Expert Group Meeting for Forest Landscape Restoration in the Tropics

Bangkok, Thailand, 14-16 November 2018

REPORT

Prepared by

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I. BACKGROUND

A global analysis by the World Resources Institute and others estimated the global restoration opportunity at more than 2 billion hectares of land worldwide with 1.5 billion hectares suited for mosaic-type restoration and 0.5 billion hectares for wide-scale forest restoration. This is a significant upward revision of the earlier ITTO estimate in 2002 of some 350 million hectares of severely damaged tropical forest land and a further 500 million hectares of degraded forests[1].

A number of initiatives have been taken to address forest degradation worldwide over the past few years. These include the Bonn Challenge launched in 2011 to restore 150 million hectares by 2020 as a contribution to early action on REDD+ under UNFCCC and the Convention on Biological Diversity's Aichi Biodiversity Target 15; the New York Declaration on Forests aims to restore 350 million hectares by 2030; the Sustainable Development Goal (SDG) 15; and the United Nations Strategic Plan for Forests 2017-2030 (UNSPF) Global Forest Goal 1 call for efforts to prevent forest degradation and contribute to the global effort of addressing climate change.

For restoration of degraded forests and lands, a series of policy and technical guidelines have been prepared by leading organizations over the past two decades. Older guidelines include "ITTO Guidelines for the Restoration, Management and Rehabilitation of Degraded and Secondary Tropical Forests" in 2002 and "ITTO/IUCN Restoring Forest Landscapes: An introduction to the art and science of forest landscape restoration" in 2005. Recently published guidelines include: IUCN Restoration Opportunity Assessment Methodology (ROAM) in 2014 representing an approach to identify and analyze forest landscape potential and opportunity at national and sub-national levels; FAO Global guidelines for the restoration of degraded forests and landscapes in dry lands in 2015; and IUFRO Implementing Forest Landscape Restoration in 2017.

The ITTO Restoration Guidelines which were published in 2002 with close cooperation of many institutions, in particular CIFOR, FAO, IUCN and the WWF International, described a conceptual framework for restoration and recommended a set of actions for policy-makers, forest practitioners, extension workers and others for restoration and management of degraded or secondary forests. They stress the importance of enabling policy, planning and management frameworks, principles and actions, and stand-level principles and actions for restoration, management and rehabilitation activities.

As the ITTO Restoration Guidelines were created over more than 15 years ago and many new restoration frameworks and concepts have since been developed, there is a need to take stock of the evolving understanding of FLR approaches, especially with regard to their environmental and public good functions as well as the economic viability and social dimensions and thus to revisit existing ITTO and other guidelines aiming at developing a comprehensive and inclusive approach for restoring and building the ecological health, productivity and economic viability of degraded tropical forest landscapes.

Under the Joint Initiative (JI) on Forest Landscape Restoration (FLR) of the Collaborative Partnership on Forest (CPF) members[2] which is being implemented by IUCN with Global Environment Facility (GEF) funds and the Global Partnership on Forest Landscape Restoration (GPFLR), ITTO, mandated under its Biennial Work Program 2018-2019, will play an active and coordinating role in taking stock of ongoing FLR programs of CPF members in the first year and to be instrumental in developing voluntary FLR guidelines in the second year of the Joint Initiative. The overall objective of developing FLR guidelines is

[1] ITTO. 2002. "ITTO guidelines for the restoration, management, and rehabilitation of degraded and secondary tropical forests". ITTO Policy Development Series No 13.

[2] The Joint Initiative (JI) on Forest Landscape Restoration (FLR) was agreed on by CPF members in May 2017. The JI is being implemented with GEF funds and with the contributions from many CPF members starting May 2018 for a period of two years.

to contribute to implementing effective policies and actions for a wide range of committed stakeholders of the Collaborative Partnership on Forest (CPF) and the Global Partnership on Forest and Landscape Restoration (GPFLR).

II. OBJECTIVES AND EXPECTED OUTCOME OF THE EXPERT GROUP MEETING

In light of the importance of the FLR guidelines for degraded tropical forests to increase ecological resilience and climate change adaptation in the context of restoration targets and initiatives developed under the Bonn Challenge, Aichi Biodiversity targets and others, the Expert Group Meeting in Bangkok aims to:

- Update the global FLR movement and FLR programs of the members of the Collective Partnership on Forests (CPF) to identify opportunities for capturing synergies;
- Review the lessons of selected Forest Landscape Restoration (FLR) projects in Africa, Asia-Pacific and Latin America;
- Review the use of existing FLR tools/guidelines developed by CPF members including the following:
  - GPFLR (2018). *Principles for FLR*
  - ITTO (2002). *ITTO guidelines for the restoration, management, and rehabilitation of degraded and secondary tropical forests.* ITTO in collaboration with CIFOR, FAO, IUCN and WWF. ITTO Policy Development Series no 13
  - CIFOR (2018). *Decision support tools for forest and landscape restoration: current status and future outlook*. Occasional Paper 183
  - IUCN (2014). *Restoration Opportunity Assessment Methodology (ROAM*)
  - FAO (2015). *Global guidelines for the restoration of degraded forests & landscapes in dry lands*
  - IUFRO (2017). *Implementing Forest Landscape Restoration*
- Identify synergies of existing FLR guidelines, including *the ITTO Guidelines for the Restoration, Management and Rehabilitation of Degraded and Secondary Tropical Forests,* in supporting the effective design and implementation of FLR initiatives in the tropics; and
- Review the scope and key elements of new FLR guidelines under the framework of GPFLR's Principles for FLR (2018) to promote the restoration and management of degraded tropical forests and decide on the next steps to develop these new guidelines.

The **expected outcome** of the meeting was enunciated as recommendations for a set of new FLR guidelines to harness the productive, environmental and social capacities of restored degraded tropical forests, considering the emerging global FLR issues and priorities, through an inclusive process of CPF members and tropical forest countries.

III. MAIN RESULTS OF THE MEETING

The Expert Group Meeting was co-organized by the ITTO Secretariat and the Asian Forest Cooperation Organization (AFoCO) in Seoul, Korea, with support of the Royal Forest Department of Thailand. It was attended by 29 people (**Annex 1**). Participants were restoration experts from member countries (Brazil, Germany, Guatemala, India, Indonesia, Thailand, USA), international and regional organizations (CIFOR, FAO, IUCN, IUFRO, RECOFTC, UN Environment, WRI), NGO/ CSO (Climate Forestry, PT Sari Bumi Kusuma, WeForest), and the co-organizing bodies ITTO and AFoCO. With 10 women in the group the gender balance was comparatively better than in the expert meetings held during the preparation of the ITTO 2002 guidelines for restoration.

The programme of the meeting (**Annex 2**) was followed in its entirety.

In his opening remarks, Dr. Hwan-ok Ma highlighted IPCC's latest report alerting about the increase above 1.5^{o}C and its implications in particular for the global movement on reforestation and restoration. Logistical arrangement information was provided by Mr Youngtae Choi.

PRESENTATION ON ANALYSIS OF ONGOING FLR PROGRAMS OF CPF MEMBERS

(Juergen Blaser)

Part 1:* The *ITTO Guidelines for the Restoration, Management and Rehabilitation of Degraded and Secondary Forests

- Published in 2002, the Guidelines aimed to guide restoration of forests but not explicitly at the landscape level as this was outside the mandate. The purpose was to serve as (i) a knowledge base for forest restoration of degraded (primary) forests and secondary forest management; (ii) a planning tool at the local (forest management unit) and landscape level; (iii) a basis for stimulating best management practices; and (iv) a contribution to a policy framework for forest restoration and secondary forest management. The scope was the "Tropical Forest Landscape", encompassing non-accessible primary forest to forestry outside forest including forest plantations, agroforests and trees in rural landscapes. The Guidelines focused on the "middle ground" of land uses covering degraded primary forests, secondary forests and degraded forest lands.
- The Guidelines are divided into two sections, with total of 8 objectives, 49 principles and 160 recommended actions. Section 1 - Policy-planning level, consisted of 7 objectives: 1) Commitment - the policy package/push, 2) Policies and legal frameworks – from commitment to actions, 3) Equitable sharing, 4) Integrated approaches, 5) Adaptive & holistic approach, 6) Economic efficiency & financial availability, and 7) Participatory monitoring – adaptive management; while Section 2 - Stand level practice contained objective 8) Ecological & silvicultural knowledge. A missing element, not foreseen at that time was on financing for forest restoration as ITTO Council was not convinced to include a programmatic area within ITTO for FLR.
- Six regional workshops on the ITTO Guidelines were jointly organized with IUCN and CIFOR between 2003 and 2005. Participants from 27 developing ITTO producer member countries found the Guidelines to be useful for policy decision making and project planning. They also valued the landscape approach to forest restoration and secondary forest management, and pointed out to the need for operational guidelines. As a follow up, in 2005 ITTO and IUCN published a technical paper "Forest Restoration in Landscapes: Beyond Planting Trees" that included a broader mosaic of restoring landscapes.
- Ten years later, ITTO commissioned WRI to review restoration activities in project sites in Africa, Asia and Latin America, and summarize the main lessons learned and recommendations for the development of a revised framework. The report (Buckingham and Weber 2015) pointed out at the limited use (lack of awareness) of the ITTO 2002 Guidelines, the need for a significant revision (structure, presentation, detail and user friendliness); and to reduce the number of recommendations and criteria. The basic idea put forward by the report was to use a simpler structure and simplified wording for the Guidelines, merge the overlapping principles and thus make them more applicable to stakeholders' needs. The report also highlighted the following aspects to address in the revision process: a) identify ITTO's comparative advantage within the Global Partnership on Forest Landscape Restoration (GPFLR) and utilize this to fill gaps; b) align the revision with global emerging issues; c) utilize the GPFLR to create visibility of the ITTO Guidelines and to support the implementation (incl. attracting financing).

Part II: Ongoing FLR Programs of CPF members and others since 2003

- (Forest) landscape restoration has gained enormous momentum greatly in connection with the Sustainable Development Goals (SDG), in particular SDG 15 "Protect, *restore* and promote

sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and *halt and reverse land degradation and halt biodiversity loss*". Among the facts evidencing the raising attention to landscape restoration globally: 16 international organisations (including 11 CPF members) with major program on (forest) landscape restoration; at least 10 global initiatives and 3 regional FLR initiatives started and implemented; 8 major FLR guidelines / guidance documents developed; and at least 7 FLR tools designed and made available.

