



**Asia-Pacific
Economic Cooperation**

2017/SOM3/EPWG/010

Agenda Item: 18

Pre and Post Disaster Planning - The World Vegetable Center Household Garden Model

Purpose: Information

Submitted by: World Vegetable Center



**12th Emergency Preparedness Working Group
Meeting
Ho Chi Minh City, Viet Nam
21-22 August 2017**

Pre and Post Disaster Planning

The World Vegetable Center Household Garden Model



Siem Reap, Cambodia, 2016

STUART BROWN

World Vegetable Center - Cambodia

12th EPWG Meeting
3rd APEC Senior Officials' Meeting

Post Disaster Recovery (PDR)

The World Vegetable Center Household Garden Model



1. The World Vegetable Center
2. What constitutes a household garden (HG)?
3. World Vegetable Center's model for HGs
4. Approaches in Cambodia
5. World Vegetable Center's experience in Post Disaster Recovery (PDR)
6. Forward strategy for PDR activities
7. Use of information technology in PDR



1. The World Vegetable Center



- International non-profit organization, est. 1971, headquartered in Chinese Taipei with regional offices in Tanzania, Mali, India and Thailand.
- **Mission:** Alleviate poverty and malnutrition in the developing world through the increased production and consumption of health-promoting vegetables.
- **Main areas of work:** Vegetable germplasm collection, breeding, integrated pest management, vegetable value chains, household gardens.

2. What constitutes a household garden?



- ➔ Solanaceae:
 - Tomato
 - Pepper
 - Eggplant

- ➔ Bulb Alliums:
 - Onion
 - Garlic
 - Shallot



- ➔ Legumes:
 - Mungbean
 - Vegetable soybean



- ➔ Crucifers:
 - Pak Choi
 - Broccoli



- ➔ Cucurbits:
 - Cucumber
 - Pumpkin



- ➔ Traditional and perennial vegetables

2. What constitutes a household garden?



3. WorldVeg Household Garden Model



- Needs-based support to reduce micronutrient malnutrition by increasing the year-round supply of a diverse range of fruit and vegetables from a household-managed garden linked to complementary training in nutrition and health and to the development of support systems.
- Comprehensive approach to malnutrition, combining better access to food, nutrition practices and healthy environments
- Household garden interventions help people to help themselves – build resilience
- Address some of the root causes of malnutrition



3. WorldVeg Household Garden Model



Training in garden production

Diverse range of nutrient-dense fruit and vegetables
Good agricultural practices

Training in nutrition and health

Knowledge about nutrition and food practices
Awareness about the importance of WASH

Support systems

Quality seed supplies
Community-based support

4. Approaches in Cambodia



- NGO project partners organize and facilitate participatory village engagement meetings
 - Identify potential clients
 - Who will benefit most from this project?
 - How ready are they to participate?
- Client selection process
 - Visit to each interested household
 - Assignment for testing prospective clients
 - Sign up clients



4. Approaches in Cambodia



- TOT packages are delivered to NGO project partners by World Vegetable Staff
 - Home garden agronomy – 4 days
 - HG Site selection, dry and liquid compost making, land preparation, seedling production, IPM and cultural Practice (trellising, plant density, pruning...)
- Nutrition – 2 days
 - Basic messages about a quality and diverse diet and the benefit to family and particularly children
 - Food hygiene
 - Nutrition and Food security



