French Accompaniment on Kosovo European Water Strategy

3rd Steering Committee – Aleanca Franceze Prishtinë – 12/07/2019

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SIKALA

FAKEWS – The project

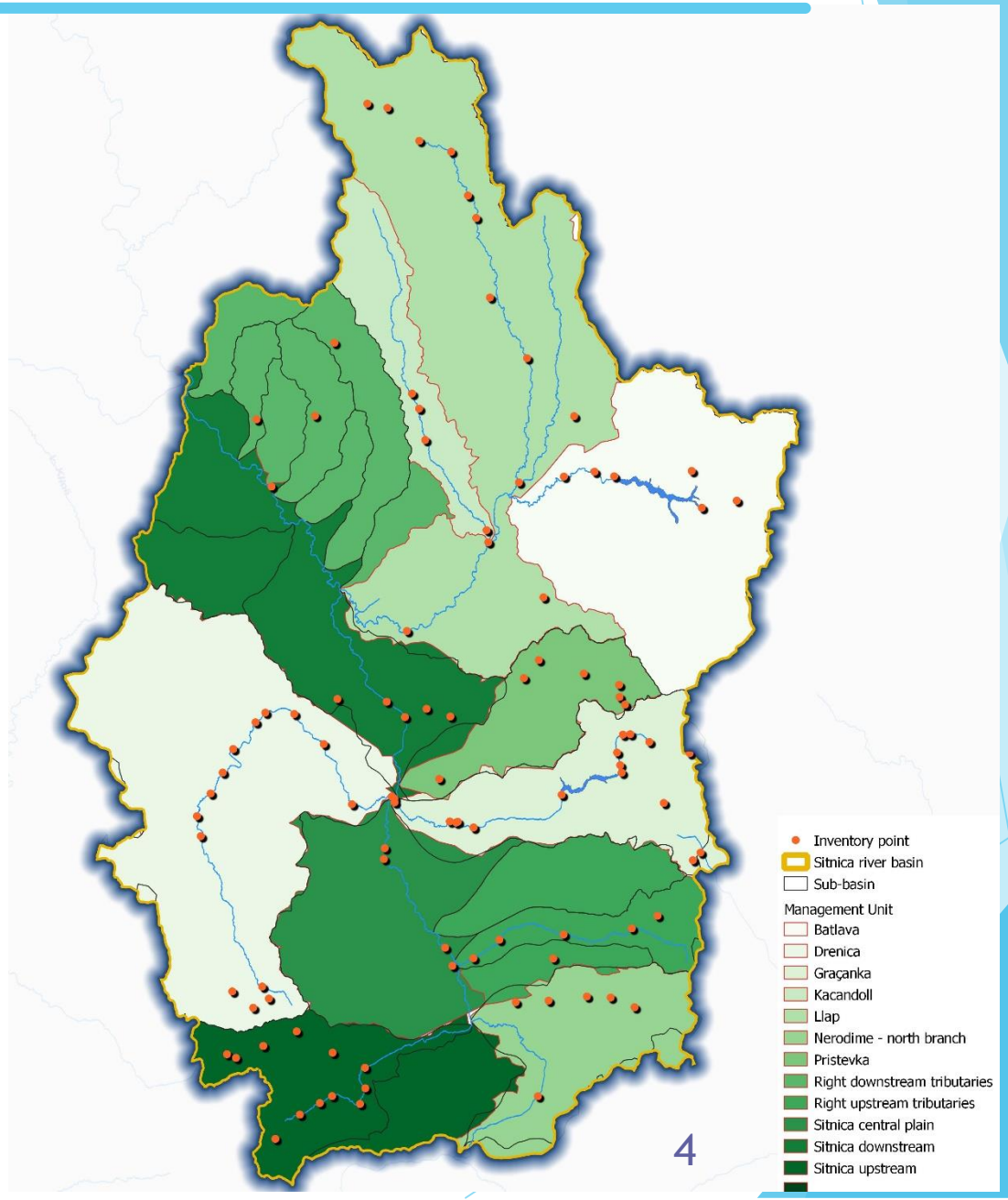
- Initiated in November 2016
- Areas :
    - Water and aquatic environment management
    - Local development
- Kosovo : municipalities on the Sitnica river basin, Drenas, Ferizaj, Fushe-Kosovë, Gracanica, Lipjan, Mitrovica, Obiliq, Podujevë, Prishtina, Vushtrri, Shtime
- France : SICALA Haute-Loire
- 2 Committees in 2017 and 2018

FAKEWS – Technical expertise

- Involvement of 2 experts
  - Kilpéric LOUCHE, hydromorphology engineer, 10 years of experience
  - Jonathan RUSSIER, river technician, 8 years of experience
- Methodology “by point”
  - Analyse of morphology: river bed, flood plain level, riparian vegetation, river banks etc.
  - Observation of river state: fish, fauna, aquatic insect, etc.
  - Inventory of main disruptions: discharge, pollution, bank erosion, dam, water withdrawals etc.

