



Workshop on  
**WATER-FOOD-ENERGY-ECOSYSTEMS NEXUS  
ASSESSMENT**

**IN THE SAVA RIVER BASIN**

4-6 March 2014, Zagreb, Croatia

# Ecosystem perspective





# Natural values

- There is no such large river in Europe with such natural river dynamic in its middle course, like Sava has.
- Lowland floodplain forests and hystorical border landscape are still forming undiscovered natural and cultural values of Croatia, but they go much beyond national level of importance. (4 Ramsar sites)
- There is a mosaic of natural and man made landscapes stands there as monument, a reminder, of how lowland rivers used to look in Central Europe.



# Ecosystem service

- Lonjsko polje and near by wetlands are of strategic importance for Croatia and the neighbours as the best response to the climate change - wide floodplain areas are mitigating the impacts, in terms of flood waters retention and moist retention during droughts.
- Carbon dioxide capture by wetlands and floodplain forests.
- Oak forests – very important economically
- Huge tourism development potential
- All these gives us service and goods, and has its longterm monetar value.



# Impacts

- We have to be aware that any intervention in this system may cause negative impacts and deterioration of the ecosystem; and loose of this values.
- Improvement of navigation, hydropower development, flood control measures - all these need to be assessed together to evaluate cummulative impact and ensure holistic approach to the river management.
- Mitigation measures are not always possible and effective



# Conclusion

- **There is no assessment of other river functions** such as the capacity of floodplains to retain floodwaters and its economical value, carbon storage, income from wood, tourism, hunting – it needs to have economical value – to be put in the cost-benefit analysis formulas
- To be sure that all FIPs are “working with nature” - there is a need for hydrological and morphological models developed as a prerequisite (sediment balance)
- All infrastructure development objectives are to be re-discussed based on the studies conducted and environmental objectives formulated with stakeholder involvement, as a part of WFD implementation.



***Thank you for your attention***

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