



TAKING
COOPERATION
FORWARD

 Národný dialóg projektu FramWat :: Banská Bystrica :: 10.05.2018

 **WP1 :: Pracovný balík 1**

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WP1 :: Identification of potential locations

- in WP1 will be developed a GIS based method for identification of site(s) that need environmental and flood protection measures in a river basin
 - main elements of WP1: development of Valorisation Method (VM), development of the GIS tool based on the VM, training and testing of the GIS tool in the pilot, catchments, update and finalization of the GIS tool using the outcomes of pilot testing
1. developing landscape valorisation method for NSWRM
 2. prototype of the GIS tool and training
 3. testing the prototype of the GIS tool in the river basins together with stakeholders



1. Developing landscape valorisation method for NSWRM

- the VM will be developed for identifying locations where N(S)WRM are needed (support to potential investors) and for assessment of measures
- this will be based on a multi-criteria analysis of topographic, hydrological, meteorological and economic data
- the method will be developed in cooperation with the APs and stakeholders from national level (via consultation dialogues)



2. Prototype of the GIS tool and training

- the next step will be development of the GIS tool, where users will be able to fill in the tool with their data
- after calculations are performed can be reviewed the resulting maps and statistics
- when the tool prototype is ready, WP leader will organize a training for all partners.





▼ SPECIAL PLANNING UNITS i

valid
elementary basins / water bodies / aggregated water bodies / Hydrologic Response Unit

▼ GOALS AND INDICATORS i

Choose goal

Indicator name	Required input data	Status	
<input checked="" type="checkbox"/> Topographic Wetness Index	Digital Elevation Model (raster) i	ready	hide description

DEFINITION

The topographic wetness index (TWI), also known as the compound topographic index (CTI), is a steady state wetness index. It is commonly used to quantify topographic control on hydrological processes.[1] The index is a function of both...

GROUPS

hydrological, economic, climatic

<input checked="" type="checkbox"/> Threshold Level Method	Digital Elevation Model (raster) i	missing input data	show description
<input type="checkbox"/> Drought Hazard Index	Digital Elevation Model (vector) i		show description
<input type="checkbox"/> Palmer Drought Severity Index	Digital Elevation Model (raster) i		show description

▼ DATA INPUT i

Input data	Custom		Status	
+ Digital Elevation Model (raster)	<input checked="" type="checkbox"/>	<input type="text" value="File upload"/>	invalid format	show description
✓ Digital Elevation Model (vector)	<input type="checkbox"/>			show description
- Digital Elevation Model (raster)	<input checked="" type="checkbox"/>	<input type="text" value="File upload"/>		show description

Process





INDICATORS CORRELATION MATRIX

Please remove indicators which are highly correlated with other indicators

	DRAIND	FloodRiskArea	FOREST	PASTURE	PEAT	TAYLSO	URBEXT
<input checked="" type="checkbox"/> DRAIND	-	.95	.25	.12	.87	.25	.12
<input checked="" type="checkbox"/> FloodRiskArea	.95	-	.65	.84	.12	.65	.84
<input checked="" type="checkbox"/> FOREST	.25	.65	-	.91	.87	.25	.12
<input type="checkbox"/> PASTURE	.12	.84	.91	-	.65	.84	.12
<input checked="" type="checkbox"/> PEAT	.87	.12	.87	.65	-	.65	.84
<input checked="" type="checkbox"/> TAYLSO	.25	.65	.25	.84	.65	-	.12
<input checked="" type="checkbox"/> URBEX	.12	.84	.12	.12	.84	.12	-

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Process





CONVERSION AND FINAL AGGREGATION METHOD

Conversion method from indicator value to index ranges

Indicator name	min	max	var	unit	no. of classes	stimulating	aggregation weight
DRAIN_D	120	250	30	mm	5	stimulating	1.00
FloodRiskArea	3	8	2.4	-	5	stimulating	1.00
FOREST	0.43	0.92	0.12	-	5	stimulating	1.00
PASTURE	0.72	0.82	0.05	-	5	stimulating	1.00
PEAT	0	0.23	0.15	-	5	stimulating	1.00
TAYLSQ	0.12	0.12	0	-	5	stimulating	1.00
URBEX	0	0	0	-	5	stimulating	1.00