FAKEWS – Technical expertise

- During 10 days (July 2018)
- More than 100 inventory points
- Spread all over the territory
- Essentially on easy access points
- Lack of time for the downstream sector



FAKEWS – Analysis methodology

- Classification of data recorded in 6 criteria :
  - Water
  - Substrate
  - Bed and bank
  - Flow facies
  - Hydro-biology
  - Riparian habitats
- Sectorisation in 3 typologies :
  - Watershed head
  - Foothills
  - Plains
- 3 levels of quality for each criteria :

1	Good / Low alteration
2	Medium / Medium alteration
3	Bad / Strong alteration

FAKEWS – Analysis methodology

- Overall condition of the Management Unit (MU) : average ratings
- Robustness test with numerous averages with different weightings : not sufficient variations of the averages
- Except for the Pristevka which is already near the class limit
- Prevalence of the "Eco-morphology" compartment (6 criteria) : two-third of the score
- Limits of status classes based on average score :

[1 ; 1,65[	Good / Low alteration
[1,65 ; 2,33[	Medium / Medium alteration
[2,33 ; 3]	Bad / Strong alteration

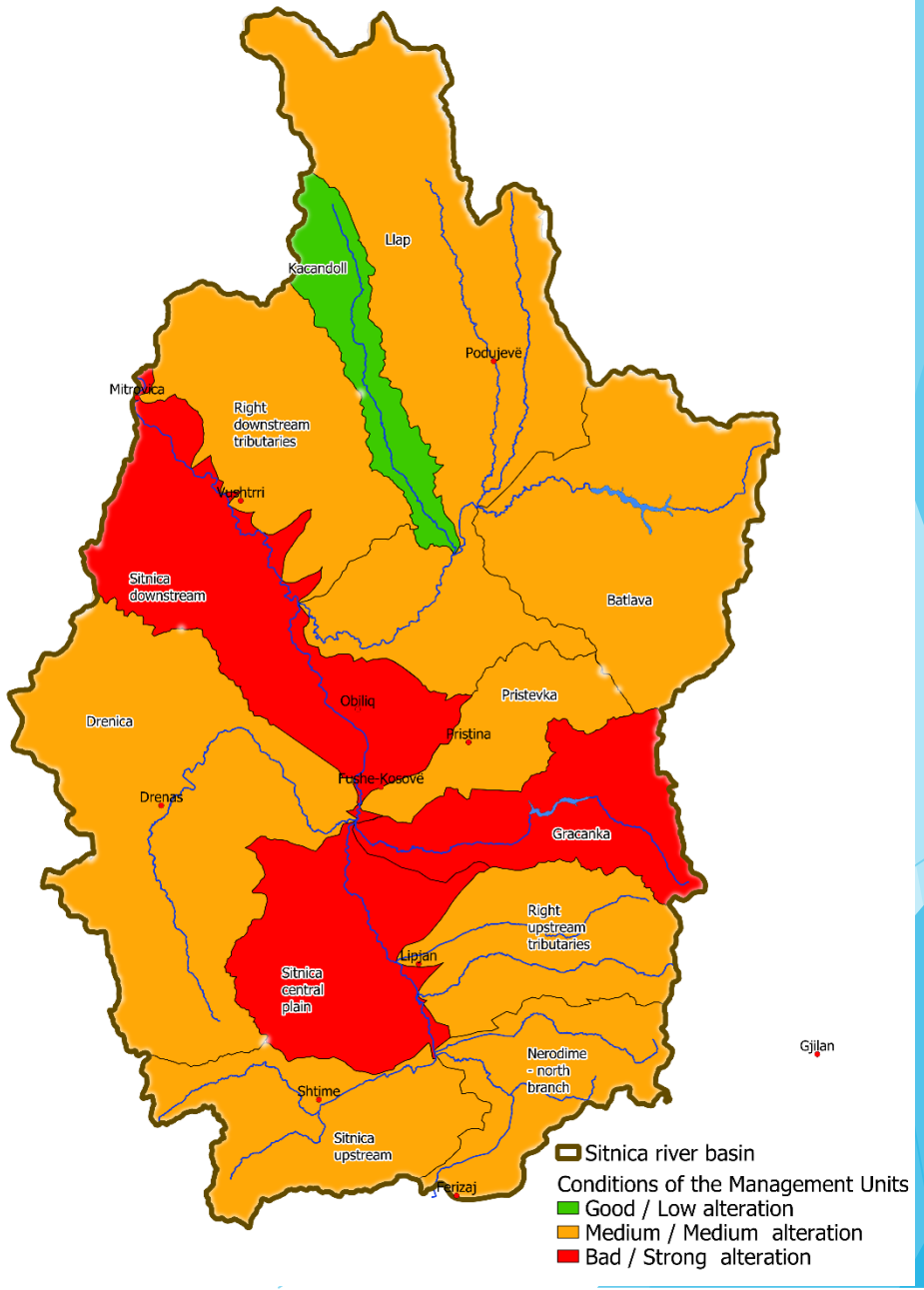
FAKEWS – Analysis methodology

- Summary presentation of the results by MU

Quality of eco-morphological components	*Water*	*Substrate*	*Bed & Bank*	*Flow facies*	*Hydrobiology*	*Riparian habitats*	Score by typology	*Land use*	*Deficits / Alteration*	*Potential / Development*	*Remarks / Observations*
