Stronger supply, clever demand: vision for water and environmental information in Central Asia

Issues paper by Nickolai Denisov, Zoï environment network and Bo Libert, UNECE
v. 1 December 2011

Why this paper [the reasoning]

Reliable information about the environment and in particular water resources is required for managing the future development in Central Asia. Challenges with ensuring that such information is available and accessible for decision-making as well as for the broader public are many:

- capacity for collecting, managing and quality-controlling such information is generally low, monitoring networks are not sufficiently developed or optimized, and in some cases are even deteriorating;
- the regular exchange of information within and between states remains difficult for lack of culture and political will for such exchange, as well as insufficient budgets for maintaining data-generating organisations;
- on the regional level it is difficult or nearly impossible to find information sources which are perceived as politically neutral / impartial;
- communication of data in ways which can be understood by decision-makers is under-developed;
- decision makers are hardly present on the regional level, and generally do not actively form information demand and policies beyond well-established business-as-usual;
- in their turn, the suppliers of information do not actively look for users apart from their established routines, beyond which there is no strong culture of serving other agencies, businesses, and the general public, and
- insufficient coordination between international organizations and donors.

The authors represent organisations with mandates and visions for information issues in the water and environmental sectors, and which have been engaged with Switzerland, SIC ICWC in Tashkent and other organisations present in Central Asia trying to address some of these challenges. Whereas considerable progress has been made since early 2000s, and the resulting CAREWIB information system and web portal represent a regional attempt and information resource so far unique for Central Asia, problems remain and the system is far from ideal. At the same time, despite a fair amount of environmental information resources available and accessible in today's Central Asia, there is yet no visible or viable alternative, as truly many other efforts in this direction since middle 1990s (starting i.a. with the 'first edition' of the Aral Sea Basin Programme) have not been able to offer solutions for dealing with the situation in its complexity.

While it is technically not difficult to define the main needs and concrete steps for developing a regional information system further, financial and political bottlenecks are real and need to be resolved – this is the main pre-conditions for a positive development e.g. in line with what is proposed in this paper. Hence before developing a more detailed plan it is necessary to agree on the broad lines for cooperative action.

It is the objective of this paper to put on the table a concept that would accommodate the needs as well as present opportunities. If the concept is basically agreed upon, it will still take considerable additional work to develop the details.

What is proposed [the vision = end result]

The following is our vision for water and environment information in Central Asia:

- robust supply of water and environmental data in and from the countries
- well-organised management, exchange and communication of comparable information within the countries and the region
- systematic communication of integrated strategic-level water and environmental information and its use for policy-making and policy dialogue across Central Asia

How to get there [challenges and solutions]

In practice it is proposed to make a <u>coordinated effort</u> of Central Asian countries as well as regional and international organisations and donors for strengthening the axis "national data – regional information" by building:

- capacities for regularly communicating water and related environmental information in a synthesised format to regional and national decision-makers and the public;
- regional capacities for the integration and management of comparable national information;
- national capacities for the improved collection and sharing of the related data.

Whereas some of the solutions proposed below may seem simple, we believe that at this stage such solutions focussing on institutions may be more effective and relevant for the region's decision-makers (and donors) than complex IT-heavy setups obscuring real issues at stake. It is suggested that the focus on this discussion and the further development be on water and water-related ecosystems, however with due consideration of and gradual integration with other related 'classical' issues of the environment and sustainable development such as e.g. land-use and land resources.

Two major conditions to move towards the proposed vision are:

- Close cooperation among the existing or unfolding initiatives in Central Asia, including *inter alia* the work of SDC (CAREWIB, support to RHC), GIZ, EU (i.a. EURECA and SEIS), UNRCCA, the World Bank, the Environment and Security initiative and FFEM. New projects planned in the information sector should take into account their possible contribution to improved information management and use on different levels;

- That countries, their institutions and regional organizations subscribe to the vision, and that political issues with regard to the accessibility and exchange of information can be resolved.

Communication for policy-making

To design an information system meting the needs of users, the latter need to be defined, understood, and at times educated. Then information supply can be built by "reverse engineering" the information chain. However, even without further thinking it is clear that regional-scalepolitical and common users, where they exist, need information rather than data, hence communication is the key. At the same time politics make regional analysis "mission very difficult", making communication a challenging and highly political task.

National users are various, hence with very diverse needs, and local users often need operational information (indeed data) which can not be served on the regional level.

The proposed solution is to build a political consensus with the support of the governments with the focus on regularly communicating top-level / strategic information to keep regional trends and issues under constant review. Furthermore a process should be put in place to ensure that stable, solid and trusted supply of raw information material is available for this (both from the inside the region and where feasible from the outside, e.g. remotely sensed data). The process can benefit from the on-going direct negotiations on producing and releasing strategic-level water information organised by UNRCCA with the Central Asian governments and Afghanistan. IFAS is centrally positioned in this respect too and should be fully engaged, the work would be a central contribution to Aral Sea Basin Programme 3.

