

RESEARCH ON ADAPTIVE STRATEGIES IN THE PHILIPPINES: DIRECTIONS AND PROSPECTS

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INTRODUCTION

Culture is a non-biological tool man creates to respond successfully to various environmental conditions. To assure his efficiency, as a producer, man creatively relates himself with his environment. This interaction allows both social and biological adjustments (systemic) to assure such success as exemplified by the feedback mechanism.

With this assumption in mind, I will attempt to bring to your attention what I personally think should be the major focus and directions of the contemporary Philippine anthropological research on adaptive strategies. In the Philippines today, there are two major trends that demand appropriate adaptive strategies for survival: first, the increasing inaccessibility to economic resources among our less fortunate majority population; second, the declining accessibility to political power by our majority population. Being not mutually exclusive, one begets the other. In this paper, I will try to discuss how these two trends developed.

PRESENT LIVING CONDITIONS OF POPULATION GROUPS IN THE PHILIPPINES

As the Philippines hastens her step toward industrialization and moves closer to western style of living, the consequent cultural and environmental changes affect the ecological profile of the country. The construction of infrastructure such as roads and bridges in what used to be inaccessible areas of the country has converted the otherwise self-contained, isolated tribal population into an ill-defined member of the rural peasant population. Consequently they have to contend with the problems attendant to the tremendous structural and functional changes in their sociocultural and ecological system. The introduction of non-indigenous commercial items to this group of people have increased their demand for cash. To meet this demand they have to step up the collection of commercial forest products and to intensify their domestication of crops. The process has created a group of what we might call as "marginal

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agriculturalists" (Cadelifa 1980). They become marginals in at least three aspects:

- (1) marginal in the use of modern techniques of agriculture;
- (2) marginal in their contribution to, and participation in, the national economy; and
- (3) marginal in terms of the quality of the land they are cultivating for agricultural purposes.

The increasing exposure of marginal agriculturalists to commercial finished products has made the proceeds of their traditional technology inadequate to meet their needs and desires. This is what exactly is happening among the Batak in Palawan, inspite of their attempts to preserve the integrity of their ecological niches. They are losing the power to control their own economic activities to assure them of maximum returns from such activities. The power they used to have over their own economic life has shifted to the more informed but unconcerned middlemen. How do marginal agriculturists cope with this problem, is worthy of investigation and seriously a very relevant topic for research.

The acceleration of industrialization process in the country has led to the mushrooming of industrial centers. Due to certain needs and constraints, most of these industrial complexes are located in urban centers of the country. In these areas more jobs are available and many rural folks thought that the "better life" is found in these places. The myth that a better life is always found in the cities has led to the exodus of rural farm laborers, including a good number of tribal people such as the Badjao that are now living in Cebu City (Uy and Neri 1979:185-90), trying to seek their luck in an already congested place. Equipped with minimum technical training they are forced to live in substandard condition in slum areas. Slum areas mushroom where slum dwellers face different degrees of frustration and success. As urbanization continues to advance, these people expand its population size forming an urban-group which we might call "urban marginals." Lomnitz's work in Mexico, described urban marginals in this way:

It is characterized by dislodgment or exclusion from the dominant urban industrial economy and by chronic economic insecurity (1978:181-82).

Urban marginals develop when farm hands seek for city jobs leaving the farm work in the rural areas to the more patient ones. The desire for such jobs forces these people to make a living in the city. Despite the general belief that slums are breeder of deviants, a number of successful and morally straight individuals among them are apparent. My research in a slum area of Barrio Luz in Cebu City in 1973-74 supported this position.

There is a need therefore to investigate how these people succeeded under a highly stressful urban marginal condition and what effective adaptive strategies have they adopted. Such questions have been overlooked in research on slums.

