

Appendix 1.

Practical tasks manager

Task 1a. Define the system boundary for W-FLR and key drivers of degradation

In Task 1a, please define the system boundary for the W-FLR intervention, based on the information of landscapes and system boundaries provided above. Optional complementary information on the system boundary can include region, population, population density, surface and volume. Try to briefly describe the hydrology of the area. Enumerate the key drivers of landscape and forest degradation (see Figure 6). Drivers can be categorised in their respective sectors, e.g. forest, landscape, water resources. Finally, identify the potential barriers to restoration and enabling opportunities for restoration. Fill in your answers in "Table 3. Task: System boundary" below.

Table 3. Task: System boundary

Identify the W-FLR system boundary and key drivers of degradation	
System boundary	
Ecological and hydrological description	
Key drivers of forest and landscape degradation	
Potential barriers of forest and landscape restoration	
Enabling opportunities for forest and landscape restoration	

Task 1b. Identify water ecosystem services at risk within the system boundary

In this task you will identify water ecosystem services at risk within the system boundary. To this end, as ecosystem processes are interlocked in the ecosystem services, you will focus on ecosystem processes which will, ultimately, reflect the status of ecosystem services.

The aim of the task is to identify which ecosystem processes are at risk due to ecosystem degradation (see Table 2 or Table 4. Task: Water ecosystem services table). Mark the ecosystem processes at risk:

- Black: Ecosystem processes at risk (without considering the degree of risk)

An optional but encouraged step is to assess the current status of the ecosystem processes, based on your knowledge, to be able to prioritize actions for restoration. This assessment is qualitative (no measurement required) and can be adjusted during the application of the tool. Use the following colour code to mark *the degree of risk* to the ecosystem processes as follows in the table below:

- Green: Low risk
- Orange: Intermediate risk
- Red: High risk

Table 4. Task: Water ecosystem services summary

Ecosystem services	Ecosystem processes	Task 1b: Current status of water ES	Task 2b: Addressed in relevant plans and policies
Supporting ecosystem services			
Supporting hydrological cycle	Transpiration and evapotranspiration.		
	Canopy interception.		
	Hydraulic redistribution, moving water from moist to dry soil through plant roots.		
	Plants play a part in hydrological cycles by controlling water runoff.		
	Release of volatile organic compounds contributing to: <ul style="list-style-type: none"> • intensification of rainfall and an overall cooling effect by blocking incoming solar energy. • secondary organic aerosol condensing atmospheric moisture. 		
	Trees recharge atmospheric moisture and influence cloud formation.		
	Vegetation helps to regulate climate by cycling vast amounts of water and maintaining the gaseous composition of the atmosphere.		

	Terrestrial moisture recycling.		
	Precipitation recycling.		
	The biotic pump theory – precipitation in continental interiors from atmospheric circulation driven and maintained by large, continuous areas of forest starting from the coastline.		
	Arial rivers – cross-continental transport of atmospheric moisture affecting downwind water availability.		
Supporting nutrient cycling	Forest and vegetation support biogeochemical (nutrient) cycling in four components: the atmosphere; the pool of available nutrients in the soil; organic materials (living and dead); minerals in soils and rocks.		
Supporting soil formation/ quality	Tree roots and soil organic matter from litter inputs improve soil structure, enhance aggregate stability and promote faunal activity.		
	Organic matter in soil affects saturated hydraulic conductivity by slowing down water movement.		
Supporting biodiversity	Hydrology as a driver of biodiversity, supporting primary production, carrying capacity and niche formation.		
	Water as a connector linking organisms and supporting pollen and propagule dispersal.		
	Habitats that safeguard fisheries and biological diversity.		
Provisioning ecosystem services			
Provision of freshwater	Tree density influence groundwater recharge.		
	Tree species influence water yield.		
	Tree age influence water yield.		
	Nutritional water productivity, i.e., 'crop per unit volume of water'.		
Provision of food and medicines	Ecosystems provide the conditions for growing and harvesting food and extracting medicines.		
Provision of wood, fibre and fuel	Ecosystems provide raw materials for construction, production and fuel including wood, biofuels and plant oils.		
Regulating ecosystem services			
Regulate water flow	Water retention capacity.		

	Stream-flow regulation.		
	Increased infiltration from tree roots and enhanced levels of soil organic matter.		
	Increased infiltration capacity reduces soil evaporation losses.		
	Fog, mist and cloud water capture, i.e., condensation on plant surfaces.		
Nature-based water purification and wastewater treatment	Trees filter precipitation and reduce sedimentation into water courses.		
	Reduce pollutants entering water courses.		
	Natural and constructed wetlands remove pollutants.		
	Fast-growing tree species are planted to filter wastewater.		
Climate regulation	Carbon sequestration in soil.		
	Carbon sequestration in above ground and below ground vegetation.		
	Regulating local temperature through evapotranspiration.		
Cultural ecosystem services			
Heritage value and cultural identity	Landscape-related “memories” from past cultural ties, mainly expressed through characteristics within cultural landscapes.		
Spiritual experiences	Holy or spiritual places important to spiritual or ritual identity, e.g. River Ganges in India, sacred forest groves, sacred plants or animals.		
Wellness, recreation and (eco)tourism	Pleasure, comfort, discovery and socialisation that takes place in leisure in nature and observing natural elements.		
Education and research	Climate, topography, water cycle or soil and biota used for education and research.		
Aesthetic appreciation and inspiration	Visual perception of ecosystems and landscape.		
	Lakes and rivers represented in songs.		
Comments (Task 2b):			

