



MINISTÉRIO DA CIÊNCIA, TECNOLOGIA E INOVAÇÃO
INSTITUTO NACIONAL DE PESQUISAS ESPACIAIS

Designing an Early Warning System for loss of ecosystem services in Amazonia - AMAZALERT

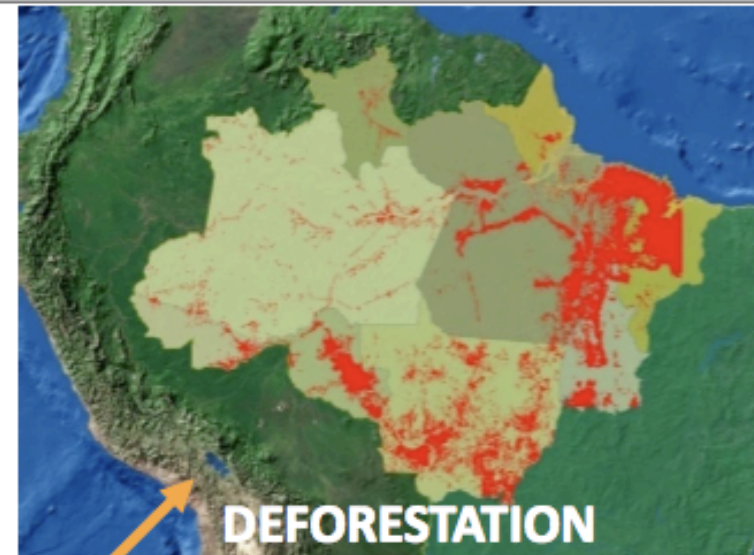
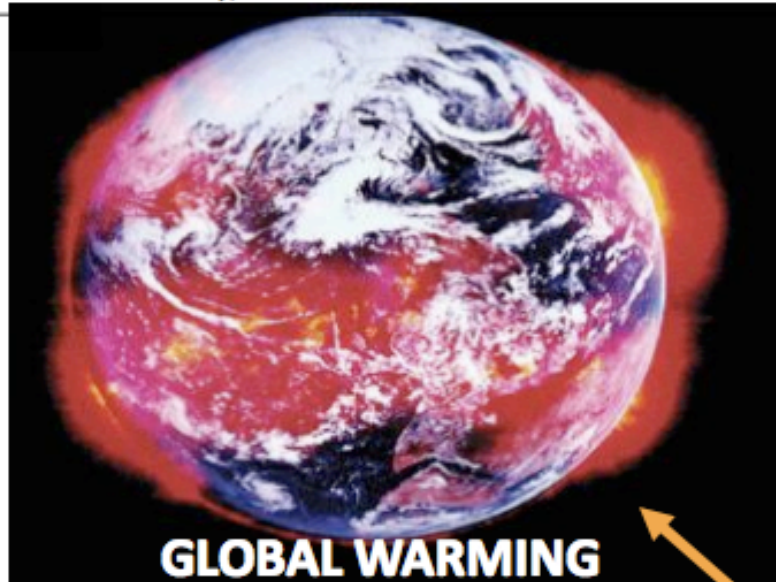
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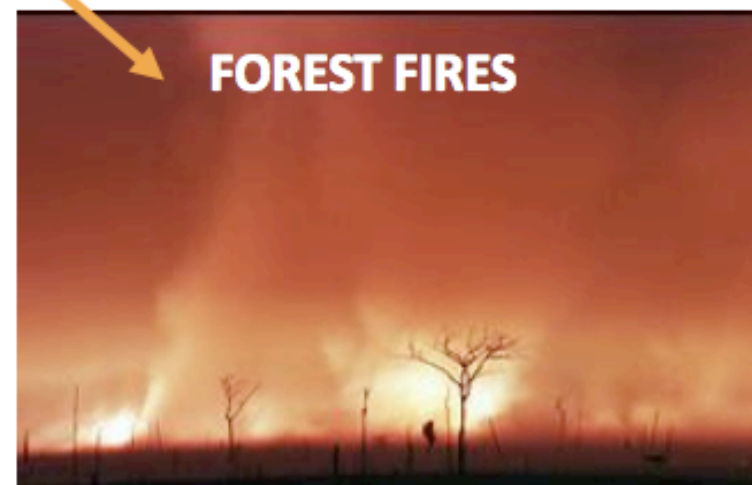


Warming of 0.8°C in Amazonia (Victoria et al., 2004. J Climate); IPCC AR4: 3°C to > 5°C in 2100!

