

INTRODUCTION

This research seeks to:

1. Examine the impacts of export-oriented aquaculture on subsistent Philippine fishing households;
2. Offer a better explanation of the nature, the extent, and the causes of poverty among Philippine fishing households; and
3. Make a political protest against contemporary globalization of household survival essentials.

Two burning issues fuel my passion for this research. First, I am deeply concerned about the role of the Philippines as a highly dependent *food extractive enclave* in the current era of globalization. Culturally and economically, fish and seafoods are central to the existence of most Filipinos. On the one hand, fish and shellfish are the main sources of animal protein for the vast majority of the population. On the other hand, fishing is a major source of livelihood and subsistence for millions of households. Even though these aquatic and mangrove resources are crucial to the survival of its own citizens, the Philippine government has pinned high hopes on fishing and aquaculture as sectors that might be profitable and competitive enough in the capitalist world-market to foster long-term economic growth, stabilize the country's trade position, and provide revenues to repay external debts. The shift to export-oriented aquaculture was triggered by external pressures rather than by internal needs, most especially by the impositions of structural adjustment policies by the International Monetary Fund and the World Bank beginning in the

1980s. These development policy shifts have depleted and degraded coastal ecosystems and drained essential foods from Filipino diets to provide luxury foods to core consumers who already have far too many food options.

The second burning issue which fuels my research passion is that I am disturbed that the importance of peripheral households has been so neglected– and so minimized– by both mainstream development thinkers and western(ized) feminists. Rather than protect its natural resources as basic survival needs of its own households, the Philippines transformed itself into one of the world’s major fish, seafood, and seaweed exporters. However, this superior productivity is juxtaposed against the disturbing realities of persistent poverty and malnutrition among thousands of worker households that support these export industries. Filipino artisan fisher households have been marginalized by the capitalist world-system into desperate peoples who must scavenge among coastal resources that have been depleted and degraded by globalized aquaculture. Neither in the ecosystem nor in the capitalist market can these producers now acquire food resources that are adequate to meet household survival needs. During the 1980s, heads of prawns became a common commodity in the market stalls. “Where are the bodies?” I blurted in shock the first time I witnessed this threat to our local food security. The reply was: “Exported! It’s good money, a lot better than selling those prawns locally. But the core consumers don’t want the heads!” For most local households, however, even the prawn heads are too expensive, and small fishes had displaced prawns in their traditional diets. It was then that I began to see the connections in my home country between the capitalist commodification of food and the drain of resources into a globalized food chain that benefits the world’s least hungry people who reside in the core countries.

In this study, I speak only secondarily as a western-trained researcher. First and foremost, I sound alarms from a woman and from a mother whose home and family lie in a peripheral nation ravaged by many decades of past colonialism and of recent global capitalism. I seek to unravel why my country remains so poor and degraded after having “sold” to the world so many valuable commodities. Rather than the “progress” promised by the imposed model of western developmentalism, the capitalist world-system has rewarded the Philippines with growing poverty among our people, increasing disparity between rich and poor, unmanageable external debt, environmental degradation and destruction, loss of household access to species used for traditional food and medicines, and heightening inter-ethnic conflict. Like Immanuel Wallerstein (2000: 185-206), I am convinced that the best social science theories are those that lay signposts to guide us toward political resistance against this destructive modern world-system. Consequently, my dissertation is a political protest directed toward the global lords that orchestrate world development and toward the powerful Filipino *comprador bourgeoisie* who facilitate external exploitation of my country. I would like to offer my dissertation as a signpost to lowly semiproletarianized communities who, out of their desperate efforts to survive, are left with only two options: (a) be coopted by the system to try to feed their families or (b) engage in dangerous resistance that poses additional threats to their survival.

On the one hand, what makes global capitalism so powerful is that it is so cunningly recuperative, so deceptively beautiful, and so “scientifically” entrenched. On the other hand, the modern world-system is a no-exit puzzle in which chameleon-like capitalism has produced a ghastly polarized globe by flourishing as the same, but simultaneously locally-adapted, mode of production (Wallerstein 1983). Peripheral countries like the Philippines are trapped in this

complex dialectical morass. If we poor nations try to restructure the system by hanging some capitalists, other profiteers will “grow” the system by selling us the rope we will use! I hope this dissertation will provide some pale light to my children and to the next generation of more enlightened Filipinos.

