Global Water Partnership South Asia

2018

Water and Climate Resilience Programme (WACREP)

GLOBAL WATER PARTNERSHIP SOUTH ASIA (GWP SAS)

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ACRONYMS AND ABBRIVATIONS

AWP	Area Water Partnership
CCA	Climate Change Adaptation
CEDSJ	Center for Environment and Development Studies, Jaipur
CEGIS	Centre for Environmental and Geographic Information Services
CWP	Country Water Partnership
DPR	Detailed Project Report
GWP	Global Water Partnership
GWP SAS	Global Water Partnership South Asia
IUCN	International Union for Conservation of Nature
IWRM	Integrated Water Resource Management
IWMI	International Water Management Institute
LAPA	Local Adaptation Plans for Action
LGED	Local Government Engineering Department
NAPA	National Adaptation Programme of Action
PMC	Project Management Committee
PRI	Panchayat Raj Institution
RWH	Rain Water Harvest
SDGs	Sustainable Development Goals
WACDEP	Water and Climate Development Programme
WAPCOS	Water and Power Consultancy Services (India) Limited

EXECUTIVE SUMMARY

South Asia is the southern area of the Asian continent bounded by Indian Ocean, the Himalayas, and Afghanistan. The Arabian Sea borders Pakistan and India to the west, and the Bay of Bengal borders India and Bangladesh to the east. The western boundary is the desert region. South Asia region consists of variety of geographical features such as glaciers, rainforests, valleys, deserts, and coastal areas. The climate of the region considerably varies from area to area as from tropical monsoon in the south to temperate in northern. South Asia covers diversified climatic zones and experiences an array of climate change impacts. Human pressures together with changing hydrology and land resources have distinct impact on the production of food grain and resilience of ecosystems.

South Asia is home to nearly 1.9 billion people. Cities are increasingly feeling the pressure of population growth and urbanization. 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. Transboundary Rivers such as Ganges, Indus, and Brahmaputra have defined the geography, history, and culture of South Asia for centuries and are critical to economic growth, food and energy security, and sustainable development within the region. Still, over the last few decades, these rivers have come under considerable pressure from industrial development, urbanisation, population growth, and environmental pollution. This situation has been compounded by poor domestic management of water resources and increasing variability in rainfall and climate patterns that have made South Asia highly susceptible to floods, droughts, and natural disasters.

In 2010, out of 3.6 billion people living in potential severely water-scarce areas, nearly 73 percent live in Asia. In 2050 (factoring in adaptive capacity) 3.6–4.6 billion will be under water stress with 91–96% living in Asia, mainly Southern and Eastern. In 2010, the global groundwater usage, mainly for agriculture, amounts to 800 km^3 per year, with India, the United States of America, China, Iran and Pakistan (in descending order) accounting for 67 percent of total abstractions[1].

Given the transboundary nature of most river basins, regional cooperation will be critical to addressing projected water quality challenges. There are large number of boundary partners active in this region. South Asia Cooperative Environment Programme (SACEP), South Asian Association for Regional Cooperation (SAARC), Asia Pacific Adaptation Network (APAN), Network of Asian River Basin Organizations (NARBO), United Nations Development Programme (UNDP), United Nations Children's Fund (UNICEF), Food and Agriculture Organization (FAO), International Water Management Institute (IWMI), United Nations Economic and Social Commission for Asia and the Pacific UNESCAP, Asia Foundation, United States Agency for International Development (USAID), Australia's Aid Programme (AusAID), Delta Alliance and World Bank and Asian Development Bank (ADB) are some of them.

[1] The United Nations Water Development Report 2018, Nature-Based Solutions for Water. 2018, UNESCO, France

GWP South Asia launched WACREP in 2013. This programme is another regional water and climate initiative under the global programme – Water and Climate Development Programme (WACDEP). WACREP was formulated to improve the climate resilience of South Asian countries to withstand the impact of climate change. Under this programme, Country Water Partnerships (CWPs) work with the respective government agencies and their partners and play a catalytic/facilitative role in implementing climate related activities.

WACREP collaborate with partners to implement the activities to achieve its objective to support countries to;

- Develop and integrate "no regret'" water security and climate resilience investments in to their development plans, budget and programs.
- Identify solutions addressing critical water security challenges to enhance the climate resilience of countries and communities.
- Built knowledge and capacity to enhance water security and climate resilience.
- Operationalize the GWP network with strategic allies and stakeholders to integrate water security and climate resilience in development process.

