

# Country spotlight

## Moldova

Advancing nature-positive investments: Progress and challenges ahead in the EU's Eastern Neighborhood.

Balancing self-financing and the funding of ecosystem services in the context of sustainable forestry in Moldova

EU4Environment Regional Workshop

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Oak forest, National Resort Codri



## **Part 1: Baseline assessment and identification of country investment and financing opportunities**

ES Assessment | Financing Sources | Targets |  
Financing Needs | Instruments & Roadmap

**Part 2: Unlocking financing to bridge the funding gap in the forest sector and support ecosystem services.**

**Q&A**



- **Part 1: Baseline assessment and identification of country investment and financing opportunities.**
- Part 2: Unlocking financing to bridge the funding gap in the forest sector and support ecosystem services.

# Ecosystem Assessment

## Land Cover & Ecosystem

unique  
land use



Ecosystem	Area (cadaster)	Area (satellite data)
Forest	370,000–386,000 ha	386,000 ha
Grassland	310,000–350,000 ha	191,000 ha
Wetland	94,705 ha*	-

Source: Brown et al., 2022; Parente, Mesquita, et al., 2024

\*Note on wetland area: functional coverage of wetland ecosystems only 10–20% of nominated area.

### Legend

Transnistria	Inland wetlands
Arable land	Open spaces with little or no vegetation
Artificial, non-agricultural vegetated areas	Pastures
Forests	Permanent crops
Heterogeneous agricultural areas	Scrub and/or herbaceous areas
Inland waters	Urban fabric



Source: Agency of Geodesy, Cartography and Cadastre of Moldova (2023)

# Ecosystem Assessment

## Forests



Estimated value of forest ecosystem services:



Timber and Fuelwood – USD 36.8M per year



Non timber forest products – USD 0.4M per year



Recreation – USD 7.9M per year



Water services – USD 0.65M per year



Carbon sequestration – USD ca 2,740M in total

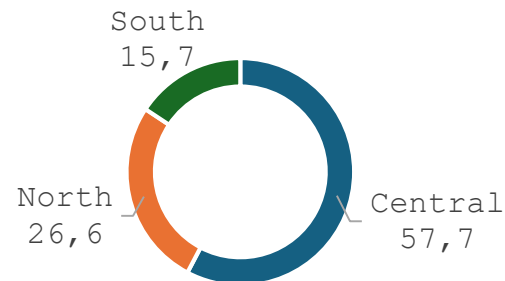
Sources:

Timber and Fuelwood: Moldsilva, 2023; NTFPs: Talpa et al., 2022; Carbon sequestration: InVEST model (2024); VCM price range: Ecosystem Marketplace, 2024; Water flow regulation: National Water Management Reports; Tourism: Tourism Agency Reports, National Economic Data.

### Forest Ownership

Moldsilva (state)	79.9%
Local Public Authorities (LPAs)	13.8%
Private	0.7%

### Forest area distribution



# Ecosystem Assessment

## Ecosystem Service Values



- **Total growing stock:** Approx. 45.4 million m<sup>3</sup>
- **Average annual harvest 2018–2023:** 544,000 m<sup>3</sup>; direct forest productivity: USD 36.8 million/year



