Technical Workshop on Reference Levels for REDD+
World Bank, November 9-10, 2011

Draft Methodological Framework for REDD+ Reference Levels

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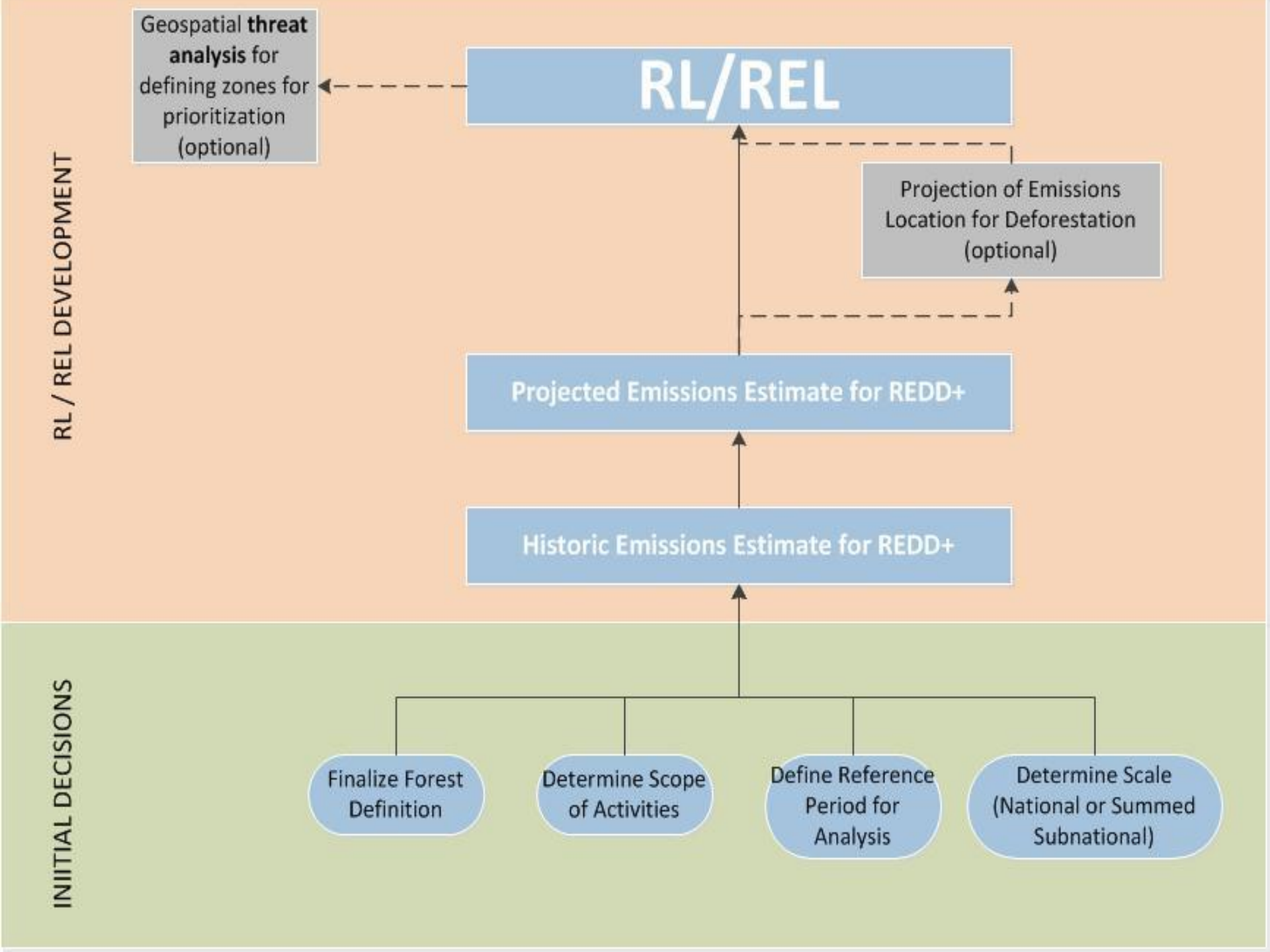
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Finalize Forest Definition
Determine Scope of Activities
Define Reference Period for Analysis
Determine Scale (National or Summed Subnational)

Historic Emissions Overview

- Activity data paired with emission factors

- Emission and removal factors derived from ground data

- Activity data from:
  - remote sensing
  - ground data
  - official records

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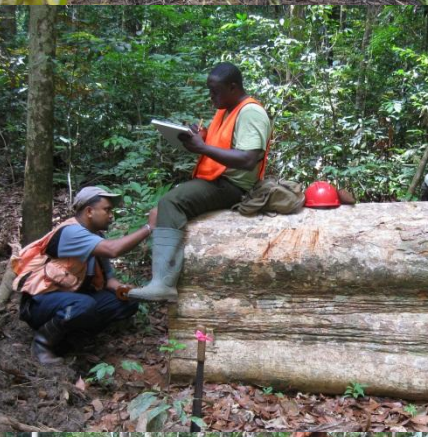
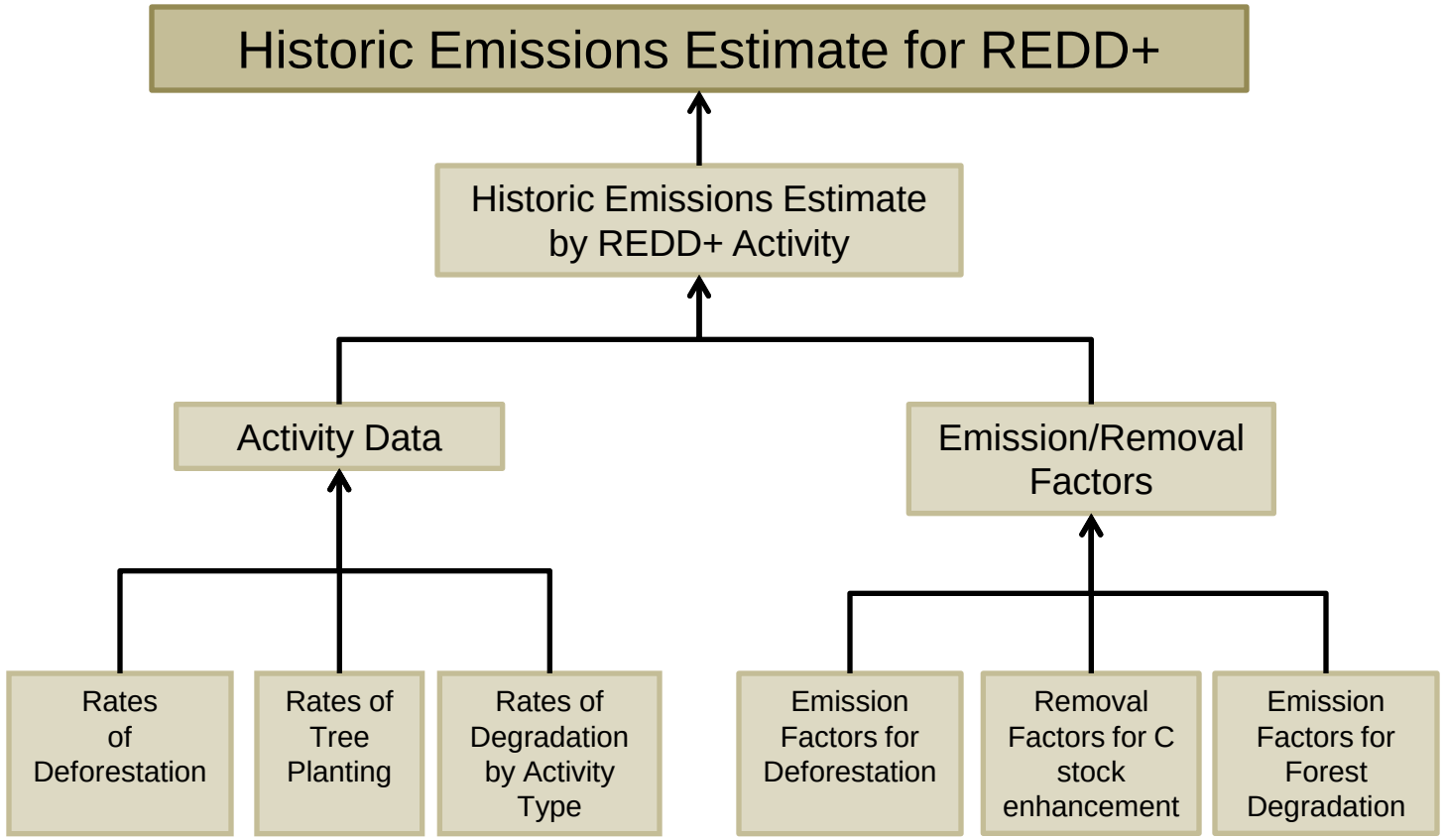


