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The Need for a National Land Use Act in the Philippines

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The Need for a National Land Use Act in the Philippines

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PHILIPPINE INSTITUTE FOR DEVELOPMENT STUDIES

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Abstract

Land use misgovernance in the Philippines arise due to the non-institutionalization of a national level framework for land use and the lack of harmonization of sector-specific laws on land resources. But the effort to push for a National Land Use Act (NaLUA) is almost three decades old already and advocates are finding it hard to hurdle the legislative mill. This study establishes that, to strengthen the push to enact a NaLUA, advocates need to employ a transdisciplinary approach and deepen through updated data and evidences the appreciation by policymakers and stakeholders of the arguments for having this legislation. The review of the theoretical foundations for land use analysis explains the evolution of land use analysis and the principles for land use governance. It also implies that a transdisciplinary approach is needed in advocating for a NaLUA. The assessment of data and evidences on conflicting land uses, land use misgovernance, and inadequacies of existing mechanisms for dealing with land use problems bolster the case for having a NaLUA. Insights of stakeholders during focus group discussions and key informant interviews confirm the findings from the assessment of data. Thus, the study concludes that enacting a NaLUA and ensuring that it is implemented through an appropriate institutional mechanism can help resolve land use conflicts in the country. In addition, it can support greater and sustainable value addition in the economy through land use optimization.

Keywords: land use, land use analysis, land use changes, land use conflicts, land use planning, land use governance, National Land Use Act

Table of Contents

1. Introduction **1**

2. Theoretical foundations of land use analysis: from economics to transdisciplinary approaches **1**

2.1 Land use analysis in economics 1

2.2 The nexus between sociology and natural sciences in analyzing land use 3

2.3 Implications of the review of theoretical foundations 4

3. Does the Philippines need a National Land Use Act? **4**

3.1 Are there conflicting uses of land in the Philippines? 5

3.2 Are the existing mechanisms for dealing with the conflicting land uses sufficient? 9

3.3 Are there negative externalities and disamenities that indicate misgovernance of land uses? 14

3.4 Are land use conflicts affecting peace and development and cultural interactions? 17

3.5 Are existing land uses optimal and bringing us closer to progress? 17

3.6 Is legislating land use governance at the national level the norm in other countries? 20

4. Policy insights and recommendations **21**

Appendix - Issues raised by Focus Group Discussion and Key Informant Interview participants **23**

Bibliography **28**

List of Tables

Table 1. Status of CLUP and PDPFP preparation by region as of July 2023 13
Table 2. Number of threatened wildlife species by status category, 2016-2022 14
Table 3. Number of households per tenure status of the housing unit, 2015 and 2020 16
Table 4. Land cover classification (in hectares), 2015 and 2020 18
Table 5. Farm parcels by main use, 2002 and 2012 19

List of Figures

Figure 1. Gross irrigation service area (in hectares) and previously irrigated lands converted to non-agricultural uses (as percentage of gross service area), 2012-2022 7
Figure 2. Aggregate area of previously irrigated lands converted to non-agricultural uses from 2012 to 2022, by region (in hectares) 8
Figure 3. CLUP and PDPFP preparation status of LGUs as of July 2023 12
Figure 4. Number of watersheds assessed with identified hazards, 2007-2021 15
Figure 5. Identified hazards in watersheds per year, Philippines, 2007-2021 16
Figure 6. Population (number of individuals) enumerated as homeless by region, 2020 20

List of Boxes

Box 1. Illegal and premature conversion of agricultural lands 6
Box 2. Land reclassification and land use conversion 9
Box 3. Region X Inter-Agency Committee for the Conflict Resolution of Tenurial Claims 10

The Need for a National Land Use Act in the Philippines

Adoracion M. Navarro*

1. Introduction

Land use conflicts abound in the Philippines and advocates of a national legislation on land use governance trace this to the non-institutionalization of a national level framework for land use and the lack of harmonization of sector-specific laws on land resources. Having national level framework for effective land use planning and governance is necessary to ensure that sectoral-spatial land use policies are harmonized and that the competing uses of limited land resources are addressed rationally. Conflicts sometimes arise in the competing uses of land, which are usually for food security, settlements development, industry development, and environmental protection. Although there are already existing laws related to land resources in the Philippines (e.g., agrarian reform, protected areas, ancestral domain, fisheries, forestry, agriculture modernization, mining, housing and urban development, and disaster risk reduction and management), the coverage of these laws is limited to specific sectors. Moreover, when the implementors of a specific law view the exercise of land use rights using the narrow lens provided by such law, that is, when they operate in silos in exercising land use rights, rationalizing the competing uses of land becomes even more difficult. A law on land use planning and governance, which we label in this policy study as a National Land Use Act (NaLUA),[1] is therefore important.

This study aims to provide evidence-based arguments for a NaLUA that proponents and advocates may use in generating enough support toward the enactment of the proposed legislation. The research methods used in bringing the issues and challenges to the surface are desk research and focus group discussions (FGDs).

2. Theoretical foundations of land use analysis: from economics to transdisciplinary approaches

Understanding land uses, both competing and complementary, is easier if the analysis builds on established theoretical foundations. Thus, some theories are discussed here. The theories frame the attendant optimization and conflict resolution approaches in managing the various uses of land.

2.1 Land use analysis in economics

In the economics discipline, the foundational principles of land use analysis are often traced from the classical theories on agricultural rent to the firm-level approaches that employ industrial organization concepts. The application of these foundational principles and the more modern

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[1] The labeling is for convenience only. Legislators in previous Congresses have given other names to the proposed law, such as NALUMA (National Land Use and Management Act) and NALUPA (National Land Use Planning Act).

formalization of influences on land use are now captured and continue to evolve in urban and regional economics, a recognized subdiscipline of economics.

2.1.1 Classical approaches

Traditional land use theories introduce the notion of agricultural rent and the bidding or competition through rents in the use of land. David Ricardo's agricultural rent is pure rent because land is a gift of nature and therefore has no supply price and no cost of production. Valuation can be made only through rent or payment for the use of land. The Ricardian rent that accrues to landlords is a result of competition among farmers, and land fertility differentials are the primary basis of rents bid by the farmers (Ricardo 1817, as cited in Brooks 1987). Johann Heinrich von Thunen's bid rent function incorporating differentials based on transportation cost savings and competing land uses emerged in the mathematical modeling of spatial organization of agricultural activities. The basic modeling assumptions, namely, fertile plain of land in an isolated state and with uniform fertility everywhere, fixed demand structure, distance-related transportation costs, and fixed technological coefficients, clarify how competition among alternative uses of land takes place (von Thunen 1826, as cited in Brooks 1987). Relaxing these assumptions introduce depth into the analysis.

2.1.2 Firm-level approaches

The firm-level approaches consider the input or market orientation of manufacturing firms based on the fixed locations of natural inputs and markets, as well as the costs of transporting inputs and outputs. Agglomeration happens in three levels—at the firm level due to scale economies, at the industry level due to co-location decisions of firms in an industry, and at the city level when urbanization happens in areas where firms in different industries converge. Changing uses of land emerge due to product demand, employment, income, and travel patterns. Under the same competition principles in the agricultural use of land, urban activities compete for land. Production diseconomies (e.g., pollution) and consumption disamenities (e.g., congestion) limit the growth of cities (Weber 1909 and Marshall 1916, as cited in Brooks 1987).

The analysis of externalities in the urban sector can be extended to the agriculture sector in light of environmental changes such as soil erosion and silt accumulation and natural disasters such as flooding and forest fires (Isard 1956, as cited in Brooks 1987). Moreover, as location and quantity decisions of firms are based on substituting expenditure on land for expenditure on transportation and other production inputs, hedonic pricing for land in urban areas can be adopted (Alonso 1964, as cited in Brooks 1987).

2.1.3 Comprehensive urban and regional economics approach

The foundational principles discussed above and the dramatic growth of related academic research outputs in the 1980s and the 1990s contributed to the recognition of urban and regional economics as a subdiscipline of economics. In this subdiscipline, Briassoulis (2020)' survey traced the further development of the bid rent curve as a central concept and the agent-based theories explaining the clustering or dispersion of activities over space (Hoover and Giarratani 1984 and 1999; Arthur 1989; and Krugman 1995; as cited in Briassoulis 2020). The bid rent curve, as an outcome of the

bidding process, say among residential users and commercial or industrial users, reflects the actual competing uses of land. Agent-based theories explain how the decision-making of individual agents to cluster around a space is influenced by increasing returns to scale, agglomeration economies, forward linkages (being linked to other production activities as suppliers of goods and services for those activities), and backward linkages (being linked to other production activities as buyers of goods and services of those activities). Agents' competitive behavior, especially in competing for markets and inputs and in reducing transport costs, drive the dispersion of activities. Other factors that drive the clustering or dispersion of economic activities in space include land speculation, land use conversion, and historical chance.