# Financing Sources

## Current Financing Landscape (Public & Domestic)



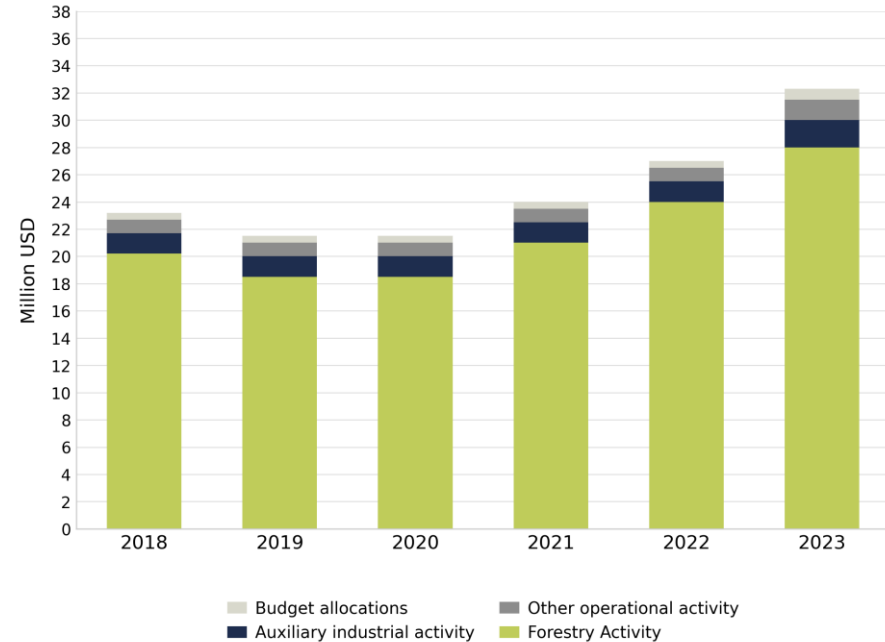
NRM financing sector	Most recent year
<b>Public budgets</b>	
Central budget (expenses on environm. protection)	USD 18.3 million (2022)
Local budgets (expenses on environm. Protection)	USD 2.4 million (2022)
<b>Total Local and Central budget</b>	<b>USD 20.7 million (2022)</b>
<b>ODA</b>	
Targeted programs with focus on forests	USD 216 million (2024)
Inland water bodies and wetlands focus	USD 23.7 million (2024)
Grasslands related projects	577,000 (2016)
Other NRM projects and programs	44.6 million (2025)
<b>General NRM budget support</b>	<b>USD 288.5 million (2002-2030)</b>
<b>Investments and expenditures of domestic enterprises in NRM</b>	
Forests	
State enterprises	Investments: USD 9 million (2023) Expenditures: USD 32 million (2023)
Others	<USD 1 million

# Financing Sources

## Current Financing Landscape (Public & Domestic)



- Expenses are financed predominantly from current revenues
- Financing mechanism remains heavily dependent on timber-sale revenues



# Financing Sources

## Current Financing Landscape (Public & Domestic)



- **Public environmental expenditure 2022:** USD 20.7 million — well below sector need
- Moldsilva self-financing: Timber and firewood revenues = 87–97% of operating income; state budget covers only 2–4%
- **Total annual expenditures of domestic NRM enterprises:** Approx. USD 37 million in 2023; SFEs account for 94%
- **SFE profits 2018–2023:** USD 0.6–2.6 million/year; net loss in 2020 (COVID-19); 75% of SFEs operate at a loss
- **National Environmental Fund (NEF):** Primary domestic vehicle; strategic focus and MRV require strengthening