WACREP is implemented under the theme of 'Climate resilience and water security' while contributes to other themes such as food, energy, ecosystem, urbanization also, altogether contributes to GWP vision, "a water secure world".

WACREP IMPLEMENTATION IN 2018

WACREP in South Asia is targeted towards developing resilience among communities to withstand the hazards that can be generated due to the effects of climate change. In 2018, GWP South Asia focused on twelve CWP based activities and interventions. The projects will engage stakeholders for providing knowledge and developing skills on climate change mitigation and adaptation. Limited grant allocations in 2018 have lowered the number of activities conducted by each CWP while the Regional Office as well as the CWPs mainly targeted the efforts towards resource mobilization. The activities conducted by the region were designated in order to achieve GWP's three Strategic Goals; catalyse change in policy and practice, generate and communicate knowledge and strengthen partnerships.

Climate change, growing urbanization, food production are continuously challenging to the water security in global concern. Economic viability, technical feasibility and social acceptance are major concerns in implementing water security techniques. In order to meet economic viability through micro finance system, GWP Bangladesh implemented a pilot testing on solar powered minor irrigation system in Bangladesh. Preparatory works, site selection, selection of suitable pumps has done at the induction and workshop was conducted on technical feasibility, economic viability and social acceptance of solar powered pumps for irrigation and drinking water.

GWP India with collaboration of their partners, continued participatory approach to water resource management in the Mashi River Basin. They have conducted meetings to seek cooperation of people in executing plans. Meetings allowed participants to express their apprehension about negative effects that can be aroused unless a coordinated effort made by the people along the river basin to save the river. In continuation of 2017 activity of solid waste management, IWP with collaboration of TARU Leading Edge, village Garhi Harsaru, Gururam in Haryana state was provided community dustbins, located them in appropriate streets, and implemented a fining system to the people who violate waste dumping rules.

Documentation of good practices and knowledge sharing is vital for sustainable development. GWP Nepal conducted documenting the good practices in water sector focusing Climate Change Adaptation (CCA) to regain the living standard of rural farmers. In addition, GWP Sri Lanka translated the booklets written on CCA practices to national languages that are being used to train farmers and specialists in agriculture and irrigation sectors.

In the means of strengthening partnership and developing multi-stakeholder platforms, GWP Pakistan implemented activities in 2018 while ensuring access to water with the collaboration of different parties. GWP Pakistan conducted discussions, workshops to raise awareness on water crisis in Pakistan and its negative effects on agriculture and living.

GWP Sri Lanka continued organising training programmes on CCA for Agency Staff, Leaders of the Farmer Organisations and the Farmers who depends on irrigated agriculture and awareness programmes on water security and climate change for Department of Education in 2018.

CHAPTER 1 – GWP BANGLADESH (BANGLADESH WATER PARTNERSHIP)

GWP Bangladesh was established on 30 September 1998 to foster integrated water resource management (IWRM) by maximising economic and social benefits without compromising the sustainability of vital ecosystems through an experts group meeting under the initiative of Late Mr Quamrul Islam Siddique, Former Chief Engineer, and Local Government Engineering Department (LGED). Currently, Mr Hossain Shahid Mozeddad Faruque, heading GWP Bangladesh as its President while Ms Mukta Akter holding the Executive Secretary/Country Coordinator position.

GWP Bangladesh plays an important role on issues related to flood management, CCA and transboundary water co-operation in the country and the region. Its initiative and leadership in developing preparedness plans and frameworks for action have influenced policies and promoted best practices, advocacy and knowledge sharing. Promoting IWRM related dialogues at all levels through provision of platforms within the country and using existing regional and global forums has made it an acknowledged and visible water sector proponent by the government, and donors.

Under WACREP Phase II (2018), GWP Bangladesh undertook one activity, Activity 5B: Pilot Testing of Solar Powered (Green Farming) Minor Irrigation System Acquired through Micro Finance (MF) for their Economic Viability

Activity 5B: Pilot Testing of Solar Powered (Green Farming) Minor Irrigation System Acquired through Micro Finance (MF) for their Economic Viability.

Under GWP Strategic Goal 1: Catalyse change in policies and practice, GWP Bangladesh in collaboration with Centre for Environmental and Geographic Information Services (CEGIS), a GWP Partner, organised a workshop on 'technical feasibility, economic viability and social acceptance of solar powered pumps for irrigation and drinking water supply' on 15 December 2018 at BRAC Centre INN, Dhaka, Bangladesh. Main objective of this workshop was to draw 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.

There were presentations on,

- current scenario of solar powered pumps in Bangladesh
- 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 one of the climate change vulnerable coastal areas of Bangladesh: A Pilot Study.

The participants of the workshop highly recommended a similar workshop with additional knowledge in the future 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.

Glimpse of the meeting

CHAPTER 2 – GWP INDIA (INDIA WATER PARTNERSHIP)

GWP India (India Water Partnership) is a non-profit organisation with a goal of promoting IWRM in India. GWP India is hosted by WAPCOS Ltd, a public sector undertaking under the Ministry of Water Resources, River Development and Ganga Rejuvenation. Mr R. K. Gupta is Presiding the India Water Partnership who is also the Chairman-cum-Managing Director of WAPCOS Ltd. Dr Veena Khanduri is the Executive Secretary of GWP India who coordinates the GWP activities in India.

Under WACREP Phase II (2018), GWP India conducted two activities, namely:

Activity 2D: Climate resilience development: Participatory river basin management in semi-arid areas of Rajasthan (Mashi River) - search for new governance system

Activity 5C: Continuation of 2017 activity on solid waste management based on the recommendation of the DPR prepared under WACREP Phase II

Activity 2D: Climate resilience development: Participatory river basin management in semi-arid areas of Rajasthan (Mashi River) - search for new governance system

Meeting held at a temple

The adverse effects of climate change and growing urbanisation has already impacted the water security in India. GWP India, taking the bottom up management approach considered community management of village resources one of the best solutions to address this growing problem. GWP India in collaboration with Center 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" as a new model of water governance with community participation.

In 2018, the team undertook several capacity building programmes for *Gram Panchayat* (village council), watershed committees and river basin committees and organised meetings for river basin technical support group with the goal of developing a River Basin Parliament for Mashi River. In November 2018, the river basin parliament constitution was unanimously approved by the participants, written in Hindi.

The trainings enhanced the capacity of the villages and people started taking initiatives to address their water related problems as groups (in a participatory approach). Villages formulated committees and registered themselves at the watershed level particularly in the areas falling under big dams of Mashi and Bandi River basins in order to strengthen the functioning of Mashi River Basin Parliament at apex level. The partner, CEDSJ is determined to continue the technical assistance to the River Basin Parliament until it becomes self-sustaining.

List of river basin committees held in 2018

Month	venue	No. of participants	Discussions
30 March	Kalakh Dam Watershed-1	35	1) strengthening the river basin parliament in order to become an effective institution 2) Decided on an action plan for the prioritised issues identified by the group and defined responsible institutions to provide technical support. 3) Seek advice to formulate strategies that address the existing problems.

20 May	office of Shoepura Panchayat Samiti	Kisan Sabha Members from 10 panchayats in Watershed 1.	Discussed the strategies on how to expedite the Rajasthan Agricultural Competitiveness Project (RACP), a project linking Chambal water to Kalakh Dam
22 May	Naggar, Tonk District, and Watershed 4 of the Mashi River Basin	42 (comprising of 4 Sarpanch of Naggar, Dhandoli, Sitapura, and Etakhoi, 8 Wardpanch, 3 NGOs, 5 Agriculture Supervisors and Secretary of 3 panchayats.	Discussed about flow of the river, which obstructed by a diversion structure constructed by the state government as feeder canal to increase water supply in Chaparwara dam, rampant sand mining from riverbed and monitoring of increased encroachments in water bodies.
27 May	Gram Panchayat Kalakh Rojda, , Amber Panchayat Samiti, Jaipur	20 selected farmers having large dairy farms in area More than 100 Kisan Sabha member farmers	A planning meeting prior to taking a delegation of farmers to meet irrigation department and state water resources department regarding RACP water diversion project. - Status of groundwater in the basin, methods to save Bandi River and formation and functioning of River Basin Parliament.
10 June	Jairampura, Panchayat Samiti Jalsu	50 representatives of Sarpanchs[2], NGOs, Panchayat Samiti member, Jila Parishad member, Kishan (Farmers) Sabha members and farmers.	Discussed the reasons for groundwater depletion and agreed for adoption of water saving technology. However, the participants did not agree to change cropping pattern immediately.
28 June	Village Kansel, Tehsil Fagi, District Jaipur and village Kishorepura, Tehsil Fagi, District Jaipur	22 persons with the participation of Sarpanch, Wardpanch, Secretary, Agriculture Supervisor and farmers.	Participants expressed their apprehension about negative effects that can be aroused unless a coordinated effort made by the people along the river basin to save the river
5 July	Village Nimera, Panchayat Samiti Phagi, District Jaipur	The participants were Sarpanch, Wardpanchs, and other members including PRI members.	To understand the function of River Basin Parliament its role and responsibilities.
20 July	Watershed 5, Gram		Considerations on river conservation was raised at the meeting and it was stated that

[2] Village Heads

	Panchayat Atal Seva Kendra Madhoraj Pura, Tehsil Phagi, District Jaipur on the banks of Bandi River		the State should create laws to save the rivers in Rajasthan. Illegal sand mining was another important issue discussed at the meeting.
20 July	Watershed 6 in Gram Panchayat Fiyawari at Atal Seva Kendra, District Tonk	Attended the Sarpanch, Wardpanch and village committee members	Participants have given their consensus to Mashi River Basin Parliament to take the responsibility to ensure the sustainability of the River and its flow
8 August	Village Kishore Pura, Tehsil Phagi, District Jaipur, Watershed 4	Village committee members of the respective watersheds	All the three meetings had similar agendas. Important points discussed at the meeting, - Roles and responsibilities of river basin parliament members - How to engage line departments to enhance the capacity of Basin Parliament members - Review the existing government plans/programmes/projects in each watershed - Preparation of workplan for all six watersheds
8 August	Village Nimera, Tehsil Phagi, District Jaipur, Watershed 4		
24 August	Hanuman Temple Kalakh Dam, Tehsil Sambhar, District Jaipur, Watershed 1 and 2		
29 October	Kalakh Dam, Hanuman Mandir, Jobner (Jaipur), Watershed No.1	Representatives of all the six watersheds, Sarpanchs, Pradhans and Local Member of Legislative Assembly (MLA) along with members of Technical Support Group of Mashi-Bandi River Parliament attended the meeting.	Organised by GWP India and CEDSJ. A detailed discussion on formalising the Parliament was held and finally, the Draft Constitution for Mashi-Bandi River Parliament was unanimously adopted after discussion with all the members present in the meeting.


Meetings at different locations

Other information: Climate Resilient Development – A Case Study of Mashi Sub Basin in Rajasthan

Activity 5C: Continuation of 2017 activity on solid waste management based on the recommendation of the DPR prepared under WACREP Phase II

GWP India piloted a project on IWRM in 2015 to ensure safe drinking water and sanitation in the peri-urban village Garhi Harsuru in Gurugram District of Haryana (India) in collaboration with TARU Leading Edge. Phase I completed in 2017 and prepared a Detailed Project Report (DPR), which consisting 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 villages willing to pay user charges for collection and safe disposal of waste.

Meetings with school communities

With the completion of the project, community has taken up the ownership of the project under the Swachh Garhi Harsaru Campaign. The plots 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 project village. A punishment mechanism for defaulters has been introduced and a fine of Indian Rs 500/- will be charged by the *Sarpanch*, on those who dump waste in open land. The money collected to be 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. They are willing 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 sites decided by the community and the garbage collectors are regularly collecting waste. This practice made the roads clean, mosquito free and hygienic. In addition, the Swachh Gully Award has been introduced and two gullies (lanes) were shortlisted as well maintained and the respective ward members were felicitated with a certificate by the Sarpanch. Community garbage bins and potted plants were given to them as a token of appreciation for their commendable efforts.