- "Globally agreed" FLR principles (September 2018):
    1. Focus on landscapes
    2. Engage stakeholders and support participatory governance
    3. Restore multiple functions for multiple benefits
    4. Conserve and enhance natural ecosystems within landscapes
    5. Tailor to the local context using a variety of approaches
    6. Manage adaptively for long-term resilience

    How to link ITTO 2002 Guidelines objectives to these principles? How these principles can be used as entry point for more concrete objectives/goals?

- Target approach: FLR initiatives with defined area targets: Bonn Challenge, New York Declaration on Forests, FLRM - Forest and Landscape Restoration Mechanism (FAO and partners), LDN - Land Degradation Neutrality, GRI - Global Restoration Initiative, AFR100 - the African FLR Initiative, 20x20 Initiative Latin America & Caribbean. There is high political commitment, high institutional engagement, financing and investments (climate change funding, public and private).

- Restoration commitments of ITTO producer member countries: 21 countries have made commitments between 2014 and 2016 with a total "committed area" for FLR of ITTO producer member countries (PMCs): 87.1 million ha. What role of ITTO to support achieving FLR targets of ITTO member countries?

Part III: Discussion elements for the CPF Meeting ant the Bangkok Expert Meeting

- ITTO Policy Guidelines: C&I, Biodiversity in production forests, Planted tropical forests, Fire management, Restoration of degraded & secondary forests, SFM.

- Issues to discuss for CPF/ITTO Restoration Guidelines for tropical forest landscapes: Focus of the new Guidelines: 1) Restoration for what purpose; 2) Scope of the new Guidelines; 3) Restoration scenarios and options; and 4) ITTO Guidelines and the FLR Principles.

- FLR 2019-2030: What role for ITTO?
    1. FLR is a process (promoted and implemented by many actors) including a wide array of interventions
    2. ITTO's existing guidelines are (technical) guidelines focusing on SFM tropics
    3. New Guidelines being comprehensive (FLR) or specific (Restoration of tropical forests/mosaic landscapes)?
    4. Global FLR Principles as the framework and alignment through tropical forest specific restoration scenarios and options?

- Objectives and overall focus
    - FLR as a means to achieve – in the long-term - a more sustainable land use with enhanced social and ecological benefits (*functional restoration*)
    - Ultimate objective is SFM, sustainable agriculture and all other forms of conserving and managing landscapes
    - Future landscapes are in mind, which is different from the past: restoration is not "restoring" what was before
    - New ITTO/CPF Guidelines could focus on "building sustainable forest landscapes in the tropics"

- A clear geographical scope is needed
  - Tropical forest landscapes can mean *tropical forests* (which include dense evergreen forests, semi-deciduous, transitional, gallery and fresh swamp forests mangroves and mountainous areas around the equator, tropical cloud forests) or *tropical biomes* (including forests, savannas, mosaics of forest-crop and forest-savanna, woodlands and other plant formations. Tropical savannas include savanna woodlands, savanna parkland, savanna grassland, low tree and scrub savanna, and scrub communities)[3].

  Which geographical focus: tropical forests or tropical biomes?

- Scope of the Guidelines
  - Assessment – Baseline situation and opportunities
  - Mainstreaming FLR in national development programs/plans
  - Cross-sectoral dialogue and planning at the landscape scale
  - Land-use planning – Territorial development
  - Objective setting
  - Restoration tools: Preparation/assessment; Evaluation of potential restoration outcomes; Prioritization, spatial planning and species selection
  - Integrated landscape management - Agriculture-forest interface
  - Technological innovations
  - Capacity development – including project preparation & support
  - Funding (public, private) - Scaling-up investment
  - Cost-effective monitoring schemes

  Which of these aspects to include and to what extent?

- Missing aspects in the current FLR process
  - Clear policy-focus
  - Tenure & resource use rights
  - Market strategies and value chains for FLR products and services
  - Economic considerations, e.g. guidance for economically viable and successful restoration projects
  - Partnership building at multiple levels (national /subnational / landscapes)
  - Business case for restoration investments, particularly when the restoration process is in the direction of SFM of natural forests, as the focus of the current FLR processes is on tree planting in mosaic landscapes

  What and how to include these aspects?

- Restoration situations - There is an enormous range of "situations" (according to forest/land condition)
  - Restoration of degraded (natural) forests
  - Rehabilitation of degraded forest land (less than forest definition)
  - Ecological restoration ("protective")
  - Promotion of natural regeneration (of intact forests)
  - Management of secondary forests
  - Rehabilitation of degraded riparian vegetation
  - Integration of trees in agricultural landscapes outside forests
  - Integration of trees in pastoral/ livestock landscapes
  - Conservation agricultural/ grazing practices
  - Conservation measures

[3] Classification based on Atangana et al. (2013)

- Mangrove restoration & rehabilitation practices

Which aspects to include and to what extent?

- <u>CPF/ITTO Restoration guidelines for tropical forest (landscapes)</u>
  - Role of ITTO Guidelines in the FLR process? How to structure the Guidelines?
  - FLR Definition and terminology to be used?
  - How will the ITTO (FL)R Guidelines contribute to the CPF/FLR approaches overall?
  - Target audience and intended application of the new Guidelines?
- <u>Comments from CPF members and the IUFRO community…</u>
  - "The ITTO restoration guidelines (2002) may need updating…, but their scope needs to be clear and specific
  - "Right now, the proposals in the report cover a wide number of things, from FLR to management to landscapes, and as we know there is a lot of fuzziness over all of these terms, and how different people interpret them"
  - "ITTO needs to be very clear about what the guidelines cover and do not cover…."
  - "The report quite rightly highlights the diversity of definitions of FLR, which is a very good reason why it is difficult to define *[overall FLR] guidelines that fits the process of FLR*"
- <u>Issues to consider for preparing the new Guidelines</u>
  - *Focus:* building sustainable tropical forest landscapes. Guidance for restoring degraded (production, protection) forest and forest lands in all tropical forest biomes. The guidance will be at the policy level as well as technical/operational level
  - *Technical:* on practical implementation of (FL)R under different contexts/situations and purposes
  - *Tool:* on the question of how to restore functionality and for what in different contexts, restoration scenarios could be developed
  - Consider *restoration outcomes* as part of the framework for structuring the Guidelines. Outcomes could be linked to the objectives and social actors benefitting from the interventions
- <u>Comments from ITTO member countries on the process of revision</u> (7 November 2018)
  - Define clearly target community and objectives (of the process)
  - Focus on tropical forest (landscapes)
  - Address both: policy and implementation, with focus on practical implementation of ITTO forest restoration guidelines
  - Practical guidelines, take into account ITTO's comparative advantages
  - Global framework and implementation through national approaches
  - Refer to existing guidance, tools and instruments where adequate
  - Harmonize definitions
- <u>Outline proposal for the new Guidelines</u>

  PART I: Context, scope and approaches
  PART II: Global FLR Principles and policy guidelines for tropical forest restoration
  PART III: Implementing tropical forest landscape restoration through restoration scenarios
- <u>To define…</u>
  - Focus of new Guidelines
  - Restoration for what purpose
  - Scope of new Guidelines:
    (i) policy, monitoring and financing
    (ii) practical implementation
  - Use of restoration scenarios ["situations/outcomes"]
  - Closely link the scenarios with funding potential

What will be the basis of the Guidelines: globally agreed FLR Principles versus more operational oriented goals?

Discussion after the presentation

- Why dry forests were left out before? (Jobst)
- Pay attention to what the revision seeks to provide. Here we have what we need (Promode)
- Focus should be on timber, national versus export markets? Entry point for ITTO is timber! (Sven)

PRESENTATIONS FROM PARTNERS

FAO – Snapshot of FAO's work related to forest and landscape restoration (*Sheila Wertz-Kanounnikoff*)

- *FERI - Forest Ecosystem Restoration Initiative* - Support developing country parties as they develop and operationalize national targets and plans for ecosystem conservation and restoration
- *FLRM - Forest and Landscape Restoration Mechanism* - Support to countries, key regional initiatives (Latin America & Caribbean, Africa – AFR100 and Great Green Wall Initiative, Mediterranean region, Asia-Pacific) and global (knowledge platform, cost/benefit, monitoring, resource implementation….)
- Ongoing country support in 2015-18 include Guatemala, Peru, Rwanda, Uganda, Cambodia, Philippines. Various new country support starting in 2018: Burkina Faso, CAR, DRC, Ethiopia, Guinea, Kenya, Madagascar, Malawi, Marocco, Niger, Sao Tome & Principe, Lebanon and Pakistan
- FLRM activities at global level: FLR knowledge platform and community of practice; FLR finance – Local finance paper; GLF investment case; Cost/benefit; FLR monitoring – Collaborative roadmap; guidance document; Resource mobilization – GEF6/7; IKI; FFEM; Outreach – Web site and newsletter; Advocacy – COPs, Global Landscapes Forum, etc.; Partnerships – Inside/outside FAO. Use of a wide variety of tools, guidelines and approaches
- FAO's Global Guidelines for the Restoration of Degraded Forests and Landscapes in Drylands (2015) - Structure (Guidelines for policy-makers, for practitioners, for monitoring & evaluation), 27 case studies
- FAO's Voluntary Guidelines on the Responsible Governance of Tenure (2012) – VGGT, 10 country assessments
- Concluding remarks:
    a. FLR goes beyond "forestry", but needs solid forestry expertise: (i) Important to connect restoration with sustainable management (time continuum); (ii) Important to view restoration within the wider landscape (spatial continuum); (iii) Comprehensive, multi-sectoral land planning at scale is an important pre-requisite for successful restoration (and SFM)
    b. Important to clarify what guidelines are for, and who will use them: (i) Many guidelines exist already (cf. EGM Background Paper), need "a guide through the jungle of guides"; (ii) For field implementation, guidelines are usually too general unless specific to eco-type/regions; (iii) We should think more about what is needed to tailor global guidelines to local contexts and how to make them operational (through training courses, demonstration sites, etc.); (iii) Opportunities: restoring the production function of forests, FLR for secondary forests, etc.

