



## SDG 6 IWRM Support Programme

### Stage 1

# Stakeholder Consultation Report

SDG 6.5.1, degree of implementation of IWRM

## Nepal

August 2020



Government of Nepal  
Water and Energy Commission Secretariat



Prepared by:

Consultation Facilitator:  
**Dibya Ratna Kansakar, PhD**  
*Independent Consultant  
(Water Resource Expert)*

Country Coordinator:  
**Tejendra GC**  
*GWP Nepal/ JVS*

SDG 6.5.1 focal point:  
**Maheswar Shrestha, PhD**  
*Water and Energy Commission Secretariat (WECS)  
Government of Nepal*

# Stakeholder Consultation Report for SDG 6.5.1 - Nepal

## Executive Summary

A core team was formed comprising the SDG 6.5.1 Focal Point of Nepal, a Technical Consultant, a Consultation Facilitator/Water Resources Expert and a Law and Policy Expert. The team discussed on all aspects of the self-assessment survey including the process and the suggested approach and came to a conclusion that physical workshop meeting is not possible because of the ongoing lockdown in the country due to Covid-19, and that online survey is the only feasible available option. The team agreed on a list of organizations and the people who would be invited in the survey. As agreed by the team, an invitation package was prepared which contained (i) a letter explaining the background, purpose, approach and the expected input from the invitee, (ii) the complete survey instrument, including the instructions and the guidelines, and (iii) the 2017 Baseline Data for reference. Each participant was contacted on phone to solicit their consent before the invitation package was dispatched by email. Altogether, 28 participants took part in the survey, representing 11 Government agencies (including 3 Ministries), 5 private sector organizations, 2 water users organizations, 4 international research institutions, 1 national research institution, 1 academic institution, 3 independent experts including 2 GESI experts, and one consultant to the national SDG Focal Body. Among all, 5 were women participants.

Each returned questionnaire form was scrutinized for consistency between the score assigned and the status description with planning/ policy/ law or/and implementation gaps. When necessary, clarifications were obtained on telephone. The responses from participants were compiled and analysed. Final scores were arrived at considering the participants' scorings and the threshold descriptions given in the questionnaire. Inconsistencies in scoring or conflict in opinions in the status were sorted out at one-on-one level, on telephone or video-chat platform. The Survey Report Form with the scores and the texts was shared and discussed among the core team members and thus finalized. The completed Survey Instrument for SDG 6.5.1 thus finalized is attached with this report (*File Name: Country Survey Report\_Nepal - 2020-Final*).

This assessment survey finds that tangible progress in SDG 6.5.1 has been little since the last assessment survey in 2017 (Baseline). Several activities have been undertaken towards IWRM implementation; some have already been completed and others are ongoing. Because government approval of the completed activities is pending, such progresses are not yet ready to qualify for an upgraded threshold (i.e. a higher score). An overwhelming consensus that emerged from the survey was IWRM is yet to receive due priority at the political level. At the current rate, achieving the goal in this indicator by 2030 might be difficult if no significant intervention is made for acceleration.

### **1. Conclusions from facilitated discussions on Section 1: 'Enabling Environment'**

The overall message from the reporting back on this section is that very little or no tangible progress has been made since the Baseline Survey in 2017. However, the country has taken several actions important actions in the move towards actualization of IWRM. Important among these are, the national IWRM Policy, national Integrated Water Resources Act, national Energy Sector Vision 2009, national Long-Term Vision on Water Resources and Energy Sector (Vision-2050) and Irrigation Master Plan (updated), which have all been completed. However, pending government approval, these are not in implementation yet. The ongoing preparation of River Basin Management Plans (RBMPs) and Hydropower Development Master Plan is one

more concrete step which is being undertaken with the objective of implementing IWRM in Nepal. The score of this section saw only a marginal increase, from 23 in 2017 survey to 27 at present. A much higher score can be expected in the next monitoring survey if there is no delay in approval of the existing policy, plan and action documents and completion of the ongoing plan, and management instruments preparations on relevant inter/multisectoral integration scale.

