POLITICAL AND INSTITUTIONAL TRANSFORMATION IN ENVIRONMENTAL GOVERNANCE: A CASE STUDY OF LOCAL GOVERNMENTS IN THE PHILIPPINES¹

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Abstract

Increasingly local governments play a vital role in natural resource management (NRM), needing changes in planning, legislative, social, and political processes. These changes are traceable within the hegemony of a colonial past that countries in Southeast Asia commonly share. In the Philippines, local governments are in flux with enormous responsibilities handed down from central government. Although NRM is now seen as inextricably linked with improved local governance, the number of local governments responding to their roles remains low. Researchers from the World Agroforestry Centre (ICRAF) observed that there are policy hurdles and institutional issues impinging upon the sustainability of local NRM. This paper reports on a two-tiered study to investigate the factors that enhance or constrain effective local NRM. First, 15 Local Government Units (LGU) were used as case studies to identify macro-level factors in NRM. Second, a case study of the Landcare Program in the southern Philippines was used to analyse meso-level factors. This paper discusses the imperatives of political and institutional transformation to pursue the goals of environment and NRM governance. It argues that while collective action of local communities is encouraged to effectively manage natural resources on a sustainable basis, the state has the fundamental responsibility to provide the policy and institutional context to support community-initiated change. It concludes that central and local governments are yet to make the necessary philosophical and practical transitions to make a real dent in environmental governance.

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Background

Southeast Asia has diverse political and institutional contexts in terms of government systems, political powers, civil society, judicial systems, markets, and natural resource management. Nonetheless, countries in the region followed a pattern of transformation that has taken place since the pre-colonial period. According to Malayang et al. (2001), the region shares a sense of pre-colonial past where cultures moved across diverse ecological and cultural landscape, a colonial government experience, and a post colonial liberation that prioritised economic regulation to push rapid development. The latter resulted in the use of "command and control" strategy in environmental governance. The basic step under this strategy is to apply environmental rules to individual citizens, industries, and private organisations. However, the influence of ruling political elites on resource allocation and government administration since the colonial period persisted to dominate a political economy characterised by "rent-seeking". McCoy (1998) defines rent seeking as the process of regulating the market and awarding access to a favoured few, which sparked essentially political competition for such monopolies. This allowed the political elites to own vast tracts of lands, manipulate the economy, and weakened the state's resources. Thus, command and control strategy in environmental governance supported a culture of corruption and selective development.

Today, enforcing environmental legislation is appreciated. Efforts to achieve economic growth and prevent damage to natural resources are now widely pursued. Sustainable development (SD) is promoted and prescribed by leaders and policy makers of industrialised nations and the international development community. SD is a development paradigm that necessitated reforms that combine the transformation and strengthening of LGUs. These reforms have political dimensions, which provide for their scope, intensity, and sustainability. In developing countries, local government reforms are being undertaken in the context of democratisation, decentralisation, people empowerment and development (Dill 2000).

In the Philippines, more than one thousand environmental laws were passed to operationalise the constitutional provisions affirming the rights of the citizenry to live in a healthful and ecologically sound environment (LGC 1991). Strategic interventions to carry out this policy prescription were articulated in the Philippine Environmental Code. Despite these efforts, problems persisted because of lack of capacity and sincerity of authorities to effectively implement the policies, besides that many political leaders favour to see development at the expense of the environment for immediate political gains. In fact, executive decisions for planning and implementation are largely influenced by different political considerations. Clearly, there is difficulty among government leaders to overcome the constraints to their ability to enforce policies, especially those with national or regional scope. According to Malayang et al. (2000), Southeast Asia's tradition of policy making is stifling its ability to response to changing global situations.

