



# Appraisal Environmental and Social Review Summary

## Appraisal Stage

### **(ESRS Appraisal Stage)**

Date Prepared/Updated: 07/13/2020 | Report No: ESRSA00961



**BASIC INFORMATION**

**A. Basic Project Data**

Country	Region	Project ID	Parent Project ID (if any)
Pakistan	SOUTH ASIA	P174314	
Project Name	Locust Emergency and Food Security Project		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Agriculture and Food	Investment Project Financing	6/30/2020	7/31/2020
Borrower(s)	Implementing Agency(ies)		
Islamic Republic of Pakistan	Agricultural, Supply & Prices Department, Govt. of Sindh, Ministry of National Food Security and Research, Agriculture Department, Govt. of the Punjab, Department of Agriculture, Govt. of Khyber Pakhtunkhwa, Agriculture and Cooperatives Department, Govt of Balochistan		

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**Proposed Development Objective**

To control the locust outbreak, restore livelihoods in locust-affected areas, and strengthen Pakistan’s national food security monitoring and management system.

Financing (in USD Million)	Amount
<b>Total Project Cost</b>	<b>200.00</b>

**B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?**

Yes



### **C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]**

The project development objective is to control the locust outbreak, restore livelihoods in locust-affected areas, and strengthen Pakistan's national food security monitoring and management system. The total project cost is approximately US\$ 200 million, of which US\$125 million is financed from regional IDA. This would be the Bank's first agriculture project in Pakistan to work directly with the federal level government agency (Ministry of National Food Security and Research) since 2010 when the 18th amendment to the constitution devolved agriculture and rural affairs to provinces.

The Project has four components. Activities will be implemented at the federal and provincial levels, based on the nature of issues, as well as comparative advantages of corresponding administrative levels. The Project will be implemented for three (3) years.

**Component 1: Surveillance and Control Measures.** The component objective is to limit the growth and spread of current desert locust populations, while mitigating the risks associated with control measures and their impacts on human health and the environment.

**Component 2: Livelihood Protection and Rehabilitation.** Component 2 aims to provide a robust protection scheme that ensures immediate relief to affected farmers and livestock owners and reduce internal and cross-border migration of laborers and farmers in search of livelihoods and food security.

**Component 3: Early Warning Preparedness and Food Security.** The component 3 objective is to i) strengthen national capacity for early warning and early response, linking these efforts to regional (international) and provincial (domestic) existing locust surveillance and control networks; and ii) strengthen the capacity of MNFSR by strengthening the Food Security and Nutrition Information System (FSNIS).

**Component 4: Project Management, Monitoring and Evaluation.** The component objective is to: i) support the Project Management Unit's (PMU) capacity to ensure high quality project implementation; ii) monitor progress towards achievement of the PDO and provide timely feedback.

### **D. Environmental and Social Overview**

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

The project will be implemented across Pakistan, with a focus on provinces and districts under acute locust attack. Overall, 38% of the country's geographic area is breeding/recession area for desert locust, while the rest of the country is at risk of invasion. As of 1st June 2020, NDMA Situation Report on Anti-Locust Operations, 11 districts of Balochistan, 14 districts of KP, 13 districts of Punjab and 8 districts of Sindh have been declared prone to locusts. As expected, these districts are located within or at the peripheries of deserts, Kharan in Balochistan, Thal and Cholistan in Punjab, and Tharparker and Acharr Thar in Sindh, and arid areas of Indus around South KP. Over the years, most of these districts have transformed fertile desert areas into agricultural land, with crops grown at least twice a year, in addition to horticulture. The identified areas are ecologically significant with presence of mammals, birds, reptiles, etc., and are host to protected areas of various categories (including game reserves, wildlife sanctuaries, and national



parks). The temperatures are extremely high in the summers and can get relatively cold in winters. These districts range from arid to semi-arid, largely plains with some hilly areas (those in Balochistan and KP). River Indus is the main water source either in shape of surface water supply for irrigation or replenishing the aquifers. Where the Indus is not the main river, the districts have rivers (such as Kabul), rivulets and nullahs which are tributaries to Indus. Some part of Balochistan is situated in the Dasht River Basin. There are more than 300 protected areas in Pakistan out of which 50 protected areas are in Sindh Province, 27 in Balochistan and 104 in KP. Since locust attack has affected number of districts in these provinces, it is difficult to assess the indirect environmental hazards that may occur to these ecologically sensitive areas in various provinces. Though, the ongoing ground and aerial sprays for locust is mostly carried out in agricultural land/areas, the impacts on non-target ecological habitat, protected areas and water bodies is not known at this stage.