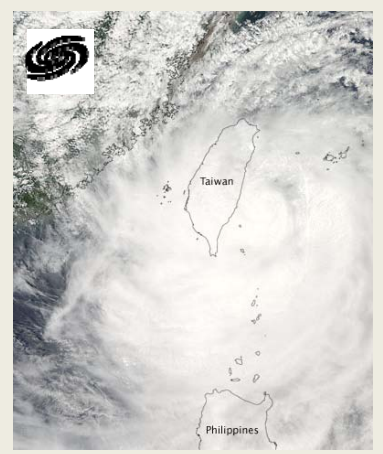
4. Approaches in Cambodia



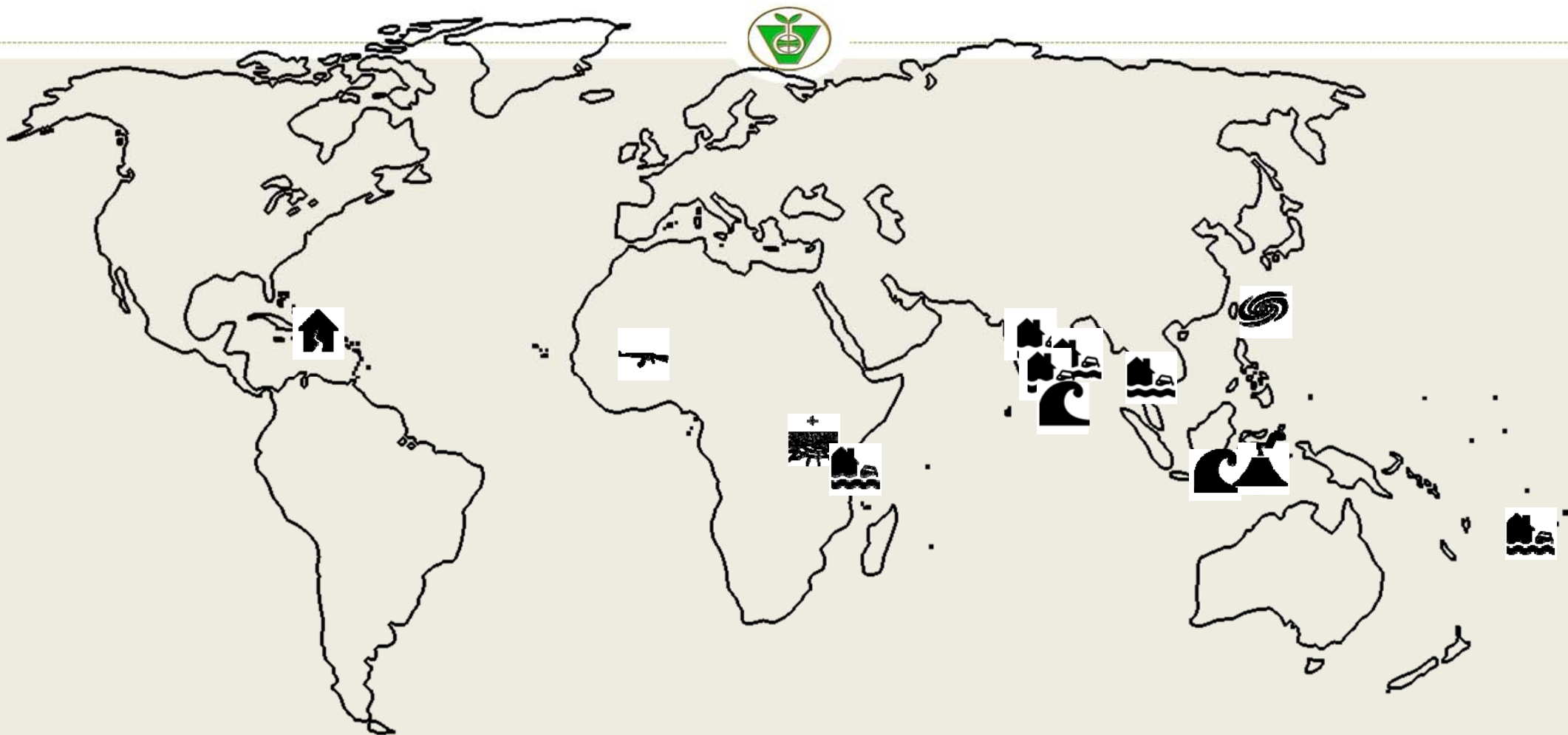
- NGO project partners provide hands-on training (learning by doing) on:
 - Household garden agronomy : 3 days
 - Nutrition and cooking demonstration : 2 days
 - Training monitoring recorded by Akvo Flow mobile device
 - Technical Assistance – 2 times / month / client household – also recorded by Akvo Flow mobile device
- Monitoring visits and technical backstopping by World Vegetable Center Staff to
 - NGO project partner technicians
 - Household garden clients
- Lessons learned are reflected upon annually and fed into improved project implementation for the year ahead



5. WorldVeg experience in PDR



5. WorldVeg experience in PDR



5. WorldVeg experience in PDR: India flooding example



Sep 2011: floods



Jan 2012:
first evaluation



Aug 2012:
second evaluation



Nov 2014: floods



2010-2011:
making seed packs



Sep 2011:
looking for funding

Oct 2011:
10,000 seed packs
distributed

2013: COFRA project
starts with CRS



Oct 2014:
18,000 seed packs
distributed

5. WorldVeg experience in PDR: India flooding example



winter crops



fenugreek



vegetable mustard



chenopodium



spinach

summer crops



amaranth



kangkong



malabar spinach



6. Forward strategy



- World Vegetable Center has the model in place. But one size does not fit all!
- Requires forward planning and modelling strategies for most “at risk” regions
- Working more closely with regional governments and relief bodies that have the capacity to quickly move into a disaster zone to assess and implement relief activities. Identification of the appropriate on ground partners who could act immediately upon the onset of a disaster.
- Development of “packages” which include seeds based on specific regional ecosystems, dietary preferences and a rapid harvest to supply communities with food in a timely manner after a disaster

