



Integrated landscape approach

Terry Sunderland
Ani Adiwinata Nawir

Capacity-building workshop for South East Asia on
ecosystem conservation and restoration to support
achievement of the Aichi Biodiversity Targets

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Presentation highlights

1. Understanding the landscape approach
2. Ten principles for a landscape approach & AICHI Targets
3. Lessons learnt from reviewing forest rehabilitation initiatives (& case studies)
4. An approach in Forest Landscape Restoration in Indonesia
5. Conclusions

1. Understanding the landscape approach

Whose landscapes?



Multi-functionality

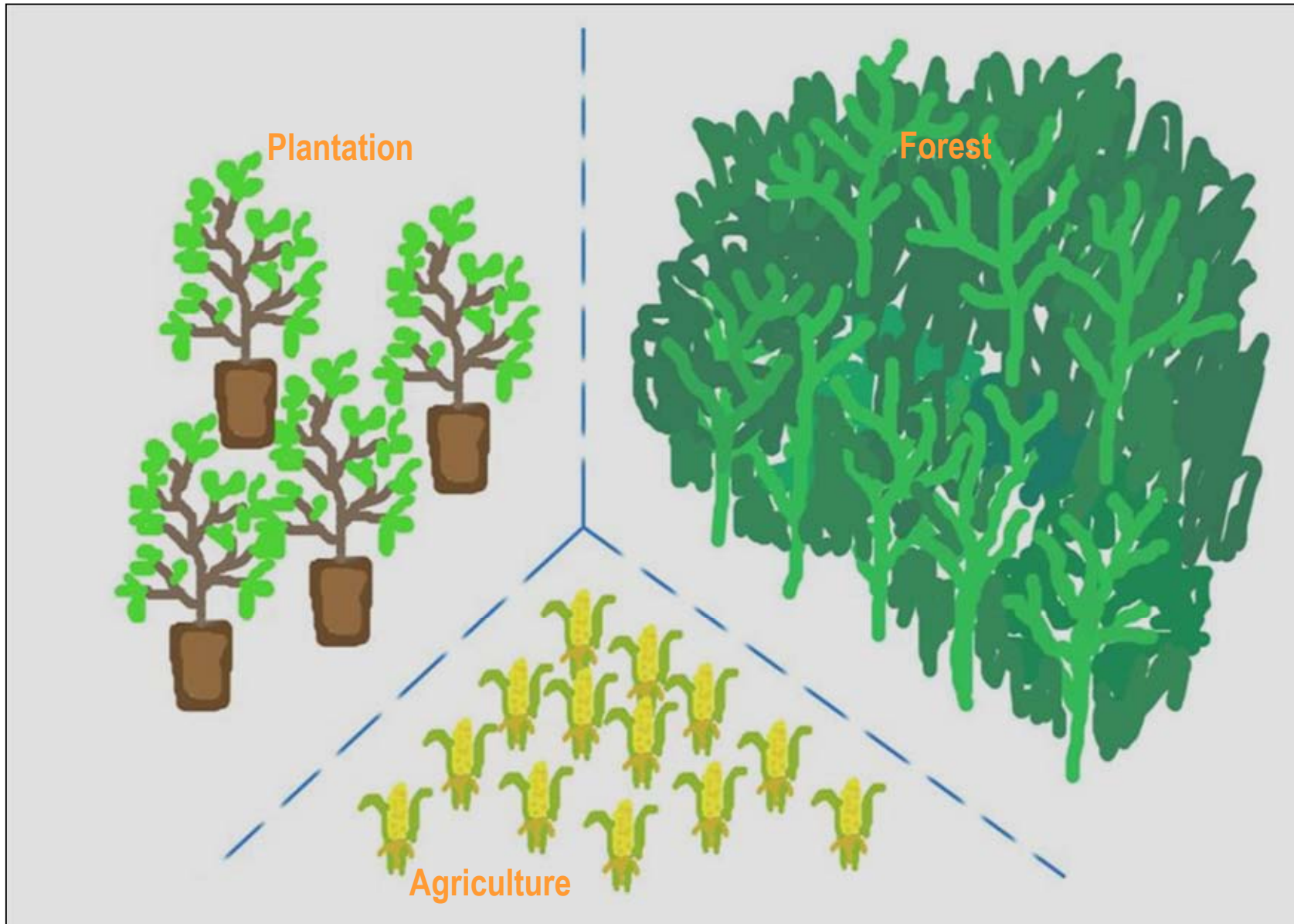


- Combination of separate land units with different functions (**spatial segregation**)
- Different functions on the same unit of land but separated in time (**temporal segregation**)
- Different functions on the same unit of land at the same time
(**functional integration or real multi-functionality**)

Various components in a landscape



But in reality, segregation is the norm



Landscape assessment for development

- Collecting economic data at various levels, engaging most stakeholders
- Spatial data: administrative boundaries, land cover change and current land uses
- “Governance landscape” including local (traditional) institutions
- Focus on ecosystem services and agricultural productivity and away from protected areas alone



New approaches for integrating agriculture and NRM?



