



# GIEWS Update

## Southeast Asia Flood Situation

**Food security concerns for large numbers of people in several Asian countries following severe localized monsoon floods**

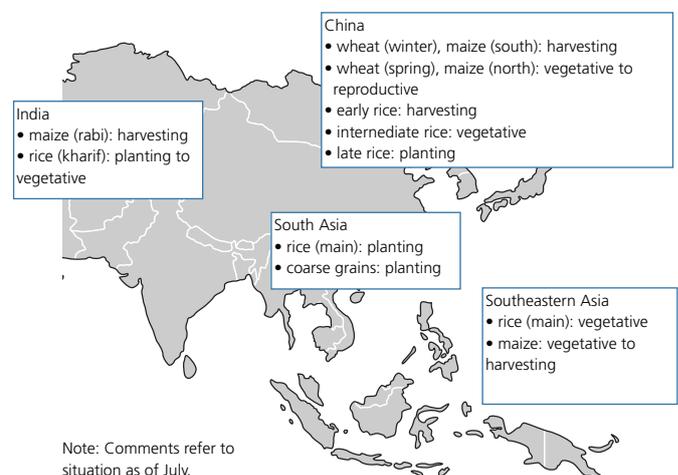
### Highlights:

- Severe localized floods during the first half of the 2016 monsoon season have affected large numbers of people, causing deaths and injuries, loss of livestock and food supplies, and damage to housing and infrastructure
- While the severe floods have had large negative impacts, the above-average rains helped alleviate dryness in areas affected by El Niño in the 2015/16 agricultural season, benefitting planting and early development of the 2016 main season crops
- Although some severe localized crop losses are likely in several countries, overall production prospects for the 2016 main season remain positive in the subregion

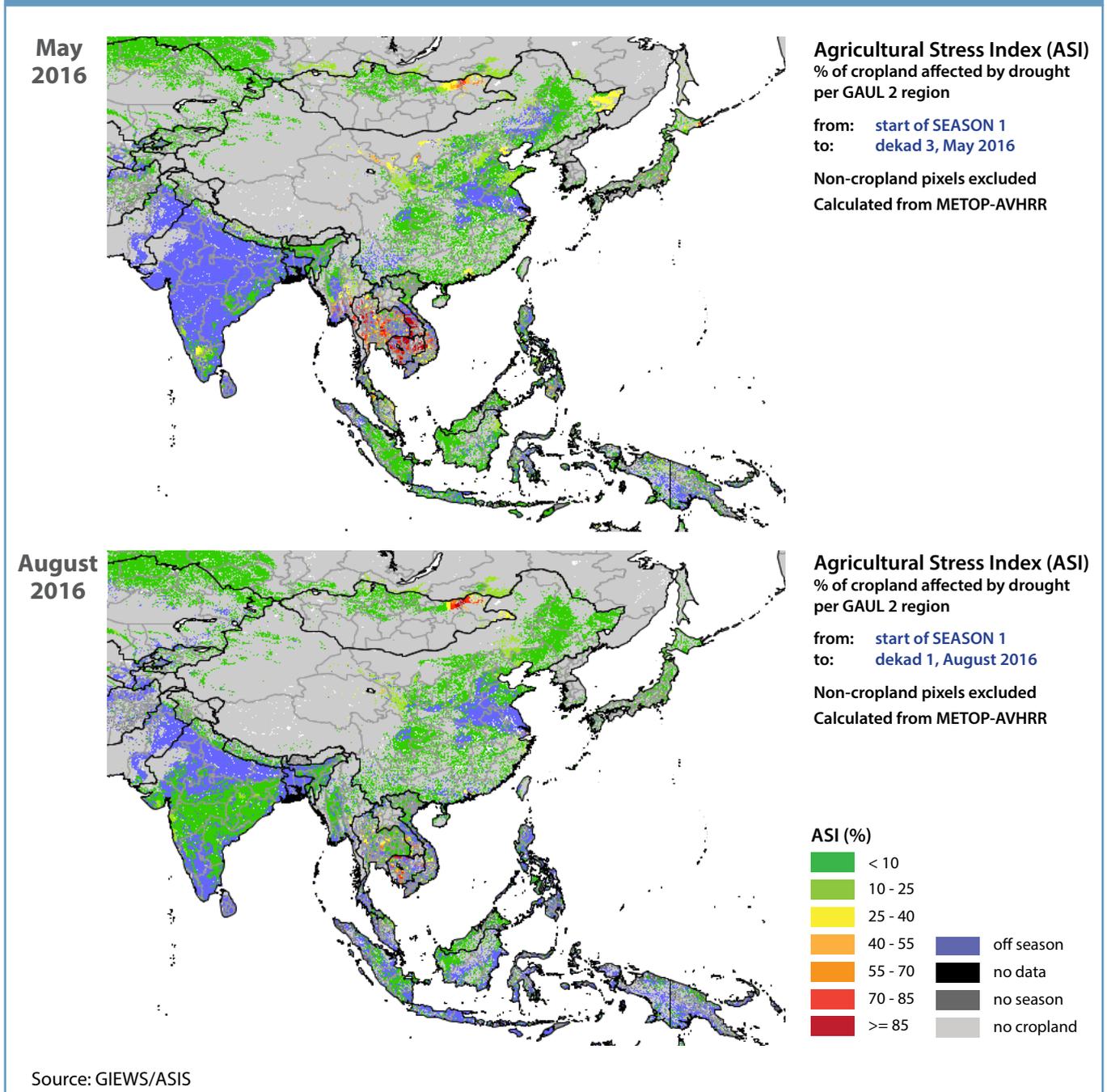
Southeast Asia is prone to floods during the monsoon season that normally extends from late May to September. This year, however, above-average monsoon rains, coupled with a succession of typhoons and tropical storms from June to early August, have caused severe localized floods in several countries in the subregion, resulting in the loss of hundreds of lives, displacement of millions of people and much damage to agriculture and infrastructure. Losses of livestock, stored food and other belongings have also been reported. Affected countries include Bangladesh, Bhutan, China, India, Myanmar, Nepal, Pakistan and Sri Lanka. While the severe floods have had large negative impacts, abundant rains brought relief to areas affected by the El Niño-induced dryness during 2015/16 agricultural season (see Figure 1).

The floods occurred when the 2016 main season cereal crops, mainly paddy and maize, had just been planted or were still being sown. A comprehensive evaluation of the flood damage is not yet available, but early-planted crops in lowland areas are likely to have been affected the most. However, although severe localized crop losses are likely in several countries,

the overall impact on the 2016 main season crop in the subregion is expected to be limited, as the above-average rains have been beneficial overall for planting operations and early crop development in most countries. Furthermore, current forecasts point to a 55-60 percent likelihood of La Niña manifesting during the last quarter of the year, with a slightly lower chance that the onset may occur during August-October. As



**Figure 1: Southeast Asia - Agricultural Stress Index (ASI) comparison between first dekad of August 2016 and third dekad of May 2016**



La Niña is historically associated with increased rains in some parts of the subregion, this could benefit the 2016 main season crop development and improve water reservoir levels for the 2016 irrigated secondary season crop in Northern Hemisphere countries. In Southern Hemisphere countries, La Niña may prove beneficial for the ongoing 2016 secondary season crop and planting of the 2017 main crop. As such, and assuming no major setbacks during the remainder of the season, FAO's current outlook for the 2016 cereal crops in the subregion is positive. However, close monitoring is warranted, particularly considering that

abundant precipitation related to La Niña could also raise the potential for flooding in parts.

### Bangladesh

Heavy monsoon rains since mid-July caused a series of localized floods and landslides, mostly concentrated in northern and central parts of the country, affecting at least 3.7 million people and damaging a total of 251 716 houses. The most affected districts include Kurigram, Gaibandha, Jamalpur, Lalmonirhat and Sirajganj located in the north and Tangail, Madaripur, Manikganj and Shariatpur in the centre. Recent

floods followed earlier tropical cyclone Roanu which triggered strong winds, landslides and flooding over southern coastal areas in mid-May.

Almost all of the country's cereal crop is paddy. When the floods occurred, harvesting of the 2016 *boro* paddy crop (accounting for some 55 percent of annual production) was completed, the *aus* crop (7 percent of total production) was being harvested and the *aman* crop (38 percent of total paddy output) was being planted. Official partial estimates from the Network for Information, Response and Preparedness Activities on Disaster (NIRAPAD) indicate no significant crop damage as of July.

### Nepal

Torrential monsoon rains since mid-June, which increased considerably in the third dekad of July, resulted in localized flooding and landslides in 36 of the country's 75 districts. Western and Eastern regions recorded some 450 mm rainfall during the third dekad of July, up more than four times compared to the average levels. The most severely hit districts are Dang, Pyuthan and Rolpa (Mid-Western Region), Baglung, Gulmi, Kapilavastu, Rupandehi and Nawalparasi (Western Region), Sindhupalchowk (Central Region) and Saptari, Morang, Jhapa and Sunsari (Eastern Region). According to the Nepal Red Cross, nearly 4 000 people have been displaced, more than 3 000 houses have been damaged or destroyed and some 15 000 families remain severely affected by the floods.

The timing of floods coincided with the peak of the 2016 rice planting season in the Terai (plains), that account for over 70 percent of the total production of paddy (the basic staple in Nepal). In the most affected areas, floods have likely hampered planting operations and may have caused losses to the standing crops, including early-planted paddy and the ready-to-be harvested 2016 maize crop, particularly in the lowland areas.

### China

Heavy seasonal rains, coupled with storms and typhoons since mid-June triggered severe localized flooding in central and southern parts of the country, causing severe damage to housing, infrastructure and the agricultural sector. According to official data, in July, at least 612 people lost their lives, 1.87 million houses were damaged or destroyed (the highest number since 2011) and 7.3 million hectares of farmland negatively affected.

At the time of the floods, harvesting of the 2016 winter wheat crop, which accounts for 95 percent of the annual production, was nearing completion in the central and eastern parts of the country, while the

spring wheat, normally grown in the northern areas, was being planted. Excessive rains and consequent pest outbreaks negatively affected the ready-to-be harvested winter wheat crop in localized central-eastern provinces of the country and may have reduced the yield potential of the early-planted spring crop. As a result, the China National Grains and Oils Information Centre forecasts the 2016 wheat production at 128.6 million tonnes, 1.6 million tonnes below last year's level but still the second best on record. As to the 2016 paddy crop, it is still officially expected to reach record levels, as flood-induced losses are expected to be more than offset by an increased output in non-flood affected areas, namely the northeastern provinces. The impact of the floods on the 2016 main season maize crop is expected to be minimal.

### India

Above-average monsoon rainfall since July resulted in floods and landslides over northeastern parts of the country, hitting the states of Assam, Bihar and Madhya Pradesh the most. According to official data, as of mid-August, the floods negatively affected more than 4.2 million people in Bihar alone.

The floods occurred when the 2016 main *kharif* crops, mainly paddy, maize, sorghum and millet, were still being sown. Although an assessment of crop damage is still pending, up to 200 000 hectares of standing crops in Bihar were reported to be affected. However, abundant rains also benefitted planting activities and early crop development of the 2016 main season crops. Official estimates indicate that, as of 12 August, 49.96 million hectares had been put under main season cereals, up 7 percent compared to last year's level.

### Myanmar

Excessive precipitation in parts of Ayeyarwady, Bago, Sagaing regions and in Chin and Rakhine states triggered a series of localized flooding since early June, affecting at least 400 000 people. The same areas were also impacted by the severe floods and landslides in July and August last year. Particularly affected remain Chin and Rakhine states, where highly vulnerable populations have not yet recovered from the 2015 floods.

### Sri Lanka

Floods in mid-May adversely affected at least 300 000 people mostly located in the districts of Batticaloa (Eastern Province), Anuradhapura (North Central Province), Kurunagala (North Western Province) and Monaragala (Uva Province).

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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