



The Regional Environmental Centre for Central Asia
Региональный Экологический Центр Центральной
Азии



Mechanisms for the application of Reward for Ecosystem Services (RES) in Kyrgyzstan's protected areas

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Main ecosystem services provided by Kyrgyzstan protected areas

Ecosystem Services	Scale	
	Local	Global
Biodiversity	X	X
Landscape/recreation opportunities	X	X
Water provision	X	X
Timber and non-timber forest resources provision	X	
Grazing resources	X	
Carbon sequestration		X
Cultural heritage	X	X

ES are not captured in economic terms and are often provided for free or for a very low price.

ES beneficiaries do not contribute to the management of protected areas.

Incomes from Ecosystem Services provision

Example of the Падышатынский госзаповедник

Source of income	ES	Scale	
		Local	Global
Pastures rental	Grazing resources	X	
Firewood collection	Timber and non-timber forest resources provision	X	
Hayfields rental	Grazing resources	X	
Fee from bee keepers	Timber and non-timber forest resources provision	X	
Entrance fee	Landscape/recreation opportunities	X	X
Fines	-		
Sale of seedlings	-		
State Fund for Environmental Protection	-		

Clean water provision? Biodiversity? Carbon sequestration?



Reduction of Ecosystem Services provision

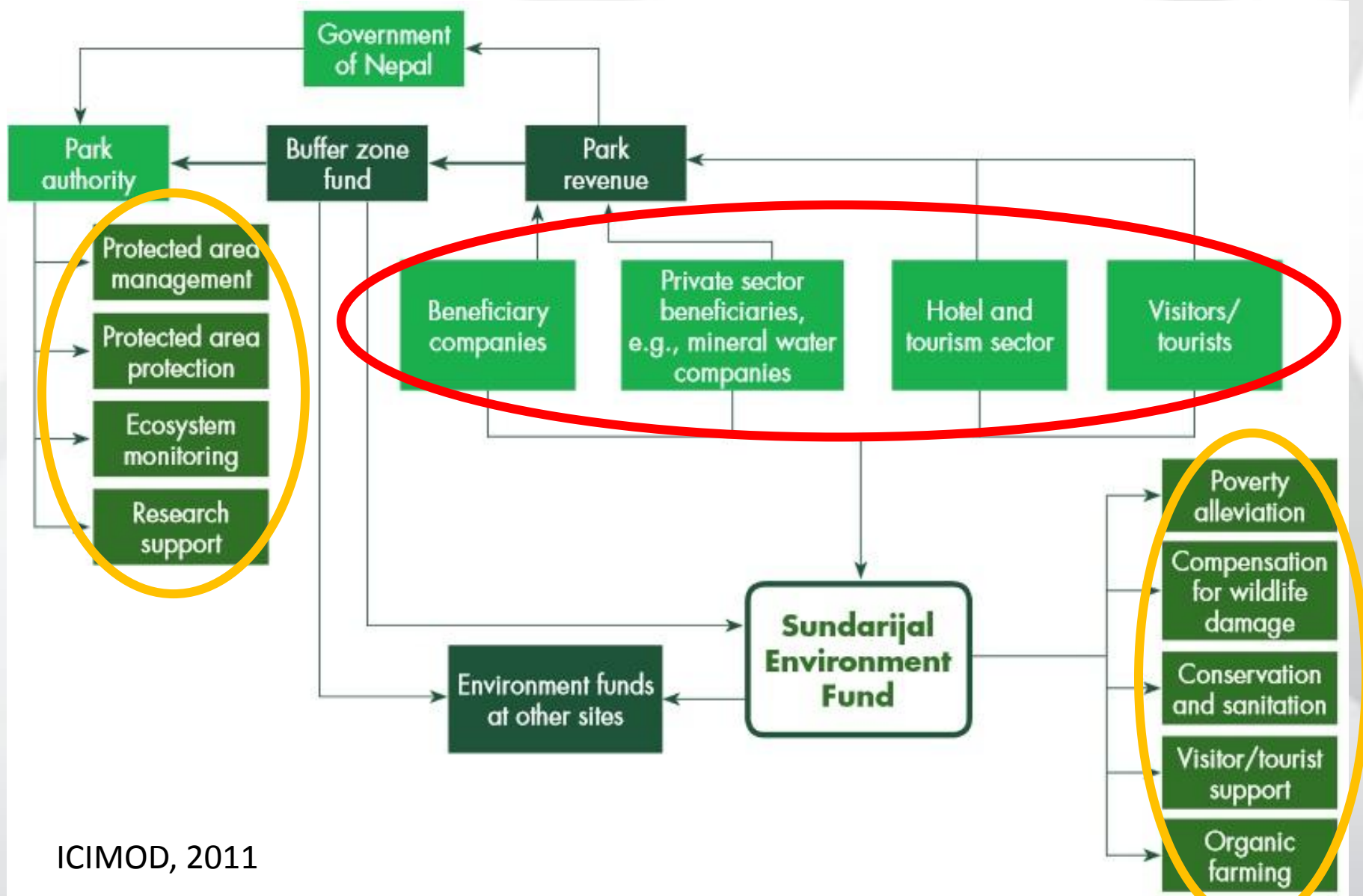
- At the PA management level → Lack of resources to fulfill conservation objectives and mitigate ecosystem degradation
- At the local communities level → Rural areas with limited livelihood opportunities – high reliance on PA resources

