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# Priorities towards soil protection in Croatia: national level

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# Key issues

- Soil resources and land use
- Current policies and activities
- Priorities for a new legislation
- Identification of the main soil protection issues
- Needs for further actions

# Soil resources and land use

Soil division	Forest soils (ha)	Agricultural soils (ha)	Total	
			ha	%
Automorphic	1.626.343,5	1.502.082,2	3.128.425,7	65,61
Hydromorphic	551.319,4	1.087.905,4	1.639.224,8	34,37
Halomorphic	-	410,5	410,5	0,01
Sub-aqual	1,1	319,9	321,0	0,01
<b>TOTAL</b>	<b>2.177.664,0</b>	<b>2.590.718,0</b>	<b>4.768.382,0</b>	<b>100,0</b>

CROATIA

Continental surface: 56 594 km<sup>2</sup>  
 Population: 4 437 460 inhabitants  
 Rural population: 47.6%  
 Population density: 78. 5/ km<sup>2</sup>

# Rurality

	OECD criterion		EU criterion	
	Population %	Area %	Population %	Area %
Rural	<b>47.60</b>	<b>91.61</b>	<b>36.30</b>	<b>84.60</b>
Urban	52.40	8.40	63.70	15.40
Total	100.00	100.0	100.00	100.0

## Criteria based on population density:

- the OECD treshold for rural areas: less than 150 inhabitants/km<sup>2</sup>
- the EUROSTAT treshold: less than 100 inhabitants/km<sup>2</sup>

## Current soil protection policies and activities

- Soil protection issues have not been regulated so far by an **integrative approach**;
- competences shared among few government ministries;
- system efficiency supposed to be enhanced by setting up a number of agencies and similar institutions;
- the most share of responsibility lies on Ministry of Environmental Protection and Ministry of Agriculture, Fishery and Rural Development while protected nature is in the sphere of the Ministry of Culture;
- in this context, the soil protection issue is mainly covered by two key acts:
  - Environmental Protection Act (OG 82/94, 128/99, 110/07)**
  - Agricultural Land Act (OG 66/01, 87/02, 90/05)**

## Soil protection policy – state-of the-art

- incentives for the development of the national soil protection strategy have been rather limited or “modest”, in spite of the fact that Croatia is in dispose of a rich, scientific-based soil data base;
- it could be used in different programmes of soil protection and land management;
- nowadays, during the preparation to access EU, RH is spending most of money and energy to harmonize the legislative and to organize administration that should support the system;
- however, radical, but politicaly and socio-economically delicate projects have to be carried out first to gain the full application of this legislation.

## Soil protection policy - **basic demands**

- ▶ regarding the spatial criteria, Croatia is characterized as “rural” country;
- ▶ therefore, the most of activities in the field of soil and land management is held by Ministry of Agriculture, Fishery and Rural Development ;
- ▶ thereby, importance of defining the domains of “mandatory” incentives versus incentives of “voluntary-based” stakeholder participation is getting more and more emphasised.

## Soil protection policy - **basic demands**

- ▶ as Croatia isn't an EU member state, mandatory measures concerning Cross-Compliance have not been entirely applied;
- ▶ "voluntary incentive-based" agri-environmental measures, either;
- ▶ the new law on subsidies in agriculture is also waiting to be all implemented, including rural subsidies as well, because the National program of rural development has not been adopted so far.



## Programs and projects – national level

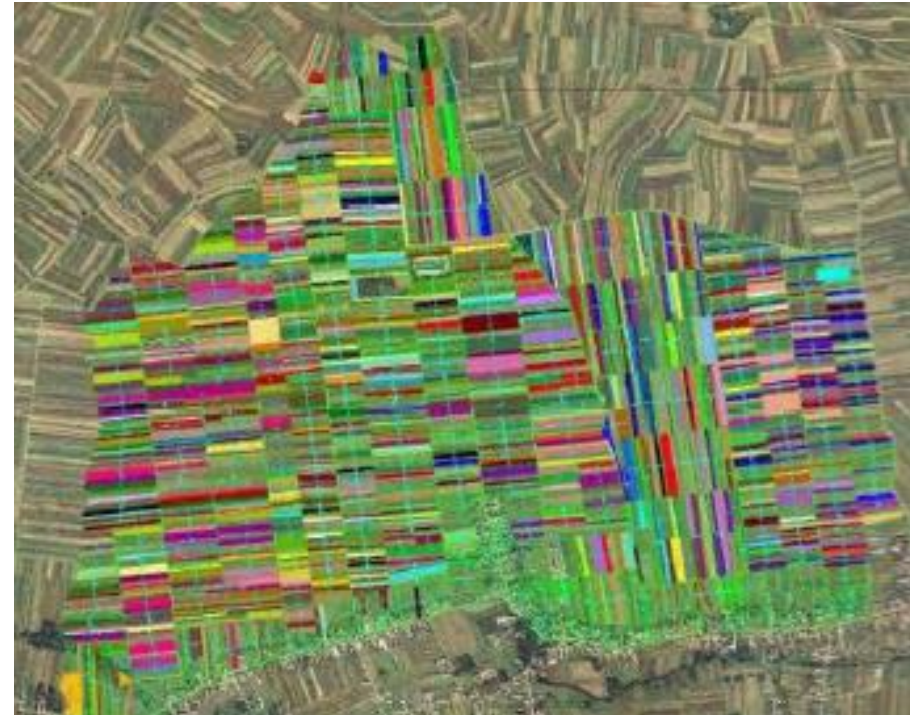
### **CROSOTER Project: Croatian Soil and Land Digital Data Bank**