**(a) Main Challenges:** The political will and priority to manage allocated water in an integrated manner and acknowledging river basin as a unit for water management by all levels of governments is a big challenge. Federated governance system is very new to this country and therefore, clear demarcation of power, authority and responsibilities in principle and in operation in water resource management is yet to be fully recognized, institutionalized, and practiced at different levels of government. As a result, the plans, policies, acts and vision documents, which have already been prepared at national level, are not receiving due priority at the both approval and implementation levels.

Although groundwater use is important in terms of population dependent on it for domestic uses and also in terms of irrigated area's reliable coverage, aquifer management has remained a subject of low priority. This is because no serious issue has arisen yet due to relatively low percentage of the available resource is in use at present. Inter-dependent surface and groundwater use and management could be an area where IWRM elements could be more tangibly implemented for sustainable resource use. Importance of aquifer management, before it is too late, is not realized at the inter-regional (Hills and Tarai) ecosystem health as well as unified water management.

**(b) Addressing the Main Challenge:** Awareness raising and sensitizing at political level is important. Approval and endorsement for implementation of the already prepared Draft IWRM Policy and Draft Integrated Water Resources Act etc. would be the immediate first step towards institutionalization of IWRM.

**(c) Rate of Progress:** All the participants recognised that the country is moving in the right direction. But the question remains on its progress rate. Considering the country's existing capacity in IWRM, in terms of human resources particularly, the progress should be treated as satisfactory, but much effort is needed to meet the target of SDG 6.5.1. A match between the investment in water infrastructure and soft capability could be a vital indicator of the sustainable rate of progress.

**(d) Points of Difference among the Stakeholders:** No significant difference was observed among the participants in this section of the survey. However, baseline survey score to Q. No. 1.1.b, which was 40, has been lowered to 30 in the present report. Reasons for this are that Integrated Water Resources Act, though already drafted, has not been approved for enactment by the parliament and the central government priority which shifted to immediate and short-term disaster rescue, relief and prolonged health emergency situation due to a massive earthquake (2015), economic blockade imposed by India (2015) and COVID-19.

## **2. Conclusions from facilitated discussions on Section 2: 'Institutions and Participation'**

Absence of a lead agency to implement IWRM in the country is recognized by all. Only an apex body exists to lead planning and policy formulation in water and energy sectors.

In spite of the good practice of consultation, coordination and participation, the existing institutional framework and mechanisms are insufficient for implementing IWRM across the country and at all levels of the governments.

**(a) Main Challenge:** The Water and Energy Commission Secretariat (WECS) is the lead agency for policy and planning in water and energy sectors. However, it does not have the implementation mandate. On implementation side, the government ministries are organized by sectors. Recent restructuring of some federal ministries and departments is in favour of IWRM. The provincial governments have a ministry to look after water sector, but their capacity in IWRM implementation is almost non-existent. In the absence of IWRM policy and Integrated Water Resources Act, integrating sectoral plans and programs under IWRM framework is a challenge at every levels of government.

It's a common practice in Nepal to formulate Laws, Policy, Plans, and Programs following a consultative process that involves all concerned sectors and stakeholders including academia, experts, and communities, where relevant. Private sector participation is quite good in hydropower sector. Public-private partnership is being promoted in water supply sector in emerging urban centres, and community management is a common feature in the rural areas. Community management and public-community management is well in practice in irrigation sector.

IWRM capacity is recognized to be weak by all participants. Lack of human resources familiar with IWRM is a major gap. The present state of affair in capacity building is insufficient as only a very few people get some sort of training through international seminars and training. One university in Nepal has been running a Master's Degree program in IWRM since 2007. Graduates of this program are being employed in government, private, and international non-profit organizations, which is a good sign, but their numbers are small.

Developing institutional framework and implementation mechanism and establishing the institution for implementing river basin plans is the challenge right in the front.

On transboundary water management, institutional variable mechanisms are in place but mutual trust between the riparian states is the basic challenge.

**(b) Addressing the Main Challenge:** A well thought out institutional set up across the water and non-water sector with matching mechanism for implementing IWRM needs to be developed and established. Implementation of integrated river basin development and management plan, which is under preparation, with effective institution at all levels to implement it, is the right way forward. Capacity building to institutionalize is the key to the success of the reformed institutional arrangement.

