Food and Agriculture Organization of the United Nations

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Desert Locust Bulletin

General situation during June 2020
Forecast until mid-August 2020

WESTERN REGION: CALM

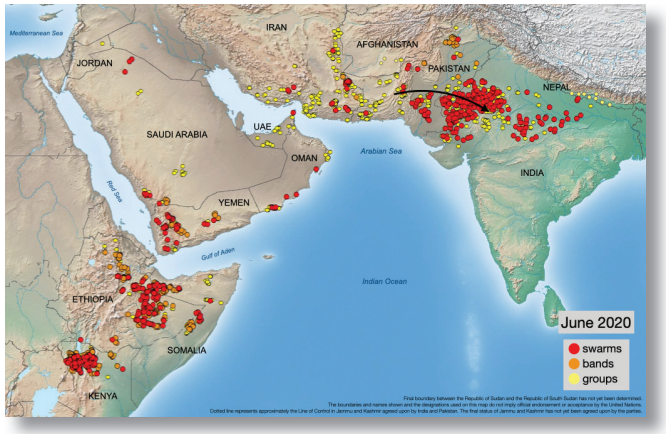
SITUATION. Local breeding in **Algeria** (86 ha treated).
FORECAST. Sahel breeding will start with the onset of rains. Risk of East Africa swarms appearing in eastern **Chad** and moving westwards.

CENTRAL REGION: THREAT

SITUATION. Hopper bands and more swarms form in northwest **Kenya** (30 830 ha treated), eastern **Ethiopia** (75 219 ha) and northwest and central **Somalia** (19 029 ha), and new breeding in northern Ethiopia. Scattered adults in **Sudan**. Hopper bands and swarms in the interior and south coast of **Yemen** (343 ha), swarm breeding on south coast of **Oman** (126 ha), immature groups in **UAE** (198 ha), swarm breeding and hopper bands in southwest **Saudi Arabia** (5 360 ha), immature group arrives in eastern **Jordan**.
FORECAST. Swarms in northwest **Kenya** will move across **South Sudan** to **Sudan** and **Ethiopia** where breeding will occur. Limited swarm breeding in **Somalia** while other swarms will move to the northeast and to Indo-Pakistan. Swarms in Yemen likely to move to Ethiopia and Somalia. Swarm breeding expected on the Red Sea coast in **Yemen** and **Saudi Arabia**, and in Sudan and western **Eritrea**.

EASTERN REGION: THREAT

SITUATION. Bands and swarms decline in **Iran** (67 689 ha treated) and **Pakistan** (47 198 ha) as swarms move to Indo-Pakistan border, most continue to **India** (72 109 ha), many in northern states, and a few to **Nepal**. Breeding in southern **Afghanistan** (2 645 ha). Breeding starts along both sides of Indo-Pakistan border in pre-monsoon areas.
FORECAST. Remaining spring-bred swarms in **Iran** and **Pakistan** and swarms in northern states of **India** will migrate to the Indo-Pakistan border where swarms from the Horn of Africa are likely to arrive from mid-July onwards. Substantial laying, hatching and band formation will occur along both sides of the Indo-Pakistan border.



Spring-bred swarms shifting to summer breeding areas

The unprecedented Desert Locust threat to food security and livelihoods persists in the Horn of Africa and is increasing in southwest Asia. Second-generation spring swarms formed in northwest Kenya, eastern Ethiopia, and parts of Somalia, while breeding commenced in the Ethiopian Highlands. Most swarms in northwest Kenya will migrate northwards and cross South Sudan to Sudan while other swarms will migrate to Ethiopia. A few swarms could transit northeast Uganda. Swarms that concentrate in northern Somalia are likely to move east to the Indo-Pakistan summer breeding areas. While the northward migration from Kenya is imminent, the later it starts, the more likely swarms will find good breeding conditions once they arrive in Sudan and this will reduce the risk of further migration to West Africa. More breeding is expected in Yemen and some swarms could migrate to northern Somalia and northeast Ethiopia. In southwest Asia, many of the spring-bred swarms migrated to the Indo-Pakistan border before the monsoon rains so some swarms continued east to northern states and a few groups reached Nepal. These swarms will return to Rajasthan with the start of the monsoon in early July to join other swarms still arriving from Iran and Pakistan, which is expected to be supplemented by swarms from the Horn of Africa in about mid-July. Substantial hatching and band formation will occur along the Indo-Pakistan border that will cause the first-generation summer swarms to form in mid-August.