2.2 The nexus between sociology and natural sciences in analyzing land use

Approaches using the nexus between sociology and natural sciences also contribute to the analysis of land use and land use changes. This category is broad and what follows are examples only. In Briassoulis (2020)' survey, human ecology is deemed a functionalist-behaviorist approach to analyzing the relationship of humans with the environment. It employs basic ecological concepts such as dominance, disturbance, and adaptation in viewing the urban development process (e.g., Johnston et al. 1994, as cited in Briassoulis 2020). Recognizing the social and institutional limits on human behavior, the structuralist-institutional approach views power, such as capitalist power and labor power, as the key contributing factor to locational choices and land use. It further views the state as a key dispenser of control on the interests of those who hold power (e.g., Castells 1977 and 1978, as cited in Briassoulis 2020).

A contribution from environmental history is the use of the frontier thesis as a framework for explaining large scale changes in land use. The "frontier" is the physical or political division between the settled and unsettled parts of a region, or the area (or the period of time) in which a peripheral region is created or extended, and "frontier expansion" occurs in in settlement waves with attendant intensity in land use conversion and resource use. Moreover, modern societies foist "territoriality", a mere cultural artifact, on newly cleared areas in the struggle for dominance in land use (Richards 1990 and Johnston et al. 1994, as cited in Briassoulis 2020).

Environmental determinism, which suggests that "human activities are controlled by the environment" (Briassoulis 2020, p. 220), is another example of approach under this broad category. It focuses deeply on the bio-physical environment, especially on large spatial or time scales, given that climate, geology and other natural factors determine land use. The deterministic stance provides a framework for advocacies pushing that we "design with nature" when we conduct land use planning (e.g., McHarg 1969, as cited in Briassoulis 2020).

Note that unlike in the economics discipline, which can model economic agents and phenomena using mathematics, the approaches listed here by way of examples employ descriptive frameworks. These frameworks are conceptual devices delving into elements and their functions, actors and their roles, and the inter-relationships between them. Such devices can prove useful in explaining patterns of land use (and abuse) to stakeholders and policymakers who are not inclined to utilizing economic analysis tools.

2.3 Implications of the review of theoretical foundations

From the preceding review of theoretical foundations review, it can be gleaned that the two most important principles in land use planning and governance are sustainable optimization of the benefits from land and minimization of negative externalities in the use of land. The review explains the multiple uses of land, how optimization is used in meeting the demand for land, and the role of prices in assigning rights to use land. It also explains how the multiple uses of land can be competing uses, how diseconomies, disamenities and negative externalities occur, and why protection and conservation are needed.

More importantly, the review implies that we need a transdisciplinary approach to understanding land use changes, balancing the interests of users of land, and managing land use conflicts. The approach should be transdisciplinary because it requires collaboration between and among disciplines (as opposed to a multidisciplinary approach, which simply requires combining the disciplines regardless of whether only one or more than one expert combine the disciplines).

Economics can explain many things related to the principles of land use planning and governance and it has frameworks and concepts for the critical challenge of sustainably using land. It can model the considerations for externalities in optimizing land use, the sustainability aspects in expanding the production frontier through technology, the understanding of constraints in allocating rights, the design of rules and compensation mechanisms in resolving conflicts, the regulatory actions in incentivizing good behavior and penalizing bad behavior, and the framing of inter-generational social contracts (e.g., through laws) to maximize social benefits and promote social justice. But advocates of rational and sustainable land use governance need to talk in languages that other disciplines can understand. Although other subfields in economics can explain some sources of conflicts (e.g., environmental economics to explain the tragedy of the commons), a transdisciplinary approach that uses concepts from other fields can strengthen the arguments put forward by economic planners. Advocates of NaLUA in the economic oversight agencies of the Philippine government therefore need to band with experts from other fields to have a transdisciplinary approach in explaining the following to policymakers and stakeholders:

- the multiple uses of land and how this complicates optimization;
- how the multiple uses are sometimes competing uses rather than complementary uses;
- why protection and conservation, alongside rational optimization, are needed; and
- how prices, market mechanisms, and fiat can be used in wielding political power in and excluding others (e.g., indigenous peoples and future generations) from the enjoyment of land use rights.

3. Does the Philippines need a National Land Use Act?

Answering this basic question entails answering specific exploratory questions on the problems being encountered due to the absence of a national-level legislation on land use planning and governance. In what follows, the answers to the exploratory questions use the latest available data to provide evidence-based support to the arguments for a NaLUA.

3.1 Are there conflicting uses of land in the Philippines?

Conflicting uses arise when the same parcel of land is deemed allocated for one purpose but is actually being used for another purpose. This happens when land supposedly reserved for food security is used for shelter and industrial or commercial uses. It also happens when there are overlapping legislative or executive proclamations on ancestral domains, resource extraction areas (e.g., for mining and energy development), and military reservations. When infrastructure projects need to use parcels of land that are considered part of ancestral domains, conflicts also arise. The explanatory notes for Congressional proposals demonstrate the need to avoid land use conflicts and manage land resources, such as in the proposals in the current 19th Congress (Senate Bill (SB) 898 introduced by Senator Pia Cayetano and SB 1019 introduced by Senator Jinggoy Estrada).

The most often cited illustration of conflict in the use of land is the indiscriminate conversion of agricultural land to non-agricultural uses. The agrarian reform law prohibits illegal and premature use conversion of agricultural land (see Box 1) but there is no systematic monitoring at the national level of how much of the converted lands are illegal and premature.[2]

[2] A representative of the Land Use Cases Division-Bureau of Agrarian Legal Assistance of the Department of Agrarian Reform said that there is no aggregate data at the central office and researchers must write the regional offices individually to request for data (in discussion with the DAR representative on December 14, 2023).

Box 1. Illegal and premature conversion of agricultural lands

Illegal conversion is the conversion by any landowner of his agricultural land into any non-agricultural use with the intent to avoid the application of Republic Act (RA) 6657 or the "Comprehensive Agrarian Reform Law of 1988" to his landholding and dispossess his tenant farmers of the land tilled by them; or the change of nature of lands outside urban centers and city limits either in whole or in part after the effectivity of RA 6657, as provided in Section 73 (c) and (e), respectively, of the said Act.

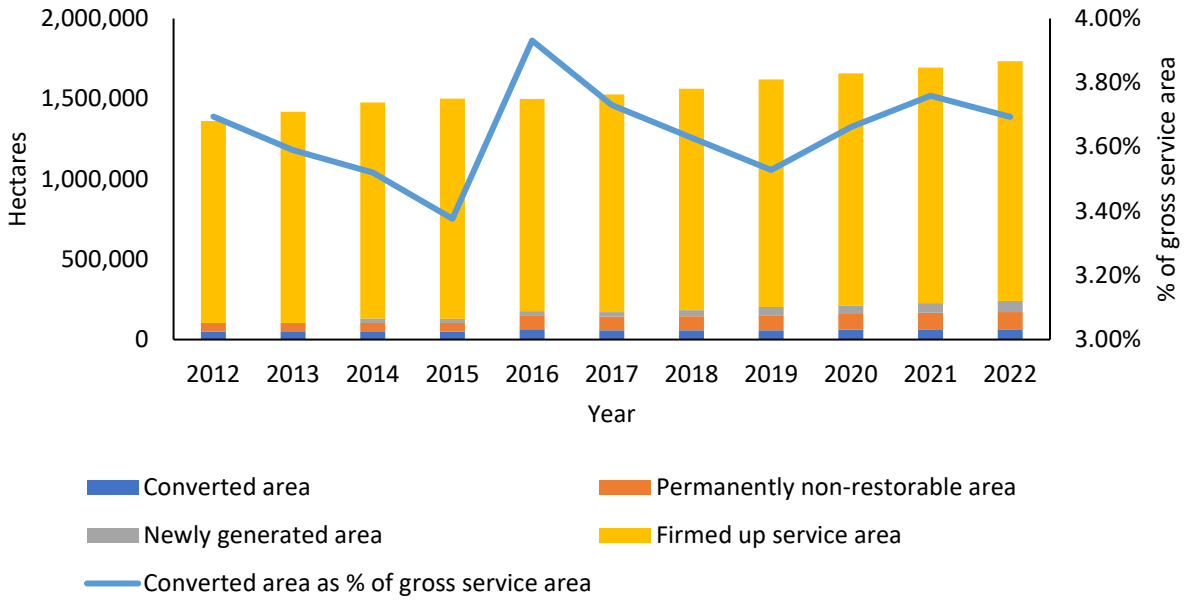
Premature conversion is the undertaking of any development activity, the result of which may modify or alter the physical characteristics of the agricultural land as would render it suitable for non-agricultural purposes without an approved Conversion Order from the Department of Agrarian Reform (DAR).