# Targets

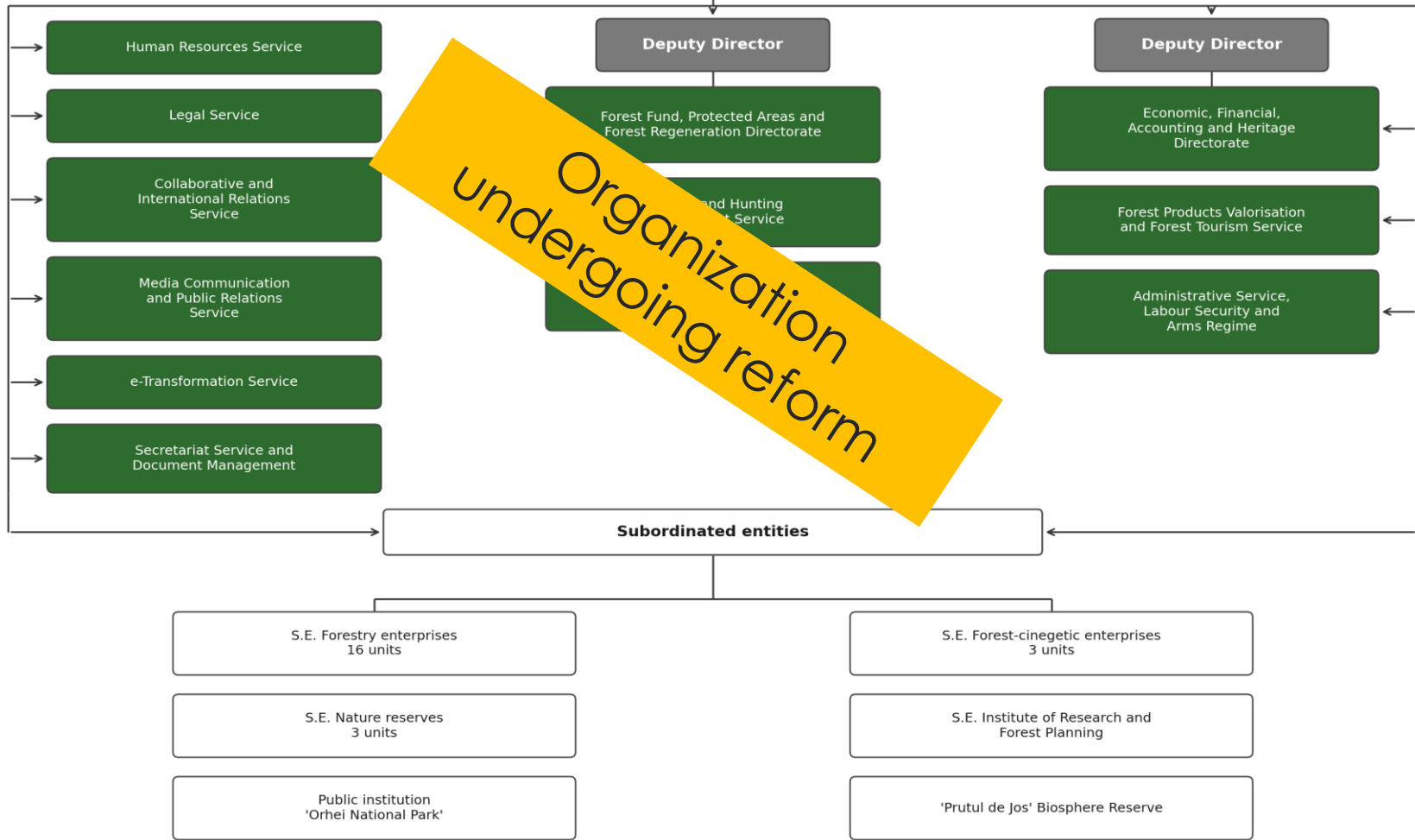
## National & EU-Aligned NRM Targets



- **Forest rehabilitation/reforestation target:** 110,000 ha (0 ha achieved)
- **Agricultural windbreaks:** 10,000 ha (2023–2032)
- **Wetland expansion target:** 6,500 ha by 2030

	Reviewed documents containing targets (Moldova)	# of Targets	Biomes
Rio Conventions	<b>UNCCD</b> Land Degradation Neutrality National Report (2018)	3	Forests (1) Rivers and streams (1) Not specified (1)
	<b>UNFCCC</b> Nationally Determined Contribution (2022)	2	Not specified (2)
	<b>UNCBD</b> NBSAP draft (2024)	8	Not specified (3) Wetlands (4) Grasslands (1)
National	<b>PNERP</b> National Program for Expansion and Rehabilitation of Forests (2023–2032)	12	Forests (10) Rivers and streams (1) Not specified (1)

### Organigramm Moldsilva



# Why Reform Is Needed — Structural Weaknesses



## 01 Low Forest Cover & Fragmented Resources

Only 0.075 ha per inhabitant — among the lowest in Europe. Resources are dispersed and unevenly distributed, increasing vulnerability to drought, floods, landslides and soil erosion.

## 02 Degraded Stands, Low Timber Quality

About 60 % of forests originate from coppice (vegetative) regeneration, reducing resilience. Working timber is only 8–10 % of harvest volume; 85–87 % is firewood.

## 03 Self-Financing Model Under Stress

After independence, state support was cut and enterprises were pushed to self-finance. Result: annual deficits, deferred silvicultural works and inability to reproduce forest resources.

## 04 No Specialisation or Equal Opportunity

Enterprises lack specialisation. Financial inequalities across districts create unequal development opportunities with no central redistribution mechanism.



Grassland afforestation with black locust, Codri region.