The FAO Desert Locust Bulletin is issued every month by the Desert Locust Information Service (DLIS) at FAO HQ in Rome, Italy. DLIS continuously monitors the global Desert Locust situation, weather and ecology to provide early warning based on survey and control results from affected countries, combined with remote sensing, historical data and models. The bulletin is supplemented by Alerts and Updates during periods of increased Desert Locust activity.
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Weather & Ecological Conditions in June 2020

Pre-monsoon rains fall along the Indo-Pakistan border where breeding conditions become favourable in a few areas. Rains continued in the southern breeding areas of Sudan.

WESTERN REGION

In the Sahel of West Africa, the Inter-Tropical Convergence Zone (ITCZ) continued its seasonal movement northwards during June but was some 125 km further south than normal over Mauritania and Mali. By the end of the month, it had reached south of Timbedra in southeast Mauritania, near Gouma in central Mali, Tassara in Niger, and Arada in Chad. Although good rains fell during the first decade in central Mali, northern Niger as far north as the Air Mountains, and eastern Chad as far north as Abeche, conditions were still dry in the summer breeding areas of the northern Sahel. In Northwest Africa, conditions were dry except near irrigated agricultural perimeters in parts of the central Sahara in Algeria.

CENTRAL REGION

In the summer breeding areas of Sudan, the Inter-Tropical Convergence Zone (ITCZ) continued its seasonal movement northwards, reaching Mellit (North Darfur), Hamrat Esh Sheikh (North Kordofan) and Khartoum by the end of the month, which was about normal for this time of year. Consequently, moderate rains fell during the second half of the month in the southern portion of the summer breeding areas in South and West Darfur, West and South Kordofan, White Nile, Sennar, Blue Nile, and Al Qadarif states, mainly south of Zalingei, Nyala, En Nahud, El Obeid and Sennar, which should allow ecological conditions to become favourable for breeding. On the Arabian Peninsula, low to moderate rains fell on the Red Sea and Gulf of Aden coastal plains from Lith, Saudi Arabia to Ahwar, Yemen during the first decade. Good rains also fell along the eastern coast between Sayhut and the Oman border, and in the interior of Yemen from Bayhan to Wadi Hadhramaut. In East Africa, light to moderate rains fell during the first two decades in Turkana county of northwest Kenya and in northern Ethiopia that extended to the southern part of the western lowlands in Eritrea. Heavy rains fell on the 23rd in northern Turkana country. In northern Somalia, light to moderate rains fell along the plateau during the first decade and, thereafter, light rains fell at times near Hargeisa. Strong northerly winds prevailed over Kenya, Ethiopia and Somalia, becoming southwesterly over northern Somalia.

EASTERN REGION

Vegetation continued to dry out rapidly in the spring breeding areas of southern Iran and southwest Pakistan during June. In Iran, light rain fell in parts of east Hormozgan and the Jaz Murian Basin in southeast Iran during the first decade. Vegetation was nearly dry in all areas but remained green in parts of South Khorasan. In Pakistan, vegetation was nearly dry in Baluchistan by the end of the month but remained green in parts of Khyber Pakhtunkhwa where light rain fell during the first two decades. Pre-monsoon rains fell along both sides of the Indo-Pakistan border during the first decade and at times during the last week between Barmer and Nagaur in Rajasthan, India. Consequently, breeding conditions were improving in some areas. Strong westerly winds prevailed for several days over Madhya Pradesh after Cyclone Nisarga, the strongest cyclone in Maharashtra in June since 1891, made landfall on 4 June. Later in the month, strong southerly winds occurred over Uttar Pradesh on the 26–28th.

Area Treated

Control operations treated 320 832 ha in June compared to some 331 726 ha in May.

Afghanistan	2 645 ha
Algeria	86 ha
Ethiopia	75 219 ha
India	72 109 ha
Iran	67 689 ha
Kenya	18 177 ha (May, revised)
	30 830 ha
Oman	126 ha
Pakistan	47 198 ha
Saudi Arabia	5 360 ha
Somalia	19 029 ha
UAE	198 ha
Yemen	343 ha

Desert Locust Situation and Forecast

WESTERN REGION

MAURITANIA

• **SITUATION**

During June, no locusts were seen by extensive surveys carried out in the south.

• **FORECAST**

Small-scale breeding will commence in the southeast with the onset of the summer rains. There is a risk that swarms may arrive in the southeast at the end of July or in early August.

Mali

• **SITUATION**

No locusts were reported during June.

• **FORECAST**

Isolated adults are likely to persist in a few places of the Adrar des Iforas. Small-scale breeding will commence with the onset of the summer rains. There is a risk that swarms may arrive in the east in late July and continue westwards if there are no rains.

Niger

• **SITUATION**

No locusts were reported during June.