- “Eco-agriculture” (Scherr and McNeely 2006)
- “Agroecology is complimentary to conventional agriculture and needs scaling up” (United Nations 2011)
- “New agriculture needed...” (UNDP 2011)
- “Agro-ecological approach” (World Bank 2011)
- “Integrated management of biodiversity for food and agriculture” (FAO 2011)

New (landscape) approaches

- Since 2008, CIFOR and multiple partners working on defining and refining broad “landscape approaches” building on previous initiatives
- How? Review of published literature, multiple workshops for consensus building, conferences/side events, e.g. Diversitas, IUFRO, CBD Bonn, Nagoya
- Validated by extensive survey of field practitioners
- Based on this on-going work, SBSTTA - Subsidiary Body on Scientific, Technical and Technological Advice - commissioned CIFOR to draft report “sustainable use of biodiversity at the landscape scale” (see <http://www.cbd.int/doc/meetings/sbstta/sbstta-15/official/sbstta-15-13-en.pdf>)
- Global Landscape Forum was launched during COP in Warsaw (16 November 2013)

2. Ten principles for a landscape approach & Aichi Targets

Integrated landscape approach

Aims to reconcile agriculture, conservation, and other competing land uses.

Key references

Q:1,2 **Landscape approach: Ten principles to apply at the**
Q:3 **nexus of agriculture, conservation, and other**
Q:4,5 **competing land uses**

Q:6 **Jeffrey Sayer^{a,1}, Terry Sunderland^b, Jaboury Ghazoul^c, Jean-Laurent Pfund^d, Douglas Sheil^{b,e,f}, Erik Meijaard^{b,g,h},**
Q:7 **Michelle Venter^a, Agni Klintuni Boedhihartono^a, Michael Day^b, Claude Garcia^{b,i}, Cora van Oosten^j, and Louise E. Buck^k**
^aCenter for Tropical Environmental and Sustainability Science, School of Earth and Environmental Sciences, James Cook University, Smithfield, QLD 4878, Australia; ^bCenter for International Forestry Research, Bogor 16000, Indonesia; ^cDepartment of Environmental Systems Science, Institute of Terrestrial Ecosystems, Eidgenössische Technische Hochschule Zurich, CH-8092 Zurich, Switzerland; ^dFauna, Forests and Nature Service, Neuchâtel, Switzerland; ^eInstitute of Tropical Forest Conservation, Mbarara University of Science and Technology, Kabale, Uganda; ^fSchool of Environmental Science and Management, Southern Cross University, Lismore, NSW 2480, Australia; ^gPeople and Nature Consulting International, Jakarta, Indonesia; ^hSchool of Biological Sciences, University of Queensland, St. Lucia, QLD 4072, Australia; ⁱGoods and Services of Tropical Forest Ecosystems, Centre de Coopération Internationale en Recherche Agronomique pour le Développement, Unité Propre de Recherche, F-34398 Montpellier, France; ^jCentre for Development Innovation, Wageningen University and Research Centre, 6700 AB, Wageningen, The Netherlands; and ^kEcoAgriculture Partners and Department of Natural Resources, Cornell University, Ithaca, NY 14853

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“Landscape approaches” seek to provide tools and concepts for allocating and managing land to achieve social, economic, and environmental objectives in areas where agriculture, mining, and other productive land uses compete with environmental and biodiversity goals. Here we synthesize the current consensus on landscape approaches. This is based on published literature and a consensus-building process to define good practice and is validated by a survey of practitioners. We find the landscape approach has been refined in response to increasing societal concerns about environment and development tradeoffs. Notably, there has been a shift from conservation-orientated perspectives toward increasing integration of poverty alleviation goals. We provide 10 summary principles to support implementation of a landscape approach as it is currently interpreted. These principles emphasize adaptive management, stakeholder involvement, and multiple objectives. Various constraints are recognized, with institutional and governance concerns identified as the most severe obstacles to implementation. We discuss how these principles differ from more traditional sectoral and project-based approaches. Although no panacea, we see few alternatives that are likely to address landscape challenges more effectively than an approach circumscribed by the principles outlined here.

Q:8 food security | integrated development approaches

Embargoed

Ten principles for a landscape approach

1. Continual learning and adaptive management
2. Common concern entry point: shared objectives & values
3. Multiple scales: external influences & constraints
4. Multi-functionality: multiple uses by different stakeholders
5. Multi-stakeholders: at various levels
6. Negotiated and transparent change
7. Clarification of rights and principles: negotiated & accepted
8. Participatory and user-friendly monitoring
9. Resilience: recognizing of threats & vulnerabilities
10. Strengthened stakeholder capacity

Strategic goal A:

Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

1: Adaptive learning and management

2: Common concern entry point

STRATEGIC GOAL A	Principles relevant
Target 1: People are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	6 8 10
Target 2: Biodiversity been integrated into development, poverty reduction, planning and accounting processes .	3 8
Target 3: Incentives harmful to biodiversity are eliminated, phased out or reformed, and positive incentives are developed.	
Target 4: Stakeholders at all levels have taken steps to achieve sustainable production and consumption.	2 3 4 5 6 7 8

Strategic goal B: Reduce the direct pressures on biodiversity and promote sustainable use

3: Multiple scales

4: Multi-functionality

5: Multiple stakeholders

STRATEGIC GOAL B	Principles relevant
Target 5: The rate of loss of natural habitats is at least halved and where feasible brought close to zero. Degradation is reduced.	
Target 6: Fish, invertebrates and aquatic plants are managed sustainably. Recovery plans in place for all depleted species.	
Target 7: Areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity	
Target 8: Pollution has been brought to levels that are not detrimental to ecosystem function and biodiversity.	
Target 9: Invasive alien species are identified. Priority species and their pathways are controlled or eradicated.	9
Target 10: By 2015 anthropogenic pressures on coral reefs and other vulnerable ecosystems are minimized.	

