

# Drivers of deforestation and forest degradation

A synthesis report for REDD+ policymakers

G. Kissinger

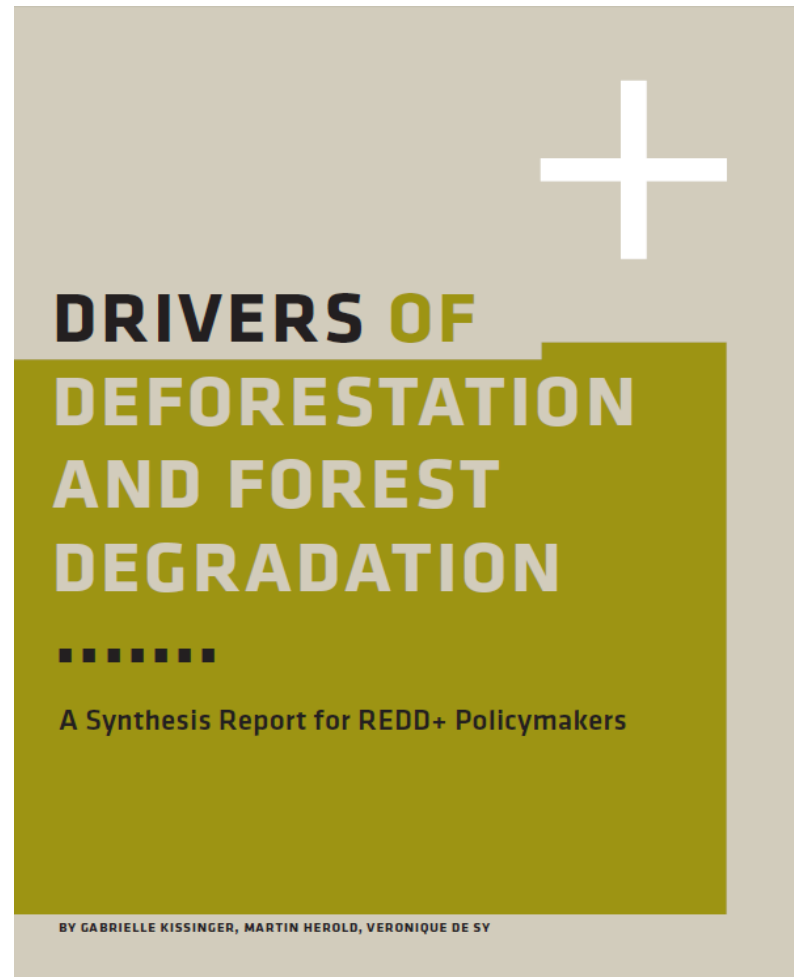
M. Herold

V. De Sy

Commissioned by **United Kingdom** Departments for Energy and Climate Change (DECC) and International development (DFID) and The Government of **Norway's** International Climate and Forest initiative.



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# Content Report

- **Assessment of current and future drivers**
- Drivers in REDD+ policy development and implementation
- Interventions at relevant scales and key actors
- **The role of drivers in national forest monitoring** and in developing forest reference (emission levels)
- Conclusions and recommendations for negotiators and country decision makers



# Assessment of current and future drivers



# Definitions

- **Proximate/direct causes:** human activities or immediate actions that directly impact forest cover and loss of carbon
  - Deforestation: commercial agriculture, subsistence agriculture, mining, infrastructure and urban expansion
  - Forest degradation: logging, fires, livestock grazing in forest, fuelwood collection and charcoal production
- **Underlying/indirect causes:** complex interactions of fundamental social, economic, political, cultural and technological processes that are often distant from their area of impact
  - Important to address them separately and examine them at various scales for specific analysis and intervention strategies

