



ASIA-PACIFIC FORESTRY COMMISSION

THIRTIETH SESSION

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FOREST AND LANDSCAPE RESTORATION IN ASIA AND THE PACIFIC

Executive Summary

This document outlines the relevance and importance of Forest and Landscape Restoration (FLR) for moving towards climate- and biodiversity-positive development and for more meaningful and integrated agrifood system transformation in Asia and the Pacific. It outlines the key issues and actions needed for further upscaling FLR in the Asia-Pacific region, building on progress made through implementation of the Regional Strategy and Action Plan for FLR in Asia-Pacific and the UN Decade on Ecosystem Restoration.

Suggested actions by the Commission

The Commission is invited to recommend countries to:

- welcome the progress made in implementing the Regional Strategy and Action Plan for Forest and Landscape Restoration in Asia-Pacific and the UN Decade on Ecosystem Restoration;
- consider actions to strengthen the enabling environment and upscale FLR investments and actions at all levels to advance the implementation of the UN Decade on Ecosystem Restoration and meet the targets of the Kunming-Montreal Global Biodiversity Framework and the Sustainable Development Goals (SDGs); and
- provide guidance on needs and strategic entry points for FAO to support members in further upscaling FLR in the region.

The Commission is invited to recommend FAO to:

- continue to support members, in upscaling FLR in the region in line with the Regional Strategy and Action Plan for Forest and Landscape Restoration in Asia-Pacific and other relevant global commitments, and report on progress made at its next Session; and
- promote an informal network of FLR practitioners for technical knowledge exchange and building synergies, and continue, subject to the availability of extra-budgetary resources, to develop tools, approaches and capacities for upscaling FLR.

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I. CONTEXT AND RELEVANCE

1. Ecosystem degradation affects over 3.2 billion people and its estimated annual financial impact is more than 10 percent of global Gross Domestic Product¹. At the same time, more than two billion hectares of land worldwide provide opportunities for restoration². Current global restoration commitments cover around one billion hectares. Implementing these commitments will, however, require investment of USD 300-1,670 billion³.

2. The United Nations General Assembly proclaimed the UN Decade on Ecosystem Restoration 2021-2030 to give prominence to the need to restore degraded ecosystems. FAO and the United Nations Environment Programme (UNEP) are co-leading its implementation with countries and partners.

3. Integrated restoration efforts across scale and involving a range of stakeholders can contribute to meeting global goals for sustainable development, climate, biodiversity and desertification. For instance, restoring 350 million ha of forests under the Bonn Challenge could sequester up to 1.7 gigatonnes of CO₂ annually⁴ and significantly contribute to achieving the Kunming-Montreal Global Biodiversity Framework (KMGBF) Target 2 to restore 30 percent of ecosystems globally by 2030 and also the Global Land Initiative target to reduce degraded lands by 50 percent by 2040⁵. Multiple benefits can also be derived from other global efforts (e.g. [Ark2030](#), [1000 Landscapes for 1 Billion People](#)). Integrating FLR into these initiatives can ensure a healthy natural resource base for agrifood systems and make them more efficient, inclusive, resilient and sustainable. The Twenty-Eight Session of the Committee on Agriculture (COAG) and the Twenty-Sixth Session of the Committee on Forestry (COFO)

¹ https://www.ipbes.net/sites/default/files/spm_3bi_ldr_digital.pdf

² <https://www.fao.org/3/i2560e/i2560e08.pdf>

³ <https://www.pbl.nl/sites/default/files/downloads/pbl-2022-the-global-potential-for-land-restoration-glo2-4816.pdf>

⁴ <https://www.fao.org/3/cc2510en/cc2510en.pdf>

⁵ <https://www.cbd.int/gbf/targets/>

⁶ <https://www.unccd.int/our-work/flagship-initiatives/G20-Initiative>

both highlighted the need to better integrate agriculture and forestry sectors, including through agroforestry⁷⁸.

4. Restoring degraded landscapes at scale is highly relevant to the Asia-Pacific region; one of the world's fastest growing and most diverse regions. Considering the relevance of FLR, a Regional Strategy and Action Plan on FLR in Asia-Pacific (RSAP)⁹ was endorsed at the Twenty-Seventh Session of the APFC. Subsequent APFC Sessions further emphasized actions for scaling up FLR. The third Asia-Pacific Forest Sector Outlook Study¹⁰ also emphasized the need for large investments to restore forests and landscapes to achieve transformational change.

