



GIEWS Update

The Democratic People's Republic of Korea

Prolonged dry spell raises serious concerns for 2015 food crop production

Highlights:

- Prolonged dry spell from April to early June in main growing areas of the country affected plantings and yield potential of the 2015 food crops.
- Production of the 2014/15 early season potatoes and minor wheat and barley crops, currently harvested, anticipated to be considerably reduced.
- More rains are urgently needed to avoid a significant decrease in 2015 cereal production and the deterioration of the food security situation.

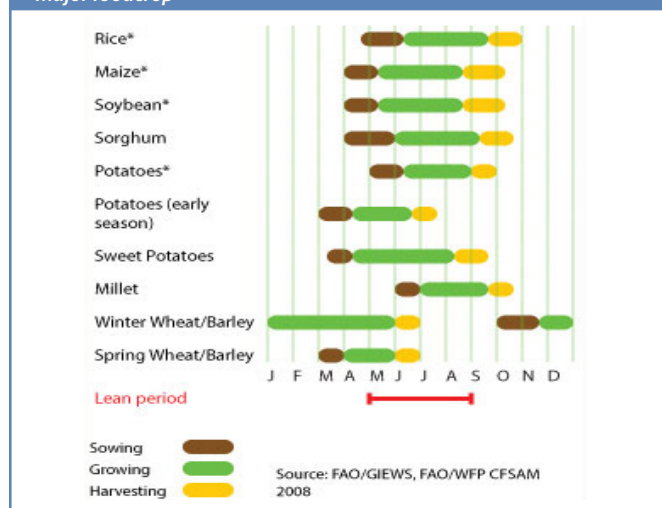
A prolonged dry spell from mid-April to early June, the normal planting period for the main season cereal crops, led to soil moisture deficits particularly in the central and southern “food basket” provinces of the country. This resulted in area planted reductions of the 2015 staple rice crop and adversely affected yield potential of early-planted crops, including also maize and soybeans. Although some rains during the second dekad of May over most of the growing areas provided

some relief, they were not sufficient to allow planting to pick up and support the normal development of crops. The provinces of North and South Hwanghae, which collectively contribute to the largest share of the national cereal output have been most affected by the dry spell. A detailed assessment of the crop damage is not yet available, but early official estimates provided by the National Coordinating Committee (NCC), as of 8 June, indicate a severe contraction for rice plantings and large cultivated areas adversely affected by the current dry spell. For the earlier planted 2015 maize crop, area reductions are not reported but yields are likely to be affected if rains do not resume soon. Similarly, the dry spell has also seriously affected the maturing 2014/15 early season crops normally harvested in June.

More rains are urgently needed in the coming weeks to avoid a significant decrease in the 2015 cereal production. Should drought conditions persist, the food security situation is likely to deteriorate from that of the previous years, when most households were already estimated to have borderline and poor food consumption rates. FAO will continue to closely monitor the weather situation and crop progress, particularly in view of the current development of the El Niño phenomenon, which is often associated with dry weather in the region.

