The Role of Property Rights and Capabilities in the Promotion of Socially Sustainable Development

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Introduction

The role of property rights has been given an interesting treatment in the capability approach literature. On the one hand, it has been acknowledged that property rights are important in the promotion of economic capabilities. On the other, it has been argued that property rights are not sacrosanct and that they can be violated if promoting a better and fairer distribution of capabilities (Sen 1999). Given the constant emphasis on the role of property rights in the promotion of economic growth (WDR 2002), it is a matter of interest to examine the role of property rights in the fostering of development –understood as a process of expansion of capabilities.

With this purpose, this paper provides an overview of the historical path of the legal frameworks governing property rights issues in the Cordillera region of the northern Philippines. First, a case study in the Cordillera Administrative Region (CAR) is presented, followed by the justification for this particular case study. Secondly, the historical development of relevant legal frameworks is considered, which, in our case, also encompass the customary laws of several Cordilleran indigenous communities. The contrast between their statutes and customary laws highlights the role of property rights in the fostering of "agency" and "autonomy" of these communities. Finally, the paper will also address the problems of conflicting states of property, and the likely evolutionary path these communities may choose in terms of property rights. This is discussed also in connection to environmental consequences and agricultural commercialisation. By doing so, the paper aims to explore key characteristics of the capability approach, which are, the issue of adaptive preferences, the argument that resources are imperfect indicators of well-being; the links between justice and efficiency and the plurality of dimensions in the assessment of human well-being. Most importantly, perhaps, the paper explores the sustainability dimension of the capability approach.

I. Property Rights and Capabilities

The recent trend in both academic and practical development sphere sees a fair sprinkles of favourite jargons of "traditional," "indigenous," "communal," in resource management systems. Whilst these jargons do not signify the same things, they are often used together especially in the developing country contexts where traditional indigenous techniques or knowledge are used for the management of common property resources. The importance of the so-called "traditional/indigenous" property rights structure and the resource management systems of the indigenous people of the Cordillera in Northern Luzon, should be acknowledged here.

One might consider *prima facie* that these jargons are of no interest to the capabilities literature, since capabilities are formally defined as properties of individuals (Sen 1980. 1985a, 1985b, 1992 and 1999). However, it is important to remark that Sen has constantly stressed the importance of social factors in the characterisation of capabilities. By applying the concept of property rights here, we investigate the

prevailing state of different institutional structures in the region, which enables different individuals to pursue and express their particular capabilities.

The understanding of indigenous property systems and the consideration of their possible future directions would be critical to the promotion of realistic and effective sustainable upland/forest management policies. We use here the concept of sustainability as an expression of *intertemporal capability*, that is, as an expression of agency and autonomy of individuals over the intertemporal management of resources. Because communities, property rights and resource management practices are not static, but are subject to continuous evolution, resource policies need to be compatible with the evolutionary path of property systems and perceived value systems that characterise people's capabilities.

It is important to note that an evaluational exercise must consider the traditional customary rights, authoritative mechanism and farming practices from a wider and "critical informational perspective." Should those rights, mechanisms and practices become no longer viable at some point in the future, given changing circumstances such as population pressure, technological change, increasing commercialisation, we could argue that ultimately it is the importance of changing values that should be taken into account. Indeed, the thrust toward modernisation and commoditisation of land is observed, despite some feelings of resistance and resentment heard from some community people. This might well reflect the issue of adaptive preferences, as discussed by Nussbaum (2000, chapter 2).

There have been limited empirical studies analysing the function of property rights in detail with regards to natural resource management and the expansion of capabilities. The analysis on the property rights evolution is expected to elucidate the rationale behind the customary law vis-à-vis the national law and their possible economic and environmental effects; it also helps predicting their likely future paths, giving some indications of the future perspectives in the promotion of socially sustainable development.

II. Cast Study Justification: the Relevance of Cordillera Administrative Region

Our case study focuses on one region in the Philippines, the Cordillera Administrative Region (CAR) in Northern Luzon for two main reasons. This region is important, first, due to its natural environment situation and its national political significance. Secondly, the region is of interest for its diversity of property rights systems, which affect the way in which individuals manage natural resources and convert those resources into capabilities. Due to the steep slopes and relatively fragile upland environment, farming practices typically require environmental measures to prevent the negative environmental consequences. However, as a result of increasing conflicts over resources, especially lands, due to the increasing population pressure, and expansion of agricultural activities, there has been a reduction in the extent and density of the forest cover in the region and a conversion of increasingly steeper lands into agriculture. The increasing rates of soil loss and erosion have reduced water

availability in local irrigation systems. Thus, as a result of conflicting capabilities, the natural environment situation has become unsustainable, affecting in the following moment, the farmer's economic capabilities. Since the region forms the upper watershed for most of Northern Luzon's river, the forest and related resource management of the area is vital. The environmental externality effects of their agricultural activities are also critical. In addition, since most of the households in the region live below poverty, and most of the communities have only poorly developed transportation and marketing infrastructure, it is important to decide on the necessary information for policy recommendation, especially in consideration of 'sustainable development' and expansion of substantive freedoms.

The region mainly consists of indigenous cultural communities (ICCs),[2] which are predominantly agricultural and can typically be placed somewhere along the continuum of subsistence-based rice production and commercially-oriented vegetable production communities, with varying perception of customary laws, economic orientations and natural resource management practices. These characteristics affect what Sen has named (1999: 70) "environmental diversities" and "variations in the social climate." Environmental diversities refer to conditions, such as those described above, that can influence the capabilities that a person gets out of their resources. Variations in the social climate are more specific to the social conditions, including the nature of the community relationships.

Eighty percent of the land in the CAR is above 18 degrees slope, most of which are *du jure* defined as forest lands, yet *de facto* agricultural lands. Accordingly, whilst some residents possess former titles, the majority occupy the land through sanctions by the customary law, by tax declaration, or by the mere virtue of physical occupancy. There exist conflicting statutes, as well as indigenous customary laws. The diversity and uncertainty pertaining to the property rights issues, together with the diversity in resource management practices and other socio-cultural-economic factors allow us to have a wide source of variation in capabilities. This enables us to analyse the linkages between property rights and resource management incentives, and to predict an *evolutionary capability path*.

