



GREENPEACE

Southeast Asia

# SPROUTING FROM DISASTER

Institutionalizing Farmer to Farmer  
Ecological Seed Response  
for a Sustainable and Ecological Seed and Food System  
in the Philippines  
A Greenpeace Philippines Policy Brief

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Greenpeace volunteers prepare to distribute rice seeds for planting, to farmers whose fields were totally destroyed by Typhoon Ruby (Hagupit). A group of farmers from the islands of Cebu, Bohol and Negros – strong movers of sustainable and ecological agriculture – came together in the spirit of 'Balaynihan' (communal work) to aid fellow farmers by collecting ecologically farmed rice seeds, root crops, vegetable seeds and organic fertilizers. The seeds were presented to 125 of the most affected farmers by typhoon Hagupit in Dolores. ©Charlie Saceda / Greenpeace

## I. FOOD EMERGENCIES AND DEFAULT RESPONSE

### CONTEXT

The Philippines is experiencing increasing incidence of food emergencies brought by the collapse of food supply from super-typhoons<sup>1</sup> that devastate farming communities with floods, landslides and intense winds, from drought brought about by El Nino<sup>2</sup>, and from internal conflicts. Rice and corn farming, which are practiced in open areas, are usually heavily impacted.

In 2007-2010, damage to agriculture from natural disasters was estimated at Php46B or Php11B/year<sup>3</sup>. Super-typhoon Ruby (2014) alone caused Php1.9B<sup>4</sup> worth of damage to agriculture, while Typhoon Lando (2015) resulted in Php6.4B<sup>5</sup> worth of agricultural damages. Drought from January to May 2016, brought about by El Nino, brought Php7B<sup>6</sup> worth of damages to farming.

These food and agriculture emergencies from disasters come on top of chronic food emergency. Only three out of ten Filipino households are food secure<sup>7</sup>. The country suffers from a double burden of malnutrition, with 8% of children aged 0-5 years, wasted or suffering from acute malnutrition, and 5% are overweight or obese<sup>8</sup>. Further, in 2015, more than 30% of children aged 5-10 years are underweight and stunted, while more than 30% of Filipino adults aged 20 and above are overweight or obese<sup>9</sup>.

<sup>1</sup> On the average, the Philippines is visited by 20 typhoons per year <http://www.adrc.asia/nationinformation.php?NationCode=608>

<sup>2</sup> El Nino and La Nina develop in a 2 to 9 year cycle <http://www1.pagasa.dost.gov.ph/index.php/27-climatology-and-agrometeorology/1620-faq-for-el-nino> but it was the first time for the country to experience the double El Nino in 2015-2016

<sup>3</sup> Israel, D. 2012. Typhoons, floods, and droughts: regional occurrence and value of damages to rice farming in the Philippines. PIDS Policy Notes 2012-15 (September 2012). <http://dirp3.pids.gov.ph/ris/pn/pidspn1215.pdf>

<sup>4</sup> [http://www.ndrrmc.gov.ph/attachments/article/1356/Sitrep\\_No\\_24\\_re\\_Effects\\_of\\_Typhoon\\_Ruby\\_as\\_of\\_16DEC2014\\_0600H.pdf](http://www.ndrrmc.gov.ph/attachments/article/1356/Sitrep_No_24_re_Effects_of_Typhoon_Ruby_as_of_16DEC2014_0600H.pdf)

<sup>5</sup> <http://www.philstar.com/business/2015/10/22/1513318/typhoon-lando-aftermath-agriculture-damage-rises-p6.4-b>

<sup>6</sup> <http://interaksyon.com/article/127313/el-nino-damage-to-agriculture-reaches-p7-013b-in-jan--may-16>

<sup>7</sup> Food and Nutrition Research Institute. 2015. 8th National Nutrition Survey, Food Security Survey. [http://enutrition.fnri.dost.gov.ph/site/assets/uploads/2017/04/FOOD-SECURITY-FACTS-FIGURES-2013\\_final\\_06.02.17\\_for-printing.pdf](http://enutrition.fnri.dost.gov.ph/site/assets/uploads/2017/04/FOOD-SECURITY-FACTS-FIGURES-2013_final_06.02.17_for-printing.pdf)

<sup>8</sup> FNRI. 2015. 8th National Nutrition Survey, Overview. [http://enutrition.fnri.dost.gov.ph/site/assets/uploads/publications/Overview\\_8thNNS\\_050416.pdf](http://enutrition.fnri.dost.gov.ph/site/assets/uploads/publications/Overview_8thNNS_050416.pdf)

<sup>9</sup> FNRI. 2016. The Double Burden of Malnutrition in the Philippines. [http://enutrition.fnri.dost.gov.ph/site/assets/uploads/presentations/MIMAROPA\\_Results\\_for\\_double\\_burden.pdf](http://enutrition.fnri.dost.gov.ph/site/assets/uploads/presentations/MIMAROPA_Results_for_double_burden.pdf)

## DEFAULT RESPONSE

After a natural disaster strikes, the first level of life saving response includes medical assistance, evacuation, and securing immediate food and water needs, especially for children and the elderly. The government, civil society, church and private sector start to rally for food aid, which usually consists of rice, sardines, and instant noodles which are not nutritious food to have during emergencies. Local food preferences dictated by religion, social and cultural practices, and even age, are also often overlooked in food response. In addition, uncoordinated efforts in food response among international non-government organizations, government agencies and other donors, as seen during typhoon Haiyan, can further aggravate the dire humanitarian situation in the affected areas, as some areas are left unattended, while others have more than enough relief goods.

