

Homegarden As A Household Coping Strategy: A View From The Policy Environment

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Understanding the Concepts of Adaptation, Coping, and Strategy

Adaptation, coping, and strategy are concepts with a common denominator. Dictated by change, each implies dynamism and constant adjustments. On the other hand, these concepts vary due to the time element involved. Davies (1993) pointed out that coping and adaptation are distinct from that of strategy in the sense that the former are relatively short term safety-net mechanisms while the latter is a response developed over time and gets integrated in the culture or tradition. As Anderson et al. (1994:20) stated, "strategy is the overall way in which individuals and possible collectivities seek to structure, in a coherent way, actions within a relatively long term perspective". *Coping strategy* refers to actions and ways of managing a recognized problem or crisis situation where the usual strategy no longer applies. Other definitions of "coping strategy" made by Brouwer (1993), Chambers and Conway (1992), and Frankenberger and Goldstein (1990), synthesize what Barnett (1993:10-13) described as 'management of resources under a problematic situation'. His idea of coping is somewhat similar to what is referred to as "adaptive strategy" (Gladwin and Butler 1984:208) where people develop patterns or processes to cope with or adapt to a changing environment.

In times of crisis, households depend on traditional forms of activities that are proven viable and stable. Several studies, including my study on lava-engulfed households around Mt. Pinatubo, have found that coping depends on local resources and systems like homegardens, woodlots, and the forests. Intensive cultivation provides not only food on the table but also additional income. The diverse production strategy in the homegardens, which includes the cultivation of annuals, and perennials in different micro niches, as well as raising livestock ensures that much of the households' daily food requirement is met.

Homegardens might not be as lucrative as commercial farming but their significance in satisfying material (food and income) and non-material (aesthetic, spiritual, and relaxation) needs is an important point to consider. This is the primary reason why homegardening thrives in spite of several constraints. Respondents to a survey I conducted in Baguio City, Philippines had a unique definition of a homegarden; i.e., the cultivation of crops -- no matter how small the area and in whatever forms it may take -- cultivation in pots, cans, plastic

wares or worn-out tires-- for food or as a hobby. For three respondents, gardening has a therapeutic value because it beautifies the landscape and provides freedom to choose what plants to grow. Gardening is a future resource for grandchildren, said two respondents. Probing what was meant by this statement revealed anticipation for obtaining legitimate ownership of the homestead. One said that 30 years of squatting with much improvement of the area is long enough not to be awarded the title. Two of the informant's married children have built their own houses within her claim. The boundary of the homestead is planted with *Alnus* trees and a thick hedge of hibiscus.

Recognizing the land claim aspect of cultivating homegardens in Baguio City, Philippines and other parts of Asia bring us to a consideration of tenure and permanence in relation to livelihood and conservation strategies. In pushing for the continuity and improvement of this production system, external support – both legal and political--is critical. Several problems and constraints beset poor households' protection of their land entitlement.

Variations in Homegardens

To begin with, we need to understand the nature of homegardens in rural and urban areas of the Philippines focusing specifically on the Mountain Province. Rural homegardens can either form part of the homelot or be located in separate areas not contiguous with the homelot, but with provision for irrigation. In the rural areas of the Cordillera region, the *dor-an* (a garden forming part of the home lot) or the *tuping* (stonewalls) are predominantly sweet potato niches.

In the urban and peri-urban areas of Baguio City, homegardens are characterized with reference to ethnic affiliation (Mula and Gayao 1991). This is corroborated by the findings of our recent research (Table 2). Among those who settled in the city and its peripheral villages, migrant households carry with them

Table 2. Types of crops cultivated in homegardens

CROP*	BARANGAY					
	<i>Baguio Country Club</i> (n=7)	Teacher's Camp (n= 7)	Engineer's Hill (n=5)	Quezon Hill (n=7)	Salud Mitra (n=4)	<i>Happy Hollow</i> (n=5)
Vegetables	7	2	2	1	2	4
Rootcrops	11	4	2	1	1	11
Fruits	3	12	12	2	1	2
Trees	8	4	3	2	2	7
Medicinal plants	3	8	3	2	1	1
Ornamental plants	5	36	34	25	4	2

*Multiple Response

their respective cultural practices. The highlanders who flocked to villages like Happy Hollow and around Country Club generally utilize small yards and stonewalls for cultivating sweet potato and sayote (*Syechium edule*). The latter is made to climb on tree stands. It is also their practice to raise one to two heads of native swine. Lowland migrants, like those who establish residence in Cabinet Hill, Teachers Camp, and Pacdal, have mostly ornamentals and trees (*Alnus*) especially along the boundary of what they claim as homelots. As a rule, there is greater crop diversity among lowland homegardeners.