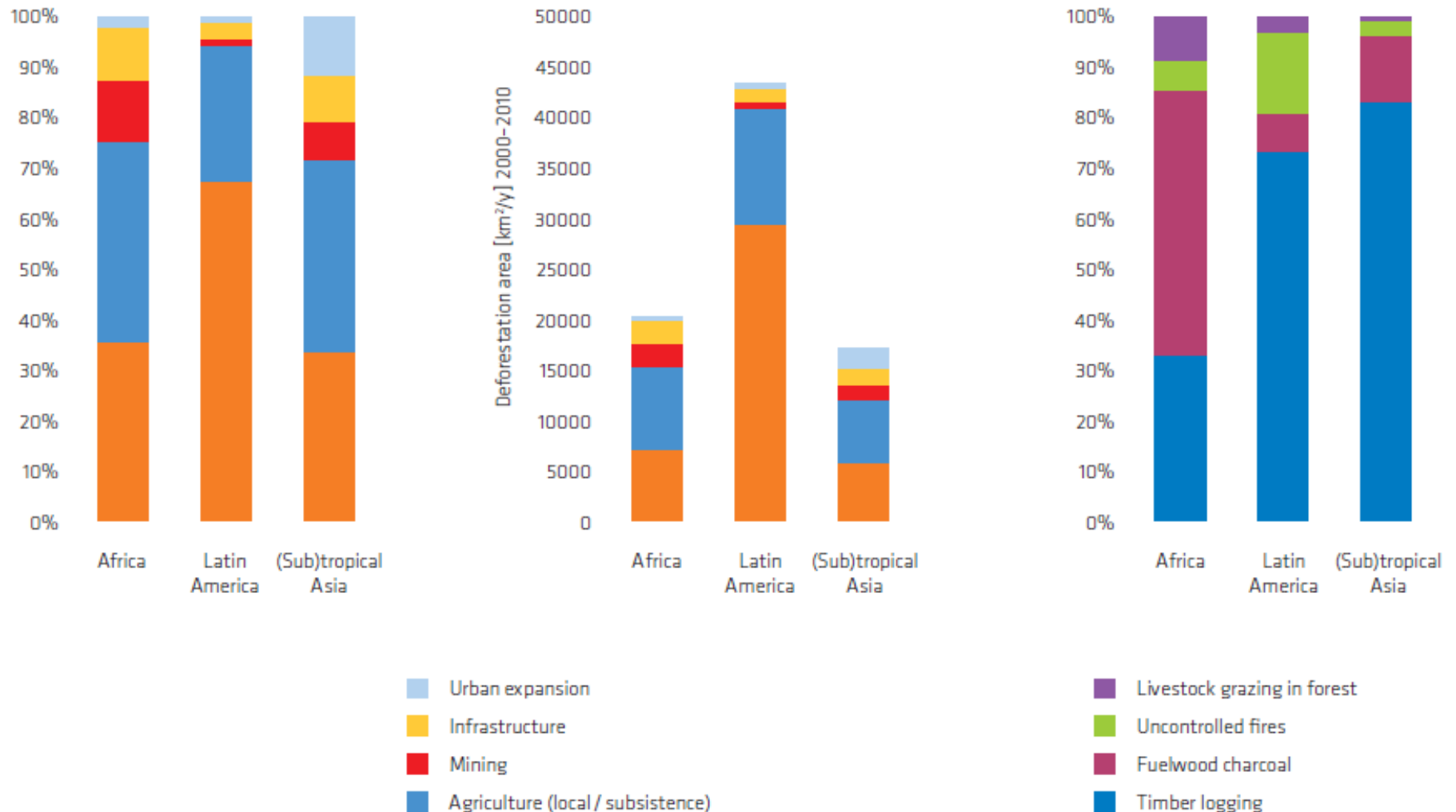


# An assessment of deforestation and forest degradation drivers in developing countries

Noriko Hosonuma, Martin Herold, Veronique De Sy, Ruth S. De Fries, Maria Brockhaus, Louis Verchot, Arild Angelsen, Erika Romijn

- Country REDD+ readiness activities – first inventory of what countries identify as relevant and important drivers
- Methods: R-PIN, R-PP, a study on proximate drivers of deforestation of 25 tropical countries (Mathews et al., 2010), CIFOR country profiles and the UNFCCC national communications
- nominal, ordinal or ratio-scale data for 46 non-Annex I countries (78% of total forest area in 2010)

# Direct or proximate drivers



# Indirect or underlying drivers

Future

- Economic growth
  - Based on export of primary commodities
- Population growth / Urban growth
- Demand for timber and agricultural products
  
- Countries (31 national REDD+ R-PPs):
  - Weak forest sector governance and institutions, conflicting policies beyond forest sector and illegal activity (93%)
  - Population growth (51%)
  - Poverty and insecure tenure (both 48%)



# Role of drivers in national forest monitoring





# Importance of monitoring drivers

- Essential data stream for REDD+ strategy and policy design
  - Link to policy and implementation of REDD+ and broader development objectives
  - Requires resources and efforts additional to estimation and reporting of GHG emissions
- countries should integrate and combine capacity development efforts for monitoring drivers with on-going national forest monitoring for REDD+



# National capacities for monitoring drivers

- Current country capacities and quality of driver data

## COUNTRY FOREST AREA CHANGE MONITORING CAPACITY

Quality of reported driver data	Low	Medium	High	Total
Low (listing)	8	7	3	18
Medium (ranking)	3	10	2	15
High (quantitative)	2	4	6	12
Total	13	21	11	45