Premature Conversion of Agricultural Land refers to the undertaking of any development activity, the result of which may modify or alter the physical characteristics of the agricultural land as would render it suitable for non-agricultural purposes without an approved Conversion Order from the DAR.

Source: DAR (2002), Sections 2.8 and 2.15.

Nevertheless, National Irrigation Authority (NIA) data on irrigation service areas that had been converted to non-agricultural uses show that the total area converted from 2012 to 2022 already reached 620,399.46 hectares (Figure 1). The converted land ranged from 3.38 percent to 3.93 percent of gross irrigation service area annually during the period. Among the regions, Region III or Central Luzon had the largest area of converted lands, with 111,079.46 hectares of previously irrigated lands converted to non-agricultural uses from 2012 to 2022 (Figure 2). As the NIA is not the agency in charge of approving land use conversion, its data does not show how much of the total converted areas are due to illegal and premature land use conversion. The proposed NaLUA plans to include in the prohibition on land use conversion the agricultural lands that are irrigated or irrigable and impose taxes on irrigated lands that are left idle and unproductive (e.g., House Bill 8162 in the 19th Congress).

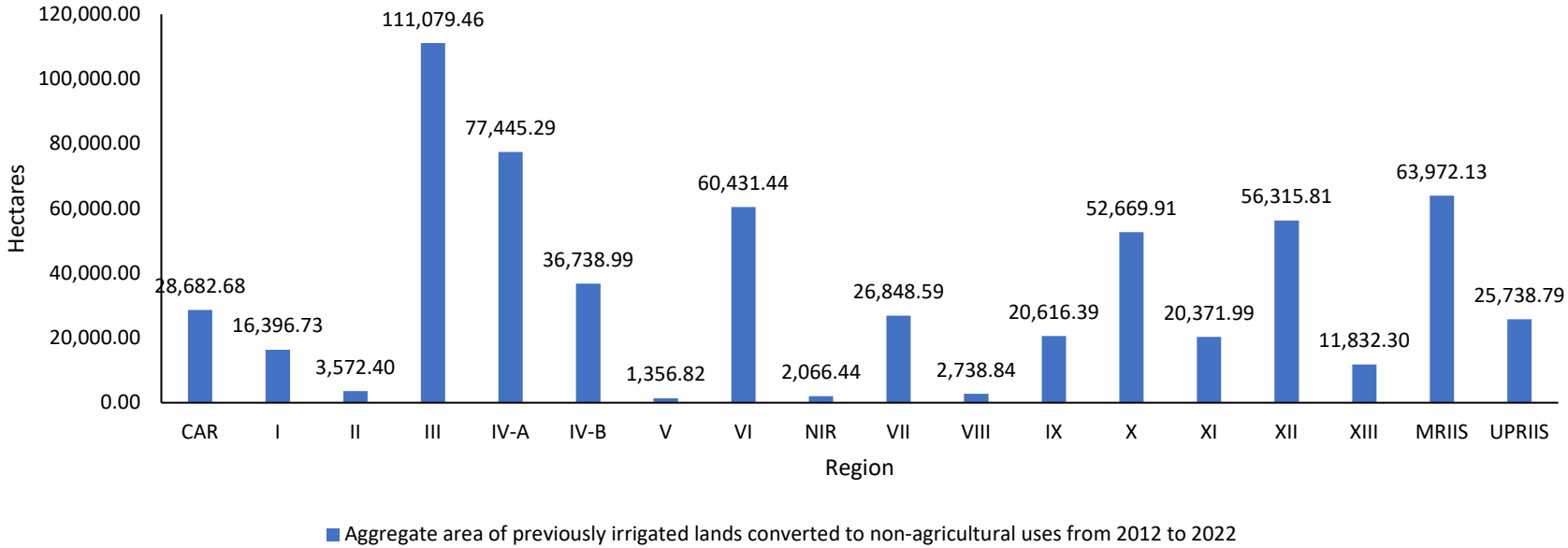
Figure 1. Gross irrigation service area (in hectares) and previously irrigated lands converted to non-agricultural uses (as percentage of gross service area), 2012-2022



Note: The total area or the gross service area per year is indicated by the height of the stacked bar. The firmed up service area of the National Irrigation Authority (NIA) as of the reckoned calendar year is the gross service area less the sum of permanently non-restorable area, converted area, and newly generated area. The NIA data on converted area do not distinguish between illegal and premature land use conversion and legally allowed land use conversion. The tracking of legal land use conversion is currently within the Department of Agrarian Reform's mandate.

Source: PSA (2023a) citing NIA data.

Figure 2. Aggregate area of previously irrigated lands converted to non-agricultural uses from 2012 to 2022, by region (in hectares)



Notes: CAR - Cordillera Administrative Region; I - Ilocos Region; II - Cagayan Valley Region; III - Central Luzon Region; IV-A - CALABARZON Region (Calamba, Laguna, Rizal, and Quezon); IV-B - MIMAROPA Region (Oriental Mindoro, Occidental Mindoro, Marinduque, Romblon, Palawan); V - Bicol Region; VI - Western Visayas Region; NIR - Negros Island Region; VII - Central Visayas Region; VIII - Eastern Visayas Region; IX - Zamboanga Peninsula Region; X - Northern Mindanao Region; XI - Davao Region; XII - SOCCSKSARGEN Region (South Cotabato, Cotabato, Sultan Kudarat, Sarangani and General Santos City); XIII - Caraga Region; MRIIS - Magat River Integrated Irrigation Systems; UPRIIS - Upper Pampanga River Integrated Irrigation Systems. The National Irrigation Authority has data on the NIR in 2016 as this administrative region briefly existed upon the issuance of Executive Order 183 series of 2015 (EO 183 s. 2015) under the administration of former President Benigno Aquino III. The NIR was abolished through EO 83 s. 2017 under the administration of former President Rodrigo Duterte. The MRIIS and UPRIIS are irrigation systems with multi-regional service areas and the NIA has no regional distribution of data for these systems.

Source: PSA (2023a) citing NIA data.

3.2 Are the existing mechanisms for dealing with the conflicting land uses sufficient?

There are existing mechanisms for land reclassification and land use conversion (see Box 2). Land zoning and land reclassification are the ambit of local government units (LGUs) under the Local Government Code (LGC) of 1991 (RA 7160). The LGU's reclassification of agricultural land as suitable for non-agricultural uses does not imply that the landowner can immediately use the land for non-agricultural purposes. The landowner still has to apply for land use conversion approval from the DAR. Despite this established procedure, there are still instances when non-agricultural developments happen to land that have only reached the land reclassification stage, as attested to by participants to the focus group discussion conducted for this study (see the Appendix).

Box 2. Land reclassification and land use conversion

Land Reclassification - the act of specifying how agricultural land shall be utilized for non-agricultural uses as embodied in the land use plan of the LGU based on Section 20 of the Local Government Code.

Cases where land reclassification is allowed: (1) when the land ceases to be economically feasible and sound for agricultural purposes as determined by the Department of Agriculture, or (2) where the land shall have substantially greater economic value for residential, commercial, or industrial purposes, as determined by the *sanggunian* concerned.

Limits on percentage of the total agricultural land area that may be reclassified: 15 percent for highly urbanized cities, 10 percent for component cities and first to third class municipalities, and 5 percent for fourth to sixth class municipalities.

The President may, when public interest so requires and upon recommendation of the National Economic and Development Authority (NEDA), authorize a city or municipality to reclassify lands in excess of these limits.

Land Use Conversion - the act of changing the actual use of agricultural land into other uses as approved by the DAR in accordance with Section 65 of RA 6657, as amended.

Sources: RA 7160 Section 20 and RA 6657 Section 65.