As climate change makes natural disasters more intense and frequent, the default response becomes even more questionable in terms of sustainability, appropriateness, and effectivity.

Government seed distribution and farm packages for affected farmers come in at a much later stage of rehabilitation. Most of the seeds come from pre-positioned seed buffer stock kept at the Department of Agriculture Regional Field Units. These seeds are certified seeds produced by organized seed producers or seed companies. These seeds were developed for wider adaptation, mostly for prime irrigated areas. The buffer seed stocks almost always are not diverse varieties and are not developed for site-specific



A mother feeds her baby some Mingo (an instant moringa rice & mungo blend for 6 to 30 months old) during demonstration and distribution at the municipal health office in Dolores, Eastern Samar, Philippines. Greenpeace donated the Mingo packets in Dolores as a solution to address malnutrition. ©Charlie Saceda / Greenpeace

adaptability based on local climatic conditions and farmers' practices and preferences.

Private seed companies, via their corporate social responsibility work, also donate their own seeds, in the process promoting the use of their own products and, intentionally or unintentionally, changing the seed system. For instance, after super typhoon Haiyan, Monsanto distributed corn seeds, food, water and supported house repairs to the amount of US\$400,000<sup>10</sup>. Civil society organizations, like Oxfam, likewise donated 400 tons of rice seeds to Haiyan-affected farmers, a month after the super typhoon landed<sup>11</sup>.



Farmers exchange planting materials at a seeds distribution in Dolores, Eastern Samar. A group of farmers from the islands of Cebu, Bohol and Negros – strong movers of sustainable and ecological agriculture – came together in the spirit of 'Balaynihan' (communal work) to aid fellow farmers by collecting ecologically farmed rice seeds, root crops, vegetable seeds and organic fertilizers. The seeds were presented to 125 of the most affected farmers by typhoon Hagupit in Dolores. ©Charlie Saceda / Greenpeace

When damage is huge, such as in Haiyan, the tendency is to move as many seeds as possible to the impacted areas with the aim of helping farmers spring back to food production. However, often there is no in-depth assessment of the local seed system and how it can be built back to be more resilient and responsive to the impacts of future climate-related disasters, especially under the climate change era. There is likewise no post-response assessment as to how the distributed seeds affected the local seed system of the community. While waiting for government or private companies to help them, farmers often seek support from their own social networks and scour local markets for seeds to enable them to restore their default status. Under a highly stressful situation, the tendency (for farmers, government agencies, and civil society) is only to aspire to a restoration to the default system, not ambition to improve the system and make it more resilient and sustainable.

<sup>10</sup> "Monsanto Pledges Multi-Stage Support to Aid Philippines, Local Farmers Devastated by Typhoon Agricultural Company Teams Up With International Non-Governmental Organizations To Aid Those In Need". Monday November 25, 2013. <http://news.monsanto.com/press-release/giving/monsanto-pledges-multi-stage-support-aid-philippines-local-farmers-devastated-t>

<sup>11</sup> <https://www.oxfam.org/en/philippines/philippines-typhoon-haiyan-our-response>



Farmers show their “passport” before the distribution of organic rice seeds and fertilizers for farming communities ravaged by the recent typhoon Lawin in Solana, Cagayan province.

About 150 farmers benefited from the “ecological seed response” for communities affected by the recent super typhoon haima. ©Roy Lagarde/ Greenpeace

## II. BUILD BACK BETTER WITH FARMER-TO-FARMER ECOLOGICAL SEED RESPONSE

In food and agriculture response, a determined effort to start afresh with all that was devastated in an area, following the Sendai Framework of Action for Disaster Risk Reduction<sup>12</sup>, provides an opportunity to build resilience. The “build back better” principle means not going back to established practices, especially if these practices have not been sustainable and resilient.

Following on the ‘build back better’ principle, Greenpeace Southeast Asia - Philippines facilitated several farmer-to-farmer ecological seed responses in collaboration with farmer groups, civil society organizations and local government units from 2014 to 2016. This ecological seed response work was undertaken in twelve municipalities, whose food and agriculture system were affected by Super Typhoon Ruby (Hagupit) in 2014,<sup>13 14 15</sup> Typhoon Lando (Koppu) in 2015<sup>16 17 18</sup>, Super Typhoon Lawin (Haima) in 2016<sup>19</sup> and the dry spell and drought due to double El Niño of 2015 to 2016<sup>20</sup>.

