Global Water Partnership
South Asia

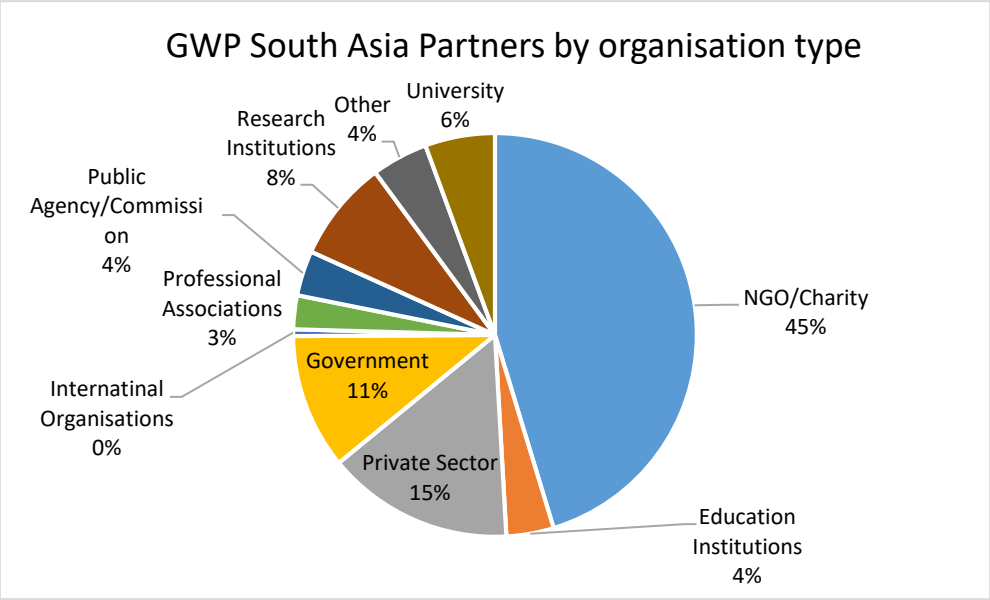
2018

GWP SOUTH ASIA in action

2018 Annual Report

About GWP South Asia

The Global Water Partnership South Asia (GWP South Asia) was launched in 2002 in Pakistan to nurture the implementation of Integrated Water Resources Management (IWRM) in South Asia. It is one of the thirteen Regional Water Partnerships (RWPs) of the Global Water Partnership (GWP) network, which has worked on many regional thematic issues related to water and its allied sectors. The GWP SAS network is linked through Country Water Partnerships (CWPs) in Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka, with more than 550 partners across the region.



Our **vision** is for a water-secure South Asia.
Availability of water of acceptable quantity and quality for all beneficial uses, and increased capacity and ability of countries and communities to adapt to climatic variability in the South Asia region.

Our **mission** is to promote water security and climate resilience in South Asia as a key part of sustainable regional and national development for economic growth and human security keeping IWRM intact.

Contents

Message from the Chairperson, Lam Dorji

South Asia is one of the world's most diverse and dynamic regions. From the shores of the Indian Ocean to the mighty Himalayas, the region exhibits geographical and ecological diversity. Often referred to as the 'Third Pole', South Asia is home to the Hindukush Himalayas where the major transboundary rivers such as Ganges, Indus, Brahmaputra and their tributaries originate. Over centuries, these rivers served to define the geography and human civilization as they traverse through mountains and plains. Today, the South Asia region is home to over 1.9 billion people whose livelihoods are hinged to and revolve around the network of rivers streams and water bodies. Water Security is undoubtedly of immense concern for the region.

While we take pride in associating our rich culture, history and socio-economic advancement to the abundance of water resources from these transboundary river systems, the region is striving to cope with and adapt to an array of water related challenges. The economic pursuit of the already large and growing population and the associated increase in per capita demand for water is driving the quality and quantity of region's surface and ground water to a level that is either unfit and or inadequate for human consumption. The impacts are spreading far and wide covering the region's populated cities as well as rural areas. It is estimated that 22 out of 32 Indian cities face daily water shortages. In Nepal's capital Kathmandu, many local residents have grown accustomed to waiting in queues for hours to fetch drinking water from the city's ancient stone waterspouts. In Karachi, Pakistan, electricity and water shortages have led to protests and citywide unrest. The situation is further aggravated by the increasing evidence of climate change with increasing frequency and intensity of water scarcity, drought and floods. In recent years, countries like India, Nepal and Pakistan have experienced increased incidences of floods from intense monsoon rains that affected lives of millions, caused loss of lives and damage to property and infrastructure.

The Global Water Partnership Organisation (GWPO), through its network of Regional Water Partnerships continues to advocate for Integrated Water Resource Management (IWRM) and collective action in addressing water needs and challenges across the world. Likewise, the GWP South Asia continues to promote partnership and actions to address water issues at the regional level. In 2018, apart from the regular core activities, Country Water Partnerships (CWPs) have actively pursued

planned activities under the Water and Climate Resilience Programme (WACREP). In addition, GWP South Asia Secretariat carried out South Asia Drought Monitoring System (SADMS), Learning Deltas Asia Initiative (LDAI) and the Youth Programme. I am thankful to the CWPs for their support and cooperation in delivering these regional programmes and for continuing to catalyse and advocate with respective government agencies and partners the GWP call for integrated approach to water resource management.

In commending the GWP South Asia fraternity in the efforts made so far, I want to take this opportunity to thank the GWPO and the funding agencies for supporting our work in the region. As I hand over charge, I wish the next Chairperson, members of the Regional Council and CWPs to continue with their concerted efforts toward water security in the region.

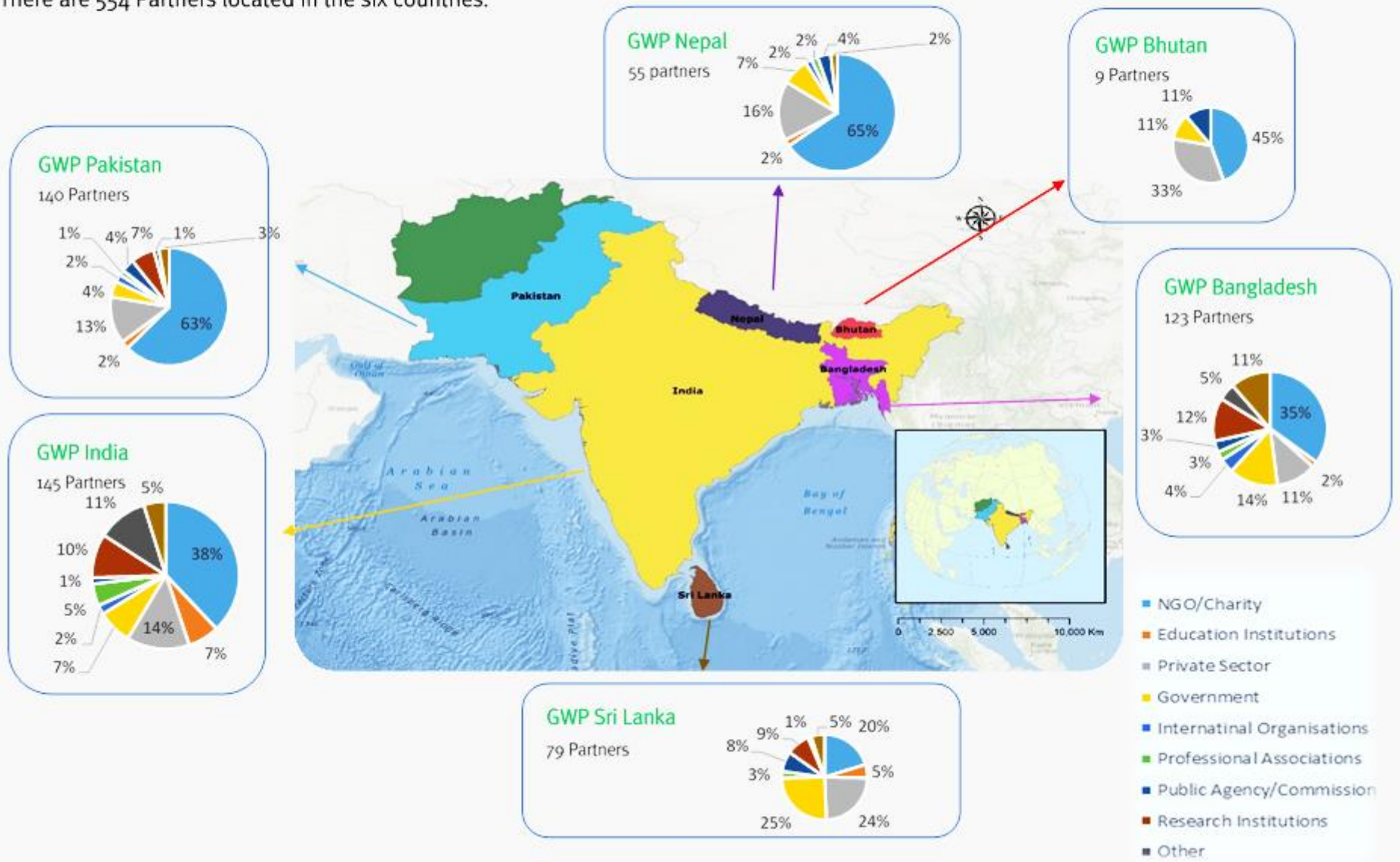
The upcoming Regional Chair - Khondaker Azharul Haq

Dr Khondaker Azharul Haq who is based in Bangladesh took over the Regional Chair position with effect of 1 January 2019. In accepting the position, Dr Haq is passionate about GWP's unique network, which provides a credible platform to local to global reach and to change the way water is managed.

