



Krishi Care & Management Services Pvt. Ltd.



REPORT ON LOCUST ATTACK

UNDERSTANDING LOCUST PLAGUE

Locust is an insect that belongs to the family of grasshoppers. These insects are essentially harmless unless they meet certain circumstances under which they become more abundant and change their behaviour. There are four types of locusts that create a plague – desert locust, migratory locust, Bombay locust, and tree locust. The swarms that have built up this year are of the desert locust.

When the locusts get a suitable environment and absorb behavioural changes, they change colour and often grow larger. They transform themselves from solitary animals into animals that increasingly start breeding, which results in millions of swarms. This majorly happens after a series of strong rain or amid damp environment conditions. These swarms then travel in search of new food. As crops are something which is present in abundance in open fields, the locust swarms settle on a field with the aim to consume the entire vegetation. According to the World Bank Group report climate change is a key driver of the current locust plague. A long stretch of unusually wet weather, including several rare cyclones that struck eastern Africa and the Arabian Peninsula over the last 18 months, created ideal conditions for locusts to breed and spread. Experts fear that locust swarms will become more common as oceans warm and more frequent tropical storms create favorable breeding conditions.



Desert locust
(*Schistocerca gregaria*)



Migratory locust
(*Locusta migratoria*)



Bombay Locust
(*Nomadacris succincta*)

LOCUST PLAGUE IN INDIA

After Iran and Pakistan, the locust swarm has entered India and the forecasting officers have already warned the country against experiencing the worst locust situations in decades. This means that the country that is already dealing with a drastic economic and health crisis due to COVID-19 is on the verge of facing the worst agricultural crisis as well.

According to the Ministry of Environment, Forests and Climate Change, "Locust swarm from Pakistan has entered Rajasthan, Punjab, Haryana and Madhya Pradesh, threatening major damage to standing cotton crops and vegetables. Rajasthan is the most affected state. During the current year, the swarm of locusts has entered India earlier than their normal time of June and July. States are adopting various means for controlling the swarms."

As vegetation dries out, more groups and swarms will form and move from these areas to the summer breeding areas along both sides of the **Indo-Pakistan** border as several waves from now until at least early July. Good rains are predicted during the first half of June along the **Indo-Pakistan** border that would allow egg-laying to occur. This should reduce the further eastward movement of swarms that have already arrived in Rajasthan, **India**.



Tree locust
(*Anacridium sp.*)



IMPACT OF LOCUST PLAGUE

Locusts are considered to be world's most destructive migratory pest, locusts can travel up to 90 miles a day, form 80 million-strong swarms and eat the same amount of food per day as 35,000 people. Larger swarms, like can consume as much as 1.8 million metric tons of green vegetation every day, enough food to feed 81 million people. A small swarm (1 km²) can be made up of 80 million locusts and can consume the same amount of food in one day as 35,000 people, while a large swarm can eat up to 1.8 million metric tons of green vegetation, equivalent to food enough to feed 81 million people. one seen in Kenya in late January 2020, Locusts breed very fast and a single female locust can lay egg pods containing anywhere from 80- 150 eggs. Locusts do not attack people or animals.

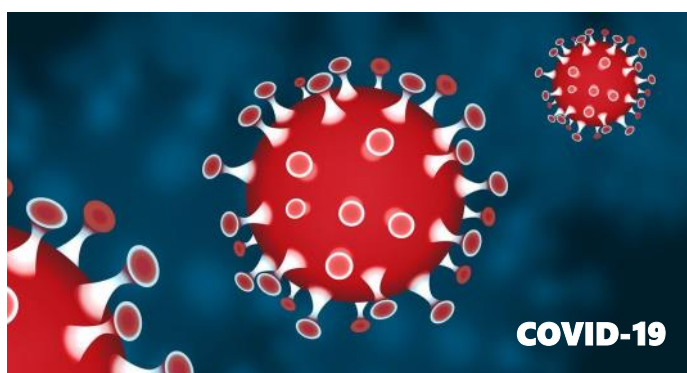
Without action, the locust population could grow 400 times larger by June 2020 and spread to new areas, disrupting food supply, upending livelihoods and requiring substantial resources to address. WFP estimates that long-term response and recovery costs could top US\$1 billion if swarm growth is not controlled. The World Bank estimates that in Africa alone, damages and losses could amount to as much as US\$9 billion in 2020. The economic, human, and environmental impacts of the current locust plague are substantial and could last generations. When affected households and families struggle to meet basic needs such as food and shelter, nutrition, health care, and education may be neglected, hindering long-term health and development, especially of children. Studies of past locust plagues found a notable decrease in school enrollment in affected areas as well as evidence of stunting in infants and children.