The farmer-to-farmer ecological seed response was designed to support farmers’ shift to ecological agriculture<sup>21</sup>, a more resilient farming system, by providing contiguous support, including livelihood recovery, to farmers and their families in the aftermath of the ravaging typhoons and drought. Ecologically grown rice and vegetable seeds, starter kits for organic soil fertilization and training on ecological farming techniques were provided during the response. In some instances, indigenous communities also used the seed response to bring back elements of their cultural practices. In Maguindanao, Tedurays started to re-instate their ‘sulagad’ farming system, which includes mutual help and working with on-farm biodiversity for diverse food and resilience.

The ecological seed response therefore became an effort to regenerate, build back better and make accessible to farmers, diversified seeds that are necessary to build and empower climate-resilient

<sup>12</sup> United Nations. 2015. *Sendai Framework for Disaster Risk Reduction 2015-2030*. [http://www.unisdr.org/files/43291\\_sendaiframeworkfordrren.pdf](http://www.unisdr.org/files/43291_sendaiframeworkfordrren.pdf)

<sup>13</sup> <http://www.greenpeace.org/seasia/ph/press/releases/Balaynihan-for-Dolores-Samar-gets-underway/>

<sup>14</sup> <http://www.greenpeace.org/international/en/news/Blogs/makingwaves/typhoon-hagupit/blog/51742/>

<sup>15</sup> <https://www.youtube.com/watch?v=xaC8qvX4TCw>

<sup>16</sup> <http://www.greenpeace.org/seasia/ph/press/releases/Greenpeace-holds-IAmHampasLupa-seed-response-to-help-Benguet-farmers-recover-from-Typhoon-Lando/>

<sup>17</sup> <http://newsinfo.inquirer.net/736140/campaigners-donate-seeds-to-lando-survivors>

<sup>18</sup> <https://www.youtube.com/watch?v=tLYaoyw0qY0>

<sup>19</sup> <http://www.manilatimes.net/lawin-hit-farmers-cagayan-get-aid/298726/>

<sup>20</sup> <http://www.greenpeace.org/seasia/ph/press/releases/Tedurays-and-Lambangians-of-Maguindanao-start-rebound-from-El-Nino-with-organic-non-GMO-corn-seeds-and-fertilizers/>

<sup>21</sup> Greenpeace International. 2015. *Ecological Farming, the seven principles of a food system that has people at its heart*. <http://www.greenpeace.org/international/Global/international/publications/agriculture/2015/Food%20and%20Farming%20Vision.pdf>

## SPROUTING FROM DISASTER

farming communities, and to make them ready for future disasters. This challenges the reality that seed procurement and distribution in relief work, as a matter of policy and practice, by the Department of Agriculture, humanitarian agencies and even the Food and Agriculture Organization, only include certified seeds. This, despite the fact that bulk of diverse seeds are still kept by farmers. In the end, the farmer-to-farmer seed response contributes to realizing Farmers' Rights to save, exchange, sell and use farm-saved seeds, and the protection of farmers' traditional

knowledge for food and agriculture. The Philippines is a signatory to an International Treaty that recognizes Farmers' Rights.

The farmer to farmer ecological seed response work also serves as a platform to prove that a farmer-to-farmer and local government to local government seed response system during crisis situation is possible and, more importantly, that small-holder farmers, keepers of on-farm biodiversity, could indeed respond to crises and help build back better biodiversity on-farm<sup>22</sup>.



The Climate Resilience Field School (CRFS) is a climate change adaptation and early warning service for agriculture, which intends to assist farmers in planning their cropping periods or cropping calendars. The government should equip farmers with timely and localized weather information and an early warning system to enable farmers to plan well. This early information system should be coupled with programs and projects on how farmers could plant diverse crops, raise farm animals, and develop and implement diversified livelihood strategies. ©John Novis/ Greenpeace

### III. A PROPOSAL TO ACHIEVE A RESPONSIVE, RESILIENT, SUSTAINABLE AND ECOLOGICAL SEED AND FOOD SYSTEM

The Government has yet to dispense with the provision of ecological seeds to farmers affected by disasters and climate events as part of its relief and rehabilitation efforts. Government and even international civil society's seed relief measures are either ad hoc or sporadic and are not guided by a clear direction to shift towards building a climate-resilient and ecological agriculture that will ensure a sustainable and ecological food system for the impacted community. There is therefore need to review existing policies and develop new ones, to institutionalize the farmer-to-farmer ecological seed response as default response, and support the broader transition to a sustainable and ecological food system, specifically:

- A. Advance the practice of farmer-to-farmer ecological seed response for on-farm biodiversity conservation and farm resilience.
  - Expand the existing national research agenda of the Department of Science and Technology that deals with hazards, vulnerability and risk assessment, such that it may develop further innovations on ecological seed responses that will, in the long-run, facilitate the over-all transition to a more climate-resilient ecological agriculture.
  - Local research stations under the Department of Agriculture, and state agriculture universities to undertake research on production, distribution and adaptation of ecological seeds to local environments and farmer practices.