Figure 1: DPRK - Crop Calendar

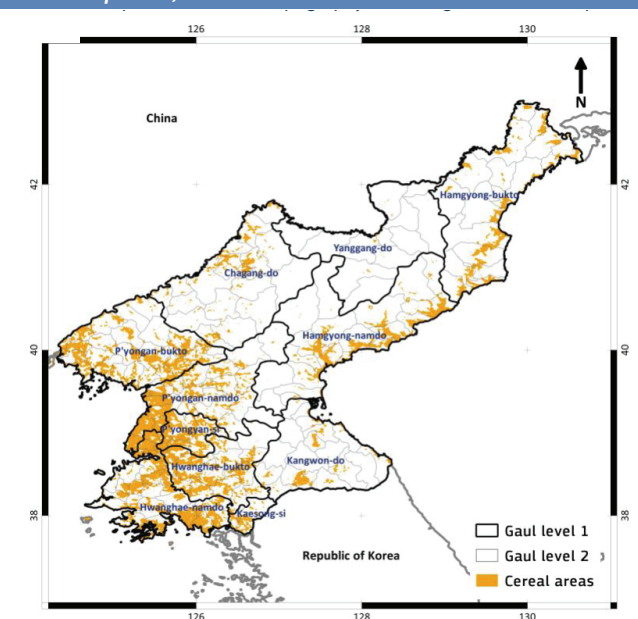
**major foodcrop*



Sharply reduced 2014/15 early season crops for second consecutive year

The dry spell in the past two months has also seriously affected the 2014/15 early season crops (minor winter/spring barley and wheat and main potato crops), currently being harvested. Water deficits, at the final development stage (April-May) of the 2014/15 early crops, are expected to have negatively affected yields. No precise information on the full extent of the damage is yet available. FAO's early forecast in February 2015 had already indicated an unfavourable outlook for the 2014/15 early crops production, due to a significant reduction in plantings compared to the previous year, as a result of shortages of seeds following the reduced harvest in 2013/14. Following the current prolonged dry spell, and based on recent field visits of UN Agencies, EU, international cooperation agencies and Non-Governmental Organizations to the North Hwanghae and South Hwanghae provinces on 10 June, the early crops production (potato, wheat and barley) could be reduced up to 40-50 percent in the drought-affected areas compared with normal levels. As a result, FAO's forecast has been revised downwards, with potato production set at 220 000 tonnes, or 24 percent down from 2013/14, while the winter wheat and barley harvest is expected at 57 000 tonnes, a decline of 26 percent. Although the early season

Figure 2: DPRK - Main cereal areas
(MARS-JRC crop mask based on topography indicating areas with a slope < 5°)



Source: Joint Research Centre - MARS

harvest is relatively small, accounting for about 8 percent of the total annual cereal production, spring crops are vital for food security, being an important food source for the lean season, which stretches from May to September.