GOAL VALORIZATION RESULT

1 class 2 class 4 class 5 class

Flood Valorization Index 5 classes 12 45



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Download CSV

Download Shapefile

3. Testing the prototype of the GIS tool in the river basins together with stakeholders

- after acquiring the knowledge and skills for using the tool, partners will test it in cooperation with their stakeholders and APs in their selected pilot catchments



WP1 :: Conclusions

- each partner will produce a Pilot Action Report and the WP leader will update the method and GIS tool
- additional verification will be done on a feedback workshop
- after the testing, partners will have final set up of the most appropriate locations for NSWRM implementation in their river basins, which will be an input for WP2
- the final version of the VM and GIS tools will be publicly available on the web site
- in the planning process, the GIS tool will be used as suggestion for building concept plan and as input data for model development
- additionally, it will be used as an input to the Decision-Support System (WP3)



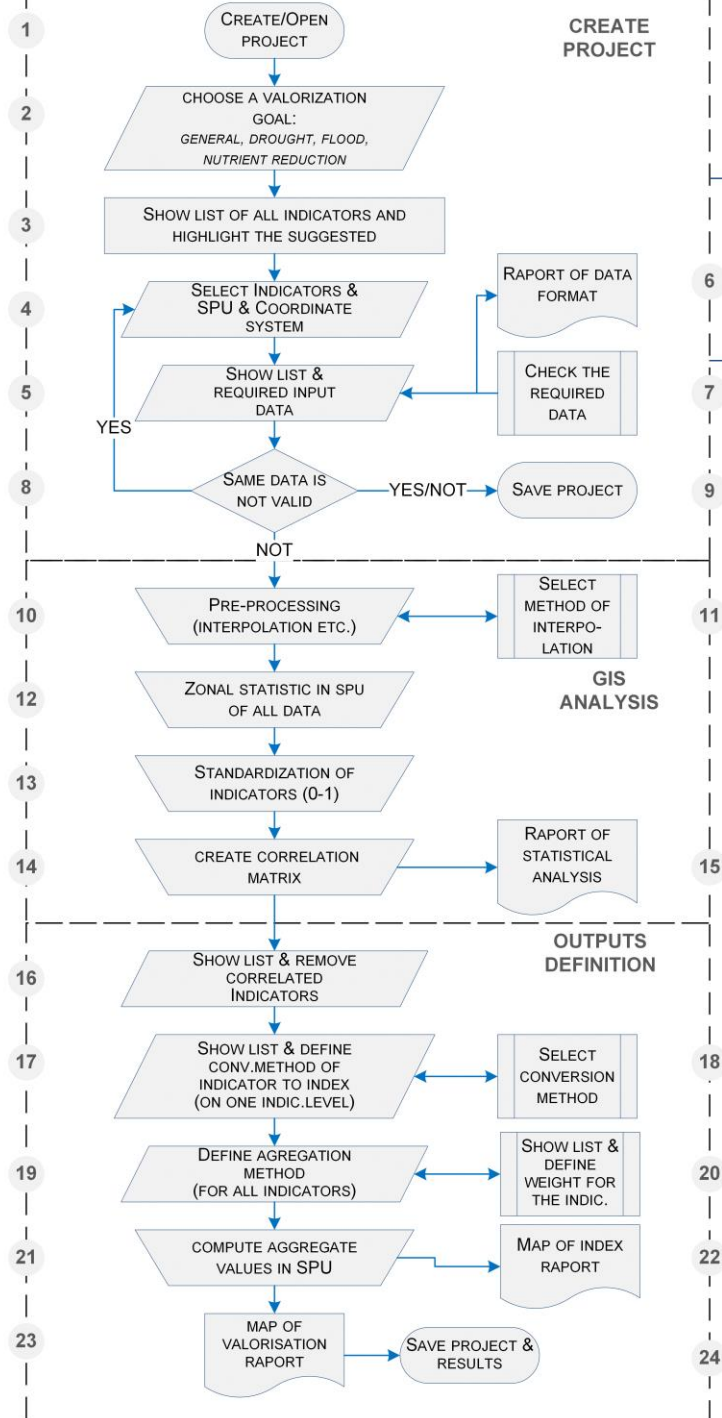
EXAMPLE OF INPUT DATA

POLYGON DATASET
(CLC, SOIL, LAKE, FLOOD, COUNTRY REPORT FOR UC, ETC.)

POINT & LINEAR DATASET
