

Special Update: Flood impacts in Iran and Iraq

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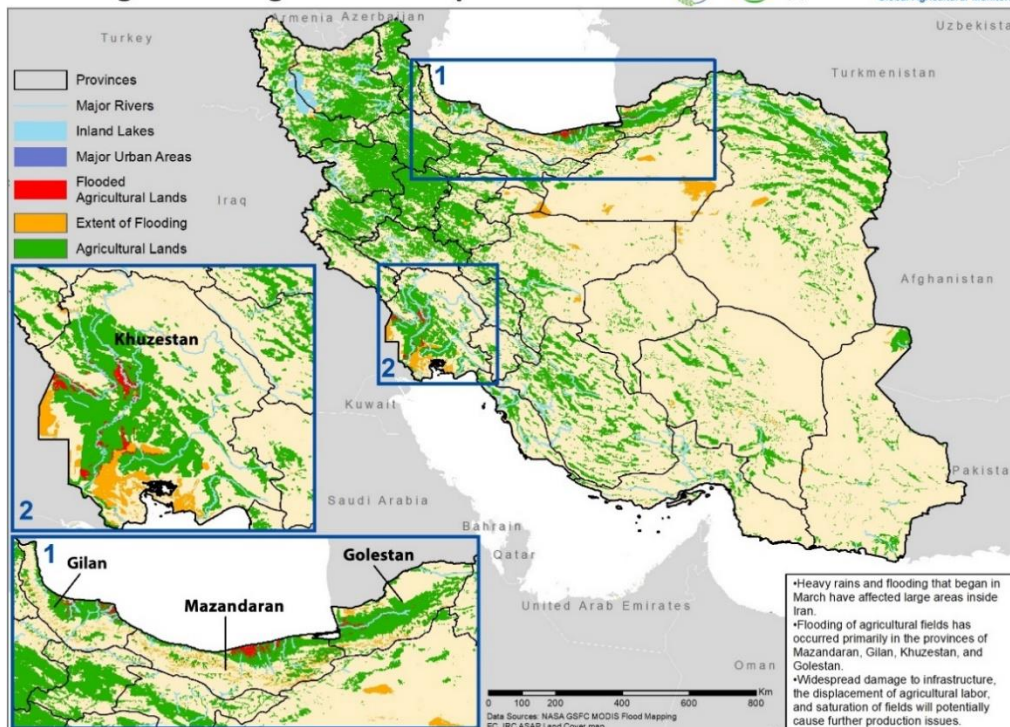
Highlights:

- Heavy rainfall in the last two weeks of March led to severe flooding across many parts of the subregion including north and the south of Iran, eastern Iraq and to a lesser extent parts of Syria.
- Heavy rainfall continued into the start of April causing further flood events and damage particularly in Iran.
- Harvest of the 2019 winter barley is already underway, and wheat will be harvested from late May. Flooding is expected to have an impact on harvest activities and overall production.

In Iran, heavy rain starting on March 19th led to flash flood events across North Khorosan, Razavi Khorosan, Gilan, Mazandaran, Golestan, and Semnan provinces in the north of the country and Khuzestan in the south, resulting in deaths and severe infrastructure damage. Worst affected areas of Golestan province received 70 percent of average annual rain in the first 24 hours of the downpour. Across other heavily affected areas, rainfall totals for the two days of at the height of the downpour were above the average rainfall normally received throughout the whole month. This followed an already very wet winter with cumulative precipitation significantly above the 5 year average (Figure 2).

Heavy rainfall continued through the end of March and into the start of April and has led to further flash flood events with the worst affected areas over Lorestan, Khuzestan and Golestan provinces. While the majority of March-April flooding occurred in non-agriculture areas, some cropping areas were affected and local production will be impacted (Figure 1). Damages in road infrastructure are likely to challenge internal movement of goods, including agricultural

Flooding in Iran: Agricultural Impacts



products. Flood extent across agricultural areas in Iran is shown in Figure 1 and further detailed in Figure 3 over Khuzestan province. Since the start of the flooding in March, 28 out of 31 provinces across Iran have been impacted and an estimated 10 million people have been affected by flooding. At least 296,000 people remain displaced by the floods and there has been damage to infrastructure and agricultural areas (UNOCHA).

Wheat harvest will start in June and previously above average national production prospects have been downgraded to average and in line with last years' production due to the recent

Figure 1. Recent flooding in Iran since March and its associated impact on agricultural areas. The main crop in the northern provinces (area 1) is rice, followed by wheat and barley. On the west (area 2), the main crop is sugar cane, and to a lesser extent wheat and barley.

floods (FAO GIEWS). However, final production will depend on the full impact of the floods which is still being assessed.