As part of the energy-saving program of developing countries experiencing industrialization, the need for alternate sources of energy is inevitable since the cost of fossil fuel becomes prohibitive. Recent studies seem to show concern over the effects of the waste products of such energy-saving plants on the environment. In the exploitation of natural resources worse problems are faced in terms of environmental degradation. In Negros Island alone, the Construction and Development Corporation of the Philippines' copper mines of Basay is polluting the Pagatban river. Fish sample from the outlet of the mine tailings show high levels of copper, iron and manganese (Silliman University Weekly Calendar, March 12, 1981:1; 4). It is very clear that these minerals have already entered into the food chain in the community. A laboratory study conducted by the Chemistry Department of Silliman University on the heavy metal contents in the hair of respondents living far from the Pagatban River (Zamboanguita, Bais City, and Dumaguete City) and the residents near the Pagatban River showed that the latter residents "contain significantly higher levels of copper, iron, and manganese" (Silliman University Weekly Calendar, March 12, 1981:1) in their hair. Furthermore, the mine tailings of the copper mine "has resulted in the siltation" (Silliman University Weekly Calendar, March 5, 1981:1) and consequent decline of food products from the Pagatban river. More than half of the 25-kilometer Pagatban River has been reduced to a grayish quicksand with only a small stream of water, with a silt of 2-meter deep. The silt has spread to a barrier reef about one-and-a-half kilometers from the mouth of the river at a depth of two feet at the reef and two to three inches deep on the reef flat, leading to the death of the 75 percent of the coral population in the area. At the river's estuary, the *lampirong (Placuna)* is gone. At present one can no longer see fish and shrimps which used to be plentiful in the area before 1978. (Silliman University Weekly Calendar, March 5, 1981:4). They were all killed in a period of three years.

The geothermal plant in Palinpinon, although there is no available data yet as to the nature of pollution it is giving to the Okoy and Palinpinon rivers, poses great and valid fears among the people in the area. They are afraid that the pollutants will eventually destroy their present livelihood in these two rivers. A study sponsored by the Environmental Center of Silliman University showed that Okoy river alone is producing the following food sources for the people in the area: vegetable such as kangkong (*Ipomea reptans*) at around 21,600 kilograms per year per

hectare of irrigated fields; and fish, shrimps and crabs combined for around 164 kilograms per year per hectare (Gabanban n.d.:13). If pollution will not be dealt with appropriately, these resources will all be gone in time.

The Atlas Mining Corporation in Toledo, Cebu showed that 14 gastropods and 16 pelecypods existed in the vicinity before the mine's waste pipe line was constructed in the area. It was found that all these species were gone. Over a very wide area where the pipeline released its waste, the seabed was found to be heavily silted, no benthic organism, visibility was less than a meter and fish life was very sparse (Silliman Weekly Calendar, March 12, 1981:4). The concentration of heavy metals was still found as far as 60 kilometers radius from the mouth of the pipe line.

The Pantabangan hydro dams and the Chico River Basin program, although they may save oil cost for the country, may lead to the destruction of certain ecological niches which have been serving as effective food base for certain population in the area for many years already (Cariño, et. al. 1979:37-103). Unexpectedly, rapid siltation of the dams, within a very short period, destroyed the fresh water fish, crustaceans and mollusks' habitat eliminating them from the repertoire of the people's protein source. The local population has to depend on all food sources from the outside putting them at the mercy of the profit-oriented middlemen. The little control, (i.e. dealing with their own problems in their own terms), they used to have in their respective communities in their own economic programs and activities is now completely eroded. What alternative strategies people employ as they face these contingencies as a result of industrialization, demands scientific investigation.

Being basically an agricultural country, attempts were made by the Philippine government to change our patterns of land ownership. Land reforms were introduced with unexpectedly short-lived benefits without realizing the staggering long term problems for the succeeding generations. The introduction of the Green Revolution, a supplementary program to Land Reform, has increased cost of production five times higher than its yield. Umehara (1978), a Japanese researcher measured the increase in level of production in comparison with cost in a barrio in Nueva Ecija between crop year 1970 to 1978. Average yield per hectare increased by 15 percent (from 41.68 cavans in 1970 to 47.98 cavans in CY 1977-78) while the average cost of production increased by 70 percent (from 25.11 to 42.78 cavans). This means the average return per hectare actually decreased by 219 percent (from 15.67 to 5.20 cavans). The increase in the cost of production was brought about by the increase in the cost of fertilizer, insecticide and other chemicals needed by the so called high yielding (HY) varieties of rice (Ofreneo 1980). This indicates that whatever absolute increase there was in the production, all went to agro-industrial plants and

industries found in big cities. Our land reform program attempted to solve the problem: Who owns the land the share tenants used to be cultivating? Share tenancy system was found out to be oppressive since all the power to control the situation was in the hands of the landlord hence it did not provide enough incentives for the share tenants to produce more. The set up was dysfunctional and had to be changed. Land reform was the only alleged hope. Now the farmers have to cope with another problem: For whom are we really producing (Ofreneo 1980:82)? What we see today is simply a shift of power from the same people but with different roles now legitimized by the Land Reform program and the Green Revolution. Landlords, whose powers (over the tenants) we attempted to eliminate, turn out to be the same capitalists after the land reform program. They and the big multinational corporations, who are funding these giant agro-industrial establishments, are now controlling the economic life of our peasant farmers. Under the present set-up, more inputs are required to maintain the seemingly efficient farm management without enough beneficial outputs. How the farmers manage to survive under this economic structure is worth looking into.

