Photo: Guillermo Mestre/Hewalso de Aragon

Protest power abroad: In September 2001, protesters rallied in Brussels, Belgium, against Spain's National Hydrology Plan, which reinforced old concepts.

Turning the Page for Hydrosolidarity in Spain

Inherited Paradigms Favor Well-off Farmers

The example of the Segura catchment in Southeastern Spain illustrates how a considerably well-off group of farmers profit from far-reaching hydrosolidarity and extreme water subsidies.

The Segura Catchment – the Orchard of Spain

Dating back to the Muslim era some 1200 years ago, the Segura River catchment in Southeastern Spain has been a prosperous agricultural region. Blessed with a mild climate and fertile soil, the area has seen the cultivation of vegetables, citrus and other fruits for many centuries. Since Spain's entry into the European Union in 1986, the demand for its agricultural products has significantly increased.

A reliable water supply has naturally been key to the region, with the occasional dry summer hindering a development in the region which would otherwise be even more economically advantageous.

Inherited National Hydrosolidarity

Historically, a well-established irrigation network in the middle and lower parts of the catchment guaranteed a reliable water supply for the agricultural demands. The expectation in Spain – and many other countries – was that surface water supplies for irrigation should be delivered to the farmers at an almost nominal price. Furthermore, the prevailing public opinion was that the required hydraulic infrastructure be financed with public funds and that water transport be publicly subsidized.

Consequence of the Spanish Water Philosophy for the Segura Region

Based on these paradigms, and in response to the active lobby of the Segura farmers, a program to control the Segura River was designed and implemented after the Spanish Civil War in 1939 and led to construction of a considerable number of reservoirs and dams for irrigation. As they did not sufficiently meet the growing water demand for irrigation, the Spanish Ministry of Agriculture launched a major effort in the 1950s and 1960s to promote groundwater-based irrigation in Spain.

The initiatives and all related modern drilling technologies have initially been heavily subsidized with public funds but soon were directly developed by private farmers with their own finances. Due to an insufficient enforcement of the groundwater legislation about private ownership and responsibility for groundwater, the aquifers became overexploited and heavily degraded, particularly in the Segura catchment. Only 2500 of more than 20,000 wells have been inventoried by the Segura Water Authority.

Water Transport from the North to the South

With the right to almost free access to water for irrigation still in mind, the active lobby of the Segura farmers brought about another stratagem, which had been officially proposed for the first time in 1933 but lay dormant for more than thirty years. In order to correct the "natural hydrologic imbalance of Spain" as it has often been called, an efficient transfer of water resources from the humid North to the dry South was suggested.

In 1979, almost 50 years after first proposed, water from the Tagus River West of Madrid was transferred to the Segura catchment through a 300-km long aqueduct.

From the projected 600 Million m^3/ year, two-thirds was to be allocated for irrigation and one-third (including the 10% estimated loss during the transfer) for urban water uses.

In June 2001, the Spanish parliament enacted the new Law of the National Water Plan, which features a similar water transfer concept, now from the Ebro River South of Barcelona to several regions along the Mediterranean coast. Half of it, again, is destined for the Segura catchment.

Only now are some groups in Spain starting to question the strategy of enlarging water transfer projects in the country.

Rejection of Inherited Paradigms

The Ebro water transfer has met strong opposition among various groups. The principal one is the autonomous Aragon region,

located on the Ebro basin, but also the Ebro delta inhabitants, environmental groups and other activists who have partially or totally rejected any water transfer. Protests have culminated in several massive demonstrations of more than 400,000 participants in several cities of Spain and even in Brussels.

The government says this water transfer will cost about 0.30 Euro/m^3. Economic experts though consider the real costs significantly higher and suggest brackish water desalting and even sea water desalting as a better economic and ecological alternative. It will take some years before the large water transfer of the Ebro River is implemented, and the socialist party already pledged to halt these plans in case they should win the next general elections.

Hydrosolidarity at All Costs

One could think that those being against the Ebro water transfer lack solidarity with the Mediterranean regions by wanting to deny water to areas where it is desperately needed, while the Ebro River has a surplus of water. The question is whether the people in the Segua catchment really are in such a desperate situation. Almost 90% of the water used in the Segura catchment is for irrigation of high value crops and not for urban water supply.

Moreover, the majority of Spaniards still think that the hydraulic infrastructure has to be financed with public funds because the "poor farmers" cannot pay a full price. But these views neglect the reality that irrigation in the modern Segura catchment essentially is an economic activity favoring a relatively well-off group of farmers and other stakeholders.

Spoiled After Groundwater Abundance

An important point for the situation in Spain is related to the insufficient groundwater management and lack of regulations for its abstraction in the 1960s and 1970s. According to the Water Law of 1879, groundwater was considered as private ownership. The landowner could drill and pump as much as required or wanted unless a third person was affected. In a later effort to regulate groundwater withdrawal, a new National Water Law was enacted in 1985 that declared groundwater as public domain. But as controls were rare, the situation has been described as administrative and legal chaos.

The problem arises because, due to aquifer depletion, groundwater no longer satisfies the current demand for irrigation in the Segura catchment, a thirst having nearly tripled from 90,000 to about 250,000 ha/yr since 1933.

Prospects After the 2001 National Water Plan

Hydrosolidarity is not intended as an excuse to compensate for severe mismanagement in the past, and it shouldn't serve as an alibi for endless public subsidies to the detriment of other population groups and regions within one country.

Even if the Spanish Parliament by means of the National Water Plan still follows the historically deeply rooted philosophy of free irrigation supplies to everyone, the plan does contain some provisions which, when interpreted consequently, could even help turn the page for the Spanish concept of "hydrosolidarity". As developed by SIWI, hydrosolidarity is when water is shared equitably both upstream and downstream in a river basin and between all those living in the basin and based on a social capability to adjust to existing natural resources constraints. One article in the law, for example, establishes the need to perform thorough groundwater studies. Another article for a relevant education campaign could significantly contribute to a shift in views in Spain. ■

The article, by Stephanie Blenckner of SIWI, is based upon a 2001 SIWI Seminar contribution by Prof. M. Ramón Llamas and Mrs. M. Teresa Pérez-Picazo. Their presentation, " The Segura Catchment Management and the Debate on Hydrosolidarity in Spain," is to be published in the forthcoming Stockholm International Water Institute Report Series, Report 13, 2001.

Protest power at home: In Madrid's Pilar de Zaragoza Plaza, a massive manifestation against the plan was displayed on October 8, 2000.

Photo: Carlos Moncin/Heraldo de Aragon