These districts are densely populated, with agriculture and livestock based agrarian economies. The areas are known for their cotton, sugar cane and fruit, in addition to other crops. Livestock husbandry is also a major source of income (especially in Balochistan) with high milk and meat productions. In all areas, livestock is either stall fed, where feed is grown as crops or grazed on local vegetation (especially in Balochistan and South KP). Despite these facts, the HDI across these districts is comparatively lower than the urban, bigger cities of the provinces. This is because these are largely desert like, arid areas, where agricultural productivity is lower as compared to irrigated areas across Pakistan. Landholdings are small to medium, with majority of farms being tended by sharecroppers, and landless laborers. Given that the project plans to invest into the government's locust response, which includes aerial and ground based spraying of pesticides in the locust infested areas, the risk of pollution of water bodies, soil, and human and animal health in general, is high. Conventional pesticides like Melathion and Lambda are being used by the government, at ultra-low volumes (which means more pesticide, less solvent), which can increase their toxicity level. So far 30,000 Hectares in Sindh, 281,000 Hectares in Balochistan, 41,000 Hectares in KP, and 149,000 Hectares in Punjab has been treated with aerial and ground sprays of pesticides. Also, small to medium farmers have either lost their crops due to locust attacks or are at the verge of losing the same. Losing crops is not only detrimental to their agricultural income, but also leads to less food availability for livestock. Since the resources are, and will be scarce, there is a chance that smaller, remote villages may get excluded due to lack of access and/or mobilizing enough voice for the provincial agricultural departments to respond. In addition, in such operations, chances of grievances are high due to exposure of water bodies, humans, livestock etc. to pesticides, exclusion and lack of response on spray requests, etc. Project components on environmental and human health risk reduction and management, and ones on livelihood support will mitigate these risks.

#### D. 2. Borrower's Institutional Capacity

Federal Ministry of National Food Security and Research (MNFSR, thereafter) will take overall coordination role of the project implementation. Project management structure is designed in a way that MNFSR has been made responsible for project implementation through the support of provincial governments, Department of Plant Protection (DPP- subsidiary of MNFSR), Food and Agriculture Organization (FAO), National Locust Control Center (NLCC) and National Disaster Management Authority (NDMA) taking into account the comparative advantages of each of the organizations.

A Project Management Unit (PMU) will be set up in the MNFSR. The role of PMU will be overall project management and implementation, providing leadership to locust management and coordination with all implementing partners, M&E, financial management, procurement, leading demand aggregation and associated logistics management to the implementing partners on the advice of the Project Steering Committee (PSC).



In addition, Provincial Agriculture departments will lead the implementation by setting up of Provincial Project Implementation Units (PPIUs). Farm level operations will be carried out in the districts through district administration who will lead control operations with the support of Agriculture Department and Disaster Management Units/Provincial Disaster Management Authorities (PDMA), whatever suits to each province. Main role of provincial governments would be implementation of the project in the province, coordination with all project partners, locust monitoring in the province, delivery of control operations in identified areas, support to crop reporting services, livelihood and rehabilitation support to affected farmers.

MNFSR has not worked with WB but has worked with other international agencies such as FAO, DFID, etc. FAO is actively engaged with MNFSR for the current locust response, and has jointly conducted awareness trainings in number of districts in Pakistan with farming communities and private sector including pesticides companies about the need for rational and judicious use of pesticides for locust response, and adoption of safe techniques in their handling, application and disposal. Agricultural Pesticides Ordinance 1971 and Pakistan Agricultural Pesticides Rules 1973 were enacted by the Government to regulate the import, manufacturer, formulation, sale, distribution and use of Pesticides. In addition, Pakistan is also signatory to international conventions (such as the Rotterdam Convention) on use of pesticides and hazardous chemicals, whose guidelines were adhered to, while planning the locust response. Government in National Action Plan for Surveillance and Control of Desert Locust in Pakistan (NAP-DL-Pak), has developed SOPs on the identification and use of pesticides as per FAO recommendations. The Ministry has adopted FAO Desert Locust Guidelines, which are aligned with GIIP in managing the environment, health and safety risks for this operation. Pesticides are not allowed to be handled by persons not having prior approval of their activities from the government. The license for dealership/vending is issued only to a person who has been duly trained in safe storage, transportation and use of pesticides. As such, basic frameworks for pollution control due to pesticide sprays are in place.

Client’s knowledge of E&S management systems in general are adequate, but not specifically with WB safeguards OPs or ESF. They will require capacity support in the form of an Environmental and Social Management Unit, to be set up within the PMU. The Unit will be staffed with at least one Environment Specialist, one Pest Management Specialist, one Social Specialist, and one Gender Specialist. These specialists will be hired within 90 days after project effectiveness.

