

Humanitarian-TT

ECMWF experience with WFP

Geneva, July 2013

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Thanks to WFP and ECMWF colleagues

ECMWF – WFP: timeline

Establishing needs

- Support
- Training

Nov. 2011

Products freely available on ECMWF website

2012

Free access to all web products

Reviewing

- Support
- Training

Nov. 2012

Access to data on the catalogue of real-time products with a license until 2017

2017

WFP sample of products:

- 6 month climate outlook
- 2 month hazard outlook
- Weekly state of the world update
- Onwatch / warning products as needed
- Special requests

ECMWF framework

- Rules of distribution of data on the catalogue of real-time products

http://www.ecmwf.int/about/basic/governance/rules_of_distribution/index.html

- Licence: EU/IGO Non-commercial licence

"EU/IGO Non-Commercial: European Union body or agency or an Intergovernmental Organization that receives the Products for fulfilling obligations pursuant to such body's convention, treaty or charter and carried out on a non-commercial basis."

Summary of ECMWF products on real-time catalogue

Medium range

Product Set I: Atmospheric Model high resolution 10-day forecast (HRES)

Product Set II: Ocean Wave Model high resolution 10-day forecast (WAM HRES & LAW)

Product Set III - Atmospheric Model low resolution 15-day forecast (ENS)

Product Set IV - Ocean Wave Model low resolution 15-day forecast (WAM ENS)

Extended range (monthly)

Product Set VI - Atmospheric Model low resolution 32-day forecast (ENS extended)

Long range

Product Set V - Seasonal low resolution 7-month forecast (SEAS)

Product Set VIII – Multi-model seasonal forecast (EUROSIP)

Web products

Product Set VII - Web Products

Courtesy of Emily Niebuhr (WFP)

Founded in 1961, the World Food Programme is the food aid arm of the United Nations

WFP is the largest humanitarian agency fighting hunger worldwide

On average, WFP aims to reach more than 90 million people with food assistance in more than 73 countries

Around 11,000 people work for WFP, most of them in remote areas



WFP Five Objectives

- Save lives and protect livelihoods in emergencies
- Prepare for emergencies
- Restore and rebuild lives after emergencies
- Reduce chronic hunger and undernutrition everywhere
- Strengthen the capacity of countries to reduce hunger by investing in disaster preparedness and mitigation measures

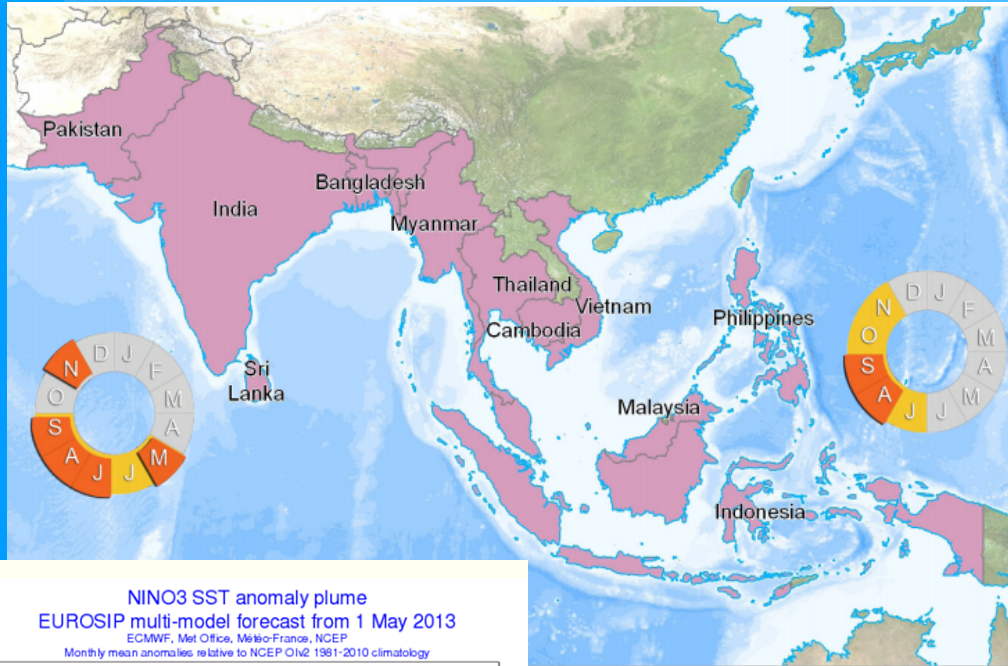


Emergency Preparedness and Response Branch (O MEP)