- The first stage finished in 2003, including
  - review of the soil studies in Croatia,
  - methods for creation of an extensive soil and land information system,
  - data processing method to be applied in soil, land and environment use and protection;
- **The second stage ?**
- The project objectives
  - complete the Basic Soil Map for Croatia (BSMC),
  - soil degradation assessment (acidification, desertification, erosion, dehumisation, compaction, and the like),
  - digital processing of relevant data, including the inputs on heavy metals, impact of local hot spots (industrial plants, landfills, agricultural production, etc.),
  - proposal on soil monitoring.

# Programs and projects – national level

## Agricultural land consolidation in Croatia

- ▶ Provide support for the development of Croatian policy of agricultural land consolidation policy and contribute to sustainable development of rural areas



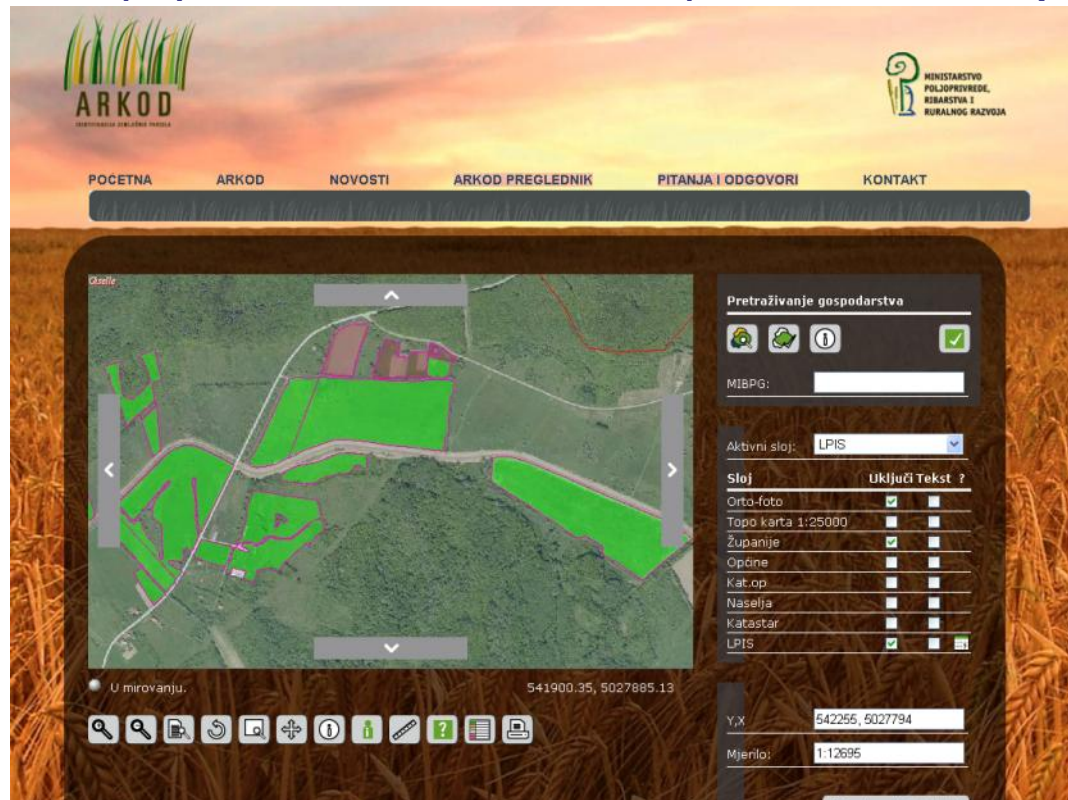
## Structure of agricultural holdings and land 2009

	class (ha)				all holdings
	<3	>=3 i <20	>=20 i <100	>=100	
number of holdings	120.230	63.707	6.060	675	190.672
land (ha)	103.680	424.719	238.654	240.906	1.007.959
Ø size (ha)	0,9	6,7	39,4	356,9	5,3
holdings (%)	63,1	33,4	3,2	0,4	100,0
land (%)	10,3	42,1	23,7	23,9	100,0