"I am honoured and humbled by the opportunity given to serve the Global Water Partnership South Asia, in its mission to safeguard a water secure South Asia. With growing risks of climate change, water pollution and groundwater exploitation in South Asia, we need to look for a multi-sectoral approach by harnessing the common values and interests of different stakeholders prior to taking decisions on the limited resources. We should consider managing existing knowledge and bringing new knowledge and technologies around water and connect with the network of partners across all SDGs"

Our Partners

There are 554 Partners located in the six countries.



South Asia Regional stories

Climate Resilience and Water Security in South Asia

High-level Experts and Leaders Panel on Water and Disasters (HELP) - GWP consultation on Draft Principles on Investment and Financing for Water-related Disaster Risk Reduction was held in October 2018 in Colombo, Sri Lanka. This was the first meeting out of four planned meetings that will be held in Southern Africa, Southeast Asia and South America, by April 2019.

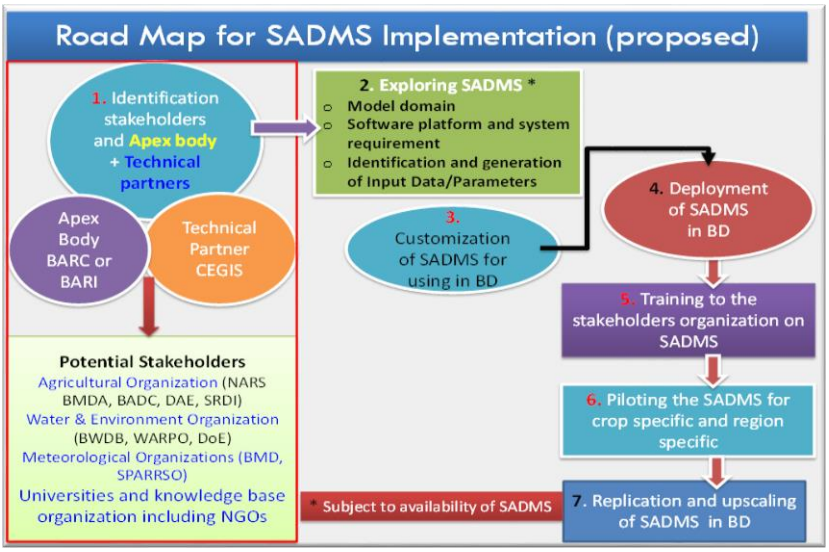
Head table of HELP-GWP Consultation: from left-right: Khondaker Azharul Haq, GWP South Asia; Monika Weber-Fahr, GWPO; Kenzo Hiroki, HELP, Japan; Claudia Sadoff, IWMI; Hiroki Hashimoto. JICA Sri Lanka

In May 2016, GWP Pan Asia group signed a Memorandum of Understanding (MoU) with the aim of supporting regions and countries in Asia on the implementation of commitments under Paris Climate Agreement and the agenda to achieve the Sustainable Development Goals (SDGs). The MoU was

Signing the Pan Asia MoU by Rudolph Cleveringa, Former Executive Secretary, GWPO and Regional Chairs and Coordinators of PAN Asia in May 2016

between, GWP Central Asia and Caucasus (CACENA), GWP China, GWP South Asia and GWP South East Asia. The Pan Asia Team organised a technical workshop on Project Preparation for Climate Resilience Water Projects in October 2018, at the Asian Development Bank Headquarters in Manila, Philippines as a pre-forum event of the 6th Asia-Pacific Climate Change Adaptation (APAN) Forum.

South Asia Drought Monitoring System (SADMS) is a collaborative effort of GWP South Asia, GWP, the World Meteorological Organization (WMO) supported by International Water Management Institute (IWMI). The experimental drought products have been made available at DMS portal and can be accessed through http://dms.iwmi.org/. In 2018, GWP Sri Lanka and GWP Bangladesh took several steps at local level to introduce the system to decision makers, donors and stakeholders. It is intended to customise the system with the needs of the South Asian countries'. Also to leverage its usage in the operational decision making platforms of disaster management, agriculture and water management.



Ecosystems and water security

In July 2018, the LDAI progress was presented to the Ministerial Committee of Delta Coalition held in Dhaka, Bangladesh. Later, Cap-Net UNDP joined the initiative as a collaborative partner at the Phase II. The Phase II Inception Workshop was held in December

Dr Zaw Lwin Tun, Deputy Director General, Irrigation and Water Utilisation Management Department and Coordinator Myanmar Water Partnership welcomed the participants at the inception workshop

2018 at Melia Hotel, Myanmar. A thorough knowledge exchange mechanism between key Asian deltas was established at the workshop.

LDAI was initiated in June 2017, with the aim of developing south-south cooperation and knowledge exchange on adaptation to climate change in urban Deltas. It started with a scoping phase to assess and understand the challenges and opportunities prevailing in Bangladesh and Myanmar. The scoping phase concluded with identified five learning priorities, which will be using to scale up the initiative.

Governance

Network meeting 2018 – at Sri Lanka site

GWP's Network Meeting 2018 "Follow the Sun" the first ever web-based network meeting held on 27-28 September kick-started by GWP South Asia. The meeting lasted for 29 hours through 15 consecutive multi-point videoconference sessions, directly reaching nearly 500 Partners in about 50 countries. GWP South Asia had the highest number of Partners attending the meeting (84). The sessions were broadcasted on Facebook Live and had nearly 3,000 views.

An intensive 3-day Finance Officers' Training "Financial Fitness" for South Asia workshop was held in Colombo in September 2018. The training was with full of sharing, learning, networking, team and capacity building.

Participants of the regional finance officers meeting

GWP Bangladesh (Bangladesh Water Partnership) in action

GWP Bangladesh was established on 30 September 1998 under the initiative of Late Mr Quamrul Islam Siddique, Former Chief Engineer, Local Government Engineering Department (LGED). Since then, GWP Bangladesh taken initiatives and leadership in developing preparedness plans and frameworks, influenced policies and promoted best practices, involved in advocacy and knowledge sharing in flood management, Climate Change and Adaptation (CCA) and transboundary water co-operation in the country.

GWP Bangladesh published their Annual Newsletter 2017 highlighting the significant activities of year 2017.

Empower women and youth in the water sector

Bangladesh Women and Water Network (BWWN) a Partner of GWP Bangladesh, initiated a list of women professionals and grass-root level women organisations with the objective of motivating them to be active in the water sector. Information gathering will continue for 2018. In December, BWWN organised a discussion with the participation of nineteen feminists on challenges, opportunities faced by aspiring women in the water sector.

GWP Bangladesh in collaboration with Environment and Population Research Centre (EPRC) organised an essay competition for students on Sustainable Safe Water Management and Climate Change Adaptation in December. The activity raised awareness among youth on water management and climate change in disaster prone and arsenic vulnerable areas of Chandpur District in Bangladesh. Sixty-three students from four high schools participated the competition followed by a workshop.

IWRM and water security

Participants of the ToT

GWP Bangladesh organised a Training of Trainers (ToT) programme collaborating with the Center for Environmental and Geographic Information Services (CEGIS) on Concepts and Practices of IWRM in September for the 16th time.

The weeklong annual ToT was organised with the objective of improving the knowledge of Water Professionals on IWRM principles and to teach them the methods to integrate climate change and natural resource management concepts into IWRM. Other than the regular topics including concepts, methods, and practical experiences on IWRM practices in Bangladesh, novel areas including Ocean Economics and Security and Fisheries Management under IWRM were introduced in this year's training. Nearly 26 Water and Natural Resources Managers, Scientists and Academics attended the training representing non-governmental organisations (NGOs), research and academia working on natural resources planning, development and management.

Field visit

Climate and water security

A workshop on 'Technical Feasibility, Economic Viability and Social Acceptance of Solar Powered Pumps for Irrigation and Drinking Water Supply' was organised by GWP Bangladesh in collaboration with the Centre for Environmental and Geographic Information Services (CEGIS) in December 2018 in Dhaka, Bangladesh. The workshop drew expert opinion and field experience from professionals of various disciplines to address the current challenges of solar powered pumps used for irrigation and drinking water supply in Bangladesh.

The keynote paper was presented at the technical session, on current scenario of solar powered pumps in Bangladesh. This explained the new business model where the solar pumps were being supplied to the users at a subsidised rate through the enlisted service delivery providers of Sustainable Renewable Energy Development Authority (SHREDA). The users find the service is more

attractive than accessing micro credits. In addition, the representatives of different organisations presented the following four papers.

- Technical and Economic Status of Solar Pump Irrigation System in Bangladesh
- "Solar Power: An Eco Friendly and Cost Effective Power for Irrigation, Drinking Water Supply and Many More Uses in Bangladesh"
- The benefits of solar powered pumps on the environment and climate change
- "Solar Energy Based Water Solution for Climate Change Vulnerable Coastal Area of Bangladesh: A Pilot Study"

Participants of the training

At the workshop evaluation, participants highly recommended organising of similar workshops with additional knowledge, as the workshop has given them an in-depth understanding on technical feasibility, economic viability and social acceptance of solar powered pumps for irrigation and drinking water supply in Bangladesh.

In 2018, it was a landmark achievement for GWP Bangladesh, leveraging nearly Euro 101,850 through private sector under locally raised funds (LRF). These contributions received directly to GWP Bangladesh was assigned to three projects, in addition to the core funds received from GWPO and the membership fees.

Food and water security

Introducing Water-Efficient Technologies (IWET) project, Phase I was designed as per the recommendation of the scoping study conducted in the North-West region of Bangladesh. This was done with the guidance of Agricultural Water Work-Stream chaired by the Secretary of Ministry of Agriculture, Bangladesh to identify sustainable solutions to enhance agro-water productivity. Under the flagship of 2030 Water Resource Group, GWP Bangladesh launched the project to introduce Water

Efficient Technologies in the Barind Tract with the financial assistance of Coca-Cola amounting to USD 200,000.