III. Historical Account of Property Rights in the Philippines: Pro-State vs. Pro-ICC Statutes

III.1 An Overview

In the Philippines there are fundamental legal problems which must be resolved in order to conduct effective resource management policies. The national land law of the Philippines, which carries the

[2] The term indigenous cultural communities (ICCs), as used in the Philippines, refers to communities and social groups that have cultural and social identity distinct from the dominant Filipino society. They are regarded as homogenous societies – though this is not necessarily true - with communal bonds and distinct cultural traits, being historically differentiated from the majority of Filipinos (Asian Development Bank, 1994, 1995: 59-60).

colonial heritage, designates the lands above 18 percent slopes as the public lands under jurisdiction of the Department of Environment and Natural Resources (DENR). Public lands are categorised into two categories, 'alienable and disposable agricultural (A&D) lands' which can be privately owned, and 'inalienable forest lands' which cannot be privately owned, although individuals and corporations may acquire restricted rights through grants, leases and other state prescribed procedures (Prill-Brett 1993: 22).

Most of the indigenous communities reside within the classified 'forest lands,' which makes them susceptible to accusations of being illegal occupants or squatters despite their history of ancestral residency.[3] The majority of inhabitants yet seem to consider that they own their land, even without any paper title. This can be due to the fact that there has been a relatively small threat to their lands from in-migrants and other interest parties compared to other parts of the Philippines -substantiated by the established indigenous authoritative structures which enables their inhabitants to continue the control of their lands and other resources. From this perspective, the economic capabilities of the inhabitants would not be affected, since their autonomy in the management of the resources would not be undermined. Nevertheless, there have been large projects and policies which have attempted to dispossess some communities of their land rights without proper compensation, and there have been increasing incidents of land conflicts at various levels. The occurrence of such incidents can largely be ascribed to the confused legal system of ownership with contradicting statutes/policies. This raises a special issue of negative freedoms that is usually not addressed when capabilities are seen exclusively as an expression of positive freedoms. In other words, capabilities could be materialised into contradicting statutes and policies. They are manifested as an outcome of historical processes –as we present below.

III.2 A Review of State Statutes and State Failure

The forest and agricultural lands of the Cordilleran indigenous communities, especially of central regions was relatively undisturbed due to the physical distance and inaccessibility during the periods of the Spanish and the American colonisation, despite the issue of land laws and state policies regulating resource use and management. The Spanish colonial administration (1571-1898) nonetheless provided the most significant landmark, the Regalian Doctrine, which stipulated that all lands were owned by the Spanish Crown unless the King of Spain granted ownership to individuals or groups. The principle of this doctrine has governed the land tenure and continued to be so until the present, asserting that all lands in the Philippines belong to the State.[4]

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[3] According to Rood et al. (1994) and Prill-Brett (1988, 1993), the inhabitants of Cordillera are considered 'squatters' by the effect of national laws. Prill-Brett also claims that there has been a misconception that there is no concept of ownership or communal land ownership in the Cordillera. In the field survey, however, the "squatter" concept seemed to be applied to only those who currently migrated to the national park areas.

[4] Although Spanish laws did recognise indigenous land rights (Law of the Indies), the indigenous communities in the lowlands

The subsequent American colonial administration (1899-1946) issued the pro-state land and resource laws/policies, adopting the Doctrine. Private rights, called *Torrens* titles, were required for all land property as proof of land ownership, which were acquired through grants, purchase, and/or other forms of transfer which were recognised and covered by the state laws. The rests were declared as public lands under the state ownership and administration, within which most uplands of Cordillera fell. After the *Torrens* title of 1902, the Public Land Act of 1918 provided for the claiming and registration of lands through a free patent system, although metal and mineral deposits and timberlands were precluded as the state property. In 1929, through Proclamation No.217, the Central Cordillera Forest Reserve we created, covering 81.8% of the land area of Cordillera. In 1940, Proclamation No.634 created the Mount Data National Park, covering 5,513 hectares. The principle of the Regalian Doctrine continued to serve as the bases for Philippine laws which basically required the land to first be certified as A&D, then covered by some kind of formal title, in order for an ownership to the land to be recognised (Rood et al. 1994).

The non-indigenous parties' interests over the "ancestral domain" grew sharply after the World War II, especially over the Baguio region, which had become the summer capital of the Philippine government during early 1900. The interests over forestlands and mineral resources were also high in order to promote timber exports, plantation industries, dam projects, mining projects, resettlement scheme for landless lowlanders, etc. (see Prill-Brett 1992, 1993: 2). Indeed the most infamous attempts to eject indigenous people from their land without proper compensation are probably the development of Baguio City, the Cellophil project and the Chico River Dam project (see below).

On the opposite side, one of the most famous, landmark decision challenging the Regalian Doctrine is the Cariño Doctrine, is the decision made in the U.S. Supreme Court in 1909, over the land disputes between the indigenous Cariño family and the colonial government. Its ruling was based on the idea that land which "has been held under a claim of private ownership" since time immemorial is presumed "never to have been public land" (Justice Oliver Wendell Holmes). This decision has never been overturned and has been invoked in many cases regarding land registration of ancestral property. Lynch (1986: 381) informs us that the validity of the time immemorial presumption has been reiterated at least six times by the Philippine Supreme Court. By doing so, a path dependence was created through which indigenous people were fighting over the control of their resources. Capabilities, from this perspective, were not simply part of a "reflective exercise", as suggested by Sen (1987: 7), but they were actually part of a process of legal struggle for the autonomy of a people. This struggle has led to some contradictory legal arrangements.

The Philippine Government, which took over the American Administration after the WWII has issued

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were effectively disenfranchised of their lands (Prill-Brett 1988:8, 1993:1). According to Lynch (1986: 270), the Regalian Doctrine has rarely been challenged despite the existence of contrary laws (Prill-Brett 1993: 2).

contradictory statutes of two branches; the ones reflecting the interests of the state and the ones of indigenous communities.[5] The most notable pro-state statutes of the post colonial period were the Presidential Decree (P.D.) 389 (Forest Reform Code of 1974) and the P.D. 705 (Revised Forestry Code of 1975), which declared that all lands of the public domain with 18% in slope or above as permanent forests or forest reserves. Thus, they could not be classified as A&D for agriculture and settlement purposes. Those lands previously classified as A&D but not yet titled were reverted to the public forest category. The disreputable P.D. 1559 (Eject Amendment to the Revised Code of 1978) declared that "tribal Filipinos - *kaingeros* (slash-and-burn swiddeners), squatters, cultural minorities - and other occupants of public forest or unclassified public land should (whenever the best land use of the area so demands as determined by the Bureau of Forestry Development Director) be ejected and relocated to the nearest government resettlement area" (Rood et al. 1994: 4; Prill-Brett 1988: 8). These laws equipped the government to carry out projects of their interests in contradiction of their own "non-alienable forest reserves designation," such as the Cellophil project of and the Chico River Dam project.[6]