Target - forest area expansion	Unitary costs (USD/ha)	Total costs 2026-2030 (million USD)
Establishment/rehabilitation cost	1,709	188
Operational management	53 (annually)	23
Administrative cost	20 (annually)	9
<b>Total</b>		<b>220</b>

# Financing Needs

## Why the Current Model Falls Short



- Production of processed wood products in the SFEs is at a very low level, ties up management resources, and generates only minimal revenue
- This can be handled by the private sector, while Moldsilva and its forestry operations focus on their core business: forest management

Product	Unit	2023	2024	2025
Wood processing, total	1,000 m <sup>3</sup>	10,14	8,27	6,96
Parquet elements	1,000 m <sup>3</sup>	1,27	-	0,4
Semi-fin. sawn products	m <sup>3</sup>	901	441	436
Sawn timber	1,000 m <sup>3</sup>	3,5	2,8	2,4
Fence pickets	1,000 m <sup>3</sup>	0,05	0,25	0,27
Crates	1,000 units	-	-	-
Charcoal	tonnes	26,4	23,3	8,7
Vine stakes	1,000 units	166	187	153
Pallets	1,000 units	166	187	181

# Financing Needs

## Quantifying the Financing Gap



- Annual forest and protected area financing needs: USD 28.5 million (2026) → USD 37.2 million (2032); Total 2026–2032: USD 232 million for forests
- Wetland restoration needs: Up to USD 26 million by 2030
- Combined gap: Forest + wetland = **Approx. USD 258 million**
- Current Moldsilva enterprise profits (USD 0.6–2.6 million/year) = less than 10% need/a
- Public environmental expenditure (USD 20.7 million/2022) falls short
- **Key message:** Self-financing cannot close the gap — but it must be optimized first



## *Objectives, Tasks and Vision*

### **1 Sufficient Forests**

Adequate forest resources to meet the economic, ecological and social needs of the country and its inhabitants.

### **2 Competitive Sector**

A strong, open and accessible forestry sector capable of meeting market and societal demands.

### **3 Effective State Role**

Operative, prompt and sufficient governance — clear authority, no conflict of interest.

### **4 Professional Foresters**

Skilled, well-paid, respected and motivated forest professionals at every level.

# Objectives of Institutional Reform



**General Goal:** Adapt the forestry sector to new economic realities — efficient, sustainable forest management that strengthens rural development and improves living conditions.

**1** Clear separation of management responsibilities within the forestry sector

**2** Strengthen the regulatory capacity of the central forestry authority and implement a unified conservation and development policy

**3** Improve efficiency of state-owned forest management; strengthen decision-making autonomy at local level

**4** Ensure sustainable management of non-state forest and forest-vegetation lands

**5** Adapt forestry services and products to the market economy; enable business sector involvement

**6** Strengthen professional capacity through education, training and coherent career management

# Key Reform Tasks — How We Get There



## Governance & Decentralisation

Deconcentrate administration; delegate decisions to district and local level

Eliminate direct links between regulatory and operational bodies to prevent conflicts of interest

Ensure equal, open access to forest products for all market actors

## Sustainable Forest Management

Harmonise legislation; apply forest policy instruments consistently

Support national forest inventory and management information systems

Expand community and private forestry sectors

## Economic Efficiency & Transparency

Increase labour productivity and investment efficiency in the sector

Optimise wood processing capacity to improve product quality

Reduce corruption and limit monopolistic tendencies in timber supply

## People, Skills & Communities

Rehabilitate the professional image and social status of foresters

Create jobs in rural areas; involve communities in forest management

Develop human resources through training and career management systems

# Financing Instruments & Roadmap

## Instruments Available to Moldova



**Key message:** Building blocks exist — but critical legal, MRV and institutional gaps must be closed first

Instrument	Relevance	Readiness
Grants / ODA	High	Active — EIB, GEF, ADA
Timber self-financing	High	Exists but under-optimised
PES (watershed, erosion)	High	Low — no legal framework yet
Carbon finance (VCM/REDD+)	Medium-High	Low — no registry or MRV
Blended finance / guarantees	Medium	Low — PPP rules incomplete
Green bonds	Medium	Low — sovereign issuance not yet tested
Biodiversity credits/offsets	Low-Medium	Very low — no safeguard rules

