FOOD SECURITY AND SAFETY WORK GROUP

AGU Dec. 15, 2020

GEO HEALTH
COMMUNITY OF PRACTICE

KEY OBJECTIVES

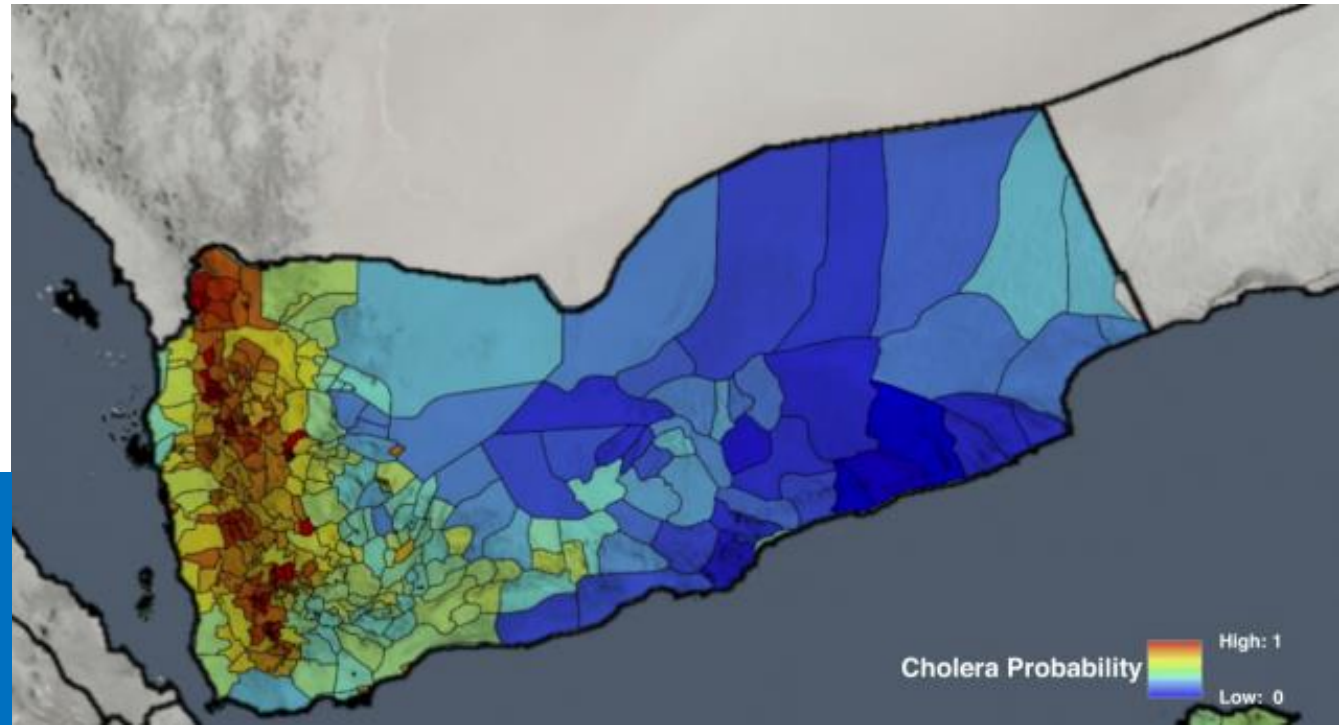
- Strengthen EO applications to monitor and predict food production and food- and water-borne diseases
- Develop an IIS to monitor and predict pathogen and toxin risk in marine and coastal environments
  - Leverage critical EO-derived coastal and inland water quality

Banana farmer uses GPM IMERG sourced data to know whether to irrigate crops.

Image credit: Faisal Hossain

KEY OBJECTIVES

- Strengthen EO applications to monitor and predict food production and food- and water-borne diseases
- Develop an IIS to monitor and predict pathogen and toxin risk in marine and coastal environments
  - Leverage critical EO-derived coastal and inland water quality