The homegarden system that distinctly describes the highlanders' and lowlanders' way of life in the urban areas of Baguio City is largely traditional. The harsh and fragile environment of the highlands has compelled the native settlers to make use of any available area for direct or indirect food production. What counts is having a source of food both for them and their livestock. In addition, the aesthetic and health elements of their homesteads are as important as their food security. This is the reason why they include ornamental and herbal plants. Though the area is small, they take pleasure in planting a variety of these plants in pots, cans, or plastic containers. At present, where the market for opportunity ornamentals is developed, both highlanders and lowlanders have embarked on their production. Due to increasing demand, anthuriums and cacti are the most common ornamentals being grown by households. Clearly, households' behavior toward homegardening is a response to tradition and policies. In cities where population influx is significant, households must deal with city ordinances, expanding neighborhoods, and limited space. In villages like Cabinet Hill-Teachers Camp, raising small livestock, growing climbing crops like chayote, and composting are impossible. The proximity of houses leads to fear of being ridiculed, and/or becoming a source of displeasure for neighbors.

Homegardening is an on-going evolutionary process of change and continuity (Dahlberg 1989). The value households assign to this system of production accounts for its continuity but it also allows modifications shaped by changing perspectives at the household or policy level. At times, the interplay of these factors becomes a very difficult issue. Such is the case of Baguio City where tenurial status has become a factor that needs serious attention.

Land Tenure Status in Baguio City and its Peri-urban Neighbours

Baguio City and its periphery are characterized by a relatively low level of legal security or land tenure (Table 3). Comparing the data with other urban areas in the Philippines, approximately 50 percent of the households in Baguio City do not have legal rights to their lands. Hence, it can be expected that as development pressures build and land values rise, landowners will incessantly demand to terminate informal arrangements in order to clear their land. Thus, informal renters will eventually be transformed into squatters with even less security and

greater threat of eviction. This situation worsens when their claims prove unsuccessful; many of these untenured households then become classified as squatters.

Table 3. Land Tenure

Area	Legal Security	
	Legally Secure (% of Hhs)	Not Legally Secure (%of HHS)
Baguio City	66.7	33.3
Other cities	33.7	66.3

Source: Shelter Strategies for the Cordillera Administrative Region

The median lot size in Baguio City is 240 square meters, which is three times larger than that of other urban areas and almost double that of rural areas. The sloping land of the area, which requires larger lots for building homes, can explain this. Based on the survey in 1995 on Shelter Strategies for the Cordillera Administrative Region, 15.2 percent of the households in Baguio City are occupying unsuitable areas. I think this is a conservative estimate because of the predominance of steep slopes (over 18 percent), which is almost 85 percent of the land area of the Region and the presence of so many fault lines within the City. "Unsuitable" in the City is defined as households occupying 'unacceptable areas,' which are in public places such as parks, along drainage canals including environmentally sensitive areas such as watersheds, and rights of way of government infrastructure projects.

In all six of the barangays where interviews were conducted, 95 percent claimed to own the space their houses occupy. According to the Office of the City Assessor, however, it is only the residential tax that is paid, which means that the structure is owned but not the land. Most households of these barangays have put emphasis on acquiring security of tenure of their homelots as expressed in all their Barangay Development Plans. The case of Cabinet Hill-Teachers Camp, for instance, happens to be within one of the highly contested areas where the residents fight for security through the concurrence of PD 773. History of the area reveals that way back in the early seventeis; portions of the barangay were segregated from the forest reservation to accommodate residents who are mostly retired government employees. Over time, residents took the risk of building permanent and semi-permanent improvements within their homelots in the hope that soon these will be released through the concurrence of the Senate on House Bill 773.