• **FORECAST**

Small-scale breeding will commence in the central pasture areas and on the Tamesna Plains with the onset of the summer rains. There is a risk that swarms from East Africa could arrive in the east about mid-July and continue westwards in the absence of rainfall.

Chad

• **SITUATION**

From 18 June onwards, no locusts were seen in the east during surveys carried out from south of Goz Beida (1242N/2125E) to Fada (1714N/2132E) except for isolated mature solitarious adults south of Amdjarass (1604N/2250E) near the Sudan border.

• **FORECAST**

If conditions remain dry in adjacent areas of Sudan, there is a risk that swarms from East Africa could arrive in the east during the first half of July and continue westwards in the absence of rainfall. Small-scale breeding will commence in central and eastern areas with the onset of the summer rains.

Senegal

• **SITUATION**

No locusts were reported during June.

• **FORECAST**

No significant developments are likely.

Benin, Burkina Faso, Cameroon, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Nigeria, Sierra Leone, and Togo

• **FORECAST**

No significant developments are likely.

Algeria

• **SITUATION**

During June, scattered immature and mature adults were present near irrigated areas in the central Sahara between Reggane (2643N/0010E) and Timimoun (2916N/0014E) as well as east of Timimoun and Reggane. A few of the adults were copulating. Isolated mature solitarious adults were seen north of Tamanrasset (2250N/0528E). No locusts were present near Illizi (2630N/0825E), Djanet (2434N/0930E), Tamanrasset, and on the Niger border near In Guezzam (1937N/0552E). Ground teams treated 86 ha.

• **FORECAST**

Small-scale breeding will occur in the central Sahara near Adrar where limited hatching will give rise to low numbers of hoppers near irrigated areas.

Morocco

• **SITUATION**

No locusts were reported during June.

• **FORECAST**

No significant developments are likely.

Libya

• **SITUATION**

No locusts were reported during June.

• **FORECAST**

No significant developments are likely.

Tunisia

• **SITUATION**

No locusts were reported during June.

• **FORECAST**

No significant developments are likely.

CENTRAL REGION

Sudan

• **SITUATION**

During June, scattered mature solitarious adults were present in the Nile Valley from Shendi to north of Dongola (1910N/3027E), the Baiyuda Desert, east of Khartoum (1533N/3235E), the east between Kassala (1527N/3623E) and Sinkat (1855N/3648E), and the south between Kosti (1310N/3240E) and the South Sudan border. No locusts were seen during extensive surveys in Sennar and Blue Nile states, and between El Obeid (1311N/3010E) and the Chad border in Kordofan (North, West, South) and Darfur (North, South) states.

• **FORECAST**

A moderate number of swarms from Kenya and Ethiopia are likely to arrive from early July onwards in Kordofan, White Nile, Blue Nile and Sennar where they will rapidly mature and lay eggs in areas that receive rainfall. Some swarms may also reach Darfur. Hatching and band formation will occur from about late July onwards.

Eritrea

• **SITUATION**

During June, no surveys were undertaken but there were unconfirmed reports from scouts and locals of a few swarmlets from adjacent areas of northern Ethiopia that appeared at mid-month in the western lowlands, and the Southern and Anseba regions.

• **FORECAST**

Small swarms from adjacent areas of northern Ethiopia are expected to arrive in the south and in the western lowlands where they will rapidly mature and lay eggs in areas that receive rainfall. Hatching and band formation could commence by the end of July.

Ethiopia

• **SITUATION**

During June, numerous hopper bands were present in the Somali region between El Kere (0550N/4205E) and Degeh Bur (0813N/4333E) in the Ogaden, and further north in the railway area from west of Dire Dawa (0935N/4150E) to Ayasha (1045N/4234E) that gave rise to numerous immature swarms, some of which moved north to Jijiga (0922N/4250E). Numerous hopper bands formed in the northern Rift Valley along the eastern edge of the highlands in Afar region between Gewana (1009N/4039E) and Korem (1230N/3931E). In the northern highlands, hopper bands were seen in a few places of Amhara region and, in Tigray region, immature adult groups were reported near Mekele (1329N/3928E), a mature group was seen near Adigrat (1417N/3928E), and scattered maturing adults were present south of the Eritrea border. On the 28th, an immature swarm was reported on the northern shore of Lake Turkana in SNNPR, which may be the first sign of a northerly migration from adjacent areas of northwest Kenya. Control operations treated 75 219 ha of which 30 599 ha were by air.

• **FORECAST**

More swarms will form in currently infested areas. This will be supplemented by swarms from northwest Kenya arriving in the south and moving northwards to Somali, Afar, Amhara and Tigray regions. While some of these swarms may continue to Sudan and northern Somalia, other swarms will remain in areas of recent rainfall, mature and breed, which will give rise to hopper bands. There is a risk that some swarms from Yemen may arrive in Afar and northern Somali regions for summer breeding.