Discussion after the presentation

- Guidelines versus technical manual. Where is the boundary? Overlapping principles in current ITTO Rest GL (Hiras)
- What was the need to prepare the Dryland Guidelines? (Jobst)

IUCN – Lessons learnt from applying Restoration Opportunity Assessment Methodology (ROAM) in Asia *(Jia Li)*

- By October 2018 the Bonn Challenge has received 56 commitments pledging 169 million ha, that is, well over the mark. National restoration programs are the vehicles to achieve international commitments such as the Bonn Challenge. So far, 35 opportunity assessments have been carried out in 26 countries covering 450 million ha, of which 160 million ha of opportunities have been identified.
- In Asia, ROAM has been applied in five countries that committed a total area of 24 million ha to restore. Six countries have completed ROAM to prioritize actions and investment for landscape restoration: Cambodia, China, India, Indonesia, Myanmar and Vietnam. The assessments were at different scales, but at national level only in Myanmar.
- The Myanmar ROAM process identified up to 2.5 million ha as FLR opportunity areas, of which 713,000 ha are priority FLR areas or 1,9 million ha watershed areas if taking the river basin boundaries. In the case of Indonesia, the process highlighted mangrove restoration as an emissions mitigation potential around 2 to 4 times greater than that of other currently listed A/R and REDD+ projects encompassing various habitat types. The Cambodia ROAM found that most FLR options are cost effective, especially community forestry options. In Vietnam, ROAM identified that forestry industry upgrade is urgently needed.
- The ROAM process offers a stakeholder-driven spatial analysis on degradation drivers and restoration potentials – a powerful way to engage. The key barriers identified are insufficient restoration funding and the lack of well-established fundable restoration models.
- Key findings:
  - stakeholder-driven spatial analysis on degradation drivers and restoration potential is a powerful way to engage
  - key barriers are funding and lack of well-established fundable restoration models
  - insufficient technical capacity continues to hinder the uptake of FLR
  - in landscapes that are more advanced in FLR implementation, local heads of the government, especially line agencies and government representation outside of the traditional forest sector play a crucial role
- IUCN has produced diverse learning materials such as publications, country reports, videos, brochures, maps…
- IUCN has been instrumental on conceptualizing FLR and developing tools like ROAM, and continues to spearhead on applying FLR and ROAM in more landscape contexts, as well as capturing the lessons learnt. The organization looks forward to working with partners on developing strategic frameworks and institutions for FLR, including technical guidance and learning networks.

WeForest – Safeguarding the quality of the FLR process *(Victoria Gutierres)*

- How do we know that we are implementing FLR? (question related to the images of landscapes)
- Issues affecting FLR quality: 1) success reported on activity rather than an outcome; 2) replanting of failed attempts not reported as such; 3) lack of data on long-term outcomes; 4) our understanding of FLR hasn't been yet operationalized (lack of clarity defining multidimensional landscapes); 5) disconnect between the FLR concept and practice (no systematic way of knowing we are implementing FLR) / How do we know that using the Principles and Guidelines result in desired outcomes?
- Much concern about readiness for large-scale implementation: Will current practices guarantee future results? Are the outcomes good enough? Are the available tools sufficient to ensure the integrity of FLR?

- Dialogue on FLR Quality Framework held in Piracicaba, Brazil in September 2017 – The *FLoRES Taskforce* was created to develop an FLR standard, a set of benchmarks to motivate better standards and practices – See brief *How to know it when we see it?*
- At the GPFLR meeting in Bonn in Dec 2017 there was a discussion on the need for an FLR standard to operationalize the FLR principles. The FLR Principles were drafted, submitted and then published in Aug 2018 (GPFLR brochure "Restoring Forests and Landscapes: The Key to a Sustainable Future").
- A 2nd dialogue on FLR standards and applications in the African context was held in Nairobi on Aug 31-Sep 1, 2018. It was concluded that multisectoral differences, an operational framework and tools are needed as well as the realignment of objectives for FLoRES.

Discussion after the presentation

- Development of a FLR standard versus REDD+ work (Sheila). Response: There are not enough tools, too market-based approach
- The 6 GLF Principles do not cover all critical aspects for FLR implementation (e.g. on governance, economic/financial feasibility, and communication)

PRESENTATION OF ISSUES FOR DISCUSSION *(Juergen Blaser)*

- Issue 1: *FLR terms and definitions*: We use the IUCN/WWF 2000 definition. Call to those who want to propose other definitions or give advice on definitions.
- Issue 2: *Focus and target audience of the new Guidelines*: Working target audience proposed: national and subnational authorities, forest managers, project developers (of different origins) + investors (policy level).
- Issue 3: *Nature/intended application / Restoration for what purpose*

Discussion

- Two sections, practitioners but also investors need higher declarations (Promode)
- Are we talking about sustainable forest management (SFM) and sustainable land management (SLM)? (Milton)
- The audience should be decision makers and implementers (Hiras)
- We need to attract investors, talk about numbers and look at business cases (Himlal)
- Look at ITTO comparative advantage (Andras)
- A third category in the audience to accommodate investors (John)
- An issue for investors is the validation system (Victoria)
- Managers means everyone included? Forest AND Landscape Restoration? – Response (Cesar): Reference to the use by FAO of the "and" / Juergen: Landscape restoration is not in the mission of ITTO.
- The private sector and the scientific community should be part of the audience for the new Guidelines. The focus should be on sustainable and productive forest landscapes (Ma)
- On issue 3, need to address the drivers of degradation (Promode)
- There is a gap towards technical manuals. We are still very much forest oriented; need to adopt landscape level approach (Li Jia)
- We used to have an "era" of code of practices for reduced impact logging (RIL). Would it be better to refer to code of practice than to guidelines for FLR? (Michael)
- The situation with FLKR is somewhat similar with REDD+. We need the enabling conditions but also to probe the benefits of landscape integrity (Sven)
- Communication innovations (e.g. social media) means that the Guidelines can serve as a toolbox. There are stumble blocks for communicating with practitioners who have been trained long time

ago. Thus, the Guidelines can be connected with academic training centres etc. for ways to reach the audience (Satrio)
    - How can we get probe of the concept for upscaling? (Martin)
    - FLR is looking beyond the forestry sector like agriculture, environment, energy, infrastructure, mining… (Kikang)
    - It is important to address the existing work and tools, e.g. of the REDD+ process. The mandate for ITTO is specific on forests. What will be the ownership of these Guidelines? Who's taking up the product? Restoration for what? Need to define this to give us the scope (Sheila)
    - What are the drivers? Need to consider them as point of departure as well as the point of destination or outcomes, and link the two points to define the Guidelines (Hiras)
    - Impossible to produce a document with the broad agenda, is a question of priorities. Which ones are the areas where we really need to cover? Need to go beyond the natural science focus (Victoria)
    - Need to have data, link with what institutions have (Sven)
    - No reason to exclude any of the "landscapes" because the FLR definition covers all of these (Victoria)
    - Capturing the entire landscapes helps removing conflicts, which is a more attractive approach to forest departments, local communities etc. (Andras)

COUNTRY PRESENTATIONS

Thai Environment Institute **- Securing coastal ecosystems and communities in Thailand** *(Benjamas Chotthong)*

- Presentation of the rehabilitation of mangroves in the 2006 tsunami affected areas in southern Thailand through community-based costal resource management approaches under an ITTO project on mangrove rehabilitation
- Project with three dimensions or components: Ecosystem security, Community-based ecosystem management, and Community security. A total of 750 ha of destroyed coastal forests have been rehabilitated. A cost-effective rehabilitation by local people: the government provided money direcly but half the cost was absorbed by the community who realized the benefits of the efforts.
- Women and children have been key for the success of mangrove rehabilitation through improved livelihoods and school children education programmes. Maps and satellite images have been an effective material for communicating and raising awareness.

Institute of Green Economy **- Major ongoing landscape restoration projects in India under different ecological and social conditions and levels of political commitment** *(Promode Kant)*

- *India's forest-related Nationally Determined Contributions* (NDC) require 2.5 to 3 billion tons of additional CO^2 sequestration by 2030. A main approach proposed is adaptation with focus on reducing climate vulnerabilities of forest dependent communities. This would require preference to adaptation approaches that also proactively enhance mitigation opportunities. Activities should also provide much more employment and economic opportunities to communities.
- *The implementation of the Cancun target* would require 22 million ha of new plantations by 2030 and well-organized and trained forest departments. Recently, USD 100 billion was released by the Compensatory Afforestation Fund Management and Planning Authority (CAMPA). This public money is additional to the annual forest budget in each Indian state. Work is ongoing across the country
- *Some experiences*: Restoration of heavily degraded areas in Telangana State where the use of tall seedlings and individual tree guard to protect against heavy grazing were critical to ensure success. Experience in Jammu and Kashmir states with assisted regeneration in pine stands. Another one is the REDD+ project in East Khasi Hills District, Meghalaya.

- *The pace is very low and the target too huge*. Vacant or waste lands are generally not available for planting. There is stiff competition from huge demand for land for non-forestry activities in a rapidly developing economy. Restoration must look at the opportunities within the open and medium density forests and in agroforestry.
- *Vast opportunities for restoration* exist over forests degraded by illegal felling, excessive firewood extraction, erosion, grazing, fires, and massive spread of weeds and insect attacks. All forests will need to be brought under intensive management. Different types of restoration efforts over about 3 million ha/year are needed for 10 years to achieve the NDC target, but the state forest departments can undertake the task only over 0.15 - 0.2 million ha/year at the most with their present staff strength. A fundamentally different approach for restoration is needed.
- *An adaptation centric management approach* is needed with appropriate silvicultural measures such as thinning, heavy removal of dead and dying trees to reduce vulnerability to pests and fires, intensive invasive and forest fire management, planting of tall saplings, significant reduction in rotation age to enable faster carbon sequestration.
- *Vulnerability status of Sal forests*. There is an increased exposure to severe attack of Sal borer, a large number of standing dead and dying trees, intense heat and prolonged dry periods, increased fire risk, poor regeneration, extensive invasion by weeds (particularly lantana), and increased soil desiccation due to warming. With all these limitations, planting inside open forests has very limited success.
- *Renewed emphasis on soil and moisture conservation efforts*. The trend is towards lower precipitation and higher temperatures. Reducing surface runoff and increasing soil moisture are crucial for increasing productivity. Locally suited soil moisture conservation measures should be adopted. This is already practiced in watershed areas but now investment in soil and moisture conservation measures would have to be significantly higher.
- Adapting to increased fire incidents. Fire information system is technologically quite advanced but response mechanisms and preventive measures require huge work. A massive addition to fire lines of adequate width is needed. The ability to respond to fire incidences relies too heavily on legal duty cast on people living close by, but it no longer works.