The Emics and Etics of Land Tenure

Looking at the issue of land tenure from two perspectives can provide a reconciling point for the analysis of the policy on land tenure in Baguio City. One is from the emic point of view or the people's definitions and their ideal systems

as explanations of behavior (Pelto and Pelto 1978:62). In terms of this emic view, one understands culturally defined norms on land ownership as well as the role of this resource for the local people. On the other hand, a grasp on the outsider's notion referred to as the etic definition, of land ownership as articulated by government agencies like the Department of Environment and Natural Resources (DENR), Department of Agrarian Reform (DAR), and City Ordinances is significant for evaluating the objectives of their policies. By examining these two variables together we are able to determine their relationship as well as the extent of the policy sub-system's consideration of people's view.

Land tenure for rural and urban homegardens can be partly explained by a policy of the DAR, specifically AO No. 12, Series of 1991. This law guarantees a beneficiary a homelot of not more than 1,000 square meters that can be utilised for growing vegetables, raising poultry, pigs, and other animals, and engaging in minor industries. With respect to the Cordillera Administrative Region, including the entire city of Baguio, the enactment appears inapplicable because large sections of this particular region are classified as inalienable and disposable. There are 27 protected and reservation areas in CAR (approximately totalling to 1,000,000 hectares) that is the Department of Environment and Natural Resources' (DENR) area of responsibility. Under RA 6657¹, DAR's jurisdiction ends in areas beyond 18 degrees slope.

In spite of this pronouncement, migrants (both from the lowland and highland) squat on the fragile ecosystem of the city. Gardening has become the major initial step of squatting according to household respondents and officials of the DENR and DAR. Alnus and some fruit trees are planted in the periphery. The flat areas are planted to rootcrops and vegetables. "Ripraps," or stonewalls, are erected on sloping areas and sweet potatoes and chayotes are cultivated on the crevices. Makeshift, sometimes even permanent gardening and housing structures are put up. Time is of great essence among squatters. This was particularly true in 1976 when squatting was at its height. Many so-called squatters acquired ownership through Townsite Sale Application (TSA), meaning sale of land through bidding, and Miscellaneous Application (MA), meaning direct sale. From 1977-1990, these practices were completely stopped. This explains squatters' behavior and zeal for permanent improvements (cultivating perennials and fencing). It gives them some degree of assurance in *ownership* (claim rights) because parcels of land with improvements are usually the first priority for land awards.

In most parts of the city, specifically the villages earlier mentioned, resolutions have been passed excluding their lots from being designated as reservation areas. Hence, they are entitled to apply for ownership. It is only the cities of Baguio and Olongapo that are covered by TSA or MA based on a presidential

¹ RA 6657 known as the Comprehensive Agrarian Reform law states that lands actually, directly and exclusively used for parks, wildlife, forest reserves, reforestation, fish sanctuaries and breeding grounds, watersheds, and mangroves shall be exempted from the coverage of this act.

proclamation. In 1990, Administrative Order (AO) 504² of DENR created a committee to supervise the resumption of applications of TSA or MA. According to a technical assistant for land matters, who is also a member of the 'demolition squad' of illegal occupants, there are hundreds of applications at hand. The committee tried to exercise its function of 'policing' these encroachers because the city's safety is indeed at stake. The earthquake in 1991 and the recent typhoon (July 2001) are powerful reminders of the city's vulnerability. How ironic though to think that during the American regime, Baguio City was deliberately planned as a 'holiday haven' with a carrying capacity to be maintained at only 20,000/25,000 (DENR and key informants, respectively) to the population. To date, the population is more than 268,000. In spite of serious efforts by the DENR and its partners to control overcrowding, political intervention and human rights advocates subvert implementation of rules and regulations.

Despite the odds, DENR's legal office, whose primary function is to conduct preliminary and final investigation on all public land applications and other land-related cases, vigilantly implements a paradigm that brings greater welfare and satisfaction to the people. In its recent report on the investigation of land claims and conflicts, the said office has reviewed 251 cases and resolved 71 cases. It has likewise implemented the Oplan Anti-Fake Title Project of the government that made an inventory of 227 land cases and 48 found cases of fake land titles. On DENR's disposition of alienable and disposable lands in CAR, 1,616 patents have been processed while 350 patents have been transmitted for approval (DENR Annual Report 2000:31)