Both stakeholders should be considered in ecosystem conservation programs and reward mechanisms






How to reward Protected Areas for the
Ecosystem Services they provide?

Concept of a PES scheme for Sundarrijal catchment in Shivapuri Nagarjun National Park, Nepal



Bac Kan National Park, Vietnam

Legend :

- - ≤ 10% = management fee
- - ≤ 5% = contingency fund
- 100% = total left from buyers' payment
-  = contracted relation
-  = uncontracted relation
-  = future expected relation

**Na Hang
hydropower plant**

VND 20/Kwh

**Ta Leng
hydropower
plant**

VND 20/Kwh

- Ba Be National Park
- Boat cooperative
- Households with homestay businesses in Bo Lu and Pac Ngoi villages

1-2% of revenues

**National
FPF
- 0.5%**

**Bac Kan
FPF
- ≤ 10%
- ≤ 5%**

Indirect Payment

Considered as 100%

- Ba Be National Park - ≤ 10%
- Ba Be Forest Enterprise - ≤ 10%
- Forest Management Board - ≤ 10%
- Commune People's Committee - ≤ 10%
- Watershed management boards - ≤ 10%

≥ 90 %

- Whole Village
- Community
- Households
- Individuals
- Group of Households

Direct Payment

≥ 85 %

- Households
- Individuals





Rewarding PA for Ecosystem Services (RES) provision, lessons learnt

1 – PA should be rewarded for the main ES it provides (most obvious and quantifiable services)

2 – Communities living within or close to the protected area should be rewarded:

- For the ES they provide (in the case they have sustainable land use systems)
- Reduced economic opportunities due to the PA regulations

Opportunities for developing RES in Kyrgyzstan's PA (1)

