RED CROSS/RED CRESCENT CLIMATE CENTRE

International Federation of Red Cross and Red Crescent Societies

The Netherlands Red Cross

16 June 2011 –Seasonal Forecast Update

Produced by the Red Cross/Red Crescent Climate Centre and the International Research Institute for Climate and Society

This update contains:

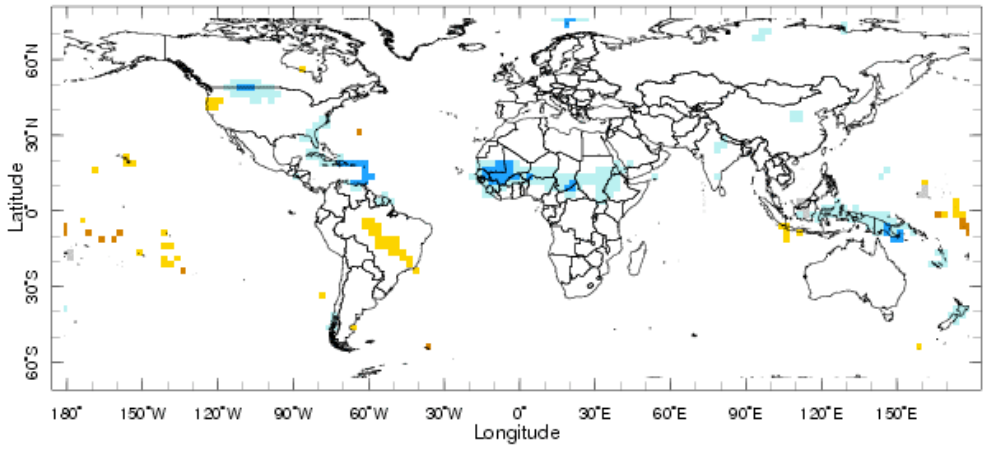
- A global forecast update for precipitation (rain and snow) for the coming July–September
- Forecast monitoring guidance and resources

Seasonal Forecast for July-September 2011

The map below shows the IRI forecast for the total amount of rainfall that is expected from July to September 2011. The map shows whether this three-month period as a whole is expected to be *unusually* wet or dry.

You may notice that there are fewer locations with forecasts shown on the map than has often been the case in the past months during the La Niña (which has now ended). This is mainly because of the absence of La Niña or El Niño conditions, making it harder to issue forecasts for many locations. Note that this does not mean that there is a particularly low likelihood of disasters, just that the current state of the climate provides no information on deviations from the average risk pattern. Thus, in areas both with and without seasonal forecast information, it is recommended to pay close attention to shorter-range weather forecasts in order to anticipate extreme events.

Global Forecast Map: IRI Seasonal Forecast for Precipitation (rain and snow) over July – September 2011, issued on 16 June 2011.



Forecast for Jul-Sep 2011, Forecast Issued Jun 2011

How confident can we be that the next 3 months will be unusually wet?

Low Confidence (35% to 40% Chance)	Medium Confidence (45% to 50% Chance)	High Confidence (55% Chance or Greater)

How confident can we be that the next 3 months will be unusually dry?

Low Confidence (35% to 40% Chance)	Medium Confidence (45% to 50% Chance)	High Confidence (55% Chance or Greater)

How to read this forecast map: Colours over the map correspond to how confident we can be that the total amount of rainfall over the period July to September 2011 will be either above-normal (i.e., unusually wet, indicated by shades of blue) or below-normal (i.e., unusually dry, indicated by shades of yellow) for the given area and time of year. Above-normal and below-normal rainfall typically each occur about once every three years (i.e., with a probability of 33%), and so shaded areas indicate increased risks of an unusually wet or dry season. Areas with higher confidence levels have darker shades (see colour bar above). For more guidance on interpreting the forecast, see below.

Note: The forecasts are not a direct indication of flooding risks because floods can occur as a result of exceptionally heavy rainfall over only a few hours or a few days, and because prolonged "good" rains over a three-month period may not produce any flooding at all. However, the map does provide a reasonably good indication of areas that might be at increased risk.