EMBRAPA - Sustainable management of production forests in the Brazilian Amazon: **A local perspective of a forest management plan and operational activities run by a forest community cooperative in Tapajos National Forests, Para State** *(Milton Kanashiro)*

- Presentation of the “Bom Manejo” Project - Phase II funded by ITTO and implemented by the Brazilian Corporation for Agricultural Research (EMBRAPA) in the Brazilian Amazon. The main focus of the project is the development of computer-based tools and guidelines to support the application of SFM practices though various capacity building strategies.
- One of the project’s key partners is COOMFLONA, a cooperative running since 2005 a community-based forest management operation at the Tapajos National Forest. Its 203 members are involved in all different phases of the forestry operations including technical, operational and administrative activities.
- The COOMFLONA generates nearly 150 working positions during the operational logging activities; act as a partner for Federal Government and ICMBio, together helps on integrated actions of protection of Conservation Unit and contribute on carrying out a common agenda; contribute significantly on the increasing income and living quality of community in the Tapajós National Forest; and the benefits reach out directly all 23 communities and 3 indigenous, populations within the Conservation Unit; and boundaries with support of Community Supporting Funds.
- The project is encouraging the adoption of some silviculture practices using natural regeneration of highly valuable species in the forest as well as enrichment planting.

U.S. Forest Service - Collaborative Forest Landscape Restoration Program – CFLRP *(John Parrotta)*

- The Forest Service is charged with stewarding the management of 78 million ha of forests and grasslands across the country, guided by its mission of caring for the land and serving people. The USFS is mandated to balance the multiple values, uses, and benefits that these forests provide to ecosystem health and to communities. The USFS is also active in forests stewardship and restoration beyond the National Forest System boundaries, working closely with private landowners, other federal agencies, tribes, and so forth, recognizing the need to work across land ownership boundaries to get to desired outcomes.
- Across the country, there are millions of hectares of forests and grasslands that would benefit from restoration so that they can sustain the services and resources that ecosystems and communities depend on, from clean water and air quality, to wildlife habitat, biodiversity, recreation, firewood, sustainable supply of wood products. These landscapes face escalating threats from catastrophic wildfire, drought, and invasive species infestations, and so on, exacerbated by climate change. In many places, there is a need to implement and accelerate active management actions on the ground to improve the health and resiliency of the country's forests and watersheds. A figure commonly cited is 26-33 million ha of the National Forest System need restoration treatments.
- Several tools, programs, and authorities exist that help implement and accelerate collaborative approaches to restoration at landscape-scales on high priority, high capacity landscapes. The Collaborative Forest Landscape Restoration Program (CFLRP), created ten years ago, is one of the first formal, nation-wide initiatives developed to support collaborative restoration approaches. It came about through an Act of Congress in 2009, so it's actually authorized and framed in federal legislation.
- The purpose of the Program is to (1) encourage collaborative and science-based restoration to achieve a triple bottom line balancing ecological, economic, and social sustainability; (2) leverage multiple funding sources, both public and private at different scales; (3) focus on restoration of fire-adapted ecosystems, and ecological and watershed health needs; and (4) support local rural economies through restoration activities, including use of the wood by-products to offset treatment costs while benefiting local rural economies and improving forest health.
- The CFLR Program solicited proposals submitted by Forest Service units in the field across the country. The Act specified some selection criteria for these proposals: a) landscapes must be at least 20,000 hectares and mostly National Forest System lands; b) proposals developed through a collaborative process involving multiple stakeholders; c) demonstrate need for restoration and have a substantially complete strategy, including reduction of hazardous fuels, maintenance of old growth, and plans to improve habitat, water quality, invasive species threat; and d) include investment and funding plans.
- Each project can receive no more than USD 4 million of the authorized funding per year. Funds can be used to cover up to 50% of the implementation and monitoring costs. Matching funds may come from (i) various partner group contributions (such as conservation groups, local businesses, recreation groups, etc.), (ii) funding generated through utilization of wood products through special contracts, and (iii) FS Agency funds available to go to this priority work. Currently there are 23 projects running.
- Each project must develop, actively involving partners and community members, a multiparty monitoring, evaluation, and accountability process to assess ecological, social and economic impacts of implementation, for no less than 15 years after the start of implementation.
- Five CFLRP national indicators have been developed based on program goals. These indicators are: 1) local economic impacts (assessed mostly through economic modelling and third party research), 2) ecological restoration (further broke down into watershed health, wildlife habitat, invasives, and restoring fire regimes), 3) wildfire risk (how risk of uncharacteristic fires have been shifted), 4) leveraged funds (multiple funding sources to do the work), and 5) effectiveness and approaches to collaboration and community engagement. The data to support these indicators comes from a number of sources,

including: annual reports, treatments for restoration economic analysis tool, ecological indicator reports, project surveys, project site visits, and third-party research.

- Results so far are expressed in (1) integrated outcomes on the land (e.g., over 1,1 million ha treated to reduce the risk of catastrophic wildfire), (2) benefits in the community (e.g., over USD 1.5 billion in local labor income from a range of project activities from implementation to monitoring and an average of 5,400 jobs created or maintained annually), and (3) strengthened partnerships (e.g., over USD 125 million generated in partner match funds to support project activities on NFS lands and additional leveraged investments to support project objectives and for work on private, state and other federal lands).
- Lessons: 1) Multi-year funding and partner matching; 2) Collaboration in project development & implementation; 3) Working at the landscape scale promotes integration; 4) Multi-party monitoring & adaptive management

Thünen Institute of International Forestry and Forestry Economics (Hamburg, Germany) – Landscape Forestry in the Tropics - LAFORET *(Sven Günter)*

- From timber exploitation to management of ecosystem services (ES) – over 300 years of experience
- Ecological and societal dimensions: mismatch of scales. Overlapping and conflicting interests of land users
- Landscape Forestry – Landscape approach means combining dimensions (science-implementation interface, socio-ecological interface), and scales (spatial and temporal)
- Landscape Forestry in the Tropics - LAFORET: Towards policy approaches for improving livelihoods, SFM and conservation. Project initiated in 2017. Work in Zambia, Ecuador and Philippines, from different stages along the Forest Transition curve. Twelve landscapes per country. Plots to assess potential for ES in 4 categories: primary forest, degraded natural, fallow/succession, planted/agroforestry. Socioeconomic assessments (interviews, participatory workshops…).

Sari Bumi Kusuma's experiences to implement TPTII *(Ida Putra)*

- Natural forest issues: forest area, productivity and total log production continues to decline
- *Efforts to increase productivity*:
  - Development of an intensive silvicultural system (TPTJ) - ITTO funded projects "Increasing genetic diversity of *Shorea leprosula* for breeding and genetic improvement" and "Model of development to establish commercial plantations of Dipterocarps"
  - Study of vegetation and soil quality of the TPTJ Silvicultural System (Case Study of PT SBK's HPH Area, Central Kalimantan)
  - Study of diversity of natural regeneration types in logged-over areas of Selective Cutting and Planting (TPTJ) of PT SBK
  - Cooperation with Kyoto University on the paradigm of sustainable use of tropical rainforests by intensive forest management and advanced utilization of forest resources
- Selective Harvesting and Strip Planting = intensive silvicultural system (TPTJ). Good tree growth with *Shorea johorensis*, *S. leprosula* and *S. macrophylla* (DBH of 35 cm after 18 years). Also, good forest recovery after 6 year of line planting. Six companies currently implementing this system but long-term investment is an issue for most companies.

IUFRO - Implementing Forest Landscape Restoration: a practitioner's guide: a modular training resource for facilitators with a broad approach towards sustainable land management *(Andras Darabant)*

- Practitioner's guide published in 2017 (https://www.iufro.org/science/special/spdc/netw/flr/flr/pract-guide/). It emerged from the WRI-led project "Inspire, support & mobilize FLR". Holistic treatment of

FLR, with focus on Sustainable Land Management. The target audience are FLR practitioners working in a local context, and policy makers who need to gain understanding of the entire range of complexity of FLR.

- The Guide follows a modular approach - modules can be applied in isolation. The underlying concept: project cycle management. Seven modules: I. Getting started; II. Governance and FLR; III. Designing a FLR project; IV. Technical aspects of FLR project implementation; V. Monitoring FLR projects; VI. Climate change mitigation and adaptation in FLR; VII. Communicating FLR results.

CIFOR - Integrating landscape restoration and bioenergy in the tropics *(Himlal Baral)*

- *CIFOR's recent work on FLR*: Monitoring and measuring FLR outcomes; Institutional and governance issues related to FLR – to actualize the commitments; Food security and FLR – conceptually and in practice; Gender, equity, tenure issues related to FLR; Estimating mitigation potentials in the tropics through FLR; FLR and delivery of multiple ecosystem services; FLR for biomass and bioenergy. Geographic focus: South/SE Asia, Sub-Saharan Africa and Latin America.
- *Global area of degraded land*: Current estimates of degraded lands are hindered by missing and sometimes unreliable information. Global estimates of total degraded land range widely from 1 - 6 billion ha.
- *FLR targets and estimated funding required*: Who should / how to finance restoration? Global funding for restoration and conservation: there is a shortfall of about USD 300 billion/year
- Restoration: an economic activity?
  - USD 6.3 trillion lost per year to land degradation
  - Net benefit of USD 0.7 - 9 trillion by achieving the Bonn Challenge
  - USD 7–30 in economic benefits for every dollar invested
- *Bioenergy* is the most versatile form of renewable energy and the most widely used today. It can be used to generate electricity, to supply heat for industrial processes and buildings, and to provide liquid fuel for transport. Growing interest on bioenergy:
  - 30% rise in global energy demand to 2040 (IEA, 2016)
  - Hundreds of millions of people will still be left in 2040 without basic energy services (IEA, 2016)
  - The Paris Agreement on Climate Change – 'transformative change in the energy sector' is key to reach the agreement
  - Sustainable development is not possible without access to sustainable energy – SDG 7
  - National goal/target related to renewable energy including bioenergy… e.g., Indonesia 23% by 2025…
- *Key issues related with first generation bioenergy*: 1) Food, fuel and environment trilemma; 2) Low net energy balance; 3) LULC – related issues; and 4) Water, erosion, herbicide and pesticide
- *Concluding comments:*
  a) *Restoring land for bioenergy could play an important role in meeting the Bonn Challenge* to restore degraded landscapes to productive use. The case of the CIFOR – NIFOS collaborative project in Indonesia on restoring land and growing renewable energy. Around 3.5 million ha of degraded land suitable for bioenergy production in Indonesia. Site-specific species selection for restoration and bioenergy: *Calophyllum inophyllum* (peatlands), *Pongamia pinnata* (biodiesel) and bamboo (electricity)
  b) *Integrating bioenergy and food production* on degraded land can provide opportunities for social and economic development in rural communities which contributes to several SDGs
  c) the potential competition for land and for raw material with other biomass uses must be carefully managed: Integrating bioenergy and food production on degraded lands can provide opportunities for social and economic development.