(MONITORING, WATER USERS, RIVER ETC.)

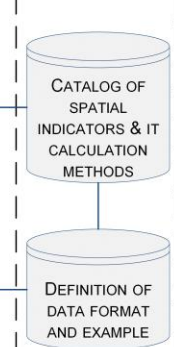
RASTER DATASET
(NMT ETC.)

SPATIAL PLANNING UNITS - SPU
(WATER BODY, HYDROLOGICAL RESPONSE UNIT, GRID ETC.)



CREATE PROJECT

GIS TOOLS COMPONENTS



XX No of action

OUTPUTS DEFINITION



Identifikácia potenciálnych lokalít

- Do 60 geografických oblastí (toky 1. cyklu: Slaná, Rimava, Blh)
- Plán manažmentu povodňového rizika v čiastkovom povodí Slanej (opatrenia, ...)
- Plán manažmentu čiastkového povodia Slanej (zdroje znečistenia, ...)
- Územia s retenčným potenciálom:

Tab. 4.9 Územia vhodné na prirodzenú transformáciu povodňových vln v čiastkovom povodí Slanej

Vodný tok	Obec	Bližší popis lokality zaplavenia				
		rkm	PS/ES	N/P	druh zaplavených pozemkov	odhadovaný rozsah zaplavenia [ha]
Slaná	Plešivec	34,60	LS	P	poľnohosp. pôda	56
		39,02	LS	N	poľnohosp. pôda	49
Rimava	Rimavská Seč	5,30	PS	P	poľnohosp. pôda	68
	Širkovce	19,25	LS	P	poľnohosp. pôda	98
	Kociha	44,85	LS	P	poľnohosp. pôda	20
	Rimavské Zalužany	49,12	PS	P	poľnohosp. pôda	35
Blh	Čakov	5,35	PS	P	poľnohosp. pôda	46
	Žip	8,50	PS	P	poľnohosp. pôda	44
	Potok	35,05	LS	P	poľnohosp. pôda	15

Vysvetlivky: PS - pravá strana
ES - ľavá strana
N - nad obcou
P - pod obcou
rkm - riečny kilometer