The post-colonial period not only saw pro-state policies but also pro-indigenous ones that could be considered favourable to the indigenous communities (see Rood et al. 1994 for a list). The recognition of indigenous people's property rights over their ancestral domain was achieved in the 1987 Constitution, which can be considered as the Philippine state's legal confirmation of the Cariño Doctrine in 1909.[7] The importance of this legal confirmation could not be underestimated. As Nussbaum (1999) argues, it is often through laws and institutions that inequalities and injustices are constructed and perpetuated. It was thus important that those legal guarantees were put in place because they would enable the indigenous communities to, as Nussbaum (1999: 19) would put it, to "create a framework within which people can develop and exercise agency".

The pro-indigenous laws were generally rules for granting titles over "public" lands or the A&D lands of the public domain which had been resided and cultivated since at least around the end of the Second World War 1945/46, issued either as P.D., Republic Acts (R.A.), or DENR Administrative Order (A.O.).

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[5] Rood and Casambre (1994) provide concise lists of these categorised laws.

[6] The Cellophil Resources Corporation and its sister company were awarded a timber and pulpwood license agreement covering 99,565 hectares and 99,230 hectares, respectively in 1973 and 1974, by the Department of Agriculture and Natural Resources (DANR). The areas were inhabited by approximately 145 000 people. The Chico River Dam project was proposed by the National Power Corporation in 1974, although the plans never got off the ground and suspended by the Aquino government in 1986 due to the persistent opposition by the local people.

[7] "Ancestral domain is a concept applied to the territory occupied and recognized by an indigenous group since time immemorial, long before the existence of the Philippine Republic. The concept of ancestral domain includes (a) the indigenous people's right to avail of direct benefits derived from the exploitation of resources within its territories and (b) the right to directly decide how land, water and other resources will be allocated, used, or managed. These are included in the indigenous tenurial laws" (Prill-Brett 1988: 1).

The public land area included the Mount Data National Park and Central Cordillera Forest Reserve, Executive Order (E.O.) 180 of 1950, which required the title applicants to terrace their lands and undertake erosion preventive measures. Some of the issued statutes provided an automatic acquisition of private title suitable for agricultural purpose (R.A. 3872 of 1964), whilst other provided the land with a recognition as an A&D land, granting "Land Occupancy Certificates," that could then be used in applications for free patents (P.D. 410 - Ancestral Land Decree of 1974), or for the authorisation of the reclassification of lands of 18% and above slopes (P.D. 1998 of 1985). The Bureau of Forestry A.O. 11 of 1970 and the P.D. 1414 of 1978 prohibited granting of forest concessions in indigenous territories. It should be noted, however, that some areas/provinces were excluded from the application of these statutes.

One of the most recent developments can be considered as the recognition of the lands as "ancestral lands and ancestral domain" (DENR A.O. 2 of 1993), although its practicality and effectiveness is highly questionable. Under this A.O., the DENR issued a "Certificate of Ancestral Domain Claim (CADC)" to communities, and a "Certificate of Ancestral Land Claim (CALC)" to individuals' lands within the community's domain. In an effort to strengthen the legal force of these certificates, which were not titles but the government's official recognition that a claim has been made, an agreement was made with the Department of Agrarian Reform (DAR) to issue "Certificates of Land Ownership Awards (CLOA)," targeted toward agricultural lands (Rood 1995: 9).

Following the Indigenous Peoples Rights Act (IPRA) passed in 1997, in protection and promotion of ICCs, the National Commission on Indigenous Peoples (NCIP) was created in order to "formulate and implement policies, plans, and programs for the development of indigenous cultural communities and indigenous peoples and to review the applications for ancestral land titling, the issuance of certificates of these titles, and the adjudication of disagreements regarding land ownership." However, the consitutionality of IPRA has been challenged, and the matter is yet to be settled. Meanwhile, there has been no issuance of ancestral land or domain title. There have been ample cases of mother CLOAs awarded to the communities, yet not individualised. Whilst some scholars argue for granting the authority to the communities to carry on their indigenous/traditional land management systems, which is in vein of current academic trend of "common property resource management" scheme, the adoption of such ancestral domain concepts may have little significance on their actual land holdings.[8] The viability of such scheme is uncertain especially if the evolutionary path is toward state sanctioned private property rights, with the decreasing or changing functions of indigenous authoritative institutions.

[8] Of the surveyed communities, the barangay captain of Mapawoy of Ifugao Province reported that their land was or would be covered by the ancestral domain scheme, yet no apparent effect would be seen. The majority of farmers in the survey had little, if any, knowledge about the scheme. These same scholars (Rood, Casambre, Prill-Brett, and others) argue for the prior writhes of indigenous people to be recognised, before any laws and that these government policy conflict with the already existing rightful property rights of indigenous people.

Thus seen, the contradictory states of property rights still persist not only between the Constitution and the National Land Laws, but amongst various statutes/policies being issued by different agencies. The involvement of chief agencies with divergent mandates and overlapping jurisdictions poses problems: the DENR is concerned with sustainability, by conserving and protecting the natural resources of the land from unwarranted exploitations; the DAR is concerned with productivity, through the redistribution of resources for purposes of exploitation (Cruz et al. undated: 421). At the end, the main issue here seems to be about the legal aspects involved in the practicalities of society's valuational exercise (Sen 1987, 1999). But rather than simply seen as constraints to individual choice, these practicalities are actually the outcome of divergent values in society internalised by different chief agencies and their mandates. One way of solving these divergences, as seen above (issuance of CLOA), is through the creation of a sphere of "consensus" by merging efforts through a Memorandum of Agreement (MOA) between the two agencies for jointly administering the land related policies, especially those of ancestral land claims and titles. The role of Local Government Unit (LGU) in land policy implementation and land use classification is also to be determined. However, even the cadastral survey is far from being complete, given the existing incomplete, non-standardised and often outdated maps and records scattered amongst different governmental agencies. Even community boundaries are still generally ambiguous, and this further complicates and delays the land registration procedure. The limited capability of the relevant departments mainly due to their limited budget allocation, and overlapping departmental jurisdictions, are clearly ones of the reasons for the continuing difficulty of achieving this consensual position regarding the state of property rights.