- It provides strategic support to ensure that WFP is as **READY** as possible
- It makes sure that response both internally and with partners is **COHERENT** and that decision-makers have the best **INFORMATION** available.
- The Branch forms WFP's Operations Centre which determines what is happening,
 - what might happen
 - why it is happening
 - what readiness actions are appropriate to enable a rapid response



6 Month Forecast

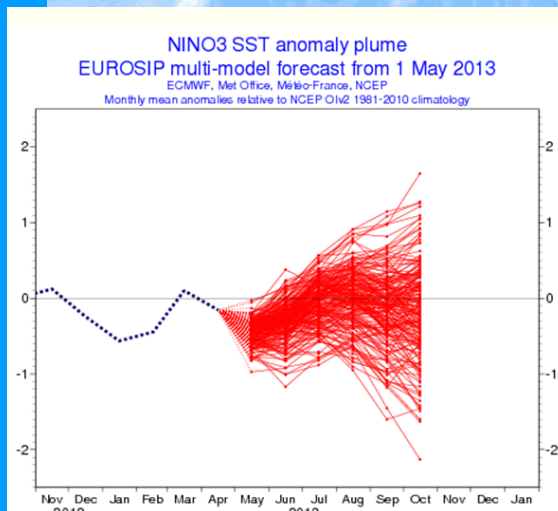


Southern Asia

The monsoon season generally occurs across southern Asia from mid-May through September, but varies widely across the continent. There is currently some disagreement among the models on the intensity of the monsoon, but there is a general indication of an average to above average monsoon season across the region, which could result in localized flooding. Currently models are indicating that the number of tropical storms will be below average from April to September. [IRI, ECMWF]

South-East Asia

An average to below average tropical cyclone season is expected to impact southeast Asia countries that border the Pacific Ocean. [ECMWF]

