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CRITICAL SUPPORT TO THE COLD WAVE AND LOCUST EMERGENCIES IN PAKISTAN

September 2022

SDGs:



Country:

Pakistan

Project Code:

TCP/PAK/3801

FAO Contribution:

USD 500 000

Duration:

11 February 2020 – 30 June 2022

Contact Info:

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Implementing Partners

Ministry of Food Security and Research; National and Provincial Disaster Management Authorities; Department of Plant Protection; Provincial Directorates of Agriculture and Livestock; District Coordination Offices (DCOs).

Beneficiaries

Direct beneficiaries were vulnerable cold wave, Foot and Mouth Disease (FMD) and drought-affected communities of affected districts of Balochistan, Pakistan Administered Kashmir and Khyber Pakhtunkhwa. Indirect beneficiaries included the DCO, agriculture and livestock departments, civil society organizations, ministries at provincial and national level, and extension service officers.

Country Programming Framework (CPF) Outputs

CPF 2018-2022

Priority Area 1: Achieving Zero Hunger: Healthy, safe and nutritious food for all.

Outcome 1.1. Government institutions implement sectoral policies with the incorporation of food security and nutrition objectives and gender considerations.

Output 1.1.2. Strengthened organizational and human capacities in policy/strategy/frameworks/guidelines/standards formulation and implementation.

Priority Area 2. Climate Smart Resilient Agriculture and Sustainable Ecosystems including Forests, Fisheries, Livestock, Rangeland, and Water Management.

Outcome 2.2 Disaster-prone communities enabled to better anticipate and cope with natural calamities related to climate change.

Output 2.2.2. Disaster-affected communities are timely assisted to respond to human-made or natural disasters.



BACKGROUND

Pakistan is prone to multiple natural hazards, including floods, droughts, earthquakes, landslides, snowfall, avalanches and cyclones. Beginning in January 2020, unprecedented heavy snowfall and rain coupled with avalanches adversely affected livelihoods in many districts of Balochistan and Pakistan Administered Kashmir. In Balochistan, the Provincial Disaster Management Authority (PDMA) declared eleven districts of the province calamity-hit. In Pakistan Administered Kashmir, three districts were identified as the worst affected by the state government. According to the National Disaster Management Authority (NDMA), 1 300 houses, mostly located in Balochistan (1 062), were damaged in snow/rainfall spells and 107 people died, with smallholder farmers the hardest hit.

Balochistan is home to 50 percent of Pakistan's small ruminant population, with a high concentration of livestock in some of the affected districts. As a result of the cold wave, an estimated 30 to 40 percent of the livestock population lacked feed and fodder, and animal health support. Standing seasonal Rabi crops were also severely affected, with serious repercussions for the food security of the vulnerable population. Because of the unavailability of financial and technical resources, the assistance provided by the government authorities was limited and a request was made to FAO to provide the affected population with fodder, medical treatment and crop inputs for the upcoming cropping season. FAO technical assistance was also requested to build capacity at federal, provincial and district levels to eliminate Desert Locust, following the worst outbreak in over 25 years and the declaration of a national emergency in January 2020.

The original project had three outputs aimed at safeguarding livelihoods and protecting the food security and nutrition of the most vulnerable farming households. Output 1 would target the cold wave emergency in the worst affected districts of Kila Saifullah (Balochistan) and Neelum (Pakistan Administered Kashmir). Output 2 would enhance coordination among FAO, the World Food Programme and the Food Security and Agriculture Working Group (FSAWG), co-led by the NDMA and PDMA, while Output 3 would build the capacity of the departments of plant protection and agriculture to manage Desert Locust outbreaks.



Project activities began in February 2020. It was subsequently discovered that the situation pertaining to the cold wave and its impact on farming communities was less serious than initially assessed and the project was modified in order to address the spread of Fall Armyworm (FAW) in Punjab and Sindh provinces. In addition, in 2021, the country was found to be free of Desert Locust, eliminating the need to implement activities planned under the Desert Locust component. Finally, during the first quarter of 2021, an outbreak of FMD was reported from 185 villages in the 21 districts (including the newly merged districts) of Khyber Pakhtunkhwa province, adversely affecting the cattle and buffalo population. The provincial Livestock and Dairy Development (L&DD) Department of Khyber Pakhtunkhwa approached FAO Pakistan for assistance to mitigate the FMD infestation and the project was revised to respond to both the FAW and FMD emergencies. Following a period of severe drought in Balochistan province, a further component was added to provide compound animal feed to livestock farmers.