Historic Emissions Estimate for REDD+



ACTIVITY DATA

EMISSION/REMOVAL FACTORS

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Projection Overview

- How to extrapolate from calculated historic emissions to RL/REL for succeeding years?

- UNFCCC refers to “adjusting for country circumstances”

- Meridian suggests upward adjustment only with empirical evidence

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Projection approaches

- 4 approaches discussed here
- Divided between:
  - Direct extrapolation from historic
  - Consideration of country circumstances
- Country circumstances options divided between:
  - Negotiated RL/REL
  - Non-statistical adjustment
  - Statistical adjustment

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1. Projection Based on Historic Emissions

- Simple
- Highly empirically justified
- Basis for many methods at project-scale

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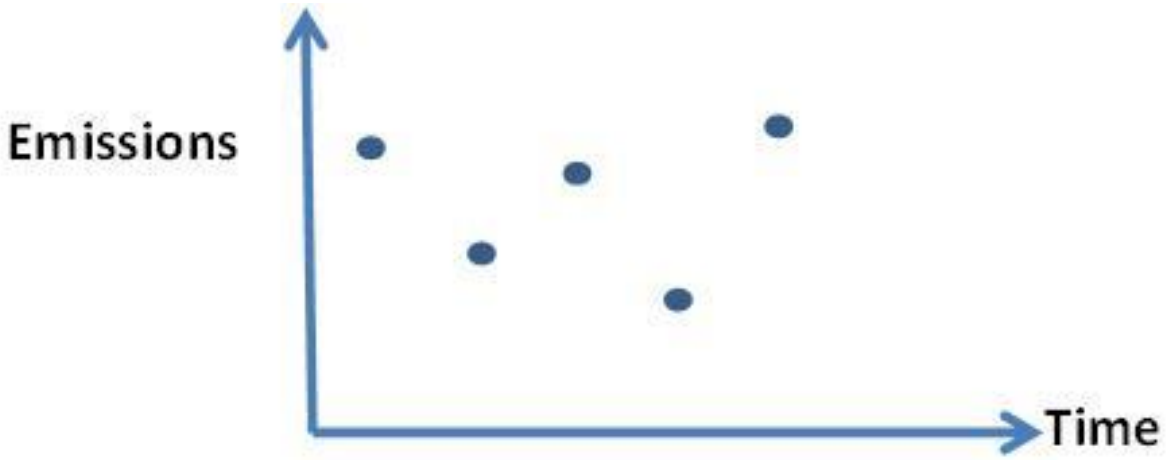

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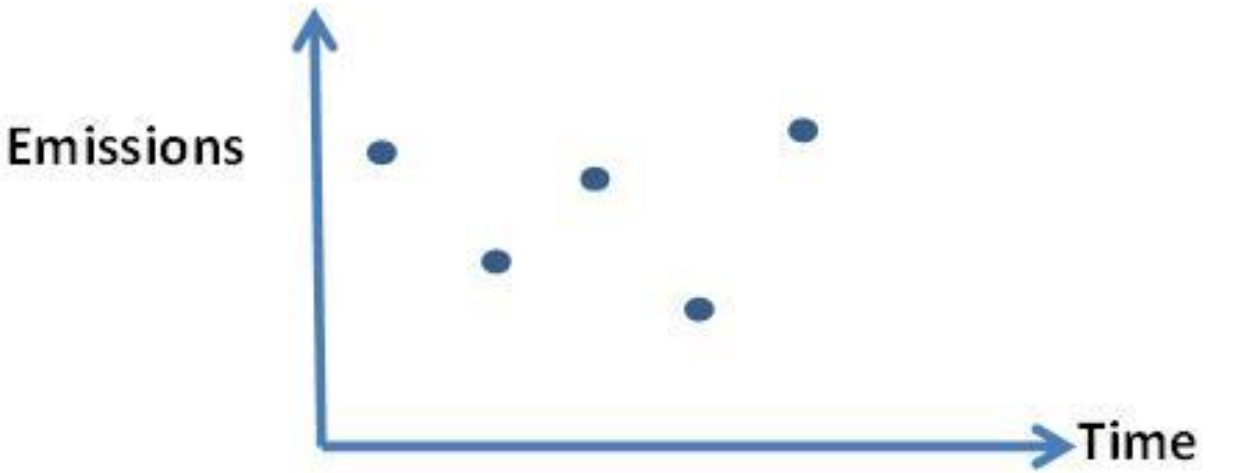