Provincial agricultural departments of Sindh, KP and Punjab have some E&S management skills as there are WB financed projects in agriculture under implementation. However, all these projects were designed under the Safeguards OP regime, so they are unfamiliar with requirements specific to ESF. All Provincial PIUs for LEAFS will mirror the federal arrangement, i.e. set up ESMUs within the PPIUs (with the same number of experts as mentioned above), and ensure all contractors/delivery agencies have the required staff to implement plans and procedures, as developed for multiple relevant ESS under ESF.

A preliminary SEP has been developed by the MNFSR with the help of an independent consultant, given the COVID 19 pandemic and the emergency nature of the project. Detailed consultations could not be held due to social distancing protocols, COVID restrictions and multiple stakeholders’ preoccupation with the national and local level locust emergency response.

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## II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

### A. Environmental and Social Risk Classification (ESRC)

High



**Environmental Risk Rating**

High

Locust response has been ongoing since June 2019, by the DPP and various provincial governments. Multiple pesticides were used to spray over large areas, using various methods. As of now, the pollution load and its resulting cumulative impacts are not known. Given the project, locust control activities under Component-1 including ground and aerial spraying across country at large scale can exacerbate the potential impacts on environment and human health. The use of inappropriate pesticides and formulations, inappropriate spray methods, and/or unnecessary long exposure and large quantities during pesticide handling, transportation, storage, disposal and spraying operations activities under component 1 can have detrimental impacts on human health. DPP staff and workers (including the ones from the communities) involved in these operations are under greater risk but resident rural populations including farmers, children and women particularly pregnant mothers living in treated areas can also be exposed to pesticides and are at a higher risk. Unsafe use of pesticides can result in number of undesirable environmental impacts which may include pollution of water bodies, impacts on natural protected area, deterioration of air and soil quality, damage to non-target crops and other vegetation, and can be toxic for birds’ animals and aquatic species. This may lead to negative impacts on ecosystem services. However, the component also aims to mitigate the risks associated with control measures and their impacts on human health and the environment. The component will improve pesticide management and upgrade infrastructure for safe storage, including disposal of obsolete pesticides and pesticide containers. Also considering the fact that, these pesticides sprays are ongoing from past couple of months without delimitation and characterization of sensitive areas, water bodies and other critical habitat and multiple times of pesticides spray in same area may occur during project implementation and even before, the cumulative and residual environmental impacts of the project could be significant and irreversible. The health and safety risks of COVID-19 exposure during project activities and implementation also exist. The borrower has limited past experience in working with WB and their technical capacity to manage environmental risks will need substantial improvement through capacity support from this project. Considering all above factors, the environmental risk classification of the project is rated as “High”.

**Social Risk Rating**

High

Social risks associated with the project are also High, primarily due to community health and safety, cumulative impacts of pollution load and livelihood loss, elite capture and social exclusion in livelihood assistance, and recovery and resilience components, and issues related to possible encroachers/land acquisition for locust surveillance outposts.

So far, the extent to which small to medium farmers have either lost their crops due to locust attacks, or are at the verge of losing them, is not known. Losing crops is not only detrimental to their agricultural income, but also leads to lesser food availability for livestock, which effectively means lesser means for livelihood, food security and disposable income to be spent on health costs and other basic needs. Such shocks can render them asset less, pushing them down the poverty ladder, at least in the medium term. Component 2 on Livelihood Protection and Rehabilitation, specifically Sub Component 2.1 Cash based assistance for temporary employment generation and food security, targeting the landless, agricultural labor; and Sub Component 2.2 Livelihood restoration and early recovery targeting locust affected farmers will mitigate and respond to these risks. Impacts on soil, air and water bodies from large scale pollution are also expected but the scale is unknown at this stage. Polluted lands tends to have lower crop productivity and soil fertility (since pesticides kill all types of insects including the ones beneficial to crops and microorganisms can be eliminated). This can lead to severe damage to the communities that depend on that land in the medium term and long term. In addition, community health and safety risks are attributed to exposure of

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community residents, farmers, and pastoralists to pesticides. Higher level of ingestions by humans (especially pregnant women, children, those with respiratory illnesses, elderly, etc.) can be detrimental to health. So far, farmers and community workers have been involved in locust response by the Government in many areas but without adequate safeguard measures in place. Also, in many rural areas, communities use open wells, water ponds, etc. for household purposes, including drinking water. These water bodies can get polluted in the areas where intensive spraying of pesticides is conducted. In areas using subsurface water for drinking using hand pumps, contamination risks maybe higher. Risks of sexual exploitation and abuse and gender-based violence are possible due to deployment of external personnel, including agricultural extension workers, contractors, etc. In addition, due to limited resources, there is a chance that smaller, remote villages may get excluded from locust control and surveillance activities, and from livelihood protection and rehabilitation, due to lack of access and/or mobilizing enough voice for the provincial agricultural departments to respond. Such a situation can lead to communal unrest, protests and widespread grievances. Also, rehabilitation and construction of locust surveillance outposts is planned which may include managing illegal encroachments, if any, associated with existing government owned outposts, and/or on new sites, including land acquisition where necessary. Given these factors, social risk is classified as High.