Djibouti

• **SITUATION**

No surveys were undertaken, and no locusts were reported during June.

• **FORECAST**

A few groups and small swarms may appear at times from Yemen and transit through the country to Ethiopia and Somalia.

Somalia

• **SITUATION**

During June, more hopper groups and bands formed on the plateau in the northwest between Boroma (0956N/4313E) and Burao (0931N/4533E) and in the northeast near Garowe (0824N/4829E) and in Sanag areas, and in the central region of Galguduud between Galkayo (0646N/4725E) and Dusa Mareb (0532N/4623E). While immature swarms formed near Hargeisa (0931N/4402E), Boroma, Garowe and Galkayo, of few which were maturing, there were no signs of an eastward movement of swarms across northern Somalia so far. Control operations using biopesticides treated 19 029 ha of which 9 354 ha were by air.

• **FORECAST**

Additional swarms from the south and from Yemen are likely to arrive in the north where they are expected to concentrate and move eastwards across the northern plateau. Mature swarms could lay in areas where conditions remain favourable, causing another generation of hatching and hopper bands.

Kenya

• **SITUATION**

During June, hopper bands continued to develop in the northwest counties of Turkana and Marsabit. In Turkana, most of the hopper bands fledged from the 9th to the 25th. As the month progressed, an increasing number of immature swarms formed in both counties. Control operations treated 30 830 ha of which 8 539 ha were by air.

• **FORECAST**

Swarm formation is expected to continue to about mid-July. While most of the swarms will migrate northwards, there remains a high probably that residual populations will persist in northern areas that remain green.

Uganda

• **SITUATION**

No reports were received during June.

• **FORECAST**

A few swarms are likely to arrive from adjacent areas of Kenya in the northeast and continue northwards during July.

South Sudan

• **SITUATION**

No reports were received during June.

• **FORECAST**

Immature swarms from northwest Kenya are likely to arrive in Eastern Equatoria and continue northwards to Sudan during July, mainly to the east of the Nile River.

Egypt

• **SITUATION**

During June, no locusts were seen during surveys on the Red Sea coast and subcoastal areas between the Sudan border and El Sheikh El Shazly (2412N/3438E), and near Lake Nasser and Abu Simbel (2219N/3138E).

• **FORECAST**

No significant developments are likely.

Saudi Arabia

• **SITUATION**

During June, a few immature swarms were seen in the north between Al Jawf (2948N/3952E) and the Iraq border and immature groups were present north of Hail (2731N/4141E). Breeding occurred in the southwest near Najran (1729N/4408E), giving rise to hopper bands and immature adult groups. Groups of mature adults were seen laying near Wadi Dawasir (2028N/4747E) during the first half of June. A few mature swarms were seen in the Asir Mountains near Khamis Mushait (1819N/4245E) during the first and last weeks of the month. Ground teams treated 5 360 ha.

• **FORECAST**

Limited hatching may occur near Wadi Dawasir. Breeding is likely to occur in areas of recent rainfall on the Red Sea coast between Qunfidah and Jizan where hopper groups and bands could form.

Yemen

• **SITUATION**

During June, breeding occurred in the interior and hopper bands formed along the western edge of Ramlat Sabatyn between Al Hazm (1610N/4446E) and Bayhan (1452N/4545E), and in Wadi Hadhramaut and on the plateau north of Sayun (1559N/4844E). Numerous immature and mature swarms formed in these areas, some of which appeared in the highlands between Sana'a (1521N/4412E) and Taiz (1335N/4401E) while others moved north to adjacent areas of Saudi Arabia. A few swarms were seen in the foothills near the Red Sea and Gulf of Aden coastal plains. Immature and mature solitarious and gregarious adults, including some groups, were present on the southern coast near Aden (1250N/4503E), in the interior near Shabwah (1522N/4700E), and on the eastern plateau between Remah (1727N/5034E) and the Oman border. Ground teams treated 343 ha.

• **FORECAST**

Swarms are likely to move within the interior and the highlands. Breeding will continue in the interior between Bayhan and Shabwah and on the southern coast near Aden and Al Ghaydah. Breeding is also likely to occur on the Red Sea coast. This will cause more hopper bands and swarms to form in all areas.