Topographic typology (upstream / downstream)											
Watershed head	1	1	2	1	1	1	1.17	Forest Some mountain pastures	Landfill areas Wastewater discharge	Nature tourism / hiking (proximity to the city) Landscape	Clean landfills Damp valley preserved Noteworthy fauna: odonates
Foothills / Piedmont	3	3	3	3	3	3	3.00	Rural Pastures Crops, corn	Crossing covered in Pristina Concrete bank areas Landfill areas Macro-waste Wastewater discharge	Develop agro-ecological potential Create sanitation systems	*Noteworthy fauna:* *- Cinglus cinglus*
Plains	3	2	3	2	2	3	2.50	Rural to peri-urban Arable crops	Wastewater discharge Waste collection Channelled and dyked areas	Eco-morphological restoration / flood expansion areas	-
Score by studied components	2.33	2	2.67	2	2	2.33	WB overall score 2.22				

FAKEWS – Results by management unit

- Overall results for all parameters
- Only 1 Management Unit (MU) in a « Good condition » : Kacandoll river
- 3 MU in « Poor/Bad condition » :
  - Sitnica downstream
  - Sitnica central plain
  - Gracanka

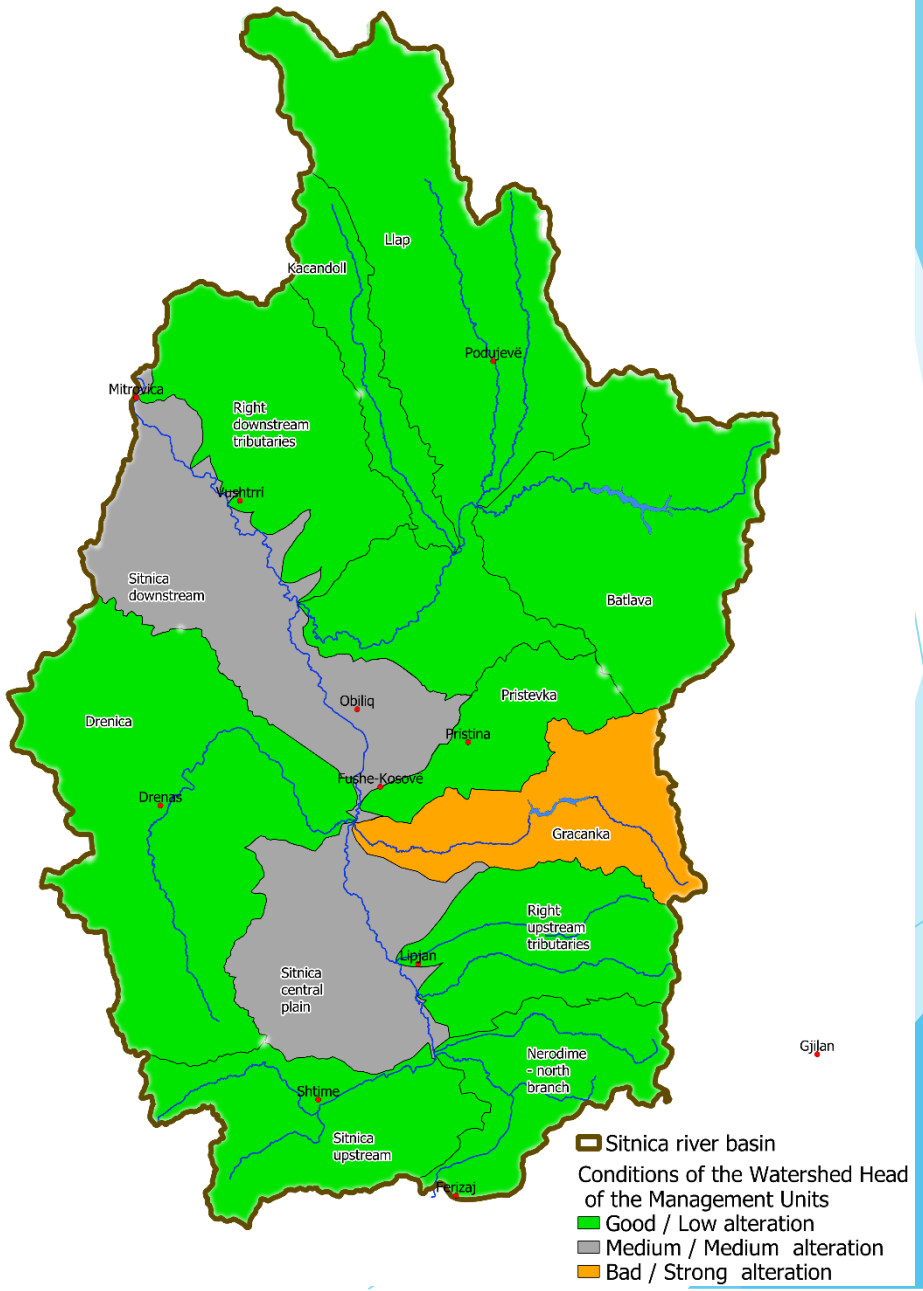


FAKEWS – Results by management unit

- Results for the watershed head :

- The overall results do not show the good state of preservation of the watershed heads.