A more upstream issue of political power play has also been identified by scholars, international agencies and the media. At the root of such confusing state seems to be the state's unwillingness to judge upon their recognition of the indigenous people's *prima occupanti* rights to the land on one hand, and the setting aside of uplands for forest reserves under the state jurisdiction on the other hand. The problem of unclear property rights and delineation due to the government failure and bureaucratic incapacity can jeopardise other efforts for sustainable development and environmental management, such as limited participation in social/communal forestry programmes due to mistrusts between the people and the DAR and DENR personnel, arising from land titling issues (Rood et al. 1994). There are, however, cases reported that some inhabitants use these reforestation contracts issued by the DENR to establish their private claims on communal lands applying the customary law of permanent improvements (see Rood 1995: 9).

Clearly, an important point can be missed when property rights are seen exclusively in terms of individual rights. The justification for the evaluation of some property rights can be collective. The

state's incapacity of balancing diverging interests is not only a matter of technical difficulty in the delineation of lands, but also an expression of the lack of social consensus in the distribution of diverse rights. As a result, local people, the main beneficiaries of the programmes, don't see these initiatives as their own. Traditions and their laws should be considered as crucial in shaping people's capabilities, although such factors are not to be regarded as static but evolutionary in their nature.

III.3 The Use of Resources and the Indigenous Customary Laws on Land[10]

Sen (1992, 1999) has noted that to assess people's well-being we should take into account a number of contingent circumstances. They are (Sen 1999: 70-71), "personal heterogeneities, environmental diversities, variations in social climate, differences in relational perspectives and distribution within the family." These circumstances categorise the fact that we should not limit the assessment of people's well-being and freedom to their ability to earn resources but we should include and prioritise in our analysis their ability to use their resources. As illustrated below, these different sources of variation reflect a system of values with particularities given by the culture in which they flourish. This characterisation should be prior to any capability assessment.

It must be noted that most of indigenous communities have established their "ancestral domain" through the process of prior exploitation, continuous occupation, and defending their territories from outside encroachment. By doing so they were not only defending their property rights but also their system of values and traditions. In contrast to the Regalian Doctrine of private property, indigenous customary laws on land typically allow lands to be held individually, communally or by corporate groups. For all types of ownership, their land tenure rules encompass the acquisition/access, management, maintenance and transfer, including inheritance procedures. Within this context, the nature and attributes of physical resources, interacting with the social system, determine the relative value of the resources, *the use patterns*, and consequently give rise to certain form of property rights, mediated by technology and institutional settings such as national policy (Sen 1992, 1999). Once the structure of property rights (including the restrictions and duties) is established, it governs the resource management regime and the distribution of different capabilities. As the value attached to the resources changes, the governing property rights and resource management regime can also change. These principles can also be seen in action in the indigenous communities of Cordillera.

The typical natural resource objects of property in Cordilleran rice growing communities are: terraced rice land; residential land; swidden land[11]; pasture land; forest and forest products; water

[10] Here our review refer mostly to the major customary laws of Ibaloy and Bontoc communities where an extensive report is available and can be considered as more or less representative cases of indigenous customary laws .

[11] Swidden land for slash-and-burn cultivation is generally used for random inter-cropping of dry rice, millet, sweet potato,

sources/mountain springs; irrigation canals; fishing sites; ritual sites; mines; etc. As stated above, these resources can fall into one of the three typically classified property regimes: individual; corporate; communal, where the most *valuable* (generally the most heavily invested) object falls into the individual property regime, which is coherent with the claim of institutional economists. The corporate rights can be held by a group of kin/family, neighbour/ward, etc., and maintain more exclusivity of usage/access compared to communal rights which are generally held by all community members. We now consider the different property regimes governing the resource management structure in the Cordilleran communities.[12] By doing so we will illustrate how different conditions that affect the use of resources are important to the definition of capabilities – emphasising here the degree of autonomy that the individuals would have over the resources.

According to Prill-Brett (1993: 8, 11), all community members within a defined territory have an equal right to exploit the communal resources, such as forest products in adherence to the customary law pertaining to their exploitation. At the same time they have the rights to improve these resources which can lead to an exclusive use of the land. The duration of this exclusive usufruct right lies somewhere in the continuum of temporal to permanent, depending on the nature and intensity of improvement. For temporal right emanating from tilling the soil, another member may exercise his/her usufruct right in the next period after the field has been left to fallow by the previous user for certain period. Depending on the intensity and duration of investment, the governing property regime may change to that of corporate or individual through an acquisition of 'title,' which is an exclusive use right, through rituals allowing him/her to exclusively control the land/resources.[13] Thus the Lockean principle of property rights prevails over the unclaimed unimproved communal land that a community member can exercise his/her usufruct right upon making improvements (cultivating, constructing a terraced field, building a residence etc.), and this can develop into an exclusive, though restricted ownership, depending on the *mode of usage*. Such practices, especially found in the stage of initial land clearing and acquisition, correspond to the hypothesis that 'property rights' (not in formal sense here) are strengthened by investment deeds – which is an opposite direction of cause and effects typically maintained in economic

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varieties of beans, squash, corn, banana, coffee, peanuts and some vegetables. Various literature in the past claimed that the indigenous people have been considered to practice destructive slash-and-burn cultivation without appropriate protective measures which results in forest denudation, soil erosion and consequent landslides and siltation of lowland rivers and irrigation systems. In the field survey, slash-and-burn was seen only in limited areas of Mountain Province and Ifugao communities, where there remain forests. Although we did not preclude any slash-and-burn agricultural fields from our survey, there were only a few such fields reported by the farmers, and our survey is mainly based on sedentary agricultural fields.

[12] For a summary of property rights types and governing rules in the Cordilleran communities, see for instance, Prill-Bret 1989: 6-7; 1993: 5-6, and Rood 1989: 42-43.

[13] Apart from the labour investment/improvements, private ownership can be acquired through: inheritance or devolution of property; in exchange of mortuary requirements of the original right holder; as payment of fines for personal offences by a co-villager; outright purchase (Prill-Brett 1993: 19-20).

theory. Indeed, property rights and investment deeds can strengthen one another, especially where the formal legal institution is not clearly specified.[14] No alienation of communal land to outside villagers is generally allowed, and non-members need a prior permission to exploit the resources. Violations of rules result in fine and admonishment.