Inaugurating a RWH system in a school

Setting up dustbins at schools

Activities conducted in 2018 in detail;

Month	Participants	Activities
16 January	IWP in collaboration with TARU Leading Edge	Started constructing a Rain Water Harvesting (RWH) tank at the Senior Secondary Government School, Garhi Harsaru in Gurgaon
July	*Sarpanch, Panchayat members* and representatives of TARU and IWP	Meeting to discuss the sanitation issues in the village and about clean Garhi Harsaru campaign
4 August 9 August	*Sarpanch* of Garhi Harsaru and Ward Members of ward number 7, 15, 13, 18 and 19 Sarpanch, Ward Members of ward number 17, 18, 20, Community Motivator, Panch members and 30 women from the respective wards.	- Three wards (Ward Number – 17, 18 and 20) were shortlisted as the project intervention wards, which are having a total of 250 households - Discussed improvements to Solid Liquid Waste Management (SLWM) and decided to collect Indian Rs 50 from each household for the waste collection
18 September		*Swachh* (Clean) *Garhi Harsaru* campaign was launched

14 November	Surpanch (Village Head), Representatives of TARU Leading Edge, community members and sanitary staff	- Discussions were focused on collection of User charges from the villages by the Panchayat and providing additional community dustbins for easy collection of waste. - A fining system for violators who dump waste in open areas - Five community dustbins were placed in the village by Panchayat.

Other information:

1) Report on Solid Liquid Waste Management (SLWM) in peri-urban setting of village Garhi Harsau, Gurgaon, Haryana
2) Rainwater Harvesting as a solution to water problems

CHAPTER 3 - GWP NEPAL/JALSROT VIKAS SANSTHA (JVS)

GWP Nepal/Jalsrot Vikas Sanstha was established in July 1999, as a partner of GWP to promote IWRM. Members of GWP Nepal have consensually decided to designate JVS as the host institution for GWP Nepal. This decision was guided by concerns of sustainability and the significant networking characteristic of the Country Water Partnership. Dr Ms Vijaya Shrestha is the current President of GWP Nepal and Mr Tejendra Bahadur G.C. works as the Country Coordinator. In 2018, under WACREP, GWP Nepal undertook two activities:

- Activity 2B (GWP Nepal 2017-19): Documentation of climate change adaptation practices from 2-3 LAPA project areas/sites in order to promote and support activities to meet climate adaptation challenges/realities at community/household level.
- Activity 6C (2017-19): Conduct dissemination workshop on WACREP/Core projects.

Activity 2B: Documentation of climate change adaptation practices from 2-3 LAPA project areas/sites in order to promote and support activities to meet climate adaptation challenges/realities at community/household level

Nepal implemented Local Adaptation Plans for Action (LAPA) to build the adaptive capacity of climate vulnerable communities and to integrate climate change adaptation into local to national development planning processes. The Government of Nepal initiated CCA planning and implementation with the preparation of National Adaptation Programme of Action (NAPA) in 2010. The

LAPA Framework was designed to support and identify the most climate vulnerable people and areas, prioritize adaptation options, prepare and integrate local adaptation plans. The activity carried out under GWP Strategic Goal No 1: catalyse change in policy and practice.

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

Group discussions at the assessment

Some of the highlights of the report were,

- Most of the LAPA activities are focused on infrastructure development – still training to maintain constructions is inadequate.
- The traditional adaptation practices are more efficient and needs to be integrated with infrastructure planning
- Provision of funds for operation, maintenance and training are lacking threatening the sustainability of the structures

Activity 6C (2017-19): Conduct dissemination workshop on WACREP/Core projects

GWP Nepal organised the dissemination workshop on Core/WACREP activities on 28 December at Hotel Annapurna. The activity focused on Strategic Goal No 2: Generate and communicate knowledge. The dissemination workshop was organised with the objectives of

- Informing the participants about the different activities undertaken by GWP Nepal/JVS in 2017/18 and solicit their inputs
- Provide a platform for the young water professionals and students to interact with policy makers
- Inform participants about the formulation of water related legislation

Academics, researchers, young water professionals and legal and governance experts attended the programme. In addition to giving an update on GWP Nepal activities, the findings of the 'Study of the Conflicts in the Marsyangdi River Basin' was presented by Ms Monica Maharjan whereas the 'Review of the Water Focused Adaptation Options of the LAPA implemented Rajpur Rural Municipality' was presented by Ms Neha Basnet. Mr Upendra Dev Bhatta, Former Deputy Managing Director of National Electricity Authority (NEA) gave the keynote speech on 'Hydropower Potential of Nepal'.