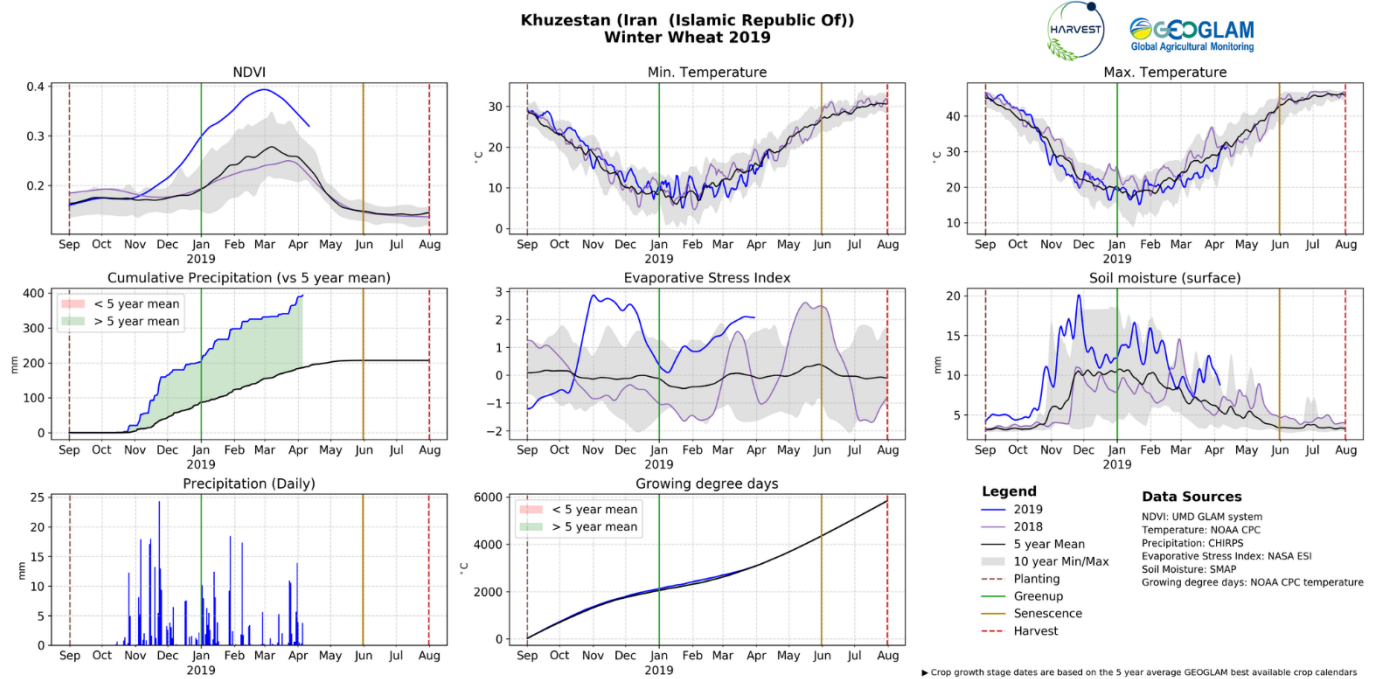


Figure 2: Agro-climatic indicators over the current 2019 winter wheat season in Khuzestan, Iran.

