



Anticipation Hub

Earth Observation Working Group:

Humanitarian Sector Assessment
(WP1)

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How it started
with WP1...

- Run in parallel to WP2
- Identification of hazard **type needs and lead time needs**
- Connect with members of the humanitarian community to obtain relevant information regarding the **use of EO in anticipatory action** and identify what has or has not worked in previous settings
- Identification of **what EO data** was used
- What **role did the data** play in terms of developing the EAP?
- Identification of approaches to **vulnerability and exposure** for determining “impact” (what aren’t we thinking about when we look at V&E (proxies for SE data - thatched roof versus metal roofs, etc. - livelihoods and natural resource dependencies)





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Goals of WP1

- Documentation of **success stories**: Where has EO been used meaningfully in Anticipatory Action projects?
→ *What has been done?*
- Identification and documentation of **potential solutions**:
What are data requirements for EAPs?
→ *What could be done?*
- Identification and documentation of **bottlenecks**: Where are bottlenecks in the use, access and application of EO data and/or EO-derived information?
→ *What are barriers in the use of EO?*

How it is
going!



Examples from WFP in Mozambique and Zimbabwe

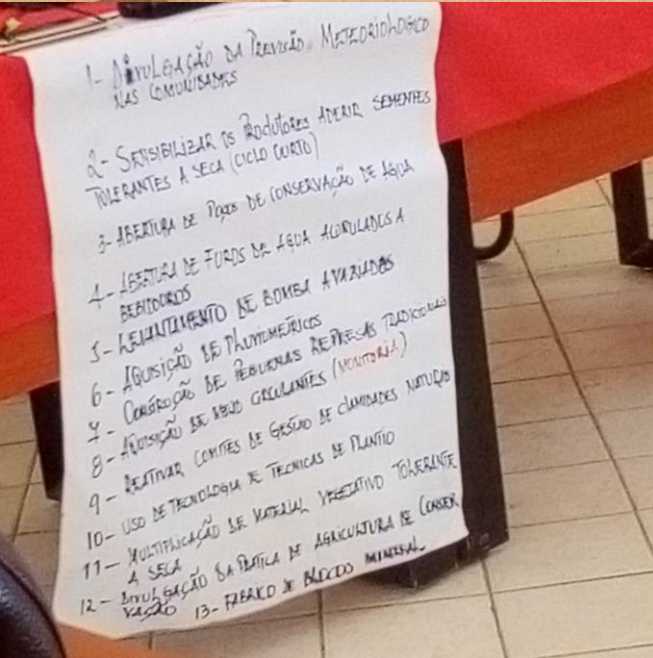
- *Forecast*: seasonal rainfall forecast
- *Risk assessment*: Identification of priority areas for FbF - precipitation, vegetation and temperature
- *Real-time monitoring*: growing season conditions, analysing data streams of rainfall, vegetation, and land surface temperature in combination with in-situ data

What has been done ... on drought?



Platform for Real-time Impact and Situation Monitoring (PRISM)

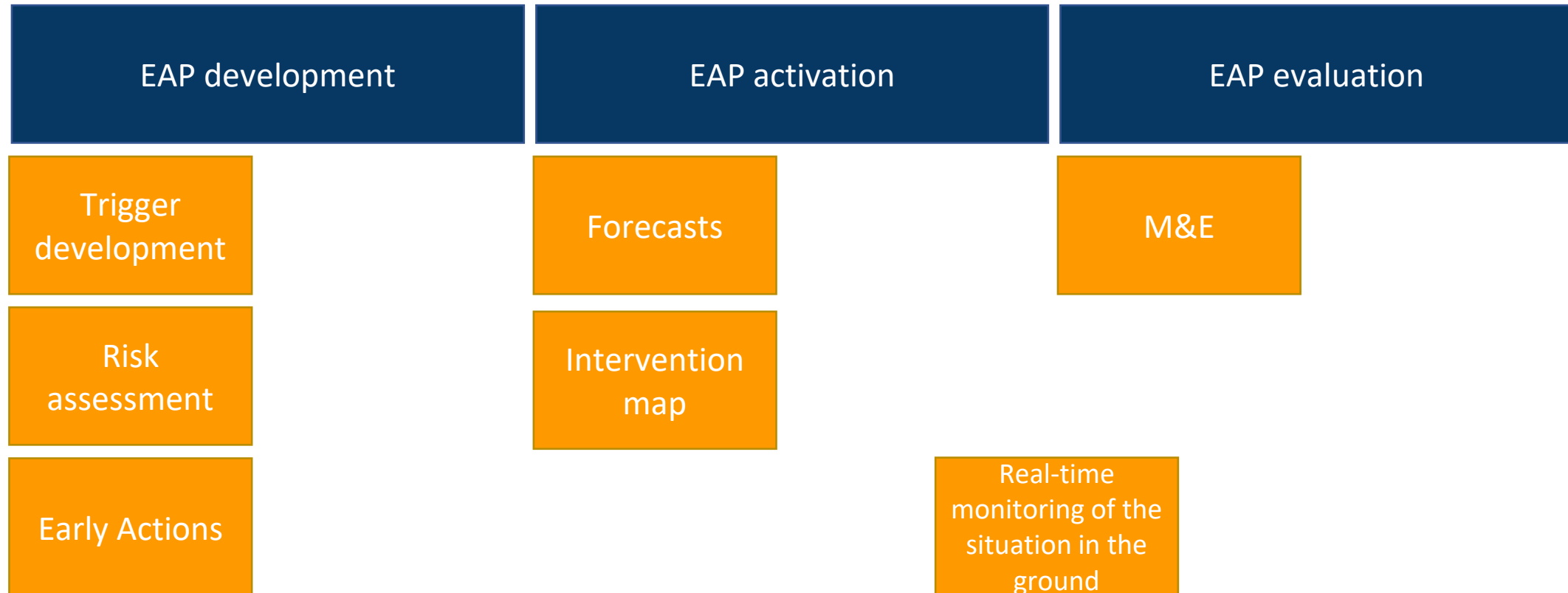
Asset Impact Monitoring System (AIMS)



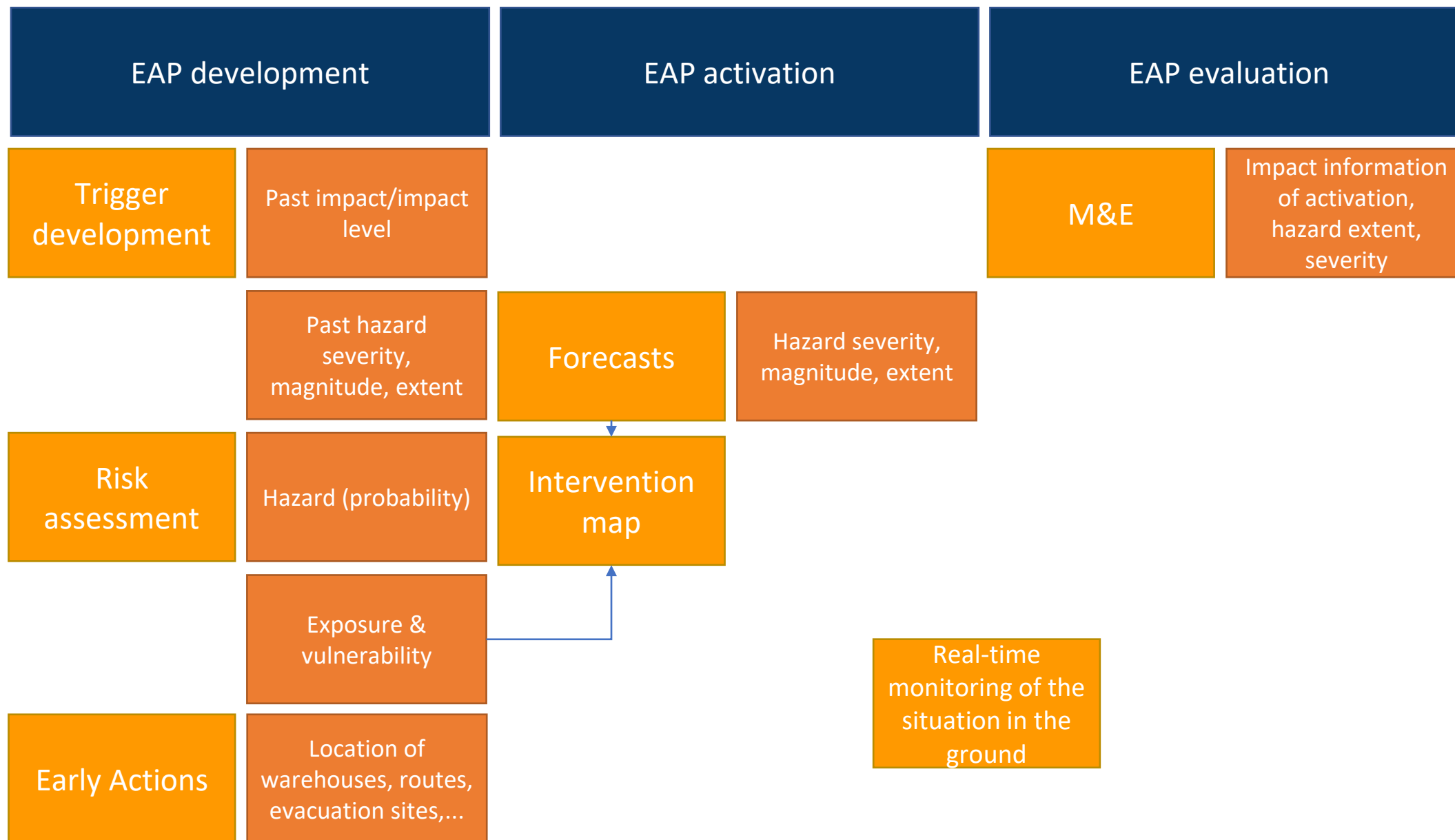
→ hazard focus

What are Anticipatory Action data needs?

- Review of the steps of the FbF Manual
- Analysis of 14 EAP summaries (3 typhoon, 7 floods, 1 volcanic ash, 1 El Nino, 1 dzud, 1 coldwave)
 - What data has been used?
 - What information is required?



What are Anticipatory Action data needs?



Example: Typhoon EAP in the Philippines

Impacts addressed: destruction/damage of houses, loss/destruction of crops, loss of livestock, food insecurity

| Trigger development | | Risk assessment | | Forecast | Early Actions | M&E |
|---|--|-------------------------|--|---|--|---|
| Past hazard severity , magnitude extent | Past impact/impact level | Hazard (probability) | Exposure & Vulnerability | Hazard severity, magnitude, extent | | Impact information of activation, hazard extent severity |
| 2013: Typhoon Yolanda, the most intense ever reported (271 km/h). | Typhoon Yolanda in 2013: deadliest Typhoon to ever hit Philippines with 6300 death, 550.928 <i>damaged houses</i> and 3,3 <i>php Agriculture loss.</i> | n/a | Farmers, smallholders of livestock, fishing communities. Households living in <i>poverty, living in lightweight material houses.</i> | 72 hours in advance: forecast predicts more than 10% of houses to be totally damaged in more than three municipalities. | Livelihood: 1. Early Harvesting of <i>matured crops</i> 2. Livestock and assets <i>evacuation</i> 3. Cash for work for mobilizing work force Destruction of housing and infrastructure: 4. Installation of shelter strengthening kits (SSK) | n/a |
| | damage maps | | Land cover mappings, population estimation, infrastructure mapping, poverty mapping | | Location of warehouses, routes, evacuation sites,... | trigger evaluation (1in5 year event), flood extent, crop conditions |



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**Non-data
related
barriers and
bottlenecks**

- the development of impact-based triggers and early action protocols demand several steps and concepts that are likely **unfamiliar to scientists** , e.g. ToC or MEAL practices
- Humanitarians also **judge accuracy differently** than most EO scientists
- Barriers related to **capacity** may also hinder full adoption of EO people and capabilities in anticipatory action programs
- **Different success evaluations** in science and the humanitarian sector



→ **translation between the sectors and donors is required**



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Lessons learned and open questions

- Applications very much still hazard focused
- High potential of EO for Anticipatory Action, particularly M&E, past impact and real-time monitoring
- How to overcome the non-technical barriers? How to kick-off the translation service?

- Next steps: fill the data requirements with EO data
- Planned output: at least 1 BlogPost, potentially a paper

**Lessons
learned**





Feedback and ideas?

Get in touch!

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Thank you