Figure 3: DPRK - Rainfall

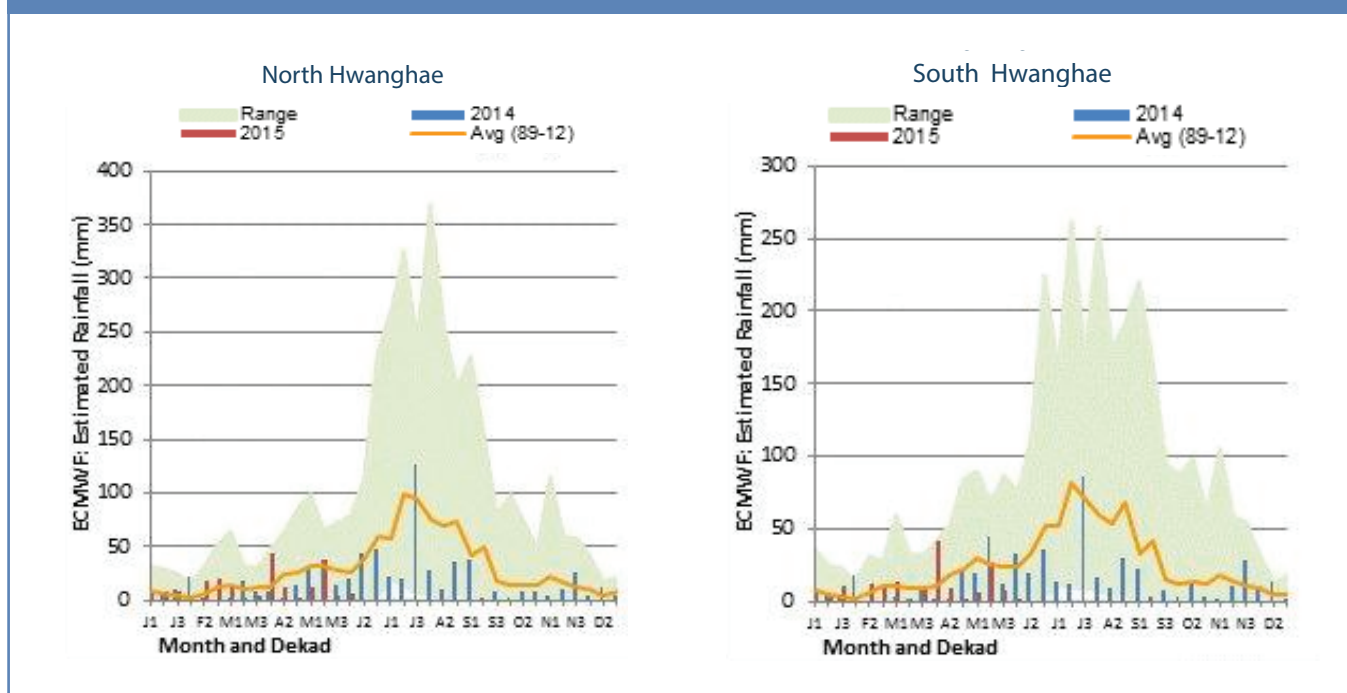
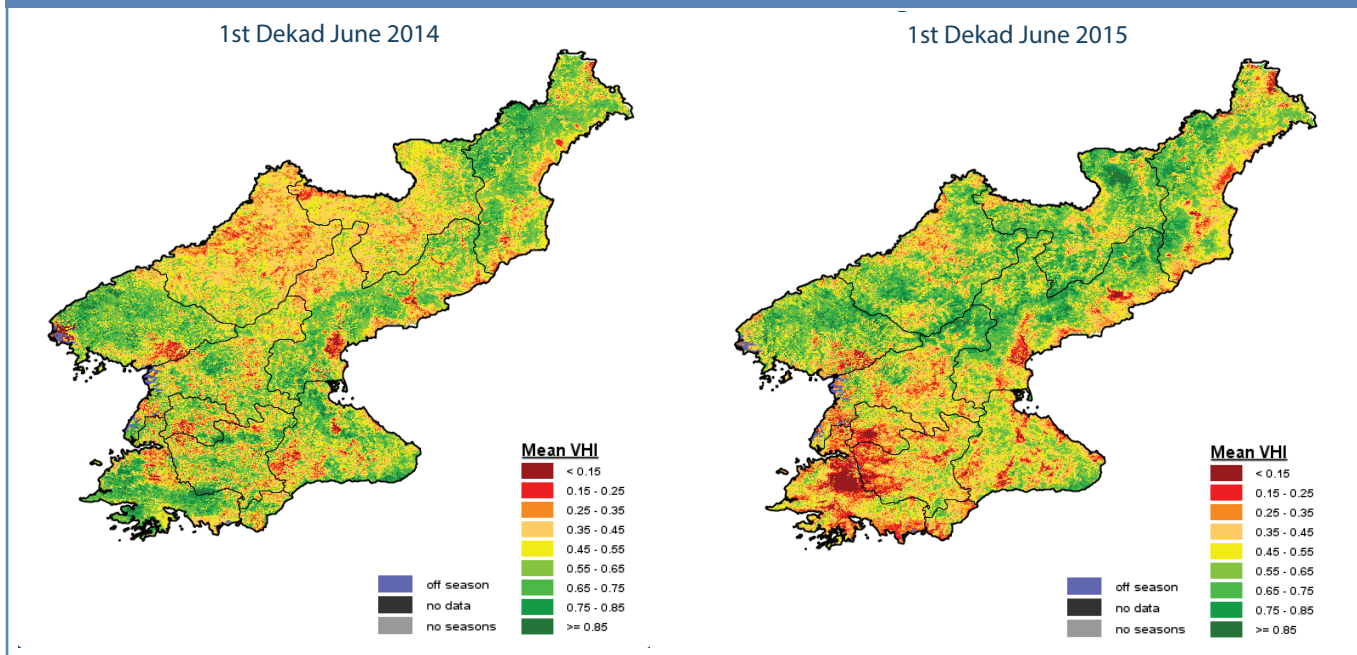


