





# **DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA (DPRK)**

FAO/WFP JOINT RAPID FOOD SECURITY ASSESSMENT

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### 1. HIGHLIGHTS

- Prolonged dry spells, abnormally high temperatures and floods, coupled with limited supplies of agricultural inputs, had a severe impact on yields of the 2018 main crops harvested last September/October.
- Production prospects for the 2018/19 early season crops – to be harvested in June – are unfavourable due to widespread low rainfall and lack of snow cover, which left crops exposed to freezing temperatures during winter.
- Post-harvest losses from harvesting to storage are expected to be higher than usual as shortages of fuel and electricity hampered the timely transport and processing of crops as well as the ventilation of stocks.
- The 2018 aggregate food crop production is estimated to be below-average at 4.9 million mt, 12 percent below the previous year's near-average level and the lowest level since the 2008/09 season.
- Cereal import requirements in the 2018/19
  marketing year (November/October) are estimated
  at 1.59 million mt. With commercial imports officially
  planned at 200,000 mt and food assistance (already
  received or pledged) set at about 21,200 mt, the
  uncovered deficit for the full marketing year is
  estimated at an elevated level of about
  1.36 million mt.
- Food consumption levels are low and dietary diversity is very poor. Diets mainly consist of rice, maize or potatoes complimented by kimchi (cabbage) or vegetables and greens, when available. Protein intake is very low. Poor food consumption is widespread in the surveyed population in both November (37 percent) and April (46 percent) assessments and only a few households have an acceptable diet.
- Food-related coping strategies are widely adopted, including reducing consumption by adults for children to eat and reducing meal sizes. Urban households who typically rely on relatives in rural areas to access food and diversify

- their consumption are no longer able to do so to the same extent, as also rural households increasingly face food shortages.
- Since January 2019, rations of the Public
   Distribution System (PDS) have been reduced to
   300 grams per person per day (g/pp/day), which
   compares to 380 grams during the same period in
   2018. Rations may decline further during the July to
   September period, when PDS rations are typically
   lower compared to other months of the year.
- Overall, it is estimated that 10.1 million people (40 percent of the population) are food insecure and in urgent need of food assistance. The situation could further deteriorate during the lean season from May to September, if no proper and urgent humanitarian actions are taken.

## 2. MISSION OBJECTIVES AND METHODOLOGY

#### **OBJECTIVES**

Climate-related shocks combined with political and economic factors in the Democratic People's Republic of Korea (DPRK) have hampered the food security situation in the country for many years. According to the 2018 State of Food Security and Nutrition in the World (SOFI) report, the prevalence of undernourishment stands at 43 percent, resulting in 11 million people in DPRK being undernourished.

At request of the Government, a joint FAO/WFP rapid Food Security Assessment Mission (rFSA) visited DPRK from 29 March to 12 April 2019. The overall objective of the joint FAO/WFP Mission was to conduct an independent assessment of the 2018 production shortfall and the food security situation in the country. Provision of accurate, timely and credible information through this exercise is critical to inform appropriate interventions by the Government, the international community and others to mitigate the impact of the reported drops in harvest output.

#### THE MAIN OBJECTIVES WERE TO:

- Review and verify the 2018 main season crop production and forecast the 2018/19 spring/winter crop production following damage due to erratic precipitation (snow and rainfall);
- Compile the supply/demand balance for main food commodities for the 2018/19 marketing year;
- Assess agricultural input supplies for the 2019 main agricultural season;
- Assess the functioning of food markets, including food availability and price trends; and
- Estimate the number of food insecure people who are in need of food assistance.

#### **METHODOLOGY**

The Mission comprised eight FAO and WFP senior agriculture and food security technical experts. A variety of methods were used to triangulate information gathered: a literature and secondary data review<sup>1</sup>, field visits, key informant interviews at national and county level, as well as a household survey with PDS dependent and cooperative farmers.

The Mission carried out a retrospective analysis of official production data for the 2018 main harvest, made an early forecast to produce the 2018/19 winter and spring crops, and estimated food crop import requirements for the 2018/19 marketing year (November/October). Satellite-based imagery was used to validate the official information on production of the 2018 main season crops that were harvested at the end of 2018.

