 | 0.20 | 0.24 |  | -0.48 | 0.23 | 0.01 | 0.41 | -0.31 | 0.03 | 0.30 | 0.09 | 0.03 | 0.09 | 0.24 | -0.12 | 0.26 | 0.24 | 0.19 | 0.06 | 0.46 | 0.54 | -0.26 |
| ind\_gdp | 0.47 | 0.47 | 0.12 | 0.12 | 0.13 | -0.48 |  | -0.61 | -0.16 | 0.02 | 0.21 | 0.07 | -0.30 | -0.50 | -0.25 | 0.08 | -0.01 | -0.01 | -0.48 | -0.21 | -0.07 | 0.23 | -0.20 | -0.33 | 0.16 |
| agr\_gdp | -0.53 | -0.53 | -0.22 | -0.30 | -0.21 | 0.23 | -0.61 |  | -0.04 | 0.15 | -0.24 | -0.08 | 0.55 | 0.51 | 0.14 | -0.11 | -0.09 | 0.37 | 0.19 | 0.02 | -0.06 | -0.38 | -0.01 | 0.20 | -0.20 |
| dev\_agri | 0.16 | 0.16 | -0.01 | 0.27 | 0.01 | 0.01 | -0.16 | -0.04 |  | -0.12 | 0.01 | 0.26 | 0.15 | -0.08 | -0.06 | 0.02 | 0.02 | 0.12 | -0.06 | -0.08 | 0.16 | 0.05 | 0.13 | 0.06 | 0.02 |
| dev\_env | -0.05 | -0.05 | -0.01 | 0.14 | 0.03 | 0.41 | 0.02 | 0.15 | -0.12 |  | -0.03 | 0.05 | 0.30 | -0.24 | -0.35 | 0.11 | 0.03 | 0.32 | -0.01 | -0.28 | -0.04 | 0.03 | 0.08 | 0.16 | 0.01 |
| pop\_den | 0.39 | 0.39 | -0.51 | 0.00 | -0.51 | -0.31 | 0.21 | -0.24 | 0.01 | -0.03 |  | -0.43 | -0.45 | -0.06 | -0.31 | -0.31 | -0.19 | -0.38 | -0.26 | -0.58 | -0.79 | -0.06 | -0.35 | -0.48 | 0.79 |
| armi | 0.00 | 0.00 | 0.30 | 0.30 | 0.34 | 0.03 | 0.07 | -0.08 | 0.26 | 0.05 | -0.43 |  | 0.54 | -0.01 | 0.26 | 0.89 | 0.57 | 0.56 | 0.03 | 0.41 | 0.59 | 0.23 | 0.48 | -0.27 | -0.20 |
| cpi | -0.23 | -0.23 | 0.35 | 0.28 | 0.35 | 0.30 | -0.30 | 0.55 | 0.15 | 0.30 | -0.45 | 0.54 |  | 0.33 | 0.33 | 0.43 | 0.41 | 0.48 | 0.09 | 0.22 | 0.50 | -0.06 | 0.42 | 0.08 | -0.32 |
| nfi | -0.21 | -0.21 | 0.00 | -0.06 | -0.02 | 0.09 | -0.50 | 0.51 | -0.08 | -0.24 | -0.06 | -0.01 | 0.33 |  | 0.39 | 0.02 | -0.15 | 0.13 | -0.01 | 0.10 | -0.02 | -0.41 | 0.02 | 0.21 | 0.03 |
| rice\_med | -0.06 | -0.06 | 0.19 | -0.20 | 0.16 | 0.03 | -0.25 | 0.14 | -0.06 | -0.35 | -0.31 | 0.26 | 0.33 | 0.39 |  | 0.24 | 0.60 | 0.16 | 0.00 | 0.67 | 0.47 | 0.01 | 0.20 | 0.13 | -0.09 |
| rub\_med | 0.11 | 0.11 | 0.22 | 0.37 | 0.24 | 0.09 | 0.08 | -0.11 | 0.02 | 0.11 | -0.31 | 0.89 | 0.43 | 0.02 | 0.24 |  | 0.56 | 0.48 | 0.05 | 0.48 | 0.40 | 0.48 | 0.49 | -0.39 | -0.07 |
| corn\_med | 0.00 | 0.00 | 0.23 | 0.02 | 0.22 | 0.24 | -0.01 | -0.09 | 0.02 | 0.03 | -0.19 | 0.57 | 0.41 | -0.15 | 0.60 | 0.56 |  | 0.15 | -0.10 | 0.46 | 0.48 | 0.23 | 0.40 | -0.15 | -0.04 |
| sug\_med | -0.02 | -0.02 | -0.15 | -0.22 | -0.14 | -0.12 | -0.01 | 0.37 | 0.12 | 0.32 | -0.38 | 0.56 | 0.48 | 0.13 | 0.16 | 0.48 | 0.15 |  | -0.19 | 0.11 | 0.28 | -0.01 | -0.12 | -0.07 | -0.14 |
| for\_prod | -0.58 | -0.58 | 0.14 | 0.12 | 0.14 | 0.26 | -0.48 | 0.19 | -0.06 | -0.01 | -0.26 | 0.03 | 0.09 | -0.01 | 0.00 | 0.05 | -0.10 | -0.19 |  | 0.27 | 0.15 | 0.11 | 0.25 | 0.11 | -0.41 |
| prod\_rice | -0.25 | -0.25 | 0.41 | -0.02 | 0.41 | 0.24 | -0.21 | 0.02 | -0.08 | -0.28 | -0.58 | 0.41 | 0.22 | 0.10 | 0.67 | 0.48 | 0.46 | 0.11 | 0.27 |  | 0.63 | 0.36 | 0.47 | 0.15 | -0.46 |
| prod\_rub | -0.28 | -0.28 | 0.63 | 0.11 | 0.60 | 0.19 | -0.07 | -0.06 | 0.16 | -0.04 | -0.79 | 0.59 | 0.50 | -0.02 | 0.47 | 0.40 | 0.48 | 0.28 | 0.15 | 0.63 |  | 0.05 | 0.39 | 0.41 | -0.73 |
| prod\_cass | 0.28 | 0.28 | 0.26 | 0.52 | 0.23 | 0.06 | 0.23 | -0.38 | 0.05 | 0.03 | -0.06 | 0.23 | -0.06 | -0.41 | 0.01 | 0.48 | 0.23 | -0.01 | 0.11 | 0.36 | 0.05 |  | 0.36 | -0.37 | -0.07 |
| prod\_corn | -0.19 | -0.19 | 0.57 | 0.60 | 0.62 | 0.46 | -0.20 | -0.01 | 0.13 | 0.08 | -0.35 | 0.48 | 0.42 | 0.02 | 0.20 | 0.49 | 0.40 | -0.12 | 0.25 | 0.47 | 0.39 | 0.36 |  | 0.01 | -0.29 |
| prod\_sug | -0.33 | -0.33 | 0.19 | -0.09 | 0.15 | 0.54 | -0.33 | 0.20 | 0.06 | 0.16 | -0.48 | -0.27 | 0.08 | 0.21 | 0.13 | -0.39 | -0.15 | -0.07 | 0.11 | 0.15 | 0.41 | -0.37 | 0.01 |  | -0.51 |
| for\_rem | 0.65 | 0.65 | -0.60 | -0.03 | -0.55 | -0.26 | 0.16 | -0.20 | 0.02 | 0.01 | 0.79 | -0.20 | -0.32 | 0.03 | -0.09 | -0.07 | -0.04 | -0.14 | -0.41 | -0.46 | -0.73 | -0.07 | -0.29 | -0.51 |  |