IMPACT OF COVID-19 ON LOCUST RESPONSE

The locust crisis overlaps with the COVID-19 pandemic, creating a crisis within a crisis. By itself, the COVID-19 pandemic has the potential to create a severe food security crisis in Africa, as elsewhere, as agricultural production contracts and food imports decline. Local agri-food supply chains are already experiencing disruptions, including reduced access to inputs and services, labor movement, transport and roadblocks, and credit or liquidity due to COVID-19. In particular, the pandemic is disrupting the supply chains for pesticides and other equipment necessary to control the spread of locusts.

Addressing the locust crisis seriously also faces significant constraints. Border closures and delays posed by quarantine measures are imposing restrictions on the movement of personnel and equipment to aid in the locust response. Even in those countries where the government is making locust response an essential activity and allowing teams to move, special care needs to be taken to reduce the



threats that aid workers and control officers spread the virus to remote rural locations where locust control operations take place. Where Bank programs are financing responses, measures to protect teams and the communities they engage with are required.

Taken together, these two crises have the potential to generate the conditions for famine, disease and increased poverty.

States	Areas affected due to locusts attack as on 25th May 2020	How are they combating locust attack
Rajasthan	Districts Sri Ganganagar, Bikaner, Barmer, Jodhpur, Jhalawar, Karauli and Bundi .	<p>Ministry of Agriculture officials are now spraying chemicals to neutralise the large swarm of locusts before they cause more destruction.</p> <p>Farmers in various parts of the state have been using different tactics, including desperate measures - beating steel utensils during late afternoons and evenings, playing loud music at night, creating wood-fire and running the tractor inside their fields - to scare away the locusts.</p>
Gujarat	Villages in Lodiya, Savarkundla, Khambha Jaffarabad and Botad of Amreli, Surendranagar and Bhavnagar district in Gujarat	<p>The Amreli collector has formed 11 teams to survey the damage done to locust-affected farms in Amreli. The Gujarat government has claimed that it is prepared to deal with the situation. According to the state government's agriculture minister RC Faldu, state and district officials are in constant touch with the locust control team of the central government to control the menace.</p> <p>The Gujarat government has set up control rooms in the locust-affected areas. Field staff is also being trained for locust control. A list of vehicles, sprayers, medicines, tankers and other equipment required to control locusts has been prepared.</p> <p>Besides, medicines are also being provided for control in locust affected districts. The government has also talked to the pesticide companies for medicines, so that pesticide medicines are provided in time.</p>
Madhya Pradesh	Locust swarms are currently present in 16 out of the 52 districts in the state. On 25th May the locust swarms were in districts of Neemuch, Mandsaur, Sheopur, Morena, Tikamgarh, Panna, Chatarpur, Sehore, Dewas, Raisen, Hoshangabad and Harda and were slowly moving westwards.	<p>The government is trying to deal with the problem by spraying chemicals via fire brigade and has advised farmers to make noise around farms to scare the locust away. "The teams from the agriculture, revenue and forest departments are constantly keeping tabs on the location of locusts and the direction they take, besides controlling their population by spraying insecticides on them," said Agriculture Principal Secretary Ajit Kesri.</p> <p>Farmers in Hoshangabad are staying up all night banging utensils to keep locust away from their crops.</p>
Uttar Pradesh	Jhansi, Mahoba, Hamirpur, Agra, Aligarh, Mathura, Bulandshahr, Hathras, Etah, Firozabad, Mainpuri, Etawah, Farrukhabad, Auraiya, Jalaun, Kanpur and Lalitpur. Jhansi's Babina region, which borders with MP, has been under a severe locust attack.	<p>Earlier on Friday, the Jhansi district administration had directed fire brigade to keep its vehicle ready with chemicals following a sudden movement by a swarm of locusts. As per Deputy Director Agriculture Kamal Katiyar, a team has come from Kota (Rajasthan) to tackle the locusts.</p>