Figure 4: DPRK - Mean Vegetation Health Index (VHI)

Main season 2015 cereal production forecast to decline sharply from last year

According to information from the international organizations' field visits, wells are dry and water levels in the reservoirs are below average, following considerably reduced rains and snowfall in 2014 and early 2015. This has reportedly, negatively impacted transplanting activities of rice. Although initially the area planted to the 2015 main season rice crop was officially projected to increase by 4 percent compared to last year's reduced level to 545 498 hectares, preliminary estimates by the NCC indicate that as of 8 June, only 441 562 hectares or 81 percent out of the planned area were transplanted, with 34 339 hectares lost to dry weather. In addition, 136 245 hectares, accounting for some 31 percent of the transplanted area are reported to be adversely affected. Considering the reductions in planted area and expected reduced yields, FAO tentatively forecasts the 2015 rice production at 2.3 million tonnes, 12 percent below last year's drought-affected output and considerably below the previous five-year average.

Reports from field visits also indicate that the transplanting of maize, which normally starts earlier in the season, was mostly completed. While area planted reductions are not reported, maize yields are expected to be lower than last year's good levels when, despite dry weather during the cropping season, the Government's efforts to provide supplementary irrigation, through mass mobilization of people resulted in higher maize yields. However, this year's reports indicate extreme low levels of irrigation and ground water reserves following two consecutive years of dry weather, which is expected to negatively affect irrigation activities. Reports from field visits, as well as vegetation conditions, as capture by the satellite-based Vegetation Health Index (see VHI maps in Figure 4 for 2015 compared to 2014), suggest poor growing conditions of the main season maize crops in the main central and southern

Table 1: DPRK - Production of 2014 and 2015 early and main season food crops
(*tonnes, ** 000 tonnes)

Early Season*	2010-2014	2013/14	2014/15	Change
Wheat and Barley	114 517	76 587	57 000	-26%
Potatoes	277 916	289 580	220 000	-24%
Main Season **	2010-2014	2014	2015	Change
Paddy	2 622	2 626	2 300	-12%
Maize	2 168	2 594	2 200	-15%

Table 2: DPRK - Main 2015 season paddy crop area affected by drought as of 8 June
(province and hectares)

Province	Planned area	Lost area	Transplanted area	Transplanted area affected by drought
Pyongyang	15 045		12 497	1 489
South Phyongan	84 234	3 988	71 366	11 240
North Phyongan	104 084	925	98 796	8 592
Chagang	6 284	20	5 986	394
South Hwanghae	144 500	14 640	107 590	85 893
North Hwanghae	48 889	11 408	29 198	16 871
Kangwon	27 856	1 199	23 441	
South Hamgyong	60 372	1 842	52 345	
North Hamgyong	23 402		21 742	9 446
Ryangyang	1 412		908	
Nampo	27 420	317	17 693	2 320
Total	543 498	34 339	441 562	136 245

Source: National Coordinating Committee (NCC), DPRK

producing areas. Assuming a decrease in yields and average plantings, FAO tentatively forecasts the 2015 maize production at 2.2 million tonnes, a drop of 15 percent from last year's good level.

Any replanting of maize and rice crops would require additional short-cycle seed varieties. Therefore, an

urgent examination of needs and actions is required to make the seeds available to secure the country's main staples maize and rice shortages.

If rains do not improve yields of others crops, including spring potatoes and soybeans are expected to be adversely affected.

This report is prepared by the **Global Information and Early Warning System (GIEWS)** of the Trade and Markets Division of FAO. The updates focus on developing anomalous conditions aimed at providing early warnings, as well as latest and more elaborate information than other GIEWS regular reports on the food security situation of countries, at both national and sub-national levels. None of the information in this report should be regarded as statements of governmental views.

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