WRI - Research innovation to support FLR in the tropics *(Satrio Wicaksono)*

- *WRI's Global Restoration Initiative* seeks to empower governments, communities and commercial enterprises with the knowledge, expertise and finance they need to restore degraded lands.
- *How does WRI use ROAM?* ROAM is a foundational aspect of WRI's technical support on restoration. ROAM is not the goal, rather it's a starting point. It's a useful framework for engaging stakeholders in an initial assessment of restoration opportunity; it's a framework to identify both priority landscapes for implementation and the range of stakeholders who must be involved. The end goal of ROAM is to encourage investments in restoration. It is driven by two regional initiatives: Initiative 20x20 and AFR 100.
- Overall, the WRI focus has been on stakeholder engagement, geospatial mapping (also known as 'opportunities maps') and enabling conditions (using the Restoration Diagnostic)
  - *Mapping*: WRI and its partners have created restoration opportunities maps in 15 countries with another 11 countries with maps in progress. Mapping opportunities is one of the primary ways that WRI has applied ROAM and these maps are often used as the basis for creating a national strategy (as in the case of Rwanda, Brazil and Malawi), generating excitement, and better understand the potential of different restoration methods.
  - *Economic & financial analyses*: WRI and its partners have conducted economic or financial analyses in six countries with another 11 countries with work in progress. Although these two analyses are separate, they are often conducted at the same time. The economics and financial analysis for most of the countries in Latin America will be published in a regional Incentives Study with focus chapters on specific countries.
  - *Diagnostic*: WRI and its partners have conducted a diagnostic analysis of enabling conditions in 12 countries with another three countries with analyses in progress. These diagnostic analyses are often kept at the draft level and circulated within the government to inform the national strategy. Especially in countries with large areas, the diagnostic has been most successful when it can be broken down into sub-regional levels.
  - *Carbon*: Many countries have completed carbon analysis as part of their REDD+ programs. Many of these countries do not want to go through the ROAM carbon analysis process, which often overlaps with previous analyses. As of August 2017, only El Salvador and Guatemala have conducted carbon analyses (and even these overlapped with their REDD+ program). The carbon analysis is a work in progress in India, Mexico and Panama.
- *Mapping social landscapes*. A tool just published, designed to (1) make a commitment to map your social landscapes around a specific goal or activity; (2) analyse the social landscape maps to determine what works and what could be improved; (3) work with groups within the social landscape to identify, agree upon, and implement changes; and (4) repeat, or make a commitment to evaluate changes in the social landscape periodically.
- *Use of ROAM for tropical peatlands* (focusing on SE Asia) to provide relevant analytical input to national/subnational policymaking on peatland restoration, especially to support the development of peatland restoration plans and their implementation.
- *ROAM for mangrove restoration*: Organization of a mangrove restoration workshop to collect stories directly from experts and grassroots organizations. Participants identified five key factors from successful mangrove restoration projects (local champion, native seedlings availability, physical environment suitability, capacity, and tenurial security), and technical, societal, and institutional strategies for mangrove restoration (cross-institutional consolidation, tenurial conflict transformation, local knowledge, alternative livelihood, and sustainable financing.
- Experience with restoration of conservation areas in Indonesia. Participative restoration in Gunung Nat. Park…

- *Why monitor?* To (a) understand the techniques and practices that most effectively restore and protect the land, allowing better adaptive management and more benefits to flow to communities; (b) to unlock investments by donors, investors, and stakeholders (e.g., Pay-for-Performance); (c) to inspire replication by providing independent evidence of success to peer institutions, investors, local and national governments, and international bodies; and (d) to create greater transparency of progress, achievements, and impact.
- *Measuring biophysical indicators*: Upcoming publication on lessons learned from using *Collect Earth* in India, El Salvador, Ethiopia, and Rwanda, in cooperation with FAO; focus is on measuring land-use land-cover and trees outside forests.
- *Designing a restoration monitoring tool*: Upcoming publication on selecting the best indicators for local contexts, using examples from El Salvador, Ethiopia, Kenya, and Malawi, also in cooperation with FAO.
- *The New Restoration Economy (NRE)* - The main question that motivate NRE's work: How do we close the restoration funding gap? NRE's goal is to increase private investment in restoration. In order to do that, investors need to understand the opportunity. Investors often ask: what is restoration? (unfamiliarity with the term); what do restoration business opportunities look like? (ticket size range? what products or services? risk? investment time horizons? growth opportunity?); how can restoration business models generate a return?
- *Making the business case for restoration*. 140 businesses analysed; 14 companies profiled (technology, consumer products, project management, commercial forestry). Examples: drones, patented planting tech (Land Life), patented drought-resistant breeds of *Pongomia* for energy and animal feed (TerViva), climate-smart credit system for smallholders (F3 Life), companies that proactively restore the land that provide them with the raw materials they need (Guayaki), value props that appeal to the young and environmentally conscious (Tentree), companies that execute reforestation projects on behalf of forest companies and land managers (Brinkman), low-income community development (Fresh Coast Capital), commercial forestry companies (New Forests, Lyme Timber, distributed plantations by Komaza, bamboo Plantations: EcoPlanet Bamboo).
- *Key takeaways*:
  - Wide range of investment opportunities
  - Variety of sectors: agriculture, forestry, and more
  - Pre-revenue to over USD 50 million/yr; <10 to 450+ employees
  - Profit and impact can go hand-in-hand
  - Restoring ecosystem services
  - Building innovative, financially sustainable business models
- *NRE looking ahead*:
  - Private sector workshops: business-investor matchmaking; Land Accelerator: convening restoration enterprises from all over Africa to receive business and technical training, as well as access to private finance
  - Digital restoration business & project marketplace/platform
  - Restoration impact investment metrics with the Global Impact Investing Network (GIIN)
  - Increase the bundling of smaller sized projects/investments
  - Promote blended deals with Development Finance Institutions (DFIs) to offset investor risk

RECOFTC - Good governance for restoring degraded landscapes *(Martin Greijmans)*

- *The Center for People and Forest* - RECOFTC's mission is to enhance capacities for stronger rights, improved governance and fairer benefits for local people in sustainable forested landscapes in the Asia and the Pacific Region. RECOFTC engages with local people, governments, international organizations, UN, NGOs, research/educational institutes, civil society, and private sector. It has trained

~60,000 people from over 40 countries. Country offices in Cambodia, Indonesia, Lao PDR, Myanmar, Nepal, Thailand, Viet Nam.

- Ambitious forest cover restoration targets in the region totaling over 80 million ha (Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, Viet Nam)
- *RECOFTC approach to FLR* – See fundamental principles to involved communities. How can Community Forestry be a vehicle for attracting sustainable investments for FLR?
- *Attention points*:
  - Rights based approach (without rights to resources, equitable benefits and livelihood development the foundation of FLR will be challenged)
  - Livelihood development (livelihoods is more than subsistence or NTFPs)
  - Attracting private sector (it has a role to play in FLR, but we may not always speak the same language, having different objectives – can we see common interests?)
  - Risk management (sustainable projects bring their own complex risks for the investor, for example a lack of clarity regarding the land tenure of local communities could create conflict, delays and costs)
- *FLOURISH – Production-driven FLR through private sector-community partnership* (Lao, Viet Nam and Thailand plus International Finance Corporation partnership in Lao PDR). Network with Forest Connect for enhancing roles of community-based enterprises. Training program: Sustaining Landscapes through Local Partnerships; Agroforestry for Sustainable Landscape Management; Multi-stakeholder dialogues – Thailand (Urban) and regional w FAO/IUCN (Finance/private sector). Outcome indicators: partnership agreements forest communities and private sector, legal community managed forest, reduced fire, increased carbon stocks.

DISCUSSION AFTER THE PRESENTATIONS

- Different entry points for FLR: Environmental services (mangrove, peatlands), private sector investment, bioenergy, silviculture in logged-over forests, climate change, community involvement & benefits
- Safeguards to consider (e.g. WRI diagram, WB requirements)
- Investments – private sector investors leading the financial aspects, how far can we go? who draws the line? safeguards?

ISSUES FOR DISCUSSION, CONTINUATION

- Issue 4: *Scope of the Guidelines*
  - Need to identify the niche, not only geographically. Need to focus on purpose of restoration (Sheila)
  - In agreement to include mosaic tropical landscapes (John)
  - Not to exclude the potential to restore biomes that are important (Sven)
  - Keep multifunctional focus (Victoria)
  - Keep tropical landscapes (Promode)
  - Define scope using conditionals, i.e. focus in forested landscapes but conditional to use in other landscapes (Hiras)
  - Restoration means multiple services and multi-stakeholders. Need to change paradigm to include timber production even in agricultural lands (Sven)
  - Tropical forests and production are in ITTO's agreement. Will get criticism if we adopt a very broad landscape approach (Jobst)
  - Same scope of ITTO 2002 GL or expand? Restricted to restoring forests which we didn't manage well? Restoration scenarios, how do we deal with them? Issue about scenarios 5 and 6. So, yes, expand to scenarios 3 and 4 (Juergen)
  - Secondary forests and new opportunities to use secondary species in the industry (Sven)

- Use existing guidelines etc. on agroforestry etc. (Shono)
- Look at the root of the problems like poverty; and look at successful guidelines. Risk of having text book and not guidelines. Think more about production forests (Benjamas)
- Restoration models focusing on production? Restoration models defined according to primary objective, context and scale) (Cesar)

- Issue 5 – Linkages with international initiatives
  - Linkages should be part of the initial part of the document (John)
  - Could be part of the recommendations. What's mandatory should come differently, maybe in boxes. FLEGT and certification are not mandated (Promode)
  - Include UNFF Global Forest Goal to promote the restoration of degraded forests and globally agreed safeguards guide such as the Cancun REDD+ Safeguards (Ma)

- Issue 6: Structure of the new Guidelines
  - Niche developing on restoration scenarios, but not topical niche (Sheila)
  - Difference between scenarios; the idea is to emphasize components of the landscape or seen as a continuum? (Victoria)

WORKING GROUPS

Participants were assigned into two groups to discuss on and propose key elements to consider in the revised ITTO/CPF FLR Guidelines to effectively operationalize the Global FLR 2018 Principles at policy makers level (Group A) and at the implementation / on the ground level (Group B). A table prepared by the consultants linking the key Globally agreed FLR Principles to the ITTO 2002 Restoration Guidelines for Tropical Forest Landscapes (see **Annex 3**) was used by the group as the basis for the discussions.