The target group was 1,200 mango and 800 paddy farmers who were selected from 14 Unions of six Upazillas in three Barind districts of Rajshahi, Chapai Nawabganj and Naogaon. They were selected through assessments, site visits, key informant interviews, focus group discussions alongside need based and geographical mapping. Training manuals were developed in local language (Bengali) to train farmers along with video and live demonstrations. In April 2018, these 1,200 mango farmers were trained in groups while the 800 paddy farmer trainings were completed in October. In June, a group of mango growers, project managers and other officials visited to India where they learnt about drip irrigation for a successful mango plantation. They also have learnt about farming methods and processing, and met with the small farmer holders. On their return, 10,000 mango saplings were distributed among the 1200 selected farmers.

Trainings for farmers and focus group discussions

The drip irrigation technology has been recommended for mango plantation based on international experience of best practice gained through stakeholder consultations involving local and international experts. As a result, the mango farmers were provided with technical support to establish 30 drip irrigation systems in 30 selected demonstration plots in September 2018. The Farmers were trained on maintenance and basic fixes. In December, the Team established four Farmers Hubs in 4 *Upazillas* that would offer multiple services to local farmers including, providing commercial support as an aggregator for input buying and output sales, to provide agricultural know-how and relevant services, an operative platform for disseminating modern and effective technologies among the farming communities.

Successful completion of the project Phase I raised the interest of the Coca-Cola Foundation to express their willingness to fund the Phase II of the project scheduled for 2019. The Coca-Cola Foundation approved a US$ 250,000 grant for Phase II in December 2018.

Water and Sanitation

Dhaka Water Supply and Sewerage Authority (DWASA) prepared the Dhaka Sewerage Master Plan in order to improve urban waste management in Bangladesh and selected Gazipur, a District of Dhaka Division as one of the city corporations to implement the Master Plan. Prior to commencement of the detailed project preparation, a baseline survey on available household sanitation facilities of Gazipur City was felt necessary, to validate some of the assumptions made at the Rapid Assessment. GWP Bangladesh with the financial assistance of International Finance Corporation (IFC) took the initiative to conduct a sample survey on existing household sanitation condition in Gazipur under the project "Construction of a Sewerage Treatment plant in Gazipur city". The assessment took place for 45 days funded by IFC amounting for Euro 31,300.

The sample survey explained the existing practices and facilities for sanitation and water supply at household level, areas and types of premises lacking facilities for safe sanitation and estimated the required type, number and capacity of septic tanks and peoples' willingness to pay for safe sanitation services.

Groundwater sustainability

GWP Bangladesh in association with 2030 Water Resources Group (2030 WRG), and with financial support from H&M (Hennes and Mauritz is a Swedish multinational clothing-retail company known for its fast-fashion clothing) was commissioned to assess the ground water sustainability for the Greater Dhaka Watershed Area. The study period was from April to August 2018 with a funding allocation of Euro 64,000 from H&M. The study carried out a preliminary ground water sustainability projection for the Greater Dhaka Watershed area up to 2030.

The analysis of ground water abstraction and water levels indicated that the aquifer hydrology is almost entirely controlled by excessive abstraction of water in the area. The study has conducted ground water sustainability assessment considering current growth rate and forecasted growth rate based on national development trend. It was observed that the rate of ground water table decline was 3 metre/year in the recent past, that may increase to 3.4 m/year in 2021 and 4.4 m/year in 2030 based on the current abstraction rate. Whereas, it was estimated that based on the forecasted growth rate, the ground water table depletion will be 3.9m in 2021 and 5.1m/year in 2030. The study also prepared a Stakeholder Information Network to streamline groundwater data among relevant stakeholders.

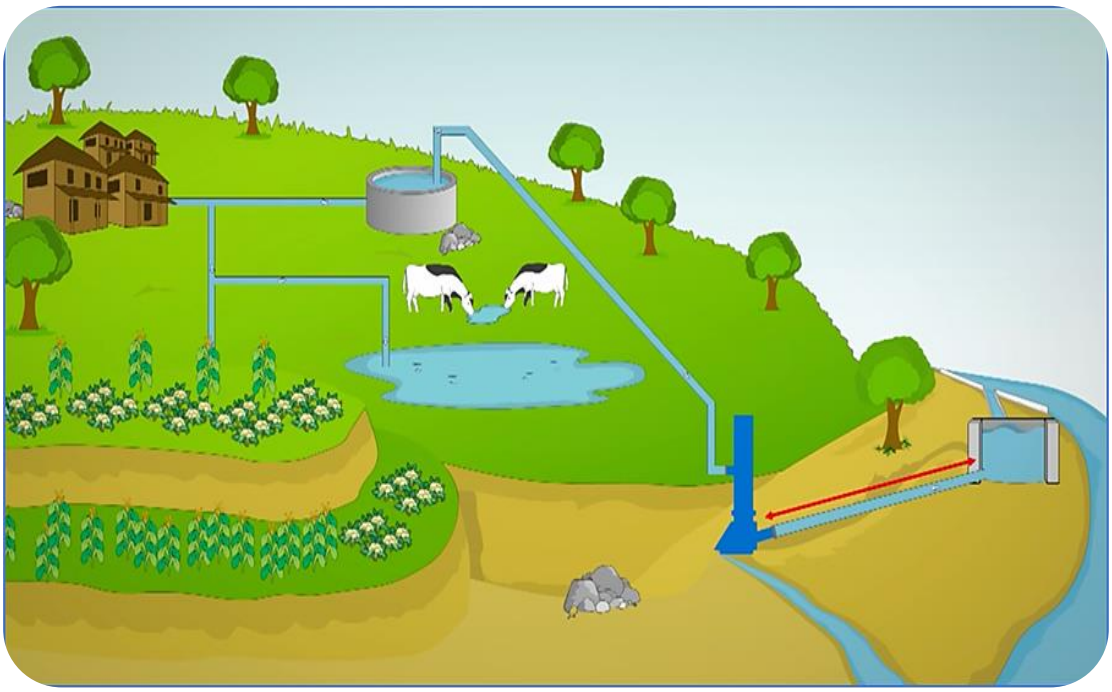
GWP Bhutan (Bhutan Water Partnership) in action

GWP Bhutan was accredited as a CWP and granted the responsibility for coordinating the action of GWP in Bhutan with a letter sent by the Executive Secretary of GWP dated 15 December 2017. GWP Bhutan is currently hosted by Royal Society for Protection of Nature (RSPN), founded as a citizen based non-profit, non-governmental environment organisation in 1987 to support environment conservation in Bhutan.

Climate resilience and water security

GWP Bhutan received a grant of USD 47,350 from GEF Small Grant Programme earmarked to the project 'Pilot low-cost climate-smart agriculture technology to address water security in rural Bhutan'. The project period spans from December 2018 to January 2020, targeting Wangdue Phodrang District in Central Bhutan.

Sixty percent of the Bhutanese livelihoods based on subsistence farming where most of the farming lands and human settlements are in hilly areas and are not easily served with conventional piped water supply. Most of the streams, rivers and springs are at lower elevations and women spend hours daily to fetch water for household usage. Managing water for even small-scale irrigation purposes in these remote and far-flung regions is still a major challenge. The project proposes to use the hydraulic ram (hydram) technology to cater the water need to the people living in high elevations in Bhutan.



A sketch of the proposed "hydram" technology

Celebrating World Water Day 2018 in Thimphu, Bhutan

People at the drainage cleaning exercise

In line with the World Water Day theme 'Nature for Water: exploring nature-based solutions to the water challenges we face in the 21st century' GWP Bhutan in collaboration with its partners conducted a drainage cleaning exercise on 22 March 2018.

Rapid urbanisation and expanded tourism industry has put pressure on the existing waste management policies in Bhutan. The necessity to revive the existing regulations and introduce new ones for waste disposal in urban Bhutan is a dire need. Therefore, GWP Bhutan decided to dedicate more resources to sensitise youth on IWRM as "change agents" and to stimulate a muti-stakeholder approach by initiating collaborations between the agencies. Thus, working towards common goals in conducting IWRM projects in future. These communities-of-practice will be capable to influence the decision makers in Bhutan.

GWP India (India Water Partnership) in action

GWP India (India Water Partnership) is a non-profit organisation established with a goal of promoting IWRM in India. It supports the government for implementing and bringing conceptual changes in thought process through critical and unbiased analysis of water issues, stimulating public awareness and understanding for country's water resources and functions as the water sector's national voice by promoting dialogue and exchange of information between the individuals, agencies and government departments.

Urbanisation and water security

Students participating the drawing competition

Following the successful implementation of Integrated Urban Water Management (IUWM) programme in Kishangarh city in Ajmer District , Rajasthan in 2017, with GWP/GWP-India partner International Council for Local Environmental Initiatives (ICLEI), South Asia (ICLEI-South Asia), the Phase II was initiated in 2018 at Ward No. 60 of Ajmer City, Ajmer, Rajasthan. The Ajmer Municipal Corporation confirmed their support to implement the project to develop Ward 60 as a smart ward under the programme. The targeted number of household was 100.

In 2018, nearly 100 Municipality Staff working on National Clean India Mission (*Swatch Bharat Abhiyan*) were trained on IUWM, solid waste management, waste segregation and composting. While the Municipality Officials were trained on solid waste management based on ICLEI's rapid IUWM toolkit, and the Municipality Sanitary Staff were trained on segregated waste collection and composting.