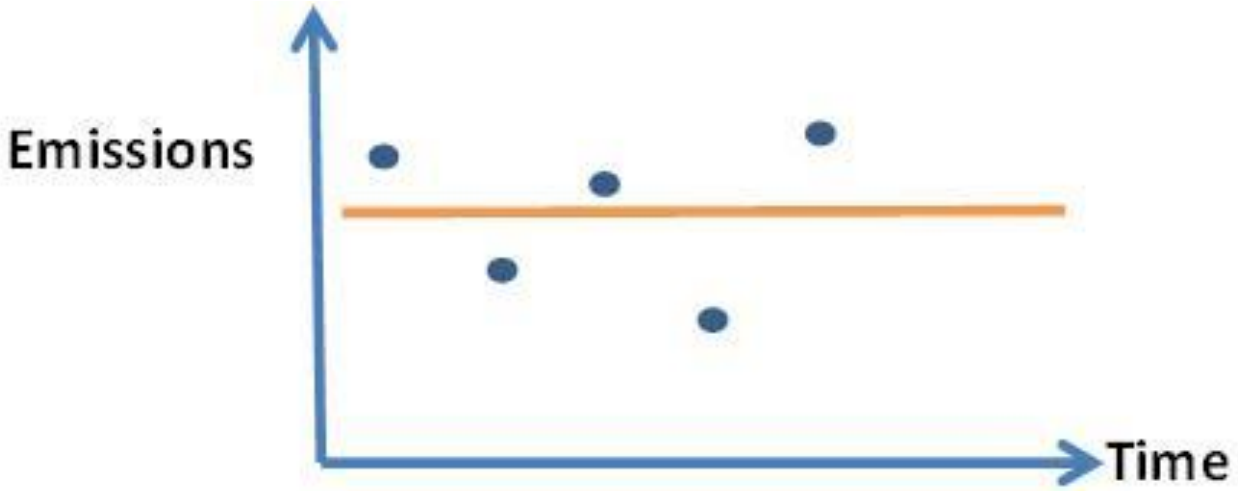

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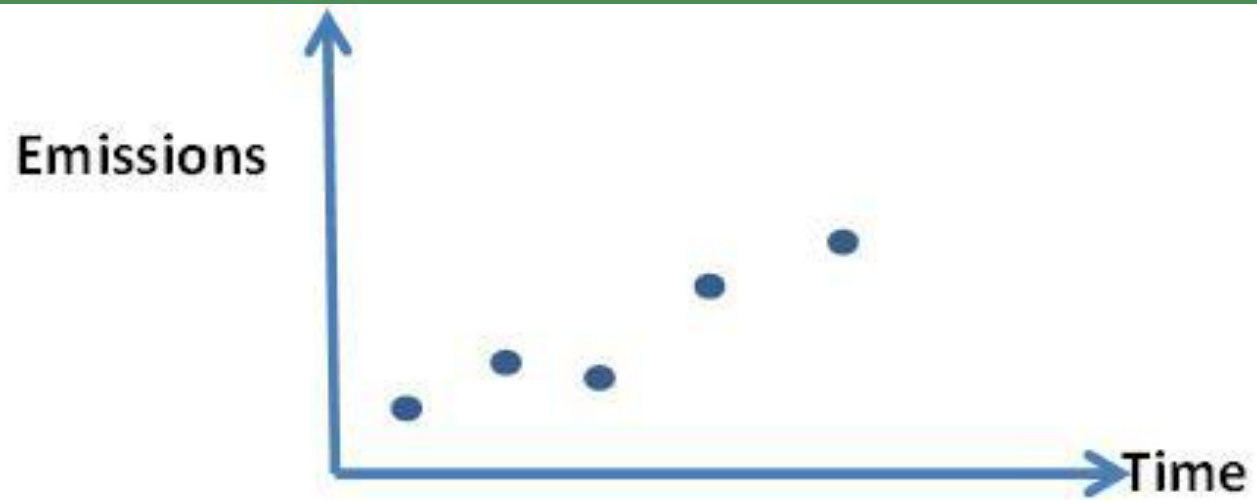

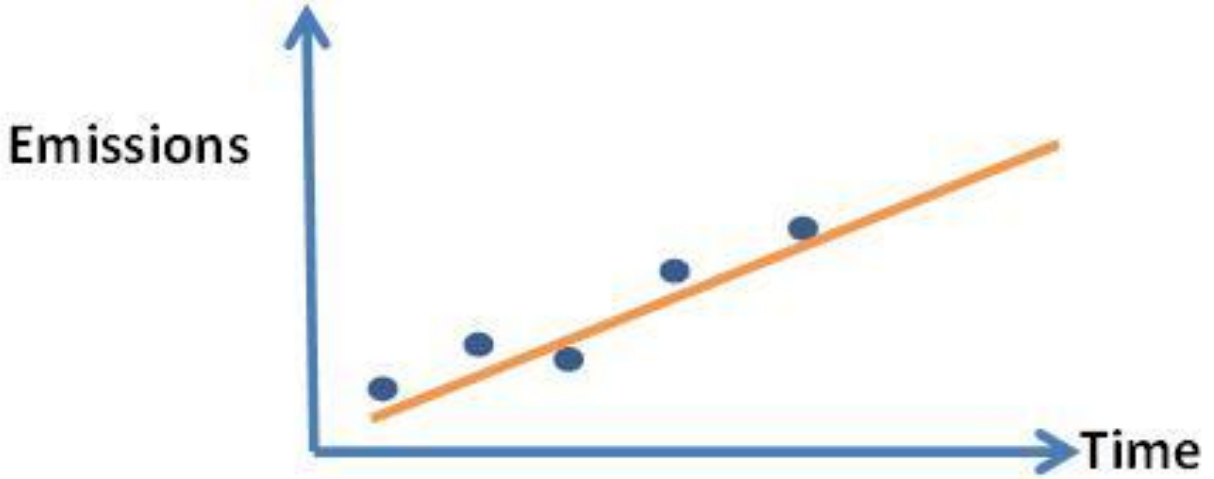

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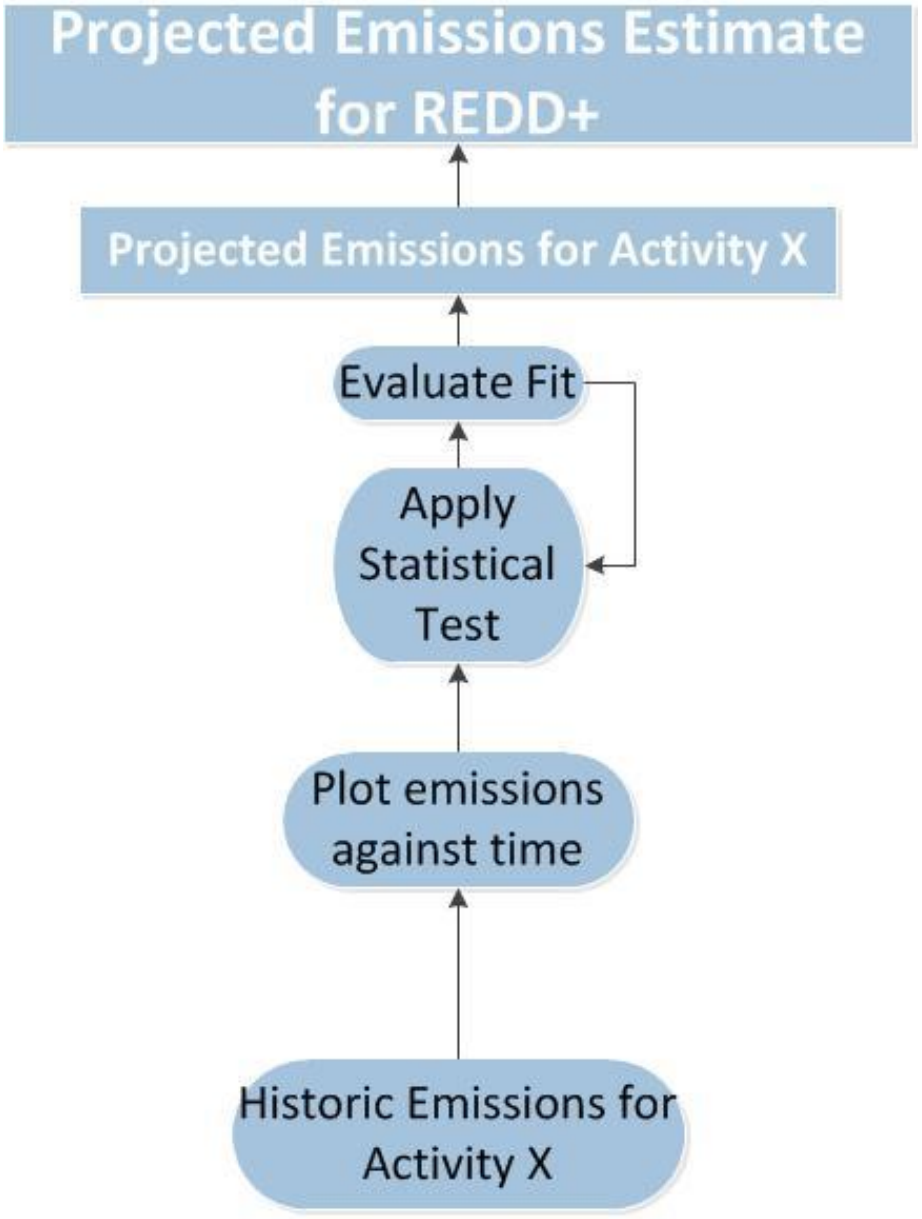

PROJECTION BASED ON HISTORIC EMISSIONS

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2. Adjusting for National Circumstances:

a. Negotiated

- RL/RELs politically determined?
- E.g. Development Adjustment Factors

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NEGOTIATION

Projected Emissions for Activity X

TBD
e.g. Development Adjustment Factor

Historic Emissions for Activity X

PROJECTION BASED ON COUNTRY CIRCUMSTANCES

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2. Adjusting for National Circumstances:

b. Non-statistical adjustment

- Meridian guidelines state that:
  "If a country can justify how a national development policy will affect deforestation rates and thus forest emissions, the policy may be considered in adjusting the BAU"

- But effect of policies can be overestimated
- Require reasonable proof, e.g. third party assessment of likely forest impacts

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NON-STATISTICAL ADJUSTMENT

Projected Emissions Estimate for REDD+

Projected Emissions for Activity X

Commission 3rd Party Assessment of Likely Forest Impacts

Assess Policies and Programs

Historic Emissions for Activity X

PROJECTION BASED ON COUNTRY CIRCUMSTANCES

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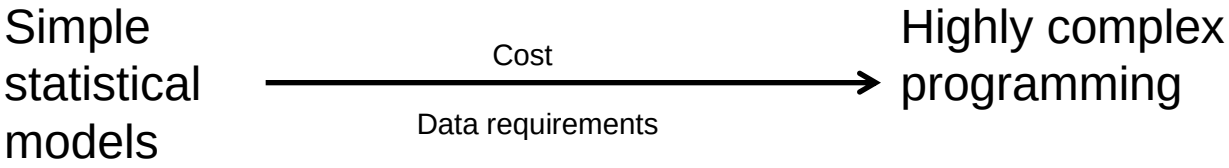
2. Adjusting for National Circumstances:

c. Statistical adjustment

- REDD literature refers to socio-economic factors that influence emissions. Including: *Population density and growth, forest area, economic growth, commodity prices, governance variables and location*
- Models can be used to correlate such factors with historic emissions:
  - Models can be simple statistical models through to highly complex programming



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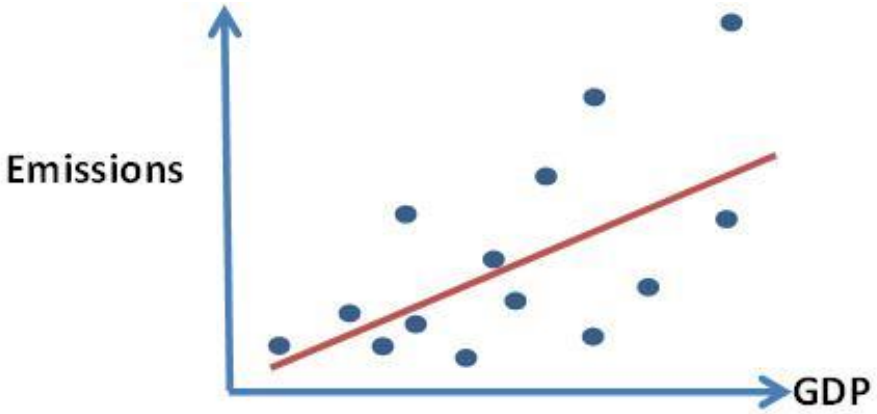
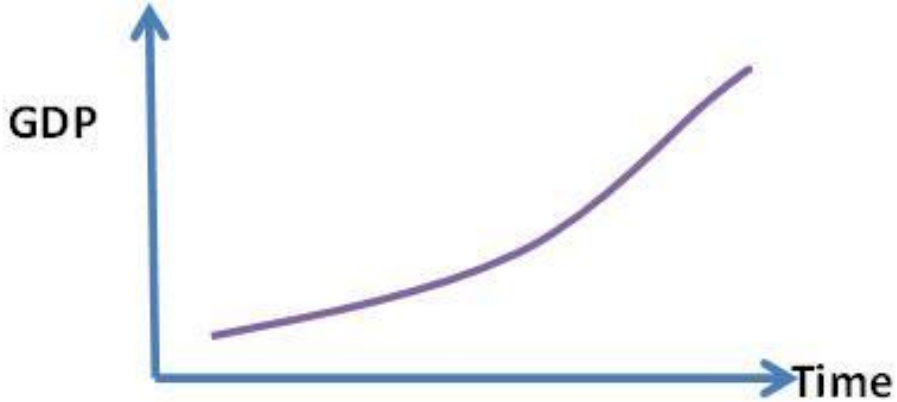
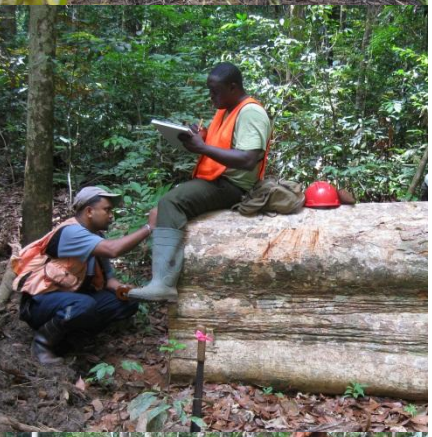
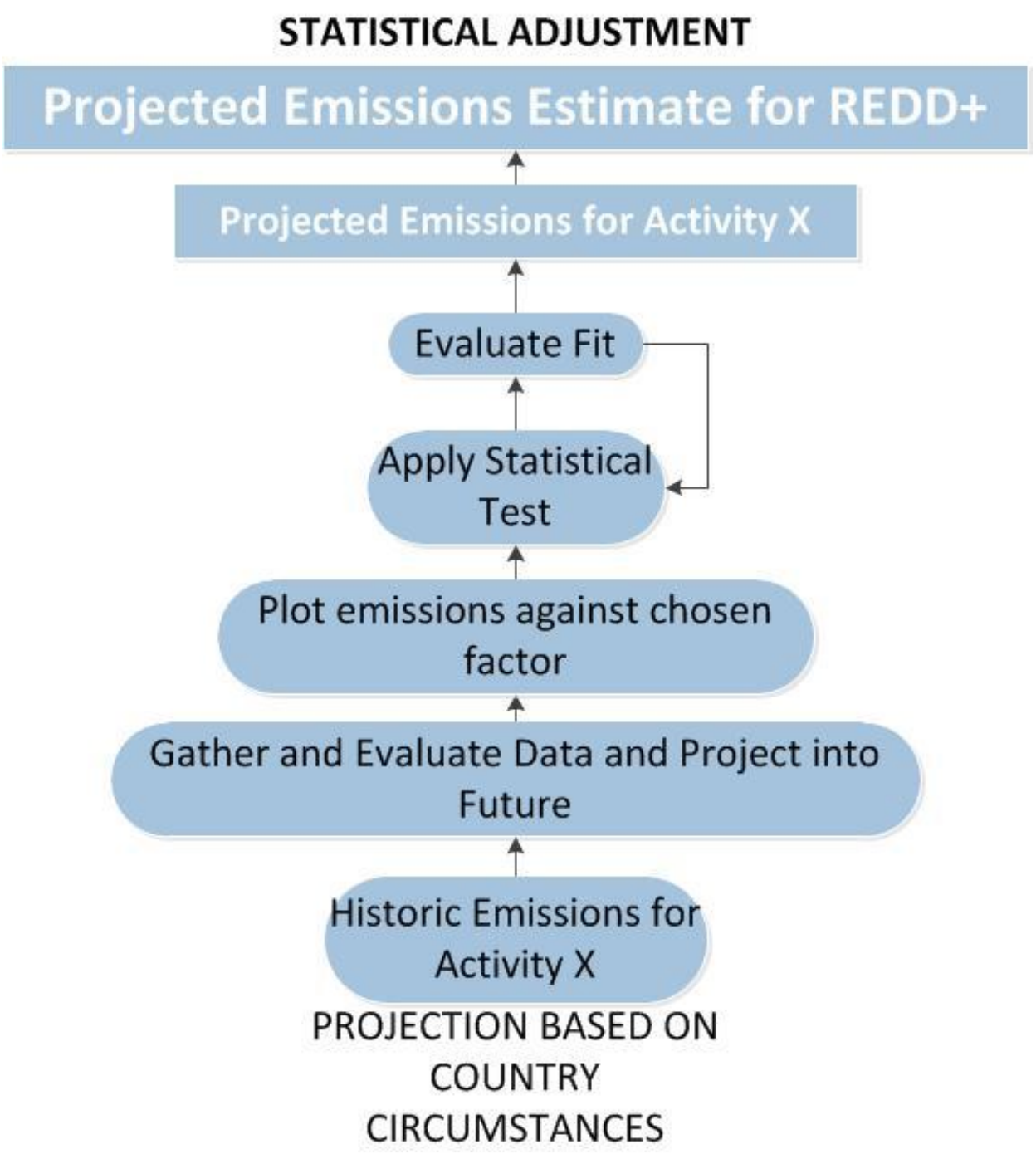