Policy and legislative instruments are already in place for mainstreaming GESI. However, capacity to implement it needs to be enhanced, particularly in the sub-national governments level.

**(c) Rate of Progress:** There has been no change in status since the last reporting in 2017.

**(d) Points of Difference among the Stakeholders:**

Noticeable differences were seen among the stakeholders in scoring the Q. Nos. 2.1.b, 2.1.c, 2.1.d, and 2.2.b. Several participants assigned scores lower than what were in the 2017 baseline data. A few others assigned higher than those scores. This was because of the differences in perspective of the organization or the stake to which the participant represented. Those who represented the policy making and planning or implementing agencies tended to assign a higher scores. Those who came from other organizations gave lower scores. It was a clear case of organisational bias, because the general public or the non-governmental

stakeholders generally have a feeling of inadequacy in terms of their participation or role. However, the threshold descriptions given to these questions clearly pointed at the arrangements by law or policy, not the level of satisfaction felt by those stakeholders. Therefore, the same scores, assigned in the baseline survey 2017, has been adopted in this survey as well, because no additional development has taken place since then.

The rephrasing of the Q. Nos. 2.2.c. and 2.2.d. were kept in mind while assigning scores to these questions. In the case of Q.2.2.f, the changed context of having elected governments at sub-national levels, has been taken into consideration. Since no initiatives have been taken for implementing IWRM at sub-national levels, a score of '0' has been assigned to this Q. 2.2.f.

### **3. Conclusions from facilitated discussions on Section 3: 'Management Instruments'**

The common opinions has been that management instruments have been in place with respect to pollution control and water-related ecosystem management. Some projects have also been developed with the objective of reducing impacts of water induced disasters, particularly soil erosion and flood protection and early warning systems. Assessment of Environmental Flow Requirement in two major river basins, National Ramsar Strategy and Action Plan (2018-2024), establishment of river basin centres, under Ministry of Forest and Environment in four major basins for integrated river basin management, are some new developments in this area. Again, construction of wastewater treatment plant in the capital and a few other towns are also noteworthy.

**(a) Main Challenge:** Effectiveness is low in the implementation of the existing management instruments, laws, rules, standards, or policies. With limited financial and human resource capability, expanding geographical coverage of monitoring water availability and water pollution, and the water-induced disaster prevention infrastructures remains a challenge. The current policy of 10% of minimum mean monthly discharge for downstream release is not compatible with aquatic ecosystem conservation goal.

**(b) Addressing the Main Challenge:** Investment need to be increased in enhancing the institutional capacity to increase geographic coverage and investment in infrastructures in the above mentioned. Implementation of the existing management instruments should be improved. The existing policy on downstream release requirement should be revisited.

**(c) Rate of Progress:** The progress is very marginal suggesting that much needs to be done to achieve the SDG 6.5.1 goal.

**(d) Points of Difference among the Stakeholders:** Some participants differed with the score assigned to Q.3.2.c and Q. 3.2.d in the 2017 Baseline Date and assigned them lower scores. In the case of Q.3.2.c, it was found that the baseline score was justified because all the processed hydro-meteorological records are available, for a fee, to anyone from Department of Hydrology and Meteorology. Further, some unprocessed data and real-time data are available on the website of the Department. In the case of the Q. 3.2.d, the score assigned in the Baseline Data is found to be high. It has been lowered to 40, because data sharing is not reciprocal on the part of the lower riparian country, India.

#### **4. Conclusions from facilitated discussions on Section 4: 'Financing'**

The common view among the participants has been that though financing in water sector has increased lately, it is not adequate to meet the SDG. Capital cost investment low with respect to investment plan in the government approved National Water Plan 2005. Investment in recurrent costs is also low. So is the revenue collected. Budget allocation for recurrent cost is more or less sufficient in hydropower sector, but it is less than 50% of what is required in irrigation, water supply and river control structures.

There is no arrangement set for investment in IWRM elements although some investments are made on project or program basis. The sub-national governments have low capacity to invest in water sector.

**(a) Main Challenge:** Finance is a major challenge for sustainable development and management of water resources. Investment in the 'Soft' part of IWRM receives low priority as investment in physical infrastructures is inadequate.