Strategic goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

6: Negotiated,
transparent change
logic

STRATEGIC GOAL C	Principles relevant
Target 11: At least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, are conserved.	3
Target 12: The extinction of known threatened species has been prevented and their conservation status has been improved.	9
Target 13: The genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, is maintained.	9

Strategic goal D: Enhance the benefits to all from biodiversity and ecosystem services

7: Clear rights and
responsibilities

8: Participatory, user-
friendly monitoring

STRATEGIC GOAL D	Principles relevant
Target 14: Ecosystems that provide essential services are restored and safeguarded.	4 5 7 9
Target 15: Ecosystem resilience and the contribution to carbon stocks enhanced. At least 15 % of degraded ecosystems restored.	4 9
Target 16: By 2015, the Nagoya Protocol on Access to Genetic Resources and Sharing of Benefits is in force.	4 7

Strategic goal E: Enhance implementation through participatory planning etc.

9: Resilience

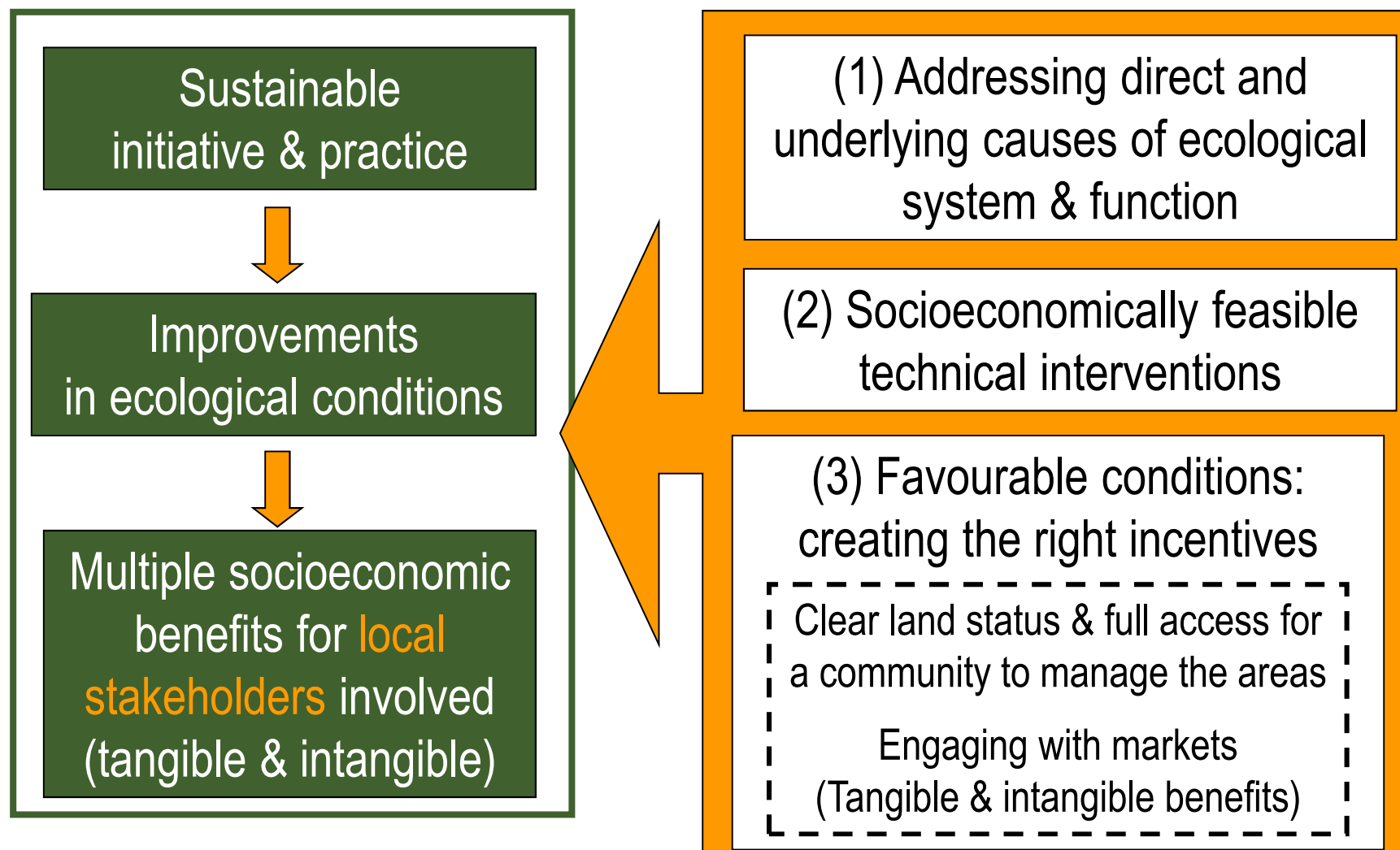
10: Capacity building

STRATEGIC GOAL E	Principles relevant
Target 17: By 2015 each Party has adopted and implemented national biodiversity strategy and action plan.	1 2 5 8 10
Target 18: Traditional knowledge and customary use of biological resources, are respected and subject to legislation.	1 2 5 7 8
Target 19: Knowledge, the science base and technologies relating to biodiversity, are improved, widely shared and transferred.	1 4 10
Target 20: Financial resources for implementing the Strategic Plan for Biodiversity 2011-2020 are increased.	10