The scenario that I have discussed, clearly showed the increasing scarcity of economic goods available to most Filipinos. In the same manner, accessibility to, and control of, political power is automatically possessed by the few ones. Most Filipinos are therefore rendered helpless. The next question we might raise would be: If we want anthropology to be a relevant discipline in the Philippines today, what kind of research interest should we pursue?

PROSPECTS FOR RESEARCH ON ADAPTIVE STRATEGIES IN THE PHILIPPINES

Adaptive strategies are techniques by which the Philippine population through responsive changes in their own composition and structure maintain homeostasis in and among themselves as they face short and long term fluctuations of economic resources (Rappaport 1971). In a sociocultural-ecological system, the equilibrium established by the adaptive infrastructure during two or more different time points are never the same in structure and content. Equilibration in this system, therefore, is always dynamic.

The complex system of adaptive strategies constitutes what we might call as the "adaptive infrastructure" (Laughlin and Brady 1978:3). This adaptive infrastructure consists of the following domains (Laughlin and Brady 1978:8-13): economic; social; political/ideological. Let me discuss

each of these by relating them to our interest in research on adaptive strategy.

Economic

Every society has a means of provisioning itself through the production, distribution, and consumption of economic resources. Production involves the technological exploitation of resources in a given community. In the area of production, the following questions may be raised:

(1) What role does the indigenous population have in the production of goods? Utilization of natural resources by outside members often leads to drastic changes in the environmental, and cultural profile of the host population. The latter, most often, is concerned with maximum return from his production at the expense of the host population. The presence of outsiders in the community hasten cultural diffusion which in most cases, the host population is not prepared to react properly. If ever, production is carried out by the outsiders, what preventive measures are taken to reduce if not prevent environmental degradation as well as hazardous cultural revolution? How does cultural pluralism come into play as a form of preventive measures from cultural confusion and ecological deterioration? How do local population groups perceive their role as producers? How about the produced goods? Do they consider such goods as basis for survival or something extraneous? How do these goods affect their over-all subsistence practices?

(2) Under declining resources what strategy do people employ in order to maximize production? Does scheduling of productive activities enable people to tap food sources available in different places at different times or under other periods or locale of availability?

(3) Is there an agreement between operational and cognized resources by the people? If none, how much risk does this differences lead into environmental deterioration such that it threatens people's survival? What measures does the indigenous population employ to preserve such resources? Is there a change in the way indigenous population cognize their operational resources over time? What brings this change if any? Or why was there no change? Is this trend a part of the people's adaptive infrastructure?

(4) What feedback mechanism do people experience to assure them profitable level of production? Positive feedback may be employed by introducing progressive type of technology or it may be negative feedback by checking or limiting the human population pressure on resources. My data among the Batak, however, show that two feedback systems are employed simultaneously. They consciously limit their births and introduce

more practical and appropriate techniques in the production of food by employing what we might call as "technological pluralism" strategy.

The distribution of goods involves the process of allocating resources to the consumers as well as the process of making the producer's own products available to themselves. Questions such as the following may be raised:

(1) How much of the produce really go to the producer? Such question is relevant as marginal agriculturalists and peasant farmers increase their participation in the national economy. If there are bottlenecks created by the socioeconomic structure leading to inequalities in the distribution of resources, what countermeasures are employed to balance this inequality? If there are, do not such countermeasures create further inequalities?

(2) Does, in reality, allocation of goods favor certain geographical segment of the population? Do the producers themselves have to shoulder the transport cost due to centralization policy of storing products after which producers buy them at a fantastically much higher price during period of scarcity? What measures are employed by the farmers who are affected by such problems? Are these measures implemented by the people or are they prevented to implement them by cultural or legal constraints?

(3) What is done in an inter-household level such that everybody can have a share in the goods available in some few households? Is good distribution done such that people go around to get them or are such goods circulated among households such that people just have to wait? Or to equalize accessibility to resources, do people share goods indirectly by means of sharing production capital and tools among themselves? These questions are relevant for marginal agriculturalists, peasant farmers and even among urban marginals.