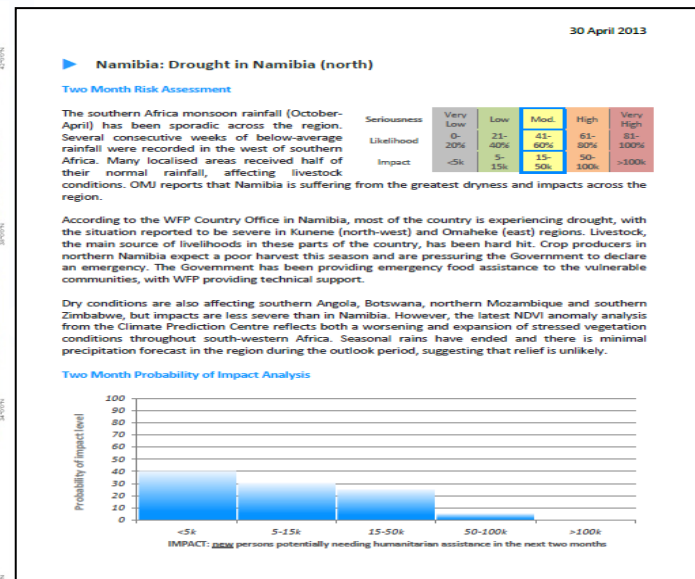
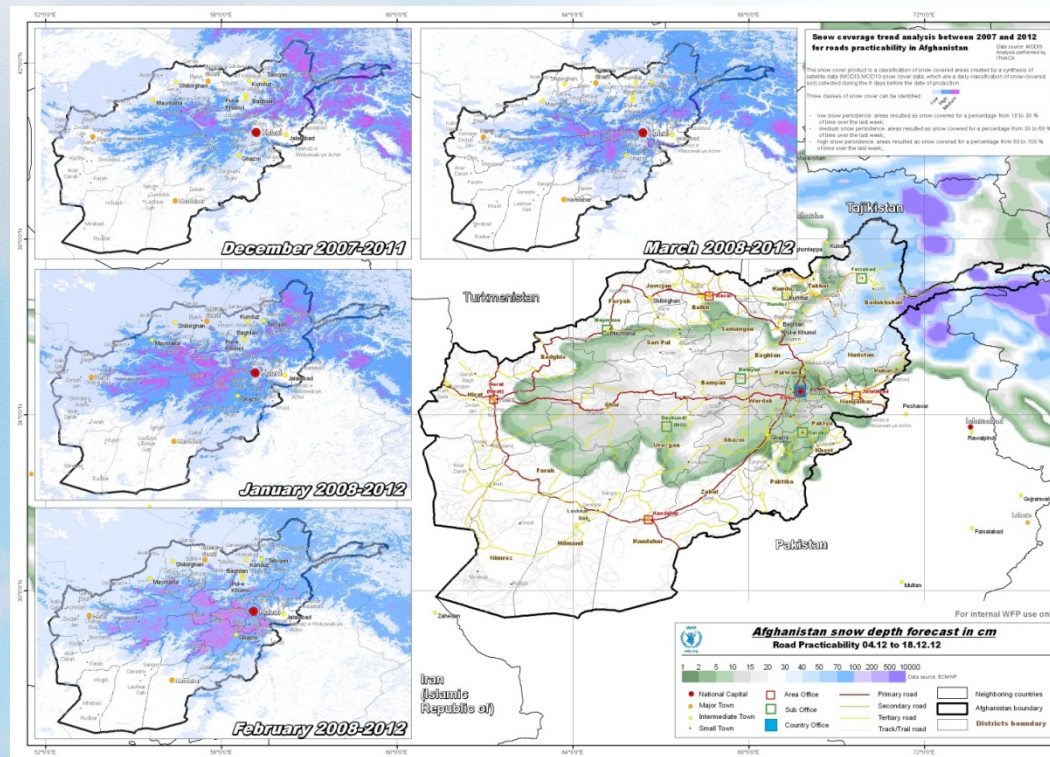
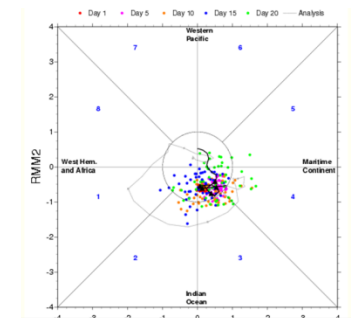


- Content agreed upon by international partners
- Focusing on the greatest or unknown risks for next 6 months



2 Month Outlooks

Early Warning Report: Monthly forward-looking review of contextual risks that have a significant likelihood of necessitating a WFP response in the coming two months