Source: Farm register, MAFRD, May 2009

## ARKOD – Project: Land parcel identification system in RH (DOF5)

- ARKOD is a national land and parcel identification system, actually **land use register**;
- established to support a system of agricultural subsidies and to provide its transparency (direct payments and rural development measures)





# Programs and projects – national level

## Agriculture Pollution Control Project – APCP

- nutrient reduction from agricultural sources to surface and groundwater
- implement a national Agri-environment policy
- instigate a public awareness campaign that would disseminate the benefits of project activities



# Programs and projects – national level



## National project of irrigation and water and agricultural land management in the Republic of Croatia

### › **Developing agricultural production by**

#### ⇒ **Tecnological changes**

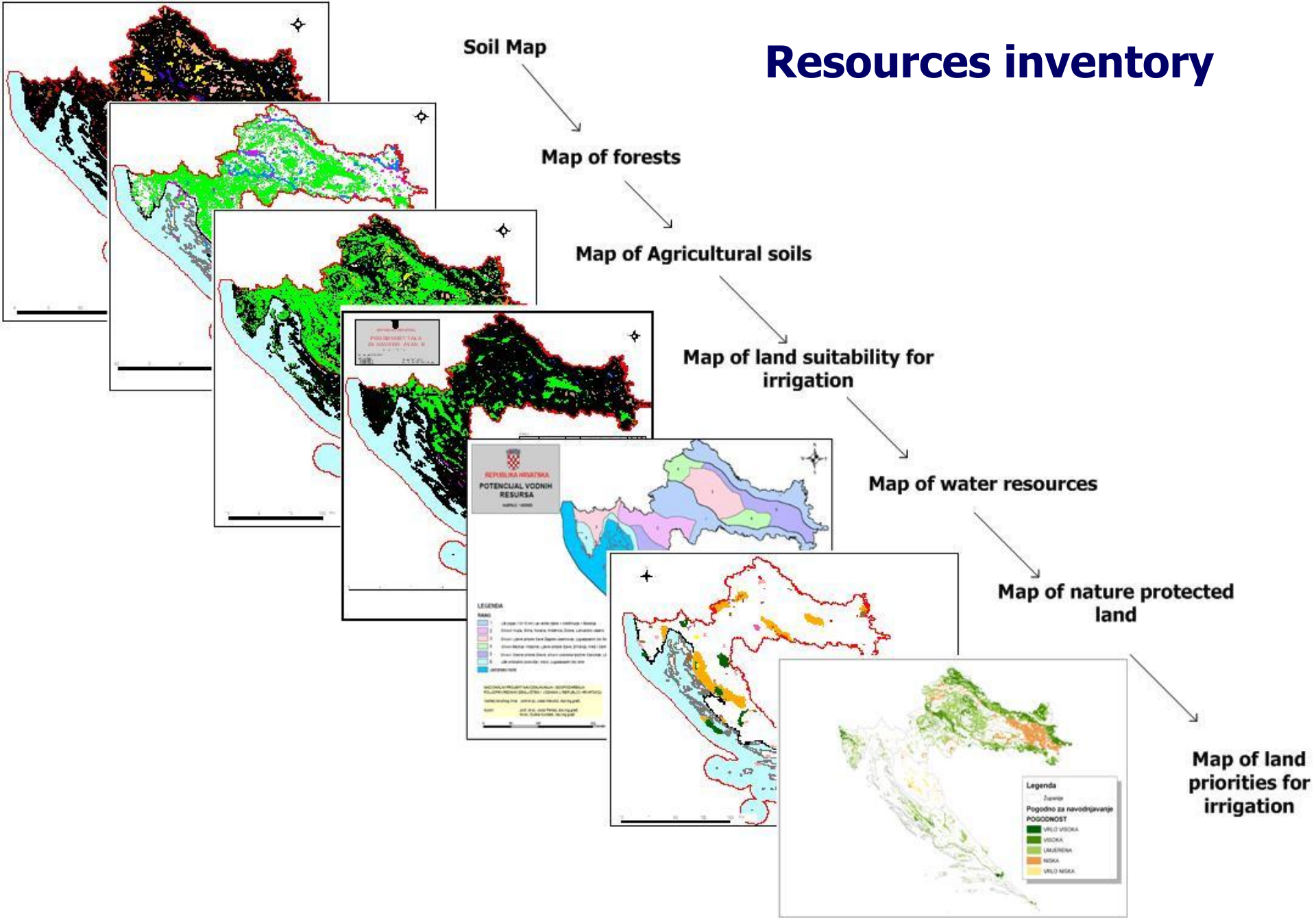
(systematic organization of infrastructure in agriculture, including irrigation systems)