The existing mechanisms for reserving land for specific uses are Presidential proclamations and sector-specific laws. The President is empowered by the Constitution to issue proclamations reserving tracts of land in the public domain for such uses as military reservation, establishment of educational institutions, relocation of people displaced by natural calamities or armed conflicts, and mixed-use development. Sector-specific laws lay down the procedures for declaring or certifying certain areas of public domain land as protected for specific aims in the sector covered by the law, or as suitable target areas for development or exploration in the specific sectoral law. These laws include the following: RA 8371 for ancestral domains, RA 7586 for the National Integrated Protected Areas System (NIPAS), RA 8435 for the Network of Protected Areas for Agriculture and Agro-Industrial Development (NPAAAD) and Strategic Agriculture and Fisheries Development Zones (SAFDZ), Presidential Decree (PD) 389 as amended by PD 705 for forest

delineation, PD 1067 for water easements, RA 9147 for critical habitats, RA 11201 for human settlements and urban development, PD 87 and PD 972 for fossil fuel exploration, and RA 7942 for mining areas. The exercise of land use rights under the various Presidential proclamations and sector-specific laws should also take into consideration the geospatial hazards and risks, which should be identified in the national disaster risk reduction and management plan (DRRMP) and LGUs' DRRMPs in accordance with RA 10121 or the Philippine Disaster Risk Reduction and Management Act of 2010.

Given the multiplicity of instruments granting legislative authority to carve out public land for specific uses, conflicts in the use of land are bound to arise. An inter-agency body where national level discussions and resolutions of land use conflicts currently exists--the National Land Use Committee (NLUC), one of the committees under the NEDA Board. The NLUC is chaired by the Secretary of Socio-economic Planning (the NEDA Director-General) and the NEDA Board is headed by the President. However, as it was created merely by an executive issuance, the NLUC has no enforcement power and no power to impose sanctions or penalties to parties (including LGUs and private parties) that do not respect the agreements arrived at during inter-agency discussions. In some cases, land use issues had to be elevated to the level of the President and disagreements within the cabinet had to be settled at the highest level of executive decision-making, such as in 2016 when the DAR announced a blanket moratorium on land use conversion and drafted an executive order for the President's signature in 2016, at a time when land was needed for big infrastructure projects and housing resettlement. The economic managers blocked the move by the DAR through a position paper submitted to the President. The point then of the economic managers was it is more effective to pursue the enactment of the NaLUA and strict enforcement of land use regulations rather than to ban land use conversion (de Vera 2017). At the regional administrative level, there are cases where ad hoc bodies were created to help resolve conflicts, such as in Region X or the Northern Mindanao region (see Box 3), but such cases are few.[3]

Box 3. Region X Inter-Agency Committee for the Conflict Resolution of Tenurial Claims

In Region X, there are longstanding conflicts in land claims by holders of certificates of ancestral domain, agrarian reform area beneficiaries, and military reservation administrators. Initially, stakeholders relied on the mechanism under the Joint Administrative Order (JAO) No. 01-12 jointly issued by the Department of Environment and Natural Resources (DENR), the DAR, the Land Registration Authority, and the National Commission on Indigenous Peoples (NCIP), which was formulated particularly to address the conflicts between tenurial claims. However, the chairperson of the NCIP eventually withdrew from such mechanism. To continue helping stakeholders address land use conflict, the NEDA-Regional Office in Region X (NRO X) decided in 2020 to initiate the creation of the regional level Inter-Agency Committee for the Conflict Resolution of Tenurial Claims (IAC-CRTC). In this regional level committee, the NCIP-Region X representatives participate in the deliberations.

The work of the inter-agency committee is still in progress but it has demonstrated some achievements, namely:

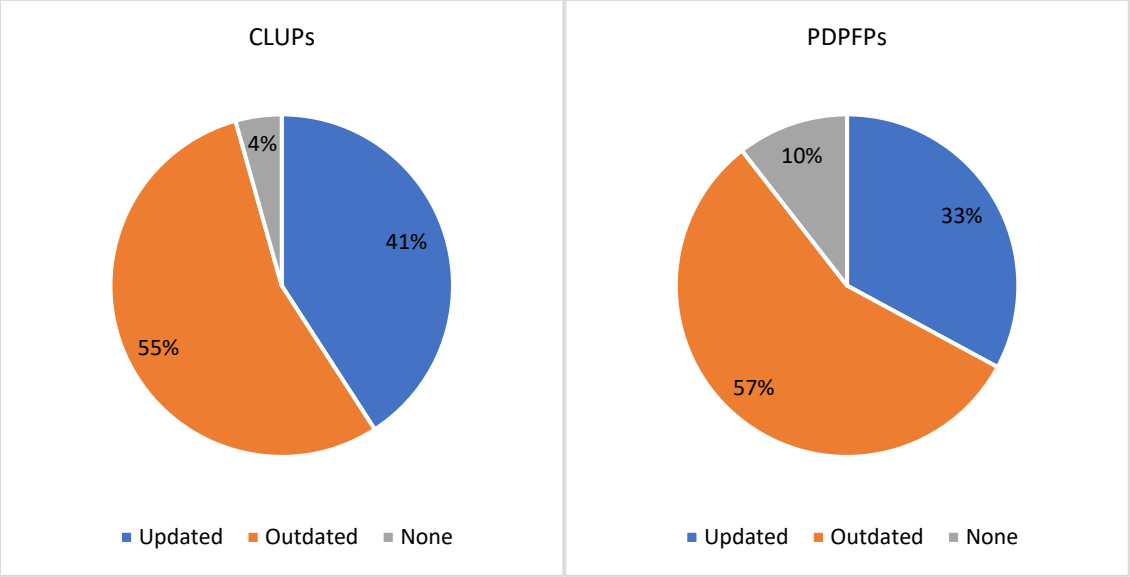
[3] Key informant interviews with Region X representatives suggest that an ad hoc inter-agency mechanism also exists in Region XI.

- agreement with the DENR-Region X and other contributing agencies to prepare a common geospatial database, called "One Map" by the members of the IAC-CRTC, that consolidates all titles and tenurial instruments in Region X so that overlapping tenurial instruments can be identified;
- agreement with all members of the IAC-CRTC that the "One Map" shall serve as the foundation for all future decisions relating to land use and land classification in Region X;
- useful progress in the preparation of the "One Map", as the 2023 version showed around 186,000 existing conflicting tenurial claims, and agreement that the map be updated given that the tenurial claims evolve over time;
- issuance of a Regional Development Council (RDC)-X resolution recommending to the Philippine Army to petition the DENR not to renew Community-Based Forest Management Agreement (CBFMA) No. 55102 after its expiry in 2026, given that the CBFMA is issued within the Kibaritan Military Reserve, a parcel of public domain land awarded to the Philippine Army in 1963 through Presidential Proclamation No. 134;
- issuance of an RDC-X resolution asking the Philippine Army and the DAR-X to fast-track the resolution of conflicting tenurial claims in Barangay Salucot, Talakag, Bukidnon, where they can deliberate whose tenurial claim can be given up in favor of the other (such as the military reservation in favor of the Certificate of Land Ownership Awards in Lot 5666 Cad 630-D or vice versa), given the gathered information and the mapping that had been done thus far;
- with respect to the ancestral domain within the Kibaritan Military Reserve, issuance of an RDC-X resolution endorsing to the Philippine Army the recommendation of the NCIP that the Philippine Army secure the free and prior informed consent of the indigenous peoples in the affected ancestral domain before continuing military operations within the ancestral domain.

Source: Key informant interview with NRO-X representatives and documents shared by NRO-X.

The comprehensive land use plans (CLUPs) of cities and municipalities and the provincial development and physical framework plans (PDFPs) of provinces are inputs to the mechanisms at the LGU level for the rational and sustainable governance of land use, but the major problem is many of the CLUPs and PDFPs remain outdated and incomplete. There are also LGUs that still do not have CLUPs and PDFPs. Figure 3 and Table 1 summarize the details on the status of the CLUPs and PDFPs. This has adverse implications for optimal land zoning, land reclassification, and settling of land use conflicts at the LGU level. Land zoning by LGUs become unresponsive to the demand for shelter, infrastructure, agricultural production, environmental protection, and industrial development. Tension between users of land for various purposes tends to happen. The problem on misalignment of the actual uses of land at the LGU level with the national development objectives becomes more severe, with consequent frictions between LGUs and national government implementing agencies.

Figure 3. CLUP and PDPFP preparation status of LGUs as of July 2023



Note: CLUPs - Comprehensive Land Use Plans; PDPFPs - Provincial Development and Physical Framework Plans. Data are based on the submissions to the DHSUD as of July 20, 2023. BARMM is excluded from the monitoring activities of the DHSUD. "Outdated" means the CLUPs and PDPFPs are either for updating or for approval.

Source: DHSUD (2023).

Table 1. Status of CLUP and PDPFP preparation by region as of July 2023

Region	CLUP preparation status of LGUs							PDPFP preparation status of provinces						
	Updated		Outdated		None		Total	Updated		Outdated		None		Total
	Count	%	Count	%	Count	%		Count	%	Count	%	Count	%	
NCR	9	53%	7	41%	1	6%	**17**	0	0%	0	0%	0	0%	**0**
CAR	36	47%	23	30%	18	23%	**77**	0	0%	6	100%	0	0%	**6**
I	64	51%	59	47%	2	2%	**125**	1	25%	3	75%	0	0%	**4**
II	37	40%	55	59%	1	1%	**93**	1	20%	3	60%	1	20%	**5**
III	82	63%	48	37%	0	0%	**130**	2	29%	4	57%	1	14%	**7**
IV-A	60	42%	80	56%	2	1%	**142**	3	60%	2	40%	0	0%	**5**
IV-B	49	67%	23	32%	1	1%	**73**	4	80%	0	0%	1	20%	**5**
V	27	24%	77	68%	10	9%	**114**	2	33%	4	67%	0	0%	**6**
VI	38	29%	95	71%	0	0%	**133**	1	17%	4	67%	1	17%	**6**
VII	18	14%	108	82%	6	5%	**132**	0	0%	2	50%	2	50%	**4**
VIII	55	38%	68	48%	20	14%	**143**	2	33%	4	67%	0	0%	**6**
IX	30	42%	39	54%	3	4%	**72**	0	0%	2	67%	1	33%	**3**
X	41	44%	51	55%	1	1%	**93**	3	60%	1	20%	1	20%	**5**
XI	28	57%	21	43%	0	0%	**49**	0	0%	5	100%	0	0%	**5**
XII	15	31%	33	67%	1	2%	**49**	3	75%	1	25%	0	0%	**4**
XIII	30	41%	43	59%	0	0%	**73**	3	60%	2	40%	0	0%	**5**
Total	**619**	**41%**	**830**	**55%**	**66**	**4%**	**1515**	**25**	**33%**	**43**	**57%**	**8**	**11%**	**76**

Note: BARMM is excluded from the monitoring activities of the DHSUD.

Source: DHSUD (2023).

3.3 Are there negative externalities and disamenities that indicate misgovernance of land uses?

It is not being argued here that negative externalities and disamenities in production and consumption activities related to land can be totally avoided when the NaLUA is enacted. Rather, the NaLUA can help avoid the occurrence of these.

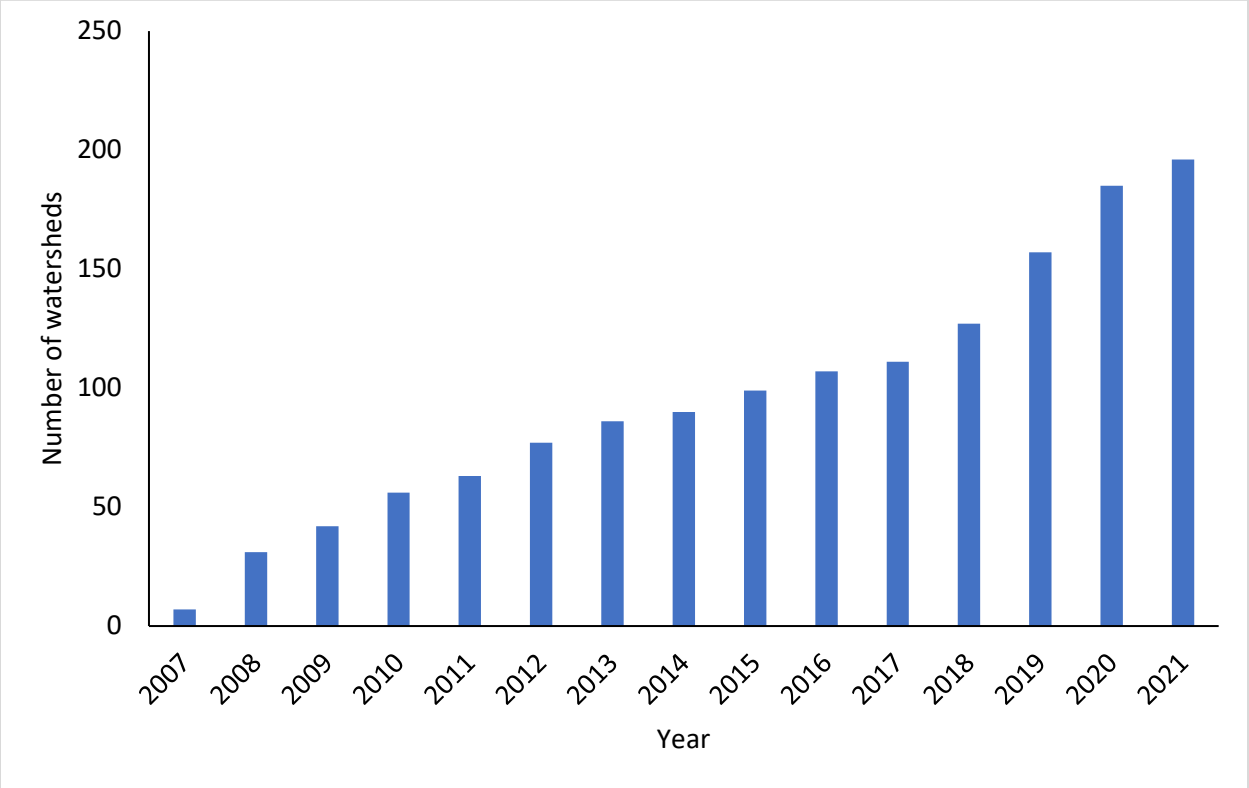
Evidences of environmental degradation demonstrate the negative externalities that arise from the production and consumption of forest products and watershed services. The increasing number of threatened wildlife species (Table 2) and the increasing number of watersheds assessed with identified hazards (Figures 4 and 5) suggest continued degradation of our forest lands and watersheds. These have adverse implications for ecological balance, food security, health security, disease prevention, and enjoyment by future generations of ecological services.

Table 2. Number of threatened wildlife species by status category, 2016-2022

Status category	Year						
	2016	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Critically endangered	126	206	206	239	239	239	239
Endangered	278	371	371	315	315	315	315
Vulnerable	260	490	490	846	846	846	846
Other threatened species	73	154	154	690	690	690	690
Total	**737**	**1,221**	**1,221**	**2,090**	**2,090**	**2,090**	**2,090**

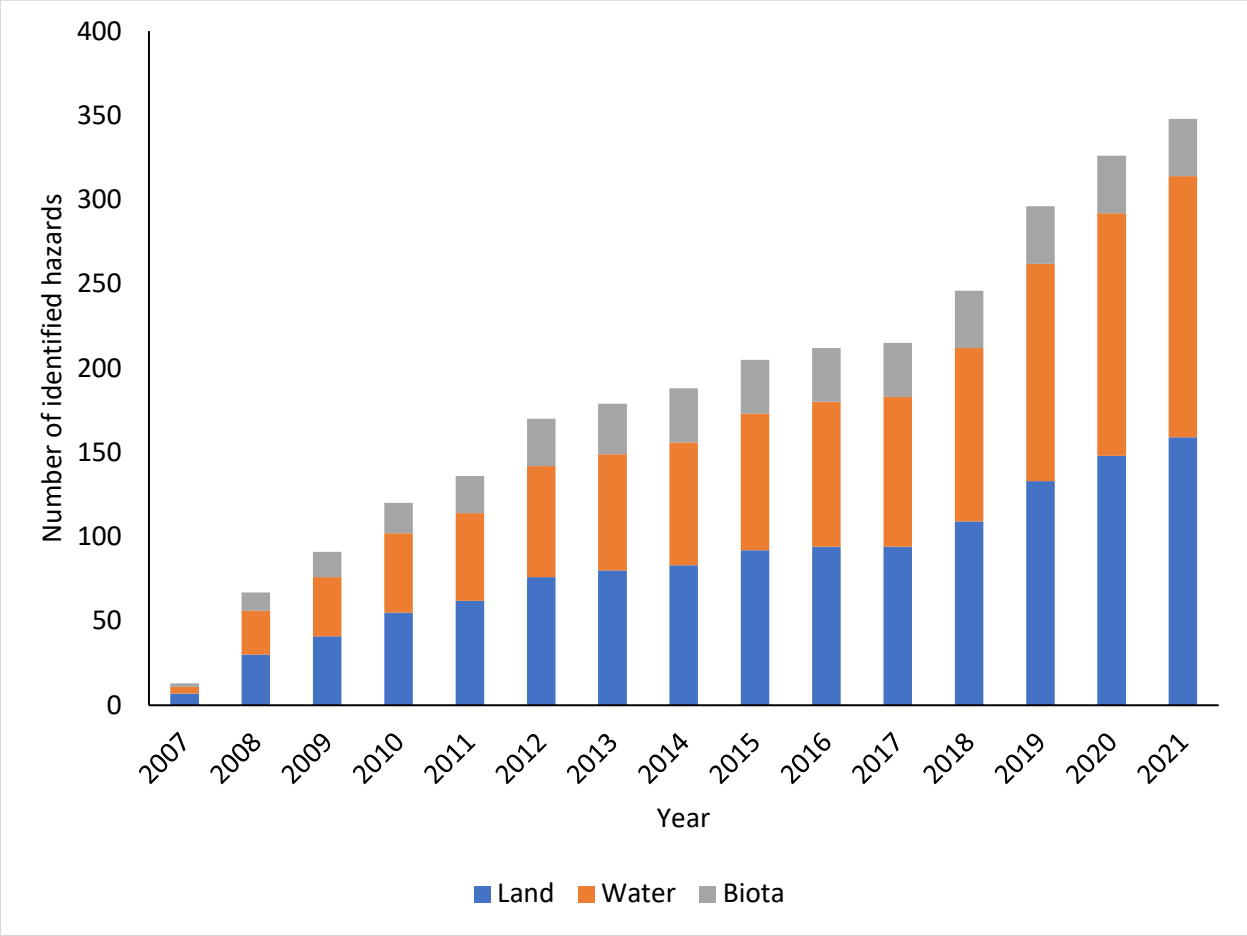
Source: PSA (2023a).