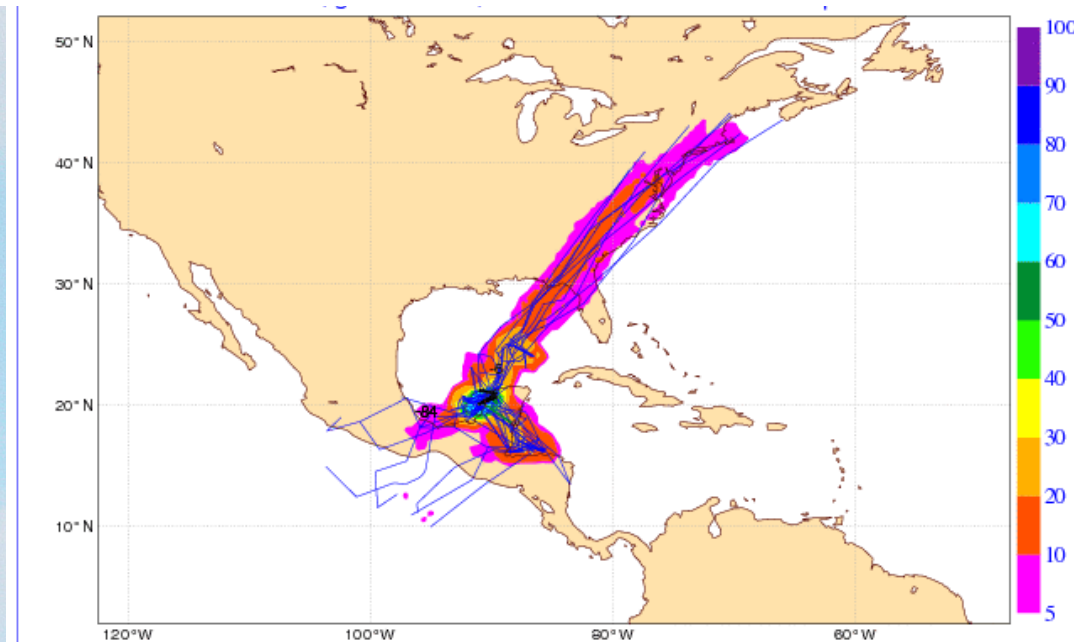
Onwatch/ Warning Products up to 7 Days in advance



WFP Emergency Preparedness & Response Branch

Cuba - On Watch - Heavy Rain Likely in Cuba - 04 June 2013

Heavy rains of over 150 mm are forecast across western and central Cuba as a weak tropical system moves across the Gulf of Mexico from 04-06 June. According to the National Hurricane Center, there is a 30 percent chance that the system will become a weak subtropical or tropical cyclone in the next 48 hours. Although strong winds are not expected with this storm, localised flooding is possible in western and central Cuba.

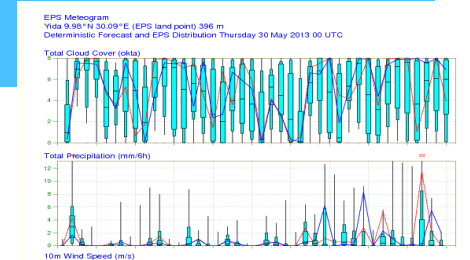


YIDA EPSgram / Point Forecast

Yida South Sudan Refugee Camps

- WFP: plan costly airdrops and organize supply pipelines to minimise disruption to WFP's life-saving work.
- UNOPS (United Nations Office for Project Services): time crucial construction work on building a new runway
- UNHCR (United Nations High Commissioner for Refugees): plan distribution (road condition).

The agency's Country Director in South Sudan, Chris Nikoi, says, "ECMWF's data helped us keep the food pipeline running in an extremely challenging operating environment. Having the technical and scientific knowledge for us to make the right decisions is a huge bonus."



Air strip in Yida Camp, South Sudan, on a rainy day. Picture courtesy of George Fominyen.



Courtesy of Emily Niebuhr (WFP)