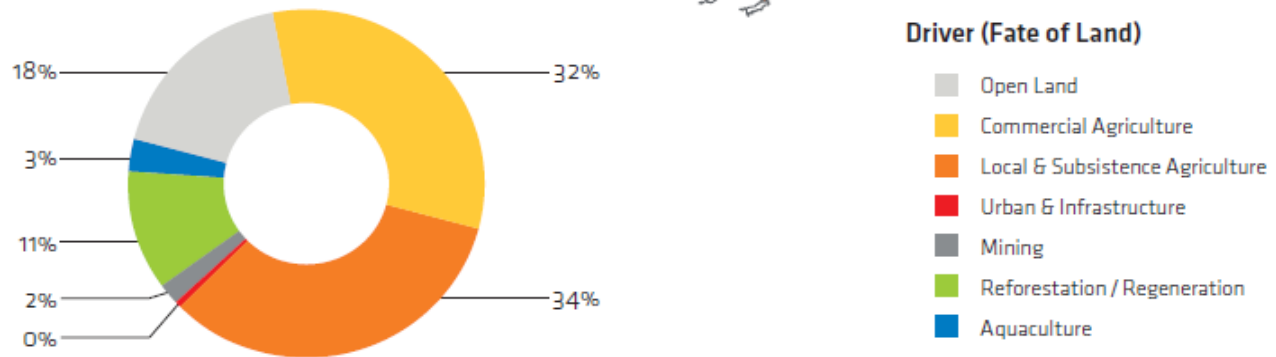
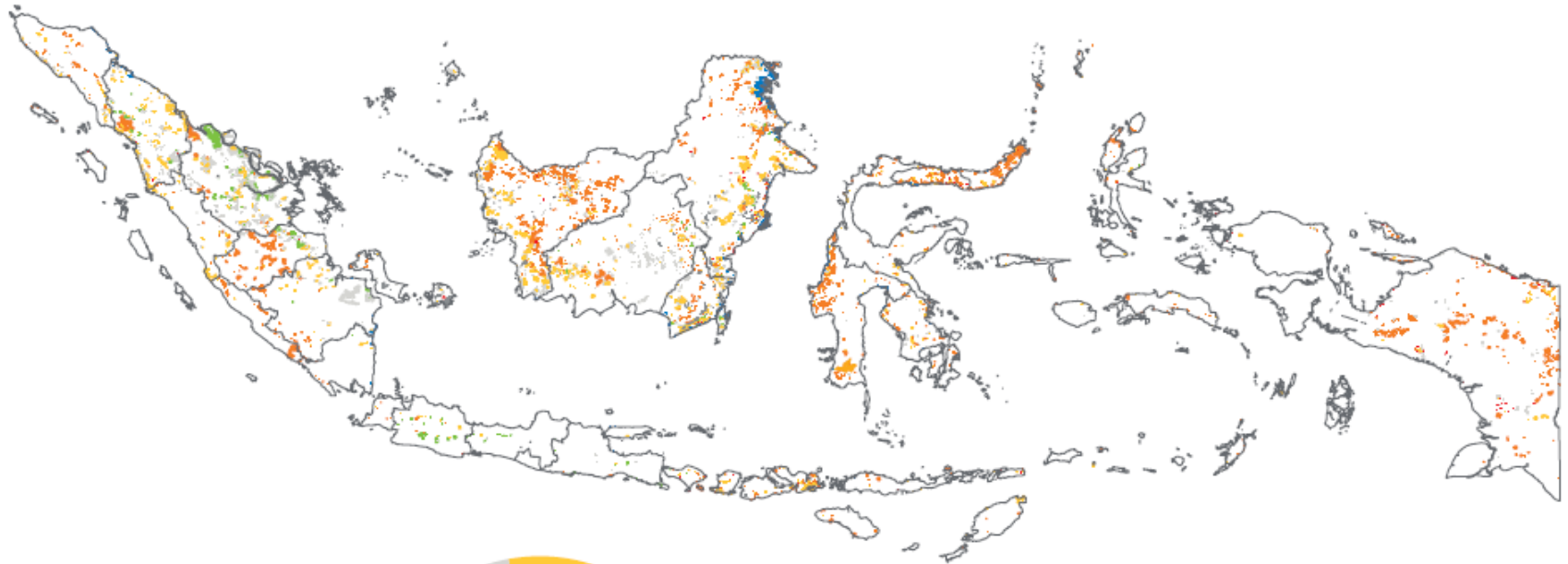


# Analysing and assessing proximate drivers

- Linking forest area changes to specific activities and follow-up land use is essential for assessing drivers
- Spatial context and location, and other features (e.g. roads, settlements) can help in interpretation
- Remote sensing analysis
- Local and regional knowledge (experts and communities), ground observations
- GHG emissions from drivers: commonly not available on national level



# National example Indonesia (MOFOR)



# Analysing and assessing underlying drivers

- Link between deforestation patterns and underlying causes important for developing RL/REs – but difficult to establish clear link
- Statistical analysis and modelling using economic and demographic indicators, analysis of policy and governance issues
- Required data often not easily available: scattered among different sources, sectors and ministries



# Implications for data availability and monitoring approaches

- Type and drivers have great influence on net forest carbon impacts – and the way these impacts can be measured and monitored
- Different indicators, methods and proxies are needed to measure and monitor different drivers accurately and consistently over time and space