3. Lessons learnt from reviewing forest rehabilitation initiatives (in Asia and Latin America)

country reports can be found at <http://www/cifor.cgiar.org>
(Funded by Government of Japan, 2004-2007)

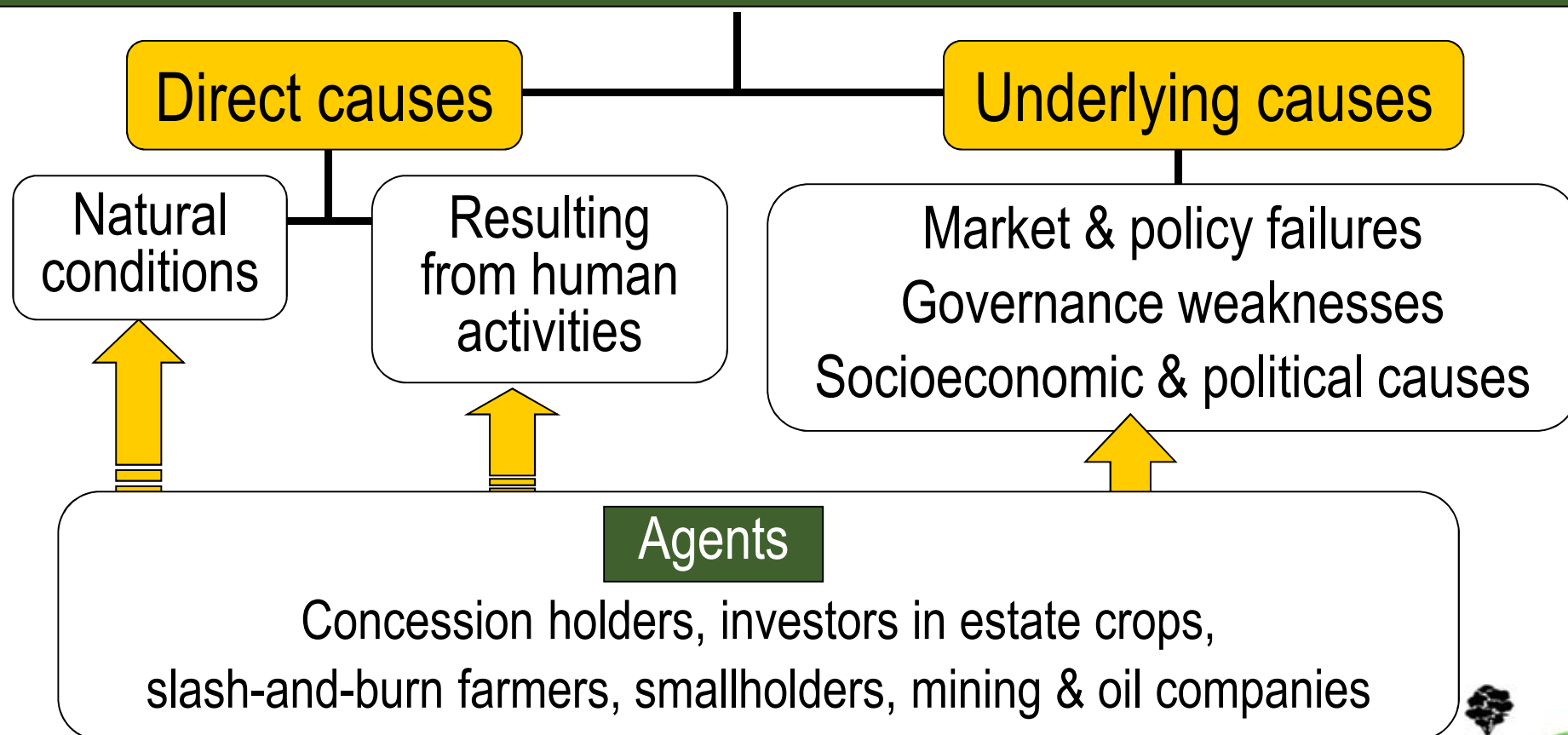
Designing & implementing restoration initiatives to ensure local economies are improved



(1) Addressing the causes of deforestation and land degradation in line with technical interventions

Framework to identify the causes of deforestation & degraded land condition

The direct & underlying causes:
continuing disturbance threatens for sustainable practices



