

# **Achieving Sustainable and Inclusive Green Growth: Recent Major Agricultural Policies in the Philippines<sup>1</sup>**

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## **ABSTRACT**

The Philippine government has taken crucial steps to pave the way to sustainable development in agriculture through policy reforms. With the vast majority of inhabitants who are poverty stricken and dependent on the sector, transforming agriculture into one that is not only focused on productivity but also one that integrates the environmental aspect of rural development is being championed in the country today. The enormous threat of climate change and environmental degradation has placed these marginalized groups the most vulnerable. If not addressed, the pressures on the environment would develop into social conflict over the remaining resources and jeopardize the societal needs of future generations. Towards this end, sustainable development is being mainstreamed in economic planning and policy decision-making to warrant more efficient application of growth. The numerous challenges in the implementation such as limited investments and contradictory policies would have to be surpassed to strengthen the capability of the agriculture sector to respond effectively and sustainably to various human and natural threats, making growth pro-poor and inclusive.

Keywords: Philippines, agriculture, inclusive growth, rural poverty, sustainable development

## **1. Introduction**

Sustainable development underpins the long-term stability of an economy. It aims to meet the needs of the present without sacrificing the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987). It encourages growth in the economy while promoting environmental protection from the pressures of such growth. In a more holistic manner, sustainable development seeks for synergies rather than trade-offs among its components that include the societal goals of achieving economic growth, social inclusiveness and equity, and environmental sustainability (Duhaylungsod et al., 2012).

In the Philippines, agriculture is fundamental to any discussions on sustainable development. Agriculture relies on the ecological services provided by the environment and natural resource systems. At the same time, about half of the 91 million Filipinos (in 2009), more than 30% of whom are considered poor, is dependent on agriculture (Rapera et al., 2011). This manifests a strong link between poverty and environment because over time, the dependence of the majority of Filipinos on agriculture, forestry and

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fishing for their livelihoods has placed an enormous pressure on these systems leading to severely diminished and degraded resources. Agriculture, therefore, is critical for sustainable development and its growth can be a powerful means to achieve inclusive growth.

Poverty is a manifestation of failure of growth to be inclusive. The country's annual gross domestic product (GDP) has posted impressive growth in the recent years but the benefits of growth are yet to be shared with the rural poor. Increasing agricultural productivity is seen as the most effective means to combat poverty, albeit one that integrates environmental integrity. Other than its economic and material contributions, the world needs agriculture to be food secure. However, faced with climate change and degraded ecosystems brought about by drastic actions in the past, transformation in agricultural development that mainstreams sustainable development is at the core of today's economic planning and policy-decision making.

This paper posits that the Philippines, through policies and legislations, can pursue sustainable development where growth is achieved with the least impact to the environment and participated by and benefits all major stakeholders. The paper has two parts, the first section describes agriculture with a slant on its relation to environment and poverty. The second part provides an overview of national policies on sustainable and inclusive green growth.

## **2. Towards Sustainable Growth: A Policy Framework**

The 1987 Philippine Constitution articulated the responsibility of the state to attain sustainable and inclusive development through exploration, development and utilization of our natural resources in a manner that promotes protection and advancement of the people's right to a balanced and healthful ecology (Philippine Constitution, Article II, Section 16 and Article XII, Section 2).

The country's commitment to achieve sustainable development in the agriculture sector is espoused in three major policy instruments, namely: (1) President Aquino's (P-NOY's) Social Contract with the Filipino People; (2) the Philippine Development Plan (PDP) (Agricultural Sector); and (3) the Department of Agriculture (DA) Major Final Outputs (MFOs).

To achieve sustainable and inclusive growth, President Aquino's social contract envisions a country with "an organized and widely-shared rapid expansion of the economy through a government dedicated to honing and mobilizing the people's skills and energies as well as the responsible harnessing of the country's natural resources." Anchored on the commitment to transformational leadership, economy, government service, gender equality, peace and order and the environment, the social contract is supported with 16 key results areas (KRAs). Considering sustainable and inclusive growth as a crucial commitment with the Filipinos, the social contract stipulated the following (Official Gazette,2014):

“ (7) From treating the rural economy as just source of problems to recognizing farms and rural enterprises as vital to achieving food security and more equitable economic growth, worthy of re-investment for sustained productivity;

(8) From government anti-poverty programs that instill a dole-out mentality to well-considered programs that build capacity and create opportunity among the poor and the marginalized in the country; and

(16) From a government obsessed with exploiting the country for immediate gains to the detriment of its environment to a government that will encourage sustainable use of resources to benefit the present and future generations.”

As stipulated in the PDP, the country’s goal is to improve productivity and competitiveness of the agriculture sector in a manner that is sustainable and with prudence in the use of natural resources and the environment. The PDP has outlined the long-term plans and sectoral development for agriculture. These are embodied in the identified PDP goals and strategies which included improving food security and income, increasing the agriculture sector’s resilience to climate change risks and promoting increased growth in the sector.

More than the achievement of the goals stipulated in the PDP and envisioned in P-NOY’s social contract, the DA has developed its MFOs that embodied the department’s commitment to adhere to its mandated function to promote agricultural development and growth. The MFOs served as indicators to gauge the country’s performance in terms of achieving sustainable growth in agriculture.

### **3. The State of the Environment in the Philippines**

Agriculture is a major shape-shifter of the Philippine landscape. The Department of Environment and Natural Resources (DENR) indicated that about one-third (10 million ha) of the total land area in the country is devoted to agriculture. However, only 58% (5.8 million ha) is suited for crop production. This condition highly affects the level of productivity in the farms which is exacerbated by the fact that only 43% of the appropriate lands for crop production have potential to respond to intensive agriculture (Briones, 2011).