Total deforested area (clear-cutting) is 730,000 km² in Brazilian Amazonia (18%) (INPE, 2008)



Anthropogenic and Natural Drivers of Environmental Change in Amazonia



Droughts (e.g., 2005) can become frequent (Cox et al., 2008 Nature)

Forest fire frequency ↑ (Nepstad et al., 2006)



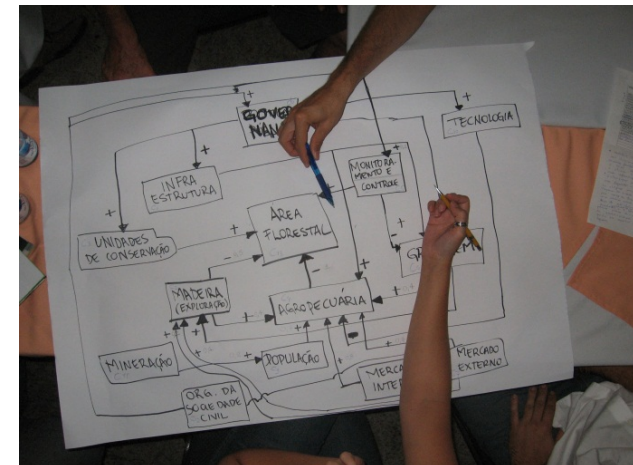
AMAZALERT consortium



What is important in the Amazon?

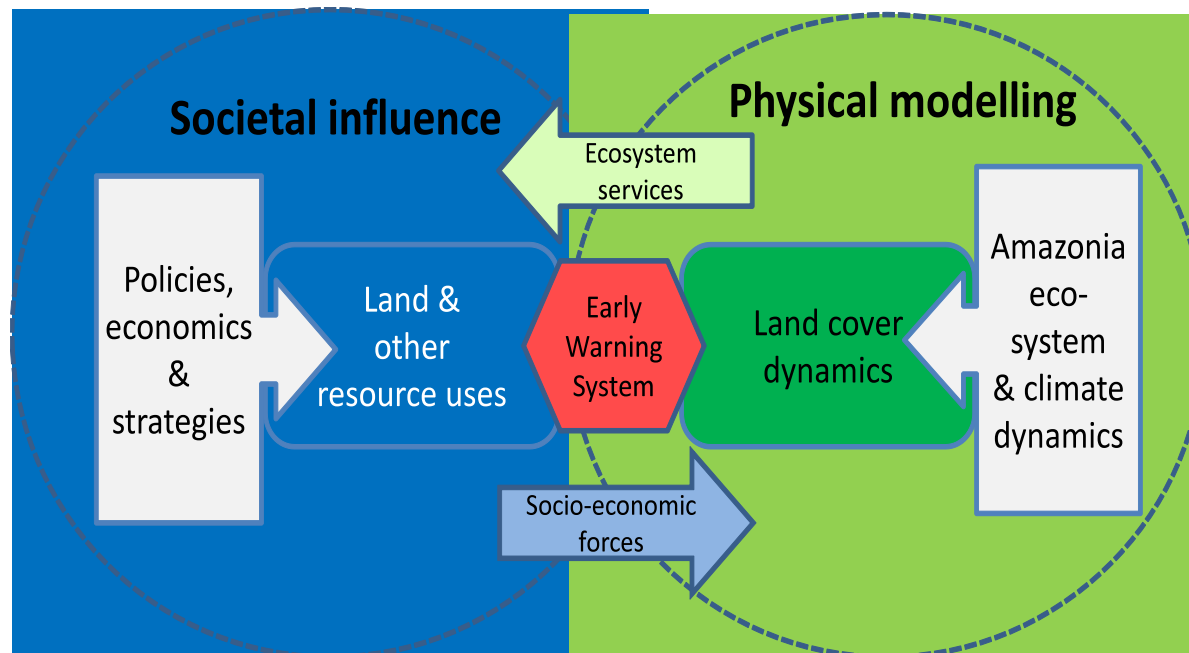
Can we predict future changes?

