



## Results overview for the Pinios river basin (Greece)

This fact sheet summarises the results of the Water and Wetland Index for the Pinios river basin in Greece. Information about the project and the different issues presented in this fact sheet can be found in the WWF Report “Water and Wetland Index - Critical issues in water policy across Europe” (2003).

### Water Resources in the Pinios river basin

The Pinios river (216 km) is located in the central section of mainland Greece, in the Thessaly Water Region. The total surface area of the Pinios River Basin is 9,500 km<sup>2</sup> (the drainage basin of the former Lake Karla excluded). The total water availability is about 3,140hm<sup>3</sup> and consists of 2,550hm<sup>3</sup> surface water and 590hm<sup>3</sup> groundwater. The main economic activities are agriculture, tourism, livestock and fisheries. Agricultural activity uses 96% of the water supply and is the main cause of significant water quantity and quality problems.



## Application of Integrated River Basin Management principles

### Public participation in water management

#### Information provision

Regional Authorities proactively provide no information as they still have a marginal role in water management in the river basin. An important limiting factor for the provision of information is the lack of financial and administrative resources to deal with the public. Therefore, more jurisdiction should be given to the regional authorities, along with the appropriate capacity and financial recourse for the achievement of the necessary information provision to the public.

Existence of arrangements<sup>1</sup> ☹️

Adequacy<sup>2</sup> ☹️

#### Public consultation

Public consultation of draft documents is quite rare as decisions mainly come from the Central administrative level. Again, for the successful accomplishment of consultation procedures at a regional level, more jurisdiction should be given to the regional authorities, along with the appropriate capacity for the actualisation of these procedures.

Existence of arrangements ☹️

Adequacy ☹️

#### Active involvement

Regional Authorities sometimes seek the involvement of the academic sector and the municipal supply companies in the planning of specific projects. The active participation of other stakeholder groups such as farmers and environmental NGOs is not sought. Still, the Water Framework Directive requires active involvement of all stakeholders in water management at a river basin level.

Existence of arrangements ☹️

Adequacy ☹️

<sup>1</sup> This assesses the existence of arrangements (e.g. the celebration of information days, the existence of public consultation procedures, the existence of water management plans, etc).

<sup>2</sup> This assesses the adequacy of the existing arrangements and their implementation on the ground. It is based on the opinion of WWF, partner NGOs and other water stakeholders.

## Integrated management of water resources

### Integration of competencies in water management

The Regional Authority for Water Management in the Thessaly district is responsible for ground and surface water matters. However, this authority is in practice powerless, with only fragmented responsibilities, while decision-making processes are still maintained at a central (ministerial) level. No single body at the river basin has responsibility for floodplains, wetlands and coastal waters. Therefore, it is deemed necessary that greater jurisdiction is provided to the regional authority, not only in papers but also in practice.

Existence of arrangements	☹️
Adequacy	☹️☹️

### Integration of water policy with sector policies

At present there is no integration of freshwater management with policies or programmes for other water-related sectors. Hopefully the situation will improve with the enforcement of the Water Framework Directive.

Existence of arrangements	☹️☹️
Adequacy	☹️☹️

## Wetland management

### Integration of wetlands into water management

Management of wetlands is not in practice integrated into freshwater management in the river basin. No special action is taken for the Pinios delta, which is a designated Natura 2000 site. Nevertheless, a big project for the restoration of the former Lake Karla, which lies within the basin, has already begun implementation, and will also serve irrigation purposes.

Existence of arrangements	☹️
Adequacy	☹️

### Wetland protection policy

No special action in freshwater management is taken for the Pinios delta.

Existence of arrangements	☹️
Adequacy	☹️

### Wetland restoration policy

The restoration of the former Lake Karla is expected to provide economically, socially and environmentally sound management to this former wetland. A management body was recently established. However, the degree of its success will depend a great deal on the appropriate management of the complex system of water inflow and outflow, and of all the land and water uses within the entire watershed of the former Lake Karla.

Existence of arrangements	😊
Adequacy	😊

# Response to key pressures and impacts on freshwater ecosystems

## Water quantity problems (agriculture)

### Approach to the problem

The Thessaly plain suffers from severe water stress problems due to both geomorphological conditions and intense agricultural activity, which is the main production sector in the region. The problems are acknowledged and the Action Plan developed for the region includes agro-environmental measures for the reduction of water used for agricultural purposes. Still, the application of these measures is rather limited, resulting in the non-alleviation of the water stress problems.

Adequacy



### Legal & regulatory instruments

Not all the existing regulatory instruments are properly implemented in practice and the measures used to monitor their correct application are not effective. A stronger and direct implication of the regional/local authorities is needed.

Adequacy



### Financial & economic instruments

The economic and financial instruments included in the Action Plan provide farmers with good incentives to shift from high water-demanding groups to low water-demanding ones through five-year contracts. However, due to the severity of the problem, the application of additional measures is required.

Adequacy



### Information & voluntary instruments

A number of research and pilot projects for the reduction of water consumption have been implemented and face-to-face advice on best practices is occasionally provided. These instruments however, are applied on a random basis while, in order to be effective, they should be implemented in a systematic way.

Adequacy



## Water quality problems (agriculture)

### Approach to the problem

The Thessalic plain is designated as a Nitrate Vulnerable Zone (NVZ), according to the EU Nitrates Directive. It is the only NVZ (out of the four designated in Greece) for which a special Action Plan - which includes analytic measures against pollution caused by nitrites, such as direct subsidies for the reduction of water pollution - has been developed and officially adopted. Still, the application of the measures is not satisfactory.

Adequacy 😊

### Legal & regulatory instruments

The existing regulatory measures are not fully implemented in practice. Moreover, there is a need for the development of specific measures targeting the pollution caused by pesticides.

Adequacy 😊/😞

### Financial & economic instruments

The application of economic instruments for addressing water quality problems is very insufficient. Direct subsidies for the reduction of water pollution caused by agriculture are a good example for all the agricultural regions of the country and represent a promising way to solve the problem in the river basin. Still, these are only partly used, while the application of more economic tools is deemed necessary.

Adequacy 😞

### Information & voluntary instruments

Several research and pilot projects for the minimisation of nitrate pollution are implemented and face-to-face advice on best practices is used, although not in a systematic manner.

Adequacy 😊

#### Legend:

Good



Fair



Poor



Very poor



**Note:** In 'Adequacy', where there is a double score, the face at the left of the slash represents the assessment of the adequacy of the instruments themselves, while the face at the right represents the assessment of the implementation of the instruments 'on the ground'. Where no double score is specified, it means that the two aspects got the same score.

#### Further information

WWF Hellas completed the WWI for Greece.

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