National/sub-national scale

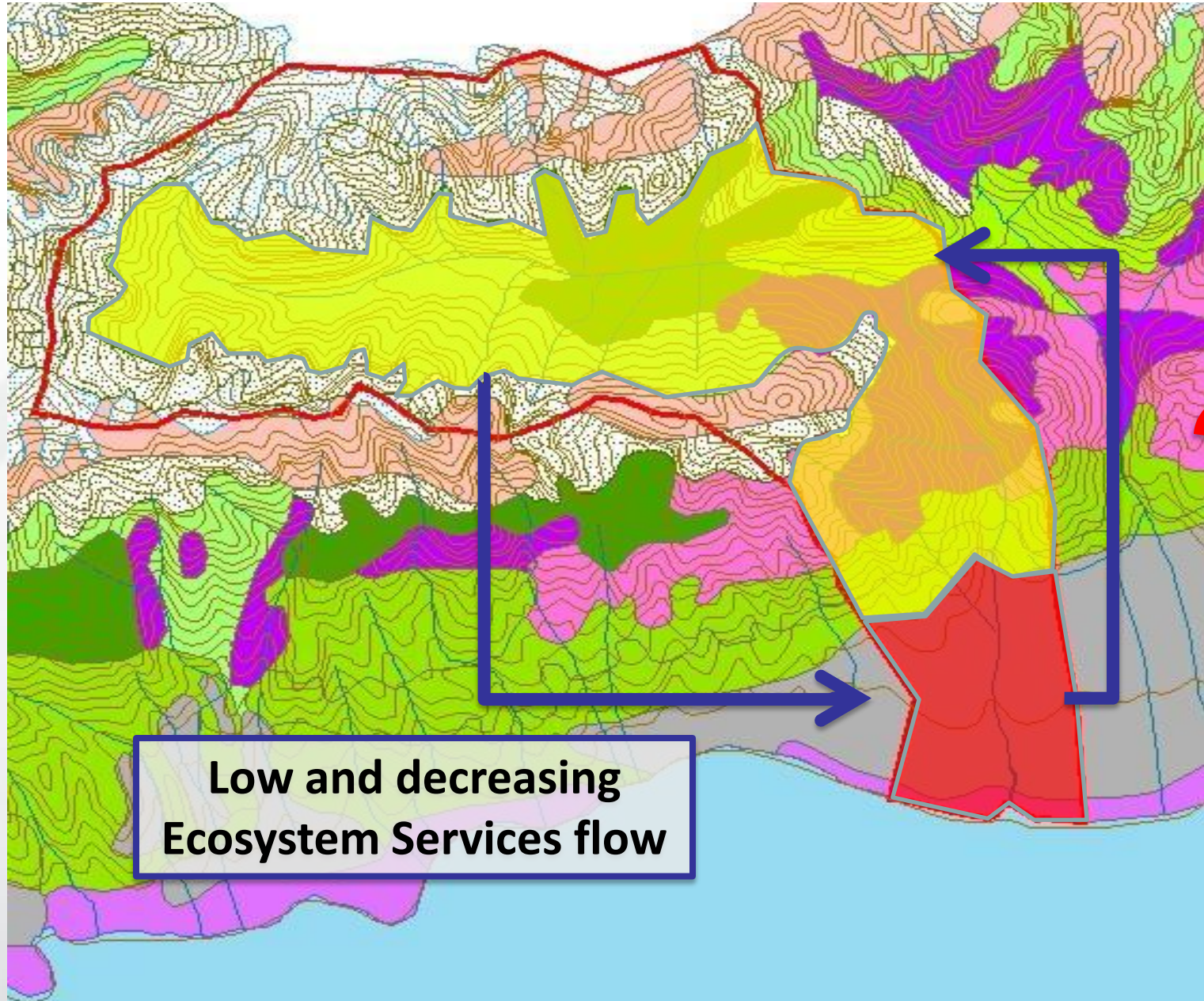
ES providers (receiving the reward)	Protected Areas; surrounding communities
ES beneficiaries (providing the reward)	Water consumers (individuals, companies), tourists, tourism companies, etc.
Type of reward	Monetary and non-monetary
Technical requirements	Definition, quantification and valuation of main ES; monitoring of ES provision
Legal requirements	Budget reform, creation of a special fund
+ Targets both PA and surr. communities	- Requires in-depth preliminary research and legal reform

Opportunities for developing RES in Kyrgyzstan's PA (2)