## **B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered**

### **B.1. General Assessment**

#### **ESS1 Assessment and Management of Environmental and Social Risks and Impacts**

##### ***Overview of the relevance of the Standard for the Project:***

ESS1 is relevant. Locust response has been ongoing since June 2019 by the DPP and various provincial governments. Multiple pesticides were used by the Government to spray over large areas, using various methods. As of now, the pollution load and its resulting impacts are not known. The locust control measures under Component-1 through ground and aerial spraying may exacerbate potential environmental and human health risks. As stated earlier, so far a 5,000 square kilometer area has been treated via ground based and aerial means using pesticides. NDMA is reported to have almost 475,000 litres of Malathion which will be sprayed across the locust infested areas. Such large-scale spraying has consequences on environmental and human health, especially when the treatment conducted on an emergency basis, which typically falls short on protective procedures and SOPs. At risk are farmers and their families, workers in the field, laborers, livestock, wildlife, water bodies, etc. So even in the absence of this project, there is already substantial pollution across these areas. The risk associated with selection of adequate quality and quantities of pesticides, their storage, handling and management and disposal of empty containers is also present. As mentioned earlier, Component 1 on Locust Surveillance and Control Measures will aim to limit the growth and spread of current desert locust populations, while mitigating the risks associated with control measures and their impacts on human health and the environment. Specifically, Sub Component 1.3 on Risk Reduction and Management focuses on environmental and human health risks associated with locust control, which will be monitored to inform implementation of health, environmental and safety measures and to reduce risks to an acceptable minimum. For effective ESS1 response, LEAFS project components can be divided into two categories, urgent response actions in stage one, and recovery and resilience actions in stage two. Component 1 on Surveillance and Control Measures, and Sub-Component 2.1 Cash-based assistance for temporary employment creation and food security, would fall under the urgent response actions, for which relevant ESS1 instruments will be prepared within 45 days of project effectiveness. Sub-Component 2.2 Livelihood Restoration and Early Recovery, Sub-Component 2.3 Strengthening





Resilience and Promoting Agricultural Transformation, and Component 3 Early Warning Preparedness and Food Security can be considered as project activities for recovery and resilience, for which, ESS1 instruments will be prepared within 90 days of project effectiveness, prior to initiation of any works under the same.

The social and environmental risk management for the project will rely on: (i) assessing the damage done so far due to ongoing locust response conducted as part of E & S assessment under ESS1, (ii) identification of safe to use pesticides for the immediate term, biopesticides and biological pest control methods for medium to long term, (iii) protocols for safe pesticide use and management, in line with international good practices, national guidelines, FAO recommendations and World Bank Environment and Social Standards, (iv) social assessment of targeted areas, to identify vulnerable groups within the remote and historically underserved areas (especially in Balochistan), evaluate chances of elite capture in cash-for-work programs, and assess targeting criteria in livelihood support components, (v) evaluate local community capacities to be a part of locust surveillance, response and information generation and dissemination, (vi) understand community concerns about the potential benefits and risks, pesticide use, storage, and disposal; (vii) propose effective GRM to address grievances related to locust response, compensations, and any other unforeseen adverse impacts identified by the communities, and (viii) survivor-centered management of GBV risks, (ix) compounding impacts of ongoing COVID-19 pandemic; and (x) capacity of implementing entities in managing environmental and social risks and impacts.

Component-2 mainly consists of small-scale rehabilitation activities to create temporary employment and livelihood support/restoration activities, and are not expected to have any significant environmental impacts. The cash-based assistance primarily aims to enable vulnerable, landless agricultural labor, and affected farming households in meeting their basic needs. Specifically, the cash for work (CfW) will provide temporary income support to poor and resource deficient households by engaging them in unskilled work. The project will also assist vulnerable farming households (e.g., women-headed households, elderly, disabled) with activities, such as land preparation, planting, post-harvest handling, kitchen gardening, and training to enhance their livelihoods and production capacity.

Additionally, livelihood protection and early recovery support to locust affected farmers will ensure farmers access to quality inputs or necessary cash to purchase the inputs, without resorting to negative coping strategies to meet their crop production needs. Priority will be given to smallholder farmers and female-headed households. The eligibility criteria for smallholders will depend upon the geographical context and the agriculture system of the cropped area. Social risks associated to this may include those related to elite capture and possible social exclusion of marginalized populations from cash-based assistance, livelihood restoration and recovery sub-components; agricultural transformation activities may lead to introduction of newer farming techniques, which may not benefit small farmers due to their smaller landholdings, and resultant lesser attention from agricultural extension schemes. These risks will be assessed in the Environmental and Social Assessment and mitigation measures proposed in the ESMF. Targeting under the sub-components will benefit from assessments carried under ESS1, which will add value to selection of areas, households, type of support required, etc.