➔ **Degradations are directly related to urbanisation**



FAKEWS – Pristevka

- Main issue : ➔ crossing covered in Pristina

- Secondary issues :
  - Waste collection and waste management
  - Channelled and dyked areas

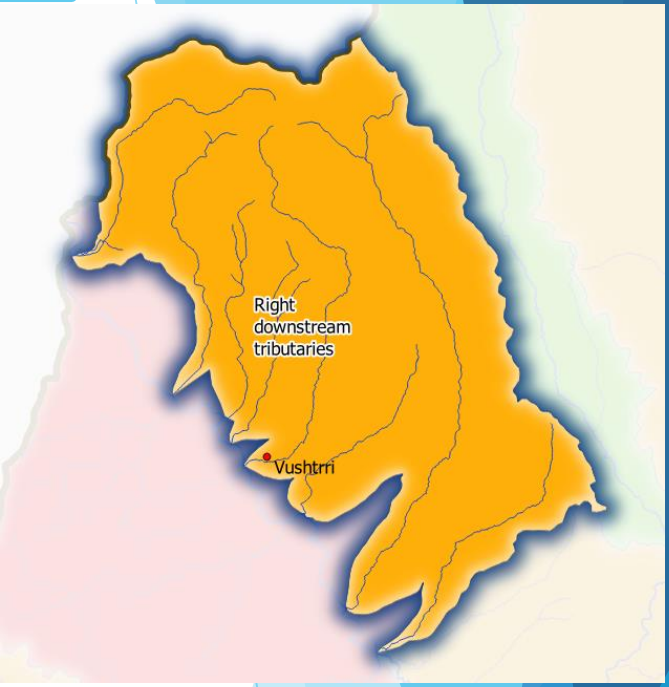
- Potential :
  - Nature/local tourism – Hiking
  - Eco-morphological restoration : discovery of the river in the city ➔ creation of a « urban park »
  - Flood expansion areas

FAKEWS – Downstream right bank tributaries

- Main issue : ➔ Preservation of the watershed heads

- Secondary issues :
  - Rectified / dredged areas
  - Sanitation

- Potential :
  - Creation of a "National Park" located around the Kaçandoll watershed and the Bajgora mountains (upstream of this component)
  - Eco-morphological restoration on the downstream of the rivers



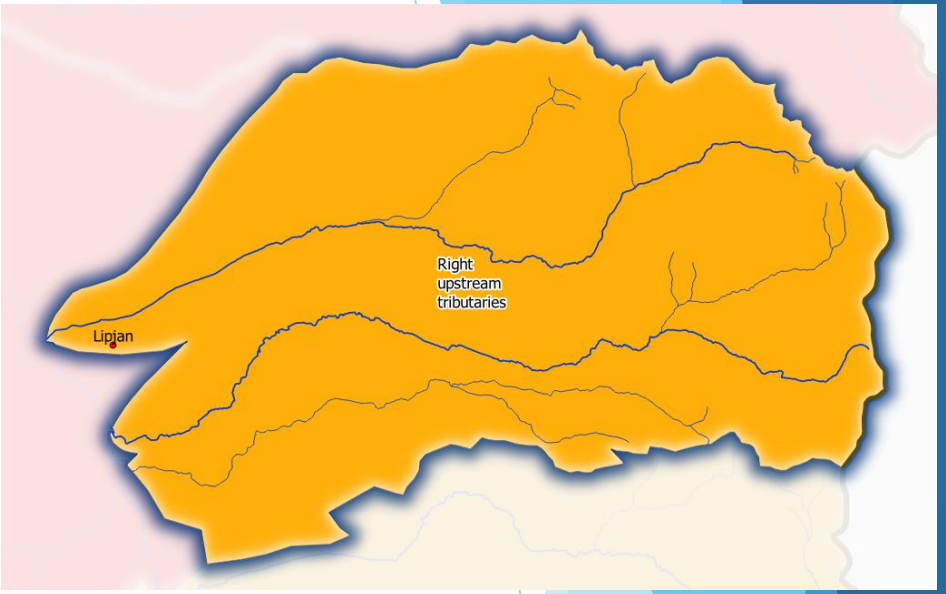
LUMIT TE ZI, LUMIT TE SUDIMLES, LUMIT TERSTENA, LUMIT SMREKOVNICE, LUMIT TE BARIT

FAKEWS – Upstream right bank tributaries

- Main issue : ➔ artificialization of river beds in village crossings

- Secondary issues :
  - Preservation of the riparian forests in the upstream
  - Impact of the Gjilan-Pristina highway