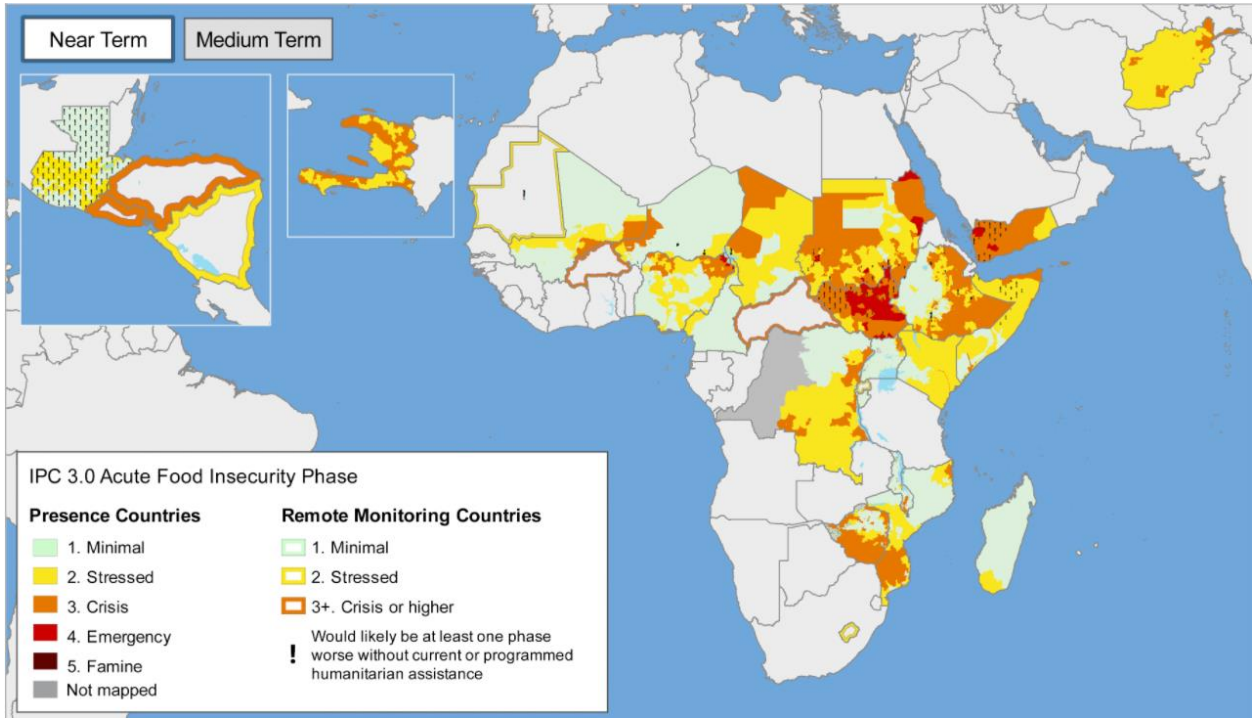
Using precipitation data from GPM/IMERG to predict cholera outbreaks

Image credit: Antar Jutla

OUTCOMES

- Collaborate with the Famine Early Warning System to track the propagation of shocks to the food system across scales
- Understand vulnerability and resilience options for poor households that suffer from a combination of chronic and acute food insecurity
- Improve understanding of *Vibrio* spp. and harmful algal bloom events and strengthen early warning systems for affected coastal communities