Over the years, the massive change in Philippine landscape can be gleaned in relation to the changes in forest areas. The country suffers from severe deforestation. Forest cover from 1970 to 2000 rapidly decreased by more than 50% which resulted to the reduction of forest biodiversity. While the country is one of the 17 mega-diverse countries in the world in terms of forest resources, it is also one of the hottest “hot spots” for habitat destruction. Further, the DENR estimated that more than 100,000 ha of forests are lost annually and only about 800,000 ha of virgin forest are left, an outcome caused by massive logging in the 1970s.

Agriculture is also considered one of the major culprits of land degradation and soil erosion. Of the total land area in the country, 45% of the arable lands suffer from moderate to severe erosion. The associated costs of on-site and off-site soil erosion is estimated to be equivalent to about USD 150 million and USD

600 million, respectively (NSCB 2003 as cited by Naz, 2013). The amount indicated the significant impact of externalities caused by agriculture.

In terms of aquatic resources, the Philippines hosts one of the most bio-diverse marine ecosystems in the world. The country's diverse fishery resources serve as habitat to more than 2,800 species of finfish, of which more than 62% are dependent on coral reefs for existence. However, while the country demonstrated high marine productivity per unit area, the available per capita fish bio-capacity is very low (Tongson et al., 2009 as cited by Naz, 2013). The country's per capita fish bio-capacity of 0.08 global hectares (gha) is lower than the Asia-Pacific's 0.13 and the world's 0.17 gha per capita. The dismal condition of our marine resources can also be described by the declining productivity of municipal fisheries due to overfishing and poor enforcement of fishery laws. Based on the national stock assessment of the Bureau of Fisheries and Aquatic Resources (BFAR), overfishing is observed in eight of the 12 fishing bays in the country.

The coral reef in the country is estimated to cover about 27,000 sq km (measured to a depth of about 40m) with the most diverse and extensive portions located in the Visayas and Mindanao. It was found out that the global marine biodiversity is highest in central Philippines islands and that the country is part of the "Coral Triangle" because it is the center of marine shore fish biodiversity. However, the country's areas with excellent coral cover are in a state of steady decline from 5% in 1981 to less than 1% in 2000 to 2004 (Nanola, et al., 2004 as cited by Naz, 2013). This was supported by Wilkinson (2008) who emphasized that the coral reefs in the country is in critical condition with only 1% in very healthy condition. Among the most serious threats include human activities such as improper land use, destructive fishing practices, and conversion of coastal ecosystems to beach and mariculture (ADB CPS, 2011 as cited by Naz, 2013).

Table 1. Components of the Coastal and Marine Ecosystems in the Philippines

<b>Coastal and Marine Ecosystems</b>	<b>Area, sq. km.</b>
Total Territorial Water Area (including the Exclusive Economic Zone (EEZ))	2,200,000
Coastal	266,000
Shelf Area (Depth 200 m)	184,600
Coral Reef Area (Within the 10-20 fathoms where reef fisheries occur)	27,000
Mangroves	1,397
Seagrass/algal beds	978
Oceanic	1,934,000
Other coastal	52,025
Coastline (length)	36,289 km

Sources: Philippine Fisheries Profile, 2009; Fortes 1995 for seagrass area as cited by Naz, 2013

Another endangered aquatic resource is the mangrove forest. From 1918 to 1995, the mangrove area has significantly decreased at annual rate of 19%. The highest decrease in area was observed during the period 1972-1988 with a rate of 34%. The significant decline was highly associated with the conversion of the mangrove forests to fishponds with the BFAR's issuance of the Fishpond Lease Agreements. Despite the promising trend in 2003, where the mangrove forest cover increased by more than 100%, overall growth rate showed that in general the country's mangrove area is decreasing at 1% annually (1918-2003).

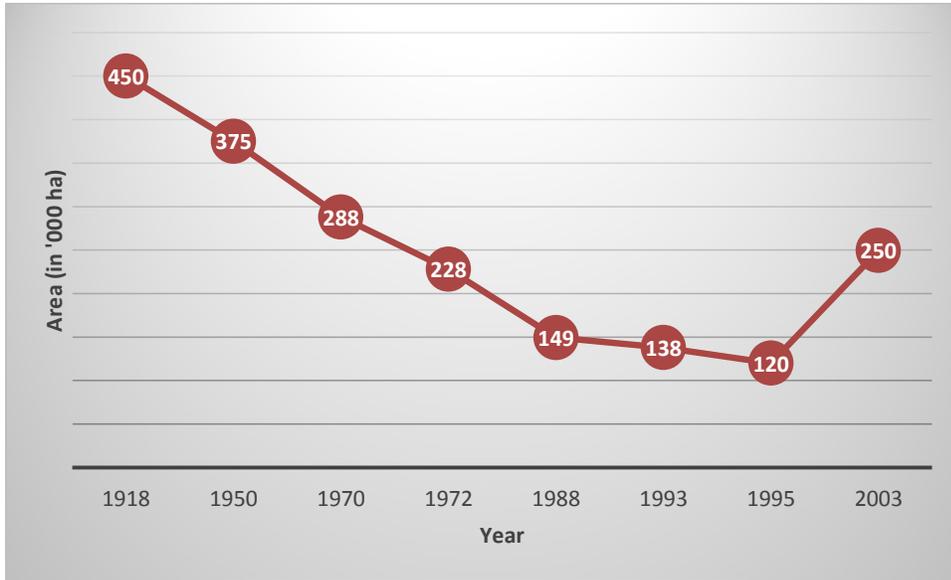


Figure 1. Estimated Area of Mangrove Forests in the Philippines (1918-2003)  
 Source: DENR's Compendium of ENR Statistics of Operations and Management, 2000-2008

Overall, given the total damages to the coastal and marine ecosystem in the country, estimated cost reached PHP 5.7 billion in 2006. The forgone fisheries production due to overfishing and fish habitat destruction contributed 45% of the total cost.