Another complication relates to the rules and regulations governing ancestral land and domain claims. Historically, indigenous settlers have their rights, access, and entitlements to the various resources of the place they inhabit. To strengthen this pronouncement beyond mere rhetoric, the government enacted Executive Order No. 192. This empowers DENR to exercise exclusive jurisdiction on the management and disposition of all lands in the public domain. Republic Act No. 7586, on the other hand, provides for the due recognition of ancestral domains and other customary rights in protected areas. Baguio City has been the pilot site for this law. DENR respects the integrity of ancestral domain claims evidenced as awards already given to indigenous claimants (individual as well as communal). Of the first batch consisting of 48 claimants, only 7 did not get their Certificate of Ancestral Land Claim (CALC). The big problem, though, is that many people took advantage of the provision. The second batch of 285 claims is still being process and another batch of 211 claims is still under validation.

² AO 504 deals with the lifting of the ban on the acceptance and processing of application for public lands in Baguio City, creating a committee to screen and evaluate all such public land application and for other purposes. Due to reports on several irregularities of 'national land' acquisition in the City, awarding was temporarily suspended pending thorough investigation. With AO 504, the suspension was lifted and the newly commissioned committee was authorize to accept, process, and issue awards and patents to lands covered by public land application. The committee determines the suitability of the area applied for, grant clearance to all public land application, and monitor compliance by applicants with all legal requirements.

The most recent policy that covers this issue is the creation of the National Commission on Indigenous Peoples (NCIP) by virtue of Republic Act No. 8371³, otherwise known as the Indigenous Peoples' Rights Act (IPRA) of 1997. Directly under the Office of the President, it is the primary agency responsible for the formulation and implementation of policies, plans, and programs to recognize, protect, and promote the rights of Indigenous Cultural Communities (ICCs) and Indigenous Peoples (IPs). Hence, in principle, the ancestral domains and land claims are now with NCIP. Although the IPRA law is still under petition at the Supreme Court, DENR presently takes an active role in the implementation of the NCIP's mandate especially in the area of ancestral land and domain claims. This is so because a large part of the claims made by the indigenous people are within reservation areas, which are within DENR's jurisdiction.

NCIP's vigilance in the implementation of indigenous rights appears to be in place. The provisions in the document of the IPRA law wield considerable power in the institution. However, information gathered from the various stakeholders threatens the integrity of its delivery system. In fighting for his rights, the testimony of one claimant regarding his father's ordeal was disheartening. His father was deceased but he (the son) continued the struggle. Though the process was tedious and complex, he was determined to persevere because his family had evidence to support their claims. According to him, they are the legal heirs who deserve whatever benefits accruing therein.

Based on the NCIP's rules, proofs of ancestral domain claims include the following: testimony of community elders who participated in the identification of physical boundaries and who took part in giving the oral historical accounts and any of the following: written accounts of the ICCs/IPs customs and traditions; written accounts of the ICCs/IPs political structure and institutions, photos showing long term occupancy such as old improvements, burial grounds, sacred places and old villages; historical accounts including pacts and agreements concerning boundaries entered into the ICCs/IPs concerned with other ICCs/IPs; survey plans and sketch maps, anthropological data, genealogies, photos and descriptive histories of traditional communal forests and hunting grounds; photos and descriptive histories of traditional landmarks such as mountains, rivers, creeks, etc.; and write ups of names and places derived from the native dialect of the community (NCIP Rules and Regulations n.d.:34).

On file with NCIP are 757 claims made by some 350 families. The number of claimants seems to be increasing. According to one claimant, who was an heir to one of the original 27 families of Baguio City, the increasing number is not an abuse of the IPRA law but a consequence of the peoples' awareness of their rights. For instance, water right (with proof that the resource belongs to the clan)

³ RA 8371 is an act to recognize, protect, and promote the rights of indigenous cultural communities/indigenous people, creating a national commission of indigenous people, establishing implementing mechanisms, appropriating funds therefore, and for other purposes. In this Act, the rights of ancestral domain claims are spelled out.

tapped and utilized by a semi-government is not compensated. He added that compared to those in power (the authorities and the affluent) who acquired the lands the 'illegal-legal way', the indigenous people should have more rights to apply for claims. The problem though, he claimed, is the lack of resources (especially financial) needed for legal processing. "What can we do when bulldozers are in the area we have fenced and cultivated?" he asked. All of these factors have exacerbated their situation. Although the situation seems grim, the claimants remain hopeful. Incidentally, the IPRA law is under petition at the Supreme Court as of December 2000 according to a DENR authority.