<sup>22</sup> <http://www.greenpeace.org/seasia/ph/News/greenpeace-philippine-blog/climate-is-changing-food-and-agriculture-must/blog/57721/>

- National and local research institutions to research community-based seed management, seed storage, regeneration and viability tests to ensure good quality and diversity on-farm.
  - Government extension service, under the local government and Department of Agriculture, to train and provide technical support to farmers for ecological seed production, storage and delivery, as part of disaster response.
- B. Review response policies to include farmer-to-farmer ecological seed response as part of realizing Farmers Rights
- Department of Agriculture to review its procurement policy in times of crisis, to include mechanisms that ensure small-holder farmers, who keep biodiversity and seeds on-farm, can participate in seed response missions.
  - Department of Agriculture and UN FAO to look into seed relief and distribution policies where only certified seeds are allowed, marginalizing farmers' participation and hindering the realization of Farmers' Rights.
  - National Disaster Risk Reduction and Management Council to ensure distribution of ecological and farmer seeds, be part of seed recovery and distribution efforts during disasters through the Disaster Risk Reduction and Management Act<sup>23</sup>; furthermore, in the National Disaster Risk Reduction Framework or NDRRMF, make the distribution of ecological seeds an integral part of the National Disaster Response Plan.
  - Department of Social Welfare and Development to incorporate the provision of ecologically grown seeds, and food from ecological farmers as part of the food and non-food items of its Disaster Response Operations Guidelines.
- C. Review food and agriculture policies and programs for farmer-to-farmer ecological seed response for a resilient, ecological and sustainable food and agriculture system.
1. Production support - to enable farmers to expand the production areas planted to ecologically-grown seeds, the Department of Agriculture and local governments must disengage from promotion of hybrid seeds and chemical agriculture, and instead give priority to promoting and supporting use of diverse and ecological seeds. Some measures to achieve this include:
    - Developing programs for use of bio-diverse seeds in communities.
    - Adjusting the Department of Agriculture's farmers guide map (<http://www.farmersguidemap.gov.ph/>) to have overlay of diverse crops rather than commodity crops and for the map to include farmers (and where they are located) as sources of diverse ecological seeds.
    - Facilitating knowledge exchange, technical and extension support to farmers on proper seed management, including seed storage, building on indigenous practices.
    - Training community seed inspectors to ensure diverse and good quality seeds within the barangays.
    - Working with civil society organizations that support and have expertise on local seed systems.
    - Monitoring results of seed distribution to assess the impacts of the seed response work and address challenges for practical implementation.
- To further boost ecological production support, the Department of Agriculture, along with the National Organic Agriculture Board, must ensure faster and countrywide transition to ecological agriculture via the Organic Agriculture Act by:
- Identifying, recognizing and mapping farmers and their farms that can be ecological seed sources for other farmers and in times of crisis.
  - Clarifying that organic/ecological agriculture is one key major climate adaptation and mitigation measure under the Climate Change Act, which should be mandatorily integrated in:
    - the Department of Agriculture's Adaptation and Mitigation Initiatives in Agriculture (AMIA)
    - the Department of Interior and Local Government's Climate Change Action Plans that it regularly provides to the local government units through the Local Government Academy and other related programs
    - the National Anti-Poverty Commission's Integrated Community Food Production (ICFP) Program.

<sup>23</sup> [http://www.lawphil.net/statutes/repacts/ra2010/ra\\_10121\\_2010.html](http://www.lawphil.net/statutes/repacts/ra2010/ra_10121_2010.html)

2. Post-harvest support – to enable the post-harvest processing of ecologically-grown seeds and produce in order that they can be marketed, the Department of Agriculture must include post-harvest facilities for community seed production in its projects
3. Distribution, marketing and price support – to enable the farmers to bring their products to the marketplace, including ecological seeds, and be able to sell or exchange them at a price or value that will be commensurate at least to their production costs, the Department of Agriculture and local governments should develop marketing and promotional programs. In addition, re-orient the Department of Agriculture plan to allot PHP1 billion per region to include programs on marketing their organically-grown products, including seeds.
4. Financing and loan condonation support– to enable the farmers to proceed to the next planting cycle complete with all the needed inputs, which may include a mechanism whereby the debts of farmers are taken over by the local government units and converted to bonds and other forms of financial instruments to spread out their costs in the long run. Some measures include:
  - Re-orienting the Department of Agriculture plan to allot PHP1 billion per region to provide support to agricultural financing for farmers to pay off bad debts, so that they can regain good credit standing,
    - Enabling farmers to access interest-free loans to enhance their seed response work and hasten their transition to ecological agriculture, which may be integrated in
  - the Agricultural Credit Policy Council's (ACPC) Survival and Recovery (SURE) Program, which is currently helping agricultural households in calamity-affected areas regain their capacity to earn a living by providing recovery loan to calamity-affected small farmers and fisherfolk.
  - the ACPC's Climate Change Adaptation Financing Program (CAAFP), which has a limited seed fund at the moment, but through the efforts of the Department's Systems-Wide Climate Change Office (SWCCO), may be able to secure financing from various international and regional sources in order that such funds may be augmented to deal with this transition to ecological agriculture and ensure availability of ecological seeds.