Oman

• **SITUATION**

During June, locusts declined further in the north where mainly scattered immature and mature solitarious adults remained, including a few hoppers near Nizwa (2255N/5731E). A few groups of hoppers and immature adults were present in the northeast near Ras Al Hadd (2232N/5948E) during the first week; thereafter, the adult groups are thought to have moved south along the coast or migrated across the Arabian Sea. Immature adult groups and swarms, most likely supplemented by the May breeding along the UAE border, were seen moving south along the eastern coast to Salalah (1700N/5405E) where they matured at mid-month and laid eggs at the base of the Dhofar Hills. Hatching occurred on the coast south of Salalah from earlier breeding, causing a few early instar hopper groups to form by the end of the month. Ground teams treated 126 ha.

• **FORECAST**

More hopper groups and perhaps a few bands are expected to form along the Salalah coastal plains that could give rise to small groups of adults. There is a moderate risk that immature swarms migrating from the Horn of Africa to Indo-Pakistan may appear briefly along the eastern coast.

UAE

• **SITUATION**

On 1–3 June, groups of immature adults were present near Abu Dhabi (2427N/5421E) and further south in Liwa Oasis (2308N/5348E) near the Saudi Arabia border. Ground teams treated 198 ha.

• **FORECAST**

No significant developments are likely.

Jordan

• **SITUATION**

On 9 June, an immature adult group was seen about 70 km west of the Iraq border near Ruwished (3231N/3812E) that came from breeding in Iraq.

• **FORECAST**

No significant developments are likely.

Bahrain, D.R. Congo, Iraq, Israel, Kuwait, Lebanon, Palestine, Qatar, Syria, Tanzania, and Turkey

• **FORECAST**

No significant developments are likely.

EASTERN REGION

Iran

• **SITUATION**

During June, locust numbers declined in the south due to control operations, drying conditions and migration. Immature adult groups and swarms were present in Bushehr, Hormozgan southern Fars and Kerman, and Sistan-Baluchistan during the first week. Thereafter, no further infestations were seen in the southwest as adults migrated eastwards to the southeast where groups and swarms gradually declined during the remainder of the month. By the last week, groups of hoppers and adults and a few hopper bands remained near the Pakistan and Afghanistan borders from Saravan (2721N/6220E) in Sistan-Baluchistan to northeast of Sarbisheh (3235N/5948E) in South Khorasan. Ground teams treated 67 689 ha.

• **FORECAST**

A limited number of small swarms will form early in the forecast period in Sistan-Baluchistan and South Khorasan and move to the Indo-Pakistan summer breeding areas. The situation should become calm by the end of July and no significant developments are likely.

Pakistan

• **SITUATION**

During June, spring breeding ended in Baluchistan and only immature and mature groups of adults remained near the coast and in interior areas between Pasni and Dalbandin. Immature swarms were seen near Khuzdar and Quetta. Breeding also declined in the Indus Valley of Sindh and further north on the Punjab Plains where only a few hopper bands remained. More hopper bands formed in Khyber Pakhtunkhwa north of Dera Ismail Khan (3150N/7055E) where swarms started to form at the end of the month. Spring-bred immature adult groups and swarms moved Baluchistan and the Indus Valley to the Indo-Pakistan border where an increasing number of immature adult groups and swarms arrived in Tharparkar, Nara and Cholistan deserts, many of which continued to India due to dry conditions. On the 19–20th, a few mature adult groups and swarms were seen laying eggs in Tharparkar near Nagarparkar (2421N/7045E) and the India border in the extreme southeast of Sindh. Control operations treated 47 198 ha of which 400 ha were by air.

• **FORECAST**

Adult groups and swarms will form in Khyber Pakhtunkhwa and move to Cholistan while the last spring-bred groups and swarms from Baluchistan will move to Nara and Tharparkar. As monsoon rains commence, breeding will increase along the Indo-Pakistan border between Bahawalpur and Nagarparkar, causing numerous hopper bands to form. This is expected to be supplemented by other swarms arriving from the Horn of Africa in about mid-July and thereafter.

India

• **SITUATION**

During June, waves of immature swarms from spring breeding areas in Pakistan and Iran continued to arrive in Rajasthan. As conditions were dry, some immature groups and swarms moved further east to Madhya Pradesh, Chhattisgarh, Uttar Pradesh, and Bihar. The locusts generally oscillated in an east-west direction while a few small swarms surged northwards during strong southerly winds on the 26–27th in Uttar Pradesh north of Varanasi (2519N/8300E). A swarm also overflew New Delhi on the 27th. Nevertheless, a substantial number of swarms remained in Rajasthan and northern Gujarat where they were maturing. Early egg-laying occurred, and hatching started at mid-month, giving rise to first and second instar hopper groups south of Bikaner (2801N/7322E) and along the Pakistan border southwest of Barmer (2543N/7125E), and a hopper band west of Jodhpur (2618N/7308E). Ground and drone operations treated 72 109 ha.