Target Area for the Study

In 1994, the World Bank congratulated the Philippines for being one of the “most deregulated” economies in Asia, predicting that the country was right on track for full economic recovery by 2000.¹ In sharp contrast to that optimistic rhetoric, the Philippines has slid from the most dynamic economy in Asia during the 1950s to a nation facing fiscal crisis and economic stagnation. Prior to neoliberalism, the Philippines was growing at rates of 6 to 10 percent annually, fueled by its import substitution industrialization program. At present, the Philippines has the lowest economic growth rate in Southeast Asia, and its foreign direct investment decreased from \$1.8 billion in 2002 to only \$319 million in 2003 (Escobar 2004). In spite of several rounds of IMF-mandated structural adjustment policies that began in the late 1970s, the Philippines is now less industrialized than it was in 1980. Despite market-oriented economic reforms, the Philippines’ export structure is now less diversified than it was prior to the era of neoliberal globalization (Lim and Montes 2002). According to Pabico (1999: 4-5):

Intense trade liberalization and tariff reduction thrusts. . . have brought about stiff

¹ *AsiaMoney Magazine*, March 1996 Supplement, online at www.ph.net/htdocs/trade/philec-1.htm

competition in the world export market. Today, despite the devaluation of the peso, the country has become even less a major player in the export market. Among the biggest export losers is the garment industry, which is the biggest [industrial] employer of women workers. As a result, garments and textile firms have been forced to either shut down or engage in subcontracting and other lower-cost production arrangements. . . . Dressmaking has become akin to the manufacture of a Japanese car, its several parts assigned to different [home-based] workers and then later assembled. . . . Computerization of labor has left half of [the country's textiles workers] without jobs, and embroidery and lace workers are among those who now have to compete with machines.

Impacts of Neoliberal Globalization on the Philippines

The Philippines national globalization agenda has been undergirded by rising external debt which now hovers around 85 percent of GDP and totals \$96 billion (Escobar 2004). Currently, the Philippines government is still:

servicing the huge debt incurred by the Marcos dictatorship. The country's physical, technical and educational infrastructure was left to rot— as it is still. Aquino sank the country further into debt. . . . As for the poor Filipino taxpayer, he will keep paying for Marcos' debts until at least 2025. . . . [B]efore Marcos became president in 1966, the country's foreign debt was only \$599 million. When he fled Malacanang 20 years later, the foreign debt had already ballooned to \$28 billion (Escobar 2004: 17).

For every 10 Pesos income in 2004, 5 Pesos were earmarked for debt repayment (IBON Foundation 2005b).

On the one hand, the Philippines is unique in the world in the degree to which its national globalization agenda prioritizes the export of surplus laborers. Nearly 10.8 million transnational Filipino laborers are spread throughout 186 countries. The remittances flowing back into the country from those transnational human exports now totals nearly \$8 billion annually, accounts for more than half the country's GDP, and is the main factor in the growth of the gross national product (Escobar 2004). On the other hand, the Philippines' average gross domestic product per capita is shrinking and poverty is rising. Between 2002 and 2004, the number of unemployed and underemployed tripled and now comprises 10 million workers (Escobar 2004). Agricultural households are the poorest families in the country.

The hacienda system still persists in the country, where large estates are farmed by sharecroppers. More than half the population are peasants, and 20 percent of the population own 60 percent of the land. Although the sharecropper is supposed to receive half the harvest, most of the peasant's actual income goes to paying off the debts incurred with the *cacique*, the landowner (Instituto del Tercer Mundo 2001: 438).

Only 65 percent of Filipino children finish the sixth grade while less than 50 percent complete a secondary education. One of the effects of neoliberal privatization policies has been a decline in national budgeting for public education, such that the government now only funds about 60 percent of the costs of an elementary education. As a result, the country is plagued by a soaring school dropout rate and a growing population of child laborers. More than 2 million

Filipino children work in dangerous environments while the street children population has increased to 200,000. At least 60,000 youth are involved in the commercial sex industry (U.S. State Department 2002), and children as young as five are employed in the production and sale of illegal narcotics (Lepiten 2002). A majority of Filipino workers earn income in the informal sector, and poverty has a feminine face. The proportion of female-headed households is steadily rising, and more families are now dependent on income generated by female members. Because female unemployment has increased, most women earn income in the informal sector. In the 1990s, women's earnings in the informal sector comprised about one-third of total household income. Nearly six of every ten women workers are in the informal sector, primarily working as home-based contract laborers or as operators of micro-enterprises, such as small variety stores, vegetable peddling, or crafts sold on the streets. Another one-quarter of women workers toil as unpaid family workers in agriculture, retail trades or personal services (Pabico 1999: 1-3).