Emissions
GDP


GDP
Time

Emissions
GDP





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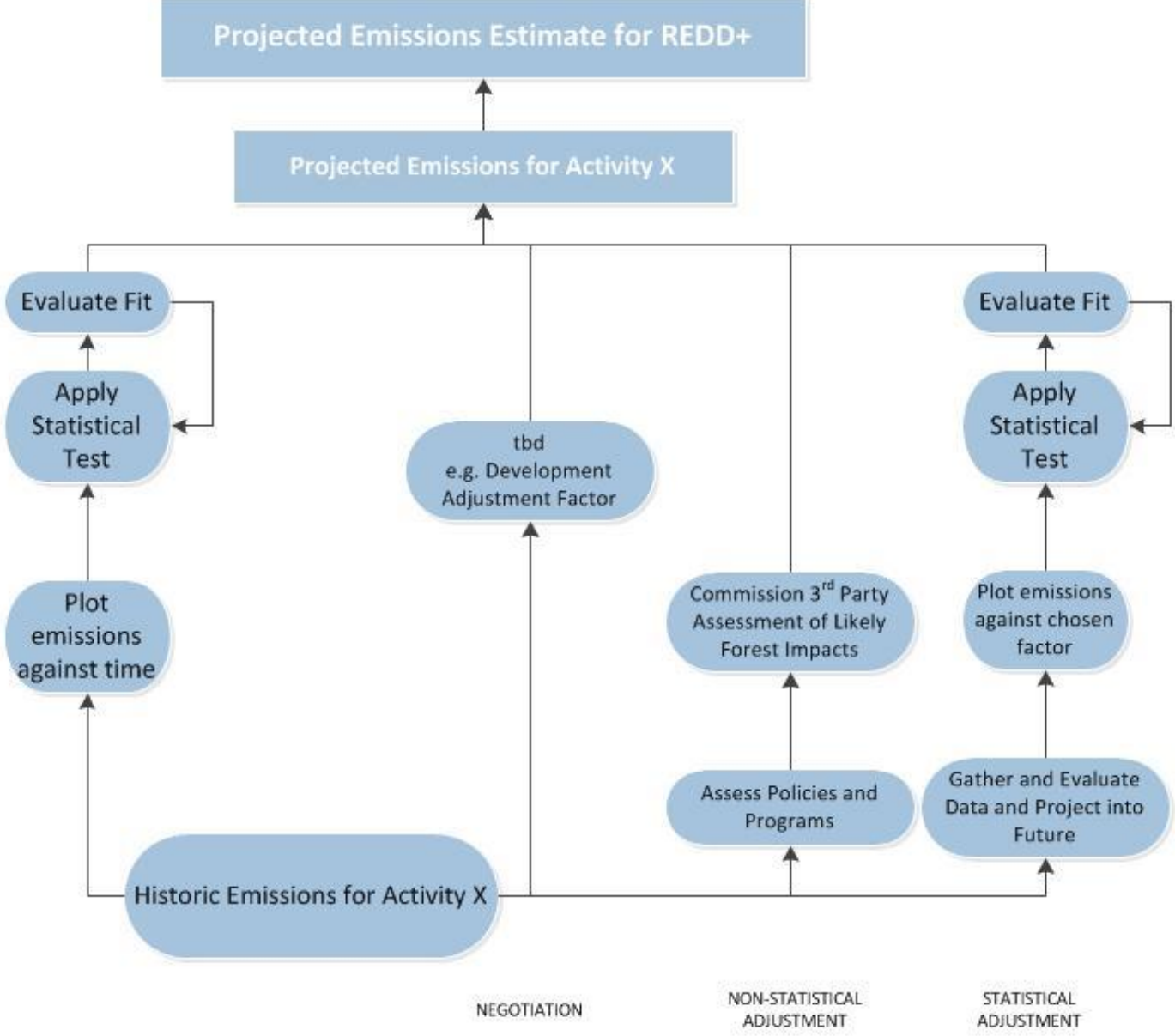