• **FORECAST**

The last remaining spring-bred swarms from the region will arrive in Rajasthan during July as well as any locusts that are in Haryana, Madhya Pradesh, Uttar Pradesh, and Chhattisgarh. This is expected to be supplemented by other swarms arriving from the Horn of Africa in about mid-July and thereafter. As the monsoon rains commence, adults will mature rapidly and lay eggs throughout Rajasthan and northern Gujarat, giving rise to an increasing number of hopper groups and bands that will start to fledge in late July.

Nepal

• **SITUATION**

On 26 June, small groups of immature adults arrived in Bhairahawa (2730N/8327E) near the Indian border from adjacent areas of Uttar Pradesh during strong southerly winds. Over the next few days, the groups spread to districts in the central lowlands from Dang to Mahottari. Some groups reached the base of the Himalayan foothills near Butwal (2741N/8329E) on the 27th and Kathmandu (2745N/8520E) on the 30th and were seen in several other foothill districts. No significant crop damage was reported.

• **FORECAST**

A few adult groups are likely to move westwards along the plains and perhaps into the hills where they should disperse without issue.

Afghanistan

• **SITUATION**

During June, breeding occurred in central and southern districts of Helmand province where control operations treated mid-instar hoppers in the first week. In Kandahar province, adults were reported flying and laying eggs during the second week and small maturing adult groups were seen near Spin Boldak (3100N/6624E) and the Pakistan border on the 26th, and in several other areas. Control operations treated 2 645 ha.

• **FORECAST**

Any small groups that form in recent areas of breeding will migrate to the Indo-Pakistan border areas. They could be supplemented by a few adult groups and perhaps small swarms that will transit through the south to Pakistan.

Announcements

Locust warning levels

A colour-coded scheme indicates the seriousness of the current Desert Locust situation: **green** for *calm*, **yellow** for *caution*, **orange** for *threat*, and **red** for *danger*. The scheme is applied to the Locust Watch web page and to the monthly

bulletins. The levels indicate the perceived risk or threat of current Desert Locust infestations to crops and appropriate actions are suggested for each level.

Locust reporting

Calm (green) periods. Countries should report at least once/month and send RAMSES data with a brief interpretation.

Caution (yellow), threat (orange) and danger (red) periods. During locust outbreaks, upsurges and plagues, RAMSES output files with a brief interpretation should be sent regularly every three days.

Bulletins. Affected countries are encouraged to prepare decadal and monthly bulletins summarizing the situation and share them with other countries.

Reporting. All information should be sent by e-mail to the FAO Desert Locust Information Service (eclo@fao.org and faodlislocust@gmail.com). Reports received by the first two days of the new month will be included in the FAO Desert Locust Bulletin; otherwise, they will not appear until the following month. Reports should be sent even if no locusts were found or if no surveys were conducted.

Desert Locust upsurge and response

On 17 January, the Director-General of FAO activated the L3 protocols, the highest emergency level in the United Nations system, in FAO to allow fast-tracking an effective response to the upsurge in the Horn of Africa. See www.fao.org/locusts for more details.

New eLocust3 tools

FAO has developed three new free tools for improving Desert Locust survey and control reporting: eLocust3g, eLocust3m, eLocust3w (http://www.fao.org/ag/locusts/en/activ/DLIS/eL3suite/index.html). Each tool allows the recording of basic survey and control data in the field while offline that is shared within the country.

Locust Hub

FAO in partnership with ESRI has developed a centralized hub for Desert Locust data and the latest progress on the emergency response to the Desert Locust upsurge (https://locust-hub-hqfao.hub.arcgis.com).

Calendar

No activities are currently scheduled.

Glossary of terms

The following special terms are used in the Desert Locust Bulletin when reporting locusts:

Non-gregarious adults and hoppers

Isolated (few)
- very few present and no mutual reaction occurring
- 0–1 adult/400 m foot transect (or less than 25/ha)

Scattered (some, low numbers)
- enough present for mutual reaction to be possible but no ground or basking groups seen
- 1–20 adults/400 m foot transect (or 25–500/ha)

Group
- forming ground or basking groups
- 20+ adults/400 m foot transect (or 500+/ha)

Adult swarm and hopper band sizes

Very small
- swarm: less than 1 km^2
- band: 1–25 m^2

Small
- swarm: 1–10 km^2
- band: 25–2,500 m^2

Medium
- swarm: 10–100 km^2
- band: 2,500 m^2 – 10 ha

Large
- swarm: 100–500 km^2
- band: 10–50 ha

Very large
- swarm: 500+ km^2
- band: 50+ ha

Rainfall

Light
- 1–20 mm

Moderate
- 21–50 mm

Heavy
- more than 50 mm

Summer rains and breeding areas
- July–September/October
- Sahel of West Africa, Sudan, western Eritrea; Indo-Pakistan border