*Correlation*

The following decisions were made based on high correlation (Table S2.4):

* GNI variable dropped due to very high correlation with GDP. Competing theories about drivers of forest loss – national economy (GDP) or socioeconomic status of population (GNI). Because chapter 3 was focusing on socioeconomics, I decided that GDP was more interesting in this case.
* Neither population density (pop\_den) or producer price for rubber (prod\_rub) were dropped despite correlation. There is no plausible relationship between these two variables, and they were included to explain different drivers of forest loss. The two variables were in different variable sets, and so both were retained.
* Population density and amount of forest remaining (for\_rem) were positively correlated, which was counterintuitive. Previous studies have highlighted remaining forest as an important control variable, and so both variables were retained (O’Brien 2017).
* Producer price for rubber (prod\_rub) and forest remaining were negatively correlated. Previous studies have highlighted remaining forest as an important control variable, and so both variables were retained (O’Brien 2017).
* Agricultural Raw Materials Index (armi) was correlated with median price for rubber (rub\_med). This was likely to be a genuine correlation. The index was slightly correlated with more than one of the commodity price variables, and I was interested in the individual commodities, and so armi was dropped.
* Agricultural sector proportion of GDP (agr\_gdp) and industrial sector proportion of GDP (ind\_gdp) were correlated, and conceptually I was more interested in the impact of the agricultural sector (as it is more likely to affect forest cover), and so ind\_gdp was dropped.
* Median price of rice (rice\_med) and producer price of rice (prod\_rice) were correlated. These two variables were in different sets, and so were retained for the initial modelling.
* The producer price for rubber (prod\_rub) and the producer price for rice (prod\_rice) were correlated. A large number of the economic land concessions allocated in Cambodia were for rubber, and so my hypothesis was that rubber prices would be more important for predicting forest loss than rice. Therefore prod\_rice was dropped