Component-3 will support early warning preparedness and food security, strengthening of national locust surveillance systems, straightening linkages with regional networks and strengthening Food Security and Nutrition Information system (FSNIS). The system strengthening activities may include minor refurbishments and rehabilitation of Technical Operation Committee (TOC) office established at MSFSR for better functionality that may have negligible environmental impacts and procurement of IT equipment and digital devices that may lead to generation of e-waste. Adequate mitigation measures for rehabilitation activities and E-waste management plan will be prepared as part of ESMF to be prepared under ESS1.

In addition, rehabilitation and strengthening of infrastructure at (13) existing locust surveillance and control outposts, and construction of 6 additional outposts, will include civil works. The interventions might generate risks and impacts





related to construction works, such as dust emissions, debris, and other solid waste generation, ground/surface water contamination, social annoyance and community safety due to traffic increase, noise, dust, unsafe construction sites, etc. as well as workers safety including occupational health and safety, and other standard risks and impacts of construction. In addition, social risks may also include managing illegal encroachments, if any, associated with existing government owned outposts, and/or for new sites, land acquisition where necessary. These are dealt with under ESS5. The environmental and social risks and impacts for Component 3 are expected to be site-specific, reversible, and of low magnitude that can be mitigated following appropriate measures.

Since the project will be implemented across country and exact location of the activities supported by the project are not exactly known, a framework approach will be adapted. To mitigate the environmental and social risk and impacts of the proposed project, the borrower will conduct an Environmental and Social Assessment under ESS1, to prepare, disclose and implement an Environmental and Social Management Framework (ESMF) within 45 days of project effectiveness for components defined as urgent response as above, termed as ESMF Stage I. For components under recovery and resilience, same instruments are recommended, but will be prepared within 90 days of project effectiveness, termed ESMF Stage II.

ESMFs of the project will include risk assessment to the extent possible based on the data available from the field and implementing agencies and will provide guidelines for the preparation of site-specific instruments to be prepared for the project. The relevant requirements on Occupational Health and Safety (OHS), Community Health and Safety (CHS), Social Management Framework, waste management plans including e-waste will be included in the ESMF. The ESMF will include and adapt FAO “Desert Locust Control Guidelines on Safety and Environmental Precautions”, other FAO technical guidelines on Ground Application of Pesticides, Aerial Application of Pesticides, personal protection when handling and applying pesticides, FAO guidelines on management of empty containers, WBG General EHS Guidelines; and applicable national legislations and regulation. The ESMF will also include robust grievance redress mechanisms (GRMs) with different channels according to the activities/stakeholders. Accordingly, the provincial governments, once design their respective responses will develop and implement Environment and Social Management Plans (ESMP) prior to commencement of any civil work and/or procurement.

Environmental and Social Commitment Plan (ESCP) has been prepared and agreed by the MNFSR detailing commitments with timeframes of safeguards instrument preparation, adequate organizational structure and capacity building measures.

### **ESS10 Stakeholder Engagement and Information Disclosure**

The speed and urgency with which this project has been developed to meet the growing threat of locust invasions in the country, combined with government restrictions on gatherings of people due to the COVID-19 pandemic, stakeholder engagement by the Project at this stage has focused on technical discussions with the Ministry of National Food Security and Research (MNFSR)/Federal Department of Plant Protection (DPP), NDMA, PDMA and FAO.

Provincial Agriculture Extension Departments and PDMA have consulted with select farmers in locust hit areas and conducted training sessions . The National Disaster Management Authority (NDMA) and Provincial Disaster Management Authorities (PDMA) have launched various public awareness and advertisement campaigns through print and electronic media, and their websites. These include publishing of a periodic Situation Report on Anti-Locust Operations by the NDMA, and advertisements in electronic and print media in local language by Punjab PDMA with



updates on presence of desert locusts, spraying activities, and WhatsApp and Hotline numbers for farmers' to raise awareness and to seek their support on timely reporting of locust incidents.

The key issues raised by stakeholders through various means, include:

- Coordination, roles and responsibilities among Federal and Provincial governments and justification for involving NDMA/PDMAs.
- Compensation (subsidy) and budget allocation against the damages already done or anticipated
- Concerns by the Pakistan Farmers' Association on targeting of response activities and subsidies
- Lack of resources and capacity (no aircraft / or borrowed ones; staff capacity, equipment etc.)
- Anticipated impacts including lost crops and jobs, food security, high inflation, compounded by COVID-19.
- Environmental, health and safety issues for farmers, staff involved for operation and community at large.