5. Many countries in the region have specified restoration goals, including in their national forest and agroforest-related policies and plans, Land Degradation Neutrality targets, Nationally Determined Contributions, and National Biodiversity Strategy and Action Plans. Among countries in the region, at least six have committed to the Bonn Challenge, five to the New York Declaration of Forests, and seventeen to the Glasgow Leaders Declaration on Forests and Land Use. Fifteen countries have either put in place REDD+ strategies or are pursuing REDD+ activities. Most countries are also party to the forest protection and restoration-related targets of the Sustainable Development Goals and Global Forest Goals¹¹.

6. Although the Asia-Pacific region does not yet have a flagship regional restoration initiative at the scale of several other regions (e.g. The [African FLR Initiative](#), [the Great Green Wall Initiative](#), and [ECCA30](#)), a variety of multi-country initiatives exist in the region with focused targets; for example, the ASEAN Green Initiative aims at planting at least 10 million native trees across the 10 ASEAN Member States in 10 years¹², the [Landscape Partnership Asia](#) aims at restoring 10 million ha of drylands¹³, and the [Asia Protected Areas Partnership](#) aims at more effective protected area management, in which FLR has a critical role to play¹⁴.

7. This document presents the major challenges, key needs and FAO's role and support for upscaling FLR in line with the RSAP and the UN Decade on Ecosystem Restoration.

II. MAIN CHALLENGES IN UPSCALING FLR IN THE ASIA-PACIFIC REGION

8. The RSAP proposes 30 priority actions to address key challenges for restoring feasible areas among 500 million hectares of deforested and heavily degraded lands in Asia and the Pacific¹⁵. Despite a growing commitment to restoration, implementation in the region remains below levels required to meet many national and international targets.

9. The barriers for effective ecosystem restoration noted in the [Strategy for the UN Decade on Ecosystem Restoration](#) (viz. political will, public awareness, legislative and policy environments, technical capacity, finance, and scientific research) are equally relevant to FLR. In addition, local, ecological, geo-political and socio-economic factors operate within specific

⁷ <https://www.fao.org/3/nd425en/ND425EN.pdf>

⁸ <https://www.fao.org/3/ni906en/ni906en.pdf>

⁹ <https://www.fao.org/3/i8382en/i8382EN.pdf>

¹⁰ <https://www.fao.org/3/ca4627en/ca4627en.pdf>

¹¹ Cited in FLR regional programmatic framework

¹² <https://agi.aseanbiodiversity.org/>

¹³ <https://landscapepartnershipasia.org/>

¹⁴ <https://www.asiaprotectedareaspartnership.org/>

¹⁵ Minnemeyer, et al., 2011

landscapes to limit implementation¹⁶. More integrated, diversified and innovative agrifood systems are emerging that could accelerate implementation of FLR. However, designing landscape approaches that extend across current sectoral boundaries, broadening FLR objectives, creating suitable governance and conducive conditions for increased investment, and wider stakeholder participation and benefit sharing, continue to pose challenges¹⁷ in many places. Some ambitious goals may even result in undesirable outcomes¹⁸.

10. Particular challenges in scaling up FLR include: (i) resolving conflicts of interest among stakeholders in situations where resolution capacity is limited; (ii) insecure and unclear land and resource tenure, particularly for Indigenous Peoples; (iii) lack of integrated planning; (iv) scarcity of replicable, commercially viable models; (v) limited capacity for entrepreneurship, value adding and market engagement among local landowners; (vi) high investment risks, high restoration costs and long timeframes with uncertain returns; (vii) insufficient knowledge and awareness of forest or ecosystem restoration in the finance sector; and (viii) low access to financing opportunities among landowners¹⁹. Quantifying and monetizing all restoration benefits is difficult, which may reduce its attractiveness to many private investors, despite evident public good benefits. Although payments for ecosystem services offer some opportunities, forest restoration funding is still heavily dependent on the public sector and many programmes are short term or poorly targeted. Moreover, for many developing countries, with urgent competing priorities, forest restoration costs may be prohibitive. Some countries may also lack knowledge and capacity to implement restoration and rehabilitation systems²⁰. A [global capacity needs assessment](#) revealed a variety of capacity gaps including in financing; stakeholder engagement; planning, research and monitoring; and the development of supporting policies. A recent analysis of FLR initiatives in the Asia-Pacific region indicates the relationships between costs, the level of degradation, project duration and size, and local people's participation and ownership. Land tenure security underpins project success and long-term sustainability, while other synergies and constraints vary according to current land use, land subtype and condition, and the objectives and priorities of stakeholders²¹.

11. Providing multiple benefits of FLR across complex landscapes necessitates engagement with a variety of actors, which is costly and complex for those making investment decisions. Local complexities and governance of rights, land distribution and access may also pose challenges. Bundling of projects can reduce risks and enable development at a profitable scale, but may increase transaction costs²². Public sector and development funds can potentially make investments in FLR more attractive, by providing support for consultation and project aggregation to create and de-risk investment-ready projects for the private sector.

III. KEY NEEDS AND ACTIONS REQUIRED FOR UPSCALING FLR IN THE ASIA-PACIFIC REGION

12. Against a backdrop of demographic, economic and social changes, the aspirations of the UN Decade on Ecosystem Restoration need to be operationalized as field-level actions. Populations occupying degraded agricultural lands are increasing and FLR is a key priority in

¹⁶ https://wedocs.unep.org/bitstream/handle/20.500.11822/42095/UNDecade_ActionPlan.pdf?sequence=3&isAllowed=y

¹⁷ <https://www.fao.org/3/ca4627en/ca4627en.pdf>

¹⁸ de Jong W, Liu J, Long H. 2021. The forest restoration frontier. *Ambio*. 50(12):2224-2237.

¹⁹ FAO, 2022; FAO & UNEP, 2021; IUCN, 2016; Gritten et al., 2018; Indrajaya, Y. et al., 2022; Pargaien, 2022; Cited in FLR regional programmatic framework

²⁰ <https://www.pbl.nl/sites/default/files/downloads/pbl-2022-the-global-potential-for-land-restoration-glo2-4816.pdf>

²¹ FAO and IUCN, 2023; Kanowski, Keenan, Susilawati, and Shelton, 2023; both unpublished

²² <https://www.pbl.nl/sites/default/files/downloads/pbl-2022-the-global-potential-for-land-restoration-glo2-4816.pdf>

many of these areas. Leadership and immediate robust actions are essential for successful restoration²³. The RSAP conveys regional priorities and actions which need to be translated into ground-level actions and accelerated by technology, innovation, information and efforts to create optimal enabling environments. More knowledge-based (scientific and traditional) and holistic landscape-level restoration approaches and improved access to information and experiences in the region are needed to advance FLR as a key nature-based solution. A need for innovative and sustained funding and collaborative resource mobilization at scale is self-evident. Likewise, several APFC focal points identified needs for: (i) more cooperation within and among sectors; (ii) development of regional platforms for collaboration and knowledge sharing; and (iii) enhanced capacities including in preparing projects and attracting financial support, monitoring, developing national action plans, and prioritizing restoration hotspots.

13. Enhancing capacities across FLR value chains is equally relevant, as identified by the global capacity needs assessment, especially for adaptive FLR and empowering small-scale entrepreneurs and enterprises, advancing innovative business models and matching these with investors. This can build on ongoing efforts (e.g. [the Restoration Factory](#), [Land Accelerator South Asia](#)) and numerous available tools/platforms (including, for example, [se.plan](#), [AURORA](#), [FERM](#), [Restor](#), [Xylvia](#), [Explorer.land](#), [Earthshot labs](#), [Acorn](#), [Global Restoration Monitor](#), [Climate Smart Restoration tool](#), [Carbexx](#), [Restoration Opportunities Optimization Tool](#), [Naturebase](#))

14. Integrating FLR into existing policies, plans and programmes is crucial. For instance, FLR can have an important role in restoring wildlife populations and habitats as part of wildlife management to address human-wildlife conflicts. FLR can also contribute to healthy ecosystems as part of the One Health approach, especially considering that degradation of habitats is associated with about one-third of recent zoonotic disease emergencies²⁴. Moreover, better integration of FLR and its products and ecosystem services into value chains can help advancing green bioeconomies and sustainably meeting diverse demands. FLR can also complement efforts for conservation and preventing degradation. Thus, a more holistic approach of FLR is needed to foster functional landscapes, sustainable food production, biodiversity conservation, and the provision of ecosystem services, including for climate change mitigation and adaptation²⁵.

15. Narrowing knowledge gaps consistently and making data available for decision-makers and stakeholders at all levels is important to ensure more knowledge-based decision-making. Improving the availability of and capacity to manage spatially-explicit data on restoration hotspots (e.g. using [se.plan](#) – an online tool designed to support forest restoration planning decisions²⁶) could help planning and design of FLR interventions and making more informed decisions for advancing FLR.

16. Broader innovative partnerships and coordinated actions with robust multidisciplinary and multi-stakeholder approaches are essential to address key barriers and nurture context-based social, technical and institutional approaches. Including and empowering all FLR stakeholders (especially Indigenous Peoples) and equitable benefit sharing are needed to ensure optimal outcomes²⁷.

²³ <https://www.fao.org/3/ca4627en/ca4627en.pdf>

²⁴ <https://openknowledge.worldbank.org/server/api/core/bitstreams/201a5a36-bd1f-5562-9e97-3e427202d025/content>

²⁵ <https://www.fao.org/3/cc2510en/cc2510en.pdf>

²⁶ <https://docs.sepal.io/en/latest/modules/dwn/seplan.html>

²⁷ Cited in FLR regional programmatic framework

17. Despite the challenges, many countries have successfully restored significant areas of forest landscapes in the region²⁸. For example, the Asia-Pacific Economic Cooperation (APEC) Forest Cover Goal (to increase forest cover in APEC countries by 20 million ha by 2020) exceeded its 20 million ha target²⁹. This type of success demonstrates that realistic commitments are achievable if key constraints are addressed. In this respect, a regional programmatic framework, building on the RSAP, and an informal FLR network of implementing partners, as directed by the RSAP, could help in meeting country commitments by leveraging synergistic benefits from FLR, and improving its financing and coordination. It could also help in replication and scaling up of good practices and advancing joint FLR monitoring and reporting mechanisms.

IV. FAO'S ROLE IN ADVANCING FLR IN THE ASIA-PACIFIC REGION

18. FAO has been advancing FLR in the region both in the context of the UN Decade on Ecosystem Restoration, and within the framework of the RSAP.

19. In relation to the UN Decade on Ecosystem Restoration, a [global action plan](#) with 12 thematic challenges was launched in April 2023 for implementing the UN Decade Strategy³⁰. FAO co-leads several challenges including business, cities, climate, food, and human-nature relationships. Five task forces were established³¹ viz. (i) Monitoring, (ii) Best Practices, (iii) Finance, (iv) Science; and (v) Youth. FAO leads the Monitoring Task Force³², which supports the development of the Framework for Ecosystem Restoration Monitoring (FERM³³) for transparent monitoring and reporting on restoration in all ecosystems, including FLR throughout the Decade. The FERM registry³⁴ helps to harmonize and collect information on FLR projects and programmes and is developing reporting functionality for GEF projects. FAO is supporting the monitoring of KMGBF Target 2³⁵ and is providing guidance³⁶ and a methodology³⁷ for monitoring and reporting areas under restoration. The Forest and Landscape Restoration Mechanism (FLRM) of FAO also co-leads the Task Force on Best Practices³⁸, which focuses on capacity development and knowledge dissemination, and has developed [principles](#) and [standards of practice](#)³⁹ to guide ecosystem restoration throughout the Decade. A Capacity, Knowledge and Learning Action Plan⁴⁰ has been developed based on the results of the [global capacity needs assessment](#) and a platform to document and disseminate good practices for restoration is integrated into the FERM. Likewise, FAO and UNEP have launched calls for nominations of World Restoration Flagships to recognize the most promising examples of ecosystem restoration and inspire others to undertake or accelerate restoration at significant scale. Seventeen Flagships have been selected to date, of which five are in the Asia-Pacific region. FAO and UNEP have created a UN Decade's Multi-Partner Trust Fund to raise at least USD 100 million by 2030 to support the UN Decade Strategy and its World

²⁸ <https://www.fao.org/3/ca4627en/ca4627en.pdf>

²⁹ https://www.apec.org/docs/default-source/publications/2021/10/achieving-the-apec-2020-forest-cover-goal/221_sce_achieving-the-apec-2020-forest-cover-goal.pdf?sfvrsn=44da36eb_1

³⁰ [Action Plan for the UN Decade on Ecosystem Restoration, 2021-2030 Version April 2023 \(unep.org\)](#)

