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Project Name: Recharge Pakistan-Building Pakistan's Resilience to Climate Change through	Date: December 20,
Ecosystem-Based Adaptation for Integrated Flood Risk Management	2021

Executing Agency/ies:

- 1. World Wide Fund for Nature Pakistan (WWF-Pakistan)
- 2. Federal Flood Commission (FFC), Ministry of Water Resources (MoWR), Government of Pakistan
- 3. Ministry of Climate Change (MoCC), Government of Pakistan

Landscape Categorization on E&S Risks:

High Risk - (A) ___and/or (Special Consideration) _X__ /Medium Risk (B) ___ / Low Risk (C)___

Substantive Safeguard Standards Triggered:	Yes/ TBC	No
Natural Habitats	X	
Pest Management	X	
Indigenous Peoples	X	
Restriction of Access & Resettlement	X	
Community Health, Safety and Security	X	
Physical and Cultural Resources	X	

In addition to the Substantive Safeguards above, the four Process Standards apply to all projects:

- Environmental and Social Risk Management
- Consultation and Disclosure
- Community Stakeholder Engagement
- Grievance Mechanism

Landscapes categorized as low risk have been screened in accordance to the Standard on E&S Risk Management.

Project Area Context

The main drivers and threats behind environmental change and biodiversity loss is increasing temperatures due to climate change, leading to erratic rainfalls leading to unpredictable and flashfloods. Pakistan is ranked as the 8th most affected country in the world on Germanwatch's Long-Term Climate Risk Index (2000-2019), with losses from recent disasters amounting to USD 3.8 billion in Purchasing Power Parity terms (Eckstein et al., 2018). In addition, Pakistan is one of the most water-stressed countries of the world, with average per capita water availability of 964 m3 per annum (Government of Pakistan, 2014). Moreover, studies indicate that Pakistan will reach 'absolute scarcity' water levels by 2025 (Government of Pakistan, 2018) due to depleting ground-water resources, thereby adding to climate change induced vulnerabilities of millions of poor people affected by lack of water, food and energy security

The six project sites are scattered along a 1300km stretch of the Indus River from the Tarbela Dam to Kotri Barrage and include a mix of upstream (watersheds and hill torrents) and downstream (wetlands and floodplains) sites. The Indus River is Pakistan's lifeline, and is now experiencing catastrophic floods and droughts exacerbated by climate change. Pakistan relies on costly hard-infrastructure flood and water management measures with limited efficacy. Through this

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project the WWF-Pakistan will build Pakistan's climate resilience and water security through cost-effective ecosystem-based adaptation interventions. The project has three specific components:

Component 1: Ecosystem-Based Adaptation for Integrated Flood Risk Management: Floodwater and hill torrent management improved, through ecosystem-based adaptation at selected sites across the Indus Basin

Component 2: Enhancing Resilience of Vulnerable Communities to Climate Change: Adaptive capacity of communities vulnerable to flood risks is strengthened

Component 3: Enabling a Paradigm Shift towards Ecosystem-Based Adaptation in Pakistan: Regulatory framework is in place for integrated flood risk and water resource management

Summary of Key Safeguard Issues

Natural Habitats

Overall, activities of the Project will produce significant conservation and climate adaptation benefits, but this Standard has been triggered because some of the activities proposed in the pre-feasibility could have an impact on biodiversity and the integrity of terrestrial or aquatic ecosystems if adequate mitigation measures are not in place. In particular, there are four proposed activities that are of particular concern, and will require strong safeguard measures to be in place to ensure no lasting damage to natural habitats or the people that rely on them occur. These potential activities include:

- The proposed **dredging** to clean Lake Manchar of sediment, which could lead to large disturbances to the lake and temporarily increased suspended sediment concentrations which could lead to disturbance of aquatic life.
- **Re-vegetation**, proposed for almost all sites except for Chotiari. Some of the issues identified with this activity is loss of agricultural land, and in some cases an increased flooding extent upstream of the planted vegetation due to larger backwater effects. Additionally, in hill torrent sites, increased infiltration of water may lead to a reduction of available water downstream which could also have an impact on the ecosystem now dependent on a consistent flow of water flowing downstream.
- The **construction of retention and rain ponds**, proposed to be implemented in DI Khan and Kaha could lead to the removal of vegetation, and change in land use which could have a potential impact on the biodiversity dependent on the land converted to construct the ponds.
- **Terracing**, proposed to be implemented in DI and Chakar Lehri, both hill torrents, could potentially lead to habitat conversion and soil degradation. Moreover, terracing large areas can affect the hydrological cycle and thereby limit the water availability downstream. In addition, poorly designed and/or poorly maintained terraces can increase erosion. If the terrace has a high inclination this could create gullies with focused runoff, ponding of water and overtopping, leading to damaged terraces.