Accompanied by experts from the Central Bureau of Statistics (CBS), the Mission, divided into four teams, covered 12 counties in 6 provinces. During the field visit, the Mission met with county-level government representatives and participated in the interviews conducted by CBS staff to assess the food security situation at household level. The Mission also visited cooperative farms, Public Distribution Centres (PDCs), child nurseries, as well state and vegetable shops.

Moreover, 25 additional counties in 9 provinces were covered during the food security assessment conducted by WFP in November 2018.

In both assessments, the visited area was widely diversified in terms of contribution to national food production, as well as the severity of weather shocks experienced during the previous agricultural seasons and general food security conditions. The areas covered both urban and remote rural areas, as well as counties with and without WFP operational presence.

The assessment tools were jointly developed with CBS, and the household questionnaire contained WFP core standard food security indicators. Prior to the field assessment, training sessions were conducted by WFP and FAO with all CBS interviewers on the household survey tool and key informant checklists.

The assessment team drew conclusions from two household assessments, the first conducted in November 2018, where 125 households were interviewed, and the second conducted in April 2019, where an additional 54 households were interviewed using the same survey tool with some slight adjustments. Mission team members were present during household-level interviews as part of both assessments.

Therefore, in total, the analysis included in this report is based on visits to 37 counties and interviews with 179 households (see also Map on page 7).

<sup>1 -</sup> The Government provided the Mission with the following official data: estimates of areas harvested; yields and production by main food crops at county, provincial and national level; supply of agricultural inputs; livestock numbers; Public Distribution System (PDS) ration levels, and meteorological data. The Mission cross-checked official data against information gathered during interviews with key informants in the capital as well as during the work in the field.

**TABLE 1: DPRK - SURVEYED HOUSEHOLDS BY TYPE** 

	Number of Households	Number of Counties	PDS Dependent Households	Cooperative Farming Households	Mixed Households
November 2018	125	25	78	37	10
April 2019	54	12	40	14	
TOTAL	179	37	118	51	10

Household selection of both assessments were purposively done by the CBS based on specific criteria agreed beforehand (distribution of PDS-dependent households vs. cooperative farming households, urban/rural distribution, occupation types of household head, etc.). Out of the total sample of 179, 118 households were PDS-dependent and 51 were cooperative farmers. Moreover, 101 households are defined as urban and 79 as rural. Overall, 22 households contained a pregnant or breastfeeding woman. All data were processed and analysed at the CBS with WFP officers present at the CBS premises throughout.

Upon return from the field, the Mission held a technical meeting with officials from the Ministry of Agriculture, the CBS, the Ministry of Land and Environment Protection, the Ministry of Food Procurement and Administration, the Ministry of Commerce and the National Coordinating Committee (NCC) with the aim to gain more in-depth knowledge on specific issues and to request additional information needed.



FAO/WFP assessment team visit to a cooperative farm in Sinchon County, South Hwanghae Province, April 2019.

Prior to departing the country, the Mission briefed the NCC and the CBS on its main findings. Short debriefing meetings were also held with staff of UN agencies, resident NGOs (known locally as EU Project Support Units or EUPS)

as part of the Food Security Sector Working Group, and members of the donor and diplomatic community.

#### **LIMITATIONS**

The Mission took place outside the pre-harvest/harvest period of the main crop season, therefore the validation of production data could only be made retrospectively, without observing the crop conditions in the field. In addition, there are no official production statistics for sloping land (above 15 degrees), because framing in these areas, besides agro-farming, is officially discouraged by the Government. The Mission was informed that since 2014, the government has initiated a reforestation programme that is resulting in a gradual decline in production from sloping lands.

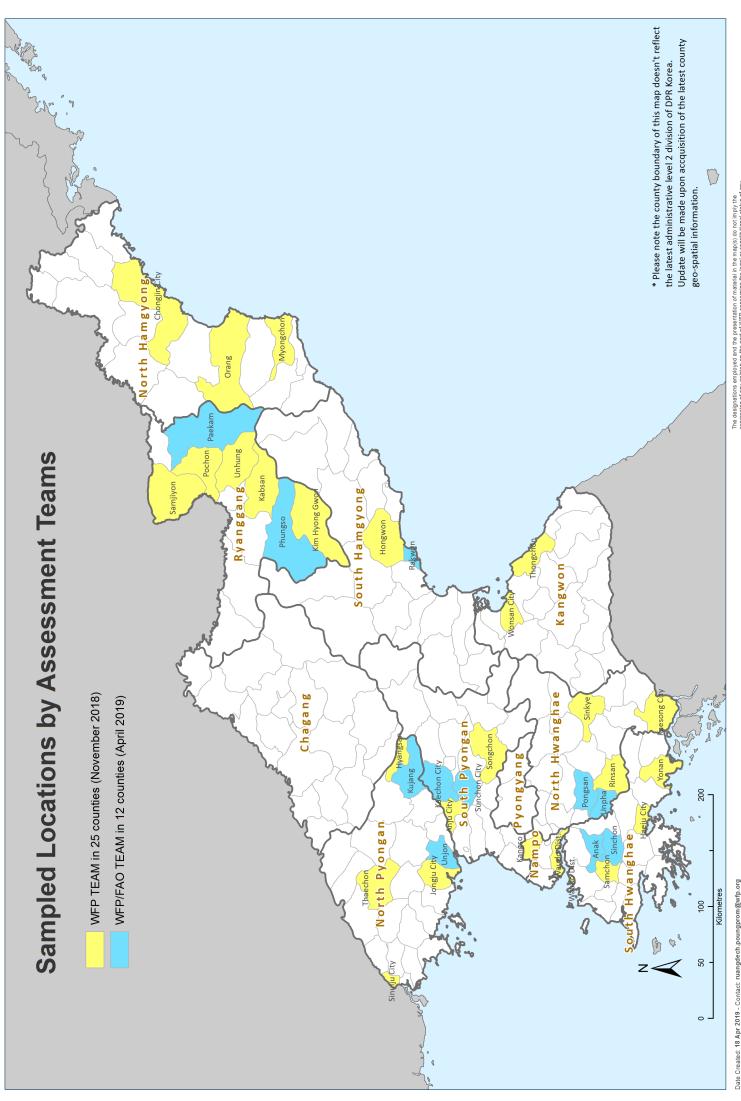
As described in the methodology section, a purposive sampling methodology was applied by CBS to ensure representation of relevant population groups. This means that findings are indicative of the situation, however, do not provide statistically representative findings at national or sub-national level.

The urban and rural categories applied during this assessment are based on the official consideration of interviewed households and the official statistics. It is worth noting that in DPRK, urban-rural boundaries are not clearly delimited by population or infrastructure densities, but by the administration that controls any given area. If it falls under the "Up" administration, the area is considered an urban area. If it falls under the "Ri", the administration is rural. Many of the "Up" areas covered could be considered as rural in terms of their geographic and livelihoods characteristics. The Mission therefore decided not to present findings by urban and rural in this report.

It is worth noting that all data collected is owned by the Government's CBS, which is also responsible for all data analysis according to national law. Mission members agreed with CBS on the analysis plan in line with the agreement between FAO/WFP and CBS. However, additional analysis beyond the agreed data outputs proved to be challenging to obtain due to time limit.

The Mission was able to visit PDCs, but it was unable to observe direct distributions of rations to PDS-dependent households during the Mission.

The assessment team also experienced challenges in



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FAO/WFP assessment team visit to a cooperative farm in Pongsan County, North Hwanghae Province, April 2019.

accessing markets and acquiring market-related data. However, the team was not able to visit farmers' markets during the field visit. While authorization was granted at national level to visit farmer's markets, county authorities informed that they were not able to receive any foreign delegation on the day. Market visits are highly recommended to fill this information gap in future assessments. Finally, the team could only gather limited information on people's incomes and expenditures<sup>2</sup> during the household surveys.

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