Even the CALC holders are still faced with problems because of several interpretations. Unlike the regalian doctrine (having torrens titles), the 'native' title, which one possesses, gives rights but not full control of the resources within.

Land disputes in Baguio City are escalating. This is the result of the confluence of rapidly decreasing available land and the growing desire of individuals to own and utilize land for their benefit. Hence, questions like, "Is security to the land a bane to homegarden development?" or, "Can a land-based program like homegardens be promoted and sustained when entitlement is uncertain?" deserve serious attention. Even with policies aimed at promoting the welfare of the people and the environment in place, conflicting views from authorities indicate a gargantuan task to implementers and recipients. There are good reasons why individuals/families/households continue to struggle for their legitimate ownership to a piece of land. The government sector through its designated agencies operates on the same premise. However, with so many agencies commissioned to attend to portions of the matter, confusion exacerbates the problem.

With the rapid population increase especially in urban and peri-urban areas, the source of food (and perhaps some cash) will have to be addressed. This adds to the urgency of implementing an urban agriculture program, in whatever form of scale. In short, homegardens will be an integral component of households' livelihood well into the future, with or without land tenure.

Institutional Programs Supporting Homegarden Development

This study revealed that there have been modest collective efforts made towards the promotion of homegarden development. What seems common in most institutions is that homegardening is built into bigger programs and is not explicitly recognized as such despite their remarkable contribution to food security and income. Below are some examples of homegarden development initiatives.

1) Urban Agriculture Program of the Department of Agriculture

This program of the DA aims for food sufficiency in every Filipino home through backyard production of vegetables and fruit trees for subsistence. The City of Baguio has been made the pilot area of the project because it is one of the most urbanized cities in the Philippines.

Planting materials are procured by the DA-CAR from accredited seed growers to ensure the quality of seeds distributed. The vegetable seeds, repacked into 10-20 grams each and 10-20 fruit trees (lychee, citrus, coffee, and jackfruit) are distributed to the identified *barangays*. Distribution takes place during the Pasadang *Pambarangay* held every Friday and participated in by several agencies, among which are Office of the City Mayor-Barangay Affairs (who spearheads), DA, Department of Health (DOH), *Radyo ng Bayan*, and the Benguet State University (BSU), a recent member.

The program does not only target households but also city parks. In Burnham Park, 75 citrus trees and 60 lychee seedlings were planted during the Baguio City day in 1999. Of the 75 citrus seedlings, 73 survived and are growing well while 34 of the 60 lychee seedlings survived. Continuous monitoring is being undertaken by DA-CAR.

2) Ten (10) model school gardens, six (6) community model gardens, and one (1) demonstration farm at the BPI compound were established in 1999.

The operational budget of this program for CY 2001 is 2.6 million to cover the following projects: *Gulayan sa Paaralan at Barangay, Halamanan at Bulaklakan, Gamot sa Paso ni Erap*, livestock backyard boiler production, information dissemination, training/techno demo, and monitoring and assessment.

3) Barangay Nutrition Scholar (BNS) of the Department of Health (DOH)

The Barangay Nutrition Scholar of the DOH seeks to improve nutrition through gardening and proper food preparation. DOH partners for this program are the housewives. Capability build-up is done through training, actual implementation of insights gained from the training through gardening, and field visits.

Recently, one of the BNS was selected as the *Magsasakang Siyentista (MS)* because of her homegarden that extensively used recycled materials. She has in her garden vegetables, herbs, ornamentals, and

trees. As MS, she receives support from the LGU and DA-CAR in the form of technical assistance, training, and field visits.

With more and more negative issues arising from the use of household waste in agricultural food production, DA is slowly including in its campaign some information materials regarding the dos and don'ts on the use of household waste. In the recent Research and Development (R&D) Review of Agricultural Programs held in Baguio City last August 21-22, 2001 and attended by housewives, BNS scholars, and R&D researchers, an important issue raised was on toxins that might come from recycled household waste. While some researchers claimed that results of their analysis showed that elements like lead in plants are still within the tolerable standards of the Filipinos, implications of such issue must still be a cause of concern. For example, food crops should never be cultivated in tin. Related to this type of cultivation is DA's encouragement among households to grow food crops in worn out tires of vehicles.