As a result, project activities have been added based on previous stakeholder engagements and feedback from at risk communities. These activities include cash-based assistance for temporary employment creation, risk reduction and management from pollution, livelihood resumption, and food security, responses for livelihood restoration and early activity, and stakeholder engagement.

Both Sub-Component 4.2 on Enhancing transparency, accountability and anti-corruption, and Sub-Component 4.4 on Communications and stakeholder engagement have been designed to mitigating the risk of elite capture, ensuring transparency of implementation process, and to enhance communications about the desert locust and its impact, with a special focus on stakeholder engagement and social accountability. As per guidance of ESS10, a preliminary Stakeholder Engagement Plan (SEP) has been prepared by the client for the project, which will be updated and finalized once the project is effective. SEP focuses on identification and engagement with directly affected parties, other interested parties and the vulnerable groups. Procedures for engaging with them, topics and frequencies have been described in the document. SEP will support the dissemination of information generated by the early warning systems; aid in the recovery activities and promote the resilience of communities as they rebound from the crisis. It will also support community awareness programs about the effects and risks of the locust swarms such as the right types of pesticides to be used and the appropriate mechanisms for their application in a sustainable manner. To ensure counterpart leadership of the communications process, communications capacity will be built within PMU for the effective implementation of a Communications Strategy, impact assessment and sharing of results achieved through this intervention. The communication activities will also help to manage the reputational risks that surround the project.

## **B.2. Specific Risks and Impacts**

**A brief description of the potential environmental and social risks and impacts relevant to the Project.**

### **ESS2 Labor and Working Conditions**

ESS2 is relevant. Project Management Unit and PPIUs will include direct workers and contracted workers, while the Field Teams may also include community workers. Direct workers will include civil servants from the MNFSR, provincial Agricultural Departments, and other employees hired for technical inputs (e.g. FAO, aerial and ground spraying specialists' workers contracted by third parties), environment and social management, and fiduciary functions. The contracted workers may include third party firms for developing baselines, E&S documents, M&E, IT, etc. Primary supply workers may also be hired for critical functions of the Project.



The main labor-related risks are associated with occupational health and safety (OHS), especially when handling, transfer, storage, application, and disposal of pesticides, working conditions, and risks associated with gender-based violence (GBV), sexual exploitation and abuse (SEA), sexual harassment (SH).

ESS2 requires the Borrower to provide safe and healthy working conditions to Project workers. In this regard, the Project will ensure the application of Occupational Health and Safety (OHS) measures as outlined in the PMP prepared for the project. Also, measures for COVID19 control as per WHO guidelines and relevant national legislation will be adhered to. COVID19 response will be captured in the ESMF. OHS measures applying to the Project will be set out in the legal agreement and the ESCP. In coordination with measures required under ESS4, an emergency prevention and preparedness plan will be prepared for MNFSR which will outline its response arrangements to emergency situations, including pandemics.

Trainings on the SoPs and procedures will be provided to all categories of Project workers. Signage will be posted in all public spaces mandating hand hygiene and PPE use. The PMU will also ensure availability of adequate supplies of PPE (particularly facemask, gloves, handwashing soap and sanitizer) at its premises. Moreover, the PMU will ensure overall OHS adherence with Environmental and Health Safety Guidelines (EHSGs) and follow evolving international best practice in relation to protection from COVID-19.

Labor-Management Procedures (LMP) will be prepared within 30 days of project effectiveness, to ensure that compensation and other terms and conditions of the contracts are in line with ESS2 requirements, proper OHS measures are in place for all workers assigned to the project, as per PMP, and code of conduct for workers is being followed.

Labor specific GRMs will be set up for workers across the PMU and all PPIUs. In accordance with ESS2, due to the hazardous work situation, children under the age of 18 will not be allowed to work on the project. The use of forced labor or volunteer labor on the project will also be prohibited. All community workers hired for cash-for-work programs, or otherwise for supporting locust response, will be trained in the use of PPE's and will be provided all necessary safety equipment as per risk mitigation requirements of the relevant intervention. LMP will have E&S checklists designed for hiring community workers.

### ESS3 Resource Efficiency and Pollution Prevention and Management

ESS3 is relevant as pollution management and prevention is at the forefront of the operation. The widespread unsafe use of pesticides can contaminate surface water and leach into subsurface water. Damage to non-target organisms and risk of air and soil pollution is also present. As mentioned earlier, Sub-Component 1.3 on Risk Reduction and Management will address the issues related to toxicity and contamination. Activities will include testing of humans, and soil and water for contamination from use of pesticides, estimating the cost and the effects of the locust control on crop, pastures and livestock production; optimizing the selection of control strategies, implementing protection measures, and selecting pesticides based on situational and environmental assessments; and providing safety and awareness training for spraying teams and other locust control personnel. This component will also improve pesticide management and upgrade infrastructure for safe storage, including disposal of obsolete pesticides and pesticide containers.