More than 30 million Filipinos live below the poverty line (Bello and Dorcena 2002), and most of them are concentrated in the country's large urban centers. In the slums of Manila, for example, 80 percent of the children do not attend school, and most are employed as child laborers. Because there are so few waged job opportunities, slum dwellers are concentrated in the informal sector. Some adult males work as *cargadores* (porters) or as pedicab drivers while a few women set up food stalls at the harbor. But most live off the garbage. High earnings in the slums amounts to less than US\$5 daily. Slum dwellers are further endangered by the pollution, traffic smog, and unbearable stench from the lack of sanitation and uncollected garbage (Escobar 2004).

Filipino elites live a lifestyle that polarizes them from a majority of the country's poor and middle classes. Only 134 families have controlled the country's Congress over the past century

(Coronel 2004), and these elites also own the nation's manufacturing companies and agricultural land (Rivera 1994). According to Bello and Dorcena (2002: 71), much of the fiscal and economic crisis of the Philippines derives from the nation having been "subjugated by a succession of ruling elite factions who served narrow interests instead of the larger goals of sustainable development and social justice." According to Kang (2002), crony capitalism lies at the heart of the Philippines economic inequalities, and the ruling elites "represent what is so wrong with the Philippines and so many other poor countries— the rampant bribery and fraud, the unbridled rent-seeking, the brazen patronage politics, the flagrant abuse of public resources for private gain, and the widespread clientelism" (Coronel 2000: 112). Bello and Dorcena (2002: 34) contend that the Philippines is in economic crisis for two reasons: (a) political domination by corrupt elites and (b) external interference. So many Filipinos are mired in poverty, they assert:

because the state, strangled as it is by competing factions' demands, has been rendered too powerless to even chart the country's direction, much less subordinate ruling elites under its control. Further sapping the state's potential to act. . . have been external interests constraining its range of allowable actions in the larger context of the North's persistent and often successful efforts to subordinate the South.

To exacerbate matters, the Philippines is now caught up in the global antiterrorism agenda. According to Escobar (2004: 39), the national leadership of the Philippines:

more than welcomes a de facto US armed intervention, regulated by a Mutual Logistics Support Agreement (MLSA) that offers Philippine airspace and seaports to US forces and includes intelligence sharing and logistical support. For the

moment this involves a rotating presence of at least 2,000 soldiers and Special Forces through at least 18 annual bilateral military exercises. . . . Bush has asked the US Congress to increase military assistance to the Philippines to US\$164 million in 2005. Arroyo's master plan since 2001 has been to turn Manila's fight against Muslim separatists into an anti-terrorist campaign, in exchange for increased US economic and military aid. . . . Arroyo's government saw the correct "positioning" of the Philippines on the "war on terror" as a once-in-a-lifetime opportunity to get rid of Muslim separatism, especially in strategic Mindanao. . . through which at least 40% of Japanese and ASEAN (Association of Southeast Asian Nations) trade transits.

Focus on Three Mindanao Fishing Communities

It is in the troubled region of Mindanao that this study is situated. Mindanao has the highest poverty and unemployment rates in the country (Asian Development Bank 2005), and many of the adult workers migrate illegally to Malaysia to work (Sadiq 2005). Aquaculture and fishing are important economic sectors of the region, but the area's fishing households are the poorest in the Philippines (Pabico 2004). Only one-fifth of all Filipinos are too poor to afford essential food levels, but two of every five Mindanao citizens are too impoverished to acquire sufficient nutrients. The island also exhibits the highest infant mortality rates in the country. Diarrheal diseases associated with bad sanitation and unclean water are the main cause of death for children younger than five. The human development index for Mindanao is only 0.49, compared to 0.74 for the entire country. Agricultural households are among the poorest families

because there is a higher concentration of landless farm families in the region. According to the Asian Development Bank (2005: 60-61):

The average size of farms tilled by the landless is 0.75 hectares (ha) and the average landholding is 1.5 ha. . . . Common crops produced by landless farmers and smallholders are rice, coconut, corn, and vegetables. Periods of extreme deprivation occur when there is no work at all, usually between the planting and harvesting seasons. Only a few have access to agricultural equipment and facilities. Due to their low income, landless sharecroppers often depend on large landowners for credit to cover as much as 80 percent of the required farm inputs, such as seed and fertilizer. . . . In the coastal areas, a day's catch only fetches an average income of P50 [less than \$1 a day], which is not sufficient for the household's daily food requirements.