Poster on waste collecting vehicles and stakeholder

The municipal team working on door-to-door solid waste collection were provided with dustbins for waste collection in addition to a modified collection vehicle. A Monitoring and Evaluation (M&E) framework was also developed to monitor the progress from time to time. Households (HHs) including women were trained on source waste segregation and collection. The programme raised awareness among 120 students on solid waste management, water sanitation and hygiene and composting through competitions and quizzes.

More than 60 percent segregation of waste at source was achieved, and 150 kg per day of wet-waste was collected and composted at the two High Density Polyethylene (HDPE) compost beds located in Ward 60 during the project period.

Water and Sanitation

Raising awareness on safe drinking water

GWP India in association with its network partner S. M. Sehgal Foundation, initiated a safe drinking water project in twenty villages of East Champaran and Samastipur Districts of Bihar. The project introduced low cost, sustainable, non-electricity and easy-to-use bio sand filter called *"Jalkalp"*. In 2018, the project evaluation was carried out by GWP India, in Samastipur District to determine the sustainability of the project. User satisfaction

Checking the water samples at the site

on the filters and the impact of awareness programmes conducted in project villages in 2016 and 2017 were assessed.

The evaluation informed that the sensitisation programmes conducted during the project period were able to change the behaviour of people and educate them on safe drinking water. More than 90 per cent of *Jalkalp* users confirmed that it has improved the drinking water quality. The filter provides potable water that has a better colour and a taste. Users assured that *Jalkap* is a long-term low cost investment at the household level, as the vulnerability to water borne diseases have been reduced significantly and they do not have to buy safe water anymore, which is usually at a higher cost.

Poor water quality is one of the major challenges in Bihar where arsenic pollution of groundwater is prevalent in almost 18 districts of the state. The situation worsens with recurring floods as the contamination increases at a rapid rate. Although the water purifiers are an effective solution for safe water, they are often expensive and less popular among the poor.

Ecosystems and water security

Hindon River is one of the major tributaries of Yamuna River in India that has become the most polluted tributary in the recent past due to various human errors such as dumping garbage and untreated water into the river by the industries.

The polluted Hindon River

GWP India with collaboration of its network partner; Centre for Youth (C4Y) and under the mentorship of Nirmal Hindon Initiative took up the challenge to revive the River through Hindon Youth Champions of Change (HYCC) programme. This has been done since 2017, under the activity 'Creation of multi-stakeholders platform for rejuvenation of Hindon River and its tributaries'. Phase I was carried out in three districts of Uttar Pradesh (India) namely Saharanpur, Baghpat, and Ghaziabad along the Hindon River Basin. Five sets of stakeholders (nearly 1,200 people) namely, students, teachers, youth, women

and farmers were engaged in capacity building workshops and published videos depicting success stories on Hindon Voices You tube Channel.

In 2018, GWP India scaled-up the activity to Phase II in another two districts of Uttar Pradesh alongside Hindon River. Phase II was implemented at Meerut (at the villages of Kalyanpur and Kaithwari in Block Rohta) and in Shamli Districts (at villages Mimla and Salfa of Block Kandhla) respectively. Hindon Quiz Phase II engaged nearly 400 students from six schools of the four villages where the finals were held in December 2018 at Meerut, Uttar Pradesh. Women and farmers groups with representation of 20 farmers and 20 women from each block were established. The capacity building trainings were completed in August 2018 with the participation of more than 80 farmers and 80 women. Nearly 40 youth have been trained as Hindon Youth Champions of Change (HYCC). Nine teachers were trained through a teachers' capacity building workshop held in December 2018. A technical workshop on "Knowledge Sharing and Capacity Building of Stakeholders for Preparing the Road Map for Collective Action for Hindon River Rejuvenation" was held on 9 June 2018 at Divisional Commissioner's office Meerut with the participation of 85 government officials, NGOs, private sector, academia and media. The Road Map for Collective Action for Hindon River Rejuvenation was prepared including five verticals; afforestation, ponds and wetlands, green agriculture and organic farming, waste management and participation and governance to implement different projects for rejuvenation of Hindon River.

Farmers at village Salfa, Shamali District were trained

Climate resilience and water security

Meetings with village committee members

GWP India in collaboration with its network partner Centre for Environment and Development Studies, Jaipur (CEDSJ) started the groundwork since 2015 to set up a "River Basin Parliament for Mashi River Basin in Rajasthan, India" as a new model of water governance with community participation. Since then, the programme team has undertaken various capacity building exercises for *gram panchayats* (village councils). The Team established watershed committees and river basin committees and organised meetings for the River Basin Technical Support Group that laid the foundation to establish the River Basin Parliament. In 2018, nearly 20 trainings were conducted with the participation of 500 stakeholders representing the local government, NGOs and farmers in the watersheds.

The River Basin Parliament constitution was approved in November 2018. Based on the knowledge gathered at the trainings, communities started taking initiatives to address their water problems through a participatory approach. People have organised themselves around water issues and raised them to the decision makers/political leaders and bargained at the state assembly election. Communities formed committees and registered themselves at watershed level particularly in the areas falling under big dams of Mashi and Bandi River basins in order to strengthen the functioning of the Mashi River Parliament at apex level. The GWP India partner, CEDSJ is determined to continue the technical assistance to the River Basin Parliament until it becomes self-sustaining.

"Water problem across the globe can be addressed only by community efforts. Therefore, establishing a River Basin Parliament is an excellent model and will be the only solution." Shri Inder Singh Solanki, Acting President, Mashi River Basin

Integrated Water Resource Management

GWP India piloted a project on IWRM in 2015 to ensure safe drinking water and sanitation to the peri-urban village Garhi Harsuru in Gurugram District of Haryana (India) in collaboration with its partner TARU Leading Edge. Phase I was completed in 2017, and a Detailed Project Report (DPR) was

prepared, which consisted of an investment plan for IWRM and Solid Liquid Waste Management. Phase II of the project started in 2018. Three wards out of 20 of the project village were selected where each Ward consisted of approximately 70 households and the village community is willing to pay user charges for collection and safe disposal of waste.

Dr Veena Khanduri, Executive Secretary, GWP India addressing a forum on the IWRM Project

The project established the solid waste management system for the three selected wards of village Garhi Harsaru, with door-to-door collection, street sweeping and drainage cleaning. With the completion of the project, community has taken up the ownership of the project under the *Swachh Garhi Harsaru Campaign*. The open land (for residential purposes) which were used as dumping grounds earlier have now been cleaned and majority of the residents now oppose the defaulters who are throwing away their waste in improper manner. This is a clear indication of increased and more responsible behaviour of the people of the project village. A punishment mechanism for defaulters has been introduced and a fine of Indian Rs. 500 to be charged by the Sarpanch (Village Head), on those who dump waste in open land. The money collected is being deposited in a user charge collection bank account and will be used for improving the facility in the village. The efficient functioning of door-to-door waste collection took the attention of the neighbouring communities who showed their willingness to pay Indian Rs. 150 per month for door-to-door waste collection by increasing the potential for scaling up the project in other wards of the village. Garbage bins have been installed at the sites decided by the community and waste is regularly being collected by the garbage collectors. This practice made the roads clean, mosquito free and hygienic. In addition, the Swachh Gully (clean lane) Award has been introduced and some selected ward members were felicitated with a certificate by the *Sarpanch.*

"Both women and men are guardians of life on earth. By explicitly recognising the central role the women and men should play in safeguarding life on earth - it is obvious that they both ought to play a pivotal role in managing, conserving and preserving water resources as custodians of water".

Prof Farkhanda Aurangzeb, Regional Council Member GWP South Asia

GWP Nepal (Jalsrot Vikas Sanstha) in action

Global Water Partnership Nepal (GWP Nepal) was established in July 1999 to promote networking in IWRM. Members of GWP Nepal have consensually decided to designate Jalsrot Vikas Sanstha (JVS) as the host institution for GWP Nepal. The Executive Committee of GWP Nepal/JVS represents a multi-disciplinary team. GWP Nepal has more than 88 individual institutional memberships, including government water agencies, non-governmental organisations, international organisations, universities/colleges/educational institutions and private organisations.

Energy and Water Security

The Marshyangdi River basin

The support given by the Government of Nepal made the public and private sector to generate hydro-electricity for domestic use and export by issuing a demand-based license. It has increased the pace of hydropower development in the country. While the hydropower generation brings along the fruits of development for the nation, it also brought cost on the environment and society. In the given context, GWP Nepal conducted a study on "Conflict and benefit sharing of water resources in Marshyangdi River basin" which analysed the different dimensions of conflicts related to water, its usage and

sharing of costs and benefits in Marshyangdi River basin. In August 2018, GWP Nepal organised a Stakeholder Consultation to solicit inputs for the assessment. More than 40 professionals representing the governmental, non-governmental and Community Based Organisations (CBOs) engaged in the water sector attended the workshop.

Urbanisation and water security

In 2018, GWP Nepal carried out a case study on impact of urbanisation on water availability in relation to climate change in Khairenitar, Tanahu District. The study aimed at understanding the impact of urban development in Khairenitar's Small Town Water Supply and Sanitation Sector – analysed on service level functionality (quantity, accessibility and quality of water supply), institutional performance (the reliability) and water resources management. It intends to promote awareness on the efficient usage of water, better planning and management practices and increased user ownership of the project. The Study will draw the attention of policy makers to focus on growing issues of urbanisation and climate change in the water sector development.

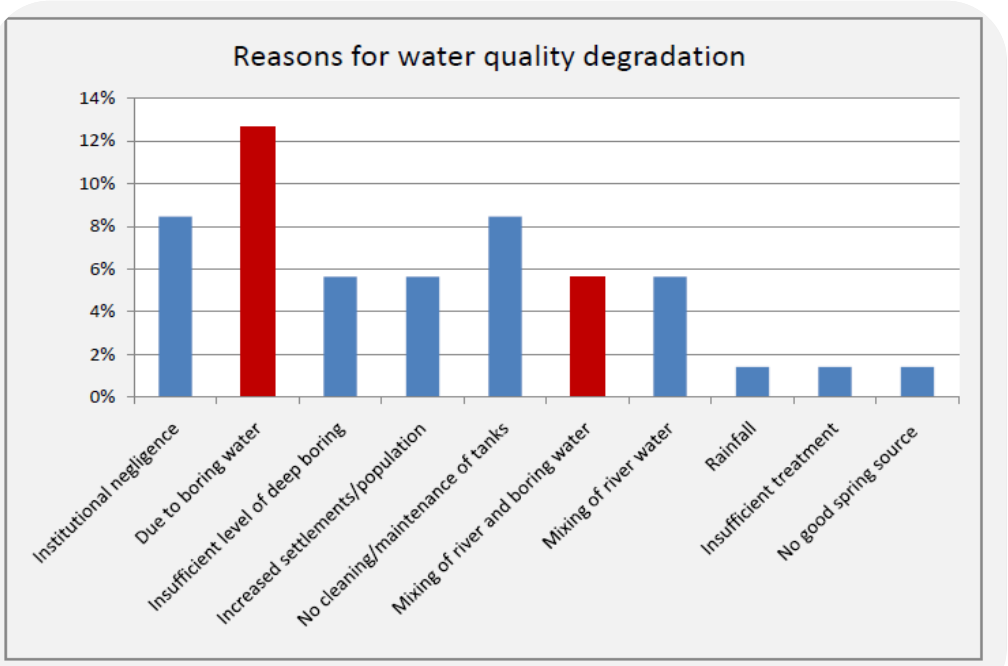


Figure 3.11: Perceived causes of water quality degradation

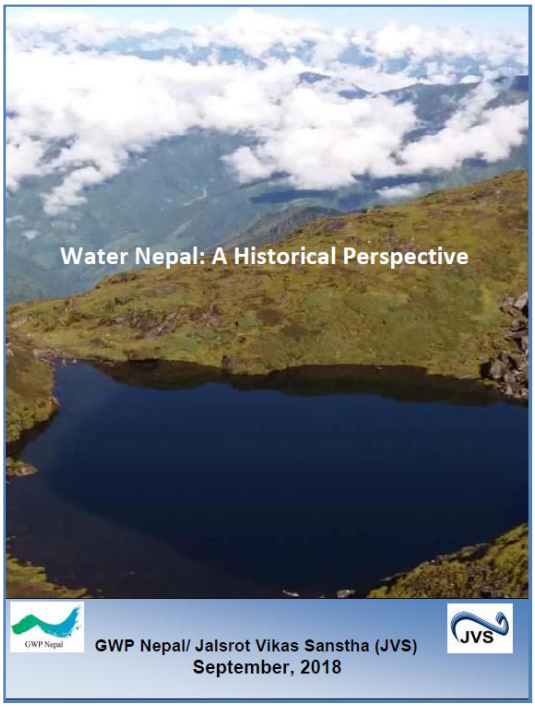
Gender and Youth

Since 2017, GWP Nepal/JVS has provided research grants to students pursuing courses in M.Sc. Interdisciplinary Water Resources Management (iWRM) and Natural Resources Management (NRM) at Nepal Engineering College (NEC), Center for Postgraduate Studies. In this regard, a memorandum of understanding between JVS and NEC was signed on 27 April 2017. The programme is a partial financial

and technical support programme for research, which not only helps students to complete their thesis but also motivate them do quality research work. In 2017, GWP Nepal selected three students. Likewise, three grantees Saroj Malakar, Dinesh Kumar Dongol and Sarita Pandey were selected for 2018 and GWP Nepal gave constructive feedbacks and guidance to the students to make their research more specific and to align with the objectives of GWP Nepal.

Water Nepal: A Historical Perspective

GWP Nepal has written a book on Water Nepal: A Historical Perspective to raise awareness among future researches and public on the past strides in all major areas of water resources and other uses such as cultural and religious use and environmental uses. It has compiled a volume consisting of papers written by eminent experts in the respective fields of water utilization.



The dissemination workshop organised by GWP Nepal in December explained the success and failures of the activities carried out by them in 2017 and 2018 to their stakeholders and donors. This was a great opportunity for young water professionals and students to interact with policy makers.

Introductory speech made by Dr Surya Nath Upadhyay

Climate resilience and water security

Increased climate change and its severe impacts have necessitated Nepal to act relentlessly for adaptation and prevention of climate change. In response, the Government of Nepal prepared the National Adaptation Programme of Action (NAPA) in 2010. There, they have identified the impacts of climate change and measures to reduce climatic vulnerabilities. In line with NAPA, and to localise adaptation activities, a National Framework on Local Adaptation Plan of Action (LAPA) was prepared in 2011 to implement adaptation actions. Hundred LAPAs were prepared and implemented at the climate vulnerable 14 districts of Nepal.

GWP Nepal carried out a study on the water-focused adaptation practices in Rajpur Rural Municipality of Dang, which has been identified as one of the highly vulnerable areas to the impacts of flood, and water induced stress. The study team produced the report Documentation of Water Focused Climate Change Adaptation Practices in, LAPA Project Sites of Dang-Deukhuri District based on the observations and discussions held during the field visit on 16 August 2018.

Discussion held in Rajpur, Rural Municipality

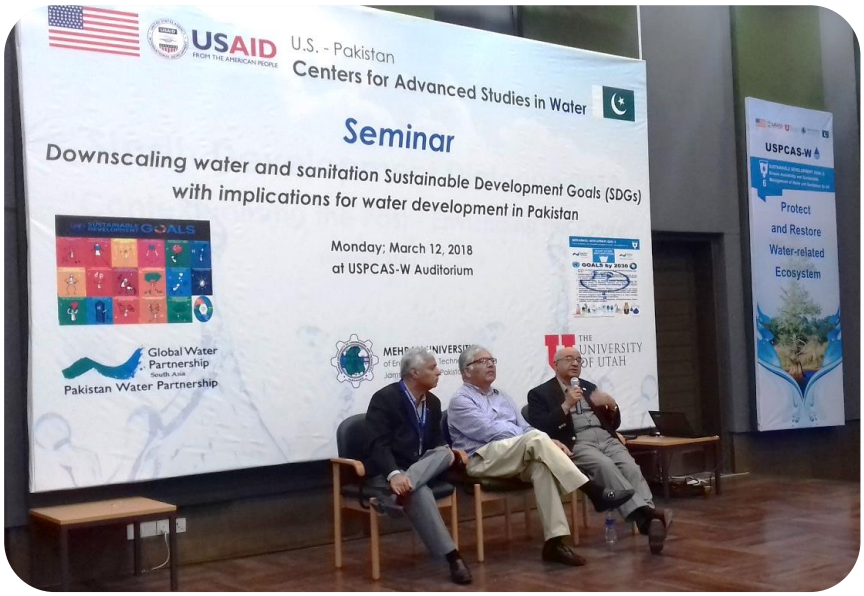
GWP Pakistan (Pakistan Water Partnership) in action

GWP Pakistan (Pakistan Water Partnership) was established in February 1999 as a country water partnership of GWP. GWP Pakistan is a Public Limited Company registered under the Pakistan Companies Act 1984. It has a large number of key stakeholders from government organisations, public and private sector, NGOs, women and youth groups, and civil society who have an impact on or are impacted by water and its uses in the country.

Sustainable Development Goals and Water Security

In 2018, GWP Pakistan organised several group discussions on climate change and its impacts on agriculture, environment and drinking water in-line with the SDGs with different stakeholders.

- A joint discussion with Pakistan Council of Research in Water Resources (PCRWR) was held on 12 February aiming to promote knowledge sharing, capacity building and other forms of cooperation on internal challenges faced at the country level with special focus on Goal 6.5.1: IWRM Implementation.



The seminar held at Mehran University

- GWP Pakistan organised a focus group discussion for farmers and local activists in Lodhran District held on 28 February to assess and appraise water issues in the area.
- A meeting on 'SDG 6: Ensure availability and sustainable management of water and sanitation for all and climate change and its impact on environment' was held in collaboration with Pakistan news media channels (Waqt news, Roze News, Haq Ki Awaz, Atv), Global Social Development Organization and private sector i.e. Just Pure, E@Solutions on 26 February at Bahawalpur.
- A workshop with the participation of civil society including government officials was held at Rahim Yar Khan on 2 March.
- Department of Center for Advanced Studies in Water, University of Utah in collaboration of GWP Pakistan organised a seminar on SDGs 6 on 12 March at Mehran University of Engineering and

Technology, Jamshoro-Sindh. It was emphasised that enhancing grassroots level youth leadership on SDG facilitation is vital for the country's economic development.

- GWP Pakistan organised a seminar on Transforming Coastal Ecologies for Participatory Economic Development through SDGs in collaboration with Farozaan Magazine and Lasbela University of Agriculture on 14 March at Lasbela University of Agriculture. The university students and faculty members were engaged and discussed issues related to water and sanitation and solutions in Sindh. University requested GWP Pakistan to assist to develop linkages with international programmes on water.

Seminar held at the Lasbela University

Strengthening AWPs

Area Water Partnerships (AWPs) established with the guidance of GWP Pakistan, are independent local groups consisting of water institutions and stakeholders that facilitate implementing IWRM at the grassroots level. They are actively engaged in identifying and prioritising water related gaps in the area, recognising most suitable institutions, stakeholders and funding organisations who are capable and willing to address the problem. They are also expected to suggest necessary reforms and mobilise the multifaceted platform. In 2018, GWP Pakistan set up a task to strengthen and establish AWPs and to enhance the engagement of professional and grass root level women on water management.