Corporate rights belong to a descent group, a family or a ward. The right can be originated from communal resources transformed to individual/corporate ones through improvements (e.g., swidden gardens reforested by an individual, then the exclusive usufruct rights devolved to all the descendants of the founder; continuous occupation by the same descent group members legitimises prior rights).[16] Like communal land, exploitation by non-members requires prior permission, and no alienation by individual members is allowed, except from an emergency situation, where it has to be first offered to the corporate members, turning it into a private property. Typical natural resources belonging to either communal or corporate groups are: pasture land; swidden land, though this can also be individual. Fishing sites are generally said to be corporate property (Prill-Brett 1993; Rood 1989). But not all natural resources are equally valued by the indigenous people.

Agricultural land and water for the irrigated terraced rice fields are generally considered as the most important resources to Cordilleran people. For natural resources such as water sources/springs within the village boundaries belong to all community members, although there are certain governing rules. Nevertheless, the investment in channelling the water – considered as a permanent improvement- establishes a more exclusive usage of the resource (Prill-Brett 1985b; 1988: 5). The irrigation canals belong to a corporate group with the right duty to use and maintain. The right to an irrigation canal is created by virtue of owning rice fields in the area serviced, and the corporate members are expected to contribute with sacrificial animals for rituals, in addition to the maintenance requirements (see e.g., Prill-Brett 1987; Wiber 1986). In most communities, communal irrigation associations are organised, with a set of rules for water distribution and labour/cash contribution for the construction and maintenance, in order to ensure the equitable usage of water and the maintenance of the source and the facility. The effectiveness of such associations varies depending on the communities, where the materialisation of set of rules may be based on traditional and religious practices in some communities.

Rights over terraced fields and residential lots, which are considered as the *most valuable* property due

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[14] Such endogeneity of property rights is empirically analysed by Besley (1995), especially in connection to the improved credit access.

[16] There are opposite case where an individual/corporate land revert to a communal land, when all villagers have rights through intermarriage or descent form the original claimant, etc. See Prill-Brett 1993: 11 for details.

to the requirement of heavy investment and rarity of suitable land, are devolved to individuals.[17] These land resources are inherited usually upon marriage and managed according to a strict inheritance custom and alienation rules, which are similar to those of communal/corporate property.[18] Private/individual rights enable the right holder to use, rent, and alienate the property according to the customary laws which are restrictive depending on the kind of property (see various Cordilleran documents for detail). For instance, the indigenous mortgaging of Ibaloy communities is characterised by an oral contract, with no set duration, no interest, first offered to kinsmen, no practice of foreclosure and the arrangement can be passed to the following generations. This is based on the principle that the property will be redeemable by the original owner/descendants in the future. However, the introduction and adoption of another mortgaging arrangement with a written contract with set duration and conditions in the 20thC, indicates that such traditional arrangements were not always applicable (Prill-Bret 1992: 32, 46-47). We should also mention here an interesting observation regarding the bequeath right, that the right can sometimes involve only bequeathing a usufruct right, rather than a group of several constituent rights which would constitute a closer sense of "ownership."

Thus seen, whilst right holders can be private, corporate group or community, the rights which they hold are generally restrictive compared to those of western counterparts. For instance, private property may entail rights to rent, mortgage, sell, exchange and modify, yet there are various restrictions over the exercise of these rights. This illustrates Sen's arguments that the space of rights is limited to address one's assessment of well-being and freedom. There is thus a difference between *having rights* and *exercising rights*. It is ultimately this last one that should matter to a capability analysis. The fact that there are rules/restriction/communal sanctions on the exercise of various rights can be considered as historical consequences (or *historical paths*) of the coping strategy of the farmers, given their upland environment, in order to minimise the risk of crop production failures. Such rules/restrictions can be considered to be intended for 'communal wellbeing,' rather than 'individualistic wellbeing or freedom' per se.

The significance of ancestral domain concept with communal and corporate property is stressed by Prill-Bret (1987: 4; 1988:11) as the buffer for the crisis period, allowing equitable access to the

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[17] Wet rice terraces require more or less permanent stone walls, transportation of soil nutrients, irrigation work, continuos production of paddy, etc. Rice is a staple food for the people in Cordillera. According to Prill-Brett (1985: 4), rice terraces are virtually never abandoned and are subject to the most strict rules regulating its acquisition and transfer.

[18] The governing rules are: sales allowed only in emergency upon the consent of the parent; first to be offered to close relatives; etc. In Bontoc, the eldest child inherit the most part of property. Alienation of individual property happens in order to meet mortuary requirements, fine payment, hospital bills, children's education fees, etc. (Prill-Bret 1993: 6). The rational for offering the land first to relatives is in order to allow the original owner/heirs to redeem the property by paying the same amount when the buyers family will be in similar situation in the future. If the property is sold to a non-kinsman, s/he is not obliged to offer the sale to the descendants of the original owner and the property may be sold for a profit (Prill-Brett 1993: 21).

resources, that consequently functions as a redistributive mechanism as well as a communal bonding process with the performance of rituals. It is not certain, however, to what extent this description is correct at present, since most farmers in this field research, when inquired about communal/corporate property (carried out in this study), responded that there is no such thing as a communal or a corporate property but that everything belongs to individuals. This could simply be an indication that they have not seen much use of the communal lands in recent years, since they tend to be the least valuable lands, or this could mean that there is a trend shift in people's perception over land, natural resources and their management regime (see the adaptive preference problem in Nussbaum, 2000, chapter 2).

III.4. The Demise of Common Property and the Shift Towards Formal Private Property

Contrary to some scholars views that resource management regimes based on the "ancestral domain" or "common property" concepts are most suitable for Cordilleran people, there are indications of a change in people's perception/attitude regarding land and other natural resources, such as: (1) intra-community conflicts over land; (2) non-egalitarian usages of resources and the demise of cooperative systems; (3) external factors promoting individual property rights such as loan collateral requirement. Prill-Brett (1988; 1993), Rood (1989) and others deplore the increasing commoditisation of land and individualisation of 'common property,' which used to be 'sacred and an essential part of family and community identity,' being encouraged by the state stance of recognising only paper titles. They maintain that a new property rights regime with the central concept of ancestral domain should be established, and that it should be managed by the community according to the customary law. However, an effective common/corporate, or even family based resource management regime would rest on an effective function of such institutions. This might constitute a problem because one cannot ignore the asymmetrical internal political power play within the communal or corporate institutions. Increasing competitions over lands, whether from agricultural expansion or from other interest parties, and the resulting increasing insecurity of informal property rights along with the decreasing effectiveness of traditional sanctions, is one of the primary reasons for people seeking more formal sanctions.

Russell (1983: 277), in her case study on agricultural commercialisation in Benguet Province saw a widespread practice of indigenous aristocracy claiming a sole legal ownership to wide tracts of land held in trust for use by other residents – many of whom were illiterate and/or lacking in information and financial means for land registration/tax declaration. Similarly for those lands which are registered under the Benson titles (block titling),[19] the subsequent generations have seen land grabbing by the descendants of the original entrusted title-holders claiming the ownership to the whole land (Prill-Bret 1992: 57). The resulting court disputes have had difficulties resolving the issues due to the ambiguities

[19] Under the block titling, several privately owned adjacent parcels of land are registered under one representative name through verbal agreement. Each property is individually declared for taxation purposes, and taxes are collected and turned to the representative. It is often seen in Ibaloy communities.

between customary law and state law (Russell 1983: 277). Traditionally, conflicts over land have been settled by the traditional authorities. However, disputes in recent years, especially at an individual level, are increasingly brought to the municipal/state courts.[20] In view of these, despite the fact that there are some communities still with effective customary laws and authoritative organisations, it is not surprising that there is a trend towards formalisation of property rights amongst indigenous people. Indeed, in the study conducted by Prill-Brett (1992: 51), approximately 90% of informants preferred the national land law to customary law, and all admitted that the former is more practical under present conditions where the verbal testimonies are given less weight than the government documents as the proof of land ownership. Similarly, the arrangements for renting, mortgaging, selling, etc., are increasingly made in written forms of contracts, in order to avoid conflicts that may arise due to increasing non-conformity to verbal agreements (*op.cit.*: 50). Development of credit sector, with a more formal institution (banks, cooperatives) providing credits with land as collateral is also considered as a factor encouraging the land registration and written forms of mortgaging arrangements. Increasing needs for cash loans in recent years is seen, due to agricultural commercialisation requiring commercial inputs, pressures from children's educational needs, and so forth.

IV. Changing Agricultural Practices and Environmental Consequences: A Socially Sustainable Perspective

An increasing need for cash has been shifting the agricultural practice in various ways. Land expansion and less sustainable methods of agriculture resulting from agricultural commercialisation are affecting especially the vegetable growing communities. These practices are resulting in forest conversion, absence of conservation measures, monocropping, shorter fallows, increased use of chemical inputs, increased pest infestation, dried soils, and so forth.[21] In more traditional rice growing communities, as people seek off-farm employment for cash earning, there is a labour shortage especially during the

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[20] Conflicts at provincial and community level, often arising from the unclearly delineated communal boundaries, sometimes led to armed warfare, and/or were generally settled through bilateral peace pacts by the council of elders, and/or by the *barangay* officials more recently (Prill-Brett 1988: 2-3). *Barangay*, which may consist of a few *sitios*, is the smallest politico-administrative unit in the Philippines, generally equated as a community.

[21] In Mount Data, Cruz et al. (undated) reports that except for the remaining 89 hectares of mossy oak forest (form an area approximately 5,512 hectares in 1940), most of the National Park area has been converted into vegetable gardens – which is critical since the area is the watershed of three major river systems in the Cordillera. Cruz et al. blames the inconsistent policies and government's inability to protect the national park against encroachment seriously undermining the environmental sustainability of the area. For instance, the construction of a road which may have been intended for economic uplifting of the farmers has inadvertently contributed to the destruction of the forest. There is no traditional mechanism to ensure sustainable resource management. The national park forests were maintained by a timber concession company until its closure in 1987, yet quickly transformed to vegetable fields with influx uncontrolled in-migration from the surrounding areas hoping for lucrative vegetable production. The majority of households claim to have tax declarations (Cruz et al. undated: 416-417).

harvest time, resulting in neglected swidden gardens and/or lending out rice fields on a share cropping arrangement or otherwise left to fallow. Some households have resorted to purchasing commercial rice, instead of cultivating their distant rice fields.

Cruz et al. (undated) has observed that newer communities, especially with unclear property rights (e.g., Mount Data and Ambassador), tend to practice less conservationist measures. These farmers seem to find especially the cost of terracing and other intensive type of sustainability enhancing investment prohibitive. As the farmers practice more shot-term profit oriented agricultural production without adequate sustainability enhancing measures which are required for the upland environment, increasing problems of soil erosion, decreased soil fertility, soil hardening and dryness, lack of water availability especially during dry seasons have been reported. A typical response to decreased soil fertility in recent years has been an increasing use of purchased inorganic/organic fertilisers which are said to be progressively required to maintain the yield level (Prill-Brett 1987: 12; Cruz et al. undated: 415). The usage of commercial fertiliser, which was introduced in the 1960's and 1970's has steadily been increasing as more farmers have cash and not sufficient labour to prepare composts in traditional methods.

The shift toward more cash oriented economy and commercial production is said to have undermined the traditional customs and social relationships in the region, with a decrease in their communal bond/solidarity (see Prill-Brett1987: 13). In the field survey carried out here, less cooperation work, in terms of water management and irrigation maintenance, was observed in many communities. Complaints regarding the *inegalitarian water distribution* were also heard during the field survey. The problem seems to be that some farmers hardly get any water during the dry season whereas other farmers, especially those close to the water source, have set up private means of irrigation, thus reducing the water availability of other farmers who rely solely on the communal irrigation systems and whose lands are far from the main water sources. Also, there has been increasing use of hired labourers in place of the traditional system of reciprocal exchange labour. These observations confirm the point made by Russell (1983: 206-207) that there has been an apparent disruption of kinship ties and inter-household cooperation in agricultural activities (due to wealth differences), although still existing. This is an important source of valuable *social capabilities*, that should be assessed not only in terms of its future consequences but also in terms of the disruption of the rights and capabilities of people living under the kinship ties.