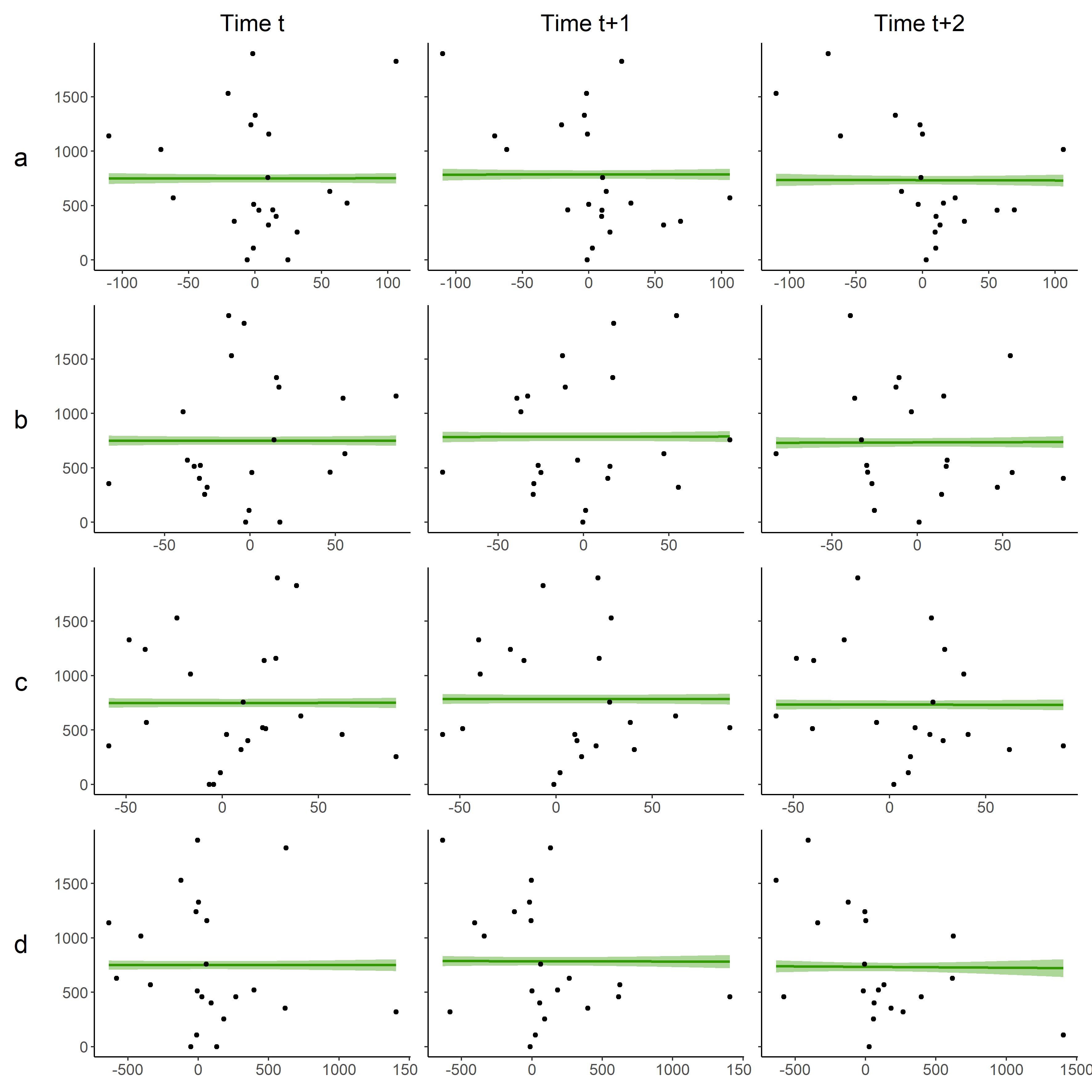


**Figure S2.1. Predicted relationship between rate of forest loss for Cambodia and variables that measure economic development. All y-axes are the amount of forest lost in km2. Points are the observed data, thick lines are model predictions, and faded ribbons are 95% confidence intervals. Row a: Gross Domestic Product (GDP), row b: agricultural sectors contribution (%) to GDP, row c: development flows to the agricultural sector (USD millions), row d: development flows to the environment sector (USD millions), row e: Foreign Direct Investment (USD millions).The left column of plots are the effects on forest cover at time t (i.e. the variable values and forest loss values from the same year), the middle column of plots are the effects at time t+1 (i.e. the effects on forest loss in the subsequent year), and the right column of plots are the effects at time t+2 (i.e. the effects on forest loss two years after the variable values).**

Diagram

Description automatically generated with low confidence

**Figure S2.3. Predicted relationship between forest loss and variables that measure agricultural commodity production and price. All y-axes are the amount of forest lost in km2. Points are the observed data, thick lines are model predictions, and faded ribbons are 95% confidence intervals. Row a: Crop Production Index, row b: Non-food Production Index, row c: median annual market price for rice (USD/t), row d: median annual market price for rubber (USD/t), row e: median annual market price for corn (USD/t), row f: median annual market price for sugar (USD/t), row g: total production from forestry (m3). The left column of plots are the effects on forest cover at time t (i.e. the variable values and forest loss values from the same year), the middle column of plots are the effects at time t+1 (i.e. the effects on forest loss in the subsequent year), and the right column of plots are the effects at time t+2 (i.e. the effects on forest loss two years after the variable values).**



**Figure S2.4. Predicted relationship between forest loss and variables that measure the producer prices of agricultural commodities. All y-axes are the amount of forest lost in km2. Points are the observed data, thick lines are model predictions, and faded ribbons are 95% confidence intervals. Row a: producer price for rubber (USD/t) row b: producer price for cassava (USD/t), row c: producer price for corn (USD/t), row d: producer price for sugar (USD/t). Left column of plots are the effects on forest cover at time t (i.e. the variable values and forest loss values from the same year), the middle column of plots are the effects at time t+1 (i.e. the effects on forest loss in the subsequent year), and the right column of plots are the effects at time t+2 (i.e. the effects on forest loss two years after the variable values).**

**Table S2.5. Raw model coefficients and full averaged coefficients from the top economic models (dAIC < 6) where change in forest cover is the response. No time lag. Agric GDP = agricultural sector proportion of GDP, Dev agri = development flows to the agriculture, Dev env = development flows to the environment, For rem = forest remaining, GDP = gross domestic product, GDP gr = GDP growth, Pop den = population density.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (Intercept) | SE | Agric GDP | SE | Dev agri | SE | Dev env | SE | FDI | SE | For rem | SE | GDP | SE | GDP gr | SE | Pop den | SE | Time | SE | Model weight |
| **Model** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 401 | -6308.3 |  | NA |  | NA |  | NA |  | NA |  | 0.08 |  | NA |  | NA |  | -599.4 |  | 1.1 |  | 0.3832 |
| 403 | -6309.3 |  | NA |  | 0.03 |  | NA |  | NA |  | 0.08 |  | NA |  | NA |  | -599.6 |  | 1.1 |  | 0.1053 |
| 433 | -6415.7 |  | NA |  | NA |  | NA |  | NA |  | 0.09 |  | 0.4 |  | NA |  | -595.9 |  | 1.1 |  | 0.1007 |
| 402 | -6312.0 |  | -3.8 |  | NA |  | NA |  | NA |  | 0.08 |  | NA |  | NA |  | -605.3 |  | 1.1 |  | 0.0607 |
| 405 | -6302.8 |  | NA |  | NA |  | 0.2 |  | NA |  | 0.08 |  | NA |  | NA |  | -597.5 |  | 1.1 |  | 0.0569 |
| 465 | -6299.4 |  | NA |  | NA |  | NA |  | NA |  | 0.08 |  | NA |  | -1.04 |  | -597.9 |  | 1.1 |  | 0.0558 |
| 409 | -6313.1 |  | NA |  | NA |  | NA |  | 0.01 |  | 0.08 |  | NA |  | NA |  | -596.8 |  | 1.1 |  | 0.0502 |
| 497 | -6456.3 |  | NA |  | NA |  | NA |  | NA |  | 0.09 |  | 0.6 |  | -2.7 |  | -589.7 |  | 1.1 |  | 0.0231 |
| 435 | -6418.9 |  | NA |  | 0.03 |  | NA |  | NA |  | 0.09 |  | 0.4 |  | NA |  | -595.9 |  | 1.1 |  | 0.0216 |
| Model averaged coefficients | -6327.0 | 167.5 | -0.3 | 1.9 | 0.005 | 0.02 | 0.01 | 0.10 | 6.5 | 0.01 | 0.08 | 0.002 | 0.08 | 0.23 | -0.1 | 0.82 | -598.7 | 46.15 | 1.1 | 0.02 |  |

**Table S2.6. Raw model coefficients and full averaged coefficients from the top economic models (dAIC < 6) where change in forest cover is the response. One year time lag. Agric GDP = agricultural sector proportion of GDP, Dev\_agr = development flows to the environment sector, FDI = foreign direct investment, For\_rem = forest remaining, GDP = gross domestic product, GDP\_gr = GDP growth, Pop den = population density**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (Intercept) | SE | Agric GDP | SE | Dev\_agr | SE | Dev\_env | SE | FDI | SE | For\_rem | SE | GDP | SE | GDP\_gr | SE | Pop den | SE | Time | SE | Model weight |
| **Model** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 402 | -6743.74 |  | -16.97 |  | NA |  | NA |  | NA |  | 0.089 |  | NA |  | NA |  | -635.97 |  | 1.10 |  | 0.56 |
| 401 | -6806.15 |  | NA |  | NA |  | NA |  | NA |  | 0.090 |  | NA |  | NA |  | -616.65 |  | 1.09 |  | 0.07 |
| 410 | -6714.42 |  | -16.39 |  | NA |  | NA |  | -0.028 |  | 0.089 |  | NA |  | NA |  | -639.33 |  | 1.10 |  | 0.05 |
| 434 | -6804.80 |  | -15.58 |  | NA |  | NA |  | NA |  | 0.090 |  | 0.243 |  | NA |  | -631.50 |  | 1.10 |  | 0.04 |
| 406 | -6747.27 |  | -17.25 |  | NA |  | 0.160 |  | NA |  | 0.089 |  | NA |  | NA |  | -634.30 |  | 1.10 |  | 0.04 |
| 404 | -6708.95 |  | -17.23 |  | -0.016 |  | NA |  | NA |  | 0.089 |  | NA |  | NA |  | -627.77 |  | 1.10 |  | 0.04 |
| 466 | -6750.66 |  | -16.67 |  | NA |  | NA |  | NA |  | 0.089 |  | NA |  | 0.3026 |  | -635.79 |  | 1.10 |  | 0.04 |
| 433 | -6983.52 |  | NA |  | NA |  | NA |  | NA |  | 0.091 |  | 0.7718 |  | NA |  | -607.51 |  | 1.10 |  | 0.02 |
| Model averaged coefficients | -6757.0 | 259.2 | -14.94 | 7.94 | -0.0008 | 0.01 | 0.0082 | 0.11 | -0.0017 | 0.01 | 0.09 | 0.003 | 0.038 | 0.22 | 0.014 | 0.6 | -632.9 | 64.8 | 1.103 | 0.03 |  |