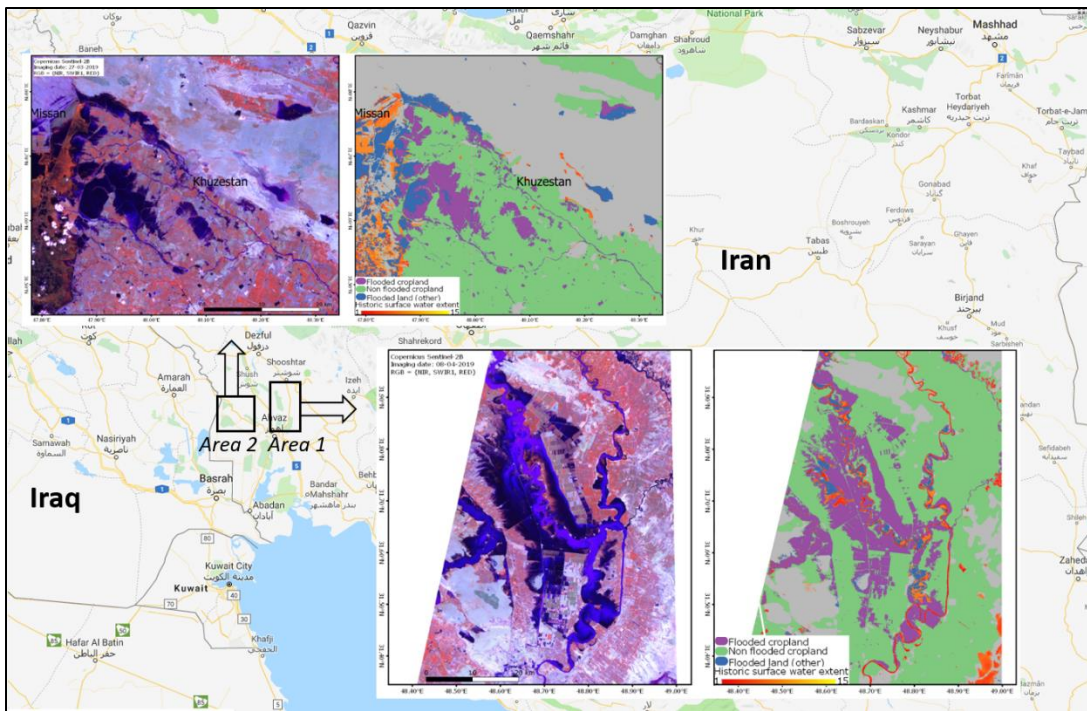


Figure 3. Flooded cropland areas in Khuzestan region, in Iran, for Area 1 along Dez river (08/04/2019) and for Area 2 close to the border with Iraq (27/03/2019)

In Iraq, three days of torrential rain at the end of March led to major flooding across eastern provinces of Diyala, Wasit, Misau and Al Basrah governorates. Flood extent across agricultural areas in parts of eastern Iraq is shown in Figure 4. Across these areas, cereal production is limited however, flooding also affected Kirkuk, Ninevah and Al Suleymaniah governorates in the wheat producing belt in the north.

Before floods in March, the 2019 wheat harvest was forecast at 4 million tonnes, 80 percent above the previous year’s harvest and 25 percent above the five year average due to exceptional weather throughout

the season (FAO GIEWS). This was in comparison to the previous years below average harvest due to drought. Following flooding at the end of March, final production is expected to be lower however, the full impact of the floods is still being assessed.

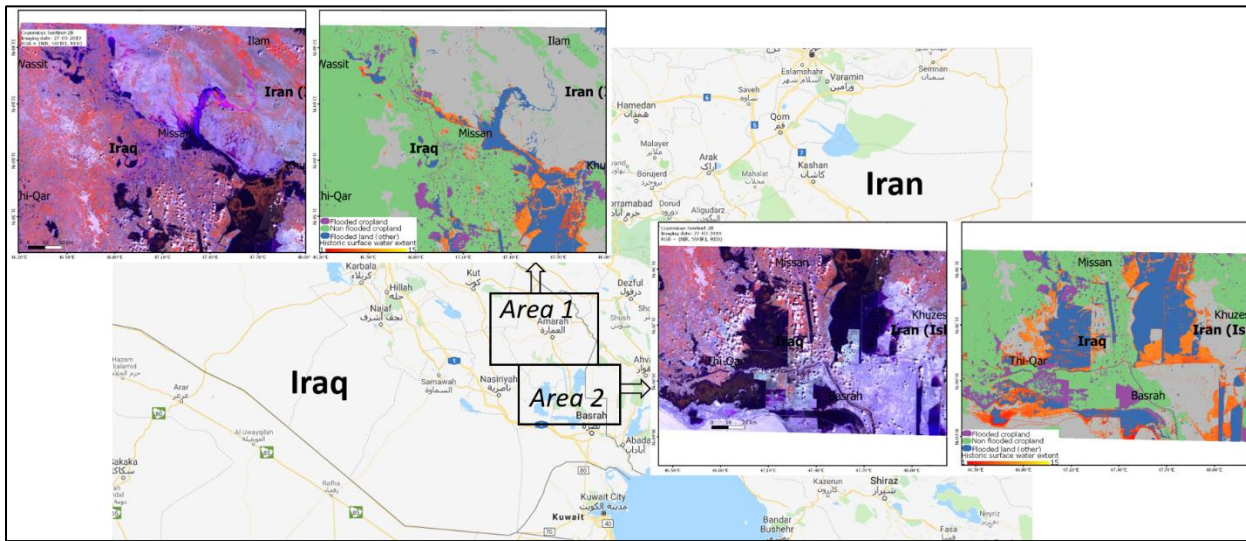


Figure 4. Flooded cropland areas in Iraq for Area 1, in the borders of Missan ,Thi-Qar and Wassit regions and for Area 2, in the borders of Missan ,Basrah and Thi-Qar region (27/03/2019)

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