Farmers from Indigenous Teduray and Lambangian tribes apply organic fertilizer to the soil before planting organic corn seeds in Sitio Sinampildon, Brgy Loooy, South Upi, Maguindanao. Indigenous farmers here, who have been severely affected by the 2015-2016 double El Niño, take on the challenge of recovery as they undergo training in, and start to plant, organic open-pollinated seeds this week. Greenpeace and Kilosang Maralita sa Kanayunan (KilosKa) provided support in sourcing and distribution of the seeds and organic fertilizers and pesticides. ©Grace Duran-Cabus/ Greenpeace

5. Well-being and welfare support – to keep the farmers’ physical well-being in good condition, in order that they can continue to work in the farm, plus other beneficial programs to ensure the welfare of the farmer and his family, which includes Farmer social security including, but not limited to, guaranteed support for enrollment and membership in PhilHealth and SSS.

D. Enact an Executive Order creating a Food Cluster for Sustainable and Ecological Food System - There is currently a draft Executive Order, developed by Greenpeace, the Peoples Food Movement and the League of Organic Agriculture Municipalities and Cities, whereby such measure establishes a Food Cluster that will oversee the transition from the current system of food and agriculture to a sustainable and ecological food system via creation of food councils (at national and local level) and development of national and local food plans, with peoples’ participation.

E. Encourage local governments to develop local food councils and food plans - While the Executive Order may look at how the various national agencies may work together to realize the broader goal in revamping the country’s food system, the local government units are also given the requisite mandate and guidance under the same Executive Order to form their respective local food councils and local food plans.

The content of these food plans may be any or all of the different components enumerated in parts 1 to 3 above and their corresponding details may be taken on, depending on their financial and technical capabilities, by the local governments through customized ordinances as they embark on their respective food system policies at the local level aimed at helping farmers while ensuring that there is affordable food for consumers.



Farmers are advised on the amount of organic fertilizer to be applied for every ecological corn seed, during demonstration of organic fertilizers application in Brgy Loooy, South Upi, Maguindanao. Indigenous farmers here, who have been severely affected by the 2015-2016 double El Niño, take on the challenge of recovery as they undergo training in, and start to plant, organic open-pollinated seeds this week. Greenpeace and Kilusang Maralita sa Kanayunan (KilosKa) provided support in sourcing and distribution of the seeds and organic fertilizers and pesticides. ©Grace Duran-Cabus/ Greenpeace

It is important to note that these proposed food, seeds and disaster response policies and programs should be guided by a sustainable and ecological food system framework which is anchored on food sovereignty<sup>24</sup>. In its essence it gives farmers and consumers the right to make decisions that will strengthen their independence or, to a lesser degree, autonomy from all other decisions of other players in the farming and food system.

While there are national level efforts under the existing administrative set-up, with the Philippine Local Government Code, the local government units -- whether at the barangay<sup>25</sup>, municipal<sup>26</sup> or provincial<sup>27</sup> level -- possess the necessary legal authority and mandate to carry out the various elements needed to realize a transition to a sustainable and ecological food system and advance the country’s commitment to advance Farmers’ Rights.

<sup>24</sup> As reviewed by Ansel [3], food sovereignty was originally a concept proposed by La Via Campesina which it defined as the “right of each nation to maintain and develop its own capacity to produce its basic foods respecting cultural and productive diversity”. Later, the concept developed such that it was included in the constitutions of Mali, Nicaragua, Nepal, Senegal and Ecuador, Bolivia and Venezuela. In spite of these, however, food sovereignty does not have a standardized policy agenda as policy makers have to take into account local history, culture as well as the ecological and social context of a country.

<sup>25</sup> Under sec. 17 (b)(1) of the Local Government Code of the Philippines (Republic Act 7160, as amended), some of the basic services and facilities that may be provided by a barangay are not limited to agricultural support services which include planting materials distribution system and operations of farm produce collection and buying stations.