Glimpse of the meeting

CHAPTER 4 – GWP PAKISTAN (PAKISTAN WATER PARTNERSHIP)

Global Water Partnership South Asia
GWP Pakistan

The GWP Pakistan established in February 1999, as a country water partner of GWP, mandated to provide a neutral platform to all water stakeholder institutions, organisations, departments and individuals for discussing national, sub-national and local water issues to build consensus at different levels. It promotes the concepts and principles of IWRM in the country in order to meet the growing scarcity of water resources, increasing deterioration in water quality and the looming threat to environmental sustainability. Mr Shams-ul-Mulk is the current Chairman of GWP Pakistan who is a Civil Engineer also presiding the Society for the Promotion of Engineering Sciences and Technology in Pakistan. Under him, Mr Muhammad Awais works as the Country Coordinator and undertaken four activities in year 2018.

- Activity 6F: Provide technical support and knowledge products to promote climate resiliency in existing water and agriculture sector programmes
- Activity 7B: Youth engagement in rural areas for mobilising Support for SDG implementation
- Activity 8A: Strengthen partnership linkage with ministries
- Activity 8B: Strengthen partnership through provincial level assistance

Activity 6F: Provide technical support and knowledge products to promote climate resiliency in existing water and agriculture sector programmes

GWP Pakistan conducted various activities involving different stakeholder groups within the year in targeting the GWP strategic goal 2: Generate and communicate knowledge.

Month	Activity	Participants	Details
March	Farozzan Magazine donated a submersible pump to the people of village Man-Bai-Jo-Tar Chachro, Tharparkar	GWP Pakistan in collaboration with Farozzan Magazine	Nearly 250 households of the Thari village are benefiting from the pump.
9 May	A Focus Group Discussion (FGD)	International Union for Conservation of Nature (IUCN) and GWP Pakistan at IUCN Office, Quetta-Baluchistan	Discussed the possible interventions to overcome the emerging water crises in Baluchistan.
12 May	A workshop on food security, water security and water storage issues in District Pashin-Balochistan	local farmers in Pashin and Sarawan AWP	Discussed about water crises and its negative effects on agriculture in Pashin.
15 May	A press conference on climate change environmental problems and upcoming elections 2018.	Organised by GWP Pakistan and Farozzan Magazine	In seeking the possibility of bring the concept of “climate change and environmental degradation is a political issue” to the attention of political parties.
November	International Conference on Sustainability in the Changing Environment-Water use Efficiency and Future Development at COMSATS University, Vehari Campus	Participants from Pakistan and across the globe	Discussed about the future of water with special focus on youth, women, marginalised groups and poor. Topics including climate change, agriculture and economic development were covered at the conference.

December	I. Sehwan Barrage Visit II. Manchar Lake visit		Decided on some improvements for Manchar Lake and speed up the project of Sehwan barrage.

Workshop for Farmers in Pashin

Submersible water pump donated by Farozzan AWP

Activity 7B: Youth engagement in rural areas for mobilising support for SDG implementation.

GWP Pakistan organised a seminar on "Water Security of Pakistan and Pursuing the Sustainable Development Goals (SDG) agenda within a Climate Change Perspective" at COMSATS Institute of Information and Technology, Vehari Campus on 27 February 2018. Participants were youth in Pakistan and seminar was followed by a tree planting at the campus. The activity focused on GWP Strategic Goal No 2: Generate and communicate knowledge.

Seminar at COMSATS Institute in February

Activity 8A: Strengthen partnership linkage with Ministries

GWP Pakistan team under GWP Strategic Goal No 3: Strengthen partnerships, visited Chaman-Balochistan to meet Mr Sallah Uddin Achakzai, Mayor of Chaman[3] and briefed him about the water crisis in the district. PWP raised the need to launch Chaman Area Water Partnership for improved water resources management while district Municipal Administration indicated their fullest cooperation.

Meeting with the Mayor of Chaman

Activity 8B: Strengthening partnership through provincial level assistance

The activities conducted in 2018 are as follows. Results of activities contributes to GWP strategic goal no 3: Strengthen partnerships.

A dialogue with farmers in Mastung-Balochistan

Launching of Launching Ceremony Cholistan Area Water

[3] Chaman is the capital of Qilla Abdullah District, Balochistan Province, Pakistan.