**Table S2.7. Raw model coefficients and full averaged coefficients from the top economic models (dAIC < 6) where change in forest cover is the response. Two year time lag. Agr\_gdp = agricultural sector proportion of GDP, Dev agr = development flows to the agricultural sector, Dev env = development flows to the environment sector, FDI = foreign direct investment, For\_rem = forest remaining, GDP = gross domestic product, Pop den = population density.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (Intercept) | SE | Agr\_gdp | SE | Dev agr | SE | Dev env | SE | FDI | SE | For\_rem | SE | GDP | SE | Pop den | SE | Time | SE | Model weight |
| **Model** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 210 | -7292.91 |  | -19.61 |  | NA |  | NA |  | NA |  | 0.095 |  | NA |  | -602.51 |  | 1.11 |  | 0.40 |
| 209 | -7309.82 |  | NA |  | NA |  | NA |  | NA |  | 0.096 |  | NA |  | -604.68 |  | 1.11 |  | 0.22 |
| 214 | -7313.49 |  | -20.63 |  | NA |  | 0.67 |  | NA |  | 0.096 |  | NA |  | -606.74 |  | 1.11 |  | 0.06 |
| 217 | -7114.83 |  | NA |  | NA |  | NA |  | -0.11 |  | 0.093 |  | NA |  | -572.66 |  | 1.08 |  | 0.06 |
| 218 | -7155.86 |  | -18.14 |  | NA |  | NA |  | -0.08 |  | 0.094 |  | NA |  | -579.96 |  | 1.09 |  | 0.05 |
| 213 | -7325.70 |  | NA |  | NA |  | 0.5 |  | NA |  | 0.096 |  | NA |  | -607.90 |  | 1.11 |  | 0.03 |
| 241 | -7390.57 |  | NA |  | NA |  | NA |  | NA |  | 0.096 |  | 0.6 |  | -597.90 |  | 1.12 |  | 0.03 |
| 212 | -7263.13 |  | -19.85 |  | -0.025 |  | NA |  | NA |  | 0.095 |  | NA |  | -593.45 |  | 1.10 |  | 0.03 |
| 242 | -7270.04 |  | -20.35 |  | NA |  | NA |  | NA |  | 0.095 |  | -0.16 |  | -604.29 |  | 1.10 |  | 0.03 |
| 211 | -7304.68 |  | NA |  | -0.0043 |  | NA |  | NA |  | 0.096 |  | NA |  | -603.11 |  | 1.11 |  | 0.03 |
| Model averaged coefficients | -7283 | 508.6 | -11.94 | 11.93 | -0.0009 | 0.03 | 0.060 | 0.29 | -0.011 | 0.04 | 0.095 | 0.01 | 0.015 | 0.27 | -600 | 117.4 | 1.105 | 0.05 |  |

**Table S2.8. Raw model coefficients and full averaged coefficients from the top commodity models (dAIC < 6) where change in forest cover is the response. No time lag. Med corn = median corn price, CPI = crop production index, For prod = forest production, For rem = forest remaining, NFI = non-food production index, Med rice = median rice price, Med rub = median rubber price, Med sug = median sugar price.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (Intercept) | SE | Med corn | SE | CPI | SE | For prod | SE | For rem | SE | NFI | SE | Med rice | SE | Med rub | SE | Med sug | SE | Time | SE | Model weight |
| **Model** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 265 | -4816.38 |  | NA |  | NA |  | NA |  | 0.06 |  | NA |  | NA |  | NA |  | NA |  | 1.07 |  | 0.16 |
| 393 | -4828.96 |  | NA |  | NA |  | NA |  | 0.06 |  | NA |  | NA |  | NA |  | 0.40 |  | 1.08 |  | 0.11 |
| 329 | -4797.76 |  | NA |  | NA |  | NA |  | 0.06 |  | NA |  | NA |  | 0.03 |  | NA |  | 1.07 |  | 0.07 |
| 297 | -4806.01 |  | NA |  | NA |  | NA |  | 0.06 |  | NA |  | 0.26 |  | NA |  | NA |  | 1.08 |  | 0.07 |
| 269 | -4738.73 |  | NA |  | NA |  | -0.0001 |  | 0.06 |  | NA |  | NA |  | NA |  | NA |  | 1.04 |  | 0.06 |
| 266 | -4817.37 |  | 0.414 |  | NA |  | NA |  | 0.06 |  | NA |  | NA |  | NA |  | NA |  | 1.07 |  | 0.05 |
| 267 | -4877.51 |  | NA |  | 0.37 |  | NA |  | 0.06 |  | NA |  | NA |  | NA |  | NA |  | 1.07 |  | 0.04 |
| 281 | -4799.42 |  | NA |  | NA |  | NA |  | 0.06 |  | 0.13 |  | NA |  | NA |  | NA |  | 1.08 |  | 0.03 |
| 333 | -4701.74 |  | NA |  | NA |  | -0.0001 |  | 0.06 |  | NA |  | NA |  | 0.04 |  | NA |  | 1.03 |  | 0.03 |
| 425 | -4819.19 |  | NA |  | NA |  | NA |  | 0.06 |  | NA |  | 0.21 |  | NA |  | 0.36 |  | 1.08 |  | 0.03 |
| 397 | -4768.10 |  | NA |  | NA |  | -0.0001 |  | 0.06 |  | NA |  | NA |  | NA |  | 0.36 |  | 1.05 |  | 0.02 |
| 394 | -4828.66 |  | 0.33 |  | NA |  | NA |  | 0.06 |  | NA |  | NA |  | NA |  | 0.37 |  | 1.08 |  | 0.02 |
| 301 | -4727.53 |  | NA |  | NA |  | -0.0001 |  | 0.06 |  | NA |  | 0.26 |  | NA |  | NA |  | 1.05 |  | 0.02 |
| 457 | -4815.93 |  | NA |  | NA |  | NA |  | 0.06 |  | NA |  | NA |  | 0.02 |  | 0.31 |  | 1.07 |  | 0.02 |
| 361 | -4793.48 |  | NA |  | NA |  | NA |  | 0.06 |  | NA |  | 0.20 |  | 0.03 |  | NA |  | 1.07 |  | 0.02 |
| 409 | -4819.38 |  | NA |  | NA |  | NA |  | 0.06 |  | 0.07 |  | NA |  | NA |  | 0.39 |  | 1.08 |  | 0.02 |
| 395 | -4833.18 |  | NA |  | 0.03 |  | NA |  | 0.06 |  | NA |  | NA |  | NA |  | 0.40 |  | 1.08 |  | 0.02 |
| 270 | -4746.51 |  | 0.37 |  | NA |  | -0.0001 |  | 0.06 |  | NA |  | NA |  | NA |  | NA |  | 1.05 |  | 0.01 |
| 271 | -4801.88 |  | NA |  | 0.40 |  | -0.0001 |  | 0.06 |  | NA |  | NA |  | NA |  | NA |  | 1.04 |  | 0.01 |
| 330 | -4802.21 |  | 0.19 |  | NA |  | NA |  | 0.06 |  | NA |  | NA |  | 0.03 |  | NA |  | 1.07 |  | 0.01 |
| 345 | -4784.40 |  | NA |  | NA |  | NA |  | 0.06 |  | 0.10 |  | NA |  | 0.03 |  | NA |  | 1.08 |  | 0.01 |
| 331 | -4816.57 |  | NA |  | 0.20 |  | NA |  | 0.06 |  | NA |  | NA |  | 0.03 |  | NA |  | 1.07 |  | 0.01 |
| 298 | -4809.09 |  | 0.20 |  | NA |  | NA |  | 0.06 |  | NA |  | 0.19 |  | NA |  | NA |  | 1.07 |  | 0.01 |
| 299 | -4834.33 |  | NA |  | 0.20 |  | NA |  | 0.06 |  | NA |  | 0.23 |  | NA |  | NA |  | 1.07 |  | 0.01 |
| 282 | -4793.78 |  | 0.46 |  | NA |  | NA |  | 0.06 |  | 0.18 |  | NA |  | NA |  | NA |  | 1.09 |  | 0.01 |
| 313 | -4805.31 |  | NA |  | NA |  | NA |  | 0.06 |  | 0.01 |  | 0.26 |  | NA |  | NA |  | 1.08 |  | 0.01 |
| 285 | -4730.61 |  | NA |  | NA |  | -0.0001 |  | 0.06 |  | 0.10 |  | NA |  | NA |  | NA |  | 1.05 |  | 0.01 |
| 268 | -4846.23 |  | 0.36 |  | 0.18 |  | NA |  | 0.06 |  | NA |  | NA |  | NA |  | NA |  | 1.07 |  | 0.01 |
| Model averaged coefficients | -4803 | 330.9 | 0.05 | 0.21 | 0.03 | 0.21 | 0.00 | 0.00 | 0.06 | 0.003 | 0.01 | 0.09 | 0.04 | 0.13 | 0.01 | 0.02 | 0.10 | 0.22 | 1.07 | 0.04 |  |