4) The Northern Philippine Rootcrops Research and Training Center (NPRCRTC) of the BSU

Since UPWARD's inception in the early 1990s which supported research undertakings on rootcrops specifically sweet potato, NPRCRTC undertook the promotion of the homegarden (distributing sweet potato cuttings and conducting training courses on sweetpotato processing) as part of capability building of various schools and communities in Benguet and Baguio City. This is still a continuing activity of the Center in the area while expanding assistance to lowland sweet potato growing areas.

Part of the Center's approach includes the involvement of DOH (through the BNS), Department of Education, Culture and Sport (DECS), housewives, and a processing cooperative.

5) 'Little Stories of Homegardening' in Other Institutional Programs

Other programs are mostly tree-based. The Re-Greening Movement of Baguio City, for instance, encourages/promotes tree planting among the residents. This holds true among all government agencies by virtue of the Civil Service Memorandum Circular No. 14, series of 1996 directing all government employees to participate in 'Cleaning and Greening the Work Place.'

The National Police Commission (NAPOLCOM) also has a program related to gardening. Besides being involved in the *Pasadang Pambarangay*, part of its curriculum on civil assistance is tree planting and vegetable gardening in its area of assignment (Photo 3).

Where to from here? Addressing debates on policies:

The complex features of Baguio City, viz., that of being a frontier with its original inhabitants (especially the Ibaloi natives) and the lowlanders who struggle for space legally or illegally, the temperate climate, which not only guarantee an exceptional type of farming environment but also a demand for tourism; and the fragile ecosystem are considerations too important to ignore when planning for the development agenda. Central to this agenda is land use and ownership. Any policy will have to deal with realities such as ancestral claims of natives and even with their traditional farming system (cultivating farms that are beyond 18 degrees slope) and the protection of the area's resources like watersheds and reservations.

Institutional mandates, while appearing to be independent of each other along areas of concern, unavoidably create conflicting interpretations. As explained in the preceding section, DENR and NCIP are at odds because the former agency has to protect areas considered inalienable since they slope above 18 degrees, which are on the other hand, being claimed as ancestral lands. On the other side of the coin, the natives claim that they have the right to these areas or that their traditions warrant the cultivation on these slopes. Complicating the matter is NCIP's legitimization. An agency with an ambiguous mandate will not help resolve such problems. To my mind, this will have to be resolved properly at the national level and the resolution needs to be disseminated properly to all stakeholders.

Besides the pressing issue of ancestral land and domain claim, the problem in the city is also exacerbated by the increasing demand for shelter. As mentioned in my earlier discussion, the carrying capacity of the place is a critical concern. The city government must be serious in developing a policy that will regulate or end any further population influx or development that endangers the city's environmental safety. Lowland areas like some parts of the provinces of Pangasinan and La Union are also dependent on the energy generated by Ambuklao Dam located in CAR. Hence, the government should call for a concerted effort to protect the city and its surrounding watersheds.

Household food production in urban areas has its potential. The city of Baguio, in spite of its land-related problems, is a producer of food. A key advantage is the city's temperate climate, which enables households to cultivate crops with short maturation. Baguio residents also have an advantage for a homegarden type of ornamental production because of an established market. Whether households are into food or ornamental crop production, their resilience and ability to survive amidst the uncertainty of the environment has been remarkable as manifested in times of calamities like earthquakes and flood. The recent flooding in one of the study sites, which submerged and destroyed all crops, showed how households manage under this type of a situation. In barely three days, the land was cleared

of debris for planting. Baguio City households demonstrate their resource efficiency by utilizing all the possible niches for crop production and recycling some of their wastes. The latter must be investigated in the light of the growing debate on the use of household waste for food production.

The role of research and development in urban and peri-urban homegarden production is indeed significant. Multisectoral involvement like the *Pasadang Pambarangay* should go beyond simple seed/seedling dispersal. A review of existing literature in homegardening in Baguio City shows very little quantification of income or nutritional contribution. This could be important an important basis for official attention or deliberate administrative policy at the highest level to improve the homegarden system.

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