Pesticides like Melathion have residual effects, on health and on environment. Precautions need to be taken on post spray conditions, time restrictions for farm workers to enter the sprayed areas, securing families and livestock before and after sprays to minimize contamination, etc. In the case of Pakistan, locust prone areas have been sprayed upon since July 2019, so toxicity levels are assumed to be considerable to start with. This is especially the case since the



Government of Pakistan has been using ultra-low volume (ULV) formulations of pesticides. Table below summarizes the amount of two pesticides sprayed to date, across Pakistan.

Pesticide	Balochistan	(Litres) Sindh	(Litres) Punjab	(Litres) Khyber Pakhtunkhwa	(Litres)
Melathion ULV	95857	5130	13910	0	
Lambda95065	12286	40121	19454		

Information available on safeguards adopted by the workers and communities at large, during this response is limited.

Other potential risks associated with emergency locust control operations are the difficulty to: (i) enroll and deploy trained personnel for handling and use of pesticides, especially for ground spraying (in many cases local populations are being deployed without trainings), (2) choose pesticides with the least environmental impact for the case at hand and (3) to ensure the right quantity and application of pesticides including the timelines. To mitigate such risks the Borrower will prepare a preliminary stand-alone Pest Management Plan before the Board date, and improve and finalize it within 30 days of project effectiveness. The PMP will adapt and follow FAO Desert Locust Guidelines, FAO-WHO International Code of Conduct on Pesticide Management, FAO Directives on Environment and safety, Directives on management of empty containers, GIIP, and examples from approved PMPs prepared for World Bank projects. The PMP will include measures for: (i) adequate design of pesticide transportation, storage, handling, and management facilities; (ii) management of stocks in an effective, efficient, and transparent way, (iii) disposal of unwanted or surplus insecticides and waste resulting from applying pesticides, and (iv) biopesticides and biological pest control methods. The activities under Sub-Component 1.3 will further help monitor and assess the human health risks during locust control program that will help in mitigating impacts of the program on human health and environment. In addition, Borrower will prepare Pollution Management Plan (including Water, Air and Soil Management Procedures) and a Waste Management Plan including electronic waste, hazardous materials and chemicals. These plans will be made in line with guidance in the ESMF and will be operationalized as part of ESMPs.

**ESS4 Community Health and Safety**

ESS4 is relevant. Primary community health and safety risk is the potential exposure of communities, farmers, pastoralists, and individuals with certain added vulnerabilities such as pregnant women, children, those with respiratory illnesses, elderly, etc. to pesticides that can be detrimental to health. Also, in many rural areas, communities use open wells, water ponds, etc. for household purposes, including drinking. These water bodies can get polluted in the areas where intensive spraying of pesticides is conducted. In areas using subsurface water for drinking using hand pumps, contamination risks are higher. Ecosystem services may also get impacted as the pesticide sprays may eliminate non-target organisms. Health and safety risk due to ongoing COVID-19 pandemic at workplaces and during project activities due to increased exposure also exist. To manage these risks the project will make available personal protective equipment to all staff members and project operators, will abstain to the extent

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possible from the use of cash, and will implement COVID-19 responsive social distancing rules. Risks of sexual exploitation and abuse and gender-based violence are also possible due to the deployment of external personnel, including agricultural extension workers, contractors, etc. In addition, as mentioned earlier, due to limited resources, there is a chance that smaller, remote villages may get excluded from locust response and livelihood restoration support due to lack of access and/or mobilizing enough voice for the provincial agricultural departments to respond. Such a situation can lead to communal unrest, protests and widespread grievances. To mitigate such risks, a relevant, effective and accessible GRM will be suggested in the ESMF; a Community Health and Safety Plan will be prepared within 45 days of project effectiveness; and a GBV Action Plan will also be prepared to respond to SEA/SH risks within 45 days.

#### **ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**

ESS5 is relevant. Rehabilitation of 13 existing DPP outposts across Pakistan (all constructed on DPP owned land), and construction of six new outposts, preferably on state owned land will be required for multiple purposes in locust response operations. These would include surveillance, response, storage facilities for pesticides, empty containers, and pesticide equipment, with small footprints. Where unavoidable, small scale private land acquisition can take place, for which necessary procedures as per ESS5 will be put in place. Since the locations for the five new outposts, as well as information on encroachments on current outposts are not known at this stage, the project will prepare a Resettlement Framework (RF) within 45 days of effectiveness. Accordingly, each PIU will develop and implement Resettlement Plans (RPs) once the issues and locations are identified, as per guidance in the RF.