# Financing Instruments & Roadmap

## Road Map



	Phase 1 (0–18 months)	Phase 2 (18–36 months)	Phase 3 (36–60 months)
<b>Forest governance</b>	Complete Forest Code secondary legislation; consolidate SFEs into single national entity; separate commercial & public-interest functions; elaborate forest policies base on SFM indicators.	Launch NFI (2026); introduce performance indicators; adopt multi-annual programme budgeting	Fully operational national forest entity with standardized planning and MRV
<b>Self-financing</b>	Audit timber revenue capture; improve wood logging & sales; consolidate processing facilities	Pursue FSC/PEFC certification; optimize pricing; reinvest profits into regeneration	Timber revenues fund core operations; diversification layers added
<b>Ecosystem services finance</b>	Expand NEF mandate to include ES; pilot watershed PES with water utilities	Launch carbon pilot (VCM); first green bond feasibility; scale PES contracts	Carbon/biodiversity credits market-ready; green bonds issued; blended finance deployed
<b>Wetlands</b>	Identify priority restoration sites; secure co-financing (GEF/ADA)	Restore pilot wetland areas; develop PES for water regulation	Scale wetland PES; link to EU Nature Restoration Regulation

## Part 2: Country-level analysis - Moldova



- Part 1: Baseline assessment and identification of country investment and financing opportunities.
- **Part 2: Unlocking financing to bridge the funding gap in the forest sector and support ecosystem services.**



## **Diagnosis**

1. The financing gap is structural — not only quantitative

## **Instrument logic**

2. Unlocking principle: match instruments to functions and readiness

## **Preconditions**

3. Making ecosystem services financeable

## **International finance and scaling**

4. Mobilize at scale: Scaling investments by international finance

# Unlocking Financing



## 1. The financing gap: targets exceed current capacity

Constraint	Detail	Gap
Self-financing model	87–97% of Moldsilva revenues from timber/fuelwood	Contradicts ecological mandate; 75% of SFEs operate at a loss
Illegal logging	USD 22–22.6 million/year in lost revenues	= 94% of legal revenues
Performance management	No indicators — violation of Gov. Decision No. 618/2007	Budgets balanced reactively
Ecosystem services	Not measured → not paid for	Water regulation estimated USD 650,000/year — "substantial underestimate"
Legal framework	Forest Code No. 69/2024 passed — secondary legislation incomplete	PES, PPP, MRV rules absent
LPA forest land	13.8% of forest managed by LPAs	Zero state budget support



## 2. Unlocking principle: match instruments to functions and readiness

Moldova has access to a broad spectrum of instruments: grants, results-based payments, PES, carbon finance, biodiversity offsets, blended finance, green bonds and revolving funds.

- Readiness is only partial: quantified targets, ODA commitments and the National Bank's Sustainable Finance Roadmap exist, but legal, MRV, registry and pipeline conditions remain incomplete.
- Public finance should fund public functions: governance reform, protection, monitoring, MRV, LPA support and ecosystem services with diffuse beneficiaries.
- Self-financing should be used where productive forest management generates legitimate revenues; PES and results-based mechanisms should be used where services can be defined, contracted, measured and maintained.



## 3. Making ecosystem services financeable

- Moldova's financing system currently captures mainly timber and fuelwood value, while regulating and cultural services remain largely invisible in national accounts .
- Forests and wetlands provide carbon sequestration, water regulation, erosion control, biodiversity, flood mitigation and rural resilience benefits, but these services are systematically undervalued .
- Services that are not measured cannot be paid for; Moldova therefore needs a framework for defining, measuring and attributing ecosystem services .
- Developing a comprehensive **Ecosystem Assets Monetary Account** is a practical prerequisite for designing financing instruments and building the investment case