IMPACT

The project successfully introduced the use of new technologies, such as the application of Desert Locust surveillance software and gadgets (eLocust3g, eLocust3m and eLocust3w), and trained professionals from public and private-sector institutions to use these tools in field operations, as well as providing such essential inputs as FMD vaccines and compound animal feed. By focusing on the most vulnerable and marginalized communities in areas severely affected by the cold wave, Desert Locust, FAW and FMD, the project thus contributed to ensuring food security in the most calamity-hit areas of Pakistan.

ACHIEVEMENT OF RESULTS

The project successfully achieved all the planned activities in line with the revised work plan, which comprised four outputs. The first regarded the provision of veterinary support kits in the worst affected districts of Balochistan and Pakistan Administered Kashmir. Thirty support kits were distributed to six districts in these regions. The second output was concerned with capacity-building in Desert Locust control. Over 1 500 professionals in 32 districts were trained in the use of mobile applications, including eLocust3m and eLocust3w. Under Output 3, the capacities of 80 government professionals and over 2 900 farmers to prevent and control FAW were strengthened through training events, seminars and field days.

The project also procured equipment and supplies for the establishment and strengthening of three facilities (two in Punjab and one in Sindh province) for the mass rearing and release of biological control agents. The final output regarded the provision of capacity-building to mitigate FMD in Khyber Pakhtunkhwa and of animal compound feed in response to drought in Balochistan. A cold storage facility was established and 114 500 doses of FMD vaccine were procured, to be distributed by the L&DD Department of Khyber Pakhtunkhwa. In Balochistan, 4 500 bags (20kg/bag) of animal compound feed were distributed to drought-affected livestock farmers.

IMPLEMENTATION OF WORK PLAN AND BUDGET

As described above, the work plan of the project was amended as part of a project revision in 2021 to include activities in response to the presence of FAW and FMD in the affected districts. These amendments are reflected in the Logframe Matrix below. Project activities were also affected during 2020-21 by the COVID-19 pandemic in the country. As a result of the restrictions imposed in response to the pandemic, scheduled training events were postponed and the project was extended to 30 June 2022. The project succeeded in implementing all the envisaged activities within the planned budget.

With regard to risk management, the project effectively managed environmental and social risks as the activities were designed to properly educate and train government professionals and beneficiaries. The stakeholders/professionals engaged to conduct project-related activities were sensitized to take care of environmental and social concerns during project implementation.

FOLLOW-UP FOR GOVERNMENT ATTENTION

It is recommended that technical assistance continue to be provided by the relevant government departments to ensure that the results of the project are sustained in the future.





SUSTAINABILITY

1. Capacity development

All project activities were designed in line with existing policies and legal frameworks. The existing organizational structures were actively engaged in both the planning and the implementation of project activities, and were committed to ensuring the sustainability of the project's results. To this end, an alliance with the concerned government departments at federal and provincial levels was successfully created. In terms of exit strategy and follow-up actions, the project followed a pragmatic exit strategy by linking project beneficiaries with such government institutions as agriculture extension and livestock departments in order to ensure post-project linkages and support.

2. Gender equality

FAO employed a participatory approach to ensure that women farmers and other marginalized groups took part in all planned activities and that their perceptions and feedback regarding project activities were regularly recorded. The participation of women professionals in project activities was both encouraged and ensured. The project thus contributed to achieving the FAO Policy on Gender Equality through increased women's participation in technical training in FAW and other technical events at provincial levels.

3. Environmental sustainability

The project provided substantial support to mitigate the impact of Desert Locust infestation on the environment and livelihood of small-scale farmers' households. The support extended (in the shape of veterinary kits, FMD vaccines, and animal feed) and the effective project performance contributed appreciably to environmental sustainability.

4. Human Rights based Approach (HRBA) in particular Right to Food and Decent Work

The project made a substantial contribution to achieving human rights through the enhanced participation of women in project activities. The project also ensured the involvement of women in decision-making and other forms of empowerment. The technical capacity of women from provincial agriculture departments in the management of FAW was enhanced.