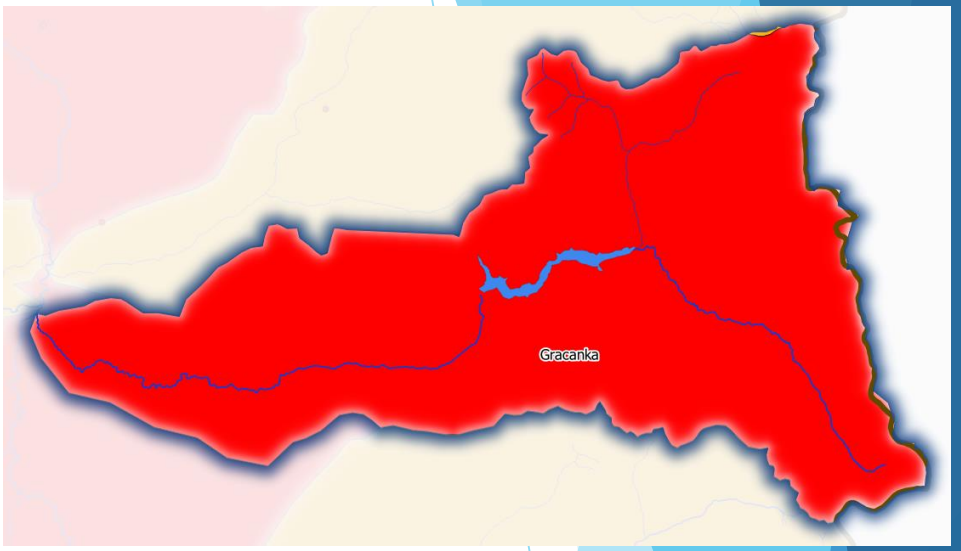
- Potential :
  - Agroforestry / agro-ecology development
  - Eco-morphological restoration



LUMIT JANJEVES & LUMIT ZHEGOVCIT

FAKEWS – Gracanka

- Main issue : Landfill areas /waste collection



- Secondary issues :
  - Minimum flow under the dam
  - Channelled and dyked areas

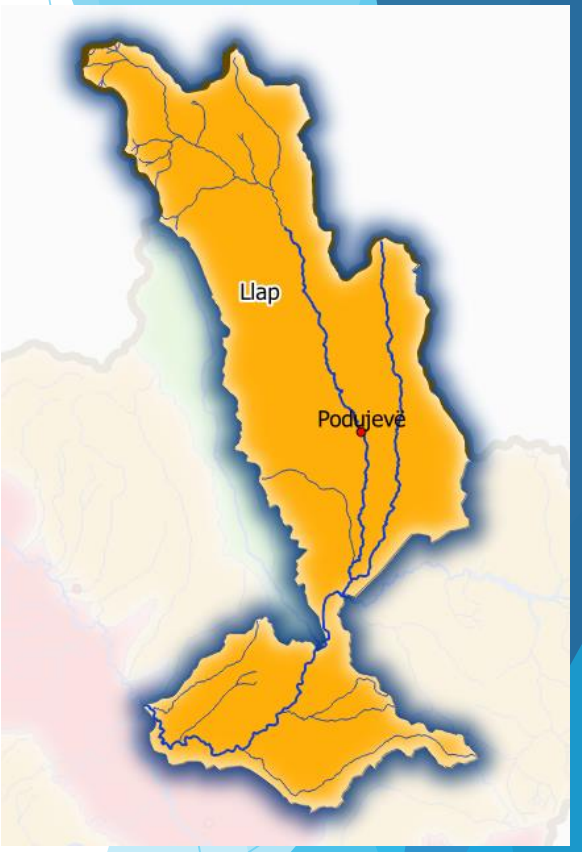
- Potential :
  - Noteworthy fauna
  - Confluence area (Pristevka-Sitnica-Drenica), wetland and old willow habitats to be developed ➔ Peri-urban park

FAKEWS – Llap

- Main issue : ➔ Wastewater treatment / sanitation

- Secondary issues :
  - Channelled and dyked areas
  - Preservation of the head watershed with beautiful subalpine landscapes and mountain rivers

- Potential :
  - In the plain, rivers mostly maintain a meandering profile ➔ potential for restoration
  - Nature/local tourism – Hiking



FAKEWS – Kacandoll

- Main issue : ➔ Preservation of all the watershed

- Secondary issues :
  - Preservation of water quality
  - Preservation and development of agro-ecological existing pratices
  - Preserving the river from artificialization