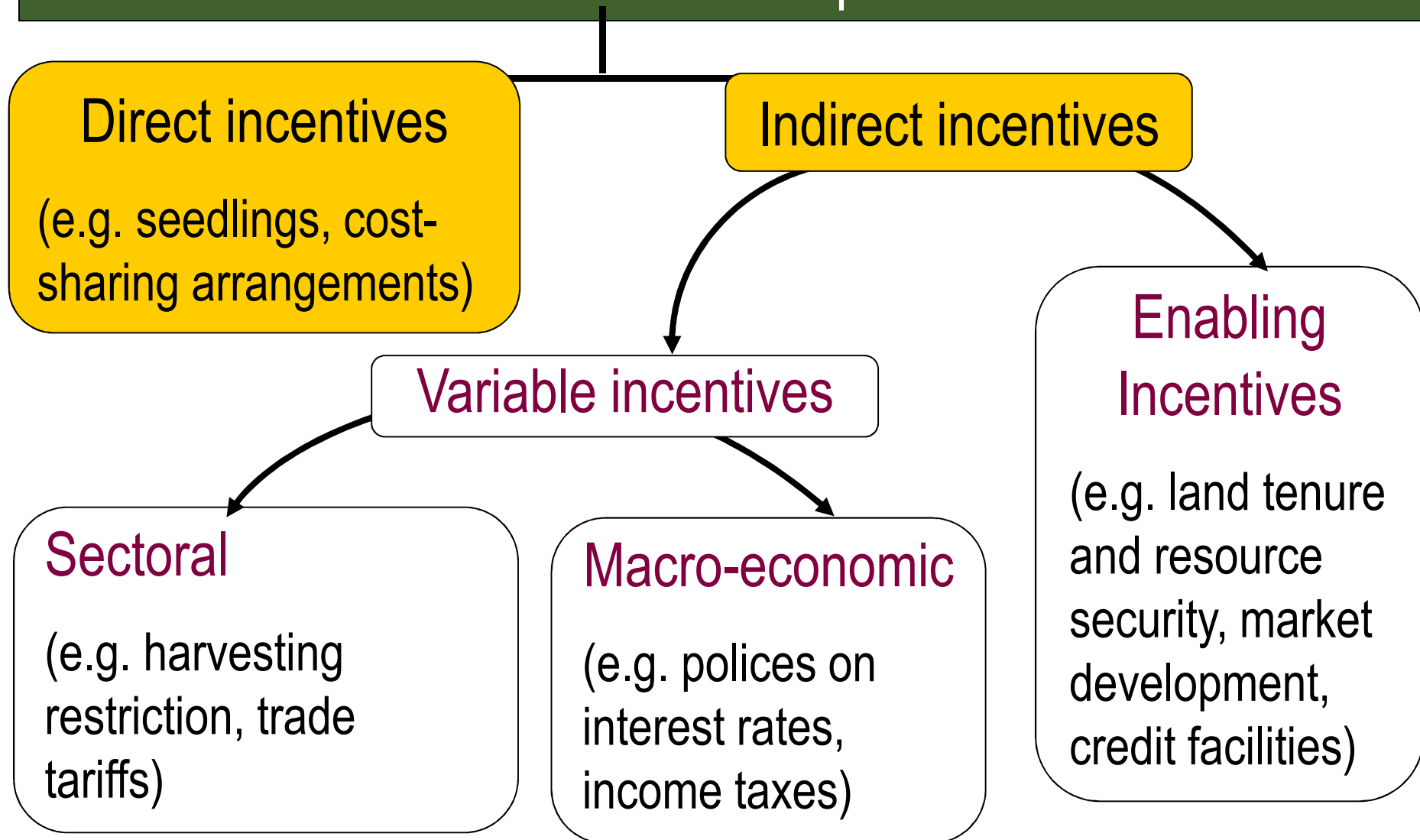
(2) It is crucial to ensure the feasibility & cost-effectiveness of restoration practices from socioeconomic & technical perspectives

- Technical intervention is very expensive
(Cost/ha ranges from: USD 115 – 15,221)
- Feasibility: technical intervention is feasible taking into account social, economic & technical costs
- An exit strategy: reinvestment mechanisms as part of the project's financial plan to ensure funding sustainability
- Cost-effectiveness: there is an optimum level of adoption by local stakeholders, especially community

(3) Designing the right economic & social incentives tailored to local needs, so:

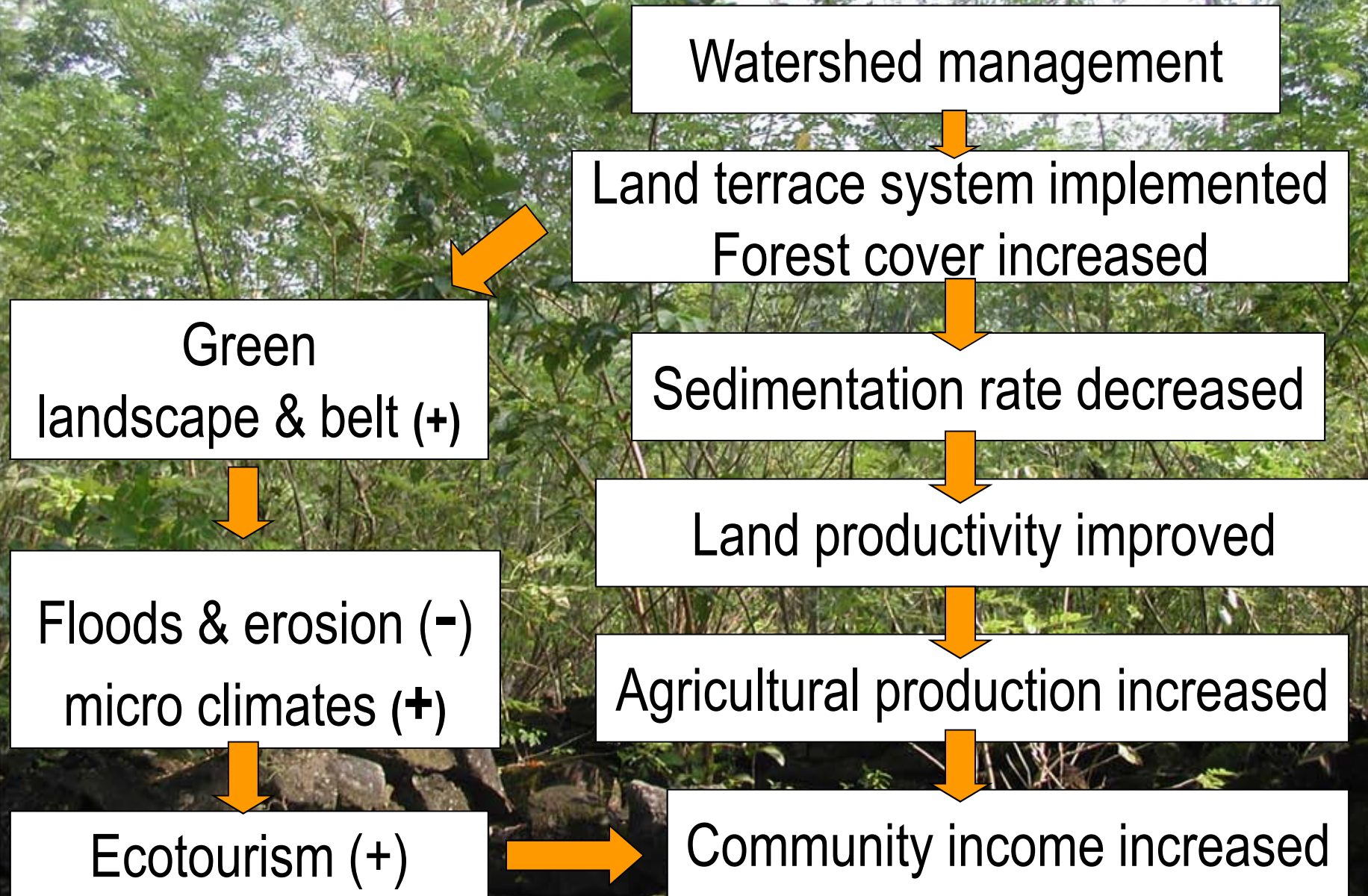
livelihood benefits can be generated to ensure long-term community commitment beyond the project time

Framework to develop incentives



Case studies

Protection of water dam (Central Java): soil erosion & sedimentation problems from the surrounding watersheds



Key messages from case studies:

1. Multiple benefits have resulted from improved ecological conditions that have subsequently generated economic & social benefits
2. Developed based on local needs/ecological problems (stimulating community participation)
3. Clear engagement with markets (ecotourism, timber)

4. An approach in Forest Landscape Restoration: Forest Management Unit (FMU) - *Kesatuan Pengelolaan Hutan (KPH)*:

Case of Sumbawa, Eastern Indonesia

Kanoppi Project:

Timber & non-timber in an integrated production and marketing system
(ACIAR Project, FST/2012/039, April 2013 – Dec 2016)