5. Technological sustainability

The project introduced tested technologies that may be easily adopted by local communities at grassroots level. During the project, capacity-building activities included technical training in Desert Locust surveillance and use of the eLocust3M/eLocust3W monitoring application, training in FAW identification and management and biological control, awareness-raising seminars and field days on FAW identification and management, and the roll-out of the FAO FAW Monitoring and Early Warning System (FAMEWS) to enhance the capacities of farming communities. These activities enhanced the capacities of agriculture research and extension professionals and private-sector stakeholders, as well as of farming communities, to react to such challenges as FAW and Desert Locust. The future pursuance of project activities depends on the commitment of the beneficiaries and the linkages with the government departments concerned.

6. Economic sustainability

Technical assistance for the sustainability of project activities and results is expected to be provided by the government departments concerned (agriculture extension and livestock).

The support provided by the project took into account local conditions and is therefore affordable to beneficiaries and stakeholders. Stakeholders now have an opportunity to positively contribute to sustaining the activities undertaken by the project to ensure their food and nutritional security on a medium and long-term basis.



DOCUMENTS AND OUTREACH PRODUCTS

Documents

- FAO. *Integrated Pest Management of Fall Armyworm* (Urdu version).



ACHIEVEMENT OF RESULTS - LOGICAL FRAMEWORK

Expected Impact	Food security situation is safeguarded in calamity-hit areas of Pakistan		
Outcome	Enhanced capacities of disaster-affected communities and government institutions to cope with natural disaster		
	Indicator	Percentage of government staff utilized their newly acquired skills in locust control and prevention measures.	
	Baseline	0	
	End Target	80%	
	Comments and follow-up action to be taken	<ul style="list-style-type: none"> – The pace of implementation of the various planned activities was impeded by the COVID-19 pandemic. – Bearing in mind the improved situation with regard to the cold wave and the presence of Desert Locust, and following consultation with FAO Pakistan management and concerned colleagues, additional activities regarding FAW awareness/management and the control of the FMD outbreak in Khyber Pakhtunkhwa were included. – The level of achievement was significantly improved by involving national/international experts in FAW awareness/management activities in the country. 	
Output 1	Livestock department in worst affected districts of Balochistan and Pakistan Administered Kashmir supported with provision of veterinary support kits		
	Indicators	Target	Achieved
	Number of veterinary support kits provided to the veterinary hospitals.	30	Yes
Baseline	0		
Comments	The provision of veterinary support kits enhanced the capacity of the livestock department in the areas most severely affected by the cold wave in Balochistan (Loralai, Pishin, Qilla Abdullah, Qilla Saifullah and Zhob districts) and Pakistan Administered Kashmir (Neelum district). No impediments were faced in service delivery.		
Activity 1.1	Identification of worst affected geographical locations in close coordination with the government stakeholders, United Nations agencies and FSAWG members		
	Achieved	Yes	
Activity 1.2	Comments	The project identified the districts most severely affected by the cold wave and Desert Locust in collaboration with government stakeholders, United Nations agencies and FSAWG members. The districts identified were Loralai, Pishin, Qilla Abdullah, Qilla Saifullah and Zhob districts of Balochistan province and Neelum district of Pakistan Administered Kashmir. The project implemented the planned activities in the geographical locations identified.	
	Achieved	Yes	
Activity 1.3	Comments	To prevent and control animal diseases, FAO procured 30 veterinary support kits following the approved specification and the tendering process. No impediments were faced in the procurement of veterinary kits.	
	Achieved	Yes	
Activity 1.3	Distribution of the veterinary support kits to the government-run veterinary hospitals/dispensaries		
	Achieved	Yes	
Activity 1.3	Comments	The distribution of veterinary support kits to the government-run veterinary hospitals and dispensaries was carried out in collaboration with the local/district-level livestock departments in the identified districts of Balochistan and Pakistan Administered Kashmir. The details of veterinary kit distribution per district are given below: <ul style="list-style-type: none"> – 7 in Loralai district, Balochistan. – 3 in Neelum district, Pakistan Administered Kashmir. – 6 in Pishin district, Balochistan. – 6 in Qilla Abdullah district, Balochistan. – 1 in Qilla Saifullah district, Balochistan. – 7 in Zhob district, Balochistan. 	
	Achieved	Yes	