Month	Activity	Participants	Details
March	1. Field Visit to Rahim Yar Khan 2. Meeting with IUCN at Karachi 3. Visit to coal fields in Tharparkar	1. community leaders and farmers 2. GWP Pakistan team met with Mr Mahmood Akhtar Cheema 3. GWP Pakistan team and stakeholders	1. Discussed the issues related to water in the area including lack of drinking water 2. Decided to organise a seminar (in May) on SDGs framework engaging Baluchistan. 3. Discussed with the stakeholders and advised them for systemic disposal of wastewater.
10 May	Dialogue with farmers on heat wave water stress and impact on Mastung Agriculture. Revisiting in light of National Water Policy	Farmers	Farmers were briefed about the concerns on agriculture in Mastung – level of the water table, problems faced by farmers in exporting fruits and vegetables and insufficient support from the government to farmers.
14 May	Stakeholders meeting on "Karachi water issues and way forward" with the collaboration of Farozaan Area Water Partnership	Responsible authorities and farmers in Karachi	Meeting was focused on water crisis in Karachi and how the Area Water Partnerships (AWPs)) could involve to find remedies.
November	1.Launching Ceremony of Cholistan AWP-Bahawalpur 2. Workshop on addressing extreme water shortages in Southern Punjab aligned National Water Policy 2018 - Mandi Yazman, Bahawalpur-Southern Punjab 3. Meeting at Arid Zone Research Institute Bahawalpur	Farmers and Social activists	highlighted the extreme shortage of water and agriculture issues of the area

CHAPTER 5 – GWP SRI LANKA (SRI LANKA WATER PARTNERSHIP)

GWP Sri Lanka (Sri Lanka Water Partnership) is an independent non-profit association of institutions with the goal of promoting IWRM. It facilitates setting up 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 at local level while the CWP and associated CEO panel provides the forum for policy level dialogue of these issues for consideration at national level. The current Chair of GWP Sri Lanka is Mr Jayatissa Bandaragoda who worked with International Water Management Institute (IWMI) and was responsible for Asia Region. Mr Ranjith Ratnayake is the Country Coordinator of GWP Sri Lanka and coordinated two activities in 2018, under WACREP.

- Activity 2A: CCA programme for Agency Staff/FO Leaders/Farmers in irrigated/rain fed and plantation agriculture
- Activity 5A: Technology Options for CCA including RWH, Micro Irrigation and Catchment Conservation Activities
- Activity 7A (SLWP 2017-19): Media Activity - Tech Bulletins in national languages, reprinting, posters and talkshows.

Activity 2A: CCA programme for Agency Staff/FO Leaders/Farmers in irrigated/rain fed and plantation agriculture

The activity was under GWP strategic goal 1: Catalyse change in policy and practice.

GWP Sri Lanka organised two awareness-raising programmes on water saving techniques and CCA targeting Farmer Organizations (FOs) in Katupath Oya, Panamure and Kiridi Oya project in March. Nearly 123 field staff participated the training. The agronomic practices to cope with climate change, seasonal planning of crops and water management were discussed at these meetings.

The First Tamil Medium CCA Programme supported by CapNet Lanka was held in Mannar on 25 June 2018, for Farmer Representatives and officials of the Irrigation Department, Agrarian Services and Agriculture Department serving under Giant Tank System. The programme was held in Mankulam with the participation of 34 farmer leaders and 31 officers. 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 organised by GWP Sri Lanka in collaboration with CapNet Lanka and the government attended by 74 Participants.

An awareness programme on water security and climate change for the officials of Department of Education, Central Province was held on 21 December at the Central Province Education Training Centre, Gurudeniya. Altogether 40 Officials including five resource persons from National Water Supply and

Drainage Board (NWSDB) and Department of Education participated the training. The activity was marked against GWP Strategic Goal 1: catalyse change in policy and practice.

Activity 5A: Technology Options for CCA including RWH, Micro Irrigation and Catchment Conservation Activities

In May and July consecutively, another two CCA awareness and technical option programmes were held focusing the senior research and development staff and field staff of the Department of Export Agriculture (DEA) in Matale with the participation of 46 officials.

The last programme on Technical Options to Cope with Climate Change for the year was held in December attended by 51 newly recruited. The programme organised in collaboration with Natural Resources Management Centre (NRMC) of the Department Of Agriculture.

Training for Irrigation Engineers

Activity 7A (SLWP 2017-19): Media Activity - Technical Bulletins in national languages, Reprinting, Posters and Talkshows

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 translation were completed in 2017 and Tamil were in 2018 and made available for training programmes. A new publication on Home Gardening to cope with climate change written in Sinhala is being published in 2018.

Further information: SLWP Journal 2018.