Forecast Interpretation-Highlighting Areas of Concern

Areas to note with an enhanced risk of ***above-normal*** rainfall:

- The Caribbean, including but not limited to parts of: Haiti, Dominican Republic, Puerto Rico, and much of the Lesser Antilles.
- West and Central Africa, including but not limited to parts of: Burkina Faso, the Central African Republic, Chad, Guinea, Mali, Mauritania, Niger, Senegal
- Pacific, including but not limited to parts of: Guam, New Caledonia, Papua New Guinea, Solomon Islands, and Vanuatu

Areas to note with an enhanced risk of ***below-normal*** rainfall include:

- Pacific: Tuvalu, Nauru, Kiribati, Johnston Island, Hawaii

Though the 2010-2011 La Niña event has ended, it is always recommended to monitor seasonal forecasts on a monthly basis for updates, as well as shorter-range weather forecasts to anticipate specific weather events (see page 5 for some regional monitoring resources). IRI's next forecast update is scheduled for 21 July 2011 and can be found at: http://iri.columbia.edu/ifrc/forecast/3munusualprecip

If you have questions related to seasonal forecasts, you can e-mail the IFRC Helpdesk at IRI: ifrc@iri.columbia.edu.

Guidance on monitoring and connecting forecasts with actions to enhance preparedness and response

The benefit that seasonal forecasts offer, which weather forecasts do not, is long-lead time or early warning information. Having an early indication that a rainy season might be wetter or drier than normal for instance can be a helpful guide to anticipate any potential impacts. However, monitoring seasonal forecasts should be supplemented with monitoring forecasts on shorter-term timescales (like 10-day, weekly and daily weather forecasts), to obtain more certainty and detail regarding where and when extreme events might occur. Seasonal rainfall forecasts are similar to seasonal cyclone forecasts in the sense that knowing if the cyclone season is likely to be more active than normal might prompt you to be more prepared, but you would have to monitor shorter-term weather and cyclone forecasts to anticipate where and when individual cyclones make landfall.

Limitations

Important! **Seasonal Forecasts Do Not Provide Any Detailed Spatial Information.** Weather forecasts are like a high-definition picture, giving you detailed information on exactly where rainfall is likely to occur.

Seasonal forecasts however, are more big-picture (coarse resolution). Thus, it is not possible to make inferences about precisely *where* there are risks of increased or decreased rainfall. A forecast for increased risk of above-normal rainfall over West Africa, for example, should be taken as just that, and not as a forecast for above-normal rainfall in specific countries or parts of countries in West Africa.

Important! **Seasonal Forecasts Only Give a General Sense of the Character of the Season by Providing a Forecast of Seasonal Rainfall Totals.** The seasonal forecasts are for whether cumulative rainfall totals over 3 months time are likely to be normal, above-normal or below-normal. This gives you a general overview of the season, but does not elaborate on possible day-to-day weather fluctuations. Although it does not happen very often, it is possible for an area to receive a month's worth of rainfall in 1 day and thus suffer from floods, but end up having a seasonal total of below-normal rainfall consistent with the seasonal forecast.

Important! **Seasonal forecasts are probabilistic**. If you had no forecast, you would have no idea of whether rainfall would be normal, above-normal, or below-normal, and so each of these three possible outcomes would have a probability of 33%. Seasonal forecasts can tell you if one of those three categories is more likely than the others. However, probabilities for the less likely events should not be ignored, to avoid being over-confident in the forecasts. For example, a 45% chance of above normal-rainfall means that there is an enhanced chance of getting rainfall totals that are above-normal for the season, but there is still a 55% chance of getting normal or below-normal rainfall. Seasonal forecasts therefore leave a large amount of uncertainty, but when combined with monitoring of weather forecasts on shorter timescales and a no-regrets early action strategy, can still be very beneficial by providing enhanced lead-time for preparedness.

One helpful guide may be to think of probabilities of 35 or 40% as being only slightly enhanced, 45 or 50% as enhanced, and greater than 50% as highly enhanced.