Main results

Group A –Principles at policy makers level

- Global Principles vs Principles for Tropical Landscape Restoration
- Drivers should be mentioned prominently in the new Guidelines
- Economic viability should be added in the FLR Principles

Group B – Principles at implementation / on the ground level

- *Structure - Process*
  - GPFLR Principles were prepared to communicate to a wide audience about what FLR is. Now it needs to be unpacked to come up with more technical definition/meaning of those principles.
  - The new Guidelines could be structured to first present guidelines at the policy level based on the Global FLR Principles, and then present the guidelines at the implementation which can be process-oriented. For that, the phases described in IUFRO's 2017 Practitioners Guide could be considered.
  - It is important to be consistent. The implementation level should cross-reference the FLR Principles presented in the policy level. Unpacking the FLR Principles can be made also at this level.
  - There is a need to define boundaries. Some FLR Principles should be reformulated.
- *Addressing deforestation and degradation (D&D)*
  - The new Guidelines should address D&D and their drivers in the first section and make use of existing work done as part of REDD+ and other relevant processes/initiatives.
  - Stakeholders should define the causes of D&D.

- *Restoration scenarios - Cases*
  - We should not have specific guidelines for restoration scenarios.
  - The idea of restoration scenarios could be incorporated in the new Guidelines by presenting in a separate section some cases of restoration related to scenarios and also considering regional differences.
  - A sound planning process is the first thing to explain before opening up the restoration scenarios.
  - Restoration scenarios should not be seen as separate part of the landscape but as continuum scenarios in the landscape.
  - Dealing with the proposed scenarios is complex as it's about land management objectives and tenure.
  - Presenting cases is good as they may trigger the discussion on some critical issues, like negotiation and agreements.
  - We need to be careful with the cases as oftentimes they only tell the good stories and hide the failures, so there should be criteria for selecting cases.
  - No need to develop guidelines for the "special cases". We can refer to existing guides, tools…
  - Emphasize on providing guidance for tools related to the socioeconomic aspects (Victoria)
- *Indicators - Monitoring*
  - It would be useful to have indicators for implementation, something like in the logic of principles, criteria and indicators – PCI.
  - Monitoring indicators for FLR are not integrated, so this could be something the New Guidelines could offer. Which package of indicators should be chosen to define restoration outcomes. Some good reference to look at include the work from CIFOR, IUFRO, FAO, GEF
  - We should go beyond monitoring using the adaptive management approach to know if the FLR work being done is achieving the expected results.
  - Provide some guidance on indicators that can be used according to restoration objectives.
  - Consider participatory monitoring and focus on indicators for biodiversity, carbon and water. This information can be presented as an appendix.
  - Consider including guiding questions for monitoring. The FAO-WRI framework could be used for reference.

View of the consultants

- Reference to the ITTO Revised SFM Guidelines, draft version as of August 2011 which considered two parts: on Framework Principles and on Management Principles. Important to link SFM and FLR. At the policy level it doesn't change too much; the idea is to enrich the table for Policy Principles with cross-references.
- Tasks for inputs from participant on (1) key tools we can refer to, (2) cross-references, (3) restoration scenarios and cases, and (4) guidance for investors.
- Overall approach proposed (see PPT at Global Landscape Forum, Slides 1 and 2)

DISCUSSION

- There is a fundamental difference between SFM and FLR. "We want to make a change, what is needed, what's going wrong; we need new resources" (Sven)
- Make the case for benefits to get commitment (John)

- Financial sustainability from projects is important to include in the business cases, and relate this to the landscape approach and stakeholder commitments. What investors need to know and understand, more than just planting… but also the other benefits (Victoria)
- Possible criteria for selecting cases: a) concrete experience for restoring degraded forests and forest lands with landscape approach; b) evidence that supports the replicability and sustainability of the experience/case; c) innovation to inspire; d) highlight benefits (e.g. contributions to SDG, green economy…). The description could be using a template to standardize the key information we want to have (Cesar)

- Items in slide Preparing the new Guidelines
  - A working definition on tropical forest landscape is needed (John)
  - Tropical forest landscapes should include mosaic landscapes (Promode)
  - Forest actions? Not benefits but landscape values
  - Not only forest-based (Victoria)
  - Highlight the benefits to local people around the forests (Joowong)
  - Diagnosis, whose' s perspective? Define diagnosis for whom to include in the beginning (John)
  - Guide the user, but what do they want? A decision-tree could help guide the questions, to focus where and what aspects to focus on according to specific situations on the ground (Michael)
  - Differentiate two situations for diagnosis: stakeholders (internal evaluation) and investors (external investors) (Sven)
  - There are different situations and the cases will help better elicit this. For restoration scenarios it's a mix of the forest transition curve with land-use and objectives (Andras)
  - Restoration scenarios – Consider in the table the drivers of degraded land-use and the future land-use - where to go? (Sven)
  - Benefits? Focus on (timber) production aspects (Shono)
  - In ROAM we produce restoration scenarios as a result and benefits of using this or that technique. What models to use? It'd be better to focus on what we want to achieve in the end (Satrio)
  - The landscape approach doesn't come clear (Martin)
  - The word process - We are looking at the process, the dynamics of FLR (Victoria)
  - Cases should be included, e.g. restoration outcomes to contributing to the basis of bio-economy for a greener future (Ma)
  - Restoration outcomes not alone, but must also be drivers in there (Hiras)
  - Lessons learned to be integrated (Felanirina)
  - How to define a landscape from the private/company perspective? Start with a baseline (Ida)
  - Definition of sustainable forest landscape restoration? (Ma) – We can use the definition of sustainable landscape as stated by the GLF (Cesar)

- Tools
  - Tools may be changing based on lessons learnt and the experience with their use. Make reference to existing relevant tools (Hiras)
  - Consider the legal framework (Felanirina)
  - EcoAgriculture Partners Landscape governance tools (Victoria)
  - IUFRO guides and other relevant publications (John)
  - Examples of institutions that are developing tools

- Case studies - Examples
  - Select cases on long enough projects to be able to refer to failures (John)
  - A proposal for restoration scenarios will be sent (by January 2019) to those interested in contributing studies /examples (Cesar)
- Guidelines for investors
  - Satrio: Different types of entrepreneurships that will support restoration – e.g. companies focusing on consumer products, technologies (drones…). That means multiple business models (Satrio)

- Need to look broadly at restoration investment with the many possibilities in terms of investment But where do we draw the line between the different kinds of investment? (Juergen)
- FLR brings benefits that outweigh costs, fine. Investment climate is very important. Need to guide policy makers on how to attract investors (Hiras)
- Not only financial investors, but also researchers and others (Jobst)
- The idea is to have a sort of typology of different categories of investments and investors (John)
- The case of Indonesian forest ecosystem restoration concessions. Initiatives to promote production oriented or bankable projects from RECOFTC, FAO and other CPF members (Ma)
- The safeguards have to be built up/ brought in for commercial investments. Case studies should come from restoration scenarios driven by different objectives, e.g. mining, ecotourism (Promode)
- Two groups: private investors (e.g. interested in clean water, climate mitigation), and public investors (what kind of private goods…), each with particular safeguards (Sven)
- Forest ecosystem restoration concessions in Indonesia. The government does not support policy incentives. Idea of FER was good, but no implementation (Hiras)

- <u>Proposed outline</u>
  - Andras: Part III, include implementation process. Guidance for investors, policy makers, facilitators OR guidance for financing restoration (Andras)

FINAL REMARKS

- Presentation of the work in progress with the new Guidelines at the GLF in Bonn (Dec 2st), see **Annex 4** of this report
- Second expert meeting to be held in Europe, around May/June 2019? JB to explore if Switzerland (Lüderenalp where former Expert Panel meetings on C&I and SFM Guidelines were already hold.
- First draft of new Guidelines to be available around May 2019 for Expert Panel input

ANNEX 1: List of participants

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ANNEX 2. Programme of the Expert Group Meeting for Forest Landscape Restoration in the Tropics (Chaophya Park Hotel, Bangkok, Thailand, 14-16 November 2018)

Time	Wednesday, 14 November	Thursday, 15 November	Friday, 16 November
09:00	**Welcome and introduction:** ▪ Opening remarks by RFD, Thailand ▪ Opening remarks by ITTO ▪ Opening remarks by AFoCO ▪ Self-Introduction of participants ▪ Group photo Organizational matters - Objectives of the meeting	**Presentations from countries** ▪ Presentation from Thailand ▪ Presentation from Cameroon ▪ Presentation from India ▪ Presentation from Brazil ▪ Presentation from US Forest Service ▪ Presentation from Germany Followed by Q+A	**Presentation of Two Working Groups** (i) ways and (ii) key elements for FLR guidelines to effectively operationalize the GPFLR 2018 FLR Principles at policy makers and practitioners' levels Followed by Q+A
10:30	Coffee / tea break	Coffee / tea break	Coffee / tea break
11:00	**Presentation on Analysis of Ongoing FLR Programs of CPF Members** by Juergen Blaser and Cesar Sabogal – Part I Followed by Q+A	**Presentation on GPFLR FLR Principles (2018**) and preparation of FLR guidelines/revision of ITTO restoration guidelines by Juergen Blaser and Cesar Sabogal Followed by Q+A	**Presentation on preparation of CPF/ITTO FLR guidelines** for tropical forests under the framework of GPFLR FLR Principles (2018) by Juergen Blaser and Cesar Sabogal Followed by Q+A
12:30	Lunch	Lunch	Lunch
13:30	**Presentations from partners** ▪ Presentation from FAO: ▪ Presentation from IUCN-Bangkok Office: ▪ Presentation from CBD: ▪ Presentation from WeForest: Followed by Q+A	**Presentations from partners** ▪ Presentation from IUFRO ▪ Presentation from CIFOR ▪ Presentation from UN Environment – Bangkok office ▪ Presentation from WRI – Indonesia ▪ Presentation from RECOFTC Followed by Q+A	**Discussion and conclusions** ▪ The way forward: Identification of key guidelines to promote the effective implementation of the GPFLR FLR Principles (2018) ▪ Next steps ▪ Conclusions of the meeting ▪ Closing
15:00	Coffee / tea break	Coffee / tea break	Coffee / tea break
15:30 – 17:00	**Presentation on Analysis of Ongoing FLR Programs of CPF Members** by Juergen Blaser and Cesar Sabogal – Part II Followed by Q+A	**Two Working Groups** Discussion on (i) ways and (ii) key elements for FLR guidelines to effectively operationalize the GPFLR 2018 FLR Principles at policy makers and practitioners' levels	**Field visit to a mangrove forest nearby Bangkok** It is approximately 40 km from Bangkok and will take about an hour travelling by bus. Dinner will be taken on the way back to the hotel. It is expected to return to the hotel by 20:30 pm
18:30	**Joint Dinner**		

ANNEX 3. Globally agreed FLR Principles as linked to the ITTO 2002 Restoration Guidelines for Tropical Forest Landscapes