#### **ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources**

ESS6 is relevant. The use and application of synthetic pesticides and biopesticides over large areas across the country could potentially impact ecologically sensitive areas such as water bodies, wetlands, national parks, and reserves and can potentially harm birds, animals and aquatic species. The E & S assessment to be conducted under ESS1 will include risk assessment of natural water bodies, non-target fauna and flora and aquatic habitats to map out the key sensitive areas to make informed decisions about spray operations. The assessment will include information on mortalities, damage or loss of any non-target organisms during pesticides spray.

The ESMF will include mitigation measures to protect natural habitats and ecologically sensitive areas including measures related to storage and disposal of unused quantities of synthetic pesticides and biopesticides. The Project will prepare, as part of the ESMF, Biodiversity Management Plan in compliance with ESS3 and ESS6. The information on ecologically sensitive habitats that may be affected and measures to delimitate ecological sensitive zones will also be included in the plan. Moreover, other GIIP will also be consulted including FAO, WWF, etc.

#### **ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities**

ESS 7 is relevant. Although locust has not reached district Chitral, home to the only IP community in Pakistan, it is important to ensure that IPs do not get excluded from/and are included in receiving information on and benefits from other medium and longer term interventions related to livelihood, food security/agricultural support provided by the project. If at any stage, locusts are reported in Chitral, and project intends to respond, relevant response plans will be prepared, consulted and disclosed, prior to initiation of any project activity.



**ESS8 Cultural Heritage**

ESS8 is relevant. Since the project involves rehabilitation/new constructions, a chance find procedure will be a part of the ESMF.

**ESS9 Financial Intermediaries**

Not relevant

**B.3 Other Relevant Project Risks**

None

**C. Legal Operational Policies that Apply**

**OP 7.50 Projects on International Waterways**

No

**OP 7.60 Projects in Disputed Areas**

No

**III. BORROWER’S ENVIRONMENTAL AND SOCIAL COMMITMENT PLAN (ESCP)**

DELIVERABLES against MEASURES AND ACTIONs IDENTIFIED	TIMELINE
<b>ESS 1 Assessment and Management of Environmental and Social Risks and Impacts</b>	
Prepare, disclose, and implement ESMF Stage I	10/2020
Prepare, disclose, and implement ESMF Stage II	11/2020
<b>ESS 10 Stakeholder Engagement and Information Disclosure</b>	
Reassess, disclose and implement SEP	10/2020
<b>ESS 2 Labor and Working Conditions</b>	
Prepare and implement LMP	09/2020
<b>ESS 3 Resource Efficiency and Pollution Prevention and Management</b>	
Prepare a preliminary standalone PMP	07/2020
Prepare and implement a standalone PMP	09/2020

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Prepare Pollution Management Plan (including waste management) as part of ESMF	10/2020
<b>ESS 4 Community Health and Safety</b>	
Prepare and implement Community Health and Safety Plan as part of ESMF	10/2020
Prepare and implement GBV Action Plan as part of the ESMF	10/2020
<b>ESS 5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement</b>	
Prepare, disclose and implement RF	10/2020
<b>ESS 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources</b>	
Prepare and implement Biodiversity Management Plan as part of ESMF	10/2020
<b>ESS 7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities</b>	
Prepare and implement Indigenous Peoples Plan	12/2020
<b>ESS 8 Cultural Heritage</b>	
Relevant aspects of ESS8 to be incorporated in ESMF to be prepared under ESS1	10/2020
<b>ESS 9 Financial Intermediaries</b>	

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**B.3. Reliance on Borrower’s policy, legal and institutional framework, relevant to the Project risks and impacts**

**Is this project being prepared for use of Borrower Framework?** No

**Areas where “Use of Borrower Framework” is being considered:**

NA

**IV. CONTACT POINTS**

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**Borrower/Client/Recipient**

Borrower: Islamic Republic of Pakistan

**Implementing Agency(ies)**





Implementing Agency: Agricultural, Supply & Prices Department, Govt. of Sindh

Implementing Agency: Ministry of National Food Security and Research

Implementing Agency: Agriculture Department, Govt. of the Punjab

Implementing Agency: Department of Agriculture, Govt. of Khyber Pakhtunkhwa

Implementing Agency: Agriculture and Cooperatives Department, Govt of Balochistan

#### V. FOR MORE INFORMATION CONTACT

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#### VI. APPROVAL

Task Team Leader(s):	Guo Li
Practice Manager (ENR/Social)	David Seth Warren Cleared on 12-Jul-2020 at 11:35:29 EDT
Safeguards Advisor ESSA	Agnes I. Kiss (SAESSA) Concurred on 13-Jul-2020 at 22:41:42 EDT