Countries in Southeast Asia also share common environmental problems such as, indiscriminate exploitation of natural resources, high pollution, and degradation of forests, agricultural, and coastal areas. Increasing population pressures in frontier environments where farming is pushed to the margin aggravates this. The Philippines ranked 112th of 122 countries with Environment Sustainability Index [(ecosystem status, environmental risk, vulnerability as human beings, social & institutional capacity & global stewardship) World Economic Forum 2000]. It is also one of the 25-biodiversity hotspots in the world having the fastest rates of rainforest destruction (UN). The city of Manila, the Philippine capital is the second dirtiest of the most polluted city in the world. To address these problems, the Philippines (among others in Southeast Asia) were made the locus of experimentation and innovation in natural resource management (Scherr 2001), but serious implementation problems continue to exist. Today, governments need to act fast to overcome the political and institutional hurdles to its ability to protect the country's ecological balance and sustained economic growth. Malayang et al. (2001) said that, countries in the region must overcome their post-colonial malaise of elite-centred development and its associated ills of restricted participation and corruption to sustain its development and competitiveness in the world. Further, Dill (2000) said, that the major challenge for the developing world is the culture of status quo, mismanagement, and resistance to change.

Political and institutional transformation in environmental governance: The Philippine Context

Within the literature of Philippine political system, the theory of rent-seeking best describes the economic relations between the ruling political elites and the state, influencing politics and state affairs, and shaping the Filipino political culture. Thus, much of the control of natural resources and environmental wealth are in the political and economic elites (Malayang et al. 2001). This functioned actively under the crony capitalism that thrived under the administration of President Ferdinand Marcos. According to McCoy (1998), the Philippine Republic emerged as a weak postcolonial state, which augmented the power of rent-seeking political elites, thus, further weakening the state's own resources and its apparatus for economic development.

Towards the end of the last century, cultural minorities gained de facto rights over the control of environmental assets within their ancestral domain. During this period, civil society institutions proliferated, and acquired legal status as autonomous entities, and gained state recognition as important partners of development. Many of civil society groups, including environmental nongovernment organisations (NGOs) have successfully formed into alliances and generated a critical mass to challenge the monopoly of environmental governance. Though not limited in the Philippines, a new paradigm of state governance were the centre of political power is shifted away from central government is mobilised, ensuring that civil society does not simply add to what government is providing, but sharing power with it. This came quite early in the early 1980s in the Philippines compared to other countries in Southeast Asia.

By the early 1990s, the long held desire for Philippine democracy was said to materialise through the process of decentralisation and participation in local governance. This process obtained legitimacy trough Republic Act 7160— otherwise known as the Local Government Code of 1991, which provides major structural adjustments in the Philippine Administrative System. The end-view is to transform LGUs into self-reliant communities and active partners in nation building by giving them more powers, authority, and resources in the performance of corresponding functions, responsibilities for basic services like maternal and child health, primary health care, nutrition, environmental sanitation, agriculture, infrastructure and social welfare were transferred to local chief executives. Additionally, LGUs were vested the power to create and broaden their own sources of revenue, the right to a just share in national taxes based on standard criteria, and equitable share of proceeds of national wealth. Hence, the template of local development is now entrusted to the local leadership.

The Philippines' Department of Environment and Natural Resources (DENR) is the central agency in charged of environment, forestry, and NRM. The Code mandated the LGUs to manage the natural resources within their administrative jurisdiction and perform the devolved functions of DENR in order to ensure the maintenance and protection of the environment. Similarly, the Department of Agriculture (DA) was devolved and municipal agricultural offices (MAO) were set up. Under the devolution process, LGUs are expected to provide financial resources for environmental management projects. They are also to support projects funded by national and international agencies in their locality through partnership and cost-sharing schemes.

In addition, Republic Act No. 7586, known as the National Integrated Protected Areas System Act (NIPAS Act) was passed in 1992. The NIPAS Act primarily focuses on management of identified protected areas. In 1997, the Indigenous People's Right Act (Republic Act No. 8371) or IPRA was also passed. The IPRA is an act that recognizes, protect and promote the rights of indigenous cultural communities, creating a national commission on indigenous peoples, establishing implementing mechanisms, and appropriating funds. The Act envisions promoting and enhancing the protection and management of national parks in respect to customary beliefs and laws of indigenous peoples living within the area.