(**Objectives in the ITTO 2002 Restoration Guidelines** - Policy Principles in the ITTO 2002 Restoration Guidelines - Stand-level Principles in the ITTO 2002 Restoration Guidelines)

Global Principles of FLR	Policy Guidelines for restoring tropical forest landscapes at national level
1. Focus on landscapes FLR takes place within and across entire landscapes, not individual sites, representing mosaics of interacting land uses and management practices under various tenure and governance systems. It is at this scale that ecological, social and economic priorities can be balanced	1.1 Ensure that degraded and secondary forests as well as degraded forest land and mosaic forest landscapes are integral parts of land-use planning and land management systems. *[Also mentioned in ITTO GL 2002, Principle 1]* 1.2 Inform and drive policy making on the fact that tropical forest landscape restoration makes valuable contribution to rural livelihoods (with emphasis to the poor and most vulnerable people, particularly when linked to land-use and land tenure reform. 1.3 Produce and adequately disseminate qualitative biophysical and socioeconomic information, and ensure effective communication and networking that promote and validate stakeholders' commitment to restoring degraded tropical forest landscapes
2. Engage stakeholders and support participatory governance FLR actively engages stakeholders at different scales, including particularly vulnerable groups, in planning and decision-making regarding land-use, restoration goals and strategies, implementation methods, benefit sharing, monitoring and review processes	**ITTO 2002 GL Objective III: *Empower local people and ensure the equitable sharing of costs and benefits*** 2.1 The restoration, management and rehabilitation of degraded and secondary forests can only succeed if forest governance is effective *[ITTO GL 2002, Principle 4]* 2.2 Participate in and share the responsibility for decision-making in planning and implementing restoration, management and rehabilitation strategies *[ITTO GL 2002, Principle 8]* 2.3 Market and non-market costs and benefits need to be shared by all stakeholders *[ITTO GL 2002, Principle 9]* 2.4 Ensuring that the benefits of biological diversity accrue to local people will favour the long-term success of restoration, management and rehabilitation programs *[ITTO GL 2002, Principle 22]*
3. Restore multiple functions for multiple benefits FLR Interventions aim to restore multiple ecological, social and economic functions across a landscape and generate a range of ecosystem goods and services that benefit multiple stakeholder groups.	**ITTO 2002 GL Objective IV: *Employ integrated approaches to resource assessment, planning and management*** 3.1 Degraded and secondary forests make valuable contributions to rural livelihoods, particularly those of the poor *[ITTO GL 2002, Principle 2]* 3.2 Degraded and secondary forests need to be managed under an adaptive and multiple-use management approach *[ITTO GL 2002, Principle 13]* 3.3 Management goals for degraded and secondary forests are based on socioeconomic objectives and cultural values *[ITTO GL 2002, Principle 15]* 3.4 Degraded and secondary forests can be managed to mitigate the effects of climate change *[ITTO GL 2002, Principle 17]* PRINCIPLES AT THE STAND-LEVEL 3.5 Multiple-use plantations should be used as spearheads for forest restoration and to improve site conditions and biodiversity in forest-poor areas *[ITTO GL 2002, Principle 39]* 3.6 Managed secondary forests have multiple-use functions *[ITTO GL 2002, Principle 40]*

Global Principles of FLR	Policy Guidelines for restoring tropical forest landscapes at national level
	3.7 Carbon sequestration is an important use option in degraded and secondary forests *[ITTO GL 2002, Principle 46]*
4. Maintain and enhance natural ecosystems within landscapes FLR does not lead to the conversion or destruction of natural forests or other ecosystems. It enhances the conservation, recovery, and sustainable management of forests and other ecosystems.	4.1 The initial environmental conditions, particularly the stress and risk factors present in landscapes containing degraded and secondary forest, must be assessed *[ITTO GL 2002, Principle 12]* 4.2 The causes of degradation should be eliminated *[ITTO GL 2002, Principle 16]* 4.3 Degraded and secondary forests should be rehabilitated and restored wherever possible by natural succession *[ITTO GL 2002, Principle 19]* 4.4 Conserving and restoring biological diversity, including genetic resources, is a particular concern in all programs to restore, manage and rehabilitate degraded and secondary forests *[ITTO GL 2002, Principle 21]* 4.5 The harvesting and utilization of forest goods and services from degraded and secondary forests should be regulated to ensure that further degradation does not occur *[ITTO GL 2002, Principle 23]* PRINCIPLES AT THE STAND-LEVEL 4.6 Regeneration capacity - The regeneration capacity of forest lands should be improved *[ITTO GL 2002, Principle 34]* 4.7 Limiting site conditions need to be identified prior to initiating restoration or rehabilitation work, particularly on degraded forest land *[ITTO GL 2002, Principle 35]* 4.8 The rehabilitation of degraded forest land requires the control and, if possible, elimination of aggressive weeds and animal pests, as well as invasive species *[ITTO GL 2002, Principle 37]* 4.9 Natural stand dynamics are the basis of forest restoration, particularly in degraded primary forests *[ITTO GL 2002, Principle 47]*
5. Tailor to the local context using a variety of approaches FLR uses a variety of restoration approaches that are adapted to the local social, cultural, economic and ecological values, needs, and landscape history. It draws on latest science and best practice, and traditional and indigenous knowledge, and applies that information in the context of local capacities and existing or new governance structures.	5.1 Local and indigenous knowledge is a valuable resource that should be given equal weight to other knowledge systems *[ITTO GL 2002, Principle 10]* 5.2 The management of degraded and secondary forests should be based on sound ecological and silvicultural analysis and knowledge *[ITTO GL 2002, Principle 18]* 5.3 Soil characteristics need to be maintained and improved to guarantee efficient stand restoration and rehabilitation *[ITTO GL 2002, Principle 24]* PRINCIPLES AT THE STAND-LEVEL 5.4 Multi-purpose native or exotic species will accelerate successional processes and increase biodiversity on degraded forest land and also provide direct socioeconomic benefits *[ITTO GL 2002, Principle 38]* 5.5 Enrichment planting may be justified in heavily degraded primary forests and young secondary forests *[ITTO GL 2002, Principle 49]*
6. Manage adaptively for long-term resilience FLR seeks to enhance the resilience of the landscape and its stakeholders	**ITTO GL 2002 Objective V:** ***Take an adaptive and holistic approach to forest management, emphasizing environmental and social values*** **ITTO GL 2002 Objective VII:** ***Guarantee participatory monitoring and evaluation as a basis for adaptive management***

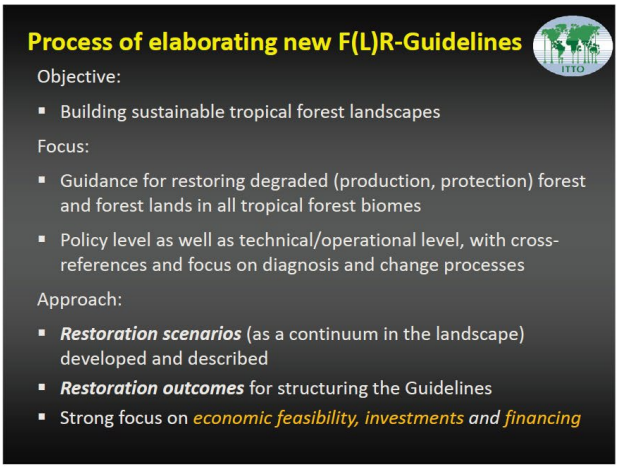
Global Principles of FLR	Policy Guidelines for restoring tropical forest landscapes at national level
over the medium and long-term. Restoration approaches should enhance species and genetic diversity and be adjusted over time to reflect changes in climate and other environmental conditions, knowledge, capacities, stakeholder needs, and societal values. As restoration progresses, information from monitoring activities, research, and stakeholder guidance should be integrated into management plans.	6.1 The initial environmental conditions, particularly the stress and risk factors present in landscapes containing degraded and secondary forest, must be assessed *[ITTO GL 2002, Principle 12]* 6.2 Degraded and secondary forests need to be managed under an adaptive and multiple-use management approach *[ITTO GL 2002, Principle 13]* 6.3 Adaptive management approaches minimize the ecological and socioeconomic risks associated with degraded and secondary forest management *[ITTO GL 2002, Principle 14]* 6.6 The restoration, management and rehabilitation of degraded and secondary forests can be subjected to environmental and economic constraints *[ITTO GL 2002, Principle 20]* 6.7 A participatory diagnosis of the physical, economic and social conditions is required as a basis for monitoring and evaluation and adaptive management *ITTO GL 2002, Principle 28]* 6.8 Monitoring is an essential element of adaptive management *[ITTO GL 2002, Principle 29]* 6.9 Applied research is essential to guide and inform adaptive management *[ITTO GL 2002, Principle 30]*

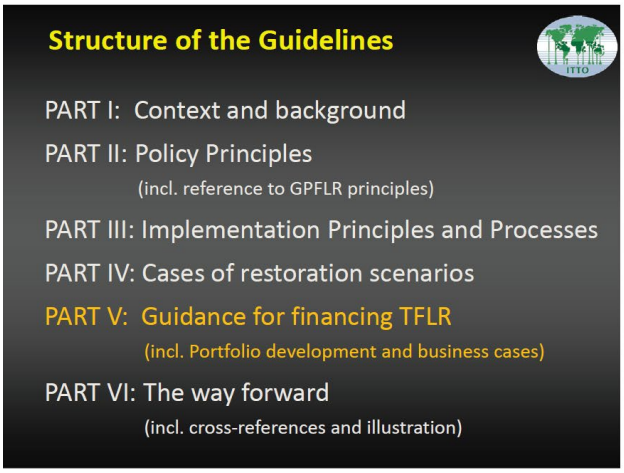
MISSING GLOBAL FLR PRINCIPLES FROM THE ITTO 2002 RESTORATION GUIDELINES

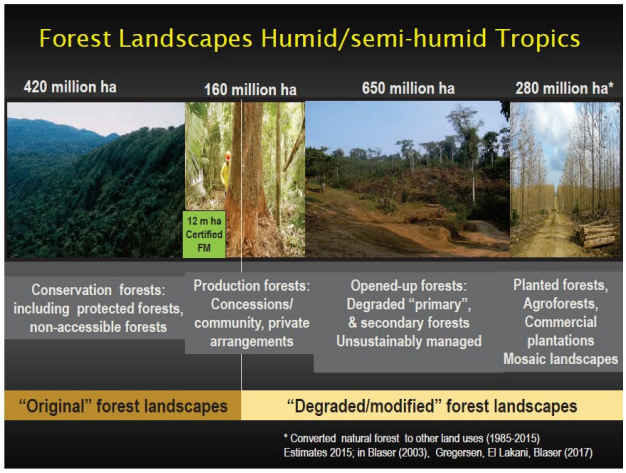
MISSING FROM GLOBAL FLR PRINCIPLES	ITTO 2002 RESTORATION GUIDELINES
Principles addressing COMMUNICATION & KNOWLEDGE DISSEMINATION	**ITTO GL 2002 Objective I: *Attain commitment to the management and restoration of degraded and secondary forest landscapes***
	Principle 3: Information/communication - Quality information, communication and networking promote collaboration and validate commitment to the management of degraded and secondary forest
	Principle 31: Knowledge sharing - The dissemination and management of knowledge and information maximizes the effectiveness of, and public support for, the restoration, management and rehabilitation of degraded and secondary forests
Principles addressing POLICY	**ITTO 2002 GL Objective II: *Formulate and implement supportive policies and appropriate legal frameworks***
Principles addressing GOVERNANCE central components (other than supporting participatory governance – FLR Principle 2)	**Principle 4: Governance** - The restoration, management and rehabilitation of degraded and secondary forests can only succeed if forest governance is effective
	Principle 5: Property and access rights - Secure land tenure, land-user access, customary rights and property rights are fundamental to the restoration, management and rehabilitation of degraded and secondary forests
	Principle 6: Public institutions - Public administrations responsible for forests and other natural resources require the capacity to deal with the

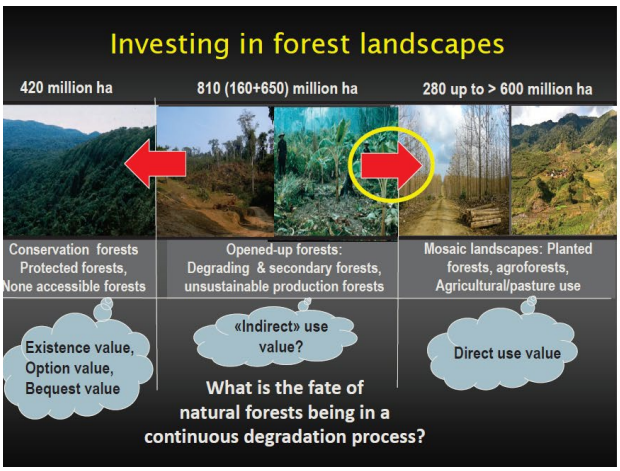
MISSING FROM GLOBAL FLR PRINCIPLES	ITTO 2002 RESTORATION GUIDELINES
	restoration, management and rehabilitation of degraded and secondary forests
	Principle 7: Decentralization - Decentralized control and decision-making provides the conditions for restoring, managing and rehabilitating degraded and secondary forests at the local level
Principles addressing ECONOMIC – FINANCIAL VIABILITY	**ITTO 2002 GL Objective VI:** ***Promote economic efficiency and financial viability***
	Principle 25: Economic viability - Economic and financial viability is essential for the restoration, rehabilitation and management of degraded and secondary forests
	Principle 26: Resource allocation - Sufficient resources must be committed to initiate activities for the restoration, management and rehabilitation of degraded and secondary forests
	Principle 27: Local income opportunities - Improved income opportunities for forest products will provide an incentive for local stakeholders to participate in the restoration, management and rehabilitation of degraded and secondary forests
	Principle 41: Species diversity - Managing a wider range of species will help achieve economic viability
STAND-LEVEL SILVICULTURAL & MANAGEMENT PRINCIPLES	**ITTO 2002 GL Objective VIII:** ***Utilize appropriate ecological and silvicultural knowledge and efficient management practices***
	Principle 32: Sustainable yield management - Management of degraded and secondary forests for sustainable yield must include consideration of ecological and silvicultural gain **Principle 33: Simple silvicultural practices** - Wherever possible, use simple silvicultural practices **Principle 36: Key species** - The rehabilitation of degraded forest land needs the careful assessment of key plant and animal species **Principle 42: Species selection** - Species selection for silvicultural work needs to be as broad as possible **Principle 43**: **Silviculture only on best sites** - Intensive silviculture for improved production should preferably be applied on the best sites **Principle 44: Advanced growth** - Regulating advanced growth is essential for improving stand structure in degraded and secondary forests **Principle 45: Stand structures** - A uniform structure needs to be created or maintained in secondary forests when wood production is the main management goal **Principle 48**: **Close-to-nature silviculture** - Silvicultural interventions should take advantage of and be adapted to natural ecological processes

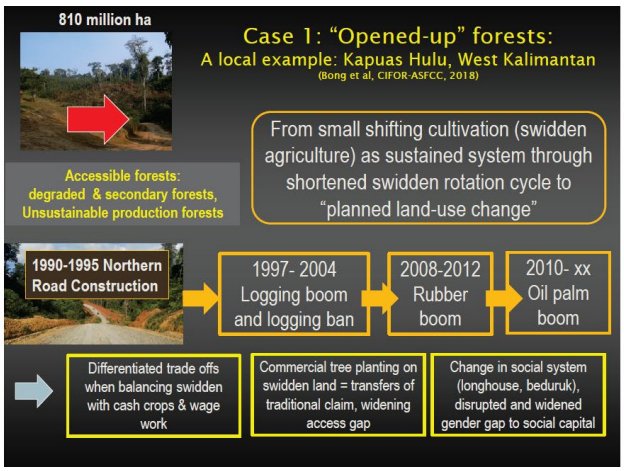
ANNEX 4. PPT presentation at the Global Landscape Forum, Bonn, 2 December 2018

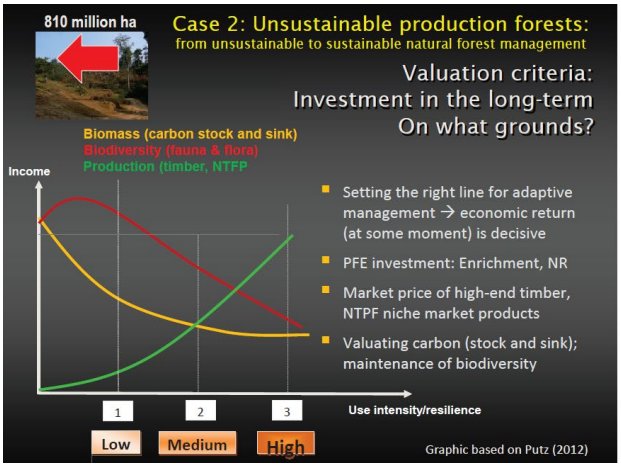


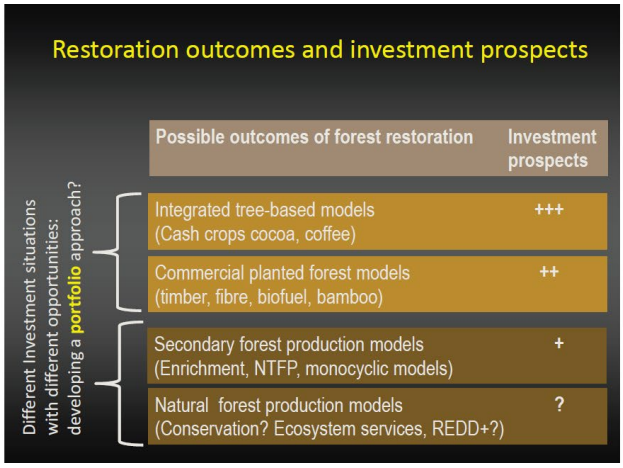


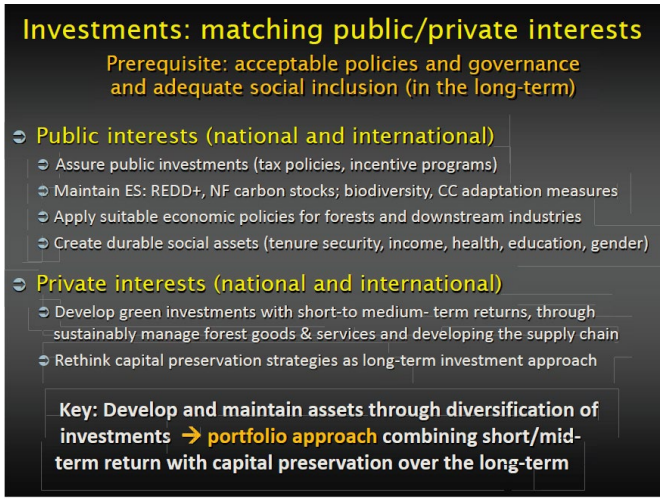







810 million ha
Case 2: Unsustainable production forests:
from unsustainable to sustainable natural forest management
Valuation criteria:
Investment in the long-term
On what grounds?
Biomass (carbon stock and sink)
Biodiversity (fauna & flora)
Production (timber, NTFP
Income
Setting the right line for adaptive management → economic return (at some moment) is decisive
PFE investment: Enrichment, NR
Market price of high-end timber, NTPF niche market products
Valuating carbon (stock and sink); maintenance of biodiversity
1
2
3
Use intensity/resilience
Low
Medium
High
Graphic based on Putz (2012)


Restoration outcomes and investment prospects
Possible outcomes of forest restoration
Investment prospects
Different investment situations with different opportunities: developing a portfolio approach?
Integrated tree-based models (Cash crops cocoa, coffee)
+++
Commercial planted forest models (timber, fibre, biofuel, bamboo)
++
Secondary forest production models (Enrichment, NTFP, monocyclic models)
+
Natural forest production models (Conservation? Ecosystem services, REDD+?)
?


Investments: matching public/private interests
Prerequisite: acceptable policies and governance and adequate social inclusion (in the long-term)
Public interests (national and international)
Assure public investments (tax policies, incentive programs)
Maintain ES: REDD+, NF carbon stocks; biodiversity, CC adaptation measures
Apply suitable economic policies for forests and downstream industries
Create durable social assets (tenure security, income, health, education, gender)
Private interests (national and international)
Develop green investments with short-to medium- term returns, through sustainably manage forest goods & services and developing the supply chain
Rethink capital preservation strategies as long-term investment approach
Key: Develop and maintain assets through diversification of investments → portfolio approach combining short/mid-term return with capital preservation over the long-term

Photos of the Expert Group Meeting

Participants in the meeting on 14 November 2018, Chapaya Park Hotel, Bangkok, Thailand

Juergen Blaser highlighting background information including ITTO restoration guidelines (2002)

Victoria Gutierrez and John Parrotta leading discussions as co-chair

Cesar Saboal participating in discussion

Watching AFoCO's video, "Growing Greener Asia for a Better Tomorrow"

A working group session

A field visit to mangrove-based nature education center at Banpu