Task 2a. Identify potential entry points for W-FLR in national/subnational policies and plans

Map what entry points (objectives/ measures/ actions/ project and programmes; water ecosystem service and ecosystem processes; responsible ministries/agencies) related to natural water resources and associated sectors are mentioned in existing plans and policies which may have impacts on the W-FLR intervention.

We suggest that you follow these steps:

1. Review the table of contents in the documents (to see which sections are relevant)
2. When reviewing, use the concepts addressed in Table 2 (see also Table 4. Task: Water ecosystem services table" to collect objectives/ measures/ actions/ projects/ programs, water ecosystem services/ processes and responsible ministries/ agencies at once.

Note that ecosystem processes might not be mentioned as detailed in the national documents, as they are in Table 2 and Table 4, or they may be addressed using a different type of wording. Therefore, remain flexible when you map water ecosystem services in the documents, but be careful to not add personal interpretations.

3. Use search words to be more efficient in the review process (see a non-exhaustive list below).

Examples of search words: water, hydro(logy), flood, drought, IWRM, water security, forest(s/ry), restoration, ecosystem services, specific words to your system boundary, i.e., river basin, watershed etc..., land degradation, plantation, Forest and Landscape restoration, FLR, agroforestry.

Type of policy or plan	Comments									
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Task 2b. Extract entry points for W-FLR relevant policies and plans

Task 2b is based on your findings in Task 1b, where water ecosystem services at risk within the system boundary were defined, and Task 2a, where you identified support for water ecosystem services in national and sub-national policies and plans.

The objective of this task is to combine results from Task 1b and Task 2a to identify, the type and status of water ecosystem services that are mentioned in the different policies and plans collected in Task 2a.

Please go back to "Table 4. Task: Water ecosystem services summary", that you used for Task 1b above and fill in the column furthest to the right for Task 2b.

Task 3a. Identify stakeholders relevant to the W-FLR initiative.

In this task you will map relevant sectors and stakeholders by making a list that covers all stakeholders relevant to your W-FLR intervention. Include actors that have influence on and/or are interested in the restoration, but also stakeholders that are affected by it. "Table 6. Task: Stakeholders" below is not an exhaustive list, and it may be that there are other additional stakeholders that should be involved.

Table 6. Task: Stakeholders

Stakeholder sectors:	Specify (e.g. name of organisation, area of work, contact information):
National level	
National ministries and regulatory agencies (e.g., Forestry, Agriculture, Environment, Climate, Energy, Water – see Task 3)	
Non-Governmental Organisations (NGOs)	
Universities and research institutes	
Certification schemes	
Other:	
Regional/sub-national level	
Basin organisations	
Regional bureaus/Councils	
Other:	
Local/district level	
District authorities and their technical agencies (e.g. agricultural extension)	

