

Template for Case Studies Regional Forum on Sustainable Development (1-2 March, Geneva)

Water allocation in transboundary river basins: Hungary's experience

Hungary

Levels: national, subnational and transboundary

Summary

The objective of the case study is to share Hungary's experience from water allocation related to the shared rivers, groundwater aquifers. It is essential to start international cooperation as sustainable agriculture/food security (SDG 2) and sustainable energy (SDG 7) also depend on effective integrated water resource management (SDG 6). This draws upon an on-going inventory how the transboundary water cooperation agreements address the allocation challenge. We would like to show the existing gaps between theory and practical implementation through good and limited practices applied in the region. Also we would highlight what are the linkages with SDG implementation with special attention to the IWRM application on the transboundary regions. The Carpathian region can be affected by climate change effects significantly, which can result in changes of river flow patterns. Recent years have shown that we have reached the lowest ever measured water levels in the river systems, causing water scarcity in several regions. To compensate for the scarcity, especially at times of drought, we are facing with increasing water demand from agriculture for irrigation. In the near future, we have to start a negotiation with the neighbouring countries to identify the existing and future needs from water users, taking into account of the ecological flow (to meet environmental needs) as well.

Situation

Some 95% of surface waters flowing into Hungary originate from abroad and almost all groundwater aquifers are shared with the neighbouring countries. Hungary has the merit of having set up the legal basis and institutional frameworks for cooperation in water management. Currently there is an increasing need to develop irrigation to mitigate climate change effects. River flow patterns have changed due to river regulations, afforestation, hydropower development, operation of reservoirs, etc. Although some bilateral cooperation agreements have provisions regarding the flow allocation, many completely missing it.

Strategy

To solve the emerging problem, it is necessary to identify the water demands covering the whole basin. It is necessary to elaborate joint water balance with the neighbouring countries, based on a jointly developed and approved methodology. Taking into account the existing and future demands, we have to agree on water sharing and on a minimum flow which has to be provided downstream, taking into account natural conditions as well. Hungary's bilateral commissions can take a leading role to identify these assets. The commissions provide framework for agreeing about water allocation. Joint bodies are also essential for progress on the transboundary aspect of SDG target 6.5 (indicator 6.5.2)



Results and impact

The results of the cooperation could be the following:

- Joint methodology to elaborate a water balance in a border region, with special attention to the low water periods in the framework of the bilateral water commissions
- Identification of the water demands from all stakeholders (water supply, agriculture, industry (cooling water), recreation, hydropower, navigation, ecology)
- Joint agreements or regulations on water allocation.

Challenges and lessons learned

No jointly accepted methodology.

New, emerging issue.

Politically very sensitive.

Potential for replication

Setting joint water balance can be replicated in any shared river/aquifer.

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