In practice the proposed by UNRCCA model of the 'information bulletin' can be used as a vehicle for streamlining and regularly delivering strategic information, then strengthened and extended by a build-up of a regular 'pipeline' for simple, understandable yet credible communicative and visual information products. The technicalities of and roles within such a pipeline are yet to be defined. The costs of such a programme can be of the order of EUR 300-500K a year including coordination, analysis, production, publication, meetings and PR.

Regional integration and management of information

Information needs to be stored and managed somewhere: the region needs the way to channel national information into comparable flows which can be used for the analysis. At the same time information should be unbiased, and seen as such. This is particularly sensitive in today's Central Asia, and can be largely resolved with strong QC from the 'communicators' above. There should also be regional capacities to provide access to the details of the regionally aggregated information for a broad range of external users, requiring data-base integration, on-line access including through a GIS platform and certain analytical capabilities (cf. Eye on Earth etc.) In the long run there should be a strong link to data suppliers (national flows – institutions, see below), in the absence of which proxy solutions may need to be maintained (cf.. CAREWIB system of 'national correspondents', but stronger institutionalised and financed). Connections will also need to be made to other regional data holders, providers and initiatives (e.g. CAREWIB, GIZ work on bilateral basins, FFEM)

It is concretely proposed to build a partnership with capable organisation(s) in the region under strong QC and oversight of an unbiased political institution. The latter should also ensure that data are coming in (agreements with the countries and data providers, political support). There should be an adequate budget for the organisation(s) holding the database, with a clearly defined responsibility of its management and access to it. Open access to data is a condition, although legacies may need to be addressed (so may need to be the restrictions imposed by data suppliers, again this will require a relatively strong political mandate. (A related question is how to address the growing commercialisation of hydrometeorological data. Countries may need to decide and agree on a high level that their Hydrometeorological services should make selected, key data available for the public and within the region.)

The running costs of such a regional facility based on an already established institution will be about EUR 200-400K a year including the maintenance of the network of 'national correspondents'. In addition EUR 100-200K a year will be required to ensure international oversight and coordination.

Country data

The challenge on the country level is to ensure that a) data are collected at all; that they are b) of sufficient quality; and that they are accessible / shared / exchanged on the regional level. A bonus would be to also ensure that the data are fully available nationally. (On the

national level water measurements done by hydrometeorological vs. water management authorities would preferably be coordinated and harmonised to use resources more efficiently.)

The gradual introduction of EU's Shared Environmental Information System (SEIS) approach will hopefully push national information in these directions. The focus on water of the initial SEIS work in Central Asia can help streamline information flows and equip countries with modern and compatible tools for data delivery. Depending on available resources and donor priorities, more comprehensive SEIS activities can be carried out in a subset of countries with the strongest institutional and infrastructural needs (e.g. Kyrgyzstan, Tajikistan).

SEIS will promote full accessibility of key data (contrary to the above-discussed push of Hydrometeorological services and some donors towards paid services). It is crucial that international actions are linked not only to national but also to basin-level needs. We believe that the in-principle direct accessibility of national data for the regional public and information hub(s) (cf. above) should be among the conditions of EU's and international support to national SEIS. This will also raise the challenge of access to the same data for country-based users (institutional and not). Altogether access to data vs. financial (and legal) implications of their regular collection and management will likely be the most difficult issue to deal with on the country level.

The financial implications of continuous external support to national SEIS may be relatively high, and such support will only be able to phase out once Central Asian economies sufficiently develop in the 20-30 year perspective. The initial costs of (limited) focused interventions into streamlining water information flows may be of the order of EUR 100-300K per country per year (NB: Afganistan was not considered, needs a special approach).

What now? [practical steps]

- Agree in-principle – with Central Asian countries and regional organizations as well as between donors - whether this is the way to go, and if so whether financial and organisational resources will be available
- Agree in-principle on the main players and the sharing of responsibilities (regional – national – international levels), nominate a core group to work out the details of further development
- Develop a detailed road map and costing of activities in further consultation with the identified main players (above) and donors (volunteers); this is a one-year feasibility study which will need funding.
- Set-up the cost-sharing and implementation mechanism – including already from the start discuss sustainable financing models
- Implement

Implementing this vision will require a considerable flexibility of partners as well as budgetary stability for at least five to ten years.

How much? [summary – rough]

Component	Per 1 year, M EUR	Over first 5 years, M EUR
Regional analysis and communication	0.3 - 0.5	1.5 - 2.5
Regional information management	0.3 - 0.6	1.5 - 3.0
National information systems	0.5 - 1.5	2.5 - 7.5
TOTAL	**EUR 1-2.5M per year**	**EUR 5-13M over 5 years**