Fish farming has been a significant economic activity in Mindanao since the 1950s, but fishing families are now the poorest households in this region. For the purposes of this study, I selected Panguil Bay on the island of Mindanao because this area would permit me to locate three types of aquaculture and fishing in a geographical space that was conducive to travel between different *barangays*. A *barangay* is the smallest political unit in the country, and it typically consists of several neighborhoods or dwellings called *puroks* (Eder 1999) which constitute a village or suburb within an urban area (World Bank 1976). In the process of identifying my study area, I contacted officials involved in fishery management. I selected three *barangays* in three different provinces along Panguil Bay.

1. Located in the town of Kapatagan, Barangay Lapinig was involved in aquaculture as early

1957 and now has corporate prawn (shrimp) fishponds of 200 to 2,000 hectares which employ intensive harvest techniques.

2. Located in Tangub City, Barangay Silangay experienced a shrimp boom in the 1970s but now has small-scale fishponds of 1 to 2.5 hectares that employ semi-intensive harvest techniques.
3. Located in Ozamis City, Barangay San Roque began aquaculture activities in 1998 and now specializes in seaweed gardening.

Over several decades, Panguil Bay has passed through more than one boom-to-bust cycle of aquaculture production, and it is currently in the bust stage of prawn output.

Theoretical Framework

Such neoliberal policies derive from the structural crises and contradictions of global capitalism. The world and every part of this world belong to a one-world historical system. This one-world historical system defines, shapes and influences each participant in the world-system, depending on its hierarchical position. Because the aim of global capitalism is endless capital accumulation, this historical system seeks to incorporate all areas and ecosystems of the globe into networks of capitalist production, thereby subjugating those regions to the vicissitudes and the inequities of the capitalist world-economy. Consequently, capital accumulation polarizes the participating nations into the economically and politically dominant core and the weaker impoverished peripheries. The world-economy structures unequal exchanges between different production and trade zones, resulting in the extraction of surpluses from the periphery for the

benefit of the core. Exploitation of peripheral societies (Wallerstein 1983) and super-exploitation of women and of nature (Mies and Shiva 2001) are preconditions of the profit maximizing and wealth accumulation which sustain the capitalist world-system. The *commodity chain* and the *household* are the two structural units through which the world-economy operates through unequal exchanges to keep peripheral nations poor (Wallerstein 1983).

Commodity Chain: The Structural Link that Keeps Peripheral Nations Poor

The *commodity chain* is the structural mechanism which connects all actors of the world-economy, from the child laborer to the household to the nation-state to the giant multinational corporation. It is the commodity chain which articulates nation-states and small local communities with the world-economy. The *commodity chain* is “a network of labor and production processes whose end result is a finished commodity” (Hopkins and Wallerstein 1986: 159). As the basic structural economic unit of the world-economy, commodity chains:

consist of set or inter-organizational networks clustered around one commodity or product, linking households, enterprises, and states to one another within the world-economy. These networks are situationally specific, socially constructed and locally integrated, underscoring the social embeddedness of economic organization.

(Gereffi *et. al.* 1994: 2)

In every node of the commodity chain, there is exploitation of human and natural resources. Before the inequitable expropriation of surplus between macro-structures (i.e., between multinational corporations or nations), the commodity chain has already institutionalized

a mechanism of surplus production and expropriation in each and every node of the chain. Espousing both ecofeminist arguments and world-system analysis, Dunaway (2001:11) stresses that commodity chains are more than a long string of spatial points at which mechanical processes occur to generate a marketable product. They are, first and foremost, an interconnected network of nodes at which human laborers and natural resources are directly exploited or indirectly exploited to permit surplus extraction by a few (Hopkins and Wallerstