

INTERNATIONAL WATERS EXPERIENCE NOTES

Capacity Building Activities (The Kura II Project IWRM Academy)



Abstract: A capacity needs assessment was conducted at the beginning of the project. The findings were used to prioritize areas for capacity building and to design a capacity building program which accompanied the project. 21 different training activities have been conducted between 2017 and 2020 with a total of 76 days in each country. All trainings were held in person and in both countries, Azerbaijan and Georgia, until the Covid-19 situation has restricted travelling. However, only three trainings were affected by Covid-19 and were held as virtual meetings. The trainings cut across all sectors of an IWRM approach. The training activities started with a training cluster consisting of fundamental elements of IWRM like IWRM principles, integrating environmental aspects and economics followed by a general overview of water quality components and legal aspects. The second training cluster spanned across more than 12 months and addressed modelling, hydrology, river ecology, GIS, groundwater, monitoring and hydro-economics. This was followed by advanced hydrological modelling and flood management.

The capacity building programme was concluded with a capacity needs assessment. Recommendations are given based on the outcome of the different training modules. The content of the capacity building programme was made available to the focal point ministries to allow more employees to go through the training course material.

Capacity Building Activities

The Kura II Project IWRM Academy

Experience of the GEF – sponsored

UNDP GEF/IW: Kura II: Advancing IWRM across the Kura river basin through implementation of the transboundary agreed actions and national plans

GEF- ID: 5325

PROJECT DESCRIPTION

UNDP-GEF Kura II Project was developed to address the priority needs in the ministerially endorsed Strategic Action Plan (SAP) through implementation of the SAP and national Integrated Water Resources Management (IWRM) Plans to strengthen and harmonize coordinated conjunctive transboundary ground and surface water management. It comprised five components: Support for institutional governance protocols; professional development and capacity building for water managers across sectors; stress reduction measures in critical areas; stakeholder education and empowerment; and, enhanced science for governance.

A capacity needs assessment was conducted at the beginning of the project based on the following steps:

- Identifying Issues, Problems and Opportunities
- Determine which Personnel to Train and on What Subject
- Prioritize the trainings based on their level of relevance to the national goals and objectives in water resources management, with focus on the transboundary trainings

The findings were used to prioritize areas for capacity building and to design a capacity building program which accompanied the project.

THE EXPERIENCE

Issue

Several ministries, agencies and joint stock companies share responsibility for managing the water sector in both Azerbaijan and Georgia. Many entities are involved in the regulation process, sometimes causing overlaps or gaps in water resource management. Therefore, it is necessary to improve local legislation and the institutional framework in both countries in order to support effective water resource planning and management. Training components were dedicated to address the process of regulations dealing with environmental assessments and permits.

The two countries share the same concern to approximate their water legislation to the EUWFD but they move in that direction in two different paths. While Georgia has already signed the association agreement with the EU and have a roadmap for approximating its legislation to the EUWFD, Azerbaijan did not sign such an agreement with the EU. However, the government of Azerbaijan took the initiative to harmonize the water legislation with the EUWFD to date. Capacity building on the

harmonization with EUWFD was therefore incorporated in the training programme with the focus on the policies, strategies and implementation of EU WFD regulations.

Although none of the two countries adopted river basin management organizations institutions yet, both countries showed interest in developing the national capacities on river basin management planning. Several training modules were therefore framed around the setup for RBMOs and decision-making in the context of IWRM management scheme.

A proper management of the water sector under the current challenges require state-of-the-art technologies in monitoring and assessment of the available water resources. This was accounted for in a set of training modules including the use of GIS, hydrological and economic modelling and water management concepts.