On 13 March 2018, GWP Pakistan launched Farozaan AWP and later in July, they launched Chitral Area Water Partnership. In May 2018, GWP Pakistan team visited Chaman-Balochistan to meet the Mayor of Chaman and briefed him about the water crisis in the district. GWP Pakistan raised the requirement to launch Chaman AWP for improved water resources management in the district. The District Municipal Administration showed their fullest cooperation.

GWP Pakistan with the engagement of AWPs provided technical support to promote climate resiliency in existing water and agriculture sector programmes. Farozzan Magazine donated a submersible pump to the people of village Man-Bai-Jo-Tar Chachro, Tharparkar. Nearly 250 households of the Thari village are benefitting from the water pump.

In May, a focus group discussion was jointly organised by the International Union for Conservation of Nature (IUCN) to discuss the possible interventions to overcome the emerging water crises in Baluchistan. A Press Conference on "climate change, environmental problems and election 2018" was held on 15 May 2018 at Karachi Press Club organised by Farozzan Magazine in Karachi. A workshop for farmers was organised at Pashin-Balochistan on 12 May with the collaboration of Sarawan AWP and the local farmers in Pashin. Focus of the discussions were, water crises and its negative effects on agriculture in Pashin. GWP Pakistan conducted a workshop on youth engagement in water related initiatives in collaboration with a female organisation IZH, at Garamchashma Chitral in July. GWP Pakistan also organised a dialogue with farmers in Mastung-Balochistan on 10 May with the collaboration of Sarawan AWP. Later in 14 May, GWP Pakistan with the collaboration of Farozaan AWP organised a stakeholders' meeting on "Karachi water issues and way forward".

Launching The Farozaan Area Water Partnership Karach

Report:Muhammad Waseem

Pakistan Water Partnership is a part of Global Water Partnership Program and volunteering this partnership to provincial and district levels, the launching ceremony of the Farozaan Area Water Partnership Karachi was held on March 13, 2018 at Sindh Social Welfare Training Institute Karachi.

The head of Pakistan Water Partnership Sardar Muhamad Tariq presided the ceremony with internationally-famed scholar and expert on water resource management Dr. Pervaiz Amir.

Dr. Pervaiz Amir stressing the need of trees and water in urban cities said that citizens must come up and play their roles to make Karachi sustainable and livable. He said that because of scarcity and contamination of water Karachi is longer livable now. "Even if you (people) want to live without conserving and managing your water resources then you must build a thousand new hospitals for your healthcare because most of the disease you are infected these days are water-borne in Karachi", he opines.

Replying a question from audience Dr. Pervaiz suggested that desalination plants and rain water harvesting could be two alternate and smart solutions in Karachi to meet out water demands rather banking completely upon governmental schemes.

Sardar Muhammad Tariq was of the view that there is no substitute of clean air and pure water on earth, therefore both must be preserved and cared. He emphasized on the increase of water storage capacity in Pakistan. In this regards he reveals "In case of drought our country has only 30-day water storage capacity, compared to India' 100-day and Australia' 600-days. While the Egypt has a remarkable storage capacity for more than three years and this art of water management the Egyptians inherited and learned from their old civilization." He pointed out that if Pakistan has to meet out its agricultural and industrial demands of water, it must bring improvement of up to 40% in it's current water storage fold.

Sardar Tariq also told the significance of the Sustainable Development Goals and pointed out the plastic pollution and marine pollution as the top negative indictors of the city.

Earlier renowned environment journalist and the Editor of Farozaan threw light on water crisis in Karachi and signaling out the water theft by tanker mafia termed it the main reason behind water scarcity in the metropolitan.

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Workshop for Farmers in Pashin

Submersible water pump donated by Farozzan AWP

Youth and water security

GWP Pakistan organised a seminar in February on 'Water Security of Pakistan', pursuing the Sustainable Development Goals (SDG) agenda with special focus on effective water management at the domestic level. The seminar took place at COMSATS Institute of Information and Technology, Vehari Campus.

In June, the National Defence University organised a week long Summer School with the objective of shaping up the perceptions of students on national, regional and global contemporary issues related to climate change and water, energy and food security. GWP Pakistan engaged with the programme as resource persons.

Seminar at COMSATS Institute in February

GWP Pakistan assisted COMSATS in November to organise a two-day international conference on 'Sustainability in the Changing Environment - Water use Efficiency and Future Development'. The

conference focussed on the future of water in Pakistan with crosscutting themes of youth and inclusion of women and marginalised.

Summer school at the Defence University

The international conference at COMSATS University

Climate resilience and water security

GWP Pakistan in collaboration with a few media agencies organised a workshop in November on Addressing Extreme Water Shortages in Southern Punjab in the light of 2018 National Water Policy, in Bahawalpur-Southern Punjab. Farmers and Social activists attended the workshop. The farmers asked GWP Pakistan to inform them about the possible solutions for extreme water shortage issues related to agriculture in the area.

Workshop at Southern Punjab

GWP Sri Lanka (Sri Lanka Water Partnership) in action

GWP Sri Lanka (Sri Lanka Water Partnership) is an independent non-profit association of institution promoting IWRM. It strengthens the Area Water Partnerships (AWPs), youth and gender networks and other basin level institutions to support River Basin Management (RBM) and IWRM in Sri Lanka. AWPs provide the local institutional base for representation and action while the Country Water Partnership (CWP) and associated Steering Committee provides the forum for policy level dialogue of these issues for consideration at national level. Both levels encourage close interaction among groups of stakeholders for harmonising approaches and integrating issues.

Wetland management to water security

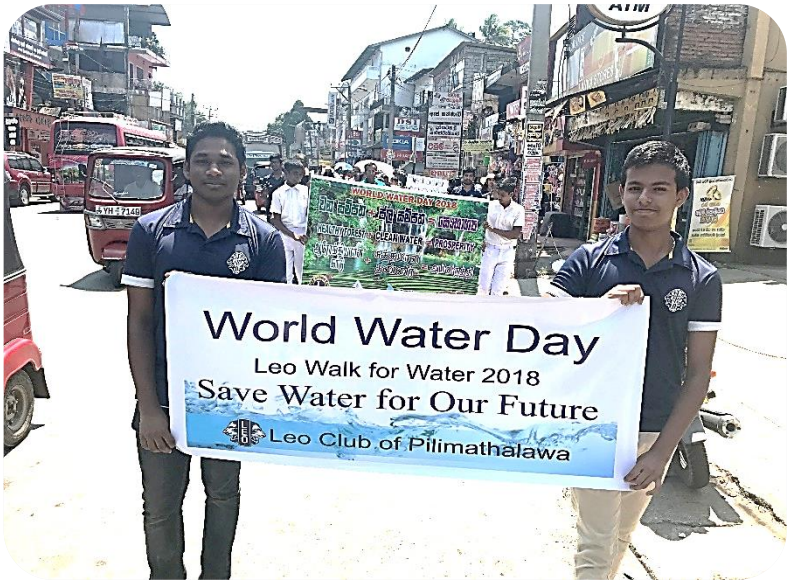
World Wetlands Day National Programme

GWP Sri Lanka joined hands with Central Environment Authority (CEA) and Sri Lanka Land Reclamation and Development Corporation (SLLRDC) to organise two separate events to mark World Wetlands Day (WWD) falls on 2 February. The partnership with CEA for organising the national World Wetland Day celebration goes back to 2015. Later, in November 2018, a discussion to learn the experts' opinion on wetland conservation in Sri Lanka was organised by GWP Sri Lanka with the participation of 35 undergraduates from Universities of Colombo and Kelaniya and the Open University of Sri Lanka at Thalawatugoda wetland premises.

The urban wetland conservation initiatives conducted under GWP Sri Lanka activity "conserving urban wetlands in Bolgaoda and Thalawatugoda", in collaboration with SLLRDC have certainly contributed in lobbying Colombo as one of the first Ramsar Wetland Cities announced at the 13th meeting of the Conference of the Parties to the Convention (COP13) held in Dubai, United Arab Emirates in 2018.

Advocacy on SDG 6

In 2018, GWP Sri Lanka organised advocacy and awareness raising programmes with the engagement of its Partners to raise awareness on SDG 6. In February, GWP Sri Lanka in collaboration with Young Women's Christian Association (YWCA) organised two awareness-raising programmes on climate change and school sanitation in two schools. Altogether 371 students and teachers participated at the programmes.



World Water Day walk

All the School Programmes conducted in March were targeted on celebrating World Water Day 2018 (WWD 2018). Two WWD Citizen Science Programme for school community were held on 14 and 19 March with the aim of improving water related disaster risk reduction in Denuwara and Aranayake Educational Zones in collaboration of Ma-Oya Area Water Partnership, NetWwater and Lions Club – Pilimathalawa. The programmes achieved high attendance rates, 51 and 180 consecutively. Two World Water Day Walks held in March at Pilimathalawa and Kadugannawa brought more than 300 students, parents and public on the road campaigning for water security. GWP Sri Lanka Local Partner *Ma-Oya Mithuro* organised a school awareness programme commemorating World Water Day on 22 March at Kegalle with the participation of 80 students. Another programme was held on 25 March in Colombo targeting 38 schools in the Western Province. The Programme was organised by GWP Sri Lanka in collaboration with the Provincial Council of the Western Provincial and University of Colombo. Over 200 students and nearly 150 teachers and parents attended the training with the objective of activating the links between Environmental Cells of the schools.