Figure 4. Number of watersheds assessed with identified hazards, 2007-2021



Source: PSA (2023a).

Figure 5. Identified hazards in watersheds per year, Philippines, 2007-2021



Note: A watershed may have more than one identified hazard. Land hazards refer to landslides, fires, soil erosion, and deforestation. Water hazards refer to flooding, water shortage, pollution, and siltation. Biota hazards refer to biodiversity losses.

Source: PSA (2023a).

Although a definitive mapping is yet to be made, observers note that many informal settlements are in unsafe and hazard-prone areas. The proliferation of informal settlements in hazard-prone areas perpetuates poverty, diminishes the country's human and social capital, raises climate change adaptation and mitigation costs.

Table 3. Number of households per tenure status of the housing unit, 2015 and 2020

Tenure status of the housing unit	Number of households	
	2015	2020
Own or owner-like possession of the house and lot	12,693,830	15,104,248
Own house rent lot	703,643	1,028,739
Own house rent-free lot with consent of owner	4,918,665	4,901,882

Tenure status of the housing unit	Number of households	
	2015	2020
Own house rent-free lot without consent of owner	462,304	542,363
Rent house/room including lot	2,770,276	2,859,106
Rent-free house and lot with consent of owner	1,349,584	1,734,387
Rent-free house and lot without consent of owner	67,447	59,826
Not Reported	2,884	144,102
Not Applicable	1,033	1,869
Total	**26,376,522**	**26,376,522**

Note: Housing units owned or rented without the consent of the owner are interpreted as roughly equivalent to informal settlements.

Source: PSA (2018a, 2023b).

3.4 Are land use conflicts affecting peace and development and cultural interactions?

Land use conflicts inside ancestral domains are affecting peace and development and cultural interactions. As of 2019, the National Commission on Indigenous Peoples had issued certificates of ancestral domain titles covering 5.7 million hectares. However, many of these claims are still being disputed due to overlaps with collective certificates of land ownership awards (CLOAs) issued by the DAR. The collective CLOAs are certificates of land ownership issued by the DAR to farmers' cooperatives, farmers' associations, and other organized groups of agrarian reform beneficiaries. It has also been difficult for indigenous peoples to plan the development of their ancestral domains because large tracts ancestral domain land have slopes 18 degrees and above. The right to develop the land then becomes contentious because based on the Forestry Code, land with slope 18 degrees and above are classified as forest lands and automatically belong to the state.

The monitoring of land and resource conflicts by the Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC) from January 2017 to June 2018 uncovered 352 land and resource conflict cases. The ANGOC used case monitoring as its primary research method and gathered data from six national government agencies, 10 civil society organizations, and 14 online or media sources. The largest number of documented cases is in Mindanao, where 208 cases (59 percent of the total) of land and resource conflicts occurred during the period of study. Luzon had 82 cases (23 percent) and Visayas had 62 cases (18 percent) (ANGOC 2019).

3.5 Are existing land uses optimal and bringing us closer to progress?

Changes in land use in the Philippines between 2015 and 2020, as shown by Table 4 below for broad categories, suggest a non-optimal utilization of land. Land cover that is considered barren increased significantly by 31.67 percent and land used for annual crops, perennial crops, and fishponds (that is, land used primarily for food production) declined by 2.86 percent, 0.16 percent and 3.16 percent, respectively. The area classified as inland water[4] declined by 3.69 percent,

[4] The DENR-Foreign Assisted and Special Projects Service (FASPS) defines inland water as "bodies of water surrounded by land (e.g., rivers, lakes, streams, mudflats, ponds or fishponds, dams, and reservoirs)" (DENR-FASPS 2023).

suggesting that some areas of these inland water bodies had been developed or reclaimed and became part of built-up areas. It is encouraging nevertheless that there had been increases in the areas considered closed forest, open forest, and mangrove forest.[5]

Table 4. Land cover classification (in hectares), 2015 and 2020

Classification	2015	2020	% change during the period
Closed Forest	2,028,015	2,221,173	**9.52%**
Open Forest	4,682,764	4,693,821	**0.24%**
Mangrove Forest	303,373	311,400	**2.65%**
Brush/Shrubs	6,034,586	5,804,487	**-3.81%**
Annual Crop	6,117,557	5,942,685	**-2.86%**
Perennial Crop	6,574,383	6,563,639	**-0.16%**
Fishpond	235,824	228,380	**-3.16%**
Built-up Area	852,021	1,035,174	**21.50%**
Barren Land	121,730	160,278	**31.67%**
Grassland	1,961,817	1,964,505	**0.14%**
Marshland	140,135	142,365	**1.59%**
Inland Water	511,136	492,269	**-3.69%**
Total	**29,563,341**	**29,560,177**	**-0.01%**

Source: PSA (2023a).

Data on farm parcels by main use show that total farm area declined and the average farm size got smaller from 2002 to 2012 (Table 5).[6] The area of farm parcels with temporary crops declined by 27.86 percent and the area of farm parcels with permanent crops declined by 20.54 percent. The total area of farm parcels declined by 24.81 percent. From an average size of 1.28 hectares per farm parcel in 2002, the average farm size declined to 0.92 hectare in 2012. This implies that having economies of scale and scope in farming is getting more difficult in the Philippines.

[5] The DENR-Forest Management Bureau (FMB) provides the following definitions:
closed forest - formations where trees in various storeys and undergrowth cover a high proportion (greater than 40 percent) of the ground and do not have a continuous dense grass layer. They are either managed or unmanaged forests, in advanced state of succession and may have been logged over one or more times, having kept their characteristics of forest stands, possibly with modified structure and composition.
open forest - formations with discontinuous tree layer with coverage of at least 10 percent and less than 40 percent. They are either managed or unmanaged forests, in initial state of succession. (DENR-FMB 2020).

[6] The latest available are 2012 data because the 2022 Census of Agriculture and Fisheries had just been conducted and the results were still being processed at the time of writing.

