



The Local Flood Early Warning System (LFEWS)

**** The Binahaan River Watershed
(Philippines) experience***

**** Saves Lives and Empower People
including Women and Children***

2012 International Day for Disaster Reduction (IDDR) and Asean Day for
Disaster Management (AADM)
October 2012, Thammasat University, Bangkok, Thailand





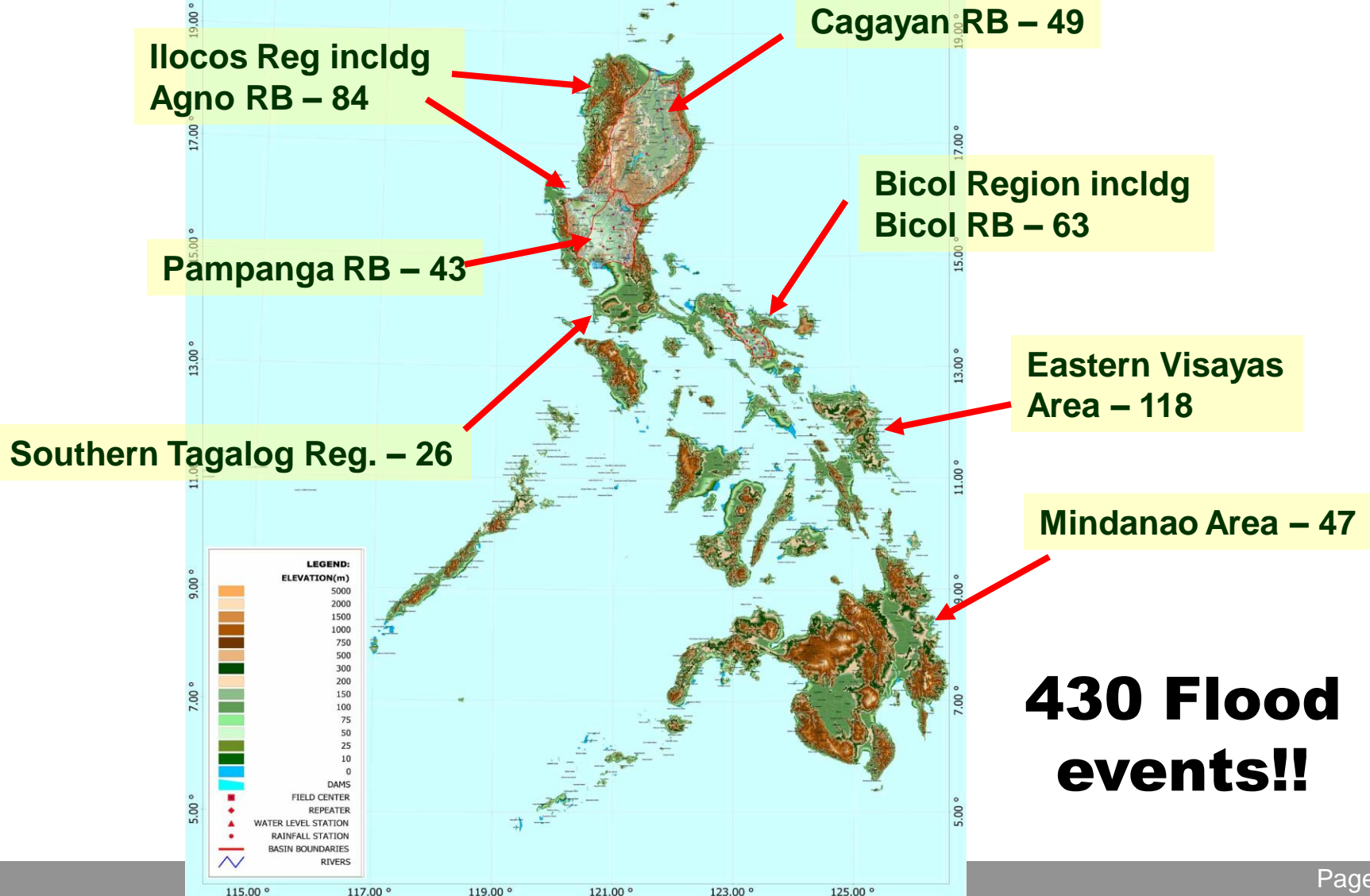
The Philippine Flood Disaster Scene

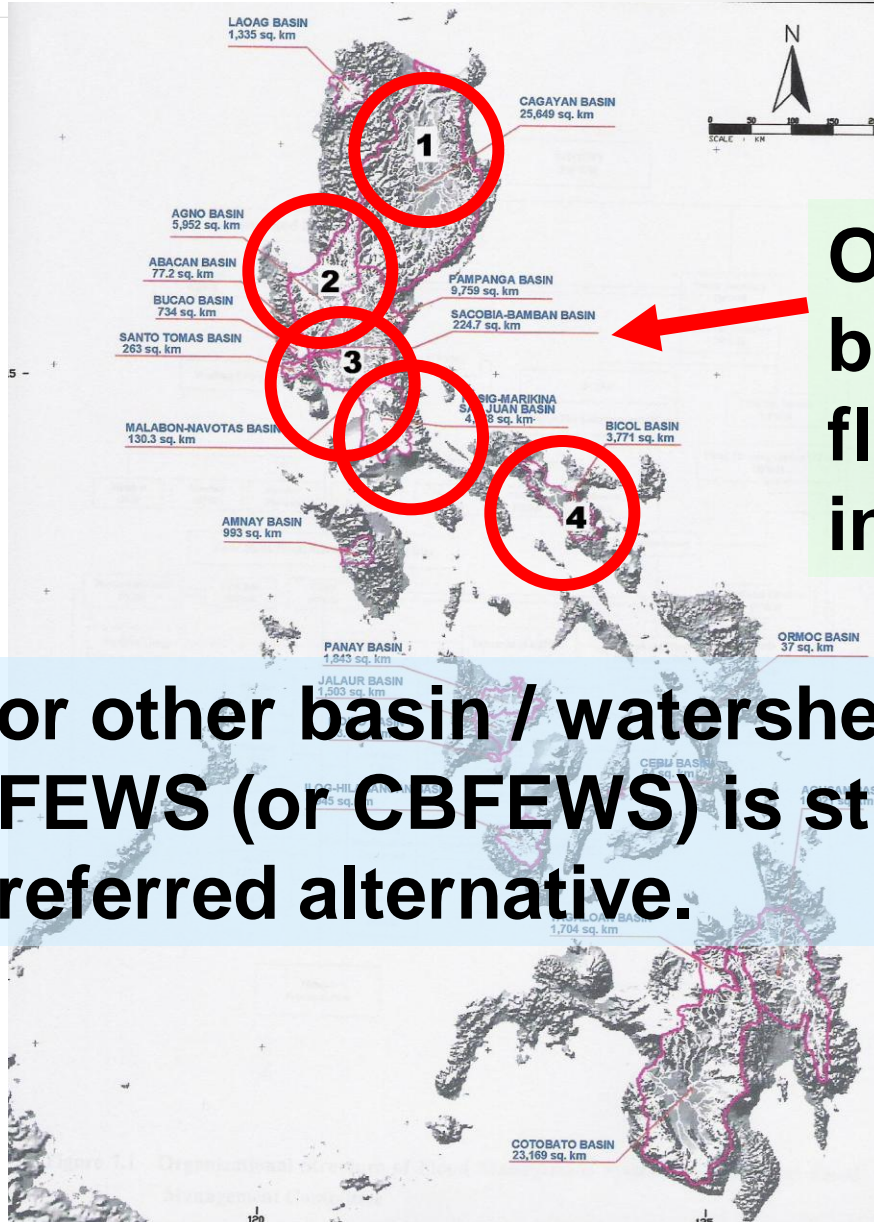




Monitored / reported floods in the Philippines (1994-2006)

PRFFWC®





Only 5 (major) river basins with automated flood warning systems in the country.

For other basin / watershed areas: LFEWS (or CBFEWS) is still the best and preferred alternative.



The Local Flood Early Warning System (LFEWS) or Community-based Flood Early Warning System (CBFEWS) concept

Communities (small watersheds) that are prone and vulnerable to flood disasters are particularly the main target areas.



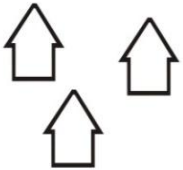
Key Elements of LFEWS

Risk Knowledge

Hazard



Elements
at Risk

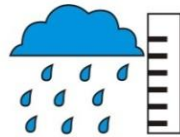


Vulnerability

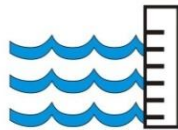


Monitoring & Warning

Rainfall



River Level



Warning
Decision



Dissemination & Communication

Radio



Telephone



Household
Warning



Response Capability

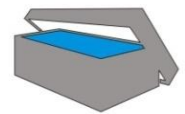
Evacuation
Centre



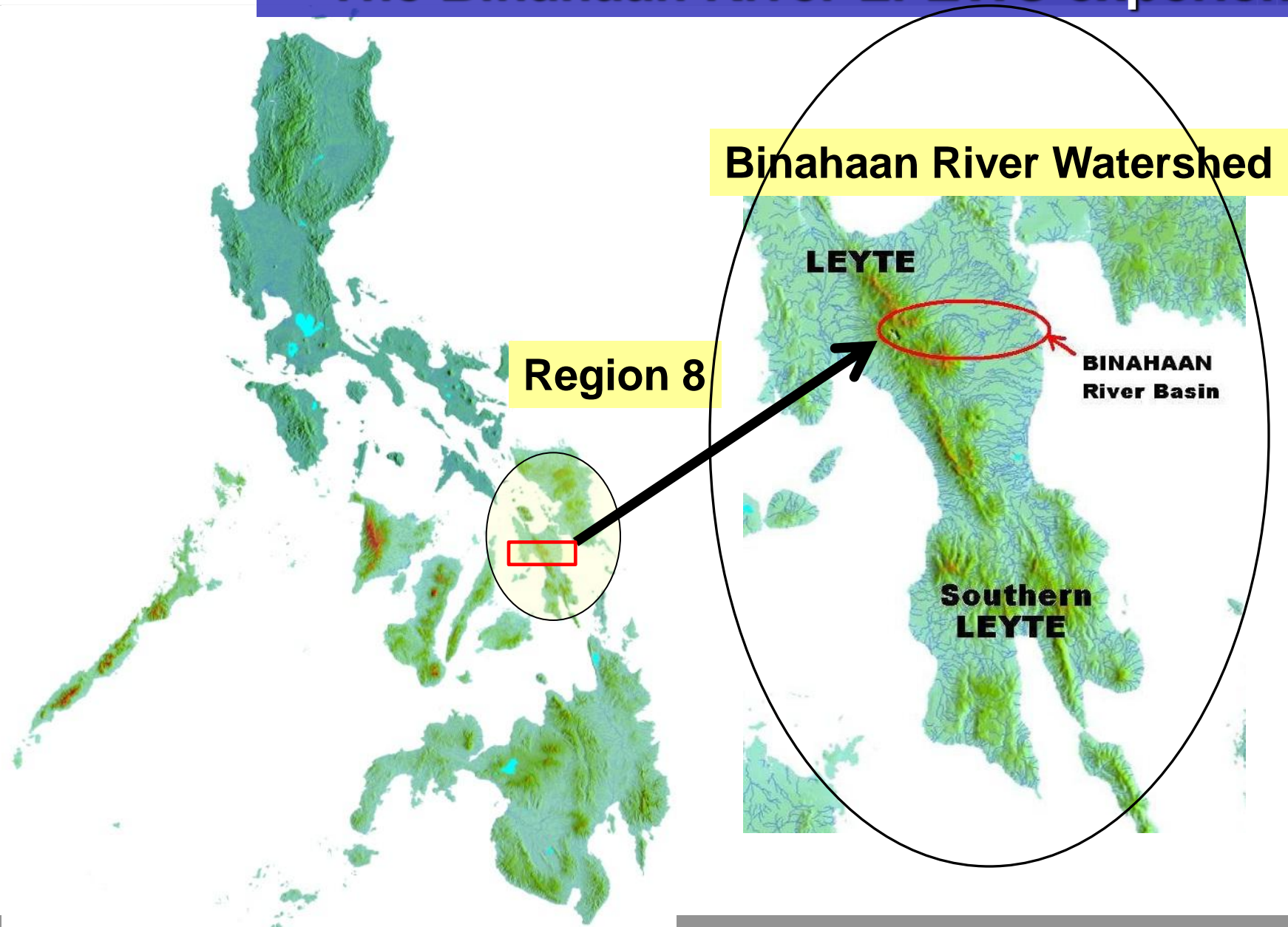
Search &
Rescue



Relief
Goods



The Binahaan River LFEWS experience



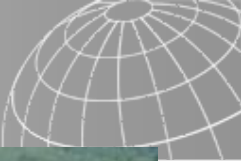


Photo from helicopter



Binahaan river

The Binahaan River LFEWS

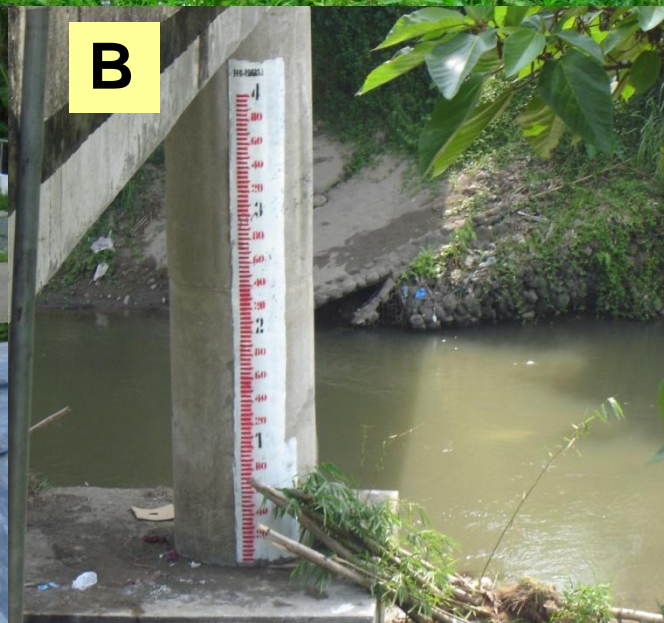
Risk Knowledge

Community-based mapping



The Binahaan River LFEWS

Monitoring (installation of equipment / observation)



The Binahaan River LFEWS

Warning (Decisions & other related Information)



24/7 Binahaan River LFEWS Operations Center

Binahaan Flood Early Warning System

Communication & Dissemination



Response Capability

Improved Evacuation Centers

Search & Rescue Capacity

Training – drills & actual events





Summary:

The Binahaan River LFEWS; in other 8 LFEWS in Leyte-Samar Provinces

- **System costs between 30,000 – 40,000 US\$ (Philippines)**
- **Run by (trained) “non-professionals” but guided by professionals**
- **Community has more time to prepare for floods; damages reduced**
- **Easily replicated in many areas (Philippines) & (possible) in other countries**
- **Involvement of volunteers in response is strong but weak in data transmittal - a challenge in Philippine settings**

Women & Children as active partners in LFEWS





... as partners in rainfall observations





Capacity building: able to understand & track movement of Tropical Cyclones



Building Resiliency in schools

School Hydrological Information Network (SHINe)



Disaster Awareness & Reduction in School !



Active partners in Dissemination of info & warnings



Community level warning
system



Simulation exercises & Drills

Women & Children are no longer helpless victims... they are in the forefront of such activities.

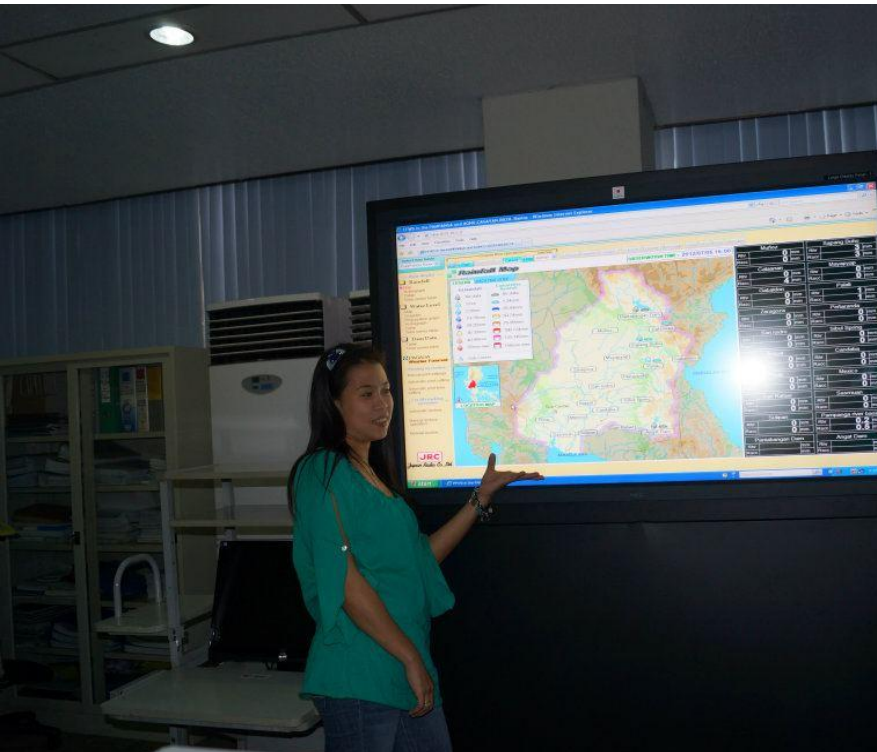
Evacuation Drill in St. Bernard, Southern Leyte



Evacuation Drill in Palo, Leyte



Women & Children as agents (leadership roles) of Resilience in LFEWS





... agents of Resilience in LFEWS

**Convergence of scientific,
technical and local
knowledge in DRR
measures as employed in
LFEWS**



- A** - Integration in local development planning
- B** - landslide detection thru rainfall data
- C** - management & decision-making in the DRR operations & activities



Some Challenges, Priorities & Opportunities in DRR



People / community must understand & accept their responsibility towards their own survival and not simply a matter for the government/s to find & provide solutions. All sectors in the community must work together & everyone has a role.



Existing grass-roots and community-based organizations (at community level), including women organizations, should be reinforced for them to take action and participate on DRR activities.



**“Power of TEAMWORK and DISCIPLINE - increase a culture of helping each other during emergencies.
Results in...**

- direct strengthening of social solidarity and neighbourliness.**
- increase in social justice irrespective of class, gender, and other differences”**





Thank you very much for your attention.



Federal Ministry
for Economic Cooperation
and Development

EUROPEAN COMMISSION



Humanitarian Aid