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PROJECTION BASED ON COUNTRY CIRCUMSTANCES

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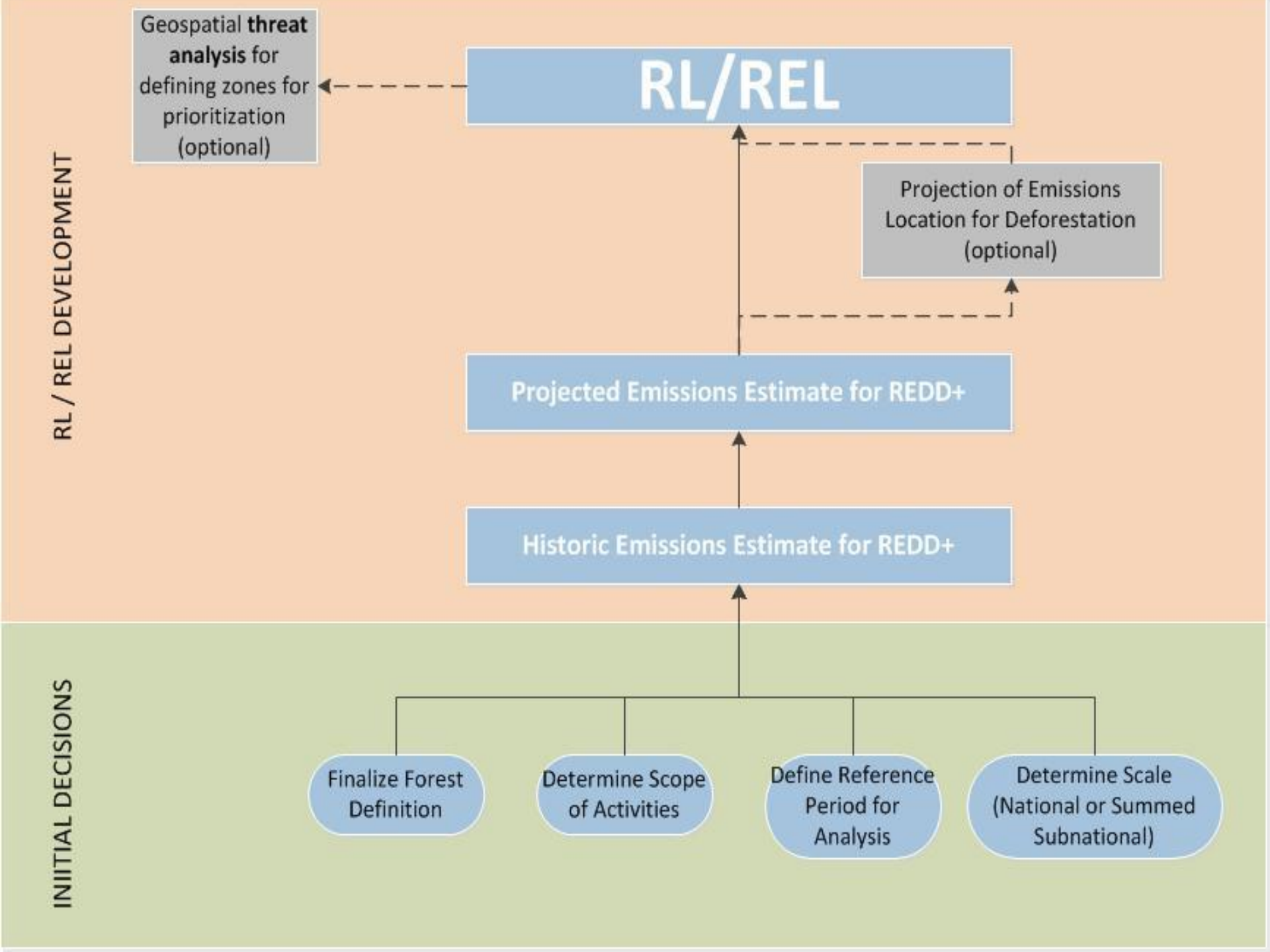
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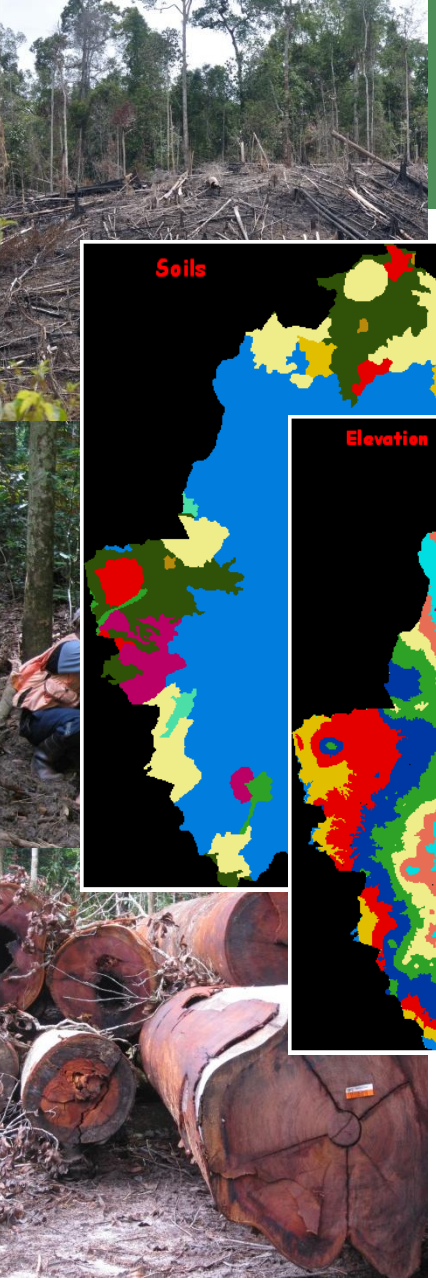
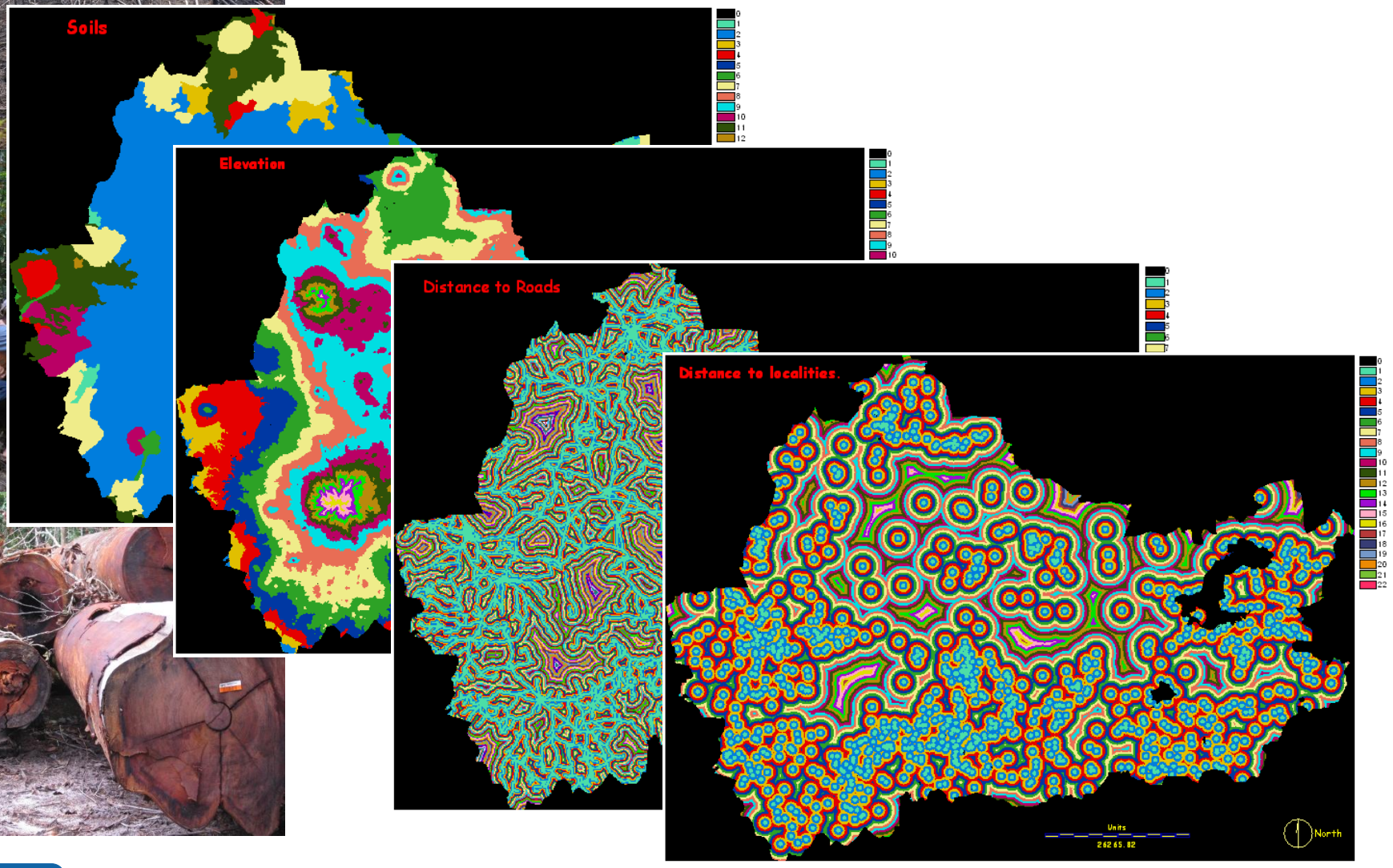
Examples of proxy drivers of land-use change





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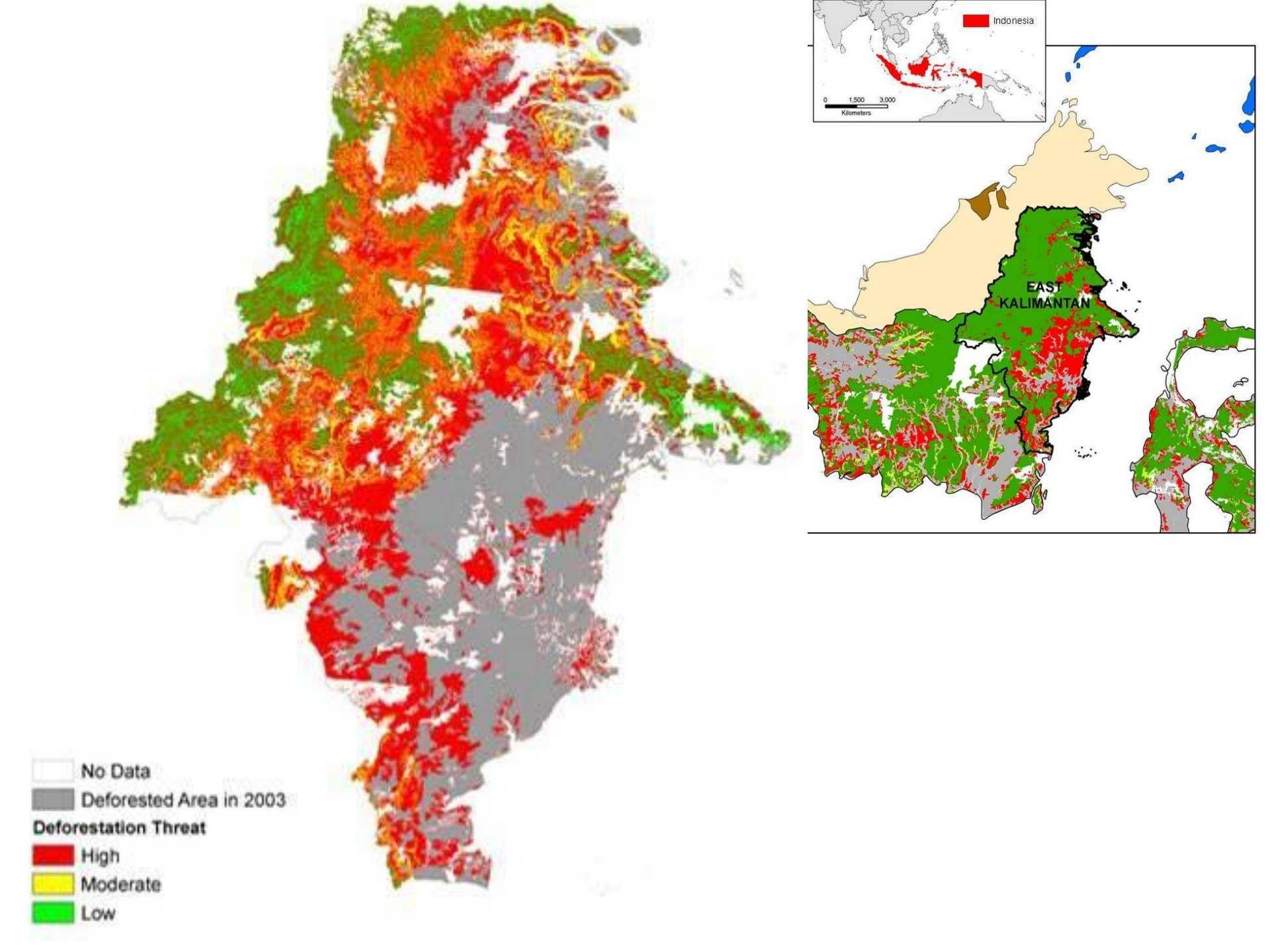
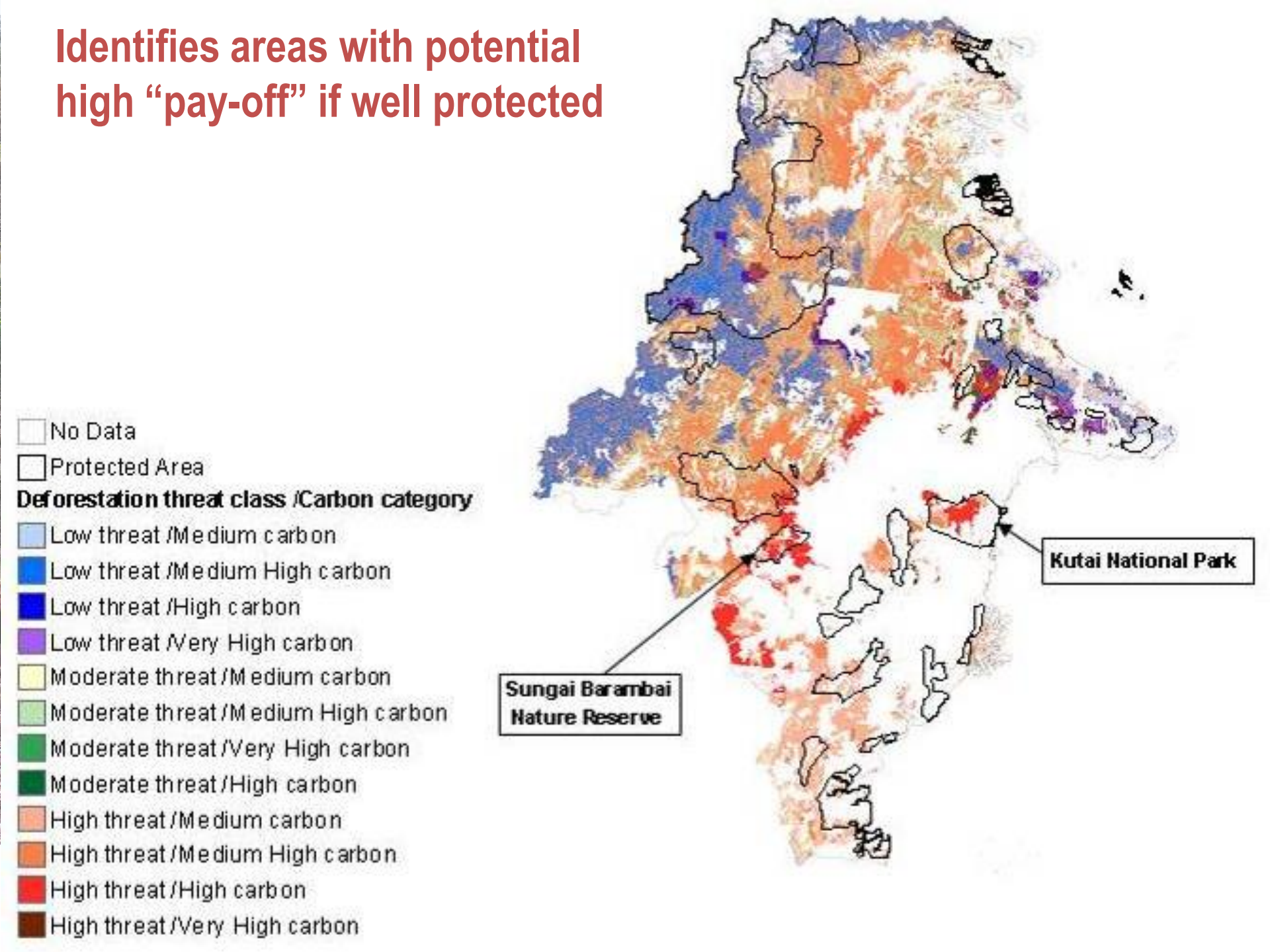
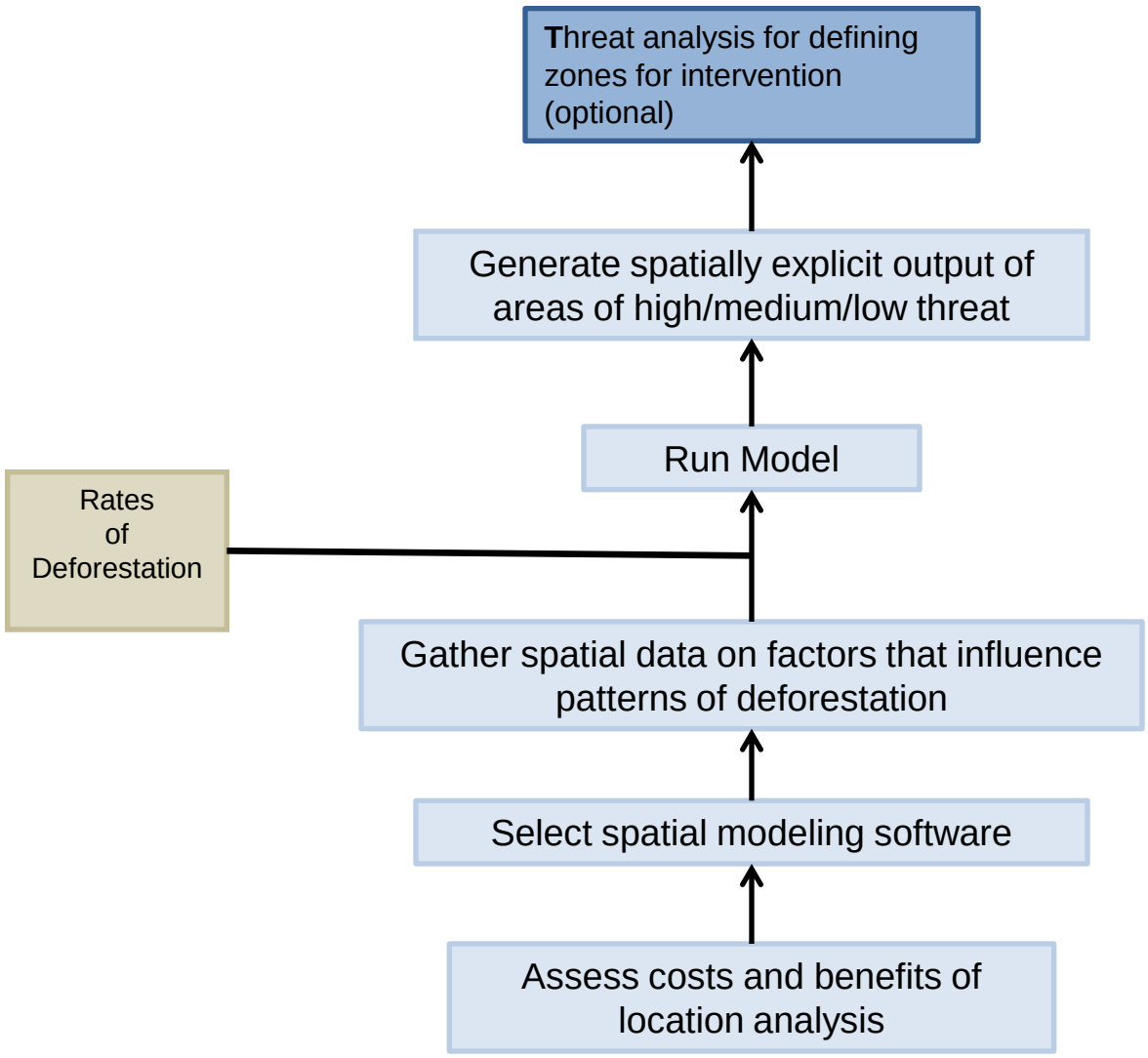

