

The Acheloos river diversion project - GR

1. Policy Objective & Theme

- SUSTAINABLE ECONOMIC GROWTH: Balancing economic, social, cultural development whilst enhancing environment

2. Key Approaches

- Participation
- Ecosystems based approach
- Technical

3. Experiences that can be exchanged

That a top-down approach without sufficient engagement of all the stakeholders can cause delay in a major project.

4. Overview of the case

The Greek government is diverting a river water course through a mountain range to irrigate cotton fields on the other side. The project has drawn national and international environmental opposition and the lack of effective public participation has left society divided on the issue.

5. Context and Objectives

a) Context

The Acheloos River flows from the Pindos Mountains in the centre of Greece, westwards to the Ionian Sea and is separated from the Thessaly plain by the southern end of the mountain range. The river has a total length of 220 km and the basin covers a total area of 6,226 km². Along the length of the valley four hydro-electric power stations have been constructed. Their construction has resulted in a progressive reduction of sediment transportation to the delta and, coupled with salt water intrusion, over-exploration of groundwater and the expansion of tourism with its infrastructure has led to degradation of the coastal area.

Thessaly is a region naturally rich in water where there is widespread cultivation of cotton, a crop with a particularly high water demand. However, the long-term management of the region's water resources – unregulated bore drilling for irrigation and the irrigation methods used - has caused depletion and increased salinity of the groundwater and ultimately to serious supply problems. There has been a plan to divert the river Acheloos eastwards, through the southern Pindos mountain range, for irrigation to boost agricultural production, since the 1930s.

The Acheloos Valley and the Delta are listed as Special Protection Areas under the EU Birds Directive and were designated for inclusion in the national NATURA 2000 list. In addition, the Acheloos delta forms a complex of wetland habitats which constitute one of 11 Ramsar sites in Greece. The middle and upper reaches of the Acheloos river are the most important Greek habitat for the trout, *Salmo trutta*, a protected species under Annex II of the EU Habitats Directive. A number of other fish species indigenous to the river are also protected by the EU Habitats Directive.

b) Objectives

The aim of the river Acheloos diversion project is to tunnel part of the flow of the river eastwards, from its natural basin, to provide for additional water to supplement irrigation in the Thessaly plain. The final plan includes the construction of major dams and associated reservoirs together with a 17.4 km long diversion channel and two tunnels. This system is designed to take an estimated 600 million m³/yr of water from the Acheloos river to the other side of the Pindos mountains.

6. Implementation of the ICZM Approach (i.e. management, tools, resources)

a) Management

The project is sponsored by the Ministry of Environment, Regional Planning and Public Works, with the Greek Public Power Corporation (DEH) building and running the hydroelectric scheme. A number of national and international environmental organisations oppose the scheme including the Hellenic Ornithological Society, Elliniki Etairia, the Hellenic Society for the Protection of Nature WWF, Greenpeace, Royal Society for the Protection of Birds and the European Environmental Bureau.

b) ICZM tools

The Greek government, supported by the Thessaly farming community, have been in conflict with environmental organisations for a number of years over this river diversion project. As early as 1992, a pan-European campaign began, led by the Greek branch of the World Wide Fund for Nature (WWF).

A number of European environmental organisations provided support and, as a result, the European Union rejected an application for funding for the project. In 1994, the Council of State, the highest court in Greece, issued a restraining order against the project contractors, suspending all construction works until an integrated and scientifically sound Environmental Impact Assessment (EIA) had been prepared. This was further supported by a recommendation from the Permanent Committee of the Bern Convention, which made a formal protest to DG Environment a year later. The environment impact assessment report was prepared in three months and the project revised although a cost-benefit analysis of the modified project was not done. In 2006, the government successfully argued that the project was of national interest and after a lengthy debate, the Greek parliament voted through legal amendments to allow it to proceed. As a result, any intervention can now only be on the basis of legal irregularities.

Nonetheless, this political support was not unanimous and the environmental campaigns continued. The centralised nature of government has allowed little opportunity for the environmental groups to have meaningful dialogue and, although this has improved in recent years, access to the state is still fairly limited in comparison with other EU Member States. This has meant that viewpoints have become very entrenched. As late as April 2009, the country's six main conservation groups issued a joint statement opposing efforts of the Environment and Public Works Minister to divert the water accusing the government of squandering dwindling water reserves and funds. They claimed that the project would not solve Thessaly's irrigation problem and argued instead that it would "become an alibi for the continuation of the catastrophic water management and unacceptable agricultural practices that have been undermining the Thessaly Plain for years." The government, for its part, claims the project is environmental-friendly as it supplies the Thessalian Penios river with water, creates "green energy" by hydro-electric power, reduces the energy usage needed for drilling water and will not affect the river's ecosystem. The conservationists' claims were described as "inaccurate and unsubstantiated".

Furthermore, the arguments have been taken to the EU. Something which began as an effort to save the valuable wetlands of the Acheloos estuary has evolved into an international campaign to influence the entire European Structural Funds policy. The Acheloos diversion became the foremost example of Community funds "being wasted on public works that make no economic or social sense and have big environmental effects, one of Europe's "white elephants", based on an outdated development model.

7. Cost and resources

The estimated total project cost as made in 1996 was €3–4.5bn.

8. Effectiveness (i.e. were the foreseen goals/objectives of the work reached?)

The lack of dialogue and any form of meaningful participation at the beginning of the process has meant a number of legal

challenges and delays to the project. Although it might be argued that a project on this scale would be unlikely to get the support of a majority of environmental organisations, the top-down approach of government has certainly contributed to a hardening of attitudes and deeply inflexible positions.

9. Success and Fail factors

The EIA did little to assuage opinion that the dams and reduced flows to the Acheloos river will change the habitats of a number of endangered and internationally protected species. It is still thought that the river delta Ramsar site will suffer from a critical reduction in freshwater input which will fundamentally alter its character. It has also been suggested that the extensive excavations will increase soil erosion and the likelihood of landslides. In addition, the scheme will have a number of socio-economic and cultural impacts including the destruction of the 11th century monastery of St George of Myrophylo. In the final analysis, the economic viability of the project – which is designed to boost agricultural output in the region – depends on cotton farming. With cotton subsidies being seriously questioned in terms of the EU reformed common agricultural policy framework and possibly phased out in the coming years, the future is far from clear. The scale of human intervention in natural areas today is quite different from what it has been even a decade ago: the conservation and protection of ecosystems is a priority in European policies. Transporting water from one administrative area to another, since the Water Framework Directive, has to be based on the principle of the polluter pays, achieving efficient use of water, managing demand and retrieving cost, and a transparent decision-making framework. Current agricultural practices should also be aimed at conserving natural resources.

10. Unforeseen outcomes

The European Union has left open the possibility that it could take action.

11. Prepared by

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12. Verified by

It has not been possible to verify this case.

13. Sources

- Implementation of EU Environmental Policy: Role of Domestic Mobilization of Social Actors in Southern Member State Greece as a Case study (2009) N. Daut. University Of Kent, Brussels
- www.ekathimerini.com



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