³¹ www.decadeonrestoration.org/task-forces

³² <https://www.fao.org/3/cb0424en/cb0424en.pdf>

³³ www.fao.org/national-forest-monitoring/ferm

³⁴ <https://ferm.fao.org/>

³⁵ [Target 2 of the Kunming Montreal Global Biodiversity Framework is to ensure restoration of at least 30 per cent of degraded ecosystems by 2030](#)

³⁶ https://www.fao.org/fileadmin/user_upload/faoweb/NFM/UNDecade_Target2_Monitoring_Mergeddocument.pdf

³⁷ [Metadata for Target 2, drafted by FAO: https://www.post-2020indicators.org/pdfs/457?type=headline](#)

³⁸ <https://www.fao.org/in-action/forest-landscape-restoration-mechanism/our-work/gl/tfbp/en/>

³⁹ The full version of the Standards of practice is scheduled to be released on the UN Decade website in the fourth quarter of 2023

⁴⁰ To be published online by the end of June 2023

Restoration Flagship projects. FAO has also developed a Value-Addition Impact Area Initiative and a Restoring Environment for Productive Agriculture, Investment and Resilience activity aimed to step up large-scale land restoration. FLR is also advanced in the context of various FAO strategies, including on [Science and Innovation](#), [Climate Change](#) and [Mainstreaming Biodiversity](#).

20. In relation to the RSAP, FAO support to advancing the six regional priorities has included:

- (i) National FLR plans and targets: Supporting development of national FLR plans in Nepal, Pakistan and Vanuatu. Se.plan was used for a regional restoration potential assessment and national level assessments are underway (in Nepal, Fiji and Thailand).
- (ii) Regional dialogue, learning, collaboration/coordinated action: Shaping of a regional FLR programmatic framework and network is underway to improve coordination and build synergies. From 10-20 October 2022, FLR Days were held in Bangkok and a Regional Dialogue on FLR and Sustainable Wood Supply was organized in Sydney. Capacity gap assessments, trainings (including on conflict resolution and using se.plan), a study tour, and webinars were conducted. A regional FLR [knowledge hub](#) was established and national hubs are being developed. A [video journal](#) was initiated and a [network](#) of public sector FLR practitioners in selected countries in Asia has been established.
- (iii) Building recognition for, and supporting, the use of various technical, social and institutional approaches: FERM was developed and used to collect and report geospatial and tabular data on areas under restoration as part of reporting progress on the UN Decade on Ecosystem Restoration and the KMGBF Target 2. The Economics of Ecosystem Restoration ([TEER](#)) initiative was developed to highlight the costs and benefits of FLR. Promising FLR cases in the region were identified and analyzed based on the Restoration Decade principles.
- (iv) Facilitating and supporting the mobilization of financing: National FLR Investment Roundtables are being organized (in Bangladesh, Pakistan and Timor-Leste). Resources were successfully directed to countries from the GEF 8 (e.g. Nepal and Viet Nam), GCF (e.g. Nepal, Fiji) and FAO (Bangladesh, Lao PDR, Nepal, Pakistan, Papua New Guinea and Timor-Leste). The FLRM has supported projects in five countries (Cambodia, Fiji, Philippines, Pakistan, and Vanuatu). Capacity development has been supported to access finance, especially in developing bankable project proposals. A regional network of FLR partners is being developed to enhance collaboration in mobilizing finance, build on complementarities and maximize synergies.
- (v) Encouraging private sector participation and investment in FLR: A global roundtable organized in October 2022 and attended by many private sector representatives focused on enhancing the forest sector's engagement in ecosystem restoration⁴¹. Potential private sector FLR investors participated in the FLR Days in Bangkok in October 2022 and in national roundtables in three countries in 2023. A Forests Dialogue also focusing on the engagement of the private forest sector to support restoration is planned for late 2023 in

⁴¹ <https://www.fao.org/forestry/industries/100346/en/>

Southeast Asia. The [Food Systems, Land Use and Restoration \(FOLUR\) Impact Program](#), in which FAO is a collaborator, also actively promotes private sector engagement.

- (vi) Supporting community-level action on FLR: Civil-society and community-led projects were showcased during national roundtables. Consultations with local communities helped strengthen their roles in formulating national FLR action plans. Promising projects with community-level actions were compiled for dissemination. FLR is being carried out using adaptive strategies that integrate indigenous and local knowledge into planning and aim to reduce the vulnerability of local people by promoting diversification of livelihoods, products and markets (e.g. in Vanuatu).