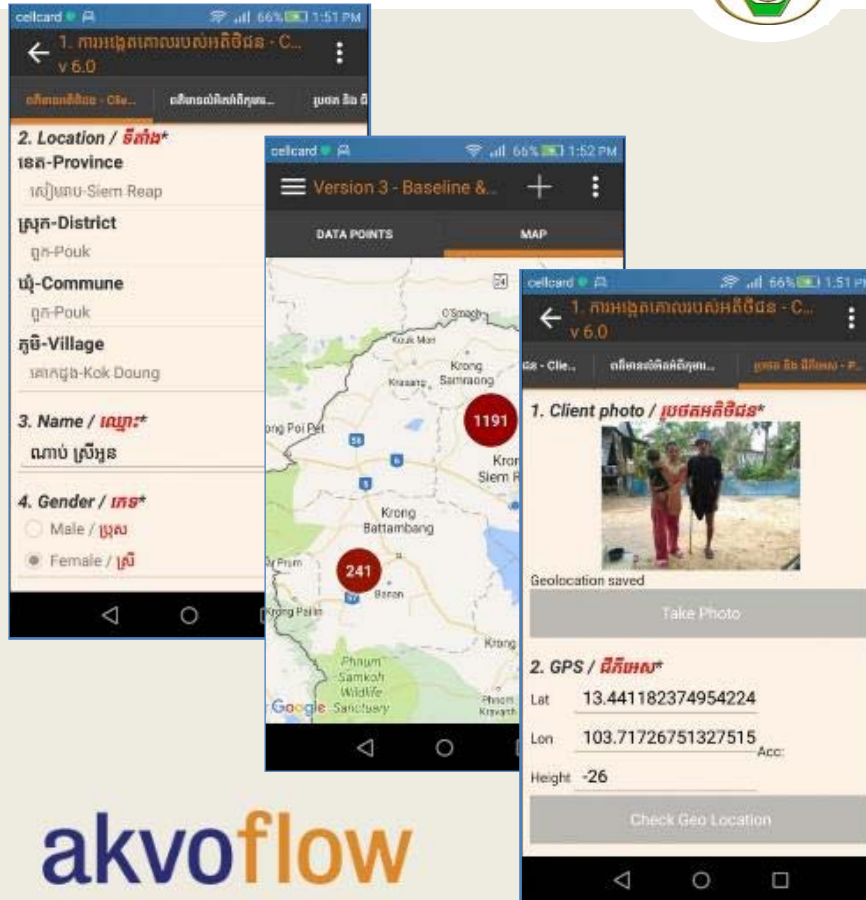


6. Forward strategy



- Prior preparation of relief teams and government agencies in the roll out of household garden implementation techniques aligned culturally with the regions impacted by the disaster
- Implementation action plan pre-prepared but flexible and designed for specific regions – modelling the possible scenarios
- Funding bodies in place for supply of emergency funds to implement the plans
- Appropriate use of ICT resources to aid the implementation and targeting of activities within the disaster zone (more on this soon)

Current use of ICT in the Cambodia HG Project



Partnership with Akvo using a multi-language tool for collecting, evaluating and displaying any quantity of geographically referenced data - using a simple Android smartphone app and an online dashboard.

Household garden clients for example, can be surveyed and returned to many times during the project to collect additional or updated data, such as training activities or technical assistance.

- Fast
- Flexible
- Simple interface
- Online maps
- Phone network not needed

Current use of ICT in the Cambodia HG Project



- Project participant registration
 - Key data collected to report on project indicators
 - Participant profiles
 - Geographical information
- Project monitoring
 - Agriculture training
 - Nutrition training
 - Technical assistance provided to participants
 - Collection of data for reporting purposes



Current use of ICT in the Cambodia HG Project



- Data and trend analysis



Summary



- Indigenous as well as more commonly available vegetables are both equally important in post disaster contexts
- Focus on women and keep it simple
- Make it tailored
- Strong need to prior preparation and modelling disaster scenarios in most at risk regions
- Need for evaluation and follow up to ensure “household garden package” is delivered efficiently and effectively
- Integrate strong ICT approaches to any and all post disaster recovery efforts