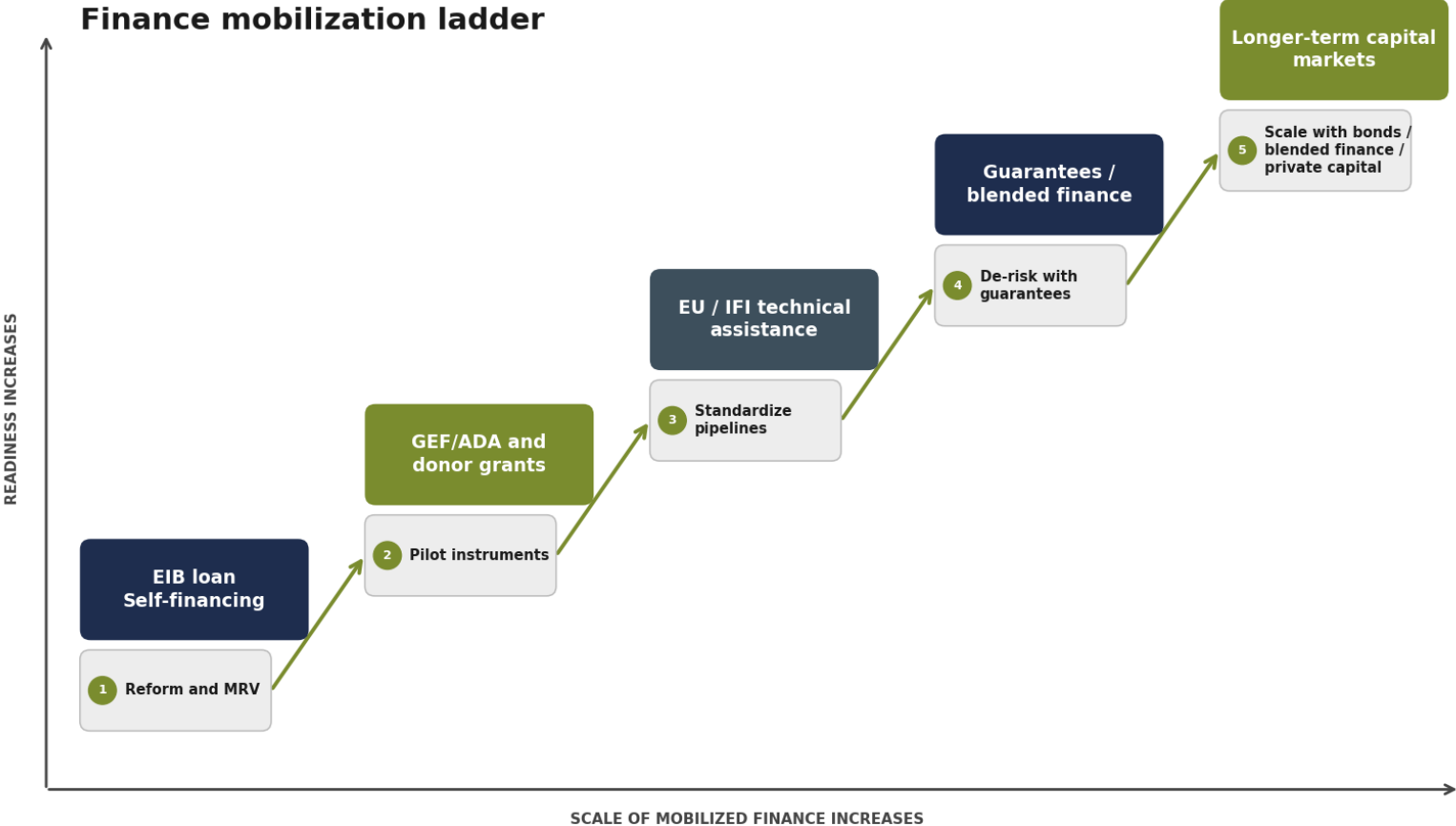


## 4. Mobilize at scale: Scaling investments by international finance

- The **Moldova Forest Development Programme** is the anchor investment: approx. **USD 216 million / EUR 200 million** from EIB for governance, institutional capacity, infrastructure, afforestation and restoration.
- The programme includes afforestation and restoration of **63,000 ha of degraded land**, alongside sustainable forest management and technical assistance.
- ODA for NRM totals approx. **USD 288.5 million**, but forestry ODA is highly concentrated; the EIB loan alone represents around **75% of all NRM ODA since 2009**.
- International finance should not substitute domestic reform; it should accelerate readiness, build project pipelines, strengthen MRV and crowd in domestic and private finance.

# Unlocking Financing

From readiness to scale: how international finance unlocks



# Balancing self-financing and the funding of ecosystem services

**Self-financing covers operations — not transformation**

**Enforcement is the highest-return short-term lever**

**ES are the next financing layer — but need a legal basis**

**Investment-scale targets require external finance**



# Thank you

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Raut River in the Orheiul Vechi Protected Area