Recommendations for connecting forecasts to actions for enhanced preparedness and response:

If over the coming months seasonal precipitation (rainfall) forecasts for your region indicate a higher risk of abnormal rainfall, it is important to start considering the implications:

- What would too much or too little rainfall mean in terms of food security, health, disaster management, displacement and livelihoods?
- Who is vulnerable?
- What can be done to prepare? What kind of 'no-regrets' actions could be taken early on, that would help to manage these impacts?
- Are your contingency plans adequate and up to date?
- Are your relief stocks sufficient for probable demands?
- When was the last time that staff and volunteers received training on disaster management?
- Should you meet with staff to discuss the situation and collectively brainstorm possible courses of action?

Thinking through these questions with your colleagues is always a good idea. That way you can monitor conditions and forecasts for the months, weeks, days and hours ahead, to see if and when it becomes necessary to activate the plans and resources you've put in place. For more resources on developing an Early Warning, Early Action strategy, visit: http://www.climatecentre.org/site/early-warning-early-action

Monitoring Resources

For short-term weather forecasts, the best place to check is with your national meteorological services. Some national meteorological services also provide seasonal forecast information. To find your national meteorological service: http://www.wmo.int/pages/members/members_en.html

The resources provided below include global and regional sources for monitoring seasonal forecasts. In some cases, short-term weather forecasts are also provided by these institutions.

Global Source:
International Research Institute for Climate and Society (IRI)

- Seasonal forecasts: http://iri.columbia.edu/ifrc/forecast/3munusualprecip
- Updates on the current La Niña/El Niño status: http://iri.columbia.edu/climate/ENSO/currentinfo/QuickLook.html
- For global forecasts on the likelihood of above average rainfall in the coming 6 days: http://ingrid.ldeo.columbia.edu/maproom/.IFRC/.Forecasts/

Regional Sources:

Africa
African Centre for Meteorological Applications for Development (ACMAD)

- Seasonal forecasts: http://www.acmad.ne/en/climat/previ_saison.htm
- Monthly, 10-day, and 24-hour forecasts also available

East Africa
IGAD Climate Prediction and Applications Centre (ICPAC)

- Seasonal, monthly and 10-day forecasts: http://www.icpac.net/

Southern Africa
SADC Drought Monitoring Centre (DMC)

- Seasonal and 10-day forecasts: http://www.sadc.int/dmc/

South African Weather Service

- Weather forecasts 11-30 days in advance, 7-day forecasts: http://www.weathersa.co.za/

Asia
Regional Climate Centre for RA II (Asia)

- Seasonal forecasts and monitoring products: http://www.rccra2.org/detail/index.htm

ASEAN Specialised Meteorological Centre (ASMC)

- Seasonal forecast: http://www.weather.gov.sg/wip/web/ASMC/Regional_Weather/Monthly_Weather_and_Haze_Outlook4
- La Niña/El Niño monitoring http://www.weather.gov.sg/wip/web/ASMC/Regional_Weather/Status_of_El_Nino

Pacific Islands
Island Climate Update (ICU)

- Seasonal forecasts: http://www.niwa.co.nz/news-and-publications/publications/all/icu

Americas

Caribbean
Caribbean Institute for Meteorology and Hydrology (CIMH)

- Seasonal forecast and drought monitoring resources: http://www.cimh.edu.bb/

Central America
Climate Outlook Forum for Central America

- Seasonal forecast: http://www.aguayclima.com/clima/inicio.htm

South America
Centro Internacional para la Investigacion del Fenomeno de El Niño (CIIFEN)

- Seasonal forecast: http://www.ciifen-int.org/

The IFRC Helpdesk at IRI

If you have questions about La Niña or forecasts etc. the International Research Institute for Climate and Society (IRI) has a helpdesk to provide the RC/RC with assistance in interpreting climate information relevant to the RC/RC's work. To seek assistance from this source please e-mail your question to ifrc@iri.columbia.edu.