Table 5. Farm parcels by main use, 2002 and 2012

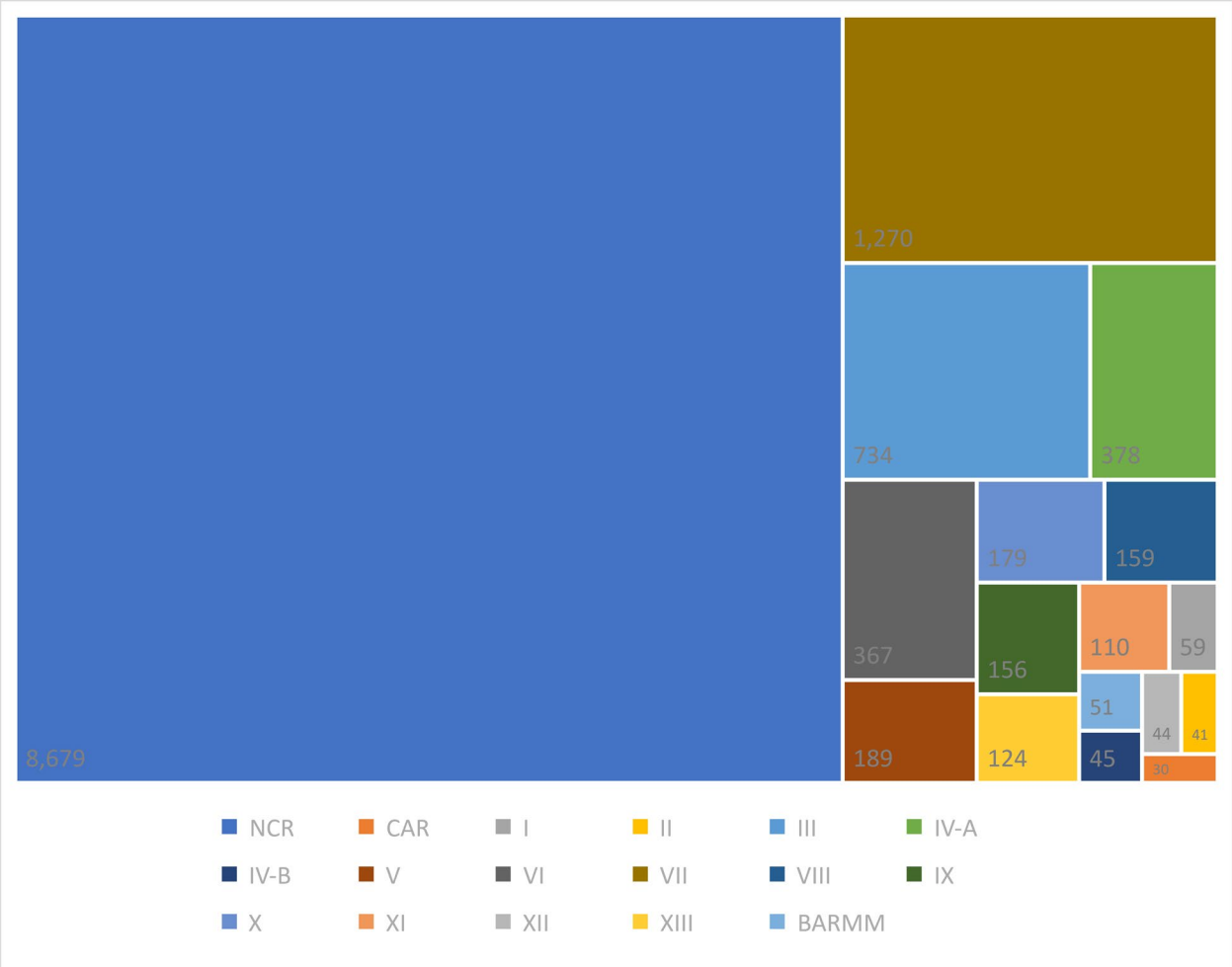
Main use	Farm parcels					Average size of farm parcel (hectares per farm)	
	2002		2012		% change in area		
	Number	Area (hectares)	Number	Area (hectares)		2002	2012
Under temporary crops	3,242,885	4,815,938	3,832,329	3,474,036	-27.86%	1.49	0.80
Under permanent crops	1,704,671	4,225,393	1,801,683	3,357,486	-20.54%	2.48	0.43
Idle lands	50,514	119,641	19,327	31,270	-73.86%	2.37	0.16
Under permanent meadows and pastures	14,595	129,278	4,893	50,396	-61.02%	8.86	0.04
Covered with wood and forest	19,026	73,865	6,874	44,514	-39.74%	3.88	0.09
Others	2,543,224	268,542	2,232,265	313,743	16.83%	0.11	8.31
Total	**7,574,915**	**9,670,793**	**7,897,371**	**7,271,446**	-24.81%	1.28	0.92

Notes: "Idle lands" refers to lands that are temporarily fallow (farms purposely allowed to stay idle for a period of at least one year to at most five years in order to recover their fertility) and lands that are temporarily used as meadows/pasture lands (lands purposely used for temporary grazing of animals for a period of five years or less). "Others" refers to farm parcels that are used for livestock and poultry grazing, aquaculture, and homelots, among others.

Source: PSA (2018b, 2020).

The irony is that the sub-optimal utilization of land is happening alongside stark manifestations of unmet basic need for land, such as socialized housing for the homeless. Figure 6 shows that as of 2020, there were 12,615 homeless Filipinos and many of them (69 percent) are in the National Capital Region.

Figure 6. Population (number of individuals) enumerated as homeless by region, 2020



Source: PSA (2023b).

3.6 Is legislating land use governance at the national level the norm in other countries?

As early as 1983, the Food and Agriculture Organization (FAO) of the United Nations recognized the role of legislation in land use planning for developing countries. An expert group of the FAO particularly advised that "Appropriate legislation should be developed for the purpose of providing clearly stated land use policies and objectives; creating suitable land use planning institutions; requiring the use of sound planning procedures and techniques; promoting the development of a consensus about land use and encouraging a practical monitoring and enforcement mechanism..." (Wilkinson 1985, p. iii).

That land use governance through a national law is being practiced can be gleaned from models in other countries. For example, Organisation for Economic Co-operation and Development (OECD) compiled country fact sheets showing that there are national governments that adopt framework legislation in order to structure their spatial planning systems (OECD 2017). A hierarchical spatial planning system can be formally organized if every level of government prepares at least one such plan that provides legally binding regulations for lower levels of government. In such structured planning systems, every level of government that is involved in the preparation of plans has the power to issue binding guidelines or regulations to lower level of governments. Based on the land use studies of the OECD, there are national governments that adopt a framework legislation that structures the planning system in this manner.

4. Policy insights and recommendations

The effort to enact a NaLUA is almost three decades old already. In June 1994, during the 9th Congress, the NEDA formulated a draft "National Land Use Code"[7] following the instruction of then President Fidel Ramos to formulate a legal mandate for the National Framework for Physical Planning, the country's first comprehensive framework for long-term spatial planning. The bill did not progress in the 9th Congress but it was passed as a proposed National Land Use Act by the House of Representatives through House Bill 9147 in the 10th Congress (Kelly 1998). From the 10th to the most recent 18th Congress, various versions of the NaLUA bill had been subjected to deliberations but failed to pass the hurdles at the legislative mill. This study establishes that, to strengthen the push to enact a NaLUA, advocates need to employ a transdisciplinary approach and deepen through updated data and evidences the appreciation by policymakers and stakeholders of the arguments for having this legislation. The review of the theoretical foundations for land use analysis and assessment of data and evidences on conflicting land uses, land use misgovernance, and inadequacies of existing mechanisms for dealing with land use problems in previous sections of this study bolster the case for having a NaLUA. The results of the focus group discussions and key informant interviews with various stakeholders (see the Appendix) also confirm the study's findings.

Going forward, this study recommends that advocates for the NaLUA enactment do the following:

- Employ a transdisciplinary approach in explaining land uses and land use changes and arguing for reforms in land use planning and governance;
- Employ evidence-based arguments for the need to have a national-level legislation on land use;
- Argue that issues raised in the past can be satisfactorily answered[8] and the Congress (both the House of Representatives and the Senate) just needs to open the deliberations on the issues;

[7] Note that recommended bills can be initiated in the executive branch of government and legislators can be requested to sponsor the bills.

[8] For example, the housing sector's objection in the past is that the penal provisions overly focused on the treatment of violations as crimes rather than commensurate penalties for violations of the optimal utilization of the land. But the focus group discussion conducted for this study revealed that the latest House bill on NaLUA has already resolved this.

- Lay down a proposal for upgrading the technical capacity of LGUs in formulating, updating and implementing CLUPs and PDFPs given that the level of LGUs' understanding of land use planning will matter for the implementation of the NaLUA should it be finally enacted;
- Argue that LGU powers need not be diminished and the NaLUA can in fact do the reverse—empower them through rational policies and standards that can make the utilization of land within their boundaries more optimal;
- Form a stronger advocacy by with the participation of all stakeholders, including local governments, the business sector, and civil society.