Nuances in environmental governance under the Local Government Code

Despite this promising transformation, the implementation of the Code remains problematic. The majority of LGUs were stifling in their ability to perform the devolved functions, and environmental governance was below par, despite the tremendous support provided by external groups. To better understand the issues inhibiting successful NRM, we examined the policy context impinging upon

local environmental governance from a macro perspective and found that the Code had serious bottlenecks. First, the responsibilities, functions, and personnel of the DA were devolved to the LGUs without the corresponding budget; hence, LGUs were swamped with devolved personnel that are to be paid using local resources. This leaves the LGUs with very little funds to support local programs; a situation that lends to poor extension. Second, while several functions of the DENR were already devolved to the LGUs, the Code ironically mandated the "optional" creation of a city or municipal Environment and Natural Resource Office (ENRO), which will house the Land Use Management Unit, the Coastal Zone Management Unit, and the Air Quality Monitoring Unit. Relatedly, the Department of Budget Management (DBM) excluded the environment sector in the LGU budgeting guidelines. Hence, the creation of ENRO and provision of environmental funds is discretionary on the part of the Local Chief Executive (LCE) depending on personal interest, or external pressures rather than on genuinely felt need. This limited the LGUs, particularly low-income municipalities to perform the devolved functions, and to initiate local NRM programs. Additionally, the Code encourages the continued involvement of central agencies on functions assigned to LGUs by allowing central agencies to implement and retain control over projects funded by the national government and foreign agencies (Catacutan et al. 2002). Under this situation, national agencies tend to direct LGU behaviours towards national goals since they are made accountable to project outcomes. Consequently, public accountability was unclear to LGUs. In summary, we found that more reforms are needed if local governments are to make meaningful improvements in environmental governance.

LGU-led NRM: Case Study of Philippine LGUs

Case study sites and methods

To enrich our understanding on the factors that enhance or constrain local NRM, we implemented an action research in the four municipalities of Bukidnon province in the southern Philippines namely, Baungon, Libona, Impasug-ong and Libona from 1999 to 2002. The study involved technical assistance, participant-observation, and surveys. To validate the study results in Bukidnon province, 11 LGU case studies from different parts of the country were conducted in 2001. The case studies drew on key informant interviews and documentary sources of evidence.

Mindanao Area	Visayas Area	Luzon Area	
Maitum, Saranggani	Tagbilaran, Bohol	Naga City, Bicol	
Arakan, Compostela Valley	Maasin, Iloilo	Baguio City	
Quezon, Bukidnon	Negros Occidental	Alaminos City, Pangasinan	
Impasug-ong, Bukidnon		Benguet, La Trinidad	
Libona, Bukidnon		Nueva Viscaya	
Manolo Fortich, Bukidnon			
Baungon, Bukidnon			

Table 1. Distribution of LGU case studies

Key Findings of the Case Study

The majority of LGUs initiated their NRM programs in compliance of national government requirements, while the others responded to opportunities provided by external agencies, mostly national government agencies and foreign-funded projects. The LGU programs ranged from tree planting, capacity building, NRM planning, and watershed management (Table 2).

LGU	Type of Program	
Quezon, Bukidnon	Tree Planting and Greenbelt Buy Back Program	
Impasug-ong, Bukidnon	NRM Planning	
Libona, Bukidnon	NRM Planning	
Manolo Fortich, Bukidnon	NRM/ Water Resource Management	
Baungon, Bukidnon	NRM Planning	
Maitum, Saranggani	Forest landuse planning and capability building	
Arakan, Compostela Valley	Establishment of ENRC and MENRO	
Bohol Province	Tree farming	
Negros Occidental	Integrated Upland Development/Balik Ilahas Program	
Maasin, Iloilo	Watershed Management	
Naga City	Watershed Management	
Alaminos City	Communal Reforestation	
Baguio City	Eco-Walk Project	
La Trinidad, Benguet	Reforestation	
Nueva Viscaya	Co-Management of Magat Forest Reserve	

Table 2.Types of LGU- NRM programs

The programs followed a similar pattern that is, involving community stakeholders in planning and implementation, and employing participatory approaches. The majority of LGUs received national recognition and awards for their exemplary contribution to NRM, and are now constant destinations of interested LGUs, NGOs, and other agencies. Despite their success, the LGUs felt the need to negate their constraints by strengthening or establishing the preconditions for successful NRM. The study revealed four critical factors that are predisposed to LGU-led NRM. Conversely, the absence of these factors negates the effectiveness of LGU-led NRM.