With the dwindling natural resources of the country, the resource base of agriculture, the sustainability of this sector is in crucial condition.

#### 4. Agriculture, Poverty and Inclusive Growth

In recent years, the Philippines has seen significant improvements in the economy as indicated by the growth in its gross domestic product (GDP) at an average annual rate of 5.35% (2003-2013). In 2013, the country's real GDP outperformed other ASEAN countries having an average growth rate of 6.8% while Malaysia, Indonesia and Thailand grew only at 4.7%, 5.3% and 2.9%, respectively. Such growth would imply a healthy and robust economy for the Philippines.

However, while GDP growth indicated significant improvement in the economy, not all Filipinos believed that this translated to their economic well-being. Annual self-rated poverty survey in the Philippines showed that 48%, 49% and 52% of Filipinos considered themselves as poor in 2010, 2011 and 2012, respectively. The results imply that poverty has worsened or that there has been no improvement in the lives of most Filipinos. Aquino et al. (2014) highlighted some economic indicators to support these self-rated poverty ratings. The country's average per capita GDP growth rate of 3.1% lagged behind that of other ASEAN countries such as Indonesia (4.2%) and Vietnam (4.8%). Unemployment rate at 7% is highest among nations in the ASEAN-5 and 20% of Filipinos were underemployed during the period 2012-2013. The poverty incidence in 2012 at 25.2% was far off from the target of 16.6% set under the Millennium Development Goals (MDG). Furthermore, Gini ratio which ranged from 0.45 to 0.48 over the last decade seems to indicate no alleviation in overall inequality in the country (Briones, 2013).

Poverty incidence in the country remains largely a rural phenomenon and is highest among Filipinos engaged in agriculture (Aquino et al., 2013). A large portion of the poor families are those from the rural areas and involve in agriculture and fishing activities. Poverty incidence among farmers in 2003-2009 remained at 37% while the number of poor fishermen grew from 35% in 2003 to more than 41% in 2009 (NSCB).

While the country has attained per capita growth in the GDP, this alone does not guarantee that every Filipino benefitted equally. Some level of growth is necessary to alleviate poverty but it is not a sufficient condition. In other words, growth needs to be inclusive to matter. As indicated in PPEI Report (2012), poverty is a manifestation of failure of growth to be inclusive. Inclusive growth, as defined in the Philippine Development Plan (PDP) 2011-2016 is one "that is rapid enough to matter, given the country's large population, geographical differences, and social complexity. It is sustained growth that creates jobs, draws the majority into the economic and social mainstream, and continuously reduces mass poverty" (NEDA). The PDP also acknowledges that poverty is one of the visible manifestations of the elusiveness of inclusive growth in the country. And because poverty in the Philippines has remained largely in rural areas and has always been agricultural, there is concrete proof to consider poverty reduction strategies that target agriculture in order to achieve sustainable and inclusive green growth.

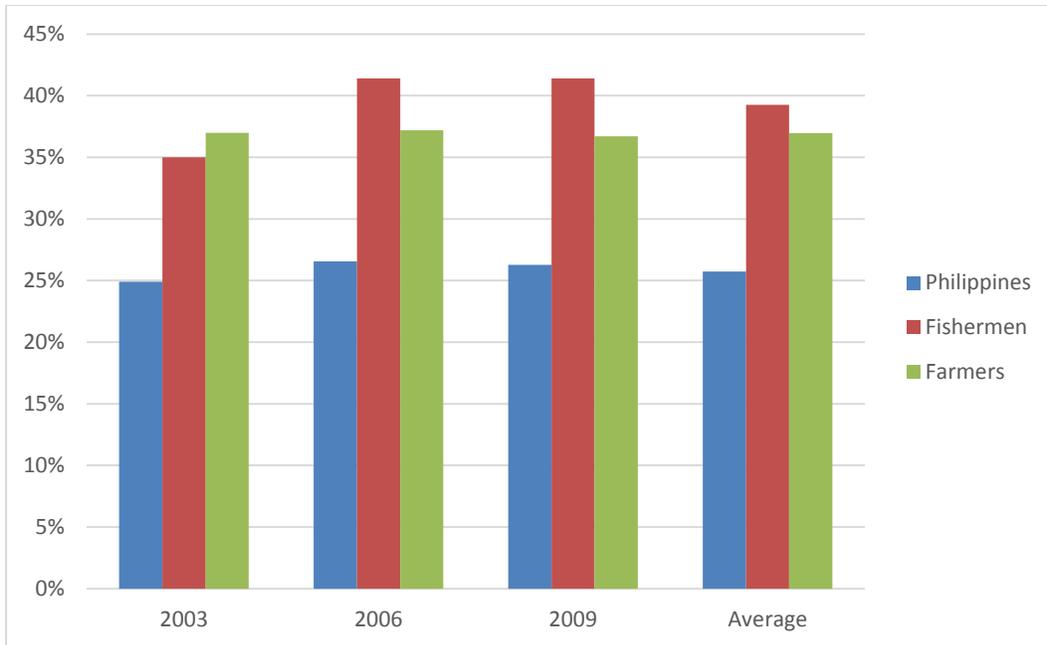


Figure 2. Poverty incidence in the Philippines and the rural sectors, 2003-2009

### 5. Achieving Inclusive Green Growth through Policies

Economic growth is recognized as a necessary driver of poverty reduction especially in the rural areas. However, such growth is bound to be unsustainable in the long run unless it is inclusive and environmentally sound or “green”. Inclusive green growth is an emerging strategy in achieving sustainable development. The goal is to attain balance among the pillars of sustainable development to realize economic growth with environmental sensitivity (Duhaylungsod et al., 2012).

In the Philippines, legislative effort to achieve economic growth, alleviate poverty and increase competitiveness of the agriculture sector is embodied in the Republic Act 8435 otherwise known as the Agriculture and Fisheries Modernization Act of 1997 (AFMA). In general, AFMA seeks to improve welfare of the stakeholders in agriculture and fisheries by providing mechanisms to increase productivity and competitiveness of the sector. However, AFMA’s premise to modernize the agriculture and fisheries sector provides limited consideration on issues related to sustainable development and environmental protection and conservation. With this in view, the following section discussed the policies that foster the promotion of sustainable and inclusive green growth amidst changes in the environment. These policies included but not limited to those that support AFMA and cover sectors on agricultural, aquatic/fisheries and forestry and natural resources.

## 5.1 Policies to Improve Land Resources

The Philippines has become increasingly vulnerable to land degradation. As manifestation of this major agricultural issue, soil erosion has become rampant and predominant particularly in farms located in the uplands. Average soil loss due to agriculture is estimated at 63 tons/ha/yr (Francisco, 1998 as cited by Briones, 2009). Land degradation is easily equated to food insecurity and poverty because of its significant impacts on declining farm productivity and increasing economic environmental costs.

In line with the initiatives on combating land degradation, drought and desertification, the country has formulated the Philippine National Action Plan (NAP). The NAP served as a comprehensive and well-focused policy instrument and framework that provides the platform for the convergence of efforts and initiatives to address issues related to land degradation. The legislations addressing the underlying factors causing the massive land degradation in the Philippines included but not limited to the following:

### *5.1.1 The Organic Agriculture Act and Ecological Solid Waste Management Act*

Production of food and ensuring its supply is the ultimate goal of agriculture. However, in order to produce food with less impact on the environment, it is necessary to increase productivity while ensuring the sustainability of agricultural processes and resource base. Two landmark laws have been instituted with this in view: (1) the Republic Act (RA) 9003 or the Ecological Solid Waste Management Act which was passed into law in 2000 and the RA 10068, popularly known as the Organic Agriculture Act, which was enacted in 2010.

The excessive use of inorganic fertilizer results into soil degradation and soil fertility reduction which ultimately redounds to lower farm yield. With the enactment of RA 9003 and RA 10068, the country seeks to promote the use of organic or bio-fertilizers to achieve sustainability of land productivity. Under the Solid Waste Management Act, composting is classified as an environmentally sound technique in waste minimization. Composting is a mechanism in producing organic or bio-fertilizer, an input to mitigate soil fertility issues in agriculture. It is also a way of returning the nutrients removed from the farm through the processing of agricultural wastes.

The objective of promoting environmentally sound practices in agriculture is further detailed in the institutionalization of the Organic Agriculture Act. Organic agriculture (OA), as defined in the Act, includes all agricultural systems that promote the ecologically sound, viable and technically feasible production of food and fibers. It covers soil fertility management, varietal breeding and selection under chemical-free conditions, and other cultural practices that are consistent with the principles and policies of RA 10068. The law provides for incentives to adopters of Organic Agriculture compliant to the Philippine National Standards (PNS). Further, to encourage the participation of more farmers in the program, the Department of Agriculture is giving away cash rewards in recognition of the best organic farm in the country. To ensure inclusive growth is achieved, provisions are provided for all stakeholders such as the smallhold farmers, non-government organizations (NGOs) and the local government units

(LGUs) to participate and be included in the committees and boards created to implement and institutionalize the environmental mechanisms stipulated in the laws.

Government research-development-extension (RDE) initiatives were undertaken as mandated by the Organic Agriculture Act. This include the Department of Agriculture-Bureau of Agricultural Research (DA-BAR)-Gap analysis on OA RDE where relevant RDE reports across all agricultural sectors (crops, livestock and aquaculture) were analysed to identify gaps and the needed support to successfully implement the Organic Agriculture Program. Likewise, the Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development-Department of Science and Technology (PCAARRD-DOST) launched a national organic RDE program for vegetables and arabica coffee. State colleges and universities (SUCs) also took their own various initiatives on crops and livestock organic programs (Maghirang et al., 2011).

Two years after the implementation of the law, the Organic Agriculture Baseline Survey (OABS) was initiated in October 2012 to establish benchmark data on organic agriculture. Although organic agriculture is seen as a mechanism in achieving sustainable development, the positive effects of transition and practice of organic agriculture is yet to reach its full potential. National survey covering the period January to September 2012 revealed that combined production of crops such as sugarcane, rice and coconut using organic methods were still minimal at 12,886 metric tons per ha. (Garcia et al., 2013). On the other hand, the livestock sector composed of swine and chicken produced a marginal amount of 2.4 metric tons.

#### *5.1.2 Strategic Agricultural and Fisheries Development Zones (SAFDZ) under AFMA*

The AFMA's concern on environmental protection is embodied under the provision on the creation of a system of zone-based management called the Strategic Agricultural and Fisheries Development Zones (SAFDZ). AFMA provided the delineation of SAFDZ within the Network of Protected Areas for Agriculture and Agro-Industrial Development (NPAAAD). The SAFDZ is an important component of ensuring inclusive and sustainable growth as the zones are established on the principle of using efficiency in assigning agricultural areas for food production, security and environmental protection. With the establishment of NPAAAD and SAFDZ, there is an assurance that lands devoted to agricultural production are maximized without sacrificing the environment. The zones are considered food basket areas where technical suitability of land to crop production is checked. The assignment of zones are undertaken in consultation with various government agencies, LGUs, farmers and fishing organizations, the private sector and communities. This implies that agricultural production will be located in areas that are environmentally and socio-culturally sound. Within these zones, government resources and development projects which include among others infrastructure and other social services are to be concentrated to spur agricultural growth. This would likewise ensure that lands are efficiently and sustainably utilized.

However, while the intention to establish the SAFDZ would promote economic growth and environment protection, the establishment of the zones was dissatisfactory to majority of the stakeholders. An evaluation of the AFMA, which conducted a survey of the satisfaction of various stakeholders to the components of the law revealed that only 40% of the respondents were satisfied with the SAFDZ

implementation. The major issue identified was the flawed process of delineating the SAFDZ. The identification of zones did not completely follow the criteria stipulated under AFMA hence, the basic concept of SAFDZ serving as centers or foci for agriculture and fisheries development cannot be implemented.

## **5.2 Policies to Improve Fishery Resources**

The management of fishery resources is important to a country surrounded by water as they play critical role in achieving sustainable livelihood for coastal communities and the nation as a whole. The Perez et al. (2010) indicated that some 1.3 million metric tons of fish are caught from the country's 17, 640 km coastline and 496,000 ha of inland water bodies. This sector contributes significantly to the economic welfare of the 1.4 million fishermen in the country who experienced higher poverty incidence than those engaged in farming.

Policy instruments aimed to stop destructive, excessive and wasteful fishing have been instituted since the early 1970s through Presidential Decree (PD) No. 534 and 704 in 1974 and 1975, respectively. PD 534 provides for penalties for illegal fishing (fishing with obnoxious or poisonous substances, explosives, and electro-fishing) while PD 704 puts limits to fishing by reserving the seven-kilometer zone to small fisherfolk and prohibiting trawling in waters up to seven fathoms deep.

More regulations were founded such as the Coastal Zone Management Task Force in 1979 which regulated the use of coastal areas for tourism, mining human and industrial development, reclamation and fisheries as well as the banning of destructive gear (e.g. "muro-ami" and "kayakas") and establishing habitat protection measures in 1980 (DENR et. al., 2001 as cited by DA-BFAR, 2010).

Despite the number of policies to safeguard and protect the fisheries resources in the country, exploitation of fishery resources persisted. This called for the enactment of the Republic Act (RA) 8550 otherwise known as the Fisheries Code of 1998, shortly after the ratification of the AFMA. Other legislations to protect fisheries and water resources were enacted.

### *5.2.1 The Fisheries Code of 1998*

RA 8550 or the Fisheries Code (FC) is the landmark law governing the Philippine fisheries sector. The law was instituted to address twin issues of resource degradation and unrelenting poverty among municipal fishers. The national policy on sustainable use of fishery resources calls for the management of resources in a manner that is consistent with the concept of an integrated coastal area management in specific natural fishery management areas.

Control mechanisms to protect or prevent the destruction of habitats are laid down in the Fisheries Code. Overfished or in danger of being overfished areas are established as fish refuge and marine sanctuaries where fishing and other forms of activities that may damage the ecosystem are regulated,

restricted or prohibited, depending on their degree of harm. Documents such as Environmental Impact Statement (EIS) and Environmental Compliance Certificate (ECC) must be secured from the DENR before activities that could affect the quality of the environment are carried out. The law mandates the cultivation and conversion of mangroves to strengthen the habitat and spawning grounds of fish as stipulated in Sections 81 and 94. Moreover, prohibition and penalties apply to the collection, possession, selling and export of all types of corals, white sand, silica, pebbles and other materials that make up the marine habitat.

The Fisheries Code likewise reinforces the primary mandate of local government units in the management and institutionalization of the participation of fisherfolk through the establishment of Fisheries and Aquatic Resources Management Councils (FARMCs). Installed in the national level and all municipalities/cities abutting municipal water, FARMCs act as an advisory and recommendatory body and assist in the enforcement of ordinances and other fishery laws, rules and regulations. Partnership between organized fishers and local government units (LGUs) is intended to serve as a venue for close collaboration among civil society groups in the management of contiguous resources.

### *5.2.2 The Integrated Coastal Management*

In 2006, the country has officially adopted the Integrated Coastal Management (ICM) as a national strategy to ensure the sustainable development of the country's coastal and marine environment and resources through Executive Order No. 533. Among the mechanisms installed were: 1) integrating ICM into primary and secondary education curricula and educational materials, 2) ICM training programs for LGUs, 3) mandating National Economic and Development Authority (NEDA) and the National Statistics Coordination Board (NSCB) to incorporate coastal and marine resource accounting, and 4) establishing the Coastal and Marine Environmental Information Management System and Network to be maintained by the Department of Environment and Natural Resources (DENR) (DA-BFAR, 2010). The DENR is the lead agency where ICM is concerned.

### *5.2.3 The Philippine Clean Water Act*

Where providing comprehensive water quality management is concerned, the Philippine Clean Water Act was enacted by the government in 2004 to protect our fresh, brackish and marine waters from land based sources of pollution. For the period 2001 to 2005, the Environmental Management Bureau (EMB) under the DENR reported of water-related incidents such as oil/chemical spills, mine tailings soil incidents, and illegal dumping of wastes which resulted in fish kills and water body contamination (Greenpeace, 2007). Efforts to address these issues include adoption of sustainable agriculture and/or organic agriculture and waste minimization practices. Related laws in achieving quality of water include the Organic Agriculture Act and the Ecological Solid Waste Management Act. As discussed earlier, organic agriculture provides environmental benefits while veering away from the use of chemicals. The promotion and adoption of organic agriculture practices would significantly reduce the potential of chemical leaching from farms to water bodies. On the other hand, under the Solid Waste Management Act, the adoption of systematic, comprehensive and ecological solid waste management program would

ensure the protection of the various bodies of water from the potential contamination of wastes from households, industrial/business and recreational areas.

### **5.3 Policies to Improve Forestry and Natural Resources**

For decades now, forestry policies have been geared towards a participatory approach following the negative impacts brought by destructive logging and conflicting use of land. The pressures of growing population to already dwindling forest resources led to agricultural expansion and migration of landless people from lowlands into the uplands. Forest rehabilitation projects have been initiated since 1916 but when the war broke out in 1942, forestry resources were again heavily exploited for war purposes. During the post-war period, increased forest exploitation continued to meet the growing demand on the world market and increase government revenue.

Poorly-implemented forestry policies led to continuous decline of forestry resources. To address this, Presidential Decree (PD) No. 705, otherwise known as the Revised Forestry Code of the Philippines (RFCP), was promulgated in 1975. More programs were instituted in the late 1970s following the inevitable results of blind exploitation. Among these were Forest Occupancy Management (FOM) in 1975, the Family Approach to Reforestation (FAR) in 1976, and Communal Tree Farming (CTF) and Programme for Forest Ecosystem Management (PROFEM), both in 1978. These were later on consolidated to form the Integrated Social Forestry Programme (ISFP) in 1982 (Pulhin, 2002) which involved direct participation of communities dependent on the forests. It granted stewardship agreements for a period of 25 years and allowed qualified applicants to continue occupation and cultivation provided they protect and reforest in turn. In the recent years, more policies were crafted that geared towards sustainable development.

The Philippines adopted the Community-based Forest Management (CBFM) through Executive Order No. 263 in 1995 as the national strategy for sustainable forest development while promoting social justice and improved well-being at local communities as well as strong partnership among local communities and DENR. In addition, Executive Order No. 318 was signed and implemented in 2004 adopting sustainable forest management (SFM) as the official policy framework for all plans and programs in the sector. In 2011, a moratorium on the cutting and harvesting of timber in natural forest and creating the Anti-Illegal Logging Task Force were declared through Executive Order No. 23 as well as the interdepartmental convergence initiative for a National Greening Program (NGP) through Executive Order No. 26. Positive developments and strong commitment to these key policy instruments were largely attributed to the Philippine Strategy for Sustainable Development and Philippine Agenda 21.

### **5.4 Cross-cutting Laws on Sustainable Development**

#### *5.4.1 National Integrated and Protection Areas System (NIPAS) Act*

In terms of biodiversity, National Integrated and Protected Areas System (NIPAS) Act was passed in 1992- concurrent to the signing of the Philippine Agenda 21, the country's national agenda for sustainable development. The NIPAS Act provides for the establishment and management of protected areas declared by the Congress or at least initially designated by the President as such. These areas, as defined by the law refer to the "identified portions of land and water set aside by reasons of their unique physical and biological significance, managed to enhance biological diversity and protected against destructive human exploitation."

This legislation is considered one of the country's milestone in the preservation of natural resources and promotion of sustainable development. It recognizes the critical importance of protecting the biological and physical diversities of the environment to secure for the Filipino people a sustainable environment. It provides for the creation of a Protected Area Management Board (PAMB) where shared governance is exemplified. Similar to other policies that promote sustainable development and inclusive green growth, it marks the shift from quantity-driven to quality-driven agricultural production.

An in-depth review of the NIPAS Law and other environmental laws in the Philippines as a joint undertaking of the DENR-Protected Areas and Wildlife Bureau (PAWB) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and in partnership with the Siliman University, reveals that the law has to be harmonized and strengthened to improve its implementation. A case in point is the apparent conflict and overlap of the NIPAS Act with the Revised Forestry Code of the Philippines. The main focus of the latter is still on industrial development and regulation while the former aims for resource preservation and conservation. In addition, NIPAS mandates establishment of a comprehensive system of integrated areas in national park. The same is covered in the Revised Forestry Code where national park is defined as forest land reservation.

In the same light, overlapping provision is observed in the NIPAS Law and the Fisheries Code (RA 8550) with regards to the establishment of sanctuaries/fishery refuges or Marine Protected Areas (MPAs). Creating an MPA is prescribed in Section 5 of the NIPAS act, although the process is longer. On the other hand, the procedure of creating a new MPA is shorter as stipulated in Section 81 of the RA 8550. Given such, there is a need to harmonize these laws so as to maximize the benefits stipulated in these policies.

#### *5.4.2 The Climate Change Act and Sustainable Development*

Reeling from a host of socio-economic and environmental problems, a bigger problem that is climate change, causes severe impacts to agricultural production and the environment in the Philippines. It impedes agricultural development which are most closely exemplified by significant losses in crop harvests and damage to agricultural systems and infrastructure (Rapera, et. al., 2011) which then cascade to issues on food security and poverty alleviation. In response to this, the government enacted the RA 9729 or the Climate Change Act of 2009 to address issues and concerns pertaining to the country's vulnerability to climate change.

By virtue of RA 9729, Climate Change Commission (CCC) was established. It is the lead policy making body of the government as regards to climate change. It is expected to recommend policies and key development investments in climate-sensitive sectors and assess the vulnerability and facilitate capacity building. Furthermore, the Commission is tasked to formulate the National Framework Strategy on Climate Change (NFSCC) and the National Climate Change Action Plan (NCCAP).

As climate change is a cross-sectoral issue, the establishment of NFSCC and NCCAP provided the institutional mechanisms needed to scale up and mainstream actions on climate change across all sectors and levels of the government. The national framework is based on the context of the country's sustainable development goals which was jointly crafted by select group from government and non-government agencies. It is the country's roadmap in achieving a climate risk-resilient Philippines through strategies of adaptation and mitigation. Adaptation strategies are aimed to build the adaptive capacity of communities and to increase the resilience of natural ecosystems to climate change. Mitigation initiatives, on the other hand, are aimed to facilitate transition of the country towards low greenhouse gas emissions. This framework is then translated to NCCAP which provides strategic direction for the government's initiatives with emphasis on food security, climate-smart industries and services, sustainable energy, and knowledge and capacity development (CCC, 2011).

## **6. Conclusion**

The report provided an overview of the importance of sustainable development and how it can be achieved given the pressing issues on poverty and environmental degradation. It was emphasized that these problems are high in the agriculture sector, hence the battle against poverty and environmental depletion will be ultimately won in the rural economy.

The Philippines has envisioned achieving sustainable and inclusive green growth through its policy pronouncements under President Aquino's Social Contract, the Philippine Development Plan and the Department of Agriculture's major final outputs (MFOs). These policies clearly provided the direction to where inclusive green growth should lead the country. Ultimately, green growth will be measured in terms of improving the food security and income of those involve in the agriculture and fisheries sector, increasing the sector's competitiveness, alleviating poverty especially in the rural areas and increasing the sector's resilience to climate change impacts.

In line with this policy pronouncement of achieving inclusive green growth, Philippine policies and legislations have provided an atmosphere to foster improvement in the productivity of our lands, forest and water resources, enhance the competitiveness of outputs and products and increase profitability of agricultural and fisheries enterprises. However, more than ensuring that economic growth is achieved, provision of the laws promote sustainability of the environment and increase the adaptability and identify strategies against impacts of climate change.

Lessons from the past policy implementation that heavily focused on production and competitiveness such as AFMA points succinctly that this policy will not be sustainable and is not enough to achieve

inclusive growth. The harmonization and complementation among policies that promote growth in sustainable manner such as those policies on organic agriculture, on solid waste management, on water and forest conservation and protection all encompasses the achievement of the benefits and promises envisioned in the country's policy pronouncement of attaining sustainable and inclusive green growth.

## 7. References

"A Social Contract with the Filipino People". The Official Gazette. Accessed in June, 2014.  
<http://www.gov.ph/about/gov/exec/bsaiii/platform-of-government/>

Aquino, A.P., Ani, P.A.B., and Festejo, M.A., 2013. An Overview of Policies and Public Sector Investments in Philippine Agriculture. Policy Paper submitted to the Food and Fertilizer Technology Center (FFTC) for the project titled "Asia-Pacific Information Platform in Agricultural Policy."

Briones, R.M. 2009. Land Degradation and Rehabilitation in the Philippines. World Bank Report. Accessed in May, 2014.  
<http://siteresources.worldbank.org/INTPHILIPPINES/Resources/WBCEALandDegradationandRehabilitationinthePhilippinesBriones.pdf>

Briones, R.M. 2013. Agriculture, Rural Employment, and Inclusive Growth. Philippine Institute for Development Studies. Discussion Paper Series No. 2013-39. Accessed in May, 2014.  
<http://dirp4.pids.gov.ph/ris/dps/pidsdps1339.pdf>

Carandang, A.P., 2005. National Forest Assessment: Forestry Policy Analysis, Philippines. Working Paper 101/E. Forest Resources Assessment Programme. Manila, July 2005. Forestry Department, Food and Agriculture Organization of the United Nations.

Climate Change Commission, 2011. National Climate Change Action Plan 2011-2028. Accessed in May 2014. <http://www.emb.gov.ph/portal/Portals/54/Images/NCCAP.pdf>

Climate Change Commission, 2010. National Framework Strategy on Climate Change 2010-2022. Accessed in May, 2014. [http://www.neda.gov.ph/wp-content/uploads/2013/10/nfscs\\_sgd.pdf](http://www.neda.gov.ph/wp-content/uploads/2013/10/nfscs_sgd.pdf)

Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR), 2010. Managing Municipal Marine Capture Fisheries in the Philippines: Context, Framework, Concepts and Principles. Fisheries Improved for Sustainable Harvest (FISH) Project, Cebu City, Philippines.

Department of Agriculture. Accessed in June, 2014. <http://www.dbm.gov.ph/wp-content/OPCCB/OPIF2012/DA/da.pdf>

Duhaylungsod, N.C., Plopino, R.F., and Rabang, M.J.M. 2012. Philippines' Handbook on Mainstreaming Poverty-Environment Linkages in LGU Governance for Inclusive Green Growth. Philippine Poverty

Environment Initiative. United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP) and the Department of Interior and Local Government (DILG). Accessed in May, 2014. [http://ppei.dilg.gov.ph/sites/default/files/P-E\\_Mainstreaming-Handbook\\_final.pdf](http://ppei.dilg.gov.ph/sites/default/files/P-E_Mainstreaming-Handbook_final.pdf)

“Executive Order No. 533: Adopting Integrated Coastal Management as National Strategy to Ensure the Sustainable Development of the Country’s Coastal and Marine Environment and Resources and Establishing Supporting Mechanisms for its Implementation.” The Official Gazette. Accessed May, 2014. <http://www.gov.ph/2006/06/06/executive-order-no-533-s-2006/>

“Executive Order No. 263 s. 1995: Adopting Community-based Forest Management as the National Strategy to Ensure the Sustainable Development of the Country’s Forestlands Resources and Providing Mechanisms for its Implementation.” The Official Gazette. Accessed May, 2014. <http://www.gov.ph/1995/07/19/executive-order-no-263-s-1995/>

“Executive Order No. 318 s. 2004: Promoting Sustainable Forest Management in the Philippines. The Official Gazette. Accessed May, 2014. <http://www.gov.ph/2004/06/09/executive-order-no-318-s-2004/>

“Executive Order No. 23 s. 2011: Declaring Moratorium on the Cutting and Harvesting of Timber in the Natural and Residual Forests and Creating the Anti-Illegal Logging Task Force.” The Official Gazette. Accessed May, 2014. <http://www.gov.ph/2011/02/01/executive-order-no-23-4/>

“Executive Order No. 26 s. 2011: Declaring an Interdepartmental Convergence Initiative for a National Greening Program.” The Official Gazette. Accessed May, 2014. <http://www.gov.ph/2011/02/24/executive-order-no-26-2/>

Garcia, R.M., Perido, J.C., and Estrada, J.U., 2013. Towards the Establishment of a Data System for Organic Agriculture. Bureau of Agricultural Statistics. Accessed June, 2014. [http://www.nscb.gov.ph/ncs/12thncs/papers/INVITED/IPS-30%20Agricultural%20Statistics/IPS-30\\_1%20Towards%20the%20Establishment%20of%20a%20Data%20System%20for%20Organic%20Agriculture.pdf](http://www.nscb.gov.ph/ncs/12thncs/papers/INVITED/IPS-30%20Agricultural%20Statistics/IPS-30_1%20Towards%20the%20Establishment%20of%20a%20Data%20System%20for%20Organic%20Agriculture.pdf)

Greenpeace, 2007. The State of Water Resources in the Philippines. Clean Water Project. Greenpeace Southeast Asia, Quezon City, Philippines.

Maghirang, R. G., De La Cruz, and R., Villareal, R.L., 2011. How Sustainable is Organic Agriculture in the Philippines? Trans. Nat. Acad. Sci. & Tech. (Philippines) Vol. 33 (No.2). ISSN 0115-8848. Accessed June, 2014. [http://www.nast.ph/index.php?option=com\\_docman&task=doc...7](http://www.nast.ph/index.php?option=com_docman&task=doc...7)

- Naz, A.C. 2013. The State of the Philippine Environment: An Update on Chapter 4 of the 1994 Philippine Human Development Report. Accessed in May, 2014. [http://hdn.org.ph/wp-content/uploads/DP\\_10\\_Naz.pdf](http://hdn.org.ph/wp-content/uploads/DP_10_Naz.pdf)
- Perez, M.L., Pido, M.D., Garces, L.R., and Salayo, N.D. 2012. Towards Sustainable Development of Small-Scale Fisheries in the Philippines: Experiences and Lessons Learned from Eight Regional Sites. Lessons Learned Brief 2012-10. WorldFish. Accessed in May, 2014. [http://www.worldfishcenter.org/resource\\_centre/WF\\_3225.pdf](http://www.worldfishcenter.org/resource_centre/WF_3225.pdf)
- “Philippine Development Plan 2011-2106. Chapter 4: Competitive and Sustainable Agriculture and Fisheries Sector. Accessed in May, 2014. <http://devplan.neda.gov.ph/chapter4.php>
- “Presidential Decree No. 534 s. 1974: Defining Illegal Fishing and Prescribing Stiffer Penalties Therefor.” The Official Gazette. Accessed May, 2014. <http://www.gov.ph/1974/08/08/presidential-decree-no-534-s-1974/>
- “Presidential Decree No. 704 s. 1981: Revising and Consolidating All Laws and Decrees Affecting Fishing and Fisheries. Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR). Accessed May, 2014. <http://www.bfar.da.gov.ph/pages/legislation/presdecree704.html>
- “Presidential Decree No. 705 s. 1975: Revised Forestry Code of the Philippines.” The Official Gazette. Accessed May, 2014. <http://www.gov.ph/1975/05/19/presidential-decree-no-705-s-1975/>
- Pulhin, J.M., 2002. Trends in Forest Policy of the Philippines. Policy Trend Report 2002: 29-41. College of Forestry and Natural resources, University of the Philippines Los Baños.
- Rapera, C.L., Mendoza, T.C., and Sumalde, Z.M., 2011. Climate Change and Sustainable Agricultural Development in the Philippines: Policy Issues and Strategic Directions. UPLB-CEM Policy Paper Series 1. College of Economics and Management, University of the Philippines Los Baños.
- “Republic Act No. 6657: Comprehensive Agrarian Reform Law of 1988.” The Official Gazette. Accessed May, 2014. <http://www.gov.ph/1988/06/10/republic-act-no-6657/>
- “Republic Act No. 8435: Agriculture and Fisheries Modernization Act of 1997.” National Agriculture and Fisheries Council. Accessed May, 2014. <http://nafc.da.gov.ph/afma/ra8435-1.php>
- “Republic Act No. 8532: An Act Strengthening Further the Comprehensive Agrarian Reform Program (CARP).” Department of Agrarian Reform. Accessed May, 2014. <http://www.lis.dar.gov.ph/documents/231>

- “Republic Act No. 8550: The Philippine Fisheries Code of 1998.” The Official Gazette. Accessed May, 2014. <http://www.gov.ph/1998/02/25/republic-act-no-8550/>
- “Republic Act No. 9003: Ecological Solid Waste Management Act.” Environmental Management Bureau. Accessed May, 2014. <http://www.emb.gov.ph/laws/solid%20waste%20management/ra9003.pdf>
- “Republic Act No. 9275: The Philippine Clean Water Act.” Environmental Management Bureau. Accessed May, 2014. <http://www.emb.gov.ph/eeid/2010/factsheet/RA%209275.pdf>
- “Republic Act No. 9700: Comprehensive Agrarian Reform Program Extension with Reforms.” Department of Agrarian Reform. Accessed May, 2014. <http://www.lis.dar.gov.ph/documents/3194>
- “Republic Act No. 9729: Climate Change Act of 2009.” The Official Gazette. Accessed May, 2014. <http://www.gov.ph/2009/10/23/republic-act-no-9729/>
- “Republic Act No. 10068: Organic Agriculture Act of 2010.” Department of Agriculture. Accessed May, 2014. <http://organic.da.gov.ph/>
- “The Philippine Agenda 21” Environmental Management Bureau, Department of Environment and Natural Resources. Accessed May, 2014. <http://emb.gov.ph/eeid/philagenda.htm>
- “The Poverty-Environment Initiative in the Philippines”. Accessed in May, 2014 <http://ppeid.dilg.gov.ph/sites/default/files/PPEI-Programme-Brief.pdf>
- “The 1987 Constitution of the Republic of the Philippines.” The Official Gazette. Accessed in June, 2014. <http://www.gov.ph/constitutions/the-1987-constitution-of-the-republic-of-the-philippines/>
- Wilkinson, C. (Ed). 2008. Status of Coral Reefs of the World: 2008. Accessed in May, 2014. <http://unesdoc.unesco.org/images/0017/001792/179244e.pdf>

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