The Lions Club, Pilimathalawa, a Partner of GWP Sri Lanka organised five programmes aligned with the World Toilet Day covering 41 schools in Denuwara Educational Zone, from 19 to 30 November. The programmes consisted of voluntarily cleaning activities and awareness raising programmes, where the students cleaned their school toilet systems as well as the school garden. Lectures were conducted on correct usage of toilets and how to keep them clean and operating. In November, Ma-Oya Area Water Partnership organised a river cleaning programme in the Boella area with the participation of 18 students.

Aligned with the World Environment Day celebration on 5 June, GWP Sri Lanka in collaboration with Lions Club, Pilimathalawa, Sri Lanka Red Cross, NetWwater and Kadugannawa Police organised an awareness-raising programme on environment conservation at Kotabogoda Danturai Road with the participation of 62 villagers. Further, a tree-planting programme was held in two schools in Kadugannawa and Pilimathalawa.

Tree planting programmes held in schools

Youth programmes with CSR funds

In 2018, GWP Sri Lanka with funds received from Unilever (Sri Lanka) and in collaboration with the Department of Education, Central Province; Ministries of Education and Health and National Water Supply and Drainage Board organised a series of IWRM awareness programmes under Tea Landscape programme. Selected 15 schools in Agra Oya basin benefited from the programme where the Phase I

The street drama team

inaugurated on 5 February at a school in Nuwara Eliya. GWP Sri Lanka organised donor visits in May and July consecutively for Unilever Sri Lanka and UK. The group visited a school at Agrarapathana - one of the schools that benefitted from the Tea Landscape Programme, and attended exhibitions, street-drama and demonstrations organised in Agra Basin. Discussions with the Zonal Educational

Authorities and Unilever have started prior to convening the proposed Phase II that would run over for two years in 45 school and in estate communities in the Central Province.

Rain Water Harvesting tank at a school

A programme to improve school sanitation for better child health in the Estate Sector at Nuwara Eliya Educational Zone targeting 10 schools was initiated in November 2017. This is a collaborative initiative of GWP Sri Lanka, Hatton National Bank and the Department of Education, Central Province. Planning and construction of Rain Water Harvesting Systems (RWH) were carried out with the participation of teachers and the school development societies. Ten estate schools received RWH systems by December 2018 and the school development societies trained on RWH System maintenance.

Gender and Water

Students holding the MHM wheel

GWP Sri Lanka is promoting Menstrual Hygiene Management (MHM) amongst adolescent girls in Sri Lanka since 2015. GWP Sri Lanka in collaboration with the Department of Education and the Department of Health Services - Central Province with the support of Young Womens' Christian Association (YWCA) celebrated the Menstrual Hygiene Day at the St. Antony's Girls School, Katugastota on 25 May 2018. Ten teachers and 250 female students participated at this programme. GWP Sri Lanka in view of further expanding the programme in Uva and Central Provinces, met with Rotary and Leo Clubs in Kandy and Kegalle in July for seeking financial support.

CCA and technology options programmes for Farmers and Technical Staff

Training for Irrigation Engineers

GWP Sri Lanka is in the forefront for holding extensive climate change adaptation (CCA) and water saving technology options programmes supported with knowledge products for district line-agency staff in the irrigated agriculture sector, plantations and for farmer leaders. The programmes have been conducted with the assistance of Irrigation Department, Department of Agriculture including its Research institutes at Maha Illuppallama, Bathalagoda and Angunakolapelessa, Department of Agrarian Development, Department of Export Agriculture, National Water Supply and Drainage Board (NWSDB) and Ministry of Irrigation and Water Resources.

In March 2018, GWP Sri Lanka organised two awareness-raising programmes on water saving techniques and CCA, targeting Farmer Organisations (FOs) in Katupath-Oya, Panamure and Kirindi Oya

Projects with the participation of 123 field staff. GWP Sri Lanka organised their first Tamil Medium CCA Programme in Mannar on 25 June 2018 supported by CapNet Lanka, with the participation of 34 farmer leaders and 31 officers of the Irrigation Department, Agrarian Services and Agriculture Department serving under Giant Tank System. CCA programme for Allai Major Irrigation Scheme in Trincomalie was held at Muthur in September targeting Officers and Leaders of Farmer Organisations of Allai Scheme. The training was attended by 74 participants.

Technical Staff from the Irrigation and Plantation Sectors were also benefitted through GWP Sri Lanka's CCA awareness and technical options programmes. Two similar programmes were held in May and July with the participation of 46 Senior Research and Development Staff and field staff of the Department of Export Agriculture (DEA) in Matale. The last programme for the Year on Technical Options to cope with Climate Change was held in December attended by 51 newly recruited Irrigation Engineers. The programme organised in collaboration with Natural Resources Management Centre (NRMC) of the Department of Agriculture.

Publications

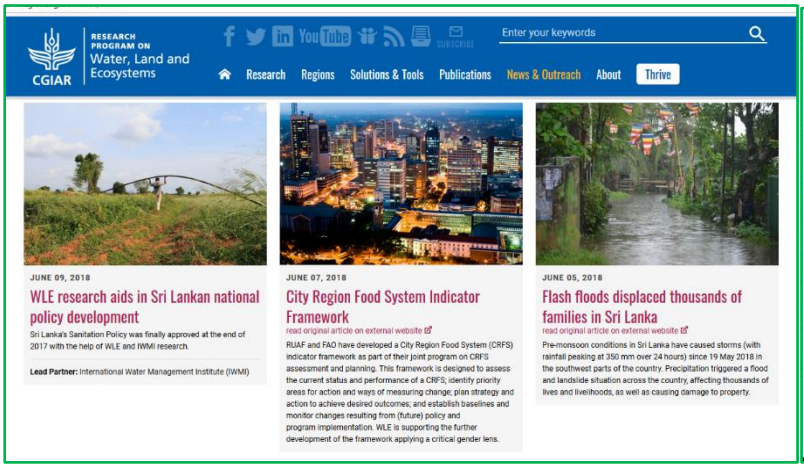
Knowledge Products being available in national languages is key for training field staff. Therefore, GWP Sri Lanka with collaboration of relevant Government Institutions started translating the recently written booklets on CCA and paddy cultivation, other filed crop cultivation and rainwater harvesting into national languages, Sinhala and Tamil. The Sinhala translations were completed in 2017 and Tamil were in 2018 and made available for training programmes. The new publication on Home Gardening to cope with climate change written in Sinhala is being published in 2018.
Translations and new publications are as follows.

- Climate Change Adaptation and Paddy Cultivation (Tamil)
- Effects of Climate Change Adaptation for Farmers (Tamil)
- New Technology Options and Best Practices to Cope with CC in Cultivating other Field Crops (Tamil)
- Irrigation practices (Tamil)
- Climate Change Adaptation and home gardening (Sinhala)

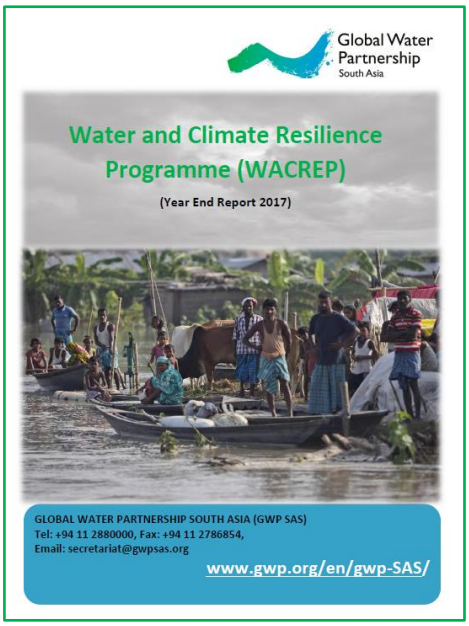
GWP South Asia Communications Products

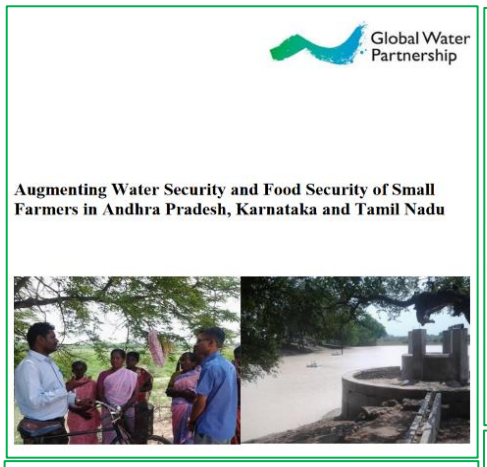
- GWP SAS in Action video and GWP South Asia is on the move PowerPoint presentation provide the viewers an understanding about GWP South Asia and its activities.
- About GWP South Asia flier was designed targeting the general public and potential stakeholders who are willing to engage with the activities conducted by GWP.
- Flier on Learning Deltas Asia Initiative gives an idea about our newly launched activity LDAI.

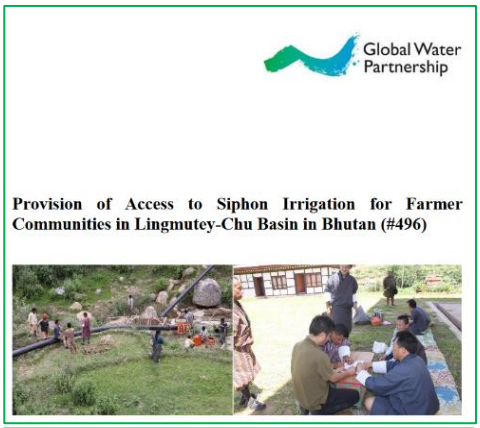
- Some of our achievements and stories have been picked up by interesting parties
  - Global Water Partnership Brings WASH Support to Mountains of Pakistan
  - Asia and pacific region should agree for a regional policy
  - Flash floods displaced thousands of families in Sri Lanka

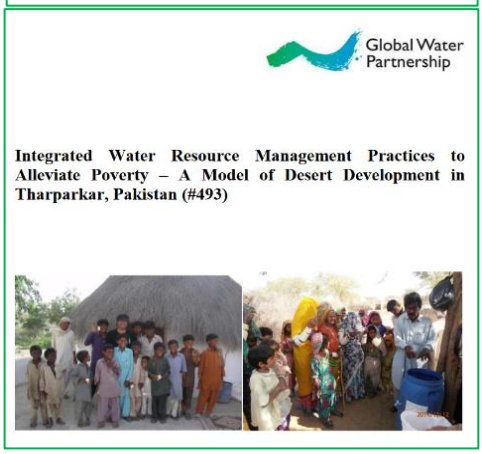


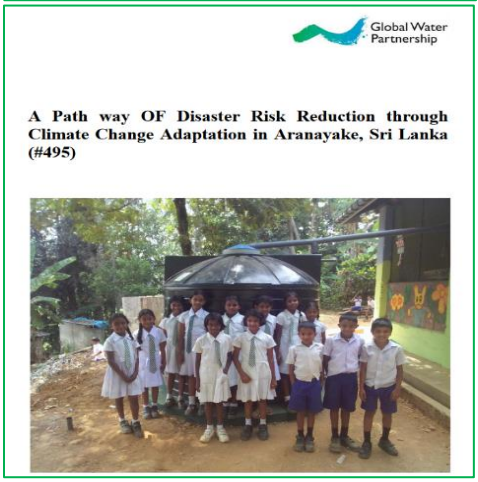
- The Water and Climate Resilience Programme (WACREP) yearend report 2017 was compiled which carries details of the activities carried out in 2017.
- The GWP South Asia Newsflow the periodic newsletter is been produced as a way to engage with partners regularly.
- Four case studies being developed on
  - IWRM Practices to Alleviate Poverty – A Model of Desert Development in Tharparkar, Pakistan (#493)
  - Disaster Risk Reduction through Climate Change Adaptation in Aranayake, Sri Lanka (#495)
  - Integrated Water Resources Management Practices in Greater and Lesser Cholistan, Pakistan (#497)
  - Siphon Irrigation for Farmer Communities in Lingmutey-Chu Basin in Bhutan (#496)











Financial Report 2018

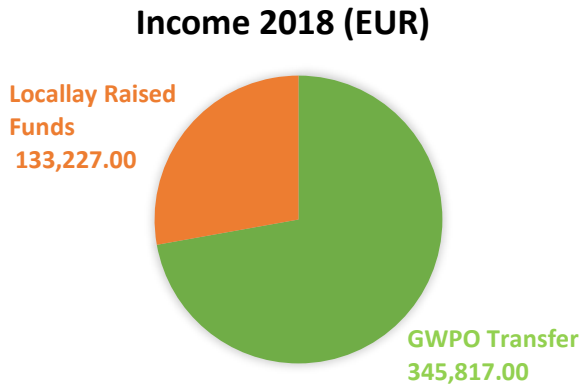
The Regional Water Partnership South Asia compiled the GWP South Asia Financial Report 2018 that includes CWP accounts. The report has been audited by KPMG, a global network of professionals providing audit, appointed by IWMI and endorsed by the GWP South Asia Regional Council.

GWPO Funds

In 2018, GWP South Asia received Euro 345,817 from GWPO earmarking for portfolio of activities including CORE/Additional CORE, WACDEP/Additional WACDEP, Youth and IDMP.

Income 2018 (in Euros)

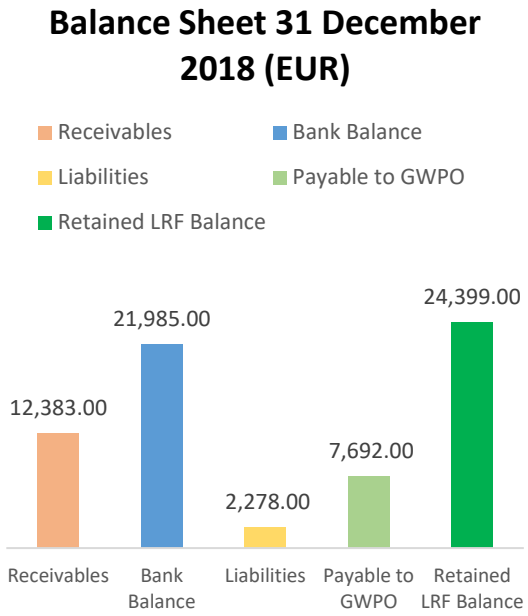
Income	Euros
GWPO Transfer	345,817.00
Locallay Raised Funds	133,227.00
Total Income	**479,044.00**



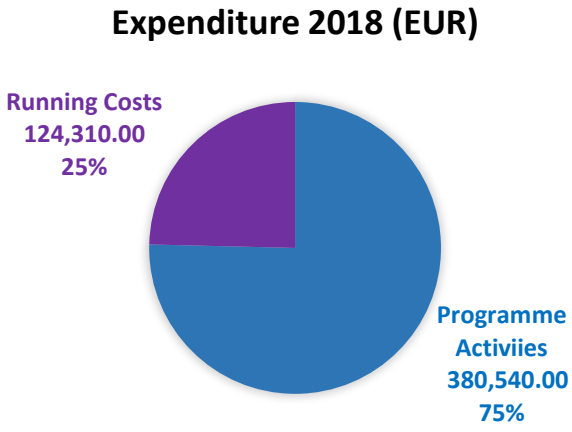
Locally Raised Funds 2018 (in Euros)

In 2018, the regional network, especially the CWPs raised funds through their local network that includes H&M, IFC, IWM/Delta Cap, CSIRO, Unilever and HNB. The membership fees and interest on deposits have also been calculated as Locally Raised Funds, which totals up to Euro 133,227.

Balance Sheet 31 December 2018



Expenditure 2018



Team GWP South Asia 2018

The 24th Regional Council (RC) Meeting of GWP SAS was held on 11 October 2018 in Colombo, Sri Lanka.

GWP South Asia Regional Council Meeting 2018 participants

GWP South Asia Regional Council

Country	Name
Bangladesh	**Emaduddin Ahmad**, Consultant, Institute of Water Modelling (IWM)
	Begum Shamsun Nahar, Independent Consultant
Bhutan	**Ugyen Lhendup**, Chief Programme Officer, Bhutan Trust Fund for Environmental Conservation
	Tenzin Wangmo, Chief Environment Officer, National Environment Commission
India	**Avinash C. Tyagi**, Secretary General (Reid), International Commission on Irrigation and Drainage, (ICCID)
	Pooja Kapoor, Additional Chief Engineer and Head, Business Development Division, WAPCOS Ltd.
Nepal	**Upendra Gautam**, Treasurer, GWP Nepal / Jalsrot Vikas Sanstha
	Karuna Onta, Social Development Advisor, Department for International Development (DFID)
Pakistan	**Farkhanda Aurangzeb**, Senior Consultant on Human Rights Education, Government of Pakistan
	Pervaiz Amir, Board Director, GWP Pakistan
Sri Lanka	**Lalith Dassenaike**, Consultant at U.N. Global Pulse Lab, Jakarta/UNDP Asia Pacific Regional Hub
	Kusum Athukorala, Senior Advisor GWP Sri Lanka

GWP South Asia Secretariat and CWPs

Senior Network Specialist	Regional Secretariat		
 Yumiko Yasuda		 Lam Dorji Regional Chair	 Lal Induruwage Regional Coordinator
	Country Water Partnership	**Chair**	**Coordinator**
	GWP Bangladesh	 Khondaker Azharul Haq	 Mukta Akter
	GWP Bhutan	 Chukey Wangchuk	 Kinga Wangdi
	GWP India	 R.K. Gupta	 Veena Khanduri
	GWP Nepal	 Vijaya Shrestha	 Tejendra Bahadur G.C.
	GWP Pakistan	 Ragib Abbas Shah	 Muhammad Akhtar Bhatti
	GWP Sri Lanka	 Jayatissa Bandaragoda	 Ranjith Ratnayake

Acronyms

AWP	Area Water Partnership
APAN	Asia-Pacific Climate Change Adaptation
BWWN	Bangladesh Women and Water Network
CCA	Climate Change Adaptation
CEDSJ	Center for Environment and Development Studies, Jaipur
CEGIS	Centre for Environmental and Geographic Information Services
C4Y	Centre for Youth
CWP	Country Water Partnership
DPR	Detailed Project Report
GWPO	Global Water Partnership Organisation
GWP SAS	Global Water Partnership South Asia
HWLP	High-level Experts and Leaders Panel on Water and Disasters
IFC	International Finance Corporation
IUCN	International Union for Conservation of Nature
IWRM	Integrated Water Resource Management
IWMI	International Water Management Institute
LAPA	Local Adaptation Plans for Action
LDAI	Learning Delta Asia Initiative
LGED	Local Government Engineering Department
LRF	Locally Raised Funds
MHM	Menstrual Hygiene Management
MoU	Memorandum of Understanding
NAPA	National Adaptation Programme of Action
PMC	Project Management Committee
PRI	Panchayat Raj Institution
RWH	Rain Water Harvest
RWP	Regional Water Partnership
SADMS	South Asia Drought Monitoring System
SDGs	Sustainable Development Goals
ToT	Training of Trainers
WACDEP	Water and Climate Development Programme
WACREP	Water and Climate Resilience Programme
WAPCOS	Water and Power Consultancy Services (India) Limited
WMO	World Meteorological Organisation
WWD	World Water Day
YWCA	Young Women's' Christian Association

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