#### ⇒ **Institutional changes**

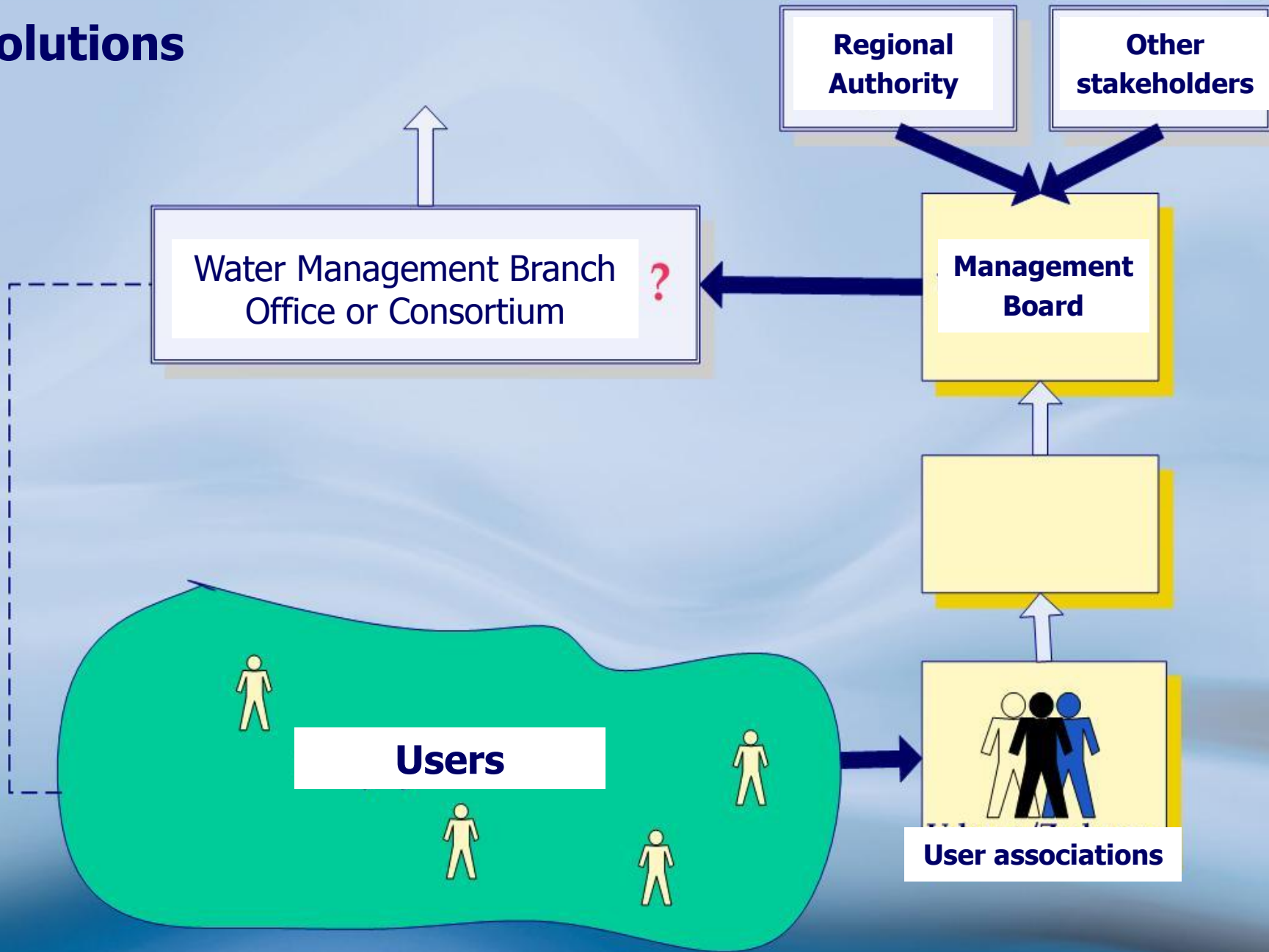
#### ⇒ **Legal changes**

#### ⇒ **Policy changes and support**

# Resources inventory



# Solutions





# Needs for further actions

- Integrated approach is required to implement any future strategy

## WHAT WE ACTUALLY NEED?

- to define **competent authority**
- to develop and adopt **soil protection strategy** that would support and strengthen national, regional and local soil policies

→ **action plan**

- Croatian priorities have to be focused to the **rural development**, because agriculture and tourism are the dominant economical activities

# Identification of the main soil protection issues

- ▶ when the threats are in question, it's important to harmonize activities (and legislation) on **Soil Protection Strategy** and **Water Framework Directive** (duplications and inconsistencies already observed)
- ▶ what is going on on these issues on the regional level in the frame of the voluntary-based incentive programs → next presentation

**Thank you for your attention!**