NAIAD Glinščica catchment (SLO) demonstration site

Dr. Polona Pengal, Institute Revivo

Guillaume Piton (IRSTEA), Raffaele Giordano (IRSA), Blaž Cokan (Revivo), Zdravko Kozinc (Iskriva), Alessandro Pagano (IRSA), Elena Lopez-Gunn (Icatalist)

16th May 2018 *NBS Clustering Event in A Coruna Workshop session IV*







NAture Insurance: Assessment and Demonstration

- 23 partners, 11 countries, 9 demos
- NBS in risk management (flood, drought, wildfire, avalanche,...)
- Assessment Framework/Operationalization
 - Physical assessment/determine current status
 - Social risk perception/identify NBS
 - Economic Valuation/assess potential for impact
 - Funding and finance
- Policy uptake and impact

Nature-Based Solutions (NBS): an opportunity for the insurance sector! (IRSTEA, 2017)



VULNERABILITY									
These are elements that can aggravate the flood impacts.									
			SCORE						
VARIABLES DESCRIPTION			1	2	3	4	5		
SOCIAL VUNERABILITY		It refers at the mechanism that allows							
Refers to the inability of	Lack community involvement	the citizens to share and raise							
citizen and public		awareness about risk flood							
organizations to		Is a system to enable the community							
withstand adverse	Lack of an early warning system	to prepare at flood risk and act							
impacts to flood hazards.		accordingly to mitigate or avoid it. E.g							
		preventive measures, protection							
		strategies, action plans, etc							
ECONOMIC	Lack of public funding	It refers at inability of public funds to							
VULNERABILITY		act prevention measures to reduce							
		flood risk							
ENVIRONMENTAL									
VULNERABILITY	Flood plain occupation	It refers at urbanization of flood plain							
The human activities									
modify environment,									
transform the land									
surface and lead to a									
biological diversity losses.									

Form 2 – Selecting the list of actions to be implemented in order to obtain the selected benefits Different actions need to be implemented in order to achieve the selected benefits and co-benefits. For each of the most important benefits, write on a post it all the actions that, according to your opinion, need to be implemented in order to achieve those benefits. Please, use the following lists as a support for the selection of the most suitable actions. Three different classes of actions were identified, i.e. "green" solutions, "grey" solutions and "soft" (social and institutional) solutions. Please, do not limit yourself to these lists. Feel free to add other solutions if needed. There is no limit in the number of actions that can be suggested for each cobenefit.

NATURE-BASED SOLUTIONS

Renaturing urban water bodies

Reduce canalization of the waterbodies

Re-vegetation in urban areas (street trees, grasslands, green roofs, infiltration gardens etc.)

Re-establishing meandering and oxbows

Restore riparian vegetation

Construction of dry retention areas on flood plains

Create artificial waterbodies for short term water storage (ponds etc.)

Use of balancing ponds to release water slowly

Preventing soil compaction (forests, farm fields, urban areas, grasslands etc)

Forest management

.

Ben	efits and co-benefits to be provided	Score	
Imp	prove the state of the green areas and ecosystem		
	ease the accessibility of green areas		
IIVIP/ Rec	reational values		
Terr	perature reduction		
• locati Aba	tement of pollutants		
• valua Gro	undwater quality		STON YOU
Enh	ance air quality		
T Enh	ance biodiversity		
- Enh	ance community involvement in risk management		
- Imp	prove community's risk awareness		
	ial value of urban ecosystem		
Incr	ease cultural richness and diversity in urban area		
/ Incr	ease the institutional cooperation for risk management		
Red	uce building and infrastructure damages		Triff
Incr	ease the population protected by risk management measures		
Pos	itive health effects of urban green areas		
Incr	ease urban attractiveness toward business companies		$\sum_{i=1}^{n}$
Red	uce soil erosion		Ser 2
Red	uce runoff		Sur
** * * Red	uce flood peak		









Funded by Horizont 2020 programme of the European Union

THANK YOU

polona.pengal@ozivimo.si

Funded by Horizont 2020 programme of the European Union

NAIA