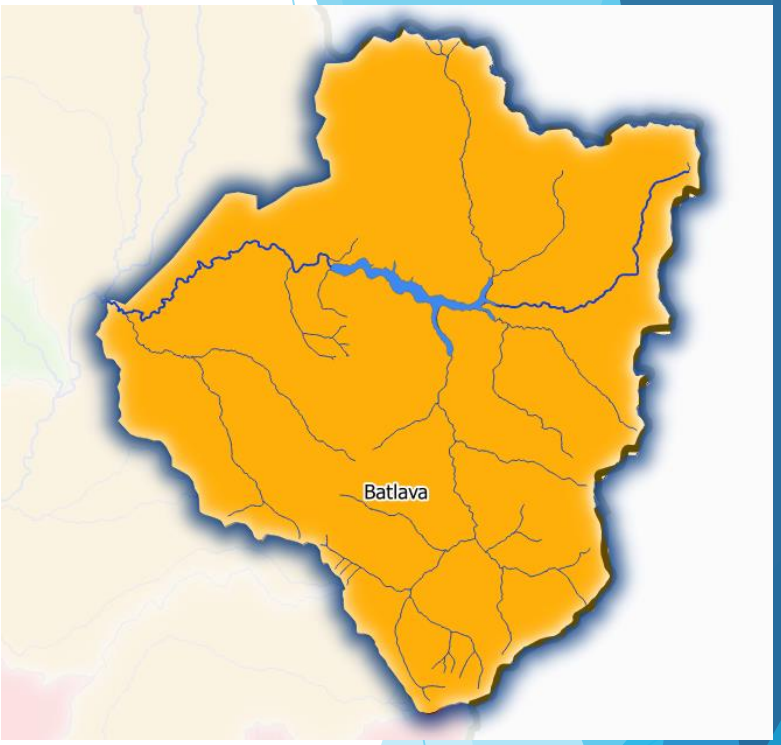
- Potential :
  - Creation of a "National Park" centred around the Kaçandoll watershed and the Bajgora mountains
  - To inspire and export the techniques of using willows for bank restoration

FAKEWS – Batlava

- Main issue : ➔ Minimum flow under the dam

- Secondary issues :
  - Channelled and dyked areas
  - Wastewater treatment / sanitation

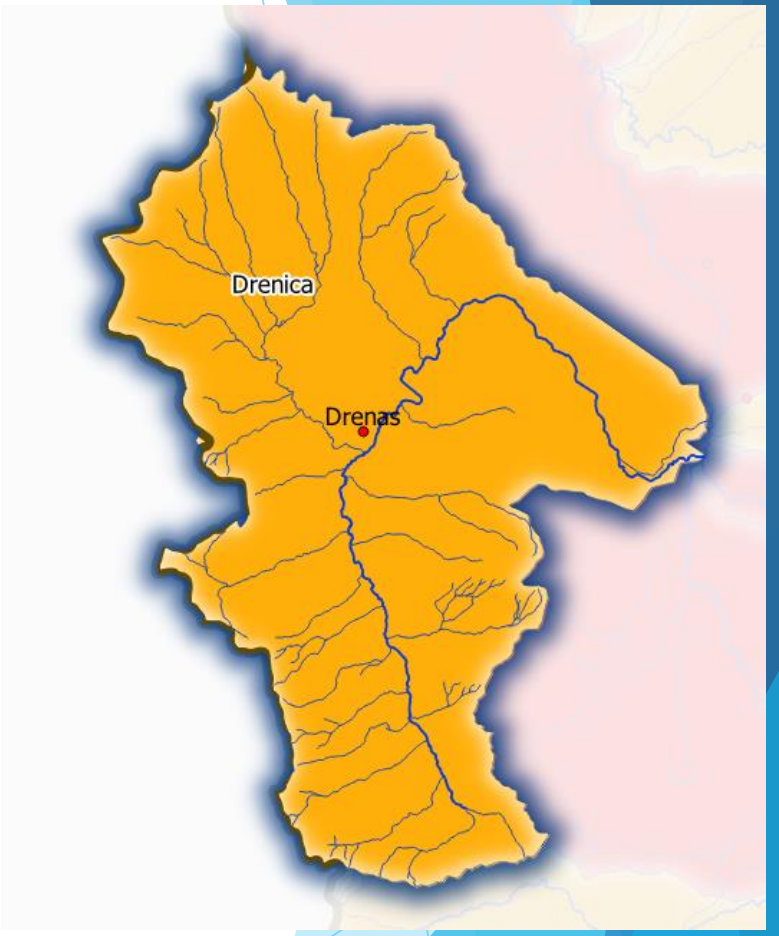
- Potential :
  - In the plain, rivers mostly maintain a meandering profile ➔ potential for restoration
  - Nature/local tourism – Hiking around the lake



FAKEWS – Drenica

- Main issue : ➔ Preservation of the Biodiversity

- Secondary issues :
  - Major rectification and dredging operations
  - To preserve patrimonial habitats :
    - ➔ the small torrential valleys, in the upstream
    - ➔ old alluvial forests downstream of Drenas
- Potential :
  - Local tourism : hiking on the amount and fishing downstream
  - Eco-morphological restoration, especially around the confluence area