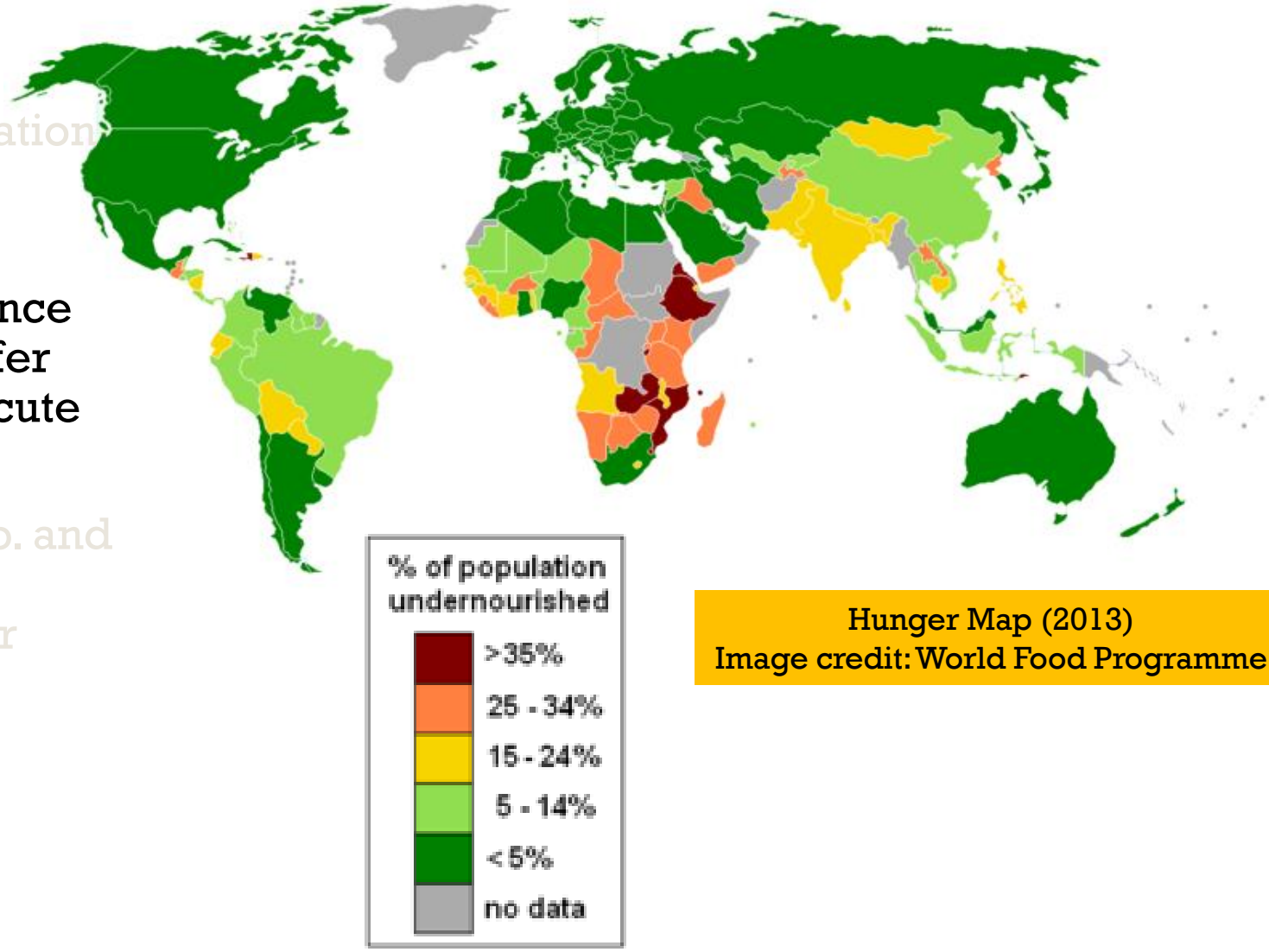
FEWS NET
FAMINE EARLY WARNING SYSTEMS NETWORK



Acute Food Insecurity: Near Term (September 2020)
Image credit: FEWS

OUTCOMES

- Collaborate with the Famine Early Warning System to track the propagation of shocks to the food system across scales
- Understand vulnerability and resilience options for poor households that suffer from a combination of chronic and acute food insecurity
- Improve understanding of *Vibrio* spp. and harmful algal bloom events and strengthen early warning systems for affected coastal communities



Hunger Map (2013)
Image credit: World Food Programme

OUTCOMES

- Collaborate with the Famine Early Warning System to track the propagation of shocks to the food system across scales
- Understand vulnerability and resilience options for poor households that suffer from a combination of chronic and acute food insecurity
- Improve understanding of *Vibrio* spp. and harmful algal bloom events and strengthen early warning systems for affected coastal communities

KEY ACTIVITIES

- Identify existing platforms and institutions, including how to share data with stakeholders
- Identify specific gaps in environmental data
- Find case studies illustrating effective use of EOS data to bring about meaningful change and brainstorm ways to amplify opportunities to stakeholders

IIS GOALS

- Identify existing platforms and institutions, including how to share data with stakeholders
- Identify specific gaps in environmental data
- Find case studies illustrating effective use of EOS data to bring about meaningful change and brainstorm ways to amplify opportunities to stakeholders

GAPS IDENTIFIED

- Better processes to facilitate the flow of data and actionable information to the right partners at the right scale at the right time
- Stronger multi-country epidemiological surveillance for key diseases
- Higher-resolution weather forecasts
- Better mapping of key social variables
- Better integration of EO data streams to achieve spatially and temporally complete and high-resolution monitoring of complex systems