Winter rains and breeding areas
- October–January/February
- Red Sea and Gulf of Aden coasts; northwest Mauritania, Western Sahara

Spring rains and breeding areas
- February–June/July
- Northwest Africa, Arabian Peninsula interior, Somali plateau, Iran/Pakistan border

Other reporting terms

Breeding
- The process of reproduction from copulation to fledging

Recession

- Period without widespread and heavy infestations by swarms

Remission

- Period of deep recession marked by the complete absence of gregarious populations

Outbreak

- A marked increase in locust numbers due to concentration, multiplication and gregarisation which, unless checked, can lead to the formation of hopper bands and swarms

Upsurge

- A period following a recession marked initially by a very large increase in locust numbers and contemporaneous outbreaks followed by the production of two or more successive seasons of transient-to- gregarious breeding in complimentary seasonal breeding areas in the same or neighbouring Desert Locust regions

Plague

- A period of one or more years of widespread and heavy infestations, the majority of which occur as bands or swarms. A major plague exists when two or more regions are affected simultaneously

Decline

- A period characterised by breeding failure and/or successful control leading to the dissociation of swarming populations and the onset of recessions; can be regional or major

Warning levels

Green

- *Calm*. No threat to crops; maintain regular surveys and monitoring

Yellow

- *Caution*. Potential threat to crops; increased vigilance is required; control operations may be needed

Orange

- *Threat*. Threat to crops; survey and control operations must be undertaken

Red

- *Danger*. Significant threat to crops; intensive survey and control operations must be undertaken

Regions

Western

- Locust-affected countries in West and North-West Africa: Algeria, Chad, Libya, Mali, Mauritania, Morocco, Niger, Senegal, Tunisia; during plagues only: Benin, Burkina Faso, Cameroon, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Nigeria, Sierre Leone and Togo

Central

- Locust-affected countries along the Red Sea: Djibouti, Egypt, Eritrea, Ethiopia, Oman, Saudi Arabia, Somalia, Sudan, Yemen; during plagues only: Bahrain, Iraq, Israel, Jordan, Kenya, Kuwait, Lebanon, Palestine, Qatar, South Sudan, Syria, Tanzania, Turkey, UAE and Uganda

Eastern

- Locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.

Useful tools and resources

FAO Locust Watch. Information, maps, activities, publications, archives, FAQs, links
http://www.fao.org/ag/locusts

FAO/ESRI Locust Hub. Desert Locust maps and data download, and emergency response progress
https://locust-hub-hqfao.hub.arcgis.com

FAO regional commissions. Western Region (CLCPRO), Central Region (CRC), South-West Asia (SWAC)
http://www.fao.org/ag/locusts

IRI RFE. Rainfall estimates every day, decade and month
http://iridl.ldeo.columbia.edu/maproom/.Food_Security/.Locusts/index.html

IRI Greenness maps. Dynamic maps of green vegetation evolution every decade
http://iridl.ldeo.columbia.edu/maproom/Food_Security/Locusts/Regional/greenness.html

NASA WORLDVIEW. Satellite imagery in real time
https://worldview.earthdata.nasa.gov

Windy. Real time rainfall, winds and temperatures for locust migration
http://www.windy.com

eLocust3 suite. Digital tools for data collection in the field (mobile app, web form, GPS)
http://www.fao.org/ag/locusts/en/activ/DLIS/eL3suite/index.html

eLocust3 training videos. A set of 15 introductory training videos are available on YouTube
https://www.youtube.com/playlist?list=PLf7Fc-oGpFHEdv1jAPaF02TCfpcnYoFQT

RAMSESv4 training videos. A set of basic training videos are available on YouTube
https://www.youtube.com/playlist?list=PLf7Fc-oGpFHGyzXqE22j8-mPDhhGNq5So

RAMSESv4 and eLocust3. Installer, updates, videos, inventory and support
https://sites.google.com/site/rv4elocust3updates/home

FAOLocust Twitter. The very latest updates posted as tweets
http://www.twitter.com/faolocust

FAOLocust Facebook. Information exchange using social media
http://www.facebook.com/faolocust

FAOLocust Slideshare. Locust presentations and photos
http://www.slideshare.net/faolocust

eLERT. Online database of resources and technical specifications for locust emergencies
http://sites.google.com/site/elertsite