On average, vegetable growing communities have a higher proportion of farmers with formal title and/or tax declaration. As vegetable production is primarily geared towards the market, the degree of commercialisation is higher in these communities compared to the rice growing ones which often practice subsistent agriculture. In vegetable growing communities, land registration is probably more accessible due to: their geographical location of being close to the CAR capital Baguio City; their higher average income; their higher educational level; etc. The demand for property rights which are

formally secured would be more important in these communities as the competitions over land, water, and other natural resources are fierce, and since a higher proportion of farmers already have titles. Thus, societies shifting toward higher agricultural production intensification and commercialisation develop more formal property rights institution to provide security over their land, and the rights tend to become stronger (e.g., from a restrictive use right to full ownership), as the benefits of establishing formal property rights have become relatively higher than the costs. This is consistent with the arguments of institutional economists discussing the development of exclusive private property (see, for instance, a classical work by Demsetz 1967). Agricultural intensification typically induces the incentives for investment in maintaining and improving the land productivity, and lack of secure property rights would hamper these incentives. Feder and Feeny (1991) point out that land titling is "one common mechanism of recording and enforcing individual property rights in land" which "typically emerges at a fairly advance stage of agricultural development, when the benefits outweigh the costs" of establishing the mechanism. The benefits of formal titles are higher when the scope for land improving investment is larger, as well as when land markets and credit markets develop (Feder, et al. 1988).

According to Rood (1994), the degree of commercialisation is not necessarily correlated with the "degradation" of traditional resource management rules, and hence deterioration of the environment. However, Cruz et al. (undated) points out that forest exploitation and adaptation of short-term profit seeking exploitative agricultural techniques is the result of agricultural commercialisation and cash needs (especially for children's education). The survey data from Rood (1994) and our own study show that the attitude of the farmers themselves to the future is ambivalent – many farmers wish their children to finish college and have another occupation, yet they also expect their children to continue occupying the field farming, thinking of their production in long-term process. The evaluative process demanded by the capability approach may, therefore, not be free from its ambivalence, since they are a natural consequence of a process of changing values typical of developing countries. This may not be irrational since many of college graduates seem to return to farming as there are not enough employment opportunities in the cities. Higher degrees of uncertainty toward a longer distant future in terms of expected property rights (measured in 1, 5, 10, 20 year period) were seen especially in more traditional rice growing communities.

It thus can be argued that a higher level of conflict and uncertainty over property rights is expected to result in hampering of investment incentives in sustainability enhancing measures. The government can apply incentive measures in promoting the sustainability of uplands by reducing such conflict and uncertainty: a good example is the issuance of *Torrens* title to early settlers in the Cordillera in the 1950s, and E.O.180 giving titles to immigrants in Mt. Data, both on the condition that they adopt soil conservation techniques – which resulted in construction of bench terraces and hedge rows (see Cruz et al. undated: 412; Rood 1995: 5). Whilst some argue that these policies encouraged the conversion of forests into agricultural lands (given the state's incapability for preventing squatters and the fact that such conversions were already happening), granting titles with sustainability enhancing conditions

would be an effective incentive measure.

This would solve the instrumental dimension of property rights with regards to sustainable natural resource management. A more general and serious issue would remain concerning this changing in values produced by the implementation of these new property rights rules. It cannot be ignored that the indigenous people's property rights would also reveal their own system of values, ingrained in their traditional and religious practices. The evolutionary and historical path of the legal framework cannot be separated from the changes in people's evaluational reasoning that has put less importance on such kinship or communal values. The impact on the agency and autonomy of these communities is ambivalent.

V. Conclusion and Policy Implications

Thus seen, there still persist confusions regarding the property rights and legal status of the Cordilleran uplands, which are contributing to further denudation of forests and environmental degradation. Different agencies with different mandates are involved in the land titling issues of the CAR, and the field survey revealed that legal land ownership issues are often not well understood by the farmers nor by the administrative officials, due to the lack of clear government policies and enforcement, and delayed cadastral and related surveys to create the information base.[22] As the competition over land has increased, making it a relatively scare resource, the uncertainty pertaining to the land without a documentation proof has increased. Conflicts have been arising due to overlapping claims, some trying to take the advantage of block titles by claiming over lands that "belong" to others yet without written proofs. Together with the development of institutions in other areas (bank loans; need for clearer boundaries because of tax registration; etc.) which require written guarantees, the situation has now given more advantages to formal private title possession, over to informal property rights sanctioned by the customary law and traditional authorities.

Clearly, in order to prevent the risks of conflict and/or ejection and to promote sustainable management of the upland forest and agricultural lands, the current confusing states of property rights requires amendment. It is necessary that a proper cadastral survey takes place and that the communal/individual

[22] For instance, tax declaration is used as a certificate of evidence of tax payment to the municipal treasurer on "public lands", used by individuals for agriculture or residential purpose, but this does not enable the property to be alienated nor to be used as a credit collateral. From the municipality point of view, this is often simply a revenue generating mechanism. However in reality, many of the farmers do not know this fact and seem to equate tax declaration with a title. This illustrates the *knowledge-dimension* of capabilities, that could be considered erroneously by individuals, as analysed by Nussbaum and Sen under the title of adaptive preferences. In a nation-wide survey, the Cordillera was the highest among all the regions of the Philippines in the percentage of farmers who said they own their land and their rights are safe since they pay property taxes and they cultivate on it, despite the government's classification of land as forest reserve (Arroyo 1992, cited in Rood 1995).

claims to their occupied land be agreed upon and validated through appropriate procedures of registration and titling. Land registration should be made accessible to the people across communities and wealth range, with information provision. This would allow not simply an equality of resource access, but an equality of capabilities to the extent that people would be able to express their own agency and autonomy through their cultivation practices. Following the current National Land Law, it is necessary to transform the land status from forest reserve/public to A&D for the lands to be titled. Otherwise, following the Constitution, individual rights to the property occupied since "time immemorial" should be automatically recognised.

Through the review of the historical path of legal statues and customary laws, we have seen ambivalence in the state's stance in the recognition of indigenous people's rights and the attempts to strengthen people's rights over their ancestral domain. However, the persistence of contradictory laws and the governement incapacity in providing a sound base for resolving the titling issues have been negatively affecting people's incentive to manage the upland resources sustainably. Moreover, along with agricultural commercialisation and economic development, the demise of traditional institutions, including the communal/corporate property resource management regimes, has been observed. There have been evidences of weakening authority of communal organisations and its non-egalitarianess to some degree, where the powerful classes can take advantage over other community members.[23] Some tenets of the capability approach were used here to indicate the importance of allowing freedom to be considered as one criterion to solve this constitutional and legal issue.

