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TECHNICAL SUPPORT AND CAPACITY DEVELOPMENT FOR ESTABLISHMENT OF FOOD SECURITY AND NUTRITION INFORMATION SYSTEM (FSNIS)

June 2022

SDGs:

Country:	Pakistan
Project Code:	TCP/PAK/3707
FAO Contribution:	USD 141 000
Duration:	1 May 2019 – 31 December 2021
Contact Info:	FAO Representation in Pakistan FAO-PK@fao.org

Implementing Partners

Ministry of National Food Security and Research (MNFSR), Ministry of Planning, Development & Reform (MoPDR), Pakistan Bureau of Statistics (PBS).

Beneficiaries

Government officials, policymakers and the population of Pakistan.

Country Programming Framework (CPF) Outputs

Strategic Objective (SO) 1: Contribute to the eradication of hunger, food insecurity and malnutrition.
Regional Initiative: Zero Hunger Challenge.
Government priority 1: Zero Hunger: Healthy, Safe and Nutritious Food for all.
Country Outcome 1.2: Government officials utilize national and provincial agriculture and food information systems for institutionalization of evidence-based policies, frameworks, strategies and guidelines.
Output 1.2.1: National/Provincial agriculture and food security information systems functional and knowledge products in place.

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BACKGROUND

Pakistan is a country with abundant natural resources but characterized by a high degree of income inequality and geographic disparity. In the last decade, natural and manmade disasters during the last decade have compounded these issues and resulted in further challenges for food and nutrition security, especially in rural areas. Although the country is self-sufficient in major food crops, 20.5 percent of the population is undernourished and face high poverty rates and rising food prices. Data and information that should drive policy-making and planned actions towards food security and nutrition are oftentimes unreliable or outdated. Consequently, this leaves various stakeholders, such as government ministries, civil society organizations, private-sector organizations, academia, and development agencies unable to establish a strong strategy towards food security because of a lack of a consolidated and coherent overview of the complex food security and nutrition determinants and outcomes.

Looking at the aforementioned situation, there is a need to improve the coordination and strengthen the capacity of different government institutions to provide scientific evidence for decision-making in combating food and nutrition security in the country. Therefore, the project aimed to support the advancement of food security and nutrition policy planning and enhance national food security in the long term by assisting the creation of a well-designed, sustainable and functioning Food Security and Nutrition Information System (FSNIS). With the technical support of FAO, the project helped expand data availability and exchange and incorporate forward looking analytical products. The FSNIS serves as a central point where data, relevant to food security and nutrition, can be accessed in various formats. The FSNIS will further help to strengthen the policy-planning and decision-making in areas of food availability, accessibility and consumption.

IMPACT

The project established the capacity of Pakistan's government institutions to generate quality data on food and nutrition security. The data produced will be used for evidence-based policymaking, which will contribute towards poverty reduction and achieving food security goals through effective policies and programmes (SDGs 1 and 2).

ACHIEVEMENT OF RESULTS

The project succeeded in implementing a multitude of the planned activities. In order to produce the information and data needed to strengthen policy-making and strategic planning related to food and nutrition security, relevant stakeholders from different ministries, department and research institutes, were trained during data validation workshops. To enhance the capacity of the relevant stakeholders, updated FSNIS analytical products were developed and published. These products entailed five Pakistan food outlook (forecast) reports for agricultural seasons, 16 crop briefs, one report on food price monitoring during COVID-19 and 20 weekly food price bulletins were prepared by the project team. Government officials from MNFSR, MoPDR, PBS, provincial ministries and departments and UN agencies, such as FAO, the United Nations International Children's Emergency Fund (UNICEF), World Health Organization (WHO) and World Food Programme (WFP), were nominated for the development of future FSNIS analytical reports. One of the challenges identified prior to the project was the poor dissemination and storage of available data. Hence, the FSNIS website has been completed and is ready for its formal launch.

Most of the available secondary data on food security, nutrition and agriculture statistics has been collected, reviewed and uploaded in the FSNIS database and a list of indicators for inclusion in the FSNIS has been finalised in consultation with the relevant departments.

IMPLEMENTATION OF WORK PLAN AND BUDGET

Some delays were encountered in the implementation of the project. The initial activities for the preparation of the census methodology, tools and enumeration were implemented in a timely manner. Due to the COVID-19 pandemic and travel restrictions, some activities related to FSNIS analytical products and work on the FSNIS website development, were delayed. In addition to COVID-19, delays experienced by the vendor slowed the development of the FSNIS website, and its launch was not achieved before the end of the project. The training workshop on the food forecast report for Kharif 2020-2021 was also delayed due to COVID-related restrictions. However, after the approval of a no-cost extension, the project team mobilised the available resources and offered different modes of delivering the assistance and training, which resulted in the successful completion of most planned activities.

FOLLOW-UP FOR GOVERNMENT ATTENTION

The Ministry of Food Security is strongly encouraged to ensure the launch and continued functioning of the FSNIS website and the production of data and analytical products of the FSNIS. Although MNFSR improved capacities to carry out studies, additional technical support will be needed in order to ensure activities are sustained. There is a need to review data collection mechanisms and harmonize data collection tools. Currently, the Punjab province has standardized data collection tools, however, other provinces are using conventional data collection methods. The government should make guidelines in order to streamline the data collection of different provinces. It is advised to invest in a proper coordination mechanism between ministries for data availability in the future, since data for different indicators has been generated by different ministries based on the scope of each indicator. There are always opportunities for innovation and more user-friendly mechanisms. In the future, the government is encouraged to use Artificial Intelligence (AI) and Machine Learning (ML) models for analysis and timely decision-making. Additionally, the government can encourage academia to conduct more policy-relevant research.

SUSTAINABILITY

1. Capacity development

Prior to the project, relevant policies for data collection, coordination with provinces and a timeline for data availability and dissemination, as well as an economics and data section, were established within MNFSR. Following the completion of the project, MNFSR will continue to collect data on agriculture statistics from national and provincial department data for the FSNIS. During the project, partnerships and alliances were created and strengthened, which contribute to the project's sustainability. The FSNIS also significantly contributed to the development of local knowledge and capacity through its workshops and trainings. Through the technical support of FAO, as well as an upcoming World Bank-funded project, MNFSR will further strengthen the FSNIS, which is already being further embedded in the ministry's regular work and supported through the ministry's regular budget. Through FSNIS trainings and workshops, provincial and federal ministries shared their data, issues in data collection and uses of data for policy planning. Various meetings were conducted with other ministries and departments, such as Ministry of Finance, Ministry of Planning, PKB and provincial agriculture departments. These departments showed interest in FSNIS, which will further help strengthen the MNSFR partnership with other ministries. After completion of the project, MNFSR will be responsible for the functioning of the FSNIS website and producing the data and analytical products of the FSNIS.

2. Gender equality

The project aimed at building the capacity of both women and men. A total of 25 females attended the capacity building training workshops (out of 149 officials and representatives). The project outputs, such as FSNIS website and data and analytical products, will be equally accessible to both men and women.

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3. Technological sustainability

The design and implementation of the project were carried out in a participatory manner with the involvement of aforementioned parties. The FSNIS website is easy to use for policymakers and has user manuals for guidelines. The lightweight design of the FSNIS website makes it faster and easier to load pages with large datasets. Authorised users can easily edit any part of the application without affecting others, using version control systems such as Git. They can customize and modify anything because of its modularity. This also includes easy integration with third party libraries through the use of Composer for dependency management. Additionally, the FSNIS data portal and analytical products will contribute to highlighting major crop producing districts and highly food insecure districts, which are expected to create opportunities in the future. By accessing the FSNIS website, users will have all improved access to required information on food security, nutrition and agriculture statistics.
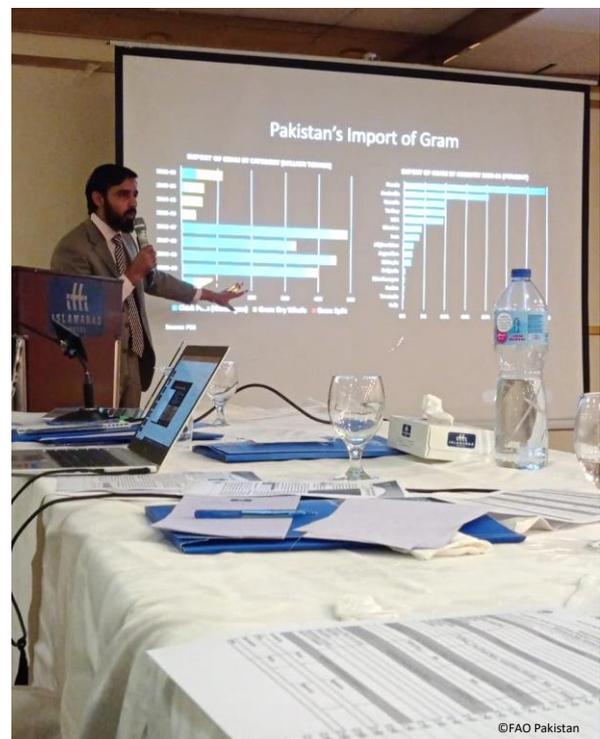
4. Economic sustainability

With the support of a World Bank-funded project (Locust Emergency and Food Security project [LEAFS]), which includes a component to strengthen the food security information system including data portal and analytical reports, the MNFSR will continue the strengthening of the FSNIS-related activities. In the future, resources will also be allocated from government funds as the products developed by the project are affordable for MNFSR. Nevertheless, MNFSR will though the financing/loan agreement with the World Bank.

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DOCUMENTS AND OUTREACH PRODUCTS

- ❑ **FAO.** *Pakistan Food Forecast Rabi 2019-20*. 61 pp.
- ❑ **FAO.** *Pakistan Food Forecast Kharif 2020-21*. 101 pp.
- ❑ **FAO.** *Pakistan Food Forecast Rabi 2020-21*.35 pp.
- ❑ **FAO.** *Pakistan Food Forecast Kharif 2021-22*. 36 pp.
- ❑ **FAO.** *Pakistan Food Forecast Rabi 2021-22*. 62 pp.
- ❑ **FAO.** *Evolution of prices of Major Food Items Since COVID-19 (Weekly Price Bulletins)*. 12 pp.
- ❑ **FAO.** *Evolution of Food Prices Since COVID-19 Outbreak in Pakistan-Food Price Monitoring Report 2020-21*.   41 pp.
- ❑ **FAO.** *Policy Briefs for Crops Rabi (Wheat, Potato, Gram, Rapeseed, Mustard, Lentil [Masoor Pulse]) 2020-21*.
- ❑ **FAO.** *Policy Briefs for Kharif Crops (Rice, Cotton, Maize, Sugarcane, Mung Pulse and Mash Pulse) 2021-22*.
- ❑ **FAO.** *Policy Briefs for Rabi Crops (Wheat, Potato, Gram, Rapeseed, Mustard, Lentil) 2021-22*.

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ACHIEVEMENT OF RESULTS - LOGICAL FRAMEWORK

Expected Impact	**Improved availability and access to safe, nutritious, and sufficient food**

Outcome	Government officials, policy makers and other stakeholders utilize the FSNIS for evidence-based planning and implementation of policies/frameworks/strategies/guidelines			
	Indicator	Number of references made to FSNIS products in national and international planning documents and policies, news media outlets.		
	Baseline	0		
	End Target	5		
	Comments and follow-up action to be taken	The FSNIS analytical products were shared with the policy makers or officials at the national and provincial levels. The government partially used the analytical products in the development and implementation of policies, frameworks, strategies and guidelines. The Pakistan Food Forecast was used for daily reports of wheat. Lastly, the FSNIS website and data portal were completed and in the process of being formally handed over to the MNFSR.		

Output 1	A Food Security Nutrition Information System (FSNIS) web-based application and database operational and accessible to relevant users/stakeholders			
	Indicators		Target	Achieved
	− The FSNIS website is developed and operational. − The FSNIS-backed application and database are developed and operational. − The data review protocols are developed. − A number of data products are available through the FSNIS. − The number of visits to the FSNIS website by end of project.		− 1 − 1 − 1 − 3 − 1 000	− Partially − Yes − Partially − Yes − No
Baseline	0 for every indicator above			
Comments	FAO conducted consultation meetings with MNFSR, PBS and MoPDR, discussing the finalization of several website components and the inputs of relevant departments for different indicators. The FSNIS website was completed and is ready for formal launch. The website is freely accessible to the public and stakeholders. The number of visits was not achieved because the formal launch was not possible due to a delay on the part of vendor for development of the FSNIS website and the consequences of COVID-19. Therefore, the website is currently not yet available to the public and stakeholders. The FSNIS website link: https://api.fsnis.pk/.			
Activity 1.1	Finalization of agreed upon list of indicators for inclusion in the FSNIS in consultation with the government and other stakeholders			
	Achieved	Yes		
	Comments	List of indicators has been finalised in consultation with relevant departments of MNFSR, PBS and MoPDR		
Activity 1.2	Collection of secondary data and entry into the FSNIS database			
	Achieved	Partially		
	Comments	Most of the available secondary data on food security, nutrition and agriculture statistics was collected, reviewed and uploaded on the FSNIS database. Historical data for several other indicators still needs to be uploaded in the database.		
Activity 1.3	Establish data review protocols for comparability and consistency			
	Achieved	Partially		
	Comments	For the FSNIS portal, we have used data provided by the MNFSR and other government departments. The government already has data collection and review protocols in place. Hence, FAO is not directly involved in the data review process. However, for uploading data on the website, FAO has made protocols for data review and formatting, sample entry forms for uploading data into the FSNIS database, and user manuals.		
Activity 1.4	Develop, test and finalize FSNIS application and populated database			
	Achieved	Yes		
	Comments	Please refer to the comment under the output.		
Activity 1.5	Establish application and database optimization and maintenance protocols and timetable			
	Achieved	Yes		
	Comments	Please refer to the comment under the output.		
Activity 1.6	Develop, test and launch FSNIS website and user interface			
	Achieved	Yes		
	Comments	The FSNIS website was developed and tested for user interface and is now almost ready for launch.		

	FSNIS analytical products developed and published		
Output 2	Indicators	Target	Achieved
	− The number of Pakistan Food Outlook Forecast reports completed and disseminated	− 5	− Yes
	− Pakistan Food Price Bulletin (both monthly and weekly) Reports are produced.	− 6	− Yes
	− Price Monitoring Annual Report during COVID-19 produced.	− 1	− Yes
Baseline	0 for every indicator above.		
Comments	Five Pakistan Food Outlook Forecast Reports for agricultural seasons, 16 crop briefs, 1 report on Food Price Monitoring during COVID-19 and 20 weekly Food Price bulletins were prepared by the project team. These weekly price bulletins were prepared in response to the COVID-19 outbreak in Pakistan.		
Activity 2.1	Nomination and notification of government staff and technical focal persons of other stakeholders (UN and other international organizations) for the FSNIS analytical products		
	Achieved	Yes	
	Comments	The government officials from MNFSR, MoPDR, PBS, provincial ministries and departments and the UN agencies, such as FAO, UNICEF, WHO and WFP were nominated for analytical reports of the FSNIS.	
Activity 2.2	Facilitate meetings of the FSNIS Steering and Technical Committees to reach agreement on the schedule of reports preparation and dissemination		
	Achieved	Partially	
	Comments	One meeting of the FSNIS Steering Committee and two meetings of the Technical Committees were facilitated during the project. Moreover, consultation workshops on the findings of the FSNIS analytical reports were organized, which were also attended by some members of the FSNIS Steering and Technical Committees. Unfortunately, several senior government officials were unable to attend the meetings. In addition, due to the COVID-19 pandemic, meetings with all the members of FSNIS and the Technical Committees could not be organized on a more frequent basis.	
Activity 2.3	Establish methods and protocols for the production of FSNIS analytical products		
	Achieved	Partially	
	Comments	The methods and protocols for FSNIA analytical products were partially prepared.	
Activity 2.4	Support MNFSR and other FSNIS stakeholders in analysis and report writing for the FSNIS analytical products according to agreed timetable		
	Achieved	Yes	
	Comments	Different workshops were organized for capacity building of relevant FSNIS stakeholders for analytical products.	

Output 3	National FSNIS staff skilled in applying the FSNIS tools and models		
	Indicators	Target	Achieved
	− The number of data validation workshops organized at national, provincial and regional levels.	− 7	− Partially
	− The number of training sessions organized for national FSNIS staff on the theory and application of approved models for preparation of analytical products.	− 3	− Yes
	− The number of national FSNIS staff trained on analysis and report writing of FSNIS analytical products.	− 75	− Yes
Baseline	0 for every indicator above.		
Comments	Five trainings and data validation workshops were conducted for capacity building of relevant stakeholders, and 149 government officials and stakeholders from different ministries, departments and research institutes participated in the capacity building workshops.		
Activity 3.1	Arrange data validation workshops for FSNIS at national, provincial and regional levels		
	Achieved	Yes	
	Comments	Three data validation workshops were conducted for the FSNIS analytical products. Government officials from MNFSR, MoPDR, PBS, SUPPARCO, the Pakistan Meteorological Department, provincial agriculture departments and other relevant stakeholders participated in these workshops.	
Activity 3.2	Training workshops building the capacities of MNFSR and FSNIS stakeholders in modelling techniques and analysis required for the FSNIS analytical products conducted		
	Achieved	Yes	
	Comments	Three training workshops were conducted for relevant stakeholder on the methodology of Pakistan Food Forecast reports, which included forecast methodology, data availability, commodity balance sheet and other components of reports.	
Activity 3.3	Support the FSNIS Steering and Technical Committees to reach agreement and adopt a model (or models) for the Pakistan Food Outlook Reports		
	Achieved	Yes	
	Comments	Members of the FSNIS Steering and Technical committees extended their agreement on the methodology used for the situation overview and forecasting of the 11 major food crops grown in both Rabi and Kharif agricultural seasons in Pakistan.	