<sup>26</sup> Under sec. 17 (b)(2) of the Local Government Code of the Philippines (Republic Act 7160, as amended), some of the basic services and facilities that may be provided by a municipality are not limited to extension and on-site research services and facilities related to agriculture and fishery activities which include dispersal of livestock and poultry, fingerlings, and other seedling materials for aquaculture, palay, corn and vegetable seed farms, medicinal plant gardens, fruit tree, coconut and other kinds of seedling nurseries, demonstration farms, quality control of copra and improvement and development of local distribution channels, preferably through cooperatives, inter-barangay irrigation system, water and soil resource utilization and conservation projects and enforcement of fishery laws in municipal waters including the conservation of mangrove.

<sup>27</sup> Under sec. 17 (b)(3) of the Local Government Code of the Philippines (Republic Act 7160, as amended), some of the basic services and facilities that may be provided by a province are not limited to agricultural extension and on-site research services and facilities which include the prevention and control of plant and animal pests and diseases ; dairy farms, livestock markets, animal breeding stations and artificial insemination centers and assistance in the organization of farmers’ and fishermen’s cooperatives and other collective organizations as well as the transfer of appropriate technology, the latter service may be complemented with the conduct of the requisite technology assessment before such technology may be transferred to the farmers in a locality.



Francisca Lawis (photo above), 67, a farmer who is into conventional farming, tries to salvage whatever was left from her rice field (lower left field in the photo below) that has been badly affected by prolonged drought brought by El Niño phenomenon in La Libertad, Carmen Bohol. Adjoining fields that were planted with ecologically farmed rice were not as affected. The severe droughts brought on by El Niño have destroyed farmers' conventional crops. El Niño phenomenon is part of a natural climate variability, but the frequency and intensity of these events are predicted to be increasing with climate change. ©John Novis/ Greenpeace



# ANNEX

## OVERVIEW OF GOVERNMENT INITIATIVES IN DISASTER RESPONSE

### DEPARTMENT OF AGRICULTURE

The Department, through the Agricultural Credit Policy Council (ACPC), has the **Survival and Recovery (SURE) Program** to support the government's goal of helping agricultural households in calamity-affected areas regain their capacity to earn a living by providing recovery loans to calamity-affected small farmers and fisherfolk and their households at 0% per annum [1]. In addition to this, the ACPC has also a PhP150 million special credit facility called the **Climate Change Adaptation Financing Program (CCAFF)** to encourage adoption by non-agrarian reform beneficiaries (non-ARB) small farmers/fisherfolk of climate change adaptation practices and technologies, such as planting of new crop varieties developed to withstand certain adverse effects of climate change (e.g. drought-tolerant, submergence-tolerant, early-maturing crops). The CCAFF will serve as a pre-disaster intervention focused on prevention and preparedness to complement ACPC's Calamity Assistance Financing Program, which serves as a post-disaster, quick response mechanism focusing on rehabilitation and recovery of agricultural households affected by extreme weather events and calamities [2].

When it comes to the bigger task of climate change adaptation, the major initiative of the Department of Agriculture, as regards the attainment of climate-resilient agriculture, is the **Adaptation and Mitigation Initiative in Agriculture (AMIA)** [3]. This program seeks to enable climate risk-prone agri-fisheries communities to pursue sustainable livelihoods while effectively managing the likely impacts of climate change. AMIA is anchored in a climate-resilient agriculture (CRA) strategic framework to guide decision-making and actions by key stakeholders. The program combines a science-driven knowledge platform with an integrated suite of institutional support services, such as accessing climate finance mechanisms. AMIA is being implemented by the DA's Systems-wide Climate Change Office (SWCCO), in partnership with DA regional field offices (RFOs), state colleges and universities, international organizations, financial institutions, and non-government organizations (NGOs).

The initial phases of AMIA identified key climate risks and vulnerable areas across the country. In addition, climate-smart villages in Quezon and Capiz

provinces served as guides in piloting community action research. Guidelines for the provision of climate information services were also developed. Building on these initiatives, AMIA is now establishing community-level research and development interventions in 17 pilot sites. These pilot sites will be provided integrated decision-support tools (e.g., ICT-based farmer/fisherfolk advisory services, crop and nutrient manager application, and a cost-benefit analysis online tool) and government services (e.g., training, credit, insurance, and market linkage support). A participatory approach is being employed to respond to the needs and demands of the community and is expanding on previous capacity building activities.

SWCCO is exploring external financial support, in addition to the national budget, to continue the introduction and scaling-out of CRA innovations across the country. The program aims to increase the capacity of over nine million individual farmers and fisherfolks by 2022 to use and apply climate information and support services that would:

- (i) address their food and nutrition security and livelihood security;
- (ii) promote the use of climate-resilient and sustainable production and management practices and technologies;
- (iii) develop and adopt risk-transfer and risk-pooling mechanisms to protect their income and livelihoods from sudden and slow-onset climate-related stresses and shocks; and
- (iv) support the development of climate-resilient agricultural and fisheries infrastructure.