With increasing conflicts over lands and other natural resources, there has been increasing preference of people towards formal titling of their private property, which would strengthen their ability to exercise their rights in present circumstances. Clearly, the significance and role of traditional institutions, such as customary laws, in fostering of "agency" and "autonomy" of these indigenous people have been changing and are expected to continue evolving. Since the agricultural land and related natural resources are the primary bases upon which these people derive their livelihood, and since the region's environment has externality effects affecting other people's livelihood, the linkages between property rights and resource management incentives warrant investigation from the *evolutionary capability* perspectives. A careful consideration of their possible future directions would be critical to the promotion of realistic and effective sustainable upland/forest management policies, enhancing their intertemporal capabilities and promoting socially sustainable development. Whilst we are in no way

[23] Indeed, there is no reason to expect that the state authority is a perpetrator and the communal authority is a benevolent actor. Although it is true that community authorities would be more aware of the situation and socio-cultural contexts in which they are in, this can result in positive and/or negative results in terms of environmental sustainability, economic advancement, welfare and/or wealth distribution. The remoteness of the state, if being away from the communal political power play, can have more "objective" impacts. If resources and time permit, it would probably be ideal to determine what procedures suit which communities.

trying to argue that the common property management regime, argued by well-establish scholars, is invalid, the current circumstances in the Cordillera suggest a careful consideration of the future viability and practicality of resource management regimes based on the "communal property" and "ancestral domain" concept alone.

BIBLIOGRAPHY

Asian Development Bank. 1995. "Report and Recommendation of the President to the Board of Directors on Proposed Loans to the Republic of the Philippines for the Cordillera Highland Agricultural Resource Management Project," November.

Asian Development Bank. 1994. "Social Dimensions Division." Working Paper on Indigenous Peoples, October.

Besley, T. 1995. "Property Rights and Investment Incentives: Theory and Evidence form Ghana," *Journal of Political Economy*, vol.103, no.5: 903-937.

Cruz, G., V. Diaz, A. Follosco, L. Mendoza, S. Rood, and B. Tapang, Jr. Undated. "Agricultural Commercialization in the Sustainable Development of the Cordillera." Mimeographed.

Demsetz, Harold. 1967. "Toward a Theory of Property Rights," *American Economics Review* 57, May: 347-59.

Feder, G. and D. Feeny. 1991. "Land Tenure and Property Rights: Theory and Implications for Development Policy," *World Bank Economic Review* 5: 135-155.

Feder, G., T. Onchan, Y. Chalamwong and C. Hongladarom. 1988. Land Policy and Farm Productivity in Thailand. Baltimore: The Johns Hopkins University Press

Lynch, O.J. 1986. "Philippine Law and Upland Tenure," in (ed.) S. Fujisaki, P.Sajise, R.del Castillo. Man Agriculture, and the Tropical Forest: Change and Development in the Philippine Uplands: 269-292. Bangkok, Thailand: Winrock International Institute for Agricultural Development.

Nussbaum, M.C. 1999. Sex and Social Justice. Oxford: Oxford University Press.

Nussbaum, M.C. 2000. Women and Human Development, Cambridge: Cambridge University Press.

Prill-Brett, J. 1985a. "Bontok Land Resources and Management," in (ed.) P.Sajise and A.T.Rambo.

Agroecosystem Research in Rural Management and Development: 42-54. UP Los Banos: Program on Environmental Science and Management.

Prill-Brett, J. 1985b. "StoneWalls and Waterfalls: Irrigation and Ritual Regulation in the Central Cordillera, Northern Philippines," in (ed.) K. Hutterer, A.T. Rambo, and G. Lovelace. Cultural Values and Human Ecology in South East Asia. Michigan: Michigan Papers on South and Southeast Asia, University of Michigan.

Prill-Brett, J. 1987. Coping Strategies in the Bontok Highland Agroecosystem: The Role of Ritual. Cordillera Studies Center Working Paper 1. Baguio City: Cordillera Studies Center.

Prill-Brett, J. 1988. J. Preliminary Perspectives on Local Territorial Boundaries and Resource Control. Cordillera Studies Center Working Paper 6. Baguio City: Cordillera Studies Center.

Prill-Brett, J. 1989. Indigenous Experience of Autonomy in the Cordillera. Cordillera Studies Center Working Paper 10. Baguio City: Cordillera Studies Center.

Prill-Brett, J. 1992. Ibaloy Customary Law on Land Resources. Cordillera Studies Center Working Paper 19. Baguio City: Cordillera Studies Center.

Prill-Brett, J. 1993. Common Property Regimes and the Bontok of the Northern Philippine Highlands and State Policies. Cordillera Studies Center Working Paper 21. Baguio City: Cordillera Studies Center.

Rood, S. 1989. Issues on Creating an Autonomous Region for the Cordillera Northern Philippines. Cordillera Studies Center Working Paper 11. Baguio City: Cordillera Studies Center.

Rood, S. 1995. Indigenous Practices and State Policy in the Sustainable Management of Agricultural Lands and Forests in the Cordillera: A Summary Report. Cordillera Studies Center Working Paper 25. Baguio City: Cordillera Studies Center.

Rood, S. and A.L. Casambre. 1994. State Policy, Indigenous Community Practice and Sustainability in the Cordillera, Northern Philippines. Cordillera Studies Center Working Paper 23. Baguio City: Cordillera Studies Center.

Russell, S.D. 1983. Entrepreneurs, Ethnic Rhetorics, and Economic Integration in Benguet Province, Highland Luzon, Philippines. University of Illinois at Urbana-Champaign. mimeographed.

Sen, A.K. 1980. "Equality of What," reprinted in Sen (1982) Choice, Welfare and Measurement: 353-369. Cambridge, MA: M.I.T. Press.

Sen, A.K. 1985a. Commodities and Capabilities. Oxford: North-Holland.

Sen, A.K. 1985b. "Well-Being, Agency and Freedom," *The Journal of Philosophy*, vol. lwwwii, n.4: 169-224.

Sen, A.K. 1992. Inequality Re-examined. Oxford : Clarendon Press.

Sen, A.K. 1999. Development as Freedom. Oxford: Oxford University Press.

Wiber, M.G. 1986. PhD Thesis "Communal Corporate and Cooperative: The Property Relations of the Ibaloi of Northern Luzon, Philippines." University of Alberta.

World Bank. 2001. World Development Report 2002: Building Institutions for Markets. New York; Oxford: Oxford University Press.