Output 2	Government capacities augmented in prevention and control of the Desert Locust in the affected areas of Pakistan		
	Indicators	Target	Achieved
	<ul style="list-style-type: none"> – Number of professionals trained in Desert Locust survey, control, reporting and safety measures through technical training. – Number of farmers and other stakeholders with raised awareness through seminars of Desert Locust spread and control. – Provision of Desert Locust surveillance devices (eLocust3g) for effective surveillance of Desert Locust. 	<ul style="list-style-type: none"> – 80 professionals. – 200 farmers. – 100 devices. 	Partially
Baseline	0		
Comments	The set of activities originally planned under Output 2 was not implemented as a result of the COVID-19 pandemic in 2020. In addition, the situation pertaining to Desert Locust became calm in the country during 2021. The funds available under the Desert Locust training component were therefore utilized to combat the FMD outbreak in Khyber Pakhtunkhwa province.		
Activity 2.1	Four technical training events for concerned institution/stakeholders (locust officers/agriculture officers/plant protection officers/pesticides service providers) in Desert Locust survey, monitoring, control, reporting and safety measures during control operations		
	Achieved	Yes	
	Comments	<p>The technical training of professionals (agriculture/plant protection officers and pesticides service providers) from concerned institutions/stakeholders in Desert Locust survey, monitoring and control was not carried out because of COVID-19 restrictions during 2020-21. However, as the COVID-19 situation improved, similar training was carried out under other initiatives at Bahawalpur (Punjab) and Quetta (Balochistan).</p> <p>One-day technical training events for professionals from concerned institution/stakeholders on “Desert Locust surveillance and monitoring application eLocust3m/eLocust3w” were conducted in 32 districts including Balochistan (Gwadar, Nushki, Kalat, Kharan, Khuzdar, Pasni, Quetta, Turbat and Uthal/Lasbela,), Khyber Pakhtunkhwa (Bannu, Dera Ismail Khan, Hangu, Karak, Kohat, Lakki Marwat and Tank), Punjab (Bahawalpur, Multan, Okara, Rahim Yar Khan and Sahiwal districts) and Sindh (Badin, Ghotki, Hyderabad, Khairpur, Mirpur Khas, Sanghar, Shaheed Benazirabad, Sukkur, Tharparkar and Umerkot).</p> <p>More than 1 500 participants were trained in the use of mobile applications, including eLocust3m and eLocust3w.</p>	
Activity 2.2	Four awareness seminars through plant protection departments about spread, monitoring and control of the Desert Locust by reaching farming communities and other stakeholders involved in crop production in recession and adjacent invasion areas of the Desert Locust in the country.		
	Achieved	No	
	Comments	The technical training envisaged for concerned professionals in relevant Desert Locust institutions and stakeholders (locust officers/agriculture officers/plant protection officers/ pesticides service providers) in Desert Locust survey, monitoring and control was not carried out because of COVID-19 restrictions during 2020-21.	
Activity 2.3	Development of periodic locust situation update and control measures taken		
	Achieved	Yes	
	Comments	Regular periodic updates (ten) - “Desert Locust Situation: an Alarming Threat” - were prepared and distributed among the concerned stakeholders. For periodic locust situation updates and control, a Technical and Operational Committee under the umbrella of the FAO Commission for Controlling the Desert Locust in Southwest Asia was also established.	