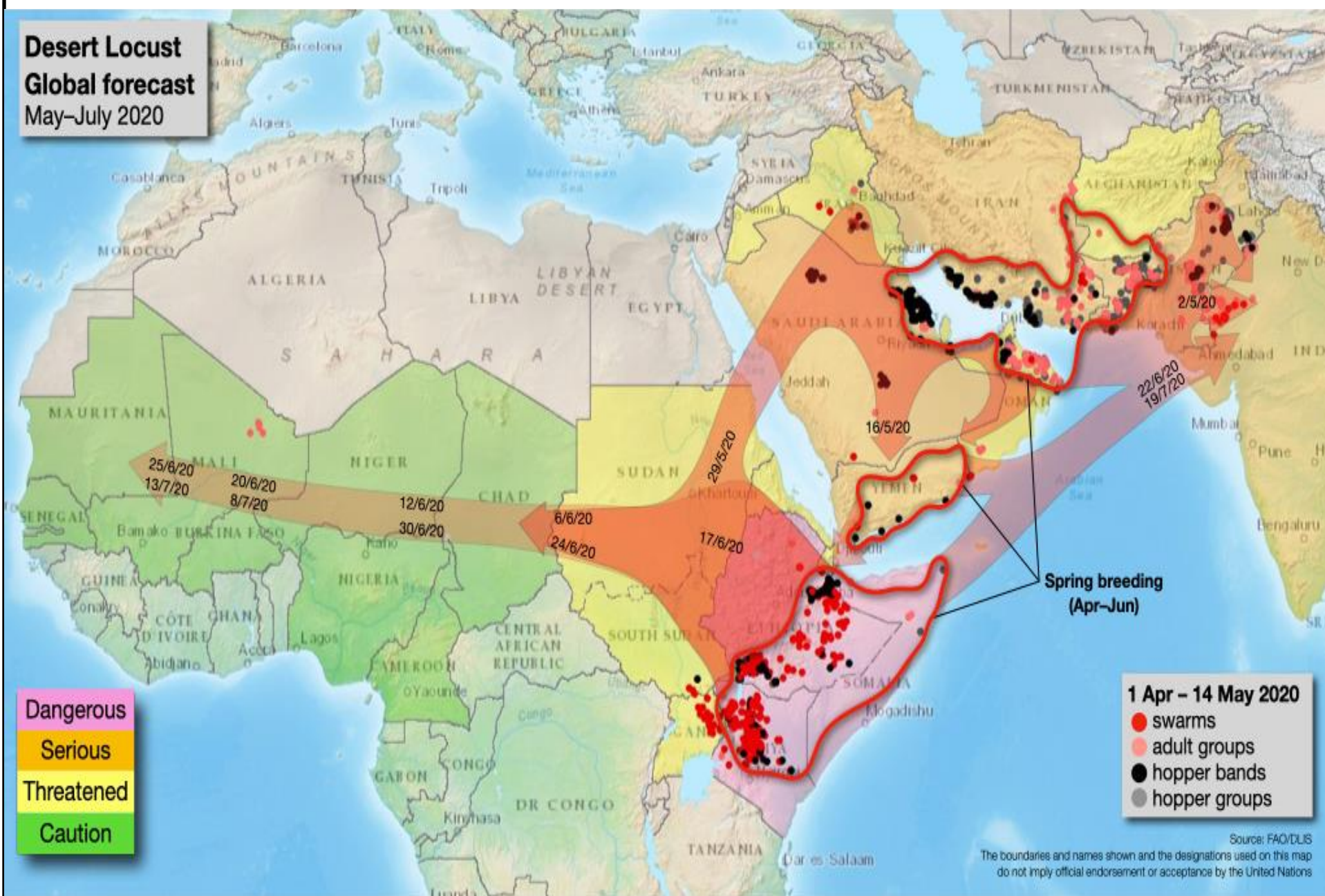
States	Areas affected due to locusts attack	How are they combating locust attack
		<p>Meanwhile, Agra administration has also issued an alert to combat locust problem. The DM and district agriculture officer have assured that the administration is prepared to handle the problem. To combat the problem, 205 tractors have been arranged, which will be used to spray chemicals depending on the size of the swarm.</p> <p>Authorities have also set up a control room for locust attack in Gautam Budhh Nagar. Delhi's neighbouring district has already spotted a few locusts, but the administration has said that so far the crops are safe. However, taking preemptive action, the district authorities have arranged for chemical sprays and have started sensitising farmers on how to deal with the locust attack.</p>
Maharashtra	Amravati, Wardha and Nagpur in Vidarbha region. The main affected areas include 22 villages across Morshi and Warud talukas in Amravati; Ashti taluka in upper Wardha district; and Katol, Kalmeshwar and Narkhed talukas in Nagpur.	Agriculture department personnel have initiated chemical spraying on crops and vegetation to save them from the migratory pests.
Punjab	Fields in Roopnagar and Bareka villages in Fazilka district, bordering Pakistan Bathinda, Muktsar, Fazilka, Faridkot, Ferozepur, Amritsar, Tarn Taran and Gurdaspur districts	The state government has asked district administrations to activate control rooms at the district headquarters, hold regular coordination meetings of revenue, agriculture and locust control officers, form teams for field surveys, conduct meetings of village heads to brief them about the serious forecasts of locust incursion and identify places in coordination with the BSF and other officials.

According to the United Nations' food and agriculture organization (FAO), the locust infestation is likely to get severe by next month. The desert locust invasion is expected to move from East Africa to India and Pakistan next month.

FAO's response and anticipatory action is structured around three pillars:

- Curbing the spread of desert locusts** through continuous surveillance, ground and air control methods that are technically sound and adapted to the life cycle of desert locusts, conducting impact assessments and promoting environmental, health and safety measures.
- Safeguarding livelihoods and promoting recovery** through cash interventions, supplementary livestock feed, and livelihood recovery and farming packages. A total of 110 000 households have been targeted for rapid livelihoods protection and recovery support.
- Coordination of and preparedness** the deployment of rapid surge support, collaboration with regional partnerships, regional advocacy and national capacity building.

FAO DESERT LOCUSTS GLOBAL FORECAST



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