**Table S2.9. Raw model coefficients and full averaged coefficients from the top commodity models (dAIC < 6) where change in forest cover is the response. One year time lag. Med corn = median corn price, CPI = crop production index, For prod = forest production, For rem = forest remaining, NFI non-food production index, Med rice = median rice price, Med rub = median rubber price, Med sug = median sugar price.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (Intercept) | SE | Med corn | SE | CPI | SE | For prod | SE | For rem | SE | NFI | SE | Med rice | SE | Med rub | SE | Med sug | SE | Time | SE | Model weight |
| **Model** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 265 | -4862.09 |  | NA |  | NA |  | NA |  | 0.0601 |  | NA |  | NA |  | NA |  | NA |  | 1.06 |  | 0.17 |
| 269 | -4836.39 |  | NA |  | NA |  | -0.0002 |  | 0.0598 |  | NA |  | NA |  | NA |  | NA |  | 1.05 |  | 0.15 |
| 333 | -4815.99 |  | NA |  | NA |  | -0.0002 |  | 0.0596 |  | NA |  | NA |  | 0.04 |  | NA |  | 1.06 |  | 0.07 |
| 329 | -4845.84 |  | NA |  | NA |  | NA |  | 0.0599 |  | NA |  | NA |  | 0.03 |  | NA |  | 1.07 |  | 0.07 |
| 297 | -4834.65 |  | NA |  | NA |  | NA |  | 0.0598 |  | NA |  | 0.20 |  | NA |  | NA |  | 1.08 |  | 0.05 |
| 266 | -4861.48 |  | 0.33 |  | NA |  | NA |  | 0.0601 |  | NA |  | NA |  | NA |  | NA |  | 1.07 |  | 0.04 |
| 393 | -4873.57 |  | NA |  | NA |  | NA |  | 0.0602 |  | NA |  | NA |  | NA |  | 0.22 |  | 1.07 |  | 0.04 |
| 301 | -4807.10 |  | NA |  | NA |  | -0.0002 |  | 0.0595 |  | NA |  | 0.21 |  | NA |  | NA |  | 1.06 |  | 0.04 |
| 267 | -4907.83 |  | NA |  | 0.2912 |  | NA |  | 0.0605 |  | NA |  | NA |  | NA |  | NA |  | 1.07 |  | 0.03 |
| 281 | -4877.63 |  | NA |  | NA |  | NA |  | 0.0603 |  | -0.08 |  | NA |  | NA |  | NA |  | 1.06 |  | 0.03 |
| 270 | -4836.75 |  | 0.27 |  | NA |  | -0.0002 |  | 0.0598 |  | NA |  | NA |  | NA |  | NA |  | 1.05 |  | 0.03 |
| 397 | -4846.20 |  | NA |  | NA |  | -0.0002 |  | 0.0599 |  | NA |  | NA |  | NA |  | 0.17 |  | 1.06 |  | 0.03 |
| 271 | -4879.54 |  | NA |  | 0.2738 |  | -0.0002 |  | 0.0602 |  | NA |  | NA |  | NA |  | NA |  | 1.06 |  | 0.02 |
| 285 | -4841.58 |  | NA |  | NA |  | -0.0002 |  | 0.0599 |  | -0.03 |  | NA |  | NA |  | NA |  | 1.05 |  | 0.02 |
| 361 | -4828.26 |  | NA |  | NA |  | NA |  | 0.0597 |  | NA |  | 0.14 |  | 0.03 |  | NA |  | 1.08 |  | 0.01 |
| 345 | -4863.45 |  | NA |  | NA |  | NA |  | 0.0601 |  | -0.09 |  | NA |  | 0.03 |  | NA |  | 1.07 |  | 0.01 |
| 457 | -4851.32 |  | NA |  | NA |  | NA |  | 0.0600 |  | NA |  | NA |  | 0.03 |  | 0.07 |  | 1.07 |  | 0.01 |
| 365 | -4798.02 |  | NA |  | NA |  | -0.0002 |  | 0.0594 |  | NA |  | 0.14 |  | 0.03 |  | NA |  | 1.07 |  | 0.01 |
| 330 | -4847.16 |  | 0.08 |  | NA |  | NA |  | 0.0599 |  | NA |  | NA |  | 0.03 |  | NA |  | 1.07 |  | 0.01 |
| 331 | -4849.63 |  | NA |  | 0.0226 |  | NA |  | 0.0600 |  | NA |  | NA |  | 0.03 |  | NA |  | 1.07 |  | 0.01 |
| Model averaged coefficients | -4849 | 379.2 | 0.026 | 0.16 | 0.02 | 0.18 | -0.0001 | 0.0001 | 0.06 | 0.004 | -0.005 | 0.07 | 0.023 | 0.1 | 0.007 | 0.02 | 0.017 | 0.11 | 1.06 | 0.06 |  |