Output 3	Government and farmers' capacities strengthened in prevention and control of the Fall Armyworm in the affected areas of Pakistan		
	Indicators	Target	Achieved
	<ul style="list-style-type: none"> – Number of FAW task force meetings conducted at federal and provincial levels. – Professionals trained in FAW identification and management/biological control through technical training. – Provision of Desert Locust surveillance devices (eLocust3g) for effective surveillance of Desert Locust. – Farmers/stakeholders with raised awareness through seminars/field days organized on FAW identification/management and roll-out of FAO FAMEWS. – Number of communication campaigns through media and other channels on FAW threat and prevention. – Number of facilities for mass rearing and release of biological control agents established/strengthened. 	<ul style="list-style-type: none"> – 7 meetings (15 participants per meeting). – 80 professionals (20 professionals in each training). – 100 eLocust3g devices. – 600 people (30 participants per seminar/field day). – 1. – 3 facilities (2 in Punjab and 1 in Sindh province). 	Yes
Baseline	0		
Comments	<p>Task forces for Punjab and Sindh provinces were established by the provincial agriculture departments. Regular meetings (seven) of the task force were held in Punjab province, where FAW infestation had become a serious problem.</p> <p>A total of 110 professionals (96 men and 14 women) from agricultural extension and research departments received training in pest warning and quality assurance.</p> <p>A total of 2 900 farmers participated in 25 awareness seminars/field days on "FAW identification/management and roll-out of FAO FAMEWS", organized in collaboration with provincial agriculture departments in Sahiwal and Multan divisions.</p> <p>One hundred eLocust3g devices were provided to the Department of Plant Protection, Ministry of National Food Security and Research.</p>		
Activity 3.1	Conduct seven FAW task force meetings at federal and provincial levels		
	Achieved	Yes	
Activity 3.1	Comments	Task forces for Punjab and Sindh provinces were established by the provincial agriculture departments. Seven regular task force meetings were held in Punjab, where FAW infestation had become a serious problem.	
	Organize four technical training events on FAW identification and management/biological control for professionals from agriculture research, extension and private-sector pesticide companies		
Activity 3.2	Achieved	Yes	
	Comments	The project organized three training events on FAW identification and management/biological control for 80 professionals from agriculture research, extension and private-sector pesticide companies. The training events were held in Sahiwal, Faisalabad and Multan districts.	
Activity 3.3	Organize 20 (ten in Punjab and ten in Sindh province) awareness seminars/field days in collaboration with provincial agriculture departments on FAW identification/management and roll-out of FAO FAMEWS		
	Achieved	Yes	
Activity 3.3	Comments	The project organized 25 awareness seminar/field days in collaboration with provincial agriculture departments of Sahiwal and Multan Division on FAW identification/management and roll-out of FAO FAMEWS. Over 2 900 farmers participated.	
	Develop communication campaign through media and other channels on the FAW threat and prevention		
Activity 3.4	Achieved	Yes	
	Comments	The project developed/printed Integrated Pest Management packages and distributed these among provincial agriculture departments, farming communities and other key stakeholders.	
Activity 3.5	Support for establishing/strengthening mass rearing and release of biological control agents facilities through provision of equipment and supplies		
	Achieved	Yes	
Activity 3.5	Comments	The project procured equipment and supplies for the establishment/strengthening of three facilities (two in Punjab and one in Sindh province) for the mass rearing and release of biological control agents.	

Output 4	Capacities of L&DD Department enhanced to mitigate the increasing FMD infestation in Khyber Pakhtunkhwa province and provision of animal compound feed in response to drought in Balochistan province		
	Indicators	Target	Achieved
	<ul style="list-style-type: none"> – Number of FMD vaccine doses procured and provided to the L&DD Department, Khyber Pakhtunkhwa. – Number of vaccine cold storage facilities strengthened/ developed in L&DD Department, Peshawar, Khyber Pakhtunkhwa. – Provision of animal compound feed in response to drought in Balochistan province. 	<ul style="list-style-type: none"> – Provision of 114 500 doses of FMD vaccine to provincial livestock department. – 1 cold storage facility. – 4 500 bags. 	Yes
Baseline	0		
Comments	The project established one cold storage facility at the L&DD Department, Peshawar, Khyber Pakhtunkhwa, and procured FMD vaccines to prevent and control the disease and protect livestock assets.		
Activity 4.1	Procurement and provision of 114 500 doses of FMD vaccine to L&DD Department, Peshawar, Khyber Pakhtunkhwa		
	Achieved	Yes	
	Comments	The project procured 114 500 doses of FMD vaccine and handed these over to the L&DD Department, Peshawar, Khyber Pakhtunkhwa for administration.	
Activity 4.2	Strengthening/developing of vaccine cold storage facility in L&DD Department, Peshawar, Khyber Pakhtunkhwa		
	Achieved	Yes	
	Comments	FAO established one cold storage facility at the L&DD Department, Peshawar, Khyber Pakhtunkhwa for the storage of vaccines.	
Activity 4.3	Provision of animal compound feed in response to drought in Balochistan province		
	Achieved	Yes	
	Comments	In response to the drought in Killa Saifullah and Pishin districts of Balochistan province, and following a request from the Government of Balochistan, the project procured 4 500 bags (20 kg/bag) of animal compound feed and provided a standard animal concentrated feed package: two bags (40 kg/ household) sufficient for five animals for one month. The compound feed formulation includes essential ingredients necessary for animal maintenance and production: seed cakes and crop by-products (such as wheat bran, maize, pulses, rice polishing), as well as required nutrients.	

Partnerships and Outreach

For more information, please contact: Reporting@fao.org

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