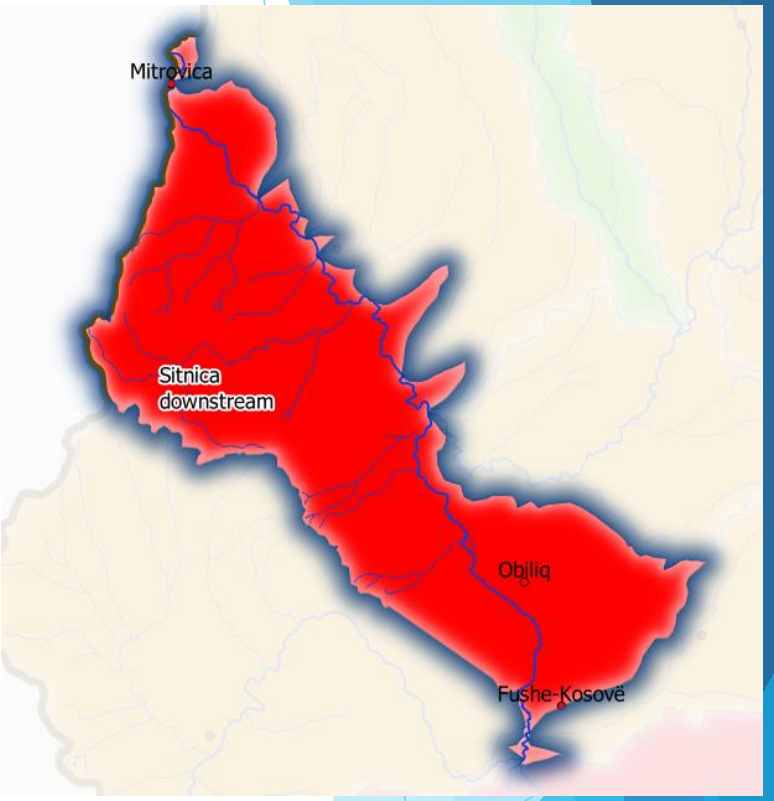


FAKEWS – Sitnica downstream

- Main issue : ➔ Water quality

- Secondary issues :
  - Industrial and mining discharges
  - Waste collection and landfills
  - Major rectification and dredging operations

- Potential :
  - Creation of sanitation in the upstream (Pristina)
  - Space still available in the lateral land-take for eco-morphological restoration projects

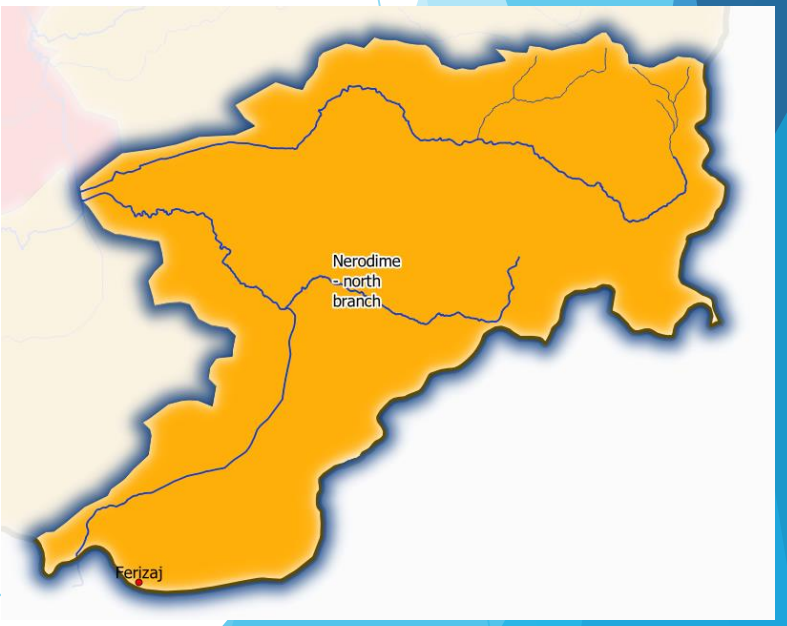


FAKEWS – Sitnica upstream + Nerodime

- Main issue : ➔Road shoulder backfill / reduction of water section,

- Secondary issues :
  - Preservation of the head watershed with noteworthy fauna
  - Sanitation / waste management

- Potential :
  - Local tourism : forest / landscape / traditional built heritage
  - Hydro-morphological restoration in the crossing of Shtime ➔ green belt in the city