**Table S2.10. Raw model coefficients and full averaged coefficients from the top commodity models (dAIC < 6) where change in forest cover is the response. Two year time lag. Med corn = median corn price, CPI = crop production index, For prod = forest production, For rem = forest remaining, NFI = non-food production index, Med rice = median rice price, Med rub = median rubber price, Med sug = median sugar price.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (Intercept) | SE | Med corn | SE | CPI | SE | For prod | SE | For rem | SE | NFI | SE | Med rice | SE | Med rub | SE | Med sug | SE | Time | SE | Model weight |
| **Model** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 265 | -5052.38 |  | NA |  | NA |  | NA |  | 0.06 |  | NA |  | NA |  | NA |  | NA |  | 1.08 |  | 0.25 |
| 269 | -5093.28 |  | NA |  | NA |  | -0.0002 |  | 0.06 |  | NA |  | NA |  | NA |  | NA |  | 1.04 |  | 0.18 |
| 329 | -5059.43 |  | NA |  | NA |  | NA |  | 0.06 |  | NA |  | NA |  | 0.02 |  | NA |  | 1.09 |  | 0.05 |
| 266 | -5029.09 |  | -0.21 |  | NA |  | NA |  | 0.06 |  | NA |  | NA |  | NA |  | NA |  | 1.08 |  | 0.05 |
| 267 | -4995.22 |  | NA |  | -0.24 |  | NA |  | 0.06 |  | NA |  | NA |  | NA |  | NA |  | 1.08 |  | 0.05 |
| 393 | -5066.24 |  | NA |  | NA |  | NA |  | 0.06 |  | NA |  | NA |  | NA |  | 0.11 |  | 1.08 |  | 0.04 |
| 281 | -5065.00 |  | NA |  | NA |  | NA |  | 0.06 |  | -0.04 |  | NA |  | NA |  | NA |  | 1.08 |  | 0.04 |
| 297 | -5052.17 |  | NA |  | NA |  | NA |  | 0.06 |  | NA |  | -0.01 |  | NA |  | NA |  | 1.08 |  | 0.04 |
| 333 | -5104.49 |  | NA |  | NA |  | -0.0002 |  | 0.06 |  | NA |  | NA |  | 0.02 |  | NA |  | 1.04 |  | 0.03 |
| 270 | -5064.63 |  | -0.27 |  | NA |  | -0.0002 |  | 0.06 |  | NA |  | NA |  | NA |  | NA |  | 1.03 |  | 0.03 |
| 271 | -5039.57 |  | NA |  | -0.22 |  | -0.0002 |  | 0.06 |  | NA |  | NA |  | NA |  | NA |  | 1.04 |  | 0.02 |
| 397 | -5100.33 |  | NA |  | NA |  | -0.0002 |  | 0.06 |  | NA |  | NA |  | NA |  | 0.06 |  | 1.04 |  | 0.02 |
| 285 | -5099.98 |  | NA |  | NA |  | -0.0002 |  | 0.06 |  | -0.02 |  | NA |  | NA |  | NA |  | 1.04 |  | 0.02 |
| 301 | -5093.26 |  | NA |  | NA |  | -0.0002 |  | 0.06 |  | NA |  | -0.001 |  | NA |  | NA |  | 1.04 |  | 0.02 |
| Model averaged coefficients | -5064 | 410.5 | -0.02 | 0.16 | -0.02 | 0.18 | -0.0001 | 1.07e-4 | 0.06 | 0.004 | -0.003 | 0.07 | -0.0005 | 0.07 | 0.002 | 0.01 | 0.007 | 0.09 | 1.06 | 0.06 |  |