Local financial investment

Local investments in NRM have always been restricted for several reasons. First, there is no budgeting guideline provided by the DBM for environmental and NRM projects. Second, local government officials generally considered environmental investment, a public spending with little political returns. Third, most politicians have little understanding on best returns accrued from environmental expenditures. Fourth, there was historical precedence of foreign funded environmental projects, which created dependency of LGUs on external support. Finally, there is limited knowledge and skills among local government officials on different revenue generating mechanisms for environmental management purposes.

Based on the study, the LGUs had successfully put-up their own financial and human resource investments, but received technical assistance from external agencies. It was observed that once LGUs have fiscal obligations to their own programs, they become more committed to success because of public accountability. Government officials had become more vigilant in monitoring activities to ensure that their investment have positive returns. Although funding was erratic due to budget limitations, their initial investments were found to attract more outside investments. The LGUs believed that local resources and ingenuity could be tapped for environmental management purposes, and will be more reliable in the long run, but the roles of external agencies were also crucial to success.

However, financial autonomy was an issue for the LGU. As a key feature of the Code, local financial autonomy is described as the ability to generate financial resources from local taxation measures and other forms of non-traditional revenue generating schemes, and their freedom to allocate and account for the resources generated. In many cases, the ability of LGU officials to generate funds from local resource endowments, for example, through user fees and appropriate taxation schemes have been limited. The case study revealed that environmental investments were mostly taken from local development funds, which are discretionary to the Mayor; hence, they are volatile and subject to the vagaries of the political leaders. It is quite common that local programs are tied to political and budgetary cycles, undermining sustainability. In order to partly solve this issue, the LGUs suggested that budgeting for environmental management purposes should be compulsory with imposed guidelines from the DBM so that environmental projects could be easily disposed at the local level without having to depend on instructions from national agencies.

Local technical and managerial capacity

Environmental governance means wielding power, authority, resources, and expertise to redress the problems of environmental degradation. This means that LGU administrators and politicians need to meet the prerequisite skills to enable them to manage the environment effectively. Broadly speaking, capability is a central element of governance (Acosta et al. 1991).

The study found out that the technical capability of staff and managerial skills of LGU administrators were lacking, yet crucial to the success of LGU-led NRM. Most of technical staff argued that insufficient financial and physical assets are not the only constraints in NRM, but it is the lack of good management capacity. This compels the LGU administrators and decision-makers to build capacities in order to make better decisions and develop effective programs On the other hand, not only that LGU administrators need management capacity, but the technical staff should also possess the knowledge and skills to implement NRM programs. According to Acosta et al. (1991), the notion of public accountability is supported by competencies in that local technical personnel are not only willing to take the risk to act, but they in fact possess the knowledge and skills to act. Thus, public accountability would remain rhetoric without improving the technical and

managerial capacities of LGU administrators and staff. A capability-building program should be developed to correct deficiencies and transform LGUs into proactive and effective implementers of NRM programs.

A sound political culture

According to Dill (2000), management quality, standards and effectiveness solely depend on culture. He said that things improve only when culture improves. Accordingly, good environmental governance cannot sustain in an unhealthy political culture. Traditional politicians favour economic progress at the expense of environmental development because physical infrastructures are able to proxy them, besides that physical infrastructures are easily converted as tickets to win electoral votes.

The case study revealed that local leadership and political will played a critical role in successful NRM. The LGUs mentioned that good working relationships and a pleasant political climate are preconditions for effective planning and implementation. The study also found that NRM programs were able to transcend beyond the leadership of dynamic, proactive, modernist and enterprising political leaders. The caveat is that, political will and effective local leadership for NRM is scarce, and cultural change and leadership building takes time. Hence, it is important to define the policy and institutional environment, which allows LGU administrators to engage in learning and experimentation. Emphasis should be also given on functional responsiveness, rather than on one-sided patronage politics. According to Malayang et al. (2001), political leaders must keep a firm grasp of reality in knowing what they need to do in order to maintain public accountability and maintaining their own political survival without sacrificing greater public benefit.