- *Identify the ecosystem services most important to stakeholders in the Amazon Basin and beyond.*
- *Work with stakeholders to build scenarios for the 21st century Amazon*



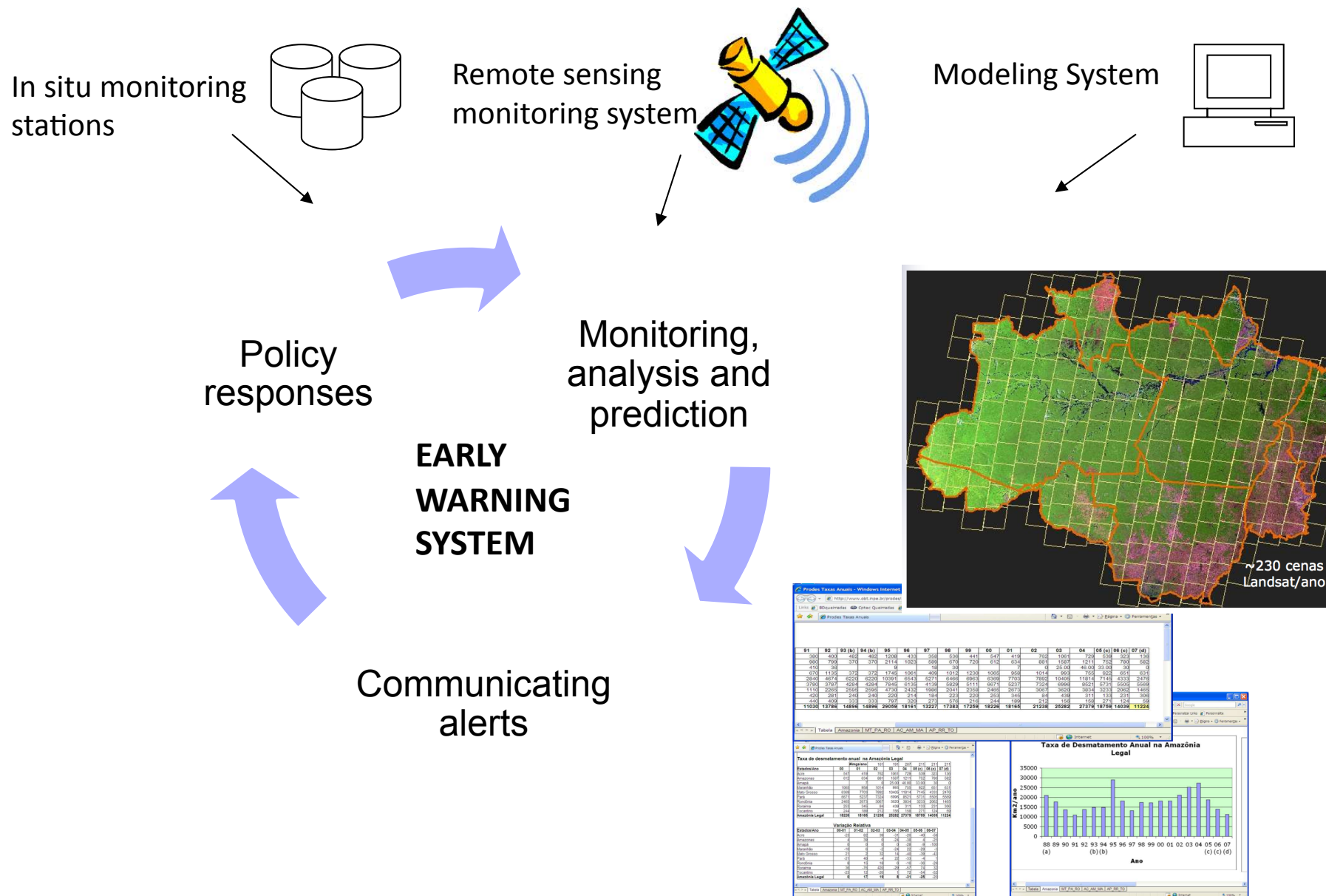
Construct an integrated view of the Amazon

- *Integrate policy and socio-economic factors into land use and climate models and use the results to inform decision making.*



- Monitoring system
- Modeling System
- Analysis Tools
- Communications

Framework





Gains, difficulties, challenges

- Successful scientific collaboration
 - Strong involvement of INPE's researchers since early stages
- 25 % of resources committed to South American partners (INPE, Embrapa, USP, UNAL, FAN)
- Financial management
 - FUNCATE successfully included as third party (but with zero budget)
 - Certificate on Financial Statements (for funding higher than € 375.000,00) by external auditor – anyone had previous experience with this?