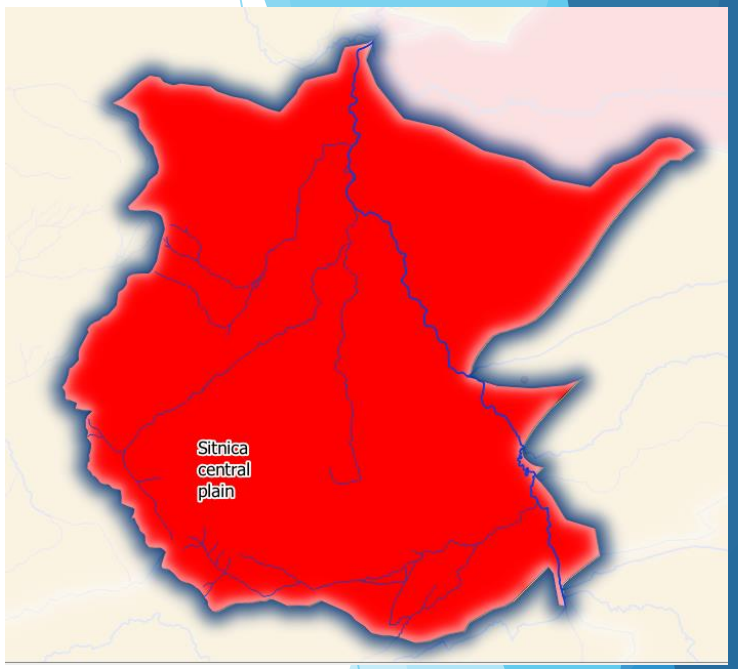


FAKEWS – Sitnica central plain

- Main issue : ➔ Wetland of Henc

- Secondary issues :
  - Channeling of Sitnica by dredging
  - Water quality / sanitation
  - Noteworthy avi-fauna (birds)

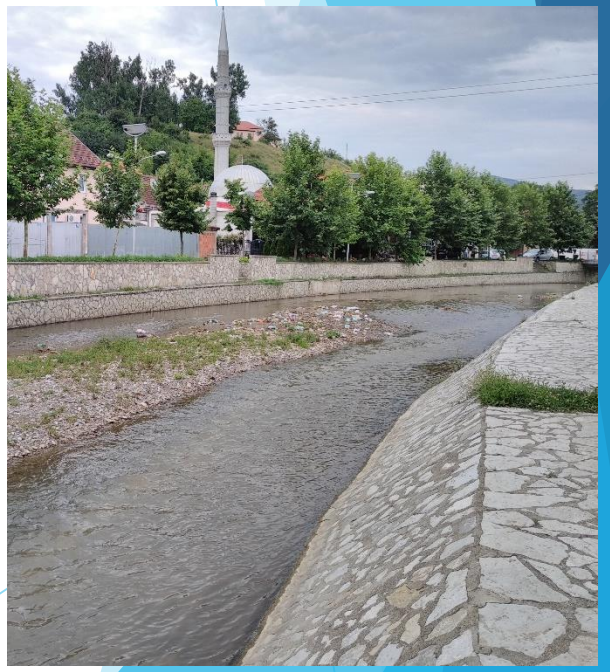
- Potential :
  - Conservation of the sinuosity of the bed
  - Creation of an Ornithological centre – Henc Wetland



FAKEWS – General trend

- 2 major objectives:
  - ➔ Restore water quality (sanitation and waste)
  - ➔ Reconnect rivers with their riparian eco-system



FAKEWS – General trend

- Many positive elements :
  - recent degradation of aquatic environments
  - good resilience of eco-systems
  - Presence of biodiversity (relict?) still important
  - Existence of a local know-how of banks stabilization in vegetable techniques





FAKEWS – Proposals for action

- Main orientations :
  - ➔ Preserve the existing - stop the degradations
  - ➔ Implement "no regrets / nature-based" solutions
  - ➔ Develop an integrated flood risk management and stop "all dredging solution“
  - ➔ Support and promote territorial sustainable development projects

FAKEWS – Proposals for action

- 3 categories of action :
  - ➔ Cross-cutting measures : regulatory/strengthen laws and inspection, territorial development, awarness
  - ➔ Territorialized measures : localized restoration work on the degrated rivers
  - ➔ Protection and development of eco-tourism : protection/regulatory measures, eco-tourism project, local development project

FAKEWS – Proposals for action

- Integrated flood management and river restoration

➔ Terstena in Vushtrri

➔ Increasing of hydraulic capacities

➔ Restoration of hydro-morphology

➔Improvement of urban landscape

➔ Yzeron in Lyon

FAKEWS – Proposals for action

- Integrated flood management and river restoration

➔ Water speed reduction during flooding period

➔ Restoration of self-purification capacity

➔ Promote flood expansion areas

➔ Veyre in Clermont-Ferrand

➔ Drenica in Fushe-Kosove

➔ Biodiversity improvment

FAKEWS – Proposals for action

- Valorisation and sensibilization

➔ Wetland of Henc in Lipjan - Gracanica

➔ Development of eco-tourism

➔ Preservation of patrimonial habitats

➔ Environmental protection awareness

➔ Valorization of historical heritage

➔ Devesset Lake in Ardèche

FAKEWS – Developpement of the project

- European Volunteer : possibility for an interested municipality to welcome a young French international volunteer for one year
- Youth awareness raising with a local NGO
- Youth exchange project with French and Kosovar hydraulic/hydrology students
- Recruitment of a volunteer to SICALA to work on the project in 2020

FAKEWS – Developpement of the project

- Lead a pilot project with 2 or 3 interested municipalities
- Development of a tourism and/or agro-environmental components with other French partners (Regional Natural Park, Agricultural school…)
- Formation in hydro-morphology for municipal agents : strengthen competencies, improve watercourse management methods, and learn river restoration techniques

➔ Funding : EU local development funds? French Development Agency? MESP?

Questions ?

Thank you for your attention.