Local scale

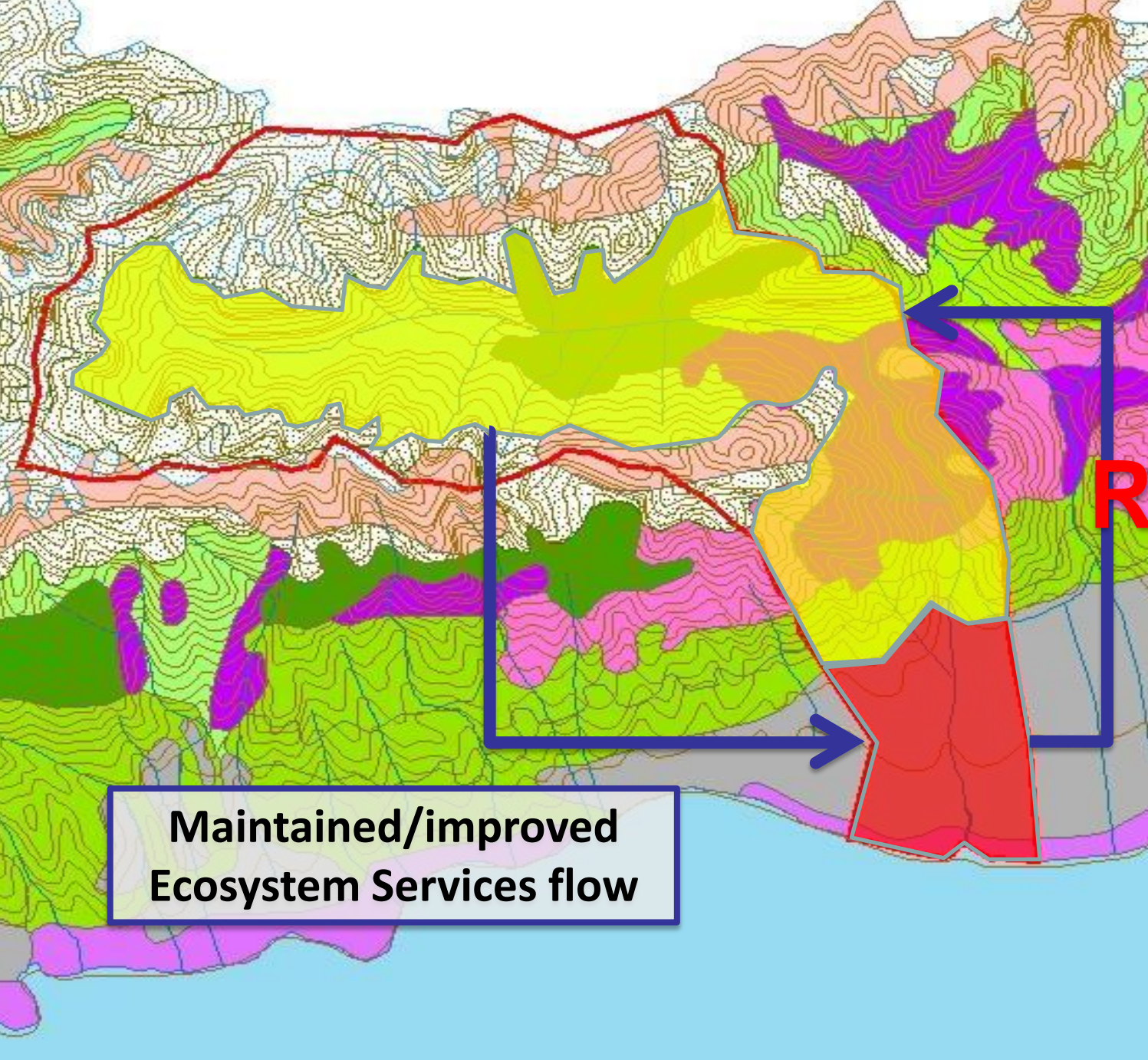
ES providers (receiving the reward)	Protected Area
ES beneficiaries (providing the reward)	Communities residing within or around the PA
Type of reward	Non-monetary (in kind)
Technical requirements	Definition, quantification of main ES; monitoring of ES provision
Legal requirements	Clarification of legal opportunities to create non-monetary cooperation schemes
+ Builds partnerships at the local level Builds local communities' awareness	- Scale constraint, works only at the local level

