

Pitfalls in water related development cooperation

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Introduction

The title of this paper could fittingly be rephrased:

“What can possibly go wrong in a water-related project of development cooperation?”, and the quick answer is *“Practically everything”*.

Experience shows that difficulties/“pitfalls” are often caused by

- Internal political problems, corruption and incompetence, and societal dissolution;
- International conflicts, political history and pressure;
- Lack of relevant data and knowledge; improper technology;
- Poor communication between national authorities, water users and development aid organizations; Cultural conditions, esp. language and religion;
- Poor project economy and short-term planning horizons.

Examples and discussion follow.

Internal political problems

It should be quite evident that a breakdown of normal administrative functions within a country will also cause failures in the water sector. The list of symptoms of this “social disease” is long, and includes poverty, poor health conditions, lack of vital infrastructure like energy supply and communication, figure 1, unpredictable and overly bureaucratic decision-making etc. Water management will often be given low priority, leading to lack of maintenance of equipment, poor monitoring services, and poorly motivated staff.

Lack of legislation and unsuitable management structure add to such problems. A common situation in the water sector is a highly disperse structure of responsible bodies within the government. Ministries and directorates compete for the ownership of water matters. A strong user sector, like agriculture or energy or health may “win” this battle, often leading to water management without integration between sectors, and insufficient communication between



Figure 1. Internal conflicts in a country may hamper normal interaction between water development project staff and counterparts. In this case the highway Jerusalem – Tel Aviv was closed during the intifada of 1995 due to a suspicious-looking card box in the road ditch.

national and regional/local authorities. In one case, three different agencies of the same country: Ministry of agriculture, Inland water transport agency and Hydro-meteorological service, all operated water level gauges on the same location of the same river, but with different scales (inches and centimetres), with different datum levels, and without mutual data exchange.

Lack of pertinent water legislation and water quality standards have been used as an excuse for untenable water quality conditions (Example: Claims made in 2003 in India that the Coca Cola company was distributing soft drinks containing residues of pesticides were rebuked by the company on such grounds)¹.

¹ e.g. <http://www.indiaresource.org/campaigns/coke/>

International conflicts

External conflict issues may often add to internal political problems, and are often interlinked with them. Uneven distribution of water resources, whether real or conceived, could add to both internal and international water conflicts. Examples abound of international disputes where shared water resources are part of the picture: *Euphrates-Tigris/Turkey, Syria, Iraq*; *Ganges/Pakistan, India*; *Jordan/Israel, Jordan, Palestinian territories*; *Aral Sea/Kazakhstan, Uzbekistan, Russia*; etc. Water-related projects in these basins are notoriously difficult to agree upon. However, there are also many examples of co-operation in international rivers providing a sense of mutual dependence between states otherwise in

conflict. In quite a few cases international water commissions or similar bodies have been created as a framework for joint management of shared water resources, e.g.: The Mekong River Commission, Nile Basin Initiative, Zambezi River Authority, The Danube Commission and many others. Water projects promoted within these bodies stand a good chance of success.

The controversial Gabčíkovo² dam project in the Danube is a good example of a peaceful solution to a difficult conflict. After many failed attempts to solve the conflict bilaterally, Hungary and Slovakia submitted the dispute to the International Court of Justice in The Hague. The court case has been hailed as a landmark for two reasons: for the first time, the International Court would rule over an environmental dispute, and for the first time the 1997 UN Convention on the Law of the Non-navigational Uses of International Watercourses³, although still not ratified, was used as a legal basis for the ruling.

Deficiencies in data, knowledge and technology

Many water-related projects have stumbled because of a lack of data bases, whether for hydrometry, water quality, or water use. Reasons may be simply an absence of monitoring or similar data collection, old-fashioned data storage and processing techniques, or secrecy.

2 http://en.wikipedia.org/wiki/Gabčíkovo_-_Nagyymaros_Dams

3 http://untreaty.un.org/ilc/texts/instruments/english/conventions/8_3_1997.pdf

Obvious consequences of such shortcomings could be costly over- or underdimensioning of hydraulic structures or purification plants. Moreover, a lack of adequate topographic or topical maps is serious bottlenecks for national economic development.

Communication and cultural problems

An open and trustful communication between the partners in any cooperative project is clearly necessary to avoid unnecessary and inefficient use of project resources. Reasons for communication breakdown could be hidden agendas, empire building, competition for status and resources, or pure ignorance.

Differences in behavior and working habits between project collaborators should of course be observed and respected when they are not preventing project goals to be met. And respect for local faith and traditions are a part of the mental baggage of successful project managers, cf. figure 2. On the other hand, not every “culture clash” needs to be destructive. The time-efficient and result-oriented western water expert and the soft-spoken accommodating Buddhist may both benefit from being exposed to each other in an honest confrontation.

Project economy and planning

There is probably universal agreement that proper financing of any development project is a necessary, but not necessarily sufficient, condition for success. Many have experienced repeatedly that



Figure 2. Possible hydropower development of the Epupa Falls of the Kunene river between Angola and Namibia is contested and presently shelved, due to the possible impact on the old graveyards and agricultural practices of the local nomadic Himba people (Photo: Torodd Jensen).



Figure 3. Groundwater supply for Nablus, West Bank. A successful project with sufficient and long-term support from GTZ, Germany.

financing ends with the departure of the external project personnel. Continued budgeting for training, maintenance and repair of water infrastructure often gets low priority from governments committed to more eye-catching projects. The reasons for inadequate long-term financial support may also be linked to basic weaknesses in the national economy, e.g. failure to serve previous loans, or an unsuitably designed water tariff system. A (rare) example of a water project enjoying long-term support is shown in figure 3.

In order to overcome, or at least counteract such problems, the potential breakdown of infrastructure or erosion of competence should be envisaged at the planning stage. Solutions might be found in providing support for institution building, good water management practices including water tariff structure, and modern water-related legislation.

Factors of success

In summary, the pitfalls jeopardizing water-related development projects are numerous and most often rooted outside the field of professional water science and technology. Eliminating these pitfalls may seem impossible, but will require solutions to internal and external conflicts, often of a political nature; access to relevant data and knowledge; open communication between actors; and not least, sufficient and long-term planning.

And like in all aspects of life: The human factor is decisive. When success stories of water resources development are told, one will without exception find strong personal commitment, idealism and enthusiasm among project participants.