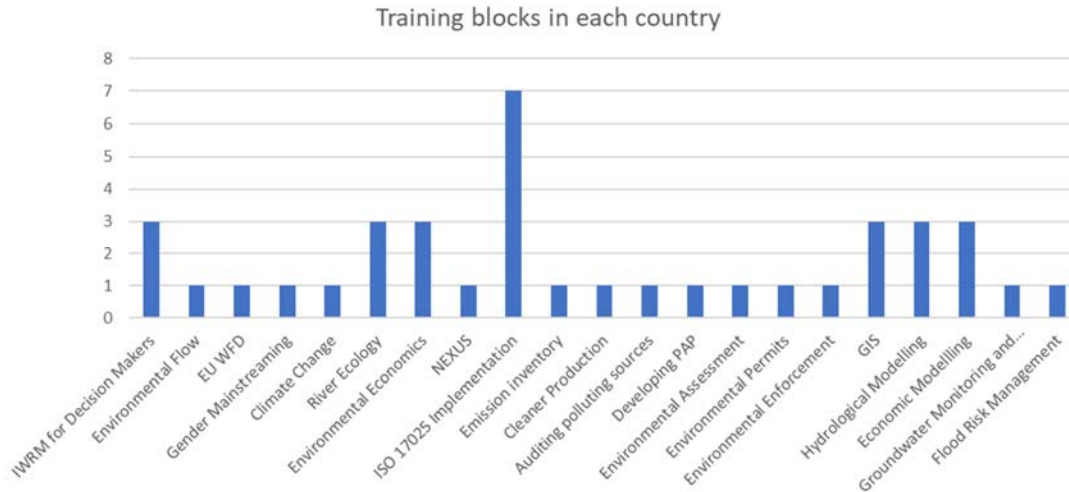
Addressing the issue

21 different training activities have been conducted between 2017 and 2020 with a total of 76 days in each country. All trainings were held in person and in both countries, Azerbaijan and Georgia, until the Covid-19 situation has restricted travelling. However, only three trainings were affected by Covid-19 and were held as virtual meetings. The trainings cut across all sectors of an IWRM approach.

The training activities started with a training cluster consisting of fundamental elements of IRWM like IWRM principles, integrating environmental aspects and economics followed by a general overview of water quality components and legal aspects. The second training cluster spanned across more than 12 months and addressed modelling, hydrology, river ecology, GIS, groundwater, monitoring and hydro-economics. The last and Covid-19 affected block was dedicated to hydrological modelling and flood management. The flood risk management trainings were held virtually as well as the hydrological modelling intensives. The latter was carried out with a new and innovative format. A small group of hydrologists were equipped with hydrological modelling software and trainings on modelling were held virtually using the software. While the trainings progressed, the virtual meetings transformed gradually into expert exchange where the national consultants addressed currently relevant topics in the countries like hydropower, climate change and crop water demand, which were taken up and considered in the training on advanced hydrological modelling.

In addition to training modules, the need for more efficient water use requires also a concerted awareness raising campaign to address end-users in both countries. Using water efficiently is not only a concern for authorities and entities but also attributable to private end-users. The high daily consumption in Georgia of drinking water and the use of drinking water in Azerbaijan for irrigation by households are just two problems.

Awareness raising campaign have been created during the Kura II Project through a mobile application for municipal water network leak detection and awareness raising and E-learning modules for rational water use. The leak detection is based on crowd sourcing in which leaks are reported by everybody who detects one. Instead of only a few specialists that try to find leaks in a water supply network, everybody can contribute, which in turn multiplies opportunities to find a leak by many times. An app was developed that can be downloaded. The Hydro-Heroes Water Saving App is an opportunity to empower stakeholders to report water leakages from their mobile phones directly to the municipal water companies and learn about conserving water in the process. The list of training modules is showed below:



RESULTS AND LEARNING

Summary of work and outputs

Each training block was evaluated at the end of each training module. The highest scores in improvement were attributable to the following:

- The improvement of the trainees was more pronounced when their level of profession was lower
- The level of improvement was highest for training topics that were new.
- When more trainings on a new training topic were conducted, the learning curve was high, which means that the level of improvement converged to the average improvement rate

Reflecting and evaluating the training blocks led to the following findings:

Obstacles

- Inhomogeneous group composition in terms of prior knowledge has often caused a slow learning curve for those who were already familiar with the topic
- In some cases, the inhomogeneous prior knowledge was responsible that some training content could not be addressed with sufficient depth
- A training with more than 15 participants was difficult to handle with regards to practical work. This means that sufficient care, supervision and support is very difficult with more participants.

Recommendations based on the training evaluation can be summarized as:

Promotion in the job: Promotion to a higher position is often related to the number of years in an organisation. It is recommended to define a curriculum that needs to be fulfilled in order to qualify for a higher position. The curriculum defines the trainings that need to be attended. Depending on the position, trainings should include state-of-the-art technical and managerial topics.