The consumption of economic goods constitute the last phase in the cycle of an economic system. Once produced, they are distributed, and consumed. A number of issues can be raised in this aspect of an economic system:

(1) What is the basic unit of consumers in the community? Is it the nuclear, extended family or other bigger social unit? Pooling food products from different individual producers for a collective consumption enables the group to have access to various food types thus expanding the nutritional varieties people take. In the face of increasing scarcity of food resources, this system has a high adaptive value by not only increasing the collective volume of food but also improving the quality of the nutritional intake of the people. Does the unit of consumers change over time? Is the change in the unit of consumers over time brought about by recursive or by progressive fluctuation of supply of economic goods?

(2) Do patterns of food consumption differ in terms of perishability of resources and/or of needed input in producing them? What adaptive implication does this have for the population?

Social

The economic adaptive system is closely related with the social system. The latter consists of the social network, formal and informal, established by the population to enable them to have access to both the operational and cognized resources for survival. This network may emanate from within the local group and involve local population; or, it may emanate from without linking the local population with the other external groups (Brady 1978:245-81). A number of questions can be raised for this area:

(1) What forms of social networks are established by the people to assure maximum production? Does this network of relations involve only indigenous population or do they also involve other external groups? What types of resources are mobilized in these types of network? In case of networks established with external groups, is their equal benefits accruing to all the parties involved? If not, what measures are provided by the local or indigenous people to get the benefits due them?

(2) Are there latent social networks established that people can tap during an economic disaster or of economic difficulty with cyclical occurrence? If not, how do they cope with such disaster or scarcity?

(3) Are social networks used to enable the local population to have access to resources beyond their exploitative sphere or beyond their technological capabilities? Certain economic goods are situated outside people's geographic domain and hence cannot be directly exploited by the people. Through establishing social network with external groups those goods can be brought into the community. In other instances, goods may exist in one's own geographic domain but the people's level of technological know-how does not allow the people to exploit them. Social network with technologically capable group can bring in the expertise and enable them to exploit the resources for their common interest. Does this linkage bring in mutual benefits to all population concerned or not? If not, what measures are employed by the local people to minimize these inequalities?

Political and/or Ideological

The political aspect of an adaptive system involves the power relations among individuals or segments of society to have access to

economic resources for survival. It consists of the control one individual, segment or group has over another in the successful utilization of situation or economic good. On the other hand, ideological aspects consist of the rational formulae, meanings, definitions, ideals, and rules that reinforce and legitimize one's action and relation with others in the people's attempt to control power and economic resources. In this aspect of the adaptive infrastructure, the following questions may be raised:

(1) Are there key personalities in the community through which resources are channelled for distribution among the people? Does this channel assure the distribution of goods? What mechanism or check people employ to prevent excesses of power of such channel?

(2) How do brokers, "big men," agents come into the economic picture?

(3) How much control do local or indigenous population have over their economic activities? In what manner is the population's control over their economic system articulated or expressed?

(4) Are there traditional systems of authority in the community that can be used as checks or safeguards from abusing such economic power? Is there any effective political system in the community that can successfully elicit group action, corporate activity and collective efforts for the common economic interest of the group?

(5) Are there normative prescriptions, ideals, and other sacred or secular rules that assure individual's fair chance of enjoying products derived from his economic activities? How effective is this ideology to the socioeconomic network that involves external participants?

The series of questions that I have raised constitute a very wide array of research problems that we can pursue in the 1980's. The problem of survival under an increasingly stressful situation is a serious business which I personally think deserves serious attention in anthropological research in the Philippines.

SUMMARY

The paper attempted to articulate briefly some of the many conditions that are taking place in the Philippines today which contribute towards increasing disenfranchisement of the majority of the Philippine population from the economic and political resources. There are at least three segments of our population that are significantly affected by this: the marginal agriculturalists which include all tribal groups in the Philippines; the rural peasant population; and, the urban marginals composed of slum dwellers in the city. The degree of their disenfranchisement differ in terms of the degree of dependence on the wider national economy.

The rather detailed questions that I have raised earlier for every aspect of the adaptive infrastructure: i.e. economic; social; and political/ideological; are relevant to each of these population groups. The research problems proposed are big for one or two researchers. We need to work together and define what we should do as a way of contributing to our task of nation building. I personally believe that policy formulation is not a monopoly of technocrats but also a responsibility of people who are concerned with the welfare of people. But to make our presence felt, let us have a sense of direction and focus. To have a sense of direction and focus, and to have such a direction recognized are two different things.

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