Many decisions on the allocation and enjoyment of use or developmental rights related to land resources have far reaching consequences for industrial productivity, food security, settlements safety, environment protection, public health, and indigenous people's rights. Conflicts arise when a decision in one sector harms other sectors. In the Philippines, the pressing concern is to minimize land use conflicts. In other countries, such as those in the OECD region, land use governance laws are touted as tools to transform land into high productivity, efficient, and innovative areas. Having national level land use governance policies and ensuring that these are implemented through an institutional mechanism with powers greater than that of the NEDA Board-NLUC can help resolve land use conflicts in the country. In addition, it can support greater and sustainable value addition in the economy through land use optimization. Should the NaLUA be enacted, the potential short- to medium-term impacts are the orderly settlement of the years-old land use conflicts and the prevention or minimization of future conflicts, and the potential medium- to long-term impacts are higher productivity and sustainable socio-economic development.

Appendix - Issues raised by Focus Group Discussion and Key Informant Interview participants

Dates of Focus Group Discussion and Key Informant Interviews: October 5, 10, and 23, 2023

Key questions for discussion:

(a) *Has your agency/organization encountered land use issues/concerns that you think may be addressed by legislating a National Land Use Act (NaLUA)? What are those?*

(b) *What is your opinion on/understanding of the reasons why the Congress, despite repeated submissions of House Bills and Senate Bills on NaLUA in almost three decades, failed to enact such legislation?*

A. Land use issues or concerns

A.1 Responses from government agencies

- Illegal land use conversion: Lands surrounding road projects are converted from agricultural land to residential or commercial land.

- Right-of-way (ROW) acquisition issues: Despite alignment with comprehensive land use plans (CLUPs), ROW issues still arise, so the road projects are realigned again to deal with these issues.

- Overlapping claims: Land conflicts exist between and among indigenous peoples, agrarian reform beneficiaries, forest areas not yet legislated as national parks, and others. Forest land use plans are not yet integrated with CLUPs.

- Degradation of forest lands and watersheds: The NaLUA will help designate forest areas for protection, production, and settlements. The NaLUA will also integrate the compatible uses of forest land.

- Overlapping legal bases for land use: Land conflicts remain unresolved due to incompatible but equal mandates for the use of land in certain sites. The current institutional body, the NEDA Board-National Land Use Committee NLUC, often cannot deal with site-specific matters as these require judicial processes instead. Some Regional Land Use Committees (RLUCs) create institutional arrangements to help resolve competing legal bases (e.g., NEDA Region X experience).

- Weak land use planning: Only 38% of all local government units have updated CLUPs.

- Urban congestion: Economic losses due to traffic congestion exist because of the sub-optimal allocation of land.

- Informal settlements: These exist due to the improper use of land.

- Coordination problems: Plans are not aligned with each other, and at the local level, local government units (LGUs) often have to readjust their local plans when suddenly confronted with national infrastructure projects that are implemented in their jurisdictions.

- Lack of control: Under the current framework, a truly national level and integrated regulation for land use is not possible. The Department of Human Settlements and Urban Development (DHSUD) as regulator can only regulate separate and unrelated CLUPs of LGUs.

- Insufficient capacity at the local level: The NaLUA will help address the inadequacies in land use planning at the local level due to insufficient technical capacity of LGU officers, as long as the law that will be eventually passed will provide institutional support to LGUs.

- Disconnect between agricultural land use conversion and land reclassification: Conflicting and separate processes and mandates related to these two activities create problems and cause land conflicts.

A.2 Responses from civil society groups

- Displacement: Due to land reclamation in fisherfolk areas, the fisherfolk become displaced. There is also a lack of effective settlement in areas where they catch fishes.

- Lack of meaningful participation: When recommendations by organized fisherfolk in lower level consultations are brought up to higher levels, these are not taken into account.

- Anticipation of impact of offshore wind energy projects: The siting of offshore wind energy projects is concerning for fisherfolk because their livelihood might be affected.

- Agricultural land conversion: This has been happening in Central Luzon, specifically in Bulacan, where agricultural lands are being converted to land for human settlements.

- Lack of mechanism to monitor land use conversion: Mechanisms to monitor the conversion and assess if all kinds of conversion should occur are lacking.

- Indiscriminate land use conversion: We can see this happening on the ground but the Department of Agrarian Reform does not have data on the conversion of agricultural lands. The NaLUA would enable mechanisms to protect prime agricultural lands.

- Ancestral domain development plans are not integrated into the CLUPs.

- Conflict between housing and food security: The suboptimal uses of land create conflicts between housing and agriculture.

- Lack of long-term planning

- Gap in land use policies: There is no policy that would effectively address multiple uses of land.

- Conflicting land use policies: Given the absence of the NaLUA, different land use policies with different mandates are in conflict with each other. The NaLUA should harmonize and resolve these differences.

- Overlapping land claims: These create horizontal conflicts between farmers and indigenous peoples. There have also been cases where forest areas and watersheds are overlapping with ancestral domains. There are also conflicts in terms of land uses.

- Encroachment of settlements in mangroves and forests: Areas for protection and conservation are exploited by human settlements, risking the environment and biodiversity in the process.

- Degradation of environment: Mangroves and watersheds are degraded due to encroachment of unsustainable land uses, such as watersheds that are categorized as "for protection" but are being used for business activities and settlement.

- Peace and order problem: Land conflicts create opportunities for support for rebellion from extremists.

A.3 Responses from the business sector

- Suboptimal uses of land: Many of the lands in the Philippines are still idle, at least according to the socialized housing sector's assessment in 2018, and the converted agricultural lands are miniscule compared to the idle lands.

- Access to land for settlement activities: There is limited land to address the burgeoning housing need. Other government-owned lands and idle lands can be utilized for housing and settlement activities.

- Absence of national land use framework on urban and regional development which can guide both the government and the private sector in planning, development and location of their projects and developments

- The CLUPs of the LGUs are not updated: The Government must ensure that cities and municipalities have prepared and updated their respective CLUPs Comprehensive Land Use Plans which will be the basis for areas of development. Of the total 1,600 cities and municipalities, only a handful (around 700) have updated CLUPs.

- Land use considerations in the incentives for private sector participation in housing activities: The housing sector is included in the strategic investment program of the government through the Department of Trade and Industry-Board of Investments. Land

use policies must consider this. Moreover, the permitting process must be simplified and the ease of doing business law must be followed.

- Land use considerations in the implementation of green, resilient, and innovative housing: This is to respond to the current challenges on climate change, the COVID-19 pandemic, and emerging environmental concerns and issues. The available technology and innovative construction techniques and materials have to be harnessed, embraced, and utilized.

B. Why Congress failed to enact a NaLUA

B.1 Responses from government agencies

- The political opposition of certain legislators: Their personal interests affect their support for the NaLUA.

- Low-level conflicts among agencies: They cannot agree on certain issues, such as consolidated mapping activities.

- Appeal to emotions of legislators instead of using facts: Evidence could help rationally inform legislators about the benefits of the NaLUA, and being confrontational has not necessarily helped in the past.

- The existence of contentious issues: For example, the land use conversion and zoning provisions of previous bills, where certain stakeholders have mandates that they are trying to protect.

- Fear of LGUs that their powers may be diminished: There were LGUs that feared that they might relinquish land control to the national government if the NaLUA is passed. However, that is not the case as the NaLUA only harmonizes and resolves conflicting allocations of land. The standards created by the NaLUA would empower LGUs to create the plans they want to implement.

- It appears it is not really a priority legislation of previous Congresses despite being a priority measure of past presidents.

- Concerns from stakeholders and legislators: These stalled the passage since there are mandates and interests that the bill would affect. We need a champion legislator, someone who can continuously address all of those concerns. A champion legislator would help the passage of the bill.

B.2 Responses from civil society groups

- Conflict of interest of politicians.
- Vested personal interests of decision-makers.
- Contentious issues, such as questions of how lands should actually be allocated with respect to competing interests.
- Nuances of conservation as development not well appreciated: Conservation activities are not necessarily infringing on development. We can reframe conservation as necessary for and contributory to development. There is no need for "economy vs. environment" perspectives, which has stalled the passage in the past.

B.3 Responses from the business sector

- Touching on agrarian reform provisions: Including agrarian reform issues in the bill opened a different area of debate and stalled the passage of the bill despite not being an essential component of the legislation.
- Opposition to penal provisions: Real estate developers opposed these in the past and they have raised concerns regarding these.
- The members of Congress are among the land-owning segment of the population. They would want to have direct influence and control in the use of their land and properties.
- The government had pressing priorities on the economy, food sufficiency, increasing income and production, education, and other basic concerns, such dealing with these priorities resulted in the situation that the most important land use legislation was relegated to the side.
- The legislative process in the Philippines is slow, consultative, and tedious.

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