**(b) Addressing the Main Challenge:** Increase and prioritize investment in IWRM implementation.

**(c) Rate of Progress:** Investment has increased compared to the past years, but at the current rate, it is unlikely to meet the target of 'High' Implementation of IWRM by 2030.

#### **5. Next steps**

Approval of the draft policies and acts mentioned earlier is the first step to take. Timely completion of the ongoing preparation of river basin management plans is the most important foundation to IWRM implementation at basin level in the country. However, appropriate agencies, at every level of government, is the key to the success of IWRM implementation through river basin planning. Lessons being learned from the basin authority in upper Bagmati River Basin will come handy in designing the organizational set up and the implementation mechanism for the river basin organizations to function effectively. Much effort will be needed in building the capacity of RBOs, their linkages and harmonization within and across the water and non-water sector, and the respective governmental level.

Although actions are being taken towards IWRM and its implementation, the progress has been slow. At this rate, it will be difficult to achieve the SDG 6.5.1 target by 2030. Finance is crucial, but it's not the only constraint to IWRM implementation. Organizational paradigm shift to IWRM and RBM is equally important to start integration from the water allocation point at relevant level and every related sectors, for accelerating IWRM implementation.

#### **ANNEXES**

Annex 1: List of Participants

Annex 2: Agenda

Annex 3: Facilitator's Comments

Annex 4: Photos

## Annex 1: List of participants

### Participants in consultation

Name	Organization	Position	Email address
Mr. Madhab Belbase	Ministry of Water Supply	Secretary	<a href="mailto:belbasem@gmail.com">belbasem@gmail.com</a>
Mr. Madhusudan Adhikari	Ministry of Urban Development	Secretary	<a href="mailto:msa2734@gmail.com">msa2734@gmail.com</a>
Mr. Prabin Raj Aryal	Ministry of Energy, Water Resources and Irrigation	Joint Secretary	<a href="mailto:aryalpravin@yahoo.com">aryalpravin@yahoo.com</a>
Ms. Sabina Kharbuja	Water and Energy Commission Secretariat (WECS)	Sr, Divisional Engineer	<a href="mailto:sabina.mailme@gmail.com">sabina.mailme@gmail.com</a>
Mr. Madhukar Rajbhandari	Department of Water Resources and Irrigation	Director General	<a href="mailto:madhukar_64@hotmail.com">madhukar_64@hotmail.com</a>
Mr. Sunil Kumar Das	Department of Water Supply and Sewerage	Director General	<a href="mailto:sunilkumardas1@gmail.com">sunilkumardas1@gmail.com</a>
Mr. Kul Man Ghising	Nepal Electricity Authority (MEA)	Managing Director	<a href="mailto:kulman1ghising@gmail.com">kulman1ghising@gmail.com</a>
Mr. Sanjeev Bickram Rana	Kathmandu Valley Water Supply Management Board	Executive Director	<a href="mailto:sanjeevrana55@gmail.com">sanjeevrana55@gmail.com</a>
Mr. Deepak Ghimire	Groundwater Resources Development Board	Executive Director	<a href="mailto:dghimire16@yahoo.com">dghimire16@yahoo.com</a>
Mr. Prabal Adhikari	Nepal Electricity Authority (NEA)	Director-Power & Trade	<a href="mailto:prabaladhikary@gmail.com">prabaladhikary@gmail.com</a>
Mr. Shital Babu Regmee	Preparation of River Basin Plans and Hydropower Dev't Master Plan Preparation Project, WECS	Deputy Team Leader	<a href="mailto:regmeesb@yahoo.com">regmeesb@yahoo.com</a>
Mr. Prakash Gaudel	Nepal Electricity Authority	Environment Specialist	<a href="mailto:prakgaudel@gmail.com">prakgaudel@gmail.com</a>
Dr. Khem Raj Sharma	Center for Postgraduate Studies, Nepal Engineering College	Director	<a href="mailto:khemraj.sharma@gmail.com">khemraj.sharma@gmail.com</a>
Mr. Sushant Adhikari	NMB Bank	Head, Clean Energy Development Section	<a href="mailto:sadhikari@gmail.com">sadhikari@gmail.com</a>
Mr. Madhu Sudan Bhattarai	Facilitating the Pursuit of SDGs in Nepal (FPSN) NPC & UNDP, National Planning Commission	National Project Manager, SDG Monitoring	<a href="mailto:madhu.bhattarai2010@gmail.com">madhu.bhattarai2010@gmail.com</a>
Dr. David J. Molden	International Centre for Integrated Mountain Development (ICIMOD)	Director General	<a href="mailto:David.Molden@icimod.org">David.Molden@icimod.org</a>
Mr. Santosh Nepal	ICIMOD	Water and Climate Specialist	<a href="mailto:Santosh.Nepal@icimod.org">Santosh.Nepal@icimod.org</a>
Mr. Gajadhar Yadav	National Federation of Irrigation Water Users' Association	President	<a href="mailto:nfiwuan@gmail.com">nfiwuan@gmail.com</a>
Mr. Shailendra Guragain	Independent Power Producers' Association	President	<a href="mailto:info@ippan.org.np">info@ippan.org.np</a>
Mr. Sriranjana Lacoul	Nepal Hydropower Association	Vice-President	<a href="mailto:lacouls@gmail.com">lacouls@gmail.com</a>
Mr. Rajesh Sada	WWF Nepal	Water Section head	<a href="mailto:rajesh.sada@wwfnepal.org">rajesh.sada@wwfnepal.org</a>
Ms. Labisha Uprety	IWMI Nepal	Research Officer - Policy and Water Governance	<a href="mailto:luprety@cgiar.org">luprety@cgiar.org</a>