Extreme Forecast Index

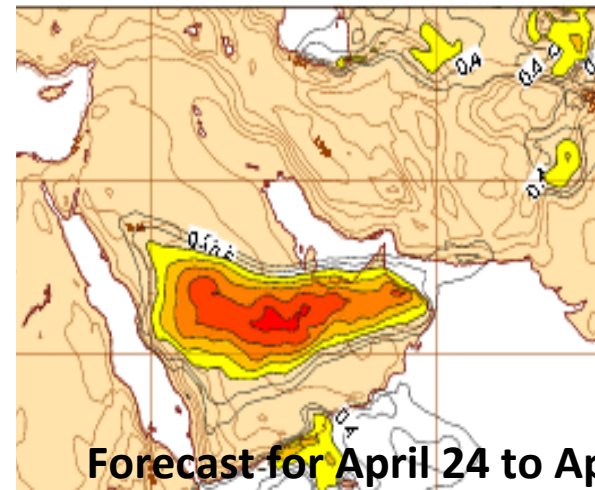
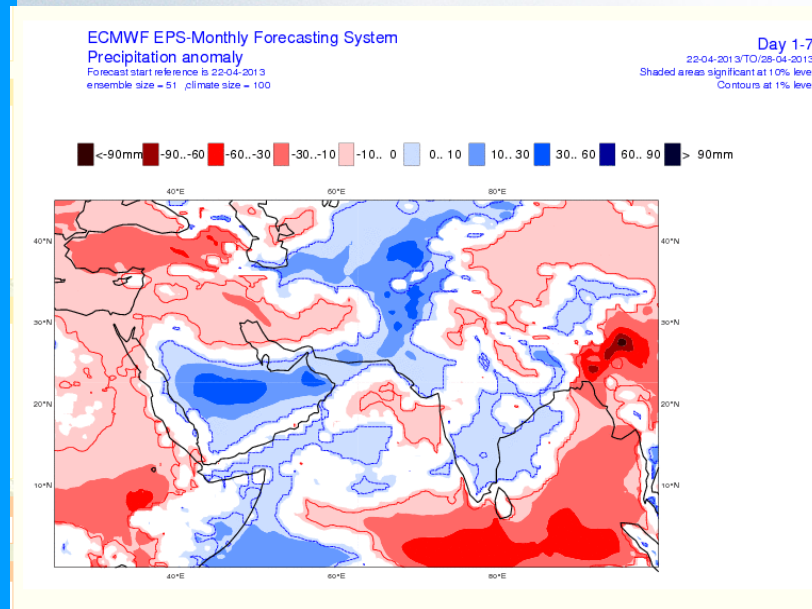
Not many upstream observations

Few flooding reported in the Arabian Peninsula



EFI Provides 'local knowledge'

Model climatology included in this product is crucial

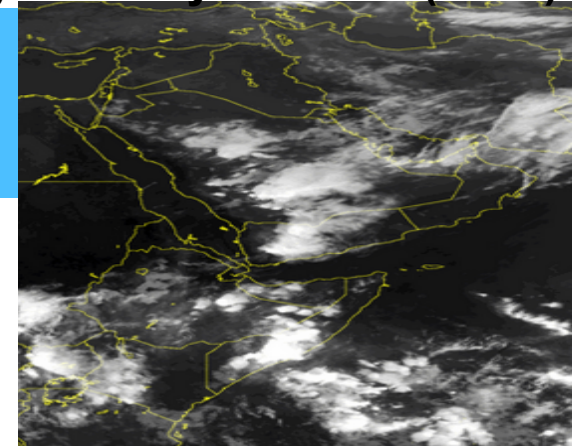


Forecast for April 24 to April 29





EFI Product

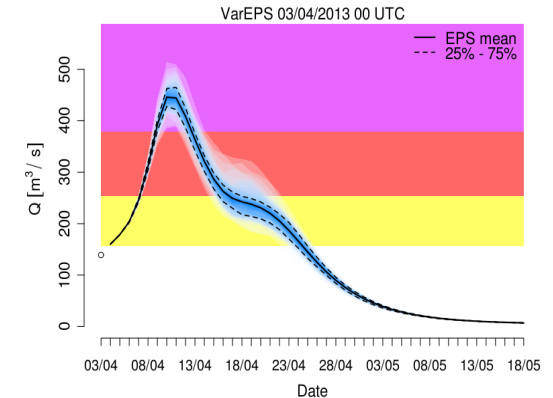


- Yemenis push taxis in a flooded street after heavy rains in Sana'a, Yemen, on April 27, 2013.
- Torrential downpours led to dangerous flash floods in several districts of the Yemeni capital, Sana'a.
- The rain is also said to be the heaviest experienced by the desert kingdom in more than 25 years.
- Heavy rain associated with convective events



GloFAS River Tool

- ECMWF ensemble for QPF inputs
- Uses a hydrological model
- Provides river level guidance in areas which have little to no observed data
- Provides very useful trend analysis
- Helps to predict snowmelt inputs
- Concern after significant flood events in 2012 in Afghanistan



GIS Products Used

- ECMWF weather forecasts are a valuable part of the puzzle in determining the vulnerability of a region
- GIS team brings together all of these factors into a form easily accessible to teams across WFP