Expert clusters: Clusters of experts are recommended which obtain special training and incentives to work and promote state-of-the-art technologies and introduce new technologies and methods. The members of the clusters must remain in that clusters for a minimum time of five years to work efficiently.

Focal points: Even with expert clusters, focal points are needed with the responsibility to organise and share knowledge. They must have the technical means to reach out to the relevant network of professionals and make sure that relevant news, approaches, tools are disseminated. They also act as resource person in order to answer questions. It is necessary to allocate time so that the focal point is able to meet the task. A focal point must fill this position with a minimum period of five years. An incentive is needed to attract candidates, for example with a higher salary. The focal points of various topics and in different entities should be organised in a cluster, which is dedicated to knowledge sharing.

Perspective of the trainees

Roughly 78% of the participants scored the training activities as excellent, 16% as good, 3% as average, 1.5% as fair and 1.5% as poor. 60% of all trainees expressed their wish to have more practical work, more hands-on exercises and examples with a practical relationship to their work. Nearly 40% wanted to expand the training with more training days for one particular topic in order to work out one example in full detail. 25% opted for more theoretical background which is congruent with a longer training duration. 14% expressed the need of using more tools and software. Additional remarks from the participants addressed a wide range of matters, such as

- Involvement of private companies (4 training blocks)
- Involvement of more governmental entities
- Request for field work (2 training blocks)
- Request for international examples (2 training blocks)

REPLICATION

Capacity building based on training modules is highly flexible and replicable. The Kura II Project has therefore established an electronic database with the training materials. This database was made available in each focal point ministry. The purpose of this training database is to allow the two ministries to provide these trainings for more employees in the future. The training database will allow more employees to go through the training course material. It could also be used to establish a test examination in order to issue a certificate for completing the course. Completing certain training courses can be included as one of the prerequisites to get higher promotion in certain department or sector. This will encourage the staff to take such trainings.

To ensure wider dissemination of the Kura II project training materials, the project developed an online platform to include all these training materials called Kura II IWRM Academy training. This portal was developed in 3 languages Azerbaijan, Georgian, and English to ensure wider access to these training materials. The user for this portal will be able to register for a certain course and go through all the training materials, take the quiz, and get certificate of completion for this course.

SIGNIFICANCE

Capacity building is essential. The low entry level of knowledge became obvious for wastewater emissions and inventory, which had below 10% of correct answers. The highest starting level reached hydro-economic modelling with 69% correct answers, followed by economic and hydrologic modelling with 61% correct answers. The five IWRM building blocks showed also the necessity to hold trainings. An improvement rate of 9% to 23% was reached.

Attention should be given with regards to hydro-economics. Economical analysis in the form of cost-benefit analysis is not new in both countries. However, all economic trainings were not explicitly dedicated to traditional economic analysis but introduced new approaches like costs of pollution, value of water, decision-making under uncertainty, water pricing, economics of no-regret and ecosystem-based measures. These new topics confronted the trainees with a new mindset of valuing water and natural resources as a good and needs to be fostered.

The age distribution of the trainees was quite distinct in both countries. The share of senior level in Georgia was much higher compared to Azerbaijan. Whether this is a reflection of the general age structure within the entities in the countries is not known. The age structure is indicative of a likely change towards integrated water resources management in the future. A growing number of the trainees will sooner or later reach senior level positions, implying that the trainees will have more responsibilities, managerial and supervisory functions. As a result, it can be expected that the training content will transpire to the operational framework and procedures of governmental entities with the advancement of the trainees.

A problem that was identified in both countries is staff retention. Incentives need to be created in order to prevent well-trained staff from leaving the governmental units in order to work in the private sector. Capacity building programmes can form the environment on which mechanisms and incentives can be created to keep the highly qualified staff.

REFERENCES

UNDP-GEF Kura II Project: <https://kura-river.org/>

KEYWORDS

Capacity Building, Training, Integrated Water Resources Management, Expert Exchange, Knowledge Transfer, Knowledge Hub, Water Academy, Hydro-Economics, Hydrology, Governance, Water Quantity Analysis, Water Quality Analysis, Team Building, Interactive Learning, Online Training