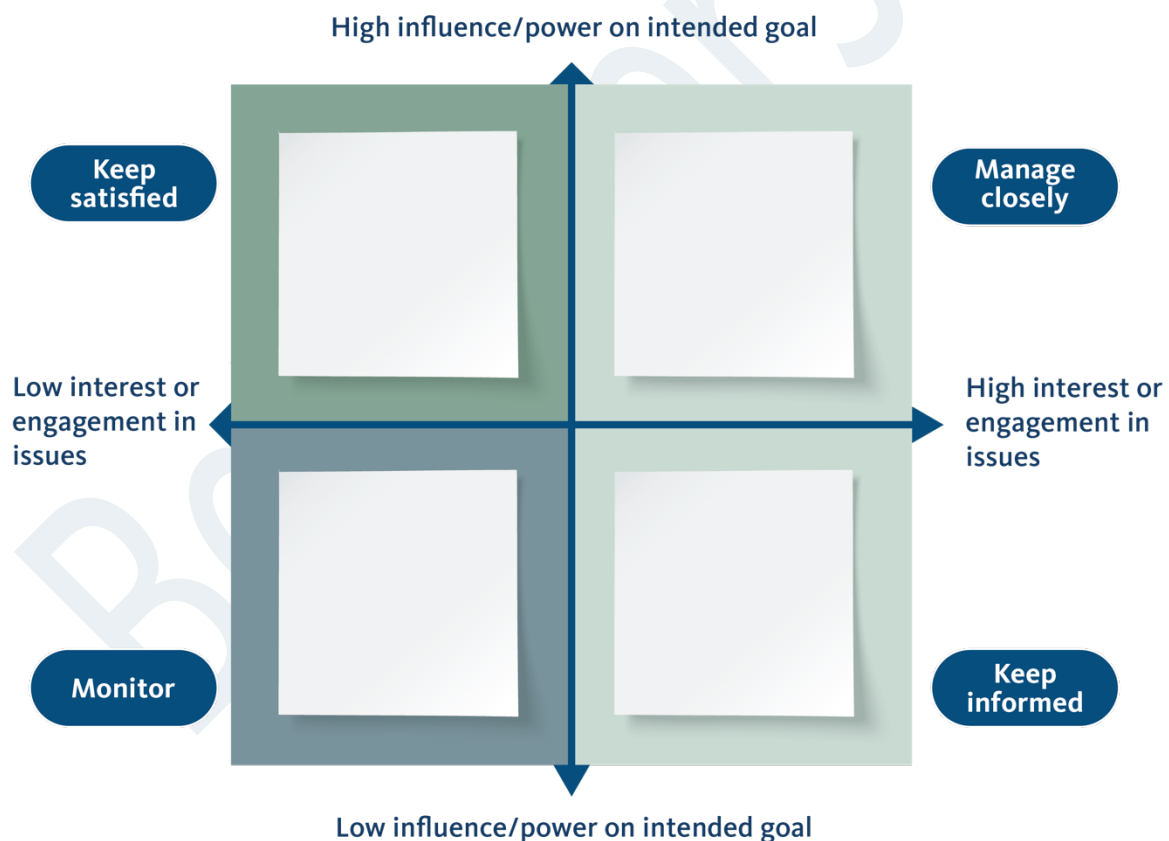
Local communities	
Women associations	
Youth associations	
Indigenous groups	
Water user associations	
Forest/smallholder associations	
Farmer cooperatives	
Locally active NGO's	
Other	
Private sector	
Value chain actors (Producers, processors, marketers, etc.)	
Local plantation companies	
Other:	

Task 3b: Undertake a stakeholder mapping

Use Figure 10. ‘Task: Stakeholder mapping’ below, which is based on the RAPID Outcome Mapping Approach (ROMA), to classify the actors that are relevant in your W-FLR initiative according to interest and influence. By knowing who has the **influence** to make change and who has the **interest** to make change you can identify how to engage with the different categories of actors. Make sure to involve the stakeholders that are affected by the W-FLR initiative, identified in Task 3a.

- Upper left box: Actors with **high influence/power but low interest** are crucial for the change process to happen and should be targeted to develop their interest or capacity.
- Upper right box: Actors with **high interest and high influence/power** can be teamed up with in partnerships to work towards the intended goal.
- Lower right box: Actors with **high interest but low influence** can be used as influencers to raise the interest among actors with low interest and high influence.
- Lower left box: Actors with **low interest and low influence/power** can often be ignored. However, keep monitoring them to notice any potential changes in future interest or influence.

Figure 10. Task: Stakeholder mapping



Task 4a: Identify current state and priority actions for your W-FLR intervention

Together with workshop participants, identify priority actions for W-FLR related to 1) policy mainstreaming, 2) capacity development, and/ or 3) implementation, to gain an overview of the readiness for W-FLR within your system boundary. The task should be based on the results and facts compiled from Module 1-3, including water ecosystem services at risk and the aim of the project, as well as participants experiences, knowledge and suggestions. Fill in the columns for mainstreaming, capacity development and implementation in "Table 7. Task: Actions and indicators" below.

Tips:

Depending on the results from the preparatory phase, priority actions may not necessarily integrate within the three scales but rather focus on one in particular.

Table 7. Task: Actions and indicators

Task 4a: Priority actions	Mainstreaming of W-FLR	Capacity development in W-FLR	Implementation of W-FLR	Task 5a: Indicators	Task 5a: Responsible entity
Action 1					
Action 2					
Action 3					
Action 4					

Task 5a. Identify indicators for monitoring and evaluation

Based on Task 4a, identify measurable indicators for your priority actions related to policy mainstreaming, capacity development, and/or implementation using one or several of the M&E tools and approaches discussed above.

The FL-WES tool, mentioned above, can assist the user in selecting the most relevant forest-water indicators and monitoring methods. Log in to the FL-WES tool and complete the Guidance survey. Based on the results in the survey, it will be possible to identify relevant indicators and variables that can be used to monitor the priority actions in Task 4 above. There may exist other tools that are more relevant for a specific W-FLR intervention.

Please go back to "Table 7. Task: Actions and indicators", that you used for Task 4a above and fill in the column furthest to the right for Task 5a.

Task 6a: Summarise the results from Task 1-5 in a short report

The W-FLR report will have the following headings:

- 1. Water ecosystem services to consider and as well as their current integration into policy and practice**

- 2. Entry points for how water ecosystem services can be integrated into relevant policies and plans**

- 3. Key sectors and stakeholders to involve and influence**

- 4. Priority actions related to policy mainstreaming, capacity development and implementation**

- 5. Indicators for monitoring and evaluation**