# MID TERM EVALUATION

**Enhance community, local and national-level urban climate change resilience to water scarcity, caused by floods and droughts in Rawalpindi and Nowshera, Pakistan**


**United Nations Human Settlements Programme**
**(UN-HABITAT)**

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# PREFACE

Pakistan is faced with a number of socio-economic and environmental challenges, many of which can be attributed to the changing patterns of climate in this region. The impact of these phenomena are exacerbated to varying degrees in different parts of the country including coastal region, riverine belt, arid and semi-arid deserts, mountains and hill slopes and glaciers. Whereas the marginalized communities in the rural areas have been center of focus for adaptation, because of their vulnerabilities, the urban settlements have at large been ignored. The urban communities, because of their high population density, week infrastructure, and under-rated service provision structures, are facing problems not lesser than any other areas. The situation is more serious in settlements which are unplanned, populated by migrated labour class and located in the suburbs.

The project under review is one of the very few initiatives addressing the urban vulnerability to climate change by building the resilience of communities in urban areas. Hence, there is a significant need to review, document and streamline the results and lessons from this project. The mid term review is an effort to understand the change brought in by the project activities after a half way down the implementation and propose options for improvement. The findings from this report are not only useful for the project executive and donors, but can also be a source of inspiration for project partners, particularly those having a mandate to set national and sub-national policy for climate change adaptation. The provincial governments represented the local government departments, district governments represented by municipal authorities and local communities represented by their representative Civil Society Organizations may find the outcomes from the project very helpful in addressing the climate change challenges.

It is hoped that this report will provide useful inputs to enhance the effectiveness of the project strategy and make its outputs more sustainable.

# ACKNOWLEDGEMENTS

The AF project is one of the few projects working for urban resilience in Pakistan. Conducting the mid-term evaluation of this important project was an interesting and learning experience. At the same time, it was challenging to cover the project interventions implemented through multi-level project partners, in areas spread across two provinces in a limited time period provided for this purpose. Understanding the effectiveness and relevance of project strategy and interventions in areas with different cultural and socio-economic settings was not easy.

The author acknowledges the support provided by the project team at AF (Project Manager, M&E Coordinator, and Country Head) in understanding the project itself, by providing information during in-person meetings and making relevant documents available for review. The team was also very supportive in facilitating the field visits and meeting with project partners. The partners teams (PCRWR, WASA, TMA, Shehrsaz) were kind enough to making themselves available for the review meetings out of their busy schedule and accompanying during the field visits. More than all, the author is thankful and indebted to the local urban communities who participated in replied to interview questions and allowed their homes to be visited for seeing the interventions.

# TABLE OF CONTENTS

# ACRONYMS

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|---|---|
| AF | Adaptation Fund |
| CCRAC | Community Climate Resilience Adaptation Committee |
| CSO | Civil Society Organization |
| HVCA | Hazard Vulnerability Capacity Assessment |
| LGRDD | Local Government & Rural development Department |
| MC | Municipal Authority |
| MHRVA | Multi Hazard Risk Vulnerability Assessment |
| MoCC&EC | Ministry of Climate Change & Environmental Coordination |
| NC | Neighborhood Council |
| NCCP | National Climate Change Policy |
| NDC | Nationally Determined Contribution |
| NDMA | National Disaster Management Authority |
| OHED | Public Health Engineering Department |
| PCBCRB | Participatory Community Based Climate Resilience Plan |
| PCRWR | Pakistan Council of Research in Water Resources |
| PMU | Project Management Unit |
| RWH | Rain Water Harvesting |
| TMA | Tehsil Municipal Administration |
| UC | Union Council |
| UN | United Nations |
| UNDP | United Nations Development Programme |
| UPU | Urban Policy Unit |
| WASA | Water & Sanitation Agency |
| WUG | Water Used Group |

# EXECUTIVE SUMMARY

**The Context**

Pakistan's population, now at 240 million, is growing rapidly, especially in urban areas where poverty rates are high and infrastructure is insufficient. The country ranks low on the Human Development Index and is highly vulnerable to climate-related disasters, including floods and droughts, which have driven up poverty and caused major economic losses. Migration from rural to urban areas has led to overcrowded, unplanned settlements that lack adequate water, sanitation, and disaster response capacity. While some urban policy and planning exists in provincial capitals, there is a significant need for climate-resilient response at local, district and national level address the water and sanitation problems in urban areas.

**Purpose and scope of the evaluation**

The Mid-Term Evaluation (MTE) for the AF project in Pakistan aims to address existing gaps and guide future actions to enhance the project's relevance, effectiveness, efficiency, and sustainability. Unlike the end-of-project evaluation, this formative MTE assesses project performance and provides recommendations to help improve management and course corrections for the remainder of the project. Mandated by the Adaptation Fund (AFB) and UN-Habitat, the MTE focuses on accountability and learning by evaluating progress, identifying challenges, and offering actionable recommendations. Key objectives include assessing the project's progress, planning, resources, and partnerships; integrating cross-cutting issues like gender and human rights; identifying lessons and strategic improvements; and documenting best practices for replication. The MTE covers the project's activities from December 2020 to June 2024.

**The Project**

The AF-funded project aims to build resilience against water scarcity caused by floods and droughts in Rawalpindi and Nowshera, Pakistan, through three main components: at the community level, by installing household-level flood-resistant water harvesting systems; at the city level, by developing water facilities in public spaces and creating spatial strategies for climate risk management; and at the national level, by providing a national urban policy and enhancing the capacity of government agencies to integrate climate resilience into urban planning. This partnership between the Pakistani government, local civil society, UN-Habitat, and the AF Board targets high-risk areas along the Kabul River and Nullah Layi, aiming to install rooftop rainwater harvesting systems at household level and in public buildings, create community and city-level awareness for sanitation and waste management, climate risk based spatial planning at local and district level, and develop a national urban resilience strategy. The project seeks to establish sustainable, replicable models and climate-resilient urban planning tools that will ensure safe water availability through innovative technologies.

**The evaluation questions and criteria**

The evaluation focused on key questions to assess the project's achievements, integration of cross-cutting issues (like gender equality, human rights, and environmental safeguards), identification of critical gaps, and lessons learned for improvements. These questions were expanded with specific sub-questions addressing relevance, effectiveness, efficiency, coherence, sustainability, and impact.

An evaluation matrix guided the Mid-Term Review (MTR), detailing sub-questions, indicators, data sources, and data collection methods. Additionally, the MTR examined how well cross-cutting themes, including disability inclusion and social safeguards, were incorporated into project planning and implementation.

**Evaluation Approach and Methodology**

The evaluation employed both qualitative and quantitative data collection methods, including document review, interviews, field visits, and participatory discussions with stakeholders. Primary data sources included local beneficiaries and partner organizations, while secondary sources involved project documentation and strategy documents. The methodology was designed to ensure inclusivity and impartiality.

**Findings and Key Accomplishments**

1. Community-Level Water Harvesting: Out of a target of 5,000 household rainwater harvesting systems, 1,300 units have been installed, benefiting around 16,121 individuals. These systems enable households to store rainwater, providing a buffer during water shortages.
2. Community Awareness and Planning: Community-level plans, known as Participatory Community-Based Climate Resilience Plans, were developed, with data and maps ready for 15 neighborhood councils and union councils. Awareness campaigns focused on sustainable water use and solid waste management practices have been completed in targeted communities.
3. City/District-Level Interventions: At the municipal level, 23 rainwater harvesting units have been installed in Rawalpindi's public spaces, while implementation in Nowshera awaits administrative finalization. Additionally, multi-hazard risk assessments have been initiated for Rawalpindi and Nowshera to inform long-term, resilience-focused urban planning.
4. National-Level Building: The project has provided training for over 500 government officials across sectors, far surpassing its initial target, with a focus on climate-adaptive planning and water harvesting. This includes efforts to train national and provincial authorities to mainstream climate-resilient strategies into urban policy. However, the development of national urban strategy and guidelines are yet to be developed.

**Project Relevance**

The project's objective and rational aligns well with the local needs, priorities in Pakistan's national and sub-national policy and strategy framework e.g. the National Climate Change Policy, Nationally Determined Contributions (NDCs), and other sectoral policies. The rainwater harvesting initiatives complement local climate resilience needs, providing both direct fresh water solutions in critical times and a basis for future climate-adaptive urban development.

**Effectiveness and Efficiency**

Despite initial delays due to COVID-19, the project has achieved significant progress in terms of capacity-building and water harvesting unit installations. The communities and public-sector partners, such as WASA and TMA, have embraced rainwater harvesting for local and urban

planning, though certain administrative challenges persist. Efficiency ratings varied, with Component 1 performing well but facing implementation breaks, and delays affecting Components 2 and 3.

**Sustainability and Impact Outlook**

The project promotes long-term sustainability through extensive training and community engagement, equipping local communities and urban authorities with the skills to maintain rainwater systems post-project. However, the success of tools like multi-hazard risk maps will depend on sustained institutional support. The project's emphasis on gender inclusion, environmental safeguards, and youth engagement aligns with UN-Habitat's sustainability goals.

**Cross-Cutting Themes**

The project integrates gender, youth, and human rights considerations into its planning and implementation. Data on beneficiaries is segregated by gender, with particular focus on vulnerable populations. Environmental and social safeguards are incorporated, ensuring that project benefits extend across demographics without adverse impacts on biodiversity.

**Coherence and Complementarity**

The project operates synergistically with Pakistan's climate policies and supports key Sustainable Development Goals (SDG), particularly SDG 11 (sustainable cities and communities). While no other AF-funded UN-Habitat projects currently operate in Pakistan, the project's design encourages collaboration with other government and civil society initiatives.

**Conclusions & Recommendations**

The project has made notable strides in fostering urban resilience in Pakistan's flood-prone areas, though challenges remain in administrative coordination and fund disbursement. Achievement of some of the main targets during the limited period of time left may be a challenging task, leading to the recommendation for a no-cost extension of at least 1 year. Further, the project has been able to highlight urban resilience issues in Pakistan and may come up with a 2nd phase or full-fledge new project with increased technical and geographical scope.

The evaluation recommends accelerating beneficiary selection and enhancing local partnerships to meet project targets by the conclusion date. To ensure sustainability and effectiveness, the project requires broader scaling efforts, such as integrating rainwater harvesting into building codes, improving institutional coordination, and enhancing local community engagement. Expanding training for women, youth, and marginalized groups, incorporating feedback mechanisms, and fostering private-sector partnerships are key to addressing urban climate challenges, ensuring replication, and sustaining urban resilience strategies.

# 1 INTRODUCTION & BACKGROUND

## 1.1 THE CONTEXT

Pakistan's population is growing rapidly, reaching 240 million in 2023—a 1.9% increase from 2022. In the same period, the urban population grew by 2.8%, totaling 91 million (Macrotrends, 2024). However, the country's Human Development Index (HDI) value declined from 0.550 in 2018 to 0.540 in 2023-24, with Pakistan ranking 164 out of 193 countries, down from 147 out of 188 in 2018 (UNDP, 2024). Furthermore, the World Bank reported a rise in the poverty rate from 34.2% in 2022 to 39.4% in 2023, with recent floods as a significant contributor to this increase.

Pakistan is among the countries most vulnerable to climate change and related disasters, experiencing frequent floods, droughts, heatwaves, river overflows, cyclones, seawater intrusion, and glacial lake outbursts. Floods alone caused estimated losses of $43 billion in 2010 and $30 billion in 2022. The impact of these disasters, especially the 2022 floods, has exacerbated poverty and displacement, pushing many rural residents from marginalized areas toward urban centers in search of livelihood opportunities.

Due to the high cost of living in more developed urban areas, many low-income migrants are drawn to settlements with minimal services and infrastructure. This increases flood vulnerability, as these densely populated areas often lack adequate drainage, sewage systems, and robust infrastructure. Floodwaters frequently contaminate drinking water sources, including groundwater, making access to safe drinking water a significant challenge for affected communities. Poor solid waste management further aggravates flooding impacts, leading to sewage blockages, stagnant water, and the spread of diseases.

Most of Pakistan's urban centers have developed as unplanned settlements, with limited capacity in municipal and local government bodies to address climate-related disasters, particularly floods. Water harvesting practices, which could provide safe drinking water during disasters, are uncommon. While some provincial capitals have Urban Policy Units to improve city planning, strategic urban planning for climate resilience is largely absent in smaller cities. Pakistan's government must develop and promote climate-resilient urban planning to address these growing challenges.

## 1.2 THE PROJECT

In this background, the AF-funded project was initiated to "Enhance community, local and national-level urban climate change resilience to water scarcity, caused by floods and droughts in Rawalpindi and Nowshera cities." The project has following 3 components:

1. Community level: Enhance community and household level flood resilient water harvesting facilities (using innovative techniques) and strengthen capacities to plan, construct, operate, maintain and replicate these.
2. District / City level: Enhance city and district-level water harvesting facilities in public buildings and on water storages in public gardens, develop district / city-level spatial strategies as tool to assess climate change related floods, droughts and water scarcity to

plan for and manage climate change risks and to strengthen capacities to plan, construct, operate, maintain and replicate water harvesting facilities in public buildings and gardens.
3. National and Provincial level: Strengthen national and provincial-level capacity to guide / direct city-level development considering climate change and disaster risks and impacts, especially water scarcity caused by floods and droughts.

The project is a partnership among the Government of Pakistan, Civil Society Organization (CBO), UN-Habitat and the Adaptation Fund (AF) Board. The project is under implementation in two districts of Pakistan: Rawalpindi district in the Punjab Province and the Nowshera district in the Khyber Pakhtunkhwa (KP) Province. In Rawalpindi district, seven Union Councils (UCs) and in Nowshera district, eight Neighborhood Councils (NCs) were selected as project beneficiaries. The areas represent settlements most vulnerable to urban floods because of Kabul River in Nowshera and Nullah Layi in Rawalpindi.

