

No more locust panic in Bangladesh

MD SHAHJAHAN KABIR

Covid-19 pandemic could now be fusing into a hunger pandemic - apprehend World Food Programme (WFP). Bangladesh is now fighting to ensure food security of her huge population under uncertain lockdown situation. Just then, it was like a 'steep blow on the die' - the Amphan and the Locust. Amphan damaged about 2 lakh hectares of crop land and in terms of money it was more than crore taka but good news is rice production does not affected that much. By this time, we achieved production target even more than our expectation. Now the recent concern of agriculture sector is the probable noxious locust outbreak in the country.

Swarms of locusts have first invaded vast swathes of land in India since April this year. They entered several districts of Rajasthan via Pakistan's Sindh Province. Few days later, they entered the neighbouring State of Madhya Pradesh. Many districts in Uttar Pradesh have now been put in alert. The locust attack has affected about 90,000 hectares across 20 districts in Rajasthan. Favourable rain-bearing winds aided their transport towards India. This quickly growing swarm is now threatening to amplify into agrarian disaster (FAO, 10 June 2020).

On April 18, swarms of locust like insects were seen in Teknaf upazila of Cox's Bazar which has made the fright established concerns over locust attack in the country. The news really frightened us as food security is already a major concern during the corona pandemic across Bangladesh and the globe. Meanwhile, the arrival of locusts in our country was certainly panicky news. The government immediately sent a team of experts, comprising of plant protection experts, entomologists and agricultural scientists to Teknaf to identify the species of the insects. After investigation, experts said the insects were a kind of grasshopper, *Aularches miliaris*, belonging to the family of Pyrgomorphidae.

It is also called 'spotted coffee grasshoppers.' The insect is early reported in Bangladesh by Alam (1967). That was a conclusive report for the anxious concern authorities who were really in a deep tension on the panicky news. With these consequences Bangladesh Agricultural Research Council (BARC) arranged a discussion meeting on 04 June 2020 at BARC conference room about 'Locust Outbreak

and Management'. In the meeting some of the expert opined that Locust found in Chhattisgarh, India which is near to Bangladesh. So, there is a chance to migrate locust in Bangladesh if weather is favourable. By this time, many opinions seemed to spread differently, but none is clear about migration to Bangladesh and made ambiguity.

To make it clear, Ministry of Agriculture took refuge to the Locust expert of FAO head quarter, Rome through Dhaka office. On June 11, 2020 FAO arranged a comprehensive discussion session through video conferencing where more than 140 renowned entomologists from different research organizations including MoA, BARC, BRRI, BARI, BINA, DAE, Universities and experts and senior officials from home and abroad we reconnected in the webinar. I am lucky enough to be connected in the session.

Senior Locust Forecasting Officer Dr Keith Cressman, who works at FAO Head Quarter, Rome, Italy gave a high quality, informative and time worthy presentation on probable Desert locust risks in South Asia with emphasis on risks and preparedness for Bangladesh. In the webinar Dr Keith said, it is very very unlikely Desert Locust arrival in Bangladesh. He mentioned that the Locust may migrate along the border areas of Pakistan and India by June of this year but not beyond that. So, Bangladesh is safe. The Desert Locust is considered the most destructive migratory pest in the world. A Desert Locust lives for about 3 months.

There is an exponential increase in locust number with every new generation of breeding-20 times after 3 months, 400 times after 6 months and 8000 times after 9 months. Swarms fly during the day; carried in the same direction the wind is blowing, they can migrate as far as 150km/day. Immature swarms fly the farthest. A desert locust lives up to 3 months if it fails to breed within this life span it will automatically extinct.

Why Dr Keith feels that this deadly insect won't come to Bangladesh? He gave three main reasons like- Bangladesh is too far from where the locust swarms are now; they don't travel against the wind direction. India's wind direction is usually South to North-West but in Bangladesh it is South to north. Moreover, Bangladesh is too humid, too rainy and too green country which is not suitable or favourable for the desert locusts at all.



Locust breeding is unlikely to occur because there are no deserts in Bangladesh. Finally, on set monsoon poured water its minimum probability to migrate in Bangladesh.

During open discussion session Dr Keith Cressman clarified further why locust won't come to Bangladesh. Some participants were confused about charland may act as desert but he cleared in Bangladesh there is no dessert but charlands which are human habitants. Locust likes sandy desert soil for its breeding cycle with high temperature (>35degree Celsius) and low humidity which is less than 50%. The present average temperature of Bangladesh is below 35 degree Celsius and average humidity is more than 80%. Dry soil condition is another important criterion for locust breeding but the soil condition of Bangladesh is mostly clay to loamy and wet just now.

This type of soil condition is not suitable for egg deposition of locust. Because, locust ovipositor can't penetrate such type of soil. Locust penetrates ovipositor 5-10 cm below the sandy soil and eggs goes up to 12-15 cm. But they never could penetrate the soil type we have across the country. Another positive emblem is that locust is the oldest insect pest in the globe and historically Bangladesh has never been attacked before by this noxious insect.

The problem of the desert locust mainly lies in the horn of Africa, especially in

Kenya, Ethiopia and Somalia. FAO already sought a fund of 153 million dollars and they have already received 120 million dollars for the control operation to reduce the desert locusts and for relief and rehabilitation as well. They have also found the aerial operation is most effective and sprayed pesticides from helicopters in the affected zones of the affected countries. Besides, FAO has been closely working with the agricultural and other authorities concerned of the affected countries.

There is a high cost involved in controlling the invasion and FAO has been working wonderfully well in the affected countries. Bangladesh has no cause of worried about locusts enter into Bangladesh, but we must stay alert and keep communication with FAO as they play a vital role in monitoring and controlling the deadly insect with supreme expertise.

We should not spread and address any fake news or rumour regarding locust or any other alien insects or disease invasion. We should only rely on authentic source like FAO and Concern Authorities for forecasting any type of insect's or disease outbreak possibilities. Our government is already facing lots of challenges; we shouldn't destroy those efforts by spreading any fake news or rumour. So, let us amplify again no more locust panic in Bangladesh.

The writer is Director General, Bangladesh Rice Research Institute (BRRI), Gazipur