Example in Kyrgyzstan – the Chon-Aksuu watershed



Low and decreasing
Ecosystem Services flow

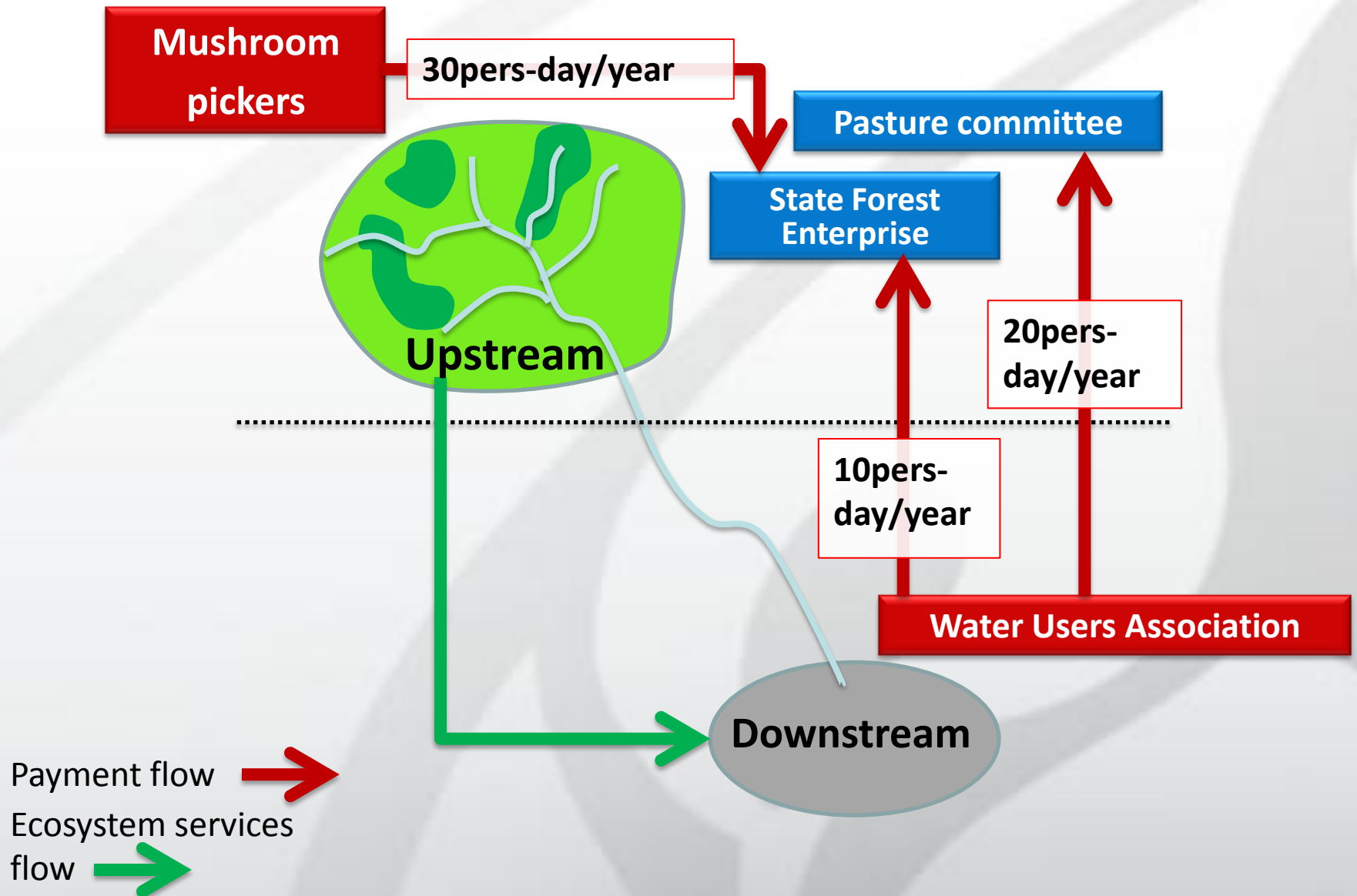




**Reward
flow**

**Maintained/improved
Ecosystem Services flow**

Details of the Reward for Ecosystem Services (RES) mechanism





Take home messages

RES is in Kyrgyzstan a realistic financing mechanism for protected areas, however:

- Budget and law reforms are necessary;
- Ecosystem Services provided by PA should be clearly defined;
- Scientific, social and economic studies are necessary to support RES development;
- Different scales requires different mechanisms and rewards;
- RES can be really effective only when it also contributes to livelihoods and the wellbeing of the local communities.