In order to fulfill its objectives, the project anticipates outputs in the form of 5000 units of flood resilient rain water harvesting systems at household level, 15 community plans at neighborhood/union council level, capacity building and awareness raising of community members on water harvesting, solid waste management and other environmental issues. The project also aims to demonstrate 50 water harvesting systems in public buildings and training at least 50 officials in government bodies in this process. At city level, the project targets the development of 2 city level special planning strategies to address flood and drought risks and training of 100 staff of government agencies in the process. The national level targets include the development of national urban strategy and a set of guidelines for special planning to address climate risks.

Through these initiatives, the project wants to create replicable models for climate resilient urban planning, particularly targeting the droughts caused the effects of floods. The project also foresees an institutional setup where the government departments, with the support of research institutions and civil society organizations, are capable to fulfill their responsibilities of providing safe drinking water facilities to urban settlements through innovative technologies.

## 1.3 PURPOSE & SCOPE OF THE EVALUATION

The Mid-Term Evaluations is intended to guide the future course of action under the AF project in Pakistan and to fill the exiting gaps leading to increased relevance, effectiveness, efficiency and sustainability of the project. Unlike the End-of-Project evaluation, this MTE was conducted as a formative process to assess project performance and context that could inform project management decision making and course correction during the remaining implementation period. The current Mid Term Evaluation (MTE) was mandated by the donor and UN-Habitat as per the agreement between AFB and UN-Habitat. It serves both accountability and learning objectives.

The MTE was intended to (i) provide evidence on whether the project was on track towards achieving its objective and expected accomplishments (outcomes), (ii) enhance learning, and identify constraints and challenges that might need corrective measures and improvement. The evaluation was, therefore, formative, focusing more on the functioning of the project processes to understand how the project was working and producing its outputs and results. Based on the findings of the MTE, actionable programmatic recommendations were given to improve the delivery of the project

for the remaining project period. The key audiences of this mid-term evaluation are the project team, AFB, UN-Habitat, Implementing Partners (IPs), and other partners.

Specific objectives of the mid-term evaluation were to:

1. Assess the project's performance in terms of its progress towards achieving results at the objective, expected accomplishment, and output levels.
2. Assess the appropriateness of planning, adequacy of resources, project management modalities, working arrangements and partnerships and how they may impact the project's effectiveness.
3. Assess how cross-cutting issues such as gender equality, youth and human rights, environment and social safeguards have been integrated into the project.
4. Identify areas of improvement and lessons learned and recommend forward-looking strategic, programmatic, and management considerations to improve the performance of the project for the remaining period of the project.
5. Identify and document best practices for replication of the project interventions in other parts of Pakistan.

The MTR covered the project's planning, funding, working arrangements, performance, and reporting from 22 December 2020 to 30 June 2024. The focus was on processes, assessing output achievements and expected accomplishments (outcomes) so far, and identifying and analyzing constraints, challenges, and opportunities.

## 1.4 THE EVALUATION QUESTIONS AND CRITERIA

The evaluation sought to answer the following overarching evaluation questions:

1. To what extent was the project achieving its outputs and expected accomplishments?
2. To what extent had cross-cutting issues of gender equality, human rights, youth, environmental and social safeguards and youth consideration been integrated into the project design and implementation?
3. What were critical gaps with respect to the delivery of the project?
4. What were lessons learned and recommendations for adjustments and improvement?

The proposed evaluation questions were supplemented with sub-questions along with the evaluation criteria for the project's relevance, effectiveness, efficiency, coherence, sustainability, and impact outlook. In order the find answers for the overarching evaluation questions and to satisfy the evaluation criteria, an evaluation matrix was developed (Annex-I). The evaluation matrix provided an outline for the MTR survey, specifying sub-questions to be answered, indicators, data sources and methods of data collection. Apart from the evaluation criteria, the MTR also explored whether the cross cutting themes related to gender equality, inclusion of persons with disabilities and youth, human rights, and social and environmental safeguards were taken care of during the planning and implementation of the project interventions.

## 1.5 THE REPORT

This report provides finding of the Mid-Term evaluation, mainly derived from review of relevant documents, meetings with project team, partners and beneficiaries, and direct observations in the

field. After discussing the findings, the report presents practical recommendations for the consideration of the project management and the donors to streamline the project pathways towards enhanced achievement of intended objectives. This report, in combination with project baseline, can be used as a reference document for remaining period of the project. The report however anticipates that the findings documented herein would be thoroughly discussed with project partners and or beneficiaries before making major decisions.

# 2 EVALUATION APPROACH & METHODS

The overall methodological design of the MTE revolves around the overarching evaluation questions described in section 1.4 above. In order to find answers to the MTR questions, the MTE provides evidences based on credible and reliable information obtained primary and secondary sources. For this purpose, all relevant sources of information including documents made available by the project team and the partners offices were reviewed, and primary data was collected using the interviews, group discussion and direct observation in the field.

Two important documents were provided by the project team; including the 1) Project Proposal to the Adaptation Fund, and b) the Evaluation Policy of the Adaptation Fund. The 1st document, in the absence of a proper Project Document, served as basis for understanding the project rationale, background, objectives, anticipated outcomes, implementation strategy, information about the target regions and target beneficiaries, risks and mitigation measures. The 2nd document was helpful in understanding the Adaptation Fund's concept for evaluation of a project in terms of its purpose, utility and methodological approach. Further documents, made available by the project partners were reviewed during the course of the MTE included: Progress reports, relevant project strategies, partnership agreements, success stories, strategy for cross cutting themes, work plans and other documents as received from different sources.

The secondary information received from these documents was used as a foundation. The evaluation process built on this foundation through primary data obtained during the field visits and interviews of officials, beneficiaries and stakeholders. The primary data collected was both qualitative and quantitative. The quantitative data served to measure the progress towards achieving the quantitative targets anticipated during the project planning and design, and the qualitative information was helpful in assessing the project interventions in terms of evaluation criteria.

In order to enhance understanding, ownership and utility of the MTE findings, the evaluation was conducted as participatory as possible. The implementing partners including the Pakistan Council of Research in Water Resources (PCRWR), the National Disaster Management Authority (NDMA), Water & Sanitation Agency (WASA), Tehsil Municipal Authority (TMA) and the Shehersaz (CSO) were given opportunities to openly discuss the purpose of the MTE, interview questions and the to respond to the questions in friendly manner. The local communities in the target areas were interviewed in a friendly environment, after explaining to them the purpose of the visit and MTE and encouraging them to express their feelings openly. Efforts were made to maintain a balance between male and female respondents. It was also explained to them how the information obtained and photographs taken will be used with their permission. The implementing partners staff was encouraged to share their suggestions and challenges even after the interview through email or

phone messages. In favor of impartiality of the evaluation process, the project team was not allowed to lead the evaluation process. Rather random approach was adopted in selecting localities and households for visits and interviews.

Given the short period of time available to complete the evaluation, data was collected randomly from groups and individuals without following statistical sample calculations and applying simulation exercises. The randomness of site selection and beneficiary was relied upon to avoid bias in data and evidences and maintain impartiality. Applying the principle of triangulation, more then one sources of data were used, for example secondary information coupled with interviews and direct field observations, to verify information

The following step-by-step methodology was used for the MTE as per the scope, objectives and overall policy of the AF:

## 2.1 PRELIMINARY REVIEW OF PROJECT DOCUMENTATION AND PREPARATION OF THE MTR INCEPTION REPORT

During the initial meeting of the consultant with the project team, the Terms of Reference for MTR were discussed in detail, agreeing upon an approach, work plan and deliverable plan. A schedule for meetings and field visits was also prepared (Annex II & III). Basic project documents were collected.

Based on the review of the project documentation and the ToRs, an Evaluation Matrix was prepared responding to the over-arching evaluation questions and criteria for evaluation including the relevance, effectiveness, efficiency, cross-cutting themes, sustainability and impact outlook (Annex-I). For each question, the indicators, sources of data and data collection methods were identified in the evaluation matrix.

## 2.2 MEETINGS, INTERVIEWS AND FIELD VISITS

After approval of the Inception Report by the Project Office, the Consultant embarked on a series of meetings, KI interviews and field visits to collect first hand information, views, evidences, observations on key project interventions. During these meetings and field visits, the focus remained to answer the evaluation questions according to evaluation criteria. In order to find answers for the evaluation questions, a set of Survey/Interview questions has been prepared, separately for stakeholders/partners and the target beneficiaries (Annex-IV).

## 2.3 DRAFT MTE REPORT

The evidences and information obtained from field visits, interviews and meetings processed to find answers to the evaluation questions, and to fulfill the MTE objectives as per defined scope. This took the form of a draft MTE report, following the guidelines provided in the Adaptation Fund's document titled "Evaluation Policy" and the "Mid-term review".

At the end of the report, conclusions and recommendations were presented following the SMART criteria (Specific, Measurable, Attainable, Relevant and Time-bound). The report MTE includes a

section on the rating of the project results and description of the associated results. Applying the evaluation criteria of relevance, effectiveness, efficiency, cross cutting themes, sustainability, coherence and impact, a 6-Level rating was applied as follows:

HS: Highly satisfactory (HS), the project had no shortcomings
S: Satisfactory (S), minor shortcomings
MS: Moderately satisfactory (MS) moderate shortcomings
MU: Moderately unsatisfactory (MU), significant shortcomings
U: Unsatisfactory (U), major shortcomings
HU: Highly unsatisfactory (HU), severe shortcomings

### 2.4 FINAL MTE REPORT

The draft MTE report was shared with PMU of the project for feedback. The PMU shared the draft report with stakeholders and project partners. The feedback from all sources was then incorporated into the report to finalize and submit the Final report to PMU.

## 3 EVALUATION FINDINGS & CONCLUSIONS

The evaluation findings have been arranged in order to address the overarching evaluation questions and the evaluation criteria including relevance, effectiveness, efficiency, sustainability, impact outlook, and coherence. In order to provide a rating to each criteria, the classification categories highly satisfactory, satisfactory, moderately satisfactory, moderately unsatisfactory, unsatisfactory, and highly unsatisfactory have been used.

### 3.1 RELEVANCE

Overall Rating: Highly Satisfactory

#### 3.1.1 Responsiveness of the project objectives, expected outcomes and outputs to the needs identified in national and provincial policies

The AF project aims at "enhancing community, local and national-level urban climate change resilience to water scarcity, caused by floods and droughts in Rawalpindi and Nowshera cities." The project components focus on introducing rainwater harvesting activities in urban areas, preparation of vulnerability and risk based Union Council and city plans, building capacities of local communities and urban authorities in risk based planning and implementation. These aspects have already been engraved in the national sectoral policies that also trickle down to provincial sectoral policies. In the following lines, needs identified and actions proposed in different policies are highlighted showing responsiveness of the project design to the polices.

The National Climate Change Policy (2021) indicates "…increasing populations and urbanization, are making a major challenge for municipalities to collect, recycle, treat and dispose of increasing quantities of solid waste and wastewater. However, for sustainable development, establishment of affordable, effective and truly sustainable waste management practices are a major challenge".

The NCCP 2021proposes policy measures to "Adopt water and sanitation safety plans for rural and urban areas", and "Conduct comprehensive climate risk & vulnerability assessment at district level".

The Pakistan's Nationally Determined Contributions (2021) recognizes that "The increased temperatures and changes in precipitation have adversely affected the physical environment, weakened the carrying capacity of ecosystems, and increased the exposure to climate induced disasters in both urban and rural settings". The NFCs document proposes "For enhanced urban resilience, urban flooding risks will be reduced by promoting sponge cities, improving urban drainage, undertaking studies to address urban drainage problems in 20 cities of Balochistan, KP, Punjab, and Sindh for enhanced urban resilience" under the section Adaptation Actions.

Pakistan's National Flood Protection Plan-IV recognizes that "High intensity rainfall can cause flooding, when the city drainage system does not have the adequate capacity to drain away the runoff generated through concentrated rains. Urban floods are a great disturbance for daily life in the city. During periods of urban flooding, streets can become swift moving rivers, while basements can become death traps as they fill with water. Urban floods are being experienced in Pakistan cities, especially in monsoon season-having high population density with unplanned, clogged, encroached and undersized drainage systems". The NFPP goes on proposing "Studies for Proper Town Planning in Future and Improving the Existing Storm Drainage System of Urban Areas.

The National Disaster Risk Reduction Policy of Pakistan (2013) stresses "There is need to address the issue of land-use planning and zoning in sprawling urban areas taking into account anticipated future growth. Where master plans do not exist they need to be developed to promote sustainable and risk conscious strategies for urban development". The NDRR Policy further acknowledges that "Engaging communities in vulnerability and capacity assessments provide entry points to build awareness, commitment and resilience in the face of disasters".

Pakistan's National Sanitation Policy (2006) states that "About 30 percent of urban population lives in katchi abadis and slums with inadequate sanitation facilities" and adopts that "The overall sanitation plans will be developed for all urban settlements by the respective city governments, development authorities and the TMAs in coordination with all other relevant agencies involved in sanitation. All TMAs and/or city district governments will develop appropriate Municipal and Industrial Waste Water Treatment Facilities and landfill sites for the disposal of solid waste".

The Khyber-Pakhtunkhwa Climate Change Policy (2022) indicates that "Govt. of Khyber Pakhtunkhwa wants to improve the access of public services in urban areas of the province having 17% of the total population (Census 2017). These services include water, sanitation, drainage, streets and public infrastructure. Spatial planning and management of urban land can help to reduce the number of environmental problems. Water supply, sewage and sanitation, drainage, vehicular emissions and solid waste management are amongst the top priority measures for urban planning for Govt. of Khyber Pakhtunkhwa. The policy proposes to "Develop and strengthen urban Policy and planning institutions including city development agencies for improved urban planning, land use planning for commercial, residential and industrial activities and resource mobilization".

The Punjab Climate Change Policy (2017) proposes measures for "Promoting rainwater harvesting and recycling of wastewater through proper treatment especially in the industrial sector". It further

emphasizes to "Introduce measures to reduce the risk of urban flooding through better spatial planning and land use; Improve and strengthen flash flood response mechanism of local & district disaster managers to minimize the damages". The policy also recommends increasing budget for urban resilience through climate risk assessment, flood abetment, ground water recharge and sustainable water management strategy in urban areas.

### 3.1.2 Relevance to the requirements/needs of the beneficiaries (national/ sub-national governments/ vulnerable communities)

During the field visits and interviews of beneficiaries, the residents expressed the shortage of clean water for drinking, washing and other household needs. Residents of urban and per-urban settlements in Dhok Hassu, Rawalpindi complained about absence of a facility for drinking water. People of Mani Khel, Nawa Killi and Kabul River Union Councils in District Nowshera highlighted their problems with contaminated ground water because of floods in2022 and the polluted water of River Kabul. These UCs also experienced high flooding frequently. In both cities, the blockages of drains and spread of solid wastes was a common observation in streets and on roads. The population living near River Kabul and Nullah Layi were visibly under-served, coming from poor and lower middle class. In almost all localities, the residents informed about the lowering of ground water table, leading to drying out of bore-holes.

The Water and Sanitation Agency (WASA) in Rawalpindi, and Tehsil Municipal Administration (TMA) in Nowshera were not able to understand the climate related risks in full capacity. Both offices however shared that water shortage was looming in their respective urban areas, public dug-wells were not having the capacity to serve water to the increasing urban population because of depleting ground water. The concept of climate risk based spatial urban planning was a new idea for them. The TMA Nowshera team found the concept of rainwater harvesting not much feasible because of low rainfall, instead supported the idea of promoting solar tube wells. In both the cities, the officials hinted at increasing problems of solid waste management because of lack of resources.

At national level, the Ministry of climate change & Environmental Coordination (MOCC&EC) expressed the need for a separate policy for urban planning and management in wake of looming climate crisis. On the other hand, the Shehersaz, a local partner NGO working for better management of urban and sub-urban areas, pointed out at awareness raising and education campaign as required activities to mobilize people for taking care of their environment and feeling their responsibility in properly disposing off their solid wastes and keep their streets clean.

The AF project, by providing rooftop rainwater harvesting facilities at household level and in public buildings, and building the capacities to construct, operate, maintain and replicate is providing solutions to some of these problems stated by local communities and the town management authorities. The harvested and stored rainwater is being used for washing utensils and clothes at household level, and for gardening (watering of plants) in public buildings like educational institutions, local government offices, mosques etc. The high demand from local communities for clean and safe drinking water has yet to find answers. Similarly, the issue of drying out of boreholes need to see ground water recharge interventions.

At the level of town management authorities (WASA and TMA), the officials have been trained in designing, constructing, operating, maintaining and replicating the rain water harvesting facilities.

However, they need the same skills for ground water recharge technologies. They also need to be educated about the climate risks and climate resilient special town planning techniques. These authorities also need to find local low cost and indigenous solutions for the problems related to sanitation, and solid waste management.

### 3.1.3 Responsiveness of the implementation strategy to the donor and UN-Habitat strategies, including SDG 11 and the New Urban Agenda (NUA)

The AF Project is designed to strengthen local, sub-national and national climate change resilience to water scarcities caused by droughts and floods in urban settlements. The project design focusses on implementation model where stakeholders at national, provincial and local level are engaged actively to build their capacities and increase ownership. The project targets water scarcity, weaker service provision infrastructure (particularly for water, sanitation and waste management), improper urban planning, low technical capacities, and lack of policy structure for urban development in the country. The project aims to provide policy support, introduce special planning in urban areas, provide clean water in under serviced areas and build capacities at all levels. The anchorage of these elements in the glob development agenda is discussed in below paras.

The UN-Habitat's Strategic Plan 2020-2025 has a vision for "A better quality of life for all in an urbanizing world". The Plan aims at "Sustainable urbanization is advanced as a driver of development and peace, to improve living conditions for all in line with SDGs". Under the Domain of Change No. 3 "Strengthened climate action and improved urban environment", the Plan has an expected Outcome of "Effective adaptation of communities and infrastructure to climate change".

The New Urban Agenda's share vision states that "We share a vision of cities for all, referring to the equal use and enjoyment of cities and human settlements, seeking to promote inclusivity and ensure that all inhabitants, of present and future generations, without discrimination of any kind, are able to inhabit and produce just, safe, healthy, accessible, affordable, resilient and sustainable cities and human settlements to foster prosperity and quality of live for all".

One of the principles of the New Urban Agenda is to "Ensure environmental sustainability by promoting clean energy and sustainable use of land and resources in urban development, by protecting ecosystems and biodiversity, including adopting healthy lifestyles in harmony with nature, by promoting sustainable consumption and production patterns, by building urban resilience, by reducing disaster risks and by mitigating and adapting to climate change". The NUA has shown a strong commitment to "Recognize the leading role of national Governments, as appropriate, in the definition and implementation of inclusive and effective urban policies and legislation for sustainable urban development, and the equally important contributions of subnational and local governments, as well as civil society and other relevant stakeholders". It further states "We commit ourselves to promoting equitable and affordable access to sustainable basic physical and social infrastructure for all, without discrimination, including …… safe drinking water and sanitation, safe, nutritious and adequate food, waste disposal, ….".

SDG #11 states to "Make cities and human settlements safe, inclusive, resilient and sustainable". To achieve this goal, the Goal Indicator 11.3 states "By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries" and the Sub-Indicator 11.3.2 hints at "Proportion of cities with a direct participation structure

of civil society in urban planning and management that operate regularly and democratically".

### 3.1.4 To what extent is UN-Habitat's comparative advantage in this work area compared with other UN entities and key partners? To what extent were identifying key stakeholders and target groups (including gender analysis and analysis of vulnerable groups) and institutional capacity issues relevant?

The United Nations Human Settlements Programme (UN-Habitat) is mandated by the UN General Assembly to promote socially and environmentally sustainable towns and cities. UN-Habitat is the focal point for all urbanization and human settlement matters within the UN system (UN-Habitat).

The main goal of UN-Habitat's resilience work is to support local governments and relevant stakeholders to transform urban areas into safer and better places to live in, and improve their capacity to absorb and rebound quickly from all potential shocks or stresses, leading them towards sustainability (UN-Habitat).

The UN-Habitat's capacity to provide policy related, strategic and technical lead to sustainable urban development puts it in leading position to design, execute and monitor and report project for urban resilience in partner countries. The UN-Habitat builds on its partnerships with national and regional partners in partner countries to conceptualize innovations for resolving urban resilience issues. Compared to other UN agencies like UNDP, UNEP, UNOPS and UNDRR, the UN-Habitat's clear focus on urban resilience is an advantage. In Pakistan, the national and sub-national public, private and civil agencies working in urban areas find the UN-Habitat a capable partner.

The UN-Habitats has been advocating for urban development policies in countries where urban issues are looming large. This organization is the point in Pakistan that can bring in regional and international outlook, experiences and best practices to support national partners mandated for urban development. The UN-Habitat hosts the Urban Resilience Hub, an extensive network of partner organizations, institutions, think-tanks, universities and governments that provides a space for sharing knowledge, best practice and innovation to flourish.

For this particular project in Pakistan, the UN-Habitat targets peri-urban areas in Districts of Rawalpindi and Nowshera, lying along the Nullah Layi and River Kabul respectively. These areas are inhibited by lower middle and lower class migrants from rural areas in search of livelihood opportunities. These migrants prefer these areas because of lower living cost and hence are over populated, under served, and faced with social, economic, health and environmental problems. The inundations from the Nullah and River put these localities at risk of contamination of water sources, blocked drainage system, spread of diseases and loss of physical infrastructure. The youth, women, disabled and elderly people are the ones who take the highest brunt of all these problems because of their high vulnerability. Through the implementation of the project, the UN-Habitat wants to find local, low cost and sustainable environmental solutions to their problems. The project strategy emphasizes to include all these vulnerable groups.

For implementation of the project, the UN-Habitat has partnered with Shehrsaz (a local civil society organization), Water & Sanitation Authority (city authority for providing services in Rawalpindi city), Town Municipal Authority (Town management authority in Nowshera city), National Disaster Management Authority (National level authority to provide disaster management services), Pakistan Council of Research in Water Resources (National research entity in water resources) and Ministry

of Climate Change & Environmental Coordination (National focal ministry for all climate and environment related matters). Engaging these partners, the agency has adopted a multi-tier whole-of-society approach to address the resilience issues.

During the meetings with partners and interviews of beneficiaries, it was realized that the ultimate beneficiaries of this project could be more effectively and democratically engaged and targeted by providing more active role to local community organizations. These forums could play role in the selection of beneficiaries and keeping it inclusive of women, youth, elders and persons with disability. The community organizations are more representative of the local communities, they could play role in continuation of interventions in post project periods, and could also play role in keeping influential groups at bay.

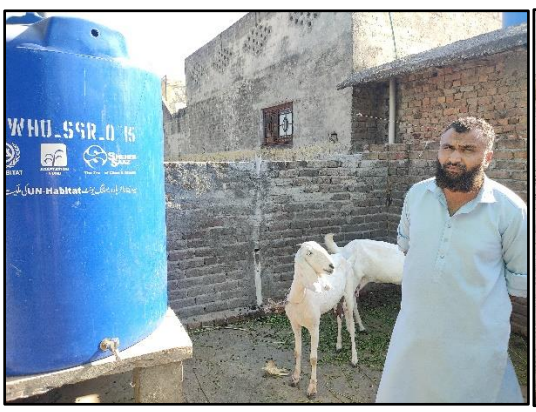
At the city/district and province level, engaging TMA office and WASA is appropriate. However, as the local government system in Khyber-Pakhtunkhwa and Punjab provinces are now well established and have key role in municipal services of towns, it would have been appropriate to include them as more active collaborator partners in the institutional setup (TMA is already controlled by Local Government & Rural Development Dept). Similarly, both of the provinces have capable and active Urban Policy Units. These units could be engaged in special planning and development of urban policies.

## 3.2 EFFECTIVENESS

Overall rating: Moderately satisfactory

### 3.2.1 To what extent is the project on track to achieve its target results at the output and expected accomplishment levels?

The project under review expects to produce 8 concrete outputs under 3 different components. Under component 1, the output 1.1 is the major deliverable comprising 5000 rainwater harvesting units to be established in the community. Out of 500 units, 1300 have already been established. Remaining 3700 have to be constructed in 13 months i.e. from December 2024 to December 2025. Under output 1.2, the data and maps were complete for 15 Participatory Community Based Climate Resilience Plans (PCBCRPs) at Union Council level. The training and awareness raising activities were all complete on time.



At the city/district level, 30 rainwater harvesting units were to be installed in Rawalpindi and 20 in Nowshera. Whereas 23 units were completed in Rawalpindi, work in Nowshera had yet to be initiated owing delays in LoU and opening of bank account. The Multi Hazard Risk & Vulnerability Assessment tools were yet to be finalized and handed over to the urban authorities. Similarly, the National Urban Strategy based climate risks and relevant guidelines were yet to be initiated. The tracking of achievement of the outputs is described in Table 1 below.

Table 1: Delivery of expected outputs under 3 project components

| Project Component | Expected Concrete Outputs | Accomplishments |
|---|---|---|
| **Component 1:** Enhance community- and household-level flood resilient water harvesting facilities (using innovative techniques) and to strengthen capacities to plan, construct, operate, maintain and replicate these. | **Output 1.1:** 5000 community / household level flood resilient (i.e. elevated to not be affected by flood water) rainwater harvesting facilities constructed, using innovative techniques | 1300 RWH units completed |
| | **Output 1.2:** 15 union/neighborhood council-level community plans developed (7 in Rawalpindi/8 in Nowshera), community members (especially women and youth) trained and practical guide developed to plan, construct, operate, maintain and replicate water harvesting at community level, and to reduce waste in drainage channels through awareness raising campaigns | Maps and data are completed for these plans, but finalization and validation is required.<br><br>Guidelines to operate and maintain developed. |
| | **Output 1.3:** Awareness campaigns in all target communities to reduce dumping of solid waste in drainage channels | Awareness campaign for rational water use and proper waste management conducted. |
| **Component 2:** Enhance city and district-level water harvesting facilities in public buildings and on water storages in public gardens, develop district / city level spatial strategies as tool to assess climate change related floods, droughts and water scarcity to plan for and manage climate change risks and to Strengthen capacities to plan, construct, operate, | **Output 2.1:** 50 district / city-level water harvesting facilities in public buildings and on water storages in public gardens constructed | 23 units in public building and parks established in Rawalpindi against the target of 30. In Nowshera, work has yet to be initiated on 20 units. |
| | **Output 2.2:** Two district / city-level spatial planning strategies developed considering climate change risks and impacts, especially floods and droughts, and including comprehensive water harvesting plans. These strategies are decision-making tools for cities to assess climate change related floods, droughts and water scarcity to plan for and manage | 2 Multi Hazard Risk & Vulnerability Assessments (MHRVAs) conducted for Rawalpindi and Nowshera. The reports with maps are in process. |

| | | |
|---|---|---|
| maintain and replicate water harvesting facilities in public buildings and gardens. | climate change-related risks and impact in and beyond city boundaries, taking into consideration multiple sectors | |
| | **Output 2**.3:<br>50 government officials, including 20 women trained and guidelines developed to plan, construct, operate, maintain and replicate flood resilient water harvesting facilities and to enhance capacity in developing spatial plans | 107 officials trained including 26 women |
| **Component 3:**<br>Strengthen national-level capacity to guide / direct city-level development considering climate change and disaster risks and impacts, especially water scarcity caused by floods and droughts. | **Output 3.1:**<br>100 government officials including 50 women trained to guide / direct urban development considering climate change and disaster risks and impacts, using especially spatial planning guidelines and tools. | 507 persons trained including 24% women |
| | **Output 3.2:**<br>One National urban strategy focused on climate change / disaster risk reduction developed One set of National guidelines for spatial planning considering climate change / disaster risks developed | - |

It is expected that all remaining activities will be completed by December 2025, except the construction of 3700 rainwater harvesting units at household level which seems an uphill task.

#### 3.2.2 Which factors and processes (internal and external factors) contribute to achieving or not achieving the expected results?

The project is already on track to achieve its expected outputs within the remaining period of implementation. The factors and processes that contributed to this are built in within the project design and implementation, though there are external factors supporting this. These factors are discussed below:

a) Target group: The identification of target groups from lower middle and low income residing in under-serviced urban and peri-urban areas prone to floods and droughts was a key factor. They were ready to participate and adopt the project interventions.

b) Interventions: The simple, low cost and user friendly rainwater harvesting technology introduced was helping households to store not only the rain water but used as storage tank for tape water or from any other source. The construction material and skills were readily available.

c) The CSO Partner: Shehrsaz, a local civil society organization, was able to reach out to the target group and mobilize them for participation. The CSO had a good and capable team of engineers, social mobilizers, programme manager and M&E officer.

d) The UN-Habitat: The UN-Habitat with a mandate from the UN for sustainable development in urban settlements, having a comparative edge over other organizations in the country was factor that contributed to conceptualize this project and tailoring it to the prevailing problems and needs of the communities and institutions.

e) Other government departments as partners: Engaging government agencies like WASA and NDMA contributed to installing the concept of these innovative strategies into the government and public thinking. The introduction of the concept of rainwater harvesting in urban areas in Pakistan will lead to replication of this other cities.

In some aspects, the project results and outputs faced delays, and some interventions may need improvement. Following are some factors leading to this effect:

a) Developing timely partnerships: The process of finalizing partnership with TMA Office in Nowshera took lot of time, leading to the fact that practical activities have not yet been initiated by this department.

b) Delays in funds and channels for financial flow: In few cases, the opening of project accounts has still not been operationalized, leading to delays in initiating the implementation process. This was the case with TMA Nowshera and the Ministry of Climate Change and Environmental Coordination. In others, like in the case of Shehrsaz, the delays in approval of funds from HQ/regional office/donors resulted in high turn-over in the project team.

c) Partnerships at national level: In some cases, the partnership with national organizations may not produce intended impact, though the physical targets will be achieved. For example, the NDMA team has been engaged with a number of private donors in addition to its national responsibilities for providing support in Multi-Hazard Vulnerability and Risk Assessment (MHVRA). The project could create additionality factor by partnering with sub-national or provincial partners like Urban Policy Units in each province.

d) Local influences: The fact that local community organizations or their representative forums were ignored in the selection of beneficiaries, the local influences and political factors came in. At the grassroots level, an inclusive stakeholder approach by engaging CBOs, WOs and Local Councils would have been more effective in addressing this issue.

### 3.2.3 How appropriate and effective are institutional relationships with the main target groups in which the project operations are engaging?

As discussed above, the institutional arrangements at grassroots level could have been made more effective by providing a role to CBOs, WOs and Local Government representative bodies at Union Council / Neighborhood Council level. The Shehrsaz, a CSO Partner in Nowshera and Rawalpindi, has been identifying beneficiaries through local leaders, key informant and the Change Maker persons. After selection of beneficiaries, they are grouped / organized into Water User Groups. The criteria used in Benazir Income Support Programme is also used in this selection. This however

reduces the options to identify and engage eligible persons, particularly the women, youth, persons with disabilities and the elderly people. Also, the role of a local CBO/WO/UCs to take responsibilities and post project role, is ignored.

Since the community relationships are left only to the Shehrsaz, the WASA and TMA offices are limited only to the government properties. Also, there was observed no proper mechanism of coordination between Shehrsaz and these public offices. The looping in of provincial HQs (like LGRD in Peshawar for TMA Nowshera) was not up to the mark that could have leveraged the policy effect of the project interventions. The NDMA is working currently in isolation, with no linkages with TMA or WASA or Urban Policy Units, though they would have been able to create more effect by coordinating not only with these entities for capacity building but for targeting the special planning initiatives at provincial level. The Shehrsaz was conducting the UC level Planning on their own, without proper coordination with NDMA.

#### 3.2.4 To what extent has local capacity been strengthened so far through this programme?

The AF project has special focus on enhancing local capacities to create impact and increase sustainability of the interventions. For this purpose, the project has allocated resources under each of the three project components. During the field visit and interviews with project beneficiaries, it was observed that households that received the rainwater harvesting systems in their households were confident in understanding the purpose of the facility, and were able to operate and maintain it. Each of the activity site was displaying practical guidelines about the facility on visible locations. One of the interesting thing was the display of House Tags on front side of each house beside the main gate, something that could guide interested persons to the activity site if interested to observe or replicate the model. Also, the construction of the system was simple involving simple plumbing and civil works, the material was locally available. Hence the new systems, even after the project, were easy to be replicated by other households without external technical support.

The project partner Shehrsaz provided training to local community members (mainly women) in Rawalpindi to manage their solid waste (including segregation, processing of organic waste into composting etc). However, no practical examples were observed, and none of the project beneficiaries talked about it. Similarly, Kitchen gardening training was mentioned by Shehrsaz team in their meeting, though no practical example was seen during visit to the community or meeting with beneficiaries.

Table 2: Capacity building activities under different components

| Sr.# | Activities | Status | Participation | |
|---|---|---|---|---|
| | | | Men | Women |
| 1 | 50 government officials, including 20 women trained and guidelines developed to plan, construct, operate, maintain and replicate flood resilient water harvesting facilities and to enhance capacity in developing spatial plans | Completed | 81 | 26 |
| 2 | 100 government officials (with an equal number of men and women) trained to guide/direct urban development considering | Completed | 386 | 121 |

| | | | | |
|---|---|---|---|---|
| | climate change and disaster risks and impacts, using especially spatial planning guidelines and tools. | | | |
| 3 | 15 union/neighborhood level maps and profiles | Developed | | |
| 4 | Response plans for community based and school-based emergency response | Drafted | | |
| 5 | Guidelines on responsible water use and responsible behavior and practices vis-à-vis waste management | Developed | | |
| 6 | 52 Training sessions for water user groups | Training Manual Developed and Trainings Executed | 281 | 927 |
| 7 | 03 ToTs training sessions on SWM & kitchen gardening | Organized | | 42 |
| 8 | 180 Training sessions on SWM, 4Rs, Kitchen gardening | Conducted | | 2,689 |
| 9 | Emergency Response Kit | 15 Procured & handed over to CCRACs committee at community level in consultation with 1122 | | |
| 10 | First Aid Kits | 50 Procured for schools as part of the execution of Community Climate Change Adaptation and DRM plans while keeping in view major prevalent hazards including floods, torrential rains, wind and hailstorms, earthquakes, and fire. | | |

On government side, the PCRWR provided training to officials of the WASA (Rawalpindi) and TMA (Nowshera) in designing, constructing, operating and maintaining the rainwater harvesting facility in government buildings. During interviews, the officials of these both entities were confident to have capacities for undertaking this activity. The WASA had already initiated successfully building and handing over the rainwater harvesting units in government buildings.

One of the important element of the project was to develop special planning tools for urban planning based on climate risk assessment. The NDMA was conducting Multi-Hazard Vulnerability Risk Assessment (MHVRA) for Rawalpindi and Nowshera districts. These MHRVA tools would be used for climate resilient special planning. In case of Nowshera, the TMA staff was not aware of this process, nor were they capable of using it. Instead they mentioned the UPU at Peshawar to be the best agency to use it. In case of Rawalpindi, no partner was available to use it, as the WASA was mandated for water supply and sanitation only.

### 3.2.5 To what extent are monitoring and reporting on the project implementation timely, meaningful and adequate?

As per the P&E Plan of the project, the Project Manager is responsible to report on progress annually, in addition to field visit reports to be made every six months along with other project partners and steering committee members. The field visits are supposed to be participatory, ensuring full representation of the beneficiaries and stakeholders for data collection against indicators.

The project partners have been regularly providing their progress on deliverables to the project management. The beneficiaries' data, segregated by gender, after each activity is properly documented and reported. Each site of the water harvesting activity is geo-referenced by taking GPS coordinates, making it easy to be located and mapped for monitoring purposes.

During the evaluation process, the UN-Habitat office provided all reports like their annual reports, reports of the workshops and events (Inception Workshop). Each of the partner was submitting regular reports to the UN-Habitat office on their progress as per formats and timeframe set in their Letter of Understanding (LoU). It was informed that field visits were being made regularly. All the progress reports and field visit findings were presented to the project steering committee (5 PSC meetings held so far).

### 3.2.6 How has COVID-19 affected the effectiveness of the project?

The project, as per proposal, was supposed to be initiated in June 2020 and implemented till September 2024. However, due to the occurrence of COVID-19 in 2020-21, the project suffered considerable delay in initiating its project operations, mainly because of restrictions on field mobility and meetings. The project was extended till December 2025 due to this reason. One of the factor in this delay was also the engagement of project partners in anti-covid operations and their unavailability for the project during covid period.

During the COVID-19 times, the target communities in Nowshera and Rawalpindi suffered a lot. The area, particularly Rawalpindi, was prone to the risks of Malaria and Dengue Fever, and then coupled with COVID pandemic. The high population density, lack of sanitation services leading to local water stagnations, lack of health and hygiene facilities against these risks added to the suffering of residents. Hence, the health and protection was on top of the local agenda as compared to project activities that did not targeted health issues directly.

### 3.2.7 To what extent is the project proving to be successful regarding ownership in relation to the local context and the needs of beneficiaries?

The ownership of project and its interventions comes into effect when the project is designed in consultations with all stakeholders, it targets realistic felt needs, and promotes full participation ensuring equal sharing of benefits among the target groups. The project under evaluation has been developed after thorough consultations with national, district, city and local level stakeholder entities. This was confirmed in project proposal and in interviews with project partners. During the design stage, efforts were made to align the project with national and sub-national priorities of the government as expressed in their sectoral policies and action plans. The preparatory surveys and

consultations with community groups in both target districts focused on identifying the climate related risks in the target areas, their impact on the residents (particularly women, elderly, disabled and youth), existing barriers to adapt to the climate change, and approaches available to overcome the barriers and create resilience.

Both the WASA and TMA offices understand the need for water harvesting interventions against the flood and drought risks in target localities. In Nowshera, the TMA officials expressed concerns regarding the rainfall amount received to enable rainwater harvesting facilities effective for this purpose, and emphasized more on alternate water sources to cater the drought. However, the communities in Nowshera expressed that the water tanks could be used to store fresh water from pipe water if rains were not received. This expresses the need for ownership of the activities in Nowshera at least at the community level.

The spatial town planning tools at district level, and community plans at UC level were facing the challenge to be anchored in the right place within the given institutional setup in each province. The lack of coordination among the partners themselves on this component, and coordination with other authorities / agencies already mandated by the provincial governments for this purpose has created a need to rethink this aspect for ownership for this important activity. On the other hand, the rainwater harvesting facilities provided in government buildings were being used for gardening watering of plants. All the facilities visited in government buildings were providing water for this purpose, though many of the facilities were used to store pumped water. The ownership from the benefiting government building users was not expressed, hinting at the need for site selection based on water scarcity.

## 3.3 EFFICIENCY

Overall rating: Satisfactory

### 3.3.1 To what extent does the management structure of the project support efficient implementation?

At UN Level, the project is being managed by UN-Habitat which is a multilateral implementing entity under the umbrella of the UN and has expertise for sustainable cities and urban settlement. This agency is also responsible for managing the partnerships and funds flow to partners as per the donors' guidelines and UN systems. At national level, the Ministry of Climate Change and Environmental Coordination (MoCC&EC), the official designated authority for the Adaptation Fund, provides coordination support across government partner agencies, and also provides a link to the UNFCCC. The Ministry has the additional role to develop a national urban strategy based on climate change and DRR. The ministry also chairs the Project Steering Committee in order to ensure governance and oversight for the overall project implementation.

Other public sector partners for the project include provincial and district entities, engaged through Letter of Understanding (LoU). The WASA in Rawalpindi and TMA in Nowshera are responsible for district/city level activities implementation and delivery of outputs. After the 18$^{th}$ amendment in Pakistan, environment and climate change related issues comes directly under provincial jurisdiction. Hence this setup seems logical. However, the connection of TMA and WASA with provincial headquarters was required to strengthen the niche for policy impact of the project. The Local Government & Rural Development (LGRD) departments needed to be provided more space and

role in the setup. The TMA particularly requires approvals and coordination with LGRD in Peshawar and hence takes more time for the procedural work before embarking on implementation and release of funds.

At grassroots level, the Shehrsaz is playing vital role in engaging local residents as beneficiaries in the project activities. The CSO is best placed to play this role keeping in view their expertise in social mobilization and programme delivery at community level. The CSO has Detailed Implementation Plan (DIP), Project Execution Guidelines (PEG) and M&E Framework in place for smooth implementation. One of the important fact was that the CSO had an impressive structure of team where the Executive Director, the Project Manager, M&E Officer and Communication Coordinator all were female and hence is a good position to ensure inclusivity in terms of gender even in the field. Their role however could be more effective, by bringing in Community Based Organizations and Local Representatives for undertaking shared responsibility for project interventions. They could play better role in ensuring proper selection of beneficiaries, avoiding conflicts, ensuring transparency, and adding to sustainability of the interventions.

#### 3.3.2 To what extent is the project being implemented efficiently in terms of delivering the expected results according to quality standards, in a timely manner according to budget and ensuring value for money?

The efficiency of project implementation and delivery of expected results and outputs under different components can be attributed to the institutional set-up and management structure. The highest output delivery was observed under Component 2 Output 2.3 where 107 persons were trained against the actual target of 50 persons (214% achievement) from WASA and TMA staff in planning, constructing, operating, maintaining and replicating flood resilient water harvesting facilities and conduct spatial planning for water harvesting sites. The target also included to train 20 women staff as part of the 50 persons. However, the gender balance could not be created because of the unavailability of women staff in these offices.

The second highest achievement was recorded under components dealt with by the NDMA. These included Component 2 Output 2.2 and Component 3 Output 3.1. The NDMA informed that work on Multi-Hazard Vulnerability & Risk Assessment for Rawalpindi and Nowshera was 80% complete, and the remaining will be completed by December 2024. They also informed that the target of training 100 persons was already completed (507 persons trained, 507% achievement). Out of total participants, 25% were women. Under the Component 2 Output 2.1, the WASA and TMA were supposed to complete 30 and 20 units of rainwater harvesting units each respectively in Rawalpindi and Nowshera. Whereas the WASA reported 23 units as completed (77% achievement), the TMA was yet to initiate work (0% achievement). During the field visit, the units installed for rainwater harvesting in Rawalpindi were according to the design and were completed within the budget allocated for this purpose.

The Shehrsaz was able to complete 1300 rooftop rainwater harvesting units at household level (655 in Rawalpindi and 645 in Nowshera) against their target of 5000 units (26% achievement so far). These units were benefiting 16,121 persons including 50% women by collecting 1,457,800 liters of water per year. The remaining 3700 units have to be completed before December 2025, a target that appears too ambitious. However, the project team at Shehrsaz was confident to achieve 100% before the due date as they had already selected the sites and beneficiaries, and design work was complete. They also informed that procurement of material process will be initiated

as soon as the funds were transferred to their account. During the interviews with beneficiaries, it was found that residents were satisfied with the quality of the units installed and benefits they were receiving in rainy seasons, though many of them demanded to install filtration plants for making the stored water drinkable.

Table 3: Cost efficiency of Rainwater Harvesting Units at community level

| Output | Allocated cost (USD) | Target | Cost efficiency |
|---|---|---|---|
| Output 1.1. (concrete) 5000 community / household level flood resilient (i.e. elevated to not be affected by flood water) rainwater harvesting facilities constructed, using innovative techniques | 2,000,000 | 5000 rainwater harvesting units<br><br>Benefitting 38,885 persons including 50% women.<br><br>@USD 51 per person | 1300 rainwater harvesting units completed.<br><br>Benefitting 16,121 persons.<br><br>@USD 32 per person |

Under the Component 1 Outputs 1.1, 1.2 and 1.3, the Shehrsaz had been undertaking awareness raising and training activities to mobilize residents for proper disposal of solid wastes generated at household level, composting, discouraging plastic use, kitchen gardening and other environmental issues. All of these components involved 50% women. They also reported completion of 15 UC level plans for DRR purposes. These plans had yet to be validated through stakeholder consultations. According to them, 400 more training events were planned before June 2025. All of the activities undertaken by Shehrsaz were completed within the allocated budget and according to the planned work schedule.

Under Component 3 Output 3.2, the Ministry of Climate Change & Environmental Coordination however had yet to initiate their activities towards developing National Urban Strategy and preparation of guidelines for spatial planning based on climate change and related risks assessment. The reason for delay was stated to be the delay in opening of separate project account and the channeling of funds. Similarly, the TMA Nowshera under Component 2 Output 2.1 had to start activities once the funds were channeled to their account.

The project outputs (except 1.1, 2.1, and 3.2) have been organized and managed so far in alignment to the project document, work plan, budget and related project implementation operational guidelines of both the Adaptation Fund and UN-Habitat. The project contracted non-for-profit entities for project implementation, that reduced the implementation cost ensuring the Value for Money. The engaging CSO in mobilization and undertaking community level activities in participation with local groups, the project has enabled local users to supervise their work and keep a check on contractors for construction work. This factor added to the quality assurance of the water harvesting units and the value for money.

### 3.3.3 What types of products and services were provided to beneficiaries through this project?

The kind of products and services provided to the local beneficiaries were according to their needs and addressing the climate related risks within the given level of available resources and time period. The local communities were provided with support in establishing rooftop water harvesting facilities and capacity building, and also guidance to tackle the issues of solid waste management and sanitation in their areas. The institutions at sub-national government level were provided with capacities to undertake water harvesting technological work and spatial planning techniques for resilient town planning. These products and services were found effective in building resilience against flood and drought in the target areas. The kind and extent of these products and services are discussed in detail under the sections 3.2.1 and 3.3.2 above.

### 3.3.4 To what extent is monitoring and reporting on the project transparent and satisfy key stakeholders?

As per the P&E Plan of the project, the Project Manager is responsible to report on progress annually, in addition to field visit reports to be made every six months along with other project partners and steering committee members. The field visits are supposed to be participatory, ensuring full representation of the beneficiaries and stakeholders for data collection against indicators.

The project partners have been regularly providing their progress on deliverables to the project management. The beneficiaries' data, segregated by gender, after each activity is properly documented and reported. Each site of the water harvesting activity is geo-referenced by taking GPS coordinates, making it easy to be located and mapped for monitoring purposes.

During the evaluation process, the UN-Habitat office provided all reports like their annual reports, reports of the workshops and events (Inception Workshop). Each of the partner was submitting regular reports to the UN-Habitat office on their progress as per formats and timeframe set in their Letter of Understanding (LoU). It was informed that field visits were being made regularly. All the progress reports and field visit findings were presented to the project steering committee (5 PSC meetings held so far).

### 3.3.5 How did the COVID-19 pandemic affect the project implementation?

The project, as per proposal, was supposed to be initiated in June 2020 and implemented till September 2024. However, due to the occurrence of COVID-19 in 2020-21, the project suffered considerable delay in initiating its project operations, mainly because of restrictions on field mobility and meetings. The project was extended till December 2025 due to this reason. One of the factor in this delay was also the engagement of project partners in anti-covid operations and their unavailability for the project during covid period.

During the COVID-19 times, the target communities in Nowshera and Rawalpindi suffered a lot. The area, particularly Rawalpindi, was prone to the risks of Malaria and Dengue Fever, and then coupled with COVID pandemic. The high population density, lack of sanitation services leading to local water stagnations, lack of health and hygiene facilities against these risks added to the suffering of residents. Hence, the health and protection was on top of the local agenda as compared to project activities that did not targeted health issues directly.

## 3.4 SUSTAINABILITY

Overall ranking: Moderately satisfactory

### 3.4.1 To what extent is capacity being developed to ensure the sustainability of the efforts and benefits?

The sustainability of any intervention or strategy can be ensured if all the project stakeholders including the ultimate beneficiaries, the service provides, and institutional partners are capable to play their role in post project times. The AF project in Pakistan has been designed to strengthen the capacities of the local community, district, provincial and national level stakeholders. The capacity building has been targeted through formal and informal training events, engagement in direct field implementation, provision of knowledge material, linkages with service providers and inputs suppliers, and providing policy/strategic support.

At community level, 1300 households are now capable of planning, constructing, operating and maintaining their water harvesting units. This became possible because they were engaged in the whole process of water harvesting units, they have guidelines for this purpose displayed on prominent sports in local language, they know where from to get material and whom to engage for construction. Those who were not engaged, can easily identify those households where the units were installed, as the Tag was installed on each of these households, and get their technical support if they wanted to adopt the technology. The water user groups, comprising the beneficiaries of the project at UC level, can play very effective role in mobilizing people for these solutions and help other communities in replication of the model. The Water Harvesting Plans developed at UC level can also be a resource for longer term continuation of the water harvesting activities.

At institutional level, 107 persons from WAS and TMA office were trained in designing, construction, operating and maintenance of water harvesting units to address the flood and drought risks in their localities. These officials can play the role of change agents, though the availability of financial resources has always been a challenge at government level for innovative solutions like this. The high turnover of officials in TMA office was a problem that could undermine the availability of trained staff in the target districts. However, the successful demonstration of water harvesting units

in these areas could play the role of a catalyst in mobilizing funds from government kitty for this purpose to address the true needs of the people in the area.

The Multi Hazard Vulnerability & Risk Assessment provides a useful tool in the hands of town planners, urban management agencies and policy makers in the longer term. In addition, 507 persons were trained formally in the special planning techniques and risk assessment methodologies to plan for climate resilient urban area management. The MHVRA tools can be used for more than 20 years if updated regularly after 3 years with little efforts. However, the utility and sustainability of these tools could be ensured only when these are provided to the right agencies in the government setup. It was observed that the WASA and TMA offices were not in the right position to use these hazard maps and assessment reports, instead the Urban Planning Units in Peshawar and Lahore could be the best places to anchor these activities in.

At policy/strategy level, the Ministry of Climate Change & environmental Coordination was supposed to prepare the national urban sustainable management strategy and related guidelines. If completed in right time and developed in a participatory way, this could provide an enabling environment to include these interventions in the annual development planning. This could also attract ADP funds and promote the climate resilient urban development in the longer time span.

### 3.4.2 To what extent is the project engaging the participation of beneficiaries in implementation, monitoring, and reporting?

Participatory implementation, monitoring and reporting of project creates ownership and contributes to capacity building and adoption leading to the sustainability. The AF project beneficiaries at community level have been actively engaged in the implementation of water harvesting units and preparation of UC level water harvesting plans. Though they are visited during the field visit by project management, the donors or other officials to know their views, there effective monitoring role could be realized if they were provided the complete understanding, purpose, indicators and deliverables of the project right from the beginning. Because of their limited capacities, they are not part of the reporting process for project.

The district level beneficiaries, WASA and TMA, are part of the implementation team as they are mandated to execute their relevant field targets. They are also responsible for monitoring and reporting their activities. The PMU takes regular field visit to monitor their targets but the sites to be visited are not selected randomly. These entities also provide reports to the PMU and PSC regularly on their progress. The provincial entities like the PHED in Punjab and LGRD in Khyber-Pakhtunkhwa have not yet been engaged in implementation, monitoring and reporting practices.

At national level, the NDMA is part of the implementation team, and provides tools for special planning to the town planning and management teams. They are not, so far, part of the monitoring and reporting team. The MoCC&EC is chairing he PSC, a forum where it plays important role of overall project monitoring. This ministry has yet not initiated its implementation and reporting role. The district level beneficiaries of water harvesting units (owners, dwellers) of public buildings have not yet been engaged in monitoring and reporting, though they have limited role in implementation.

### 3.4.3 To what extent is the project fostering innovative partnerships with local institutions, authorities and other development partners?

The AF project is targeting the climate resilience in urban settlements at three levels: the community, district/provincial and national, and adopts a partnership approach all these 3 levels. The

partnership approach is to provide an enabling environment to all stakeholders to work in integration and improve sustainability. The approach also ensures to introduce the whole-of-society and whole-of-government setup where key stakeholders from the society, government and research/academia are engaged collaboratively.

At community level, the ultimate beneficiaries (communities residing in drought and flood prone under-serviced urban settlements) have been empowered to play important role in the implementation of resilience building activities against the climate risks. These communities, arranged into user groups, are expected to play key role after the project in supporting their communities for replication and adoption. These user groups, and the CSO engaged in implementation are non-for-profit organizations, participating to serve their own households and communities. However, the local community organizations already existing in the targets areas, and the representative bodies of the local government have not been given a due role.

At district/provincial level, the WASA and TMA offices have been mandated to implement project in their respective localities. This is an important factor contributing to integrate the concept of water harvesting in urban areas management where climate risks are high in terms of drought and floods. At national level, the PCRWR, the NDMA and the MOCC&EC have been engaged as partners in implementation, to incorporate innovative thinking in urban planning and management based on climate change risk assessment, and provide policy/strategic support. One of the missing link in this partnership row is the engagement of provincial parent departments i.e. PHED and LGRD that could have strengthened the streamlining of climate resilience into provincial sectoral policies based on demonstration effect of the interventions by WASA and TMA.

## 3.5 IMPACT OUTLOOK

Overall rating: Moderately satisfactory

### 3.5.1 To what extent did the project attain its objective and anticipated impact on partners and targeted beneficiaries, whether stakeholders or cities?

The project target areas are prone to climate change risks in the form of water scarcity created by floods and droughts. These localities are situated in urban and peri-urban areas, not very far away from the reach of floods from Nullah Layi and Kabul river. The residents are those workers migrated from other areas in search of livelihood. These areas are highly populated, with low service infrastructure and facing problems of water scarcity because of contamination of water sources by flood water and sewerage lines, lowering of water table and drying up of bore holes and irregular dumping of solid waste.

Since these settlements had high demand for clean water, the roof-top rainwater harvesting activities were readily adopted by the households. During the interviews with beneficiaries in Rawalpindi and Nowshera, the household members confirmed that they were very much supported by these units during floods as they could store clean water in these tanks. All of the beneficiaries were found confident to operate and maintain these units by themselves. Thus, the resilience of 1300 households (including male and female) to water shortage has been strengthened. Another aspect of the project impact was that the residents were found aware of the problem, and the

underlying causes, as a result of awareness campaigns conducted for discourage improper management of solid waste, the use of plastics and degradation of sanitation facilities.

At city and district level, the agencies responsible for tackling the water provision and scarcity problems (WASA and TMA) were engaged as partners, and their capacities were built in designing, constructing, and operating water harvesting facilities and using the spatial planning tools for urban facility planning. The WASA was found to have already started implemented activities and had completed 23 out of 30 units by the time of the MTE. The TMA was yet to initiate implementing because of delay in signing of LoU and transfer of funds. The staff from both the WASA and TMA office confirmed that the roof-top water harvesting was used for the first time in urban water supply and that it was addressing the problem to some extent.

At national level, the NDMA was conducting MHVRA for Rawalpindi and Nowshera districts, as they were already engaged in similar exercise for other projects and donors in other districts. The MoCC&EC had not yet initiated the work on developing sustainable urban development strategy and related guidelines because of the project account matters. Hence, the national level impact was not visible at that moment.

#### 3.5.2 What positive and/or transformative changes have occurred because of the project?

The water scarcity issues have been realized in urban areas since long, exacerbated by the effects of climate change. The AF project for the first time in Pakistan has established the correlation between climate change and water scarcity due to floods and droughts, and has highlighted the need for resilient urban settlements. The project has also pioneered at large scale project level the use of rooftop water harvesting technologies for addressing the urban water shortages. This project has sensitized the urban agencies in selected districts about the fact that urban areas are as vulnerable to the effects of climate change as rural areas and that they needed local and national approaches to address the problem. The project has been able to bring in Pakistan the thinking from New Urban Agenda (NUA), and has made national responsible agencies to realize the need for a sustainable urban strategy for Pakistan.

### 3.6 CROSS CUTTING THEMES

Overall rating: Satisfactory

#### 3.6.1 To what extent have cross-cutting issues of gender equality, human rights, environmental and social safeguards and youth consideration been integrated into the project design and implementation?

The project has been designed to take care of the AF's Environmental & Social Policy (ESP) and Gender Policy (GP), and the related risks. It has been developed after passing though the Environmental, Social, Gender & Youth Strategy (ESGY) and Work Plan's screening process. The project identified target beneficiaries using the Benazir Income Support Programme's (BISP) database that used the Poverty Score Card to identify poorest people in the community. This score card uses several criteria, one of which is the access to water and sanitation facilities. This it is relevant to this project. The BISP also identified households where female beneficiaries were nominated. Thus the criteria used was enough to ensure targeting women and poor households with lesser access to water and sanitation facilities.

This was also confirmed during the field visit to the project sites and interviews of the household members. The households that received rainwater harvesting units in their houses were poor, had women members and had less access to water and sanitation facilities. The staff of government agencies trained by PCRWR and the NDMA comprised of 25% women. However, it could not be confirmed how the youth were benefitted from the project. A number of the water harvesting facilities installed by WASA in Rawalpindi were located in educational institutions. However, these were used only for gardening activities and had no direct benefit for students.

The Environmental & Social Policy (ESP) of the AF has identified a number of risks with regard to gender, poverty, access to and sharing of benefits arising from the interventions, impact on environment and biodiversity and informal use of the sites. It was observed that the stored water was used jointly used by members of the household, and even shared with neighbors in times of scarcity. All the members of the family including male, female, young children and elderly had full access to the stored water. In no case the material provided was used for any other purpose. In case of rainwater harvesting facilities provided in public buildings and spaces, the water was used for gardening and plantations, benefitting the biodiversity conservation.

The risks identified in the ESP and Gender Policy (GP) were communicated to the project partners, stakeholders and beneficiaries. However, none of the implementing partners had their own organizational policies on gender, youth, people with disability, poor and social and environmental safeguarding. From progress reports provided, it was observed that data generated in the field, including those of beneficiaries, was segregated on gender basis. Segregation based on poverty, age group, and people with disabilities could not be confirmed.

## 3.7 COHERENCE & COMPLEMENTARITY

Overall rating: Satisfactory

### 3.7.1 To what extent is the project coherent and implemented in synergy with other UN Habitat projects funded by the Adaptation fund?

There is currently no other project funded by Adaptation Fund and implemented by UN-Habitat in Pakistan.

### 3.7.2 Was the project coherent or complemented with partners' policies and other donors' interventions?

During the project development, the national and subnational policies in different sectors and donors were consulted. These included Pakistan NEEDS Study, National Climate Change Policy, NDCs, National sustainable Development Strategy, Pakistan Vision 2025, National Environment Policy, National Disaster Risk reduction policy, national water policy, national sanitation policy, Rawalpindi and Nowshera Disaster Risk Reduction Plans, The Khyber-Pakhtunkhwa protection of River Act, the Climate Change Act, and other sectoral strategies.

# 4 CONCLUSIONS

The project under evaluation stands out as one of Pakistan's pioneering efforts aimed at building urban resilience against water scarcity resulting from floods and droughts. Through an inclusive and participatory approach, the project has effectively strengthened resilience in urban communities within selected Union and Neighborhood Councils in Rawalpindi and Nowshera. Rooftop rainwater harvesting units installed at the household level have provided these communities with a vital source of fresh water, particularly valuable during rainy seasons when the risk of flooding is high. Designed to resist contamination from floodwater and other sources, these units empower local residents with the knowledge and skills to operate, maintain, and even replicate the systems in other areas as needed. Additionally, the project's emphasis on gender inclusivity and social and environmental safeguards has been successfully integrated into its design and execution.

At the district level, the project has enhanced institutional capacities, although some national-level targets remain unmet. Because of initial delays due to COVID-19 and subsequent administrative challenges related to establishing agreements with partners and setting up financial channels, the project is facing a challenge of completing huge targets in limited time. With only 13 months remaining, meeting the ambitious target of completing 3,700 additional household units will require accelerated efforts. On the other hand, at national level, the development of climate risk based national urban development strategy remains a challange.

Overall, the project's rationale and objectives align well with local, national, and global policies, reinforcing its relevance and coherence. Effectiveness and efficiency ratings for the project are assessed as moderately satisfactory, reflecting its solid progress amidst challenges.

# 5 CHALLENGES & LESSONS LEARNT

In the following lines, some challenges lessons from the field and implementation experiences of the project are discussed. As per the evaluation policy of the Adaptation Fund, the lessons should not be specific to the interventions and the context evaluated, but applicable to the wider climate change adaptation community. Hence, the following lessons may be considered:

**a)** At the Union and Neighborhood levels, the CSO partner is doing great job, but experiencing frequent breaks in implementation due to administrative bottlenecks. The installation of 3700 water harvesting units, in addition to other supplementing activities like capacity building and awareness campaigns, seems highly challenging.

**b)** Though proper assessment and analysis was carried out, the current design of RWH units does not match the varying extents of catchment area, storage space available, and the meteorological data. These may add up to reduce the efficiency and acceptability of the units.

**c)** The Tehsil Municipal Agency in Nowshera has experienced extra long delays in establishing and operationalizing their partnership for implementation of 20 RWH units in Nowshera. This is coupled with frequent turnover of staff. Similarly, smooth channeling of funds into partners' accounts has been an issue with the national partner (MoCC&EC) as in the case of TMA Nowshera.

**d)** At the grassroots level, the Community Based Organizations and the Local Government elected bodies' role is not visible, though the Water User Groups and Community Committees were organized.

**e)** The unique physical infrastructure and socio-economic framework in urban areas, such as social relationships, conflicts, land tenures, available spaces, and nature-human interfaces, warrant a specialized and tailored response. Similarly, the climate risks and resilience in urban areas have different context and need different approaches as compared to resilience projects in rural areas. The Climate Change Adaptation policies and Action Planning in Pakistan therefore must cover the urban resilience as a separate sector/theme.

**f)** There may be a number of social and environmental risks associated with the urban resilience projects, even if the project itself caters for climate change resilience building. These risks need to be evaluated in the planning stage and appropriate mitigation measures need to be adopted during the implementation.

**g)** The local context and local knowledge is very important while conceptualizing and designing climate change resilience approaches. For example, in this case, the household size, amount of rainfall received on annual basis, the size of the catchment area, and spaces available within the household are important factors to be considered while designing the kind of rainwater harvesting measures. While proper research is required to assess these conditions, the local elders can provide valuable guidance from their indigenous experience based knowledge.

**h)** The urban resilience project must be adaptive, taking guidance from results generated in the field to make changes and adapt to new situations. For example, in Nowshera, the rooftop water harvesting technologies might not be very effective because of the very low amount of rainfall received. In those cases, alternate types of water harvesting technologies / adaptation measures could be introduced.

**i)** The private sector has very important role in building urban resilience. They can provide support in technical operations planning and provision of supplies / inputs for the field operations. The technology designer consultants and construction agencies in the target districts, for example, played smart to fill this gap in Rawalpindi and this setup is going to be replicated in Nowshera. Since these agencies remain there for longer term, they could play important role in sustainability.

**j)** It was observed that both the WASA and TMA teams were lacking or having very few female staff. Since the male and female communities both are vulnerable to the climate risks (in some cases female are more vulnerable), the urban planners and agencies must employ women staff to access, consult and engage women in the urban resilience activities.

# 6 RECOMMENDATIONS

**1. Current project implementation scenario**

The AF project terms ends in December 2025, leaving only 12 months for reaching the target of interventions, namely the installation of 3700 rooftop water harvesting units at household level (in Nowshera and Rawalpindi), 20 rooftop water harvesting units in public buildings in Nowshera, and

the preparation and adoption of the Urban Development Strategy by the MoCC&EC as major major milestones.

Shehrsaz, local CSO responsible for installation of WHU at household level, has been able to complete 1300 units in 15 months (broken into smaller contracts of 3, 4 and 8 months). The average burn rate has been USD 27,986/month at the maximum during this period. The CSO has the mandate to spend approx. USD 2 million in 12 months (USD 166,666/month) that seems to be an uphill task, though they have dedicated and competent team and have been able to do some anticipatory preliminary work.

On the other hand, the TMA Nowshera is all set to achieve its target of 20 WHU units in government buildings given the account maters are settled on time. However, the MoCC&EC has yet to take start on the preparation, validation and approval of the Pakistan's First Climate Resilient Urban Development Strategy and related guidelines. Whereas the deliverable is going to be an important milestone for Pakistan, the administrative procedures are causing delays, leaving the longer time periods required for strategy development and approval on one side.

Keeping in view these limitations, it is appropriate to recommend a no-cost extension of at least one year till December 2026. The extension will also allow to properly and effectively consolidate and disseminate the project learnings and achievements at local, sub-national and national level.

**2. Future prospects**

Among the pressing environmental challenges Pakistan is faced with (e.g. floods, GLOFs, sea water intrusion, droughts etc), the AF project has been able to highlight another looming challenge on the urban front. Our urban population, currently standing at 85.6 million, is expected to touch 118 million by 2030. This urban population is faced with floods and droughts, mainly owing to improper solid waste management, dis-functioning and aging of drainage systems, and encroachments, merging into poor urban planning. The more recent environmental hazard has been the extremely low Air Quality Index in major cities because of smog.

The AF project has successfully demonstrated some strategies at local , district and national level to address some of these problems. However, there is lot more to be done in terms of bringing in regional and global proven strategies, expanding the scope of existing ones and engage more stakeholders for policy impact. The rooftop RWH needs to be coupled with water filtration and ground water recharge, the UC level community based urban planning needs to be institutionalized and replicated in other cities, the Multi-Hazard Risk & Vulnerability Assessment process need to be converted into a viable urban planning tool in mega cities, the urban strategy needs to be followed by Climate Resilient Urban Action Plans for mega cities, and the institutional capacity building needs are only some aspects where immediate response is required.

On rational grounds, the successes of the AF project need not to be ended with a halt. A logical follow-up may include a 3-years next phase with increased scope and volume or the development of a new full-fledge project with more partners and increased technical and geographical scope.

**3. Improvement in the effectiveness, efficiency and sustainability**

**a. Enhance local community engagement and ownership**

The partnership with Community Based Organizations (CBOs) and elected bodies of local representatives need to be strengthened to improve project transparency and beneficiary targeting. CBOs can be instrumental in mobilizing communities, facilitating communication, and ensuring fair selection, particularly of vulnerable households. These forums can also play a very effective role if monitoring committees are formed within each targeted Neighborhood or Union Council to oversee the installation, operation, and reporting of project interventions. Training these committees can encourage a sense of ownership and responsibility for project success. In addition, these forums can steer a process whereby the active engagement of women, youth, disabled and other marginalized groups will be ensured in decision-making processes at the community level. CBOs and local councils can help guarantee that these groups are fairly represented.

**b. Strengthen horizontal and vertical institutional coordination and capacities**

Establish regular coordination meetings involving UN-Habitat, WASA, TMA, PCRWR, NDMA, and Shehrsaz to synchronize efforts and share insights. Enhanced communication can help supporting each other and reduce bottlenecks. On the other hand, the engagement of Urban Policy Units) UPUs) at the provincial level in Punjab and Khyber Pakhtunkhwa can strengthen the provincial level integration to strengthen urban resilience strategies and establish a unified approach to climate-resilient planning. These UPUs can be the best place to take advantage of climate risk based spatial planning tools (MHRVAs). Vertically, the Public Health Engineering Department in Punjab, and the Local Government & Rural Development (LGRD) in Khyber-Pakhtunkhwa need to be looped in to have a policy impact of the innovations.

Imparting additional training on advanced techniques, such as climate-resilient spatial planning, groundwater recharge methods, and monitoring using GIS, will ensure that local and national institutions are well-prepared to manage and sustain project outcomes.

**c. Improve project implementation efficiency**

The approval and disbursement of project funds need to be streamlined. The fund transfers to Tehsil Municipal Administration (TMA) Nowshera and Ministry of Climate Change & Environmental Coordination (MoCC&EC) need to expedited by pre-authorizing budgets and standardizing fund request procedures. Ensuring quicker fund access will enable partners to complete their planned activities within set timelines.

On the other hand, partnership arrangements at the grassroots level with the CSO (Shehrsaz) require a longer but target oriented approach, going beyond the ad-hoc policy if the targets are to be achieved on time. This need to be coupled with regular and transparent monitoring and progress reporting. Conducting monthly project progress reviews with partners to track timelines and deliverables may be considered. Provide transparent updates on challenges, solutions, and timelines to all stakeholders to maintain alignment on project goals.

**d. Optimal use of resources**

The use of resource must also be optimized by reviewing the resource allocation to ensure that each component has sufficient funding. In some cases, where the rooftop rainwater harvesting is not much effective (e.g. in Nowshera where the annual rainfall is minimal), the option to relocate

funds for alternate water harvesting technologies may be considered. In both the project districts, local communities expressed a high demand for water filtration to make the water drinkable. Also, in case of RWH units installed in parks and public buildings where space availability is not an issue, the ground water recharge options may be added to the existing units. Similarly, if resource availability allows, the linking of stored water to normal water infrastructure (water supply pipes) in the households and in public buildings may be considered. This may require the addition of simple sand and gravel filtration system in the RWH units.

**e. Strengthen data collection, monitoring, and reporting**

A centralized project monitoring system may be developed by implementing a central data repository to store and analyze geo-referenced data on water harvesting installations, beneficiary demographics, and project progress. Such a system will support evidence-based decision-making and simplify tracking of long-term outcomes. The Shehrsaz is already using a geo-referenced system for monitoring, and the same may also be replicated by WASA and TMA.

The data for such a system will be generated by a participatory local monitoring system, empowering the local partners in their monitoring roles. The partners may be provided training on data collection and reporting, allowing them to play a more active role in monitoring. This will improve accuracy in reporting and foster transparency and accountability. This system may further be supplemented by incorporating feedback loops. Establishing a process for collecting and acting on feedback from beneficiaries obtained through regular satisfaction surveys and community forums can help identify unanticipated issues with system functionality or benefits.

**f. Expand capacity for water and waste management training**

For the community to solve the problems of water contamination and sanitation arrangements at local level, the training and awareness campaigns have already been conducted by the Shehrsaz. However, a step ahead is required to identify innovative residents or households and enable them to adopt waste and water management practices. This may include, for example, the provision of water filtration kits, kitchen gardening kits (tools and seeds), and organic waste composting (inputs). The innovative households or individuals may be linked to markets to earn income from their practices, and may be highlighted as 'Water Champions" by giving awards and certificates. This can be a best way to engage energetic youth in water harvesting, management and conservation.

**g. Scale-Up Gender and youth Inclusion, and support for vulnerable populations**

Urban climate risks, particularly in the water sector, may have more impact on women as compared to men, because of specific hygiene requirements and their household responsibilities for fetching water. In Rawalpindi and Nowshera, this can also be an opportunity for them to promote themselves as entrepreneurs in urban resilience. Increasing training opportunities for women in technical aspects of rainwater harvesting, water filtration, compost making, kitchen gardening and other innovative waste management can contribute in empowering urban women as entrepreneurs.

The youth can play vital role in bringing in change and sustain it for generations. Tailored programs for youth engagement can be designed youth, including school-based activities and local internships with TMA and WASA. Educating youth on climate resilience practices will cultivate a generation of informed advocates for urban resilience.

The RWH facilities provided in most of the households are accessible to people with disabilities. In few households, the units are installed on 1st floor which may not be accessible to people with limited mobility. This is very important that water harvesting systems and community facilities are accessible for people with disabilities. This might include designing installations that accommodate limited mobility and involving disabled groups in planning discussions.

**h. Promote replication and policy integration at the national level**

The National Urban Strategy Development may be accelerated by prompting the Ministry of Climate Change & Environmental Coordination to complete the national urban strategy for climate resilience. This strategy should include guidelines for water scarcity mitigation, flood management, and sustainable city planning, forming a model that other cities in Pakistan can replicate.

At the same time, there is a need to build a case for policy and funding support. The project successes may be used to advocate for budget allocation at the provincial and national levels to support urban resilience efforts beyond Rawalpindi and Nowshera. The UN-Habitat, MoCC&EC, WASA and TMA should present results in national forums to drive policy adjustments and attract additional funding.

One of the options may also be to engage private companies in the water and waste management sectors, particularly those with expertise in environmental solutions (e.g. water harvesting, waste management and recycling, sanitation, water filtration etc), to create a broader coalition around urban resilience. Collaboration with the private sector can bring in innovative solutions and co-financing opportunities for long-term sustainability.

**i. Establish a long-term plan for post-project sustainability**

Sustainability of the proven project strategies to address climate induced water scarcity in urban areas must be targeted through multi-pronged approach. One of the strategy could be to promote rainwater harvesting in building codes. Advocating with Urban Policy Units, MoCC&EC and TMAs for the integration of rainwater harvesting requirements in building codes, particularly for new construction in urban flood-prone areas can prove successful.

Sharing of lessons, best practices and challenges across different stakeholders can create visibility but also add to replication and scalability of the proven strategies. Annual forum for all project stakeholders, including community members, institutional partners, and local governments, may be organized to share lessons learned, discuss ongoing needs, and highlight achievements. This will reinforce community networks and encourage continuous improvement in resilience strategies.

The End

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# ANNEX-1: EVALUATION MATRIX

| Line of enquiry / Sub-questions | Indicators / Data points | Data sources | Data collection techniques |
|---|---|---|---|
| **To what extent is the project achieving its outputs and expected accomplishments?** | | | |
| Outcome 1.1.<br>Increased adaptive capacity within the water sector at community level – 38,885 people benefitting directly from rainwater harvesting facilities (7 people per household) and around 200,000 indirectly | Community adaptive capacity level increased through continuous water Availability during flood periods. | Beneficiaries | Visits to communities, formal and Informal discussions, photographs |
| Output 1.1<br>5000 community / household level flood resilient (i.e. elevated to not be affected by flood water) rainwater harvesting facilities constructed, using innovative techniques | No. of HHs with new RWH facilities Experiencing reduced impacts from poor water qualities resulting from floods. | Beneficiaries | Visits to communities, formal and Informal discussions, photographs |
| Outcome 1.2.<br>Strengthened awareness of flood and water risks and impacts and how to address these at community level and ownership of rainwater facilities built. | Government and community capacity Improved through plans, guidelines and Training. | Partners' office<br><br>Beneficiaries | Desk review of documents<br><br>Visits to communities, formal and Informal discussions, photographs |
| Output 1.2.<br>15 union / neighborhood council-level community plans developed (7 in Rawalpindi/8 in Nowshera), community members (especially women and youth) trained and have requisite knowledge and practical guide developed to plan, construct, operate, maintain and replicate water harvesting at community level, and to reduce | 15 plans developed, 300 community members, including 150 women, trained, and 1 set of guidelines developed (knowledge product) | Partners' offices<br>Beneficiaries | Review of documents<br><br>Visits to communities, formal and Informal discussions, photographs |

| | | | |
|---|---|---|---|
| waste in drainage channels through awareness raising campaigns | | | |
| Output 1.3<br>Awareness campaigns to increase knowledge in all target communities to reduce dumping of solid waste in drainage channels | Campaign materials produced | Partners offices, progress reports | Awareness materials produced |
| Outcome 2.1.<br>Increased adaptive capacity within the water sector at district / city level by identifying water management structures recommended on other critical interlinked structures through spatial planning | Capacity increased at the district/municipal level | Beneficiaries<br><br>Project partners | Site visits, training reports, engineer's reports |
| Output 2.1<br>50 district / city-level water harvesting facilities in public buildings and on water storages in public gardens constructed | No. Of public RWH facilities Constructed | Beneficiaries<br>Project Partners | Site visits, photographs and engineer's reports |
| Outcome 2.2.<br>Strengthened urban level government capacity to reduce climate change related flood and drought risks, also beyond city boundaries | Increased government decision-making capacity at the district/municipal level | Project Partners | Training reports, completed guidelines and plans |
| Output 2.2.<br>Two district / city-level spatial planning strategies developed considering climate change risks and impacts, especially floods and droughts, and including comprehensive water harvesting plans. These strategies are decision-making tools for cities to assess climate change related floods, droughts and water scarcity to plan for and manage climate change-related risks and impact in and beyond city boundaries, taking into consideration multiple sectors | No. of decision makers / govt. Review of literature staff with increased knowledge<br>through the two strategies. | Project office<br>Project partners | Published document, media release |

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| Output 2.3.<br>50 government officials, including 20 women trained and guidelines developed to plan, construct, operate, maintain and replicate flood resilient water harvesting facilities and to enhance capacity in developing spatial plans | No. of officials trained, disaggregated by gender, guidelines developed and Adopted | Project partners | Training documents and materials,<br>photos |
| Outcome 3.1.<br>Strengthened national level government capacity to reduce climate change related risks and impacts in urban areas | Increased government decision-making capacity at the national and provincial level | Project Partners | Training reports, strategies |
| Output 3.1.<br>100 government officials (with an equal number of men and women) trained to guide / direct urban development considering climate change and disaster risks and impacts, using especially spatial planning guidelines and tools. | No. of officials trained, disaggregated by gender | Project Partners | Training documents and materials,<br>photos |
| Output 3.2.<br>One National urban strategy focused on climate change / disaster risk reduction and with comprehensive gender mainstreaming developed One set of National guidelines for spatial planning considering climate change / disaster risks with comprehensive gender<br>mainstreaming developed | 1 strategy and 1 set of Guidelines | Project Partners<br>Project office (PMU) | Finalized documents |
| **To what extent have cross-cutting issues of gender equality, human rights, youth, environmental and social safeguards and youth consideration been integrated into the project design and implementation?** | | | |
| Does the project document/proposal define clearly the strategy for application of cross-cutting themes (gender equality, human rights, youth, environmental and social | Strategy for inclusion of cross-cutting themes in the project | Project document / proposal | Review of documents |

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| safeguards and youth, PWDs) across the project outcomes and outputs? | | | |
| Are the project teams at PMU and Implementing Partners aware of cross-cutting themes and related requirements in implementation, reporting and monitoring? | Level of awareness of staff at PMU and Partners | Staff at PMU and Partners offices | Meetings/interviews |
| Do the project progress reports present beneficiaries' data segregated by gender, youth, PWDs, elders)? | Segregated data | Project progress reports | Review of progress reports |
| Are there any outstanding examples of how these cross-cutting issues are being successfully applied in the project? | Examples in the field | Beneficiaries and partners<br>Reports<br>Case studies | Review of documents and Interviews of partners and beneficiaries |
| Are the project beneficiaries aware of the cross-cutting themes? To what extent are they satisfied with the equitable access to and sharing of project benefits gender groups, youth, PWDs? | Awareness and level of inclusivity | Beneficiaries | Field visit and meetings with beneficiaries |
| **What are the critical gaps with respect to the delivery of the project?** | | | |
| How far does the project design fits well in the existing institutional and policy structure at national and sub-national level? Does it ensures smooth delivery of the outputs and outcomes? | Appropriateness of the project design | Project document/proposal<br>Stakeholders | Review of documents<br>Interviews |
| Are the allocated resources in the project adequate to ensure smooth delivery of the deliverables 9outputs, outcomes)? Are there any gaps or need for revision? | Adequacy and flow of financial resources | Project document/proposal<br>Project finance person<br>Stakeholders | Review of documents<br>Meetings/Interviews |
| Does the project management structure and working arrangements (including the partnership structure) support smooth working environment and delivery of outputs | Supporting management structure and partnership modalities | Project document/proposal<br>PMU Staff<br>Stakeholders | Review of documents<br>Meetings/Interviews |

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| as per expected quality, quantity and timeliness? Are there any critical issues or gaps? | | | |
| Are there any other gaps in the project that may hamper the delivery of the project outcomes, outputs? | Gaps in project delivery | PMU Staff<br>Stakeholders | Review of documents<br>Meetings/Interviews |
| **What are lessons-learned and recommendations for adjustments and improvement?** | | | |
| Based on the identified gaps / areas needing improvement, what steps can be recommended to improve the effectiveness of the project? | Recommendations for effectiveness | PMU staff<br>Partners<br>Beneficiaries | Interviews / meetings<br>Field visits |
| From the project implementation so far, what are the lessons learnt, positive or negative, that need to be considered while making recommendations for improvement? | Lessons learnt | PMU staff<br>Partners<br>Beneficiaries<br>Case studies<br>Project reports | Interviews / meetings<br>Field visits<br>Review of documents |
| Are there any recommendations for major changes in the project design / timeframe / resources / management / partnerships / strategic focus? | Major changes | PMU staff<br>Partners<br>Beneficiaries | Interviews / meetings<br>Field visits |
| **Relevance** | | | |
| Does the project objectives, expected outcomes and outputs respond to the needs identified in national provincial policies (National Climate Change Policy, Nationally Determined Contributions, National Flood Protection Policy, National DRR Policy, National Environmental Policy, National Policy, National Sannitation Policy, provincial policies on these aspects in Punjab and KP)? | Degree of alignment between project objectives and national and provincial policies | Project document/Proposal, policy documents | Review of literature |
| To what extent was the project relevant to the requirements/needs of the beneficiaries | Degree of relevance | Baseline document<br>Needs assessment surveys | Review of literature<br>Interviews of beneficiaries |

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| (national/ sub-national governments/ vulnerable communities)? | | Govt policy documents<br>Beneficiaries | |
| To what extent was the implementation strategy responsive to the donor and UN-Habitat strategies, including SDG 11 and the New Urban Agenda (NUA)? | Degree of responsiveness | Project document/Proposal<br>UN-habitat strategies<br>SDG 11<br>NUA document | Review of literature |
| To what extent is UN-Habitat's comparative advantage in this work area compared with other UN entities and key partners? To what extent were identifying key stakeholders and target groups (including gender analysis and analysis of vulnerable groups) and institutional capacity issues relevant? | Relevance of UN-Habitat<br>Relevance of key stakeholders<br>Relevance of beneficiaries | Institutional profile of UN Habitat and other UN agencies<br>Institutional profiles of key stakeholders<br>Beneficiaries | Review of literature<br>Meetings |
| **Effectiveness** | | | |
| To what extent is the project on track to achieve its target results at the output and expected accomplishment levels? | Covered under question 1 | Covered under question 1 | Covered under question 1 |
| Which factors and processes (internal and external factors) contribute to achieving or not achieving the expected results? | Factors contributing to the failure or success of the project | Stakeholders and partners<br>beneficiaries<br>Progress reports<br>Risk Log | Interviews and Field visits<br>Review of literature |
| How appropriate and effective are institutional relationships with the main target groups in which the project operations are engaging? | Coordination and synergies among institutions | Communication strategy<br>Institutions<br>Reports | Review of literature<br>Interviews/meetings |
| To what extent has local capacity been strengthened so far through this programme? | Capacities of partners and beneficiaries | Partners<br>Beneficiaries<br>Reports | Review of Progress reports<br>Interviews of partners and beneficiaries |

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| To what extent are monitoring and reporting on the project implementation timely, meaningful and adequate? | Effectiveness of M&E system | M&E Strategy / framework / guidelines<br>Project document / proposal<br>Monitoring reports | Review of literature |
| How has COVID-19 affected the effectiveness of the project? | COVID-19 impact | PMU Team<br>Partners<br>Beneficiaries<br>reports | Review of literature<br>Interviews/meetings |
| To what extent is the project proving to be successful regarding ownership in relation to the local context and the needs of beneficiaries? | Ownership by beneficiaries and stakeholders<br><br>Adoption rate<br>Replication rate | Partners / stakeholders<br>Beneficiaries<br>Reports<br>Success stories | Review of literature<br>Interviews/meetings |
| **Efficiency** | | | |
| To what extent does the management structure of the project support efficient implementation? | Management structure and style | Project document/proposal<br>Organogram<br>PMU Team members<br>Partner staff members | Review of documents<br>Interviews |
| To what extent is the project being implemented efficiently in terms of delivering the expected results according to quality standards, in a timely manner according to budget and ensuring value for money? | Value for money | VFM strategy<br>Progress reports<br>Financial reports | Review of literature |
| What types of products and services were provided to beneficiaries through this project? | Project outputs | Beneficiaries<br>Progress reports | Field visits, interviews<br>Review of reports |
| To what extent is monitoring and reporting on the project transparent and satisfy key stakeholders? | Transparency | Complaint Redressal Mechanism<br>M&E Framework | Interviews<br>Reports review |

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| How did the COVID-19 pandemic affect the project implementation? | Impact of COVID-19 | Reports<br>Staff | Review of documents, interviews/meetings |
| **Sustainability** | | | |
| To what extent is capacity being developed to ensure the sustainability of the efforts and benefits? | Capacity of partners and beneficiaries | Reports<br>Participants/beneficiaries<br>Staff | Review of reports<br>Meeting/interviews |
| To what extent is the project engaging the participation of beneficiaries in implementation, monitoring, and reporting? | Level of participation | Project document<br>Reports<br>Participants/beneficiaries<br>Staff | Review of reports<br>Meeting/interviews |
| To what extent is the project fostering innovative partnerships with local institutions, authorities and other development partners? | Innovativeness | Agreements, MoUs | Review of documents |
| **Impact outlook** | | | |
| To what extent did the project attain its objective and anticipated impact on partners and targeted beneficiaries, whether stakeholders or cities? | Level of achieving the objectives | Project document<br>Reports Beneficiaries, partners | Review of documents<br>Field visits, interviews |
| What positive and/or transformative changes have occurred because of the project? | Theory of change | Project document<br>Reports<br>Beneficiaries, partners | Review of documents<br>Field visits, interviews |
| **Coherence / Complementarity** | | | |
| To what extent is the project coherent and implemented in synergy with other UN Habitat projects funded by the Adaptation fund? | Synergies and coordination with other UN-Habitat projects | Reports | Review of documents |
| Was the project coherent or complemented with partners' policies and other donors' interventions? | Synergies and coordination with other donors | Reports | Review of literature |
| How has the project used the lessons learned and recommendations from other evaluations | Result based management | Reports | Review of literature |

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| relating to enhancing climate change resilience, such as the mid-term evaluation of accelerating climate action? | | | |

# 7 ANNEX II: SURVEY / INTERVIEW QUESTIONNAIRE

## 7.1 FOR ORGANIZATIONS / DEPARTMENTS

1. Name of the department, jurisdiction (national / provincial), its mandate, organogram, relevance to the project objectives and national policies if any
2. Since how long have you been engaged in this project? What is your level of engagement?
3. Do you think the management and implementation setup of the project is appropriate? Do you propose any changes to increase effectiveness?
4. Please name any official policies relevant to the objectives of this project.
5. Do the project objectives, expected outcome and outputs fit well into the existing sectoral policies, strategies and priorities? Are the policies face frequent revisions and if yes, is the project relevant to new policies?
6. What is the level of acceptance of project results at management and stakeholders level? In your view, are the project outcomes being owned by national policy makers/stakeholders?
7. Do you think the project Theory of Change (Tock) is appropriate and do you observe any change being realized after implementation so far?
8. Are you aware of other partners engaged in this project and their roles and responsibilities?
9. What is the system for coordination with project office and other stakeholders? Do you propose any improvement?
10. Please let us know the staff engaged in this project and their competencies / qualification, management structure. Do you feel any need for their capacity building to better implement the project?
11. How far are you satisfied with the pace of implementation and progress of the project since its launch? Are there any gaps or bottlenecks? And do you propose any actions to fill the gaps? Will the project be completed on time?
12. Are you aware of any exit strategy after the project is over?
13. In your opinion how far are the project outcomes sustainable? What particular elements contribute to the sustainability and how this can further be improved?
14. Do you think the project, its activities and results are visible to beneficiaries, stakeholders, donors, planners, and policy makers? What else can be done to increase visibility?
15. Do you think the project strategy and management is flexible? Have there been any changes in the strategy or expected outputs over time? Have you proposed any changes so far and what was the response of the project management and donors?
16. Did you observe any unforeseen / unintended benefits?
17. What is your interface with ultimate beneficiaries of the project interventions? How frequent do you interact with them? What has been your mobilization strategy? Do you face any problems engaging them in the project decision making and implementation?
18. Do you see any barriers to effective project implementation? E.g. political, social, financial, security related, bureaucratic, or managerial?

19. What was the effect of the COVID-19 on progress and implementation?
20. Capacity building plan (how capacities of partners and beneficiaries strengthened? Any evidences of capacities built? Organizational and individual capacities?)
21. In your view what are the positive and negative impacts of the project on the social and economic status of target communities and the environment? Are there any social and environmental safeguards in place? Is there any SES strategy in place?
22. What is the level of participation by women, youth, People with Disabilities (PWDs) in the project? Is there any gender related safeguarding policies in place? Are the interventions gender inclusive?
23. What is the system of accountability and transparency for the project assets, resources, and benefits arising from project interventions?
24. Is there any project within this institution on the same objectives? If yes, who are donors and what are its objectives? Do you also have information on any other project on this issue with other stakeholders (government or pvt or NGOs)?
25. Programme management
    - What is the frequency of planning? who are engaged in planning? Do all staff members understand the purpose and planned activities? Do all have copies of project plans? Is the monitoring data used for planning?)
    - Aare the capacities, skills and knowledge of staff monitored? How are they offered opportunities? Hoe the Needs assessment conducted? How much resources allocated for staff capacities?
    - What is the style of management and supervision? How do you categorise it: directive, supporting, coaching, leading? Is there any system for rewards o otherwise?
    - Are there human resource management policies in place?
    - What is the level of transparency and accountability in financial management? Is there any financial management policy in place?
26. Knowledge and information management
    - Is there a way to measure progress towards targets?
    - How the data is generated, processed, stored, shared, reported
    - Is the data used to inform decision making within the project? And outside the project?
    - Frequency of data collection? Who is involved?
    - Case studies, success stories, lessons learnt?
    -

## 7.2 FOR BENEFICIARIES

1. Your name, gender, age, location? (location only if it is a group)
2. Your profession? Education?
3. Since how long have you been engaged in the project? Are you benefitting directly or indirectly?
4. How did you learn about the project? Do you understand the purpose and objective of the project? What are its activities? Who are the donors and who are implementing partners?
5. Are you associated with any local community organization or forum?

6. What are major environmental or climate related problems in your area? Do you understand which problems are being targeted by the project?
7. In your opinion, what benefits are arising from the project activities? Are the project benefits equitably shared among different community groups?
8. What is your level of satisfaction from the project progress?
9. Are the women folk also part of beneficiaries? How are they being engaged?
10. Do you think the disabled and marginalized persons have equal opportunities to benefit from the project activities?
11. Do you think the project activities directly address the environmental problems in your area? Were you engaged in the planning of the project or selecting interventions for your area?
12. Are the project management or Project Implementing Partners accessible to you? How frequently they visit the area?
13. Is there any Complaint Response Mechanism in this project? Have you any experience using this system? What was the result?
14. Do you think the project activities will continue after the project ends? Is there any system in place for maintenance of the sites after the project?
15. Do you think the beneficiaries will be capable to continue similar activities on their own without technical support from the project?
16. Are the inputs/raw material required for activities available locally?
17. Do people in the area have resources to continue on their own with the activities?
18. Do you propose any changes in the project approach to implementation?
19. Do you propose any changes to the project list of interventions, keeping in view the goal and objectives of the project?
20. How far are people adopting the project interventions on their own? Do you think people can adopt these activities without any technical or financial support from the project?

# 8 ANNEX III: ACTION PLAN

| Date | No. Days to work | Details of outputs | Main responsibilities | To be submitted to | Coordination point |
|---|---|---|---|---|---|
| 3-10 Oct | 5 | Submission of draft inception report including of the workplan and questionnaire | MTE Consultant | Project Manager, AF Project | M&E Officer UN-Habitat |
| 15-30 Oct | 10 | Conduction meetings with all IPs and conduct field visits | MTE Consultant | Project Manager, AF Project | M&E Officer UN-Habitat |
| 1-15 Nov | 5 | Preparation and Submission of draft MTE report | MTE Consultant | Project Manager. AF Project | M&E Officer UN-Habitat |
| 16-27 Nov | 5 | Submission of final report after incorporation inputs and comment UN-Habitat team | MTE Consultant | Project Manager. AF Project | M&E Officer UN-Habitat |
| Total | 25 | | | | |

# 9 ANNEX IV: MEETING AND FIELD VISIT PLAN (TENTATIVE)

| Date | Time | Implementing Partner (IP) | Meeting / visit | Team members |
|---|---|---|---|---|
| 02/10/2024 | 11:00 am | UN-Habitat | Introductory meeting with project team and discuss plan of work, receive documents and finalize methodology | MTE Consultant<br>PM AF Project<br>M&E Officer |
| 17/10/24 | 1. 11:30am<br><br>2. 2:00pm | PCRWR<br>and<br>NDMA | 2 separate Meetings (Islamabad) | MTE Consultant<br>PM AF Project<br>M&E Officer |
| 21/10/24 | 11:30am | WASA, Rawalpindi | Meeting with WASA Rawalpindi and visit of RWHUs in Rawalpindi | MTE Consultant<br>PM AF Project<br>M&E Officer<br>Representative of WASA |
| 24/10/24 | 10:30am to 2:30pm | Shehersaaz | Meeting with Shehersaaz and field visit of RWHUs installed by Shehersaaz in Rawalpindi | MTE Consultant<br>PM AF Project<br>M&E Officer,<br>Representative of Shehersaaz |
| 28/10/24 | 11:30am to 3:00pm | TMA Nowshera | Meeting with TMA Nowshera,<br>Meeting at Community center Shehesaaz and visit of RWHUs installed in Nowshera by Shehersaaz | MTE Consultant<br>PM AF Project<br>M&E Officer<br>Representative of Shehersaaz |
| 30/10/24 | 11:30 | MoCC&EC | Meeting with Officials of MoCC&EC, Islamabad | MTE Consultant<br>PM AF Project<br>M&E Officer |
| 05/11/2024 | 10 am | UN-Habitat | Meeting with Project team at UN-Habitat office to discuss findings of the visits | MTE Consultant<br>PM AF Project<br>M&E Officer |

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| | | | and meetings or issues if any | |