Desert Locust Summary
Criquet pèlerin – Situation résumée

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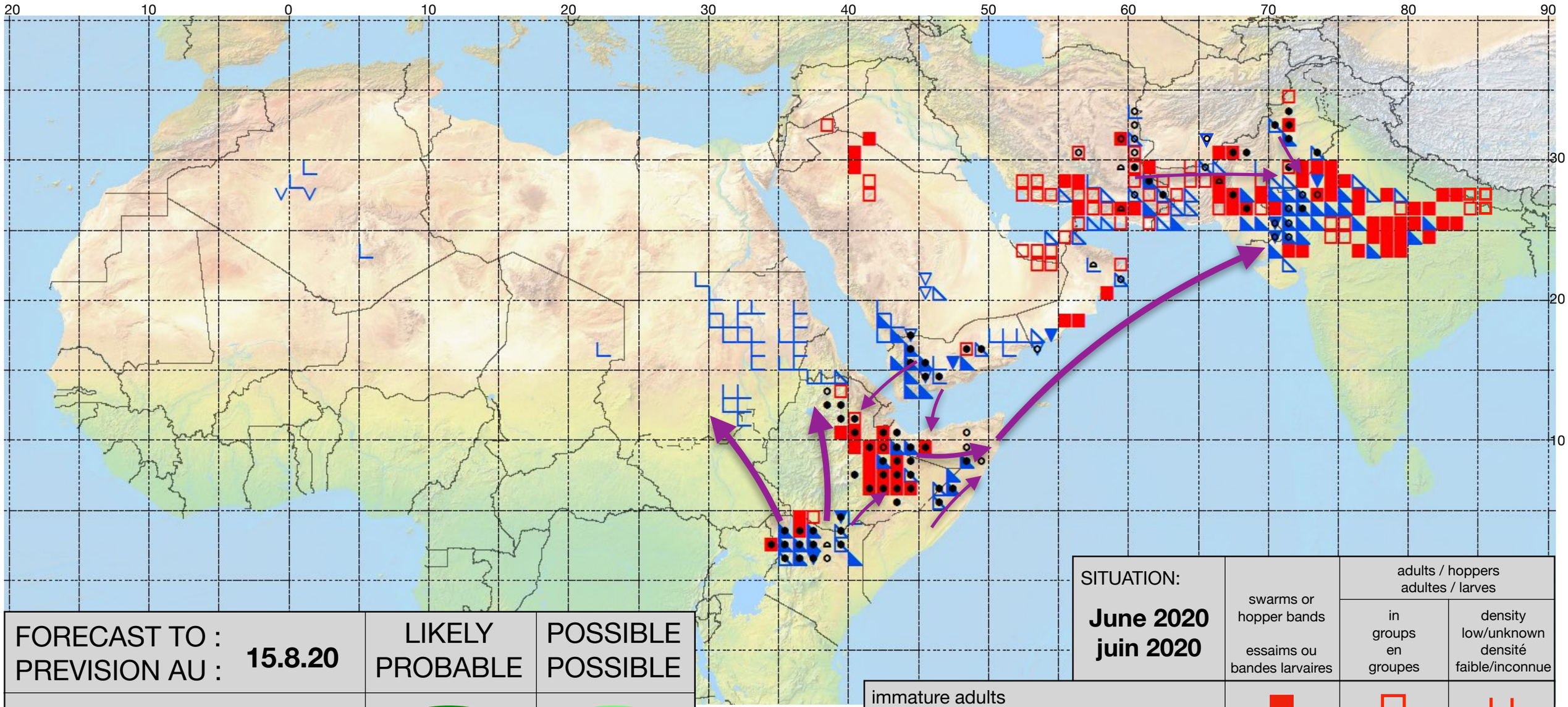

FORECAST TO : PREVISION AU : **15.8.20**	LIKELY PROBABLE	POSSIBLE POSSIBLE
favourable breeding conditions conditions favourables à la reproduction		
major swarm(s) essaim(s) important(s)		
minor swarms(s) essaim(s) limité(s)		
non swarming adults adults non essaimant		

SITUATION: **June 2020 juin 2020**	swarms or hopper bands essaims ou bandes larvaires	adults / hoppers adultes / larves	
		in groups en groupes	density low/unknown densité faible/inconnue
immature adults adultes immatures	■	□	⊔
mature or partially mature adults adultes matures ou partiellement matures	◣	◺	L
adults, maturity unknown adultes, maturité inconnue	▲	△	∧
egg laying or eggs pontes ou œufs	▼	▽	∨
hoppers larves	●	○	◡
hoppers & adults (combined example) larves et adultes (symboles combinés)	◘	◙	◡