It is not clear whether this climate resilient agriculture (CRA) framework will advance the cause of organic/ecological agriculture all over the country since, if one checks out closely the citation of the Philippine's CRA Profile [4], the CRA framework of the Department of Agriculture is actually patterned after FAO's Climate-Smart Agriculture (CSA) framework. As explained by the FAO itself [5], the CSA approach builds upon the concepts, technologies and experience of sustainable agriculture, but explicitly focuses on integrating the impacts of unprecedented climate change. The CSA approach involves assessing sustainable agricultural practices to determine if and how climate change may affect their intended outcomes of improving livelihoods, environmental management and adoption/dis-adoption of agricultural practices.

In that same brief, while the FAO explains that while CSA does not promote GMOs, the CSA approach involves the development of a set of feasible options for addressing the challenges of climate change for specific locations and conditions in conjunction with key stakeholders including national governments, agricultural research and development institutions at international and national levels, and households/communities, civil society and the private sector at the local level. The use of GMOs is determined by national policies in each country. Considering that the Philippines has institutionalized the planting, field release and commercialization of GM crops, a CSA approach to climate-resilient agriculture will not rule out use of these types of crops.

In spite of this, organic agriculture in the country is secure as a practice because there is a law that mandates such practice through the **Organic Agriculture Act**, the implementing mechanism of which is the National Organic Agriculture Board or NOAB.

### DEPARTMENT OF SCIENCE AND TECHNOLOGY

The Department of Science and Technology has come out with its Harmonized National Research and Development Agenda [7] and a key component of such agenda is on disaster risk reduction-climate change adaptation (DRR-CCA), in the following major areas:

- A. Observation and Monitoring Networks
- B. Technology Development and Application for Monitoring
- C. Modeling and Simulation for Improvement of Monitoring and Forecasting
- D. Hazards, Vulnerability and Risk Assessment
- E. Warning and Risk Communication
- F. Technology Development and Application for Climate Change Mitigation and
- G. Technology Development and Application for Disaster Risk Management
- H. Policy Research

In component D on Hazards, Vulnerability and Risk Assessment, there is an identified research area on the assessment of hazards, which involves the development and update of exposure data base,

### DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT

The Department has taken note of what it calls the “New Normal” in its most recent Disaster Response Operations Guidelines [8], which lays out how the Department will deal with more and more disasters. While the DSWD will provide food and non-food items, provision of seeds is not part of its task. There is, nonetheless, an indigenous people’s participation framework [9] that enables the indigenous peoples

In its record of accomplishments for the period 2012-2016, the Department of Agriculture’s **National Organic Agriculture Program (NOAP)** [6] has indicated as one of its goals the promotion, propagation, further development and implementation of the practice of organic agriculture in the Philippines towards a competitive and sustainable organic industry that contributes to:

*Disaster Risk Reduction and Resilience to Climate Change.* via the improved resiliency to disaster risks and climate change vulnerabilities caused by human interventions and naturally-induced hazards, through diversification and less exposure to external inputs.

The implementing body of the NOAP, the National Organic Agriculture Board (NOAB), established under Republic Act 10068, however, has not made any specific policy issuance how this goal of achieving resilience to climate change may be achieved.

assessment of vulnerabilities of exposed elements such as communities and specific sectors, structures, livelihood and economy, and potential impacts and losses due to natural disasters and climate change; there is also the work on the development of appropriate tools for hazard, vulnerability and risk assessment, particularly on assessment of climate risk in agriculture, especially the vulnerability to food insecurity, diversified farming, livelihood, impact assessments, food resiliency in emergencies and research on the climate resiliency of highly-vulnerable groups and communities (women, fisherfolks, Indigenous People, coastal communities, etc.)

This research area is good in the long-run as it will help establish the need for more specific disaster mitigation and climate adaptation measures for various rural communities all over the country. It remains to be seen how the niche innovations that may be nurtured by the Department’s researches can be broadened to assist in the over-all transition to a more climate resilient ecological agriculture as envisioned by Greenpeace Southeast Asia.

to participate or be considered in DSWD’s situation analysis, project planning, project appraisal, project implementation, operation and management, and project monitoring and evaluation. It remains to be seen how such a framework has operated in a particular disaster situation, which will enable us to know if this framework is workable.

## NATIONAL DISASTER RISK REDUCTION AND MANAGEMENT COUNCIL

The National Disaster Risk Reduction and Management Council is a restructured entity from the previous National Disaster Coordinating Council from Marcos-era Presidential Decrees. Its new mandate under the National Disaster Risk Reduction and Management Act, or Republic Act 10121, is to formulate a National Disaster Risk Reduction and Management Framework (NDRRMF), [10] which shall provide for a comprehensive, all-hazards, multi-sectoral, inter-agency and community-based approach to disaster risk reduction and management. The Framework shall serve as the principal guide to disaster risk reduction and management efforts in the country.