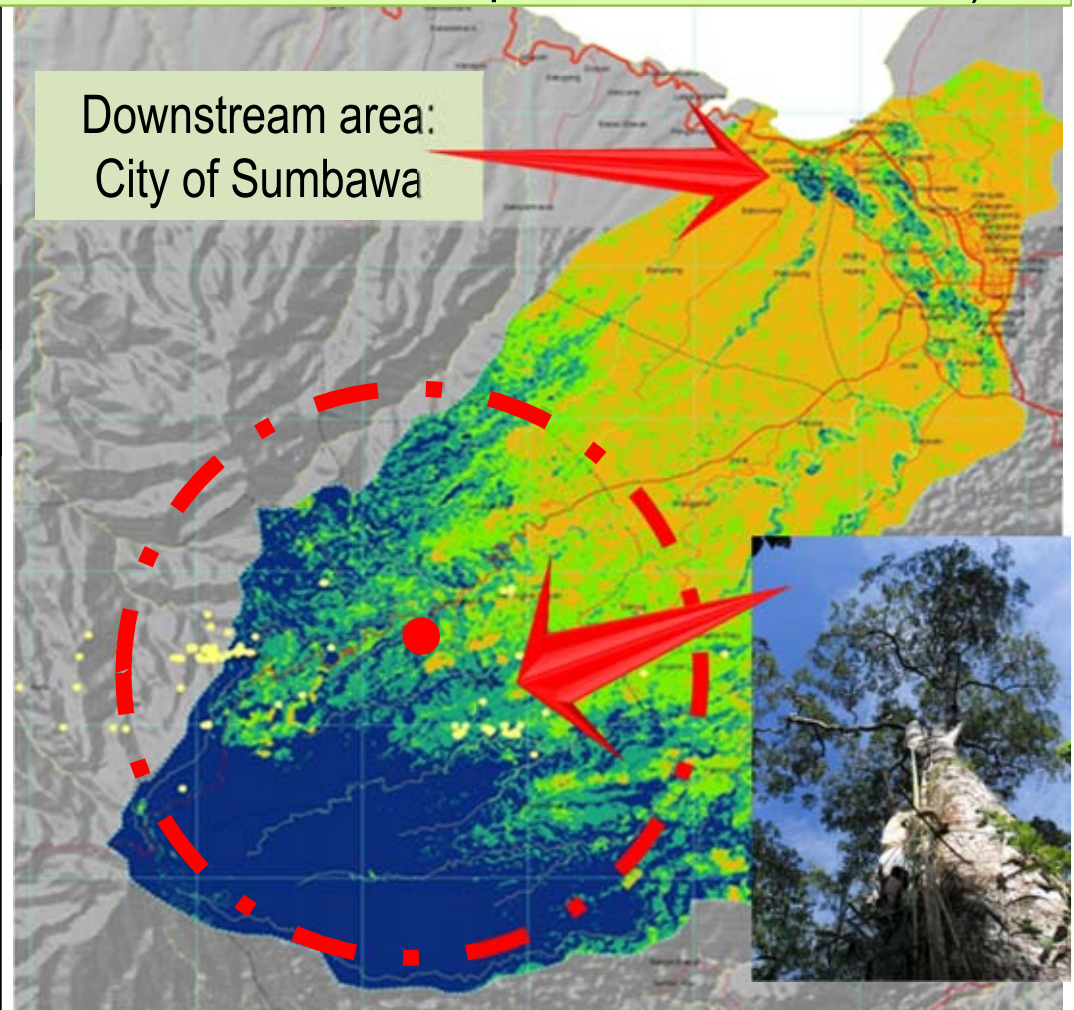
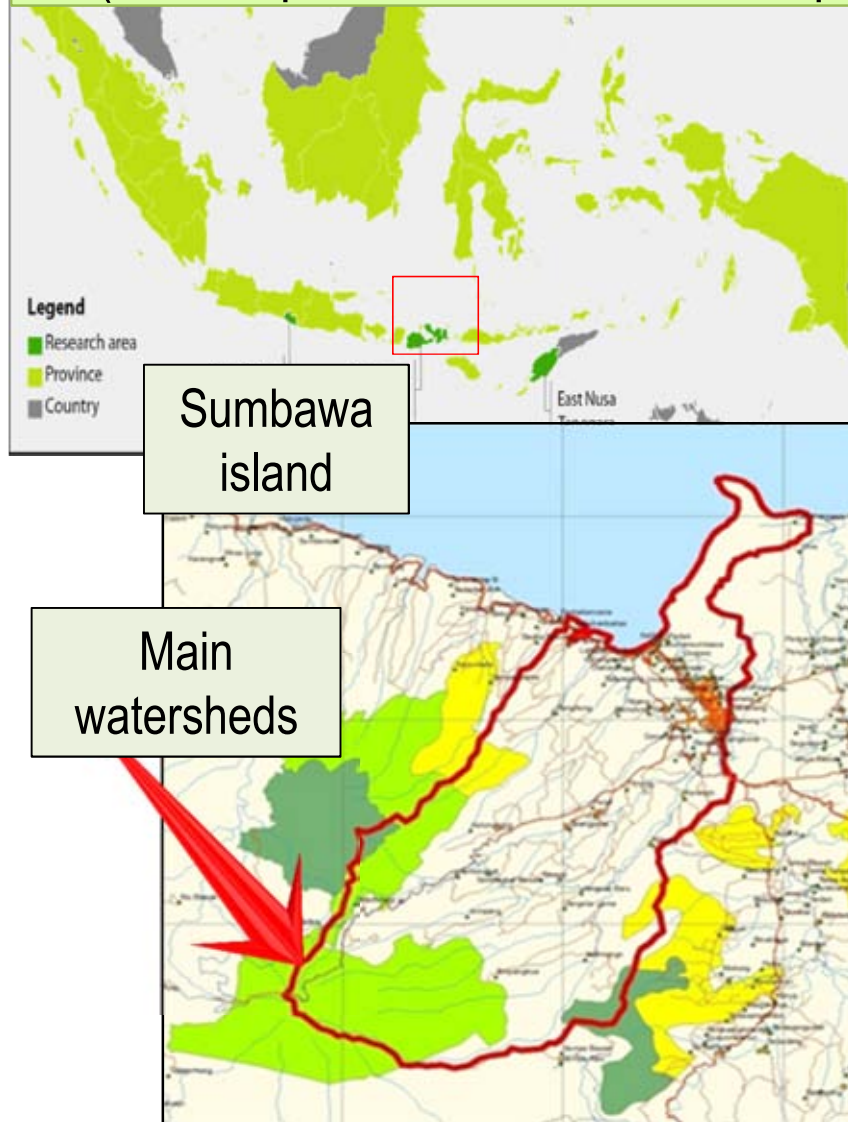
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Conserving watersheds: upstream forests

Main program of FMU in Sumbawa: **Batulanteh** - 32,776 Ha

(Limited production forest – 55%, production forest – 23%, protected forest – 22%)



