

What is Nostrum-DSS?

It is a Co-ordination Action, funded by the EC FP6, which aims to improve governance and planning in the field of sustainable water management in the Mediterranean area:

- by establishing a network between the science, policy, and civil society spheres,
- by fostering active involvement of the relevant stakeholders,
- through the development and dissemination of Best Practices Guidelines for the design and implementation of DSS tools for IWRM.

What are the Nostrum-DSS Leaflet Series?

These short documents summarise the main output of the project and represent an **entry door** to the wide range of products and resources available on the project's web site. They are composed of three kind of leaflets:

- Case studies leaflets
- Policy leaflet
- Technical leaflet

To whom this leaflet is addressed?

As part of the Policy leaflet series, this document is mainly addressed to **policy and decision makers** interested in gaining insights on how *DSS tools and approaches* can support them in their everyday job, but may be useful to researchers and practitioners too.

For further information see the NOSTRUM-DSS website:

→ <http://www.nostrum-dss.eu>

This leaflet is the sole responsibility of the author(s) and does not represent the opinion of the EC, nor is the EC responsible for any use that might be made of the information appearing herein.

Conflicts over the resource

Conflicts arise when waters are **perceived as scarce resources**, both in absolute terms, as physical shortages (continuous or seasonal), or in relative terms, with respect to the development expectations by a country, a local community or a water user group.

Conflicts can arise when resources are not scarce but some water **uses are limited** either in quantities, by expanding demand from a sector, or in quality, for the negative impacts produced by human activities on the resources. **Increasing water consumption rates** follows changing consumption patterns driven by globalisation trends.

Uneven consumption rates are observed: highest peaks in withdrawals during the driest seasons, to respond to agricultural and tourist needs, increase water stress and originate conflicts over the water resource.

Climate change is expected to further contribute to the situation leading to an increased uneven spatial and temporal distribution of water resources.

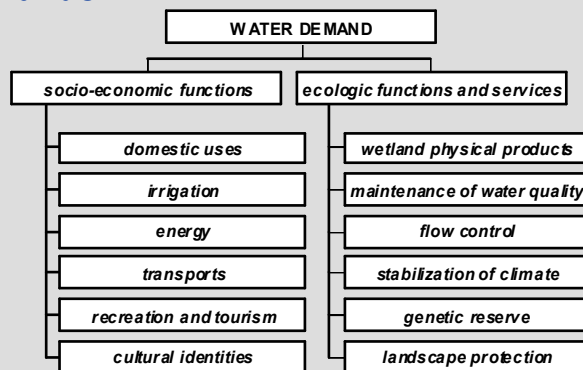
In general, conflicts arise whenever there is a **gap in governance relations** in a community. However they are expressed whenever the social groups are aware of the inequalities that they are suffering, and have the means for dedaring their rights.

Lack of conflict could in certain cases be a symptom of a lack of awareness about risks, or lack of fields for expression of stakeholders' needs and constraints.

The stake: water demands

Water resources provide both socio-economic and environmental services. While water allocations are traditionally to satisfy **socio-economic needs** expressed by stakeholder groups, the need to preserve **ecological functions** supported by water bodies (if it is not for direct exploitation of physical products) have weaker supporting actors.

Local – non local pressures: overexploitation of water resources occur also from external actors, particularly by through tourism and the international trade of water-intensive products.



Experiences from the Nostrum-DSS Case Studies

Lebanon

In the Damour area, a participatory approach have been set up to solve the existing– and to prevent future - conflicts over the scarce water resources.

Portugal

In the Caia catchment, the approach initially relied on a Social Network Analysis to understand the relationships between stakeholders to involve in the further steps of the decision making process.

Types of conflicts

Conflicts in water management can be grouped according to 3 clusters:

1) Competition among sectors and stakeholders groups:

Some stakeholders perceive that the amount of water allocated to their sector is endangered, either quantitatively or qualitatively, by abstractions done for other sectorial uses. Intersectoral competitions and risks regard both socio-economic uses and ecosystems functions, as some uses can harm the social and environmental health.



2) Conflicts generated by poverty and by externally conceived innovations and development schemes:

In some cases, the adoption of alternative sources (water treatment and reuse, desalinization, water imports, virtual water trade etc.) are envisaged to release the stress, but they depend upon the available opportunities and capacities to pay for each alternative choice. Some richer countries, suffering from water scarcity, have covered part of the gaps by these means, while poorer countries encounter constraints in their adoption.

Tensions may then derive from processes of technological transfer imposed over the used indigenous tools. These are usually considered as obsolete and thus abandoned; while the new ones are directly introduced, without any tentative or progressive adaptation within the local contexts. Together with the technologies, also traditional knowledge and social organisation systems, although supporting local livelihoods, automatically became obsolete and with no doubt, they are simply substituted by foreign ones.

3) Conflicts generated by public sectors strategies and institutional weaknesses:

Institutional conflicts are in some cases caused by the coexistence of customary laws responding to traditional needs and new regulations and laws: the result is a non fully consistent regulatory framework.

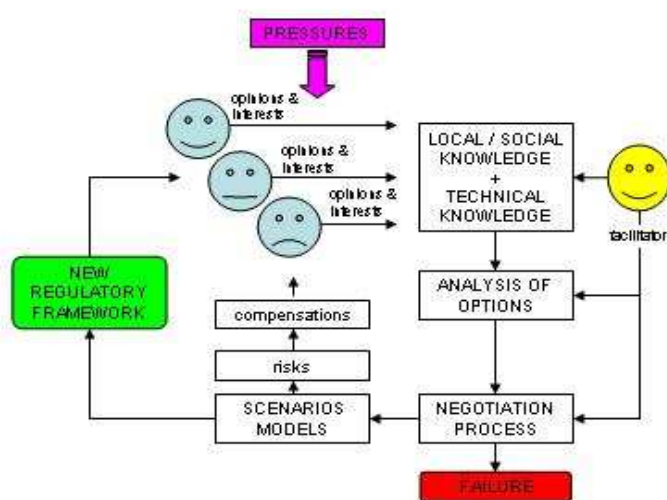
Tools and approaches to prevent and resolve conflicts

To more effectively manage water resources it is necessary to involve the scientific community and key stakeholders, decision-makers and representatives of the civil society in the **discussion of management strategies** and policy options.

In the case of transboundary disputes, **international negotiation** is a way to solve existing or potentials conflicts: some countries may need empowerment in order to enter equally in the exchange and this needs external support.

At the national scale, the adoption of **alternatives to conventional water sources** can help mitigating the risk related to water shortages and to distress competition, thanks to the utilization of technologies (e.g. desalinisation plants) or rationalizing water for irrigation.

Helpful are also the measures to **anticipate or repay users** that have been shocked by drought events or penalized by policies for the benefit of other stakeholders. These can be either monetary (as disincentive for detrimental behaviours) or non-monetary.



A simple framework to manage conflicts

See also the **NOSTRUM-DSS Leaflet on Public Participation in the Mediterranean**
→ | <http://www.nostrum-dss.eu>

Home » Final products » Policy support
» Policy leaflets

To see how DSS can support the solving of conflicts see the **NOSTRUM-DSS Meta-Guidelines**

→ | <http://www.nostrum-dss.eu>

Home » Final products » Policy support
» Meta-guidelines

- Keywords: Conflict Resolution
- Keywords: Problem Analysis