Indonesia
0 1,500 3,000
Kilometers
EAST
KALIMANTAN
No Data
Deforested Area in 2003
Deforestation Threat
High
Moderate
Low

Identifies areas with potential high "pay-off" if well protected



Projecting Zones of High Threat



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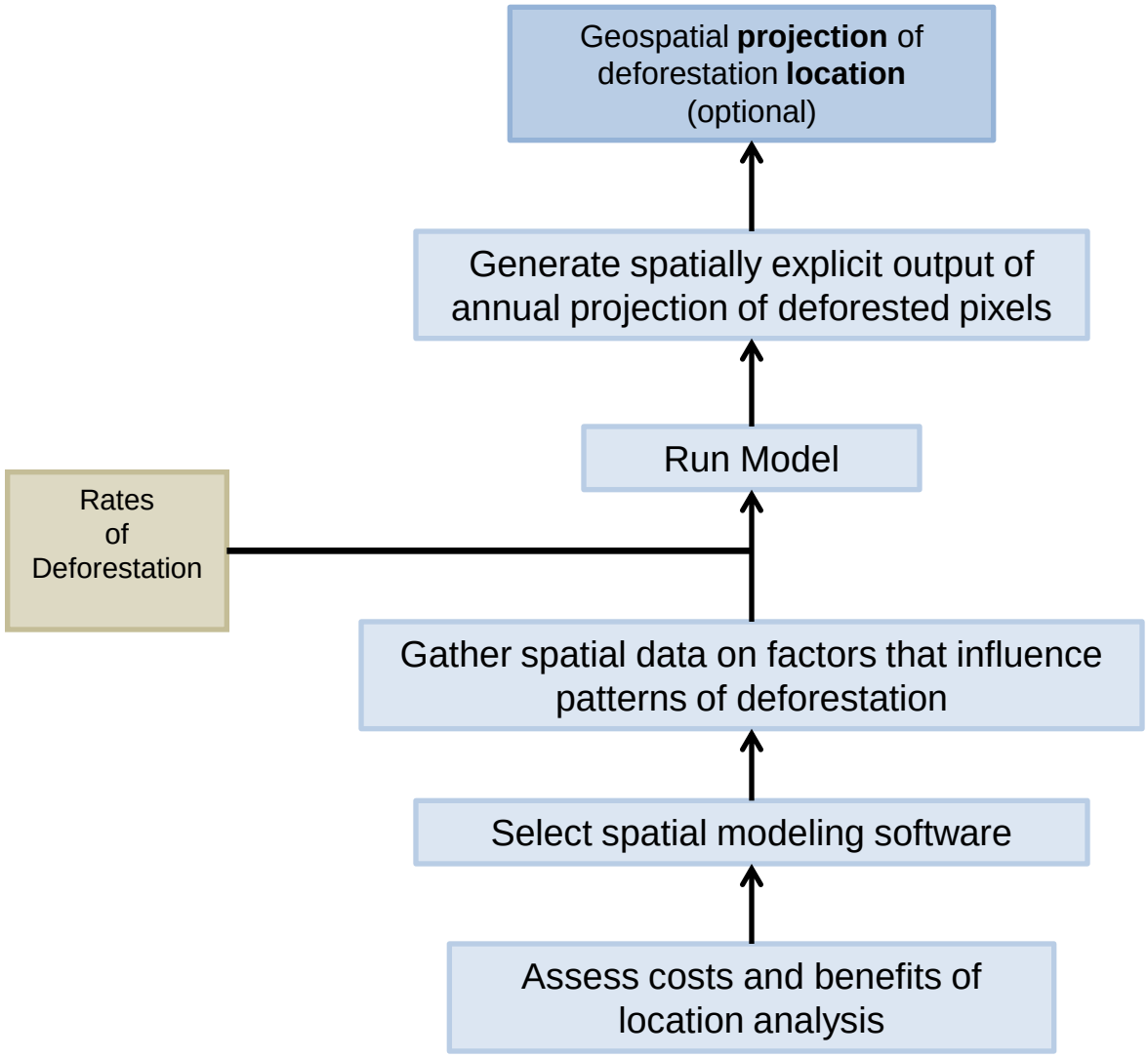
Projecting Specific Locations of Future Deforestation



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