Clear national mandates

According to Manasan (2001), a major bottleneck of the Code is its categorical provisions with respect to environment and NRM functions. For instance, it states that LGUs shall share with the national government the responsibilities in the management and maintenance of ecological balance within their territorial jurisdictions subject to the provisions of the Code and the national policy. This meant that the Code transferred the responsibilities of community-based forest and watershed projects but did not transfer the appropriate authority (Catacutan et al. 2002). The prevailing regulatory framework aggravates this by permitting the "two-track delivery system" where central agencies and LGUs can initiate devolved functions (Manasan 2001; Catacutan 2002). As a result, LGUs were confused with their responsibilities and public accountability was made unclear to them.

The LGUs cited that conflicting national mandates and the unintended ill effects of regulatory measures created problems in NRM. Many of the provisions in the Code have paid lip service, leaving the LGUs with very little progress in NRM.

Further, the LGUs felt that NRM would remain bleak unless these bottlenecks are resolved as a basis for policy improvement. There is greater need to clarify the provisions of the Code, and make necessary amendments possible, if LGUs are to enjoy the fullest benefit of the Code.

Farmer-led NRM: Case study of the Landcare Program in the Southern Philippines

To better understand the key factors affecting success or failure in local NRM, we also examined the Landcare Program as a model of farmer-led and community based NRM. A major transformation within the context of Philippine decentralisation is the advancement of citizen participation and involvement in assessing local problems and in initiating actions to solve these problems. This concept has been widely applied, practically in all sectors, including forest management and upland agricultural development. The underlying goal of decentralisation is to empower local communities and the institutions that work with them, so that they transform into effective partners in local development and national progress.

Background of the Landcare Program

The Landcare Program in the southern Philippines developed quite uniquely from Landcare in Australia, but share common principles. In Australia, Landcare started in the early 1980s with now over 4,000 community landcare groups tackling broad NRM issues across Australia. It received federal government and urban-based private sector support. In the Philippines, Landcare originated in Claveria Misamis Oriental, an upland municipality in the southern Philippines. The World Agroforestry Centre (ICRAF-Philippines), an international research agency facilitated the development of Landcare with strong LGU support and funding from international agencies.

Landcare is viewed as an approach that rapidly and inexpensively disseminates conservation farming technologies including agroforestry in the uplands. As an approach, it relied heavily on effective partnership of three key stakeholders: (1) farmers; (2) LGU; and (3) technical service providers. This three-way partnership has been described as the Landcare Triangle. In practice, Landcare is based on three cornerstones namely, provision of appropriate technologies, institution building, and partnership building. This resulted in widespread adoption of soil conservation and agroforestry practices and, as a consequence, has been scaled up to several other sites to achieve wider adoption of agroforestry (Catacutan et al. 2003). Approximately, more than 500 landcare groups and 10,000 farmers are now involved in conservation farming across the southern and central Philippines. The majority of farmers practiced simple soil and conservation technologies based on Natural Vegetative Filter Strips (NVS) to control soil erosion and improve land productivity. Farmers have also established more than 500 nurseries of timber and fruit trees using almost entirely their own resources. The Landcare Program is considered phenomenal, and that, it received national recognition as an outstanding program on agroforestry dissemination in 2003. More and more LGUs, NGOs, and foreign-funded projects have approached to learn from Landcare. Given this initial success, it was thought that Landcare has the potential to scale up more widely to become a national program. Hence, we conducted case studies of five Landcare sites (municipalities) to understand the requirements an the factors that favour a successful scaling up at the national level. Our main question was whether Landcare could be implemented more widely given the differences in farming systems, socio-political, institutional, and economic environments of various locations in the Philippines. The study drew on key informant interviews, focus group discussions, and documentary sources of evidence. The case study sites received different levels of institutional and technical support from ICRAF using different modes of implementation (Table 3).

Study Site	Year started	Entry Point	Strategy	ICRAF Support
Claveria (original	1996	Previous	Partnership	Full staff (1 st ICRAF
site)		research	with LGU	Research Site)
Lantapan	1997	Local	Integration in	Full staff (2 nd
		Development	municipal	ICRAF Research
		Planning	NRM Plan	Site)
Malitbog	1998	Agricultural Extension	Integration in extension program	1 full time facilitator
Manolo Fortich	2000	Local Development Planning	Integration in municipal Development Plan	1 half time facilitator
Southern Mindanao: Davao del Sur Davao del Norte Saranggani South Cotabato Compostela Valley	2001	European Union (EU) funded- Upland Development Programme (UDP)	Integration into Project Framework	Training provided at the expense of UDP, but ICRAF did not assign a facilitator

Table 3.General characteristics of Landcare study sites

Enhancing factors for success

Broadly speaking, the on-going study indicated that the Landcare Program has the potential to scale up more widely from its current domain with varying levels of institutional and technical support from an external agency (ICRAF). However, the degree of partnership among key stakeholders varied significantly in the study sites. Institutional support from local government was present in some cases and absent in others, hence this part of the Landcare triangle, though desirable, was not essential to successful scaling up (Catacutan et al. 2003). However, in the absence of strong local government support, institutional backing from a committed, technically competent non-government organisation appeared to be crucial. Specifically, the study revealed key factors for success. Each is discussed below.

1. Appropriateness of the promoted technologies

The study showed that scaling up has a strong technical dimension that is, the technologies promoted were adaptable for farmers. Farmers' decisions to participate in the Landcare Program and to adopt conservation technologies were driven by the perceived attributes of the NVS technology. As Rogers (1984) put it, the adoptability of a given technology is based on its relative advantage. The majority of interviewed farmers associated Landcare with NVS. NVS is a low-cost and low-labour technology that is effective in controlling soil erosion and improving production. ICRAF examined the benefits of NVS through on-farm participatory research and found out that it is effective in controlling soil erosion by up to 95 per cent (see also Garrity and Mercado 2000; Stark 2000). Farmers can start applying NVS without cash input, because it is based on natural grasses that are left unplowed during land preparation. Once the NVS are established, farmers begin to enrich the system by planting annual crops, perennials or timber and fruit trees on or above the grass strips. NVS therefore, serves as foundation for agroforestry development in sloping farms. In the southern and western Mindanao regions. ICRAF partners were more attracted to the NVS technology, for the same reason, that it was perceived appropriate to the farming conditions in their area. Thus, a flexible set of proven technologies such as NVS is an important element in promoting NRM programs in the uplands.

2. Communication and training

Farmer training and cross-farm visits were the main channels of information exchange in the Landcare Program. Farmers learned to apply the technologies from attending training sessions and farm visits. The training content was structured with lectures and practical hands-on exercises, but was found to go beyond information exchange, because it was implemented informally allowing for social interaction and bonding among the participants. The training area covered both technical and capability building aspects of farming and group development. Effective training went beyond single technology adoption; it also encouraged farmers to become trainers and promoted farmer experimentation.

3. Facilitation

The majority of farmers cited the critical role that facilitators play in Landcare. They found the dedication and commitment of facilitators to help them find solutions to their problems. Together, they developed a good personal and working relationship—understand the problems, discover new things, and learn to find solutions together. When good relationships are established, farmers somehow found a debt of obligation to facilitators, a reciprocal obligation that is well founded in the Filipino value system. Training was important in awareness improvement and human capital building, but it is through facilitation that farmers continue to learn, exchange information, and build a social capital. In fact, the study showed that availability of group facilitation enhanced farmers' decision to join a Landcare group. This implies the critical shift needed in conventional extension from being unidirectional, where from science, extension agent's hand down technologies to farmers, to where farmers are central to the highly interactive extension arena.

4. Local government support

The Landcare approach that evolved in Claveria relied on the active participation of municipal and village governments. LGU support was in the form of policy, financial, and technical assistance from agricultural technicians. The Landcare Program was well in-placed in the extension program and gained strong political support. However, this degree of LGU support was absent in the two sites; the program was tied to political and budgetary cycles, undermining sustainability. Nonetheless, the key informants perceived that LGU support remains a very important factor for success.