Tab. 3.5 Územia s retenčným potenciálom ako prirodzenými záplavovými oblasťami

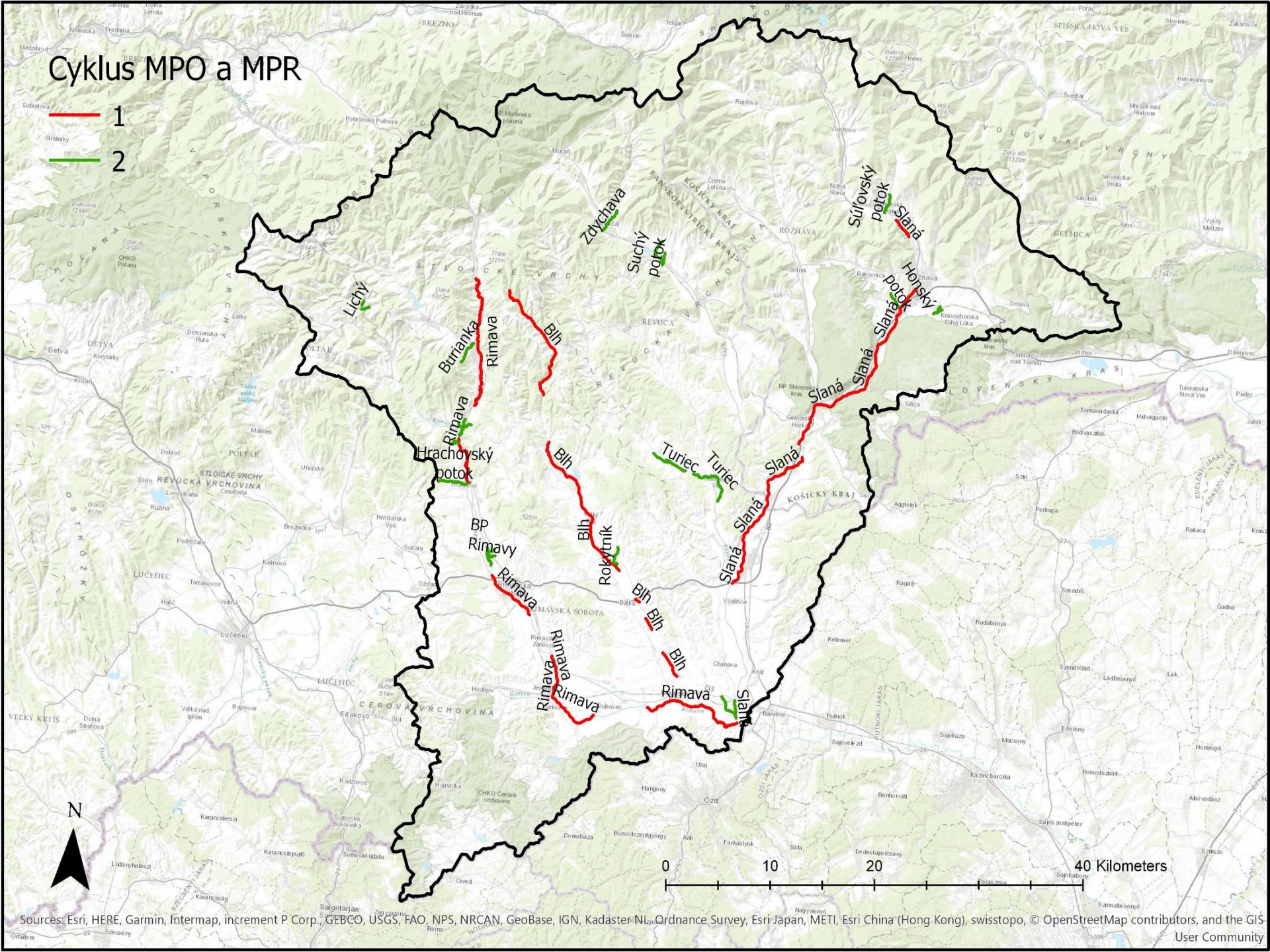
Názov vodného toku	Obec	Údaje o územiach s retenčným potenciálom				
		Úsek vodného toku riečny kilometer	PS/ES	N/P	druh zaplavených pozemkov	odhadovaný rozsah zaplavenia [ha]
Slaná	Plešivec	34,60	LS	P	poľnohosp. pôda	56
		39,02	LS	N	poľnohosp. pôda	49
Rimava	Vlachovo	74,95	PS	N	poľnohosp. pôda	38
	Kociha	44,85	LS	P	poľnohosp. pôda	20
Blh	Rimavské Zalužany	49,12	PS	P	poľnohosp. pôda	35
	Hrušovo	29,40	PS	P	poľnohosp. pôda	20
	Potok	35,05	LS	P	poľnohosp. pôda	15

Vysvetlivky: PS - pravá strana
ES - ľavá strana
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rkm - riečny kilometer



Cyklus MPO a MPR

- 1
- 2



Ďakujem za pozornosť!

<http://www.interreg-central.eu/Content.Node/FramWat.html>