**Table S2.11. Raw model coefficients and full averaged coefficients from the top producer price models (dAIC < 6) where change in forest cover is the response. No time lag. For rem = forest remaining, Prod cass = producer price for cassava, prod corn = producer price of corn, Prod rub = producer price of rubber, Prod sug = producer price of sugar**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (Intercept) | SE | For rem | SE | Prod cass | SE | Prod corn | SE | Prod rub | SE | Prod sug | SE | Time | SE | Model weight |
| **Model** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | -4816.38 |  | 0.06 |  | NA |  | NA |  | NA |  | NA |  | 1.07 |  | 0.5223 |
| 42 | -4836.13 |  | 0.06 |  | NA |  | NA |  | 0.10 |  | NA |  | 1.07 |  | 0.0988 |
| 36 | -4816.61 |  | 0.06 |  | -0.03 |  | NA |  | NA |  | NA |  | 1.07 |  | 0.0957 |
| 38 | -4818.89 |  | 0.06 |  | NA |  | 0.02 |  | NA |  | NA |  | 1.07 |  | 0.0956 |
| 50 | -4813.07 |  | 0.06 |  | NA |  | NA |  | NA |  | -0.002 |  | 1.07 |  | 0.0956 |
| Model averaged coefficients | -4818 | 335.5 | 0.06 | 0.004 | -0.003 | 0.17 | 0.002 | 0.18 | 0.01 | 0.15 | -0.0002 | 0.02 | 1.07 | 0.04 |  |

**Table S2.12. Raw model coefficients and full averaged coefficients from the top producer price models (dAIC < 6) where change in forest cover is the response. One year time lag. For rem = forest remaining, Prod cass = producer price of cassava, Prod corn = producer price of corn, Prod rub = producer price of rubber, Prod sug = producer price of sugar**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (Intercept) | SE | For rem | SE | Prod cass | SE | Prod corn | SE | Prod rub | SE | Prod sug | SE | Time | SE | Model weight |
| **Model** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | -4862.09 |  | 0.06 |  | NA |  | NA |  | NA |  | NA |  | 1.06 |  | 0.5219 |
| 50 | -4817.18 |  | 0.06 |  | NA |  | NA |  | NA |  | -0.02 |  | 1.06 |  | 0.1029 |
| 36 | -4875.06 |  | 0.06 |  | 0.19 |  | NA |  | NA |  | NA |  | 1.06 |  | 0.0980 |
| 42 | -4873.20 |  | 0.06 |  | NA |  | NA |  | 0.10 |  | NA |  | 1.07 |  | 0.0930 |
| 38 | -4843.97 |  | 0.06 |  | NA |  | -0.12 |  | NA |  | NA |  | 1.06 |  | 0.0928 |
| Model averaged coefficients | -4858 | 391.1 | 0.06 | 0.004 | 0.02 | 0.18 | -0.012 | 0.18 | 0.012 | 0.17 | -0.003 | 0.02 | 1.06 | 0.06 |  |

**Table S2.13. Raw model coefficients and full averaged coefficients from the top producer price models (dAIC < 6) where change in forest cover is the response. Two year time lag. For rem = forest remaining, Prod cass = producer price of cassava, Prod corn = producer price of corn, Prod rub = producer price of rubber, Prod sug = producer price of sugar**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (Intercept) | SE | Forest rem | SE | Prod cass | SE | Prod corn | SE | Prod rub | SE | Prod sug | SE | Time | SE | Model weight |
| **Model** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | -5052.38 |  | 0.06 |  | NA |  | NA |  | NA |  | NA |  | 1.08 |  | 0.47 |
| 50 | -4941.11 |  | 0.06 |  | NA |  | NA |  | NA |  | -0.05 |  | 1.06 |  | 0.14 |
| 36 | -5051.34 |  | 0.06 |  | 0.37 |  | NA |  | NA |  | NA |  | 1.09 |  | 0.11 |
| 42 | -5013.60 |  | 0.06 |  | NA |  | NA |  | -0.27 |  | NA |  | 1.06 |  | 0.09 |
| 38 | -5018.31 |  | 0.06 |  | NA |  | -0.21 |  | NA |  | NA |  | 1.08 |  | 0.08 |
| Model averaged coefficients | -5027 | 416.4 | 0.06 | 0.01 | 0.04 | 0.21 | -0.02 | 0.18 | -0.03 | 0.18 | -0.01 | 0.03 | 1.08 | 0.06 |  |

**Table S2.14. Summary of new ELCs allocated during the study period, the stated primary crop, and the commodity and producer prices for the different crops.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **Commodity prices ($/ton)** | | |  | **Producer prices ($/ton)** | | |
| **ELC primary crop** | **Number of new ELCs** | **% of total** | **Max value** | **Min value** | **Mean value** |  | **Max value** | **Min value** | **Mean value** |
| Rubber | 147 | 51.2 | 4830 | 585 | 1743 |  | 477 | 208 | 317 |
| Sugar | 23 | 8.0 | 573 | 138 | 282 |  | 3714 | 1193 | 2115 |
| Rice | 5 | 1.7 | 647 | 172 | 348 |  | 270 | 96 | 182 |
| Cassava | 14 | 4.9 | - | - | - |  | 263 | 96 | 185 |
| Corn | 2 | 0.7 | 295 | 90 | 151 |  | 316 | 74 | 197 |
| Other | 96 | 33.4 |  |  |  |  |  |  |  |
| **Total** | 287 | 100.0 |  |  |  |  |  |  |  |