Under this Framework, livelihood is identified as a first priority in rehabilitation and recovery, which is a good approach in enabling communities to recover from disaster. The expected outcome, as identified in the Framework, is the “restored and improved facilities, livelihood and living conditions and organizational capacities of affected communities, and reduced disaster risks in accordance with the ‘build back better’ principle” [11].

## CLIMATE CHANGE COMMISSION

The Climate Change Commission has the National Climate Change Action Plan [14], which has seven thematic areas for action, including food security, the outcome of which is to ensure availability, stability, accessibility, and affordability of safe and healthy food amidst climate change. Examining its listed activities for 2011-2016, organic/ecological agriculture is not one of those set out to achieve this outcome for this thematic area.

The Climate Change Commission has also worked with the Department of Budget and Management (DBM) and the Department of Interior and Local Government (DILG) in coming up with the administrative mechanism of tagging climate expenditures using a Climate Expenditure Typology. For agriculture, the CCC has identified the following:

In its study of the government’s activities in Typhoon Yolanda recovery efforts, however, IBON Foundation [12] has lambasted this principle, flipping it instead into “build back worse,” considering that this kind of rehabilitation effort has only resulted in the further marginalization of farmers because the government prioritized the entry of corporations in areas that are affected.

Was there an effort to take some steps to shift to organic/ecological agriculture? That was not apparent in the relief efforts of the agencies coordinated by the NDRRMC. Nonetheless, one typical operational protocol on food and non-food items of the country’s National Disaster Response Plan [13] prepared by the NDRRMC was examined, and the distribution of seeds is not a priority, though it may depend on the damage assessment of the local official and in after alert warning phase. The DA is tasked to validate all/available prepositioned resources at all DA offices at all levels. It appears there needs to be a clearer legal mandate in the NDRRM Act to ensure that good quality seeds and food that will promote organic/ecological agriculture will be made part of these operational protocols for implementation at the local level in times of disaster.

- A112-04 – develop climate-resilient crop varieties and animal/fishery breeds, production systems and technologies
- A112-10 – produce and distribute climate-resilient rice varieties
- A112-12 – introduce organic farming methods/advocacy & production of bio-organic fertilizer such as bio-N and vermicast
- A112-13 – develop and promote soil and cultural practices that improve soil carbon storage

It remains to be seen whether the tagging of climate expenditures has resulted in a clearer identification of the expense items incurred by local government units. But this mechanism is a good step forward to hasten the awareness of local government units for organic agriculture approaches to be made part of a local government unit’s climate adaptation efforts.

## DEPARTMENT OF INTERIOR AND LOCAL GOVERNMENT (DILG)

The DILG promotes the climate resiliency efforts of LGUs by giving the LGUs trainings on the formulation and adoption of local climate action plans, an additional function of LGUs that was institutionalized by the Climate Change Act [15]. To further specify these instructions, the DILG has issued the Guidelines in the Formulation of the Local Climate Change Action Plan [16] which lay out the steps and processes in the formulation of Local Climate Change Action Plans

and inform the process for the mainstreaming and integration of DRR and CCA in local mandated plans.

Depending on the result of the vulnerability assessment of an LGU, especially if an LGU is known to be a major producer of a key agricultural crop, the LGU may develop a proposal to specify seed recovery efforts and even transition to organic agriculture as part of a broad-based plan for disaster risk reduction-climate change adaptation (DRR-CCA) effort.

## NATIONAL ANTI-POVERTY COMMISSION (NAPC)

The National Anti-Poverty Commission has established the “Integrated Community Food Production” (ICFP) [17] or “Pagkain ni Boss” as a hunger mitigation and elimination program listed in the menu of programs under the Bottom-up-Budgeting (BuB) process.

The ICFP Program focuses primarily on establishment of household or backyard and community gardens, fruit trees and other home-based food production units. The garden shall be composed of a combination of at least three (3,) but not limited to the following

food sources: vegetables, cereals, root crops, poultry and livestock, fruit trees and fish, among others, to provide complete food for the participating poor families. Vegetables and other alternative sources of carbohydrates or any rice substitutes must be an integral part of each project, with options to have native chicken, ducks, and other livestock such as goats. Production of household- or community-level organic fertilizer (e.g. Vermicast composting, etc.) is a must. It shall promote organic food-growing and gardening, using indigenous species.

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# GREENPEACE

Greenpeace is an independent global campaigning organization that acts to change attitudes and behaviour, to protect and conserve the environment, and to promote peace.

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Mang Frankie Manigo of Tubigon, Bohol, one of the farmers who responded in the aftermath of typhoon Hagupit, had said that *“at this time of crisis, most farmers are at loss and don’t know how to rise again, we did not give back only seeds but also gave back to farmers their dignity - to be farmers again who till the soil and produce food for their family and for all.”*

To Mang Frankie and all Filipino farmers, please know that we are actually more grateful to you, because you have truly inspired us.

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