Upstream forests:
honey trees (*Boan: Tetramales nudiflora*)

Problems & threats



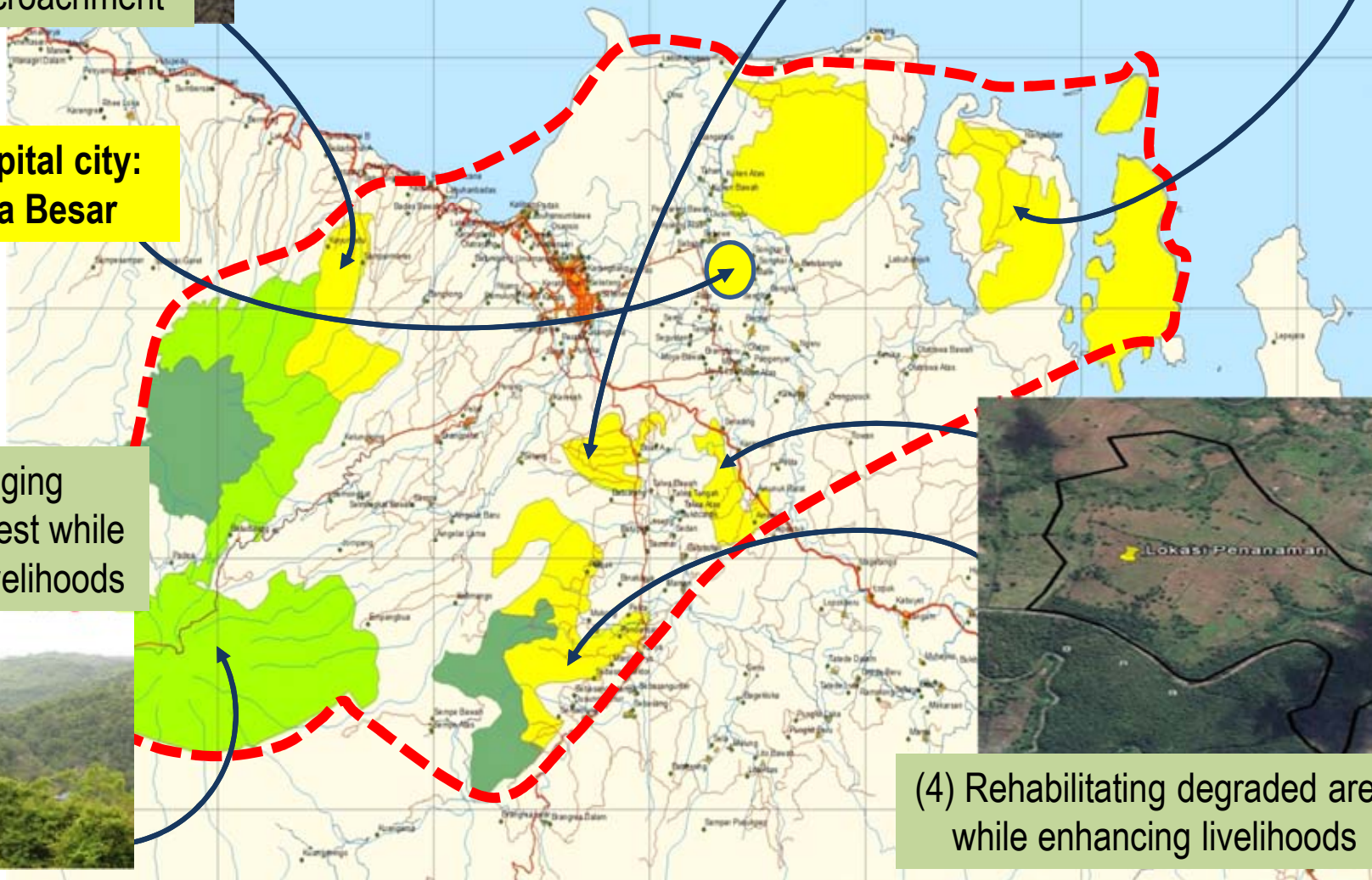
(2) Forest encroachment

(3) Illegal logging in state-own company rehabilitated forests



District capital city:
Sumbawa Besar

(1) Managing
protected forest while
enhancing livelihoods



(4) Rehabilitating degraded area
while enhancing livelihoods




Forest Management Unit (*Kesatuan Pengelolaan Hutan-KPH*)

A landscape-platform of a certain ecological function that allows:

- ❖ Conservation, rehabilitation and economic and sociocultural activities can be complementary implemented in addressing ecological problems, as well socioeconomic and tenurial conflicts under an integrated management
- ❖ Interaction between key stakeholders, including local communities, to collaborate in managing the resources and resolve conflicts participatively



Fits: Forest Landscape Restoration



5. Conclusions

- The landscape approach has been re-defined to include societal concerns related to conservation and development trade-offs and negotiate for them
- Increased integration of poverty alleviation goals
- Increased integration of agricultural production and food security
- Emphasis is on adaptive management, stakeholder involvement and multiple objectives
- Means to achieve AIChI targets
- In line with Forest Landscape Restoration approach and for facilitating successful forest rehabilitation programs



Thank you!

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THINKING beyond the canopy