Pest Management

This Standard has been triggered out of an abundance of caution, and due the fact that not all project activities have been determined yet. The project includes interventions such as riverine afforestation, afforestation in general (re-vegetation), nursery raising, change in agricultural practices (land use management with a focus on growing alternative crops, and changing cropping methods, reduced capacity for certain popular crops). Even though the project does not directly promote the procurement and use of pesticides, there could be possibility that the interventions outlined above could lead to the procurement and use of pesticides. Due to these activities, a Pest Management Plan will be prepared as part of the ESMF to conform to WWF's Environment and Social Safeguards Framework.

Indigenous Peoples

While recognizing that Pakistan does not legally recognize any indigenous peoples, using the GCF definitions and self-identification, several indigenous peoples live in two of the project sites, and therefore this Standard has been triggered. In Chakar Lehri (Bakhtiarabad), the Watersprint consultant team identified the presence of the Bagri community, and a number of other tribes who they believe live in isolation. More information is needed here, especially related to the communities living in isolation, and will be gathered when the ESS consultants are hired (January 2022).

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In Manchar (Dadu), the Mohana tribe who are a fishing community also known as the "Bird People" or "Lords of the Sea", are descendants of the first inhabitants of the Indus valley, (and which can be traced back 5000 years). The remains of the original settlement can be seen at the archeological site of Mohenjo-daro which once stood on the banks of the Indus. Here a tiny Mohana community still lives in one of the last remaining floating villages on Lake Manchar. As the specific activities and locations of the project's activities are not yet defined, an Indigenous Peoples Planning Framework will be prepared as part of the ESMF to conform to WWF's Environment and Social Safeguards Framework.

Restriction of Access & Resettlement

There will be no involuntary resettlement of individuals and/or families under the proposed project. This standard is triggered because there may be some small areas of land acquisition which are to be determined. The project may also affect some peoples in the Manchar (Dadu) project area. As per the project activities identified in the pre-feasibility, certain interventions, specifically those pertaining to cleaning up the lake, could lead to changes in tenure arrangements, community-based property rights or customary rights to land, territories, and or resources, ban on hunting / fishing tools / methods or equipment for harvesting, and temporary closure of areas. The consultant notes that currently, in order to improve lake quality and fish quantity, temporary restrictions are imposed by communities themselves on hunting, fish catch, and use of improper size nets. As the specific activities and locations of the project's activities are not yet defined, a Process Framework will be prepared as part of the ESMF to conform to WWF's Environment and Social Safeguards Framework.

Community Health, Safety and Security

This Standard is triggered for two different reasons, the first directly project-related and the second more closely tied to the country context. The first is directly tied to the project, and is due to potential activities involving small-scale construction of rock weirs, lake dredging and removal of riverbed obstructions. Additionally, some potential activities could lead to reduced access to water for irrigation purposes, especially for communities living downstream, which could lead to reduction in crop yields, such as Kaha, Chakar Lehri, and even Di Khan. Dredging activities in Manchar Lake could harm the aquatic biodiversity in the lake, affect water turbidity, and water table levels, which could resultantly impact the health of the fish species and its quantity, thereby leading to a potential reduction in fish catch. These two activities could affect food security. The lowering of the water level in the Chotiari reservoir could also lead to a reduction in water for irrigation purposes for agricultural activities, and again could see reduced crop yields.

The second reason this standard is triggered is related closely to the political, social and security context in Pakistan, though it is different in each project site. In project sites such as Manchar Lake (Dadu), Chotiari Reservoir, Haleji, and Hadero, all situated in Sindh, the security situation is relatively stable and law and order is not an issue. However, in project sites such as Kaha and Chakkar Lehri, situated in Balochistan (and partially in Punjab), the security situation is a bit more complex. Balochistan is the most underdeveloped region/province in Pakistan, despite being the largest by size, and has seen separatist movements and infighting between tribes, and between Pakistani law enforcement agencies and separatist movement, such as the Balochistan Liberation Army (BLA). The communities that reside in Balochistan mistrust the Pakistani Military and the Pakistani Government, hence access to certain sites in Balochistan is difficult, if not dangerous. DI Khan, which is situated in the province of Khyber Pakhtunkhwa, sees sporadic incidents of violence and attacks, often carried out and claimed by terrorist groups, such as offshoots of the Tehreek-e-Taliban Pakistan. There is a concern that the situation in Afghanistan may embolden terrorist factions in Pakistan.

The proposed activities may not lead to any increase in violence, however a better assessment can be made once the relevant sites and activities are finalized. The ESMF will include guidance on labor and working conditions and because of the conflict context where this project will work, an analysis of how these conflicts overlay with the Recharge project activities is necessary to understand impact of project on these conflicts and vice versa. This analysis and any resulting mitigation measures will be included in the ESMF.

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Physical and Cultural Resources

This Standard is triggered for two reasons, the first needing more information but the second site at Lake Manchar triggering the standard with current information. At the first project area in Di Khan, there are historical structures built on the Luni and Gomal river diversion point near to Kot Azam, that were completely damaged during 2010 super floods. More information is needed as to the extent of the damage and whether they continue to hold cultural significance regardless of the damage.

The second site in the Manchar-Hamal Watershed, Lake Manchar, is also an important historical area. It is home to several archeological sites, and there are likely intangible cultural resources for the Mohana people. These people have been here, co-existing with the lake for 5000 years and have innumerable tangible and intangible cultural ties to the lake. As the specific activities and locations of the project's activities are not yet defined, a Physical and Cultural Resources Framework will be prepared as part of the ESMF to conform to WWF's Environment and Social Safeguards Framework.

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Summary of Cross Cutting Issues; (Human Rights, Gender Equality and Women's Rights, Children's Rights, Conflict Sensitivity and Climate Change).

All of these cross-cutting issues may be seen in the project sites, and will require special consideration in the ESMF.

<u>Human Rights:</u> The human rights situation is different in each project site. In project sites such as Manchar Lake (Dadu), Chotiari Reservoir, Haleji, and Hadero, all situated in Sindh, other than lack of access to basic services such as health, education, clean water etc, the situation is relatively stable and law and order is not an issue.

However, in project sites such as Kaha and Chakkar Lehri, situated in Balochistan, major human rights issues do exist. These include forced disappearances of individuals who are allegedly overly critical of the government, the military, or who have alleged ties with the Balochistan Liberation Army (BLA) (an ethnonationalist militant organization fighting against the Pakistani government for greater regional autonomy/self-determination of Balochistan.) Extra-judicial killing of those allegedly gone missing is also common. Balochistan is the most underdeveloped region / province in Pakistan, despite being the largest by size, and has seen separatist movements and infighting between tribes, and between Pakistani law enforcement agencies and separatist movement, such as the Balochistan Liberation Army (BLA). The communities that reside in Balochistan mistrust the Pakistani Military and the Pakistani Government, hence access to certain sites in Balochistan is difficult, if not dangerous which could lead to delay in the implementation of project activities.

DI Khan, which is situated in the province of Khyber Pakhtunkhwa, sees sporadic incidents of violence and attacks, often carried out and claimed by terrorist groups, such as offshoots of the Tehreek-e-Taliban Pakistan. There is a concern that the situation in Afghanistan may embolden terrorist factions in Pakistan

Gender Equality and Women's Rights: A Gender Assessment and Gender Action Plan will be required for this project. Gender inequality exists across the entire country, and although there are some site-level exceptions, women are generally excluded from community decision-making and some communities are highly segregated by gender. More information will also need to be gathered about the specific gendered uses of water resources, as that is currently lacking.

<u>Children's Rights:</u> There are significant issues in some of the communities in the Kaha region like access to education and health facilities. According to the initial assessment of Kaha some of the communities don't have any school for boys and girls, and in some communities, there is no separate school for girls. So, girls have to study in boys schools, and as a result, parents don't allow their daughters to study at all, as it would mean putting them in boys' schools or study from males teachers. Additionally, there is no access to formal education or schooling in Kaha (and potentially other areas), most children work for their families or receive training in family led businesses or occupations so that they can take over when they grow older. The project will have to ensure that child labor is not inadvertently condoned or used during the project activities.

<u>Conflict Sensitivity:</u> Because of the conflict context mentioned above in the Human Rights section, an analysis of how these conflicts overlay with the Recharge project activities is necessary to understand impact of project on these conflicts and vice versa. Moreover, in the hill torrent project sites some of the proposed activities could affect downstream communities, leading to conflict between communities as a result of project activities. Additionally, access to project benefits, especially those related to livelihood interventions, could also potentially lead to conflict. This analysis and any resulting mitigation measures will be included in the ESMF.

<u>Climate Change:</u> This project is aimed at addressing the impacts of climate change, namely extreme flooding in some parts of the year and lack of reliable water in others as well as salinification of water systems and lake desertification. Because all of these risks exist in the project area, they could pose threats to project implementation despite the fact the project is meant to reduce them over the course of the 10 year project cycle.

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Required Actions for Impact Assessment (ESIA) and Mitigation Framework (ESMF):

An Environmental and Social Impact Assessment will be required for this project, in order to create an effective Environmental and Social Management Framework. The ESMF will also include an Indigenous Peoples Planning Framework, a Process Framework, A Physical and Cultural Resources Planning Framework, a Pest Management Plan and guidance on labor and working conditions.

Because of the conflict context where this project takes place, an analysis of how these conflicts overlay with the Recharge project activities is necessary to understand impact of project on these conflicts and vice versa. This analysis and any resulting mitigation measures will be included in the ESMF.

Additionally, a Grievance Redress Mechanism, Gender Assessment and Gender Action Plan will be submitted with the Funding Proposal.

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