Ms. Anustha Shrestha	Institute for Social and Environmental Transition (ISET-Nepal)	Research Officer	<a href="mailto:anusthashrestha@gmail.com">anusthashrestha@gmail.com</a>
Mr. Naveen Mangal Joshi	Chairman	Farmer Managed Irrigation Systems Promotion Trust (FMIST)	<a href="mailto:namanjos@hotmail.com">namanjos@hotmail.com</a>
Mr. Shiva Kumar Sharma	Independent Expert	Water Resources	<a href="mailto:shiva1301@gmail.com">shiva1301@gmail.com</a>
Dr. Upendra Gautam	CMS Engineering Consult	Institutional Expert (Water Resources)	<a href="mailto:ug4432149@hotmail.com">ug4432149@hotmail.com</a>
Mrs. Karuna Onta	Depart for International Development (DfID) Nepal	Social Devt Adviser	<a href="mailto:K-Onta@dfid.gov.uk">K-Onta@dfid.gov.uk</a>
Mrs. Kanchan Lama	Independent Expert	GESI Expert	<a href="mailto:kanchan.lama01@gmail.com">kanchan.lama01@gmail.com</a>

### Other stakeholders engaged outside the consultation

Name	Organization/Position	Email address	Summary of inputs (e.g. question number(s), or full survey)
Mr. Surya Nath Upadhyaya	JVS/GWP Nepal, General Secretary	<a href="mailto:suryanathupadhyay@gmail.com">suryanathupadhyay@gmail.com</a>	Full survey
Mr. Som Nath Poudel	JVS/GWP Nepal, President	<a href="mailto:poudelsn@gmail.com">poudelsn@gmail.com</a>	Full survey

Please note that this Annex is supplemented by information in Annex E of the SDG 6.5.1 survey instrument, which reflects on the level of engagement from different stakeholder groups.

#### Annex 2: Agenda

Not Applicable since no person-to-person stakeholders' consultation workshop was organized

#### Annex 3: Facilitator's Comments

The survey instrument was found to be well designed. The questions were specifically phrased and the thresholds were clearly described. As sufficient time was given for filling up the survey questionnaire, over two weeks' time, the participants had enough time to read all the instructions and the guidelines before filling up their response. As a result, the responses were relevant and satisfactory for our purpose, and there were very few queries seeking clarification from the participants. Moreover, the clearly defined threshold descriptions and explanations provided in the footnotes were much helpful for the task team also while assigning appropriate scores when there was a range in scores from the participants.

#### Annex 4: Photos

Not applicable as no physical meeting or workshop was conducted.