5. Influence and support of external agencies

In the absence of strong LGU support, the presence of ICRAF and UDP in the southern Mindanao area compensated the effectiveness of the Landcare triangle. Nonetheless, even in sites with strong LGU support, the influence and support of ICRAF remained crucial. The LGUs cited that support from external agencies is indispensable because of their technical and institutional limitations. Since ICRAF had a reputable standing in the study sites, it gained the level of confidence required in building community partnerships. This showed that even if local institutions are established, external agencies are not freed of responsibility to provide support in ways possible and acceptable for the both involved.

In summing up, the study showed that farmer-led or community-led NRM would remain rhetoric unless external actors seek a balance between communityinitiated change, partnerships with local governments, and promotion of technological and institutional innovations, this balance depending on a range of contextual factors. Further, the study concluded that in order for local people to make a meaningful contribution to environmental development, the state, having the fundamental responsibility over its constituency should endeavour to create a democratic space where local initiatives by local people could be promoted and supported. A genuine transformation is urgently needed to redress the problems of environmental degradation through changed political culture, proactive policies, continuous training and education, effective facilitation of innovation, effecting wider change process, and greater public participation. Although this study was limited to the Landcare Program, it has implications to broader NRM, forestry, and agriculture extension.

Conclusion

This paper discussed the political and institutional transformation that has taken place within the last half century of environmental governance in the Philippines. The weakness of environmental governance was a product of the over-all weakness of the state. As the state transformed out of a colonial context, command and control strategy of environmental governance was adopted, but limited to the influence and control of ruling political elites over resource allocation and state affairs. This created a political economy dominated by rent seekers. Relatedly, social classes of political families, clans, and particularistic groups that held the state captive with conflicting societal interests manoeuvred government systems. Towards the early 1980s, civil society participation was mobilised to lobby for reforms. Cultural minorities gained de facto rights over their ancestral domain and civil society groups proliferated to form an alliance against the monopoly of environmental governance. By early 1990s, the Philippine government made a quantum leap towards democratisation by the passage of the Local Government Code. The Code decentralised power and authority from central government to LGUs, and created structural and administrative reforms to establish "local governance". Environment and agricultural development were devolved to the municipal levels. Alongside, the government enacted the NIPAS and IPRA laws to protect the integrity of protected areas and the rights of indigenous peoples over ancestral domains. However, the implementation of the Code was without problems. The categorical provisions of the Code created implementation problems and complacency in the attitudes of LGU officials in disposing the devolved functions. Clearly, the transformation needed in order for LGUs to make a real dent in environmental governance goes beyond what the Code has offered.

The case study pointed out the need for more transformation in environmental governance. At the macro level, the state need to initiate policy reforms to effect the full devolution of environment and NRM functions, enabling LGUs to legally allocate funds and provide technically qualified personnel. Policy reforms provide the rational institutional arrangements. Additionally, reforms should be geared towards improving public accountability among local government officials adhering for responsive use of power and faithful execution of delegated functions. It could be said however, that this is going to be more painful than instituting policy reforms, because it demands cultural change-this change, requires behaviour modification to understand that the exercise of power, authority and responsibility is shared, and that public officials are accountable for their actions. At the meso or local government levels, effective NRM could be pursued, first, if technologies promoted have a direct relevance to the affected communities, suggesting that these technologies should be responsive to the biophysical and socio-economic conditions of communities. Second, if the institutional character of the extension system is improved. Because farming and NRM is a social activity where farmer decisions are made from interactions in a variety of social settings, the extension system should move beyond unidirectional extension to multi-directional and farmer-focused. This requires resources and strategies for building the capacities of technicians to facilitate learning and experimentation with farmers. Third, if LGUs provide support to grassroots groups and has the willingness to partner with external agencies. LGUs need to do away with dole-outs as a way of public service delivery, but should support a process of building human and social capital, and use incentives and rewards to encourage the use of good practices.

In summary, it is widely undisputable that political and institutional transformation is urgently needed for effective environmental governance, requiring systemic reforms at all levels of government and societies, but before local communities are expected to transform as viable partners in local NRM, it is fundamental that the state provides the appropriate policy and institutional context that promote and support local and broad-level societal interests. Finally, both the state and local governments should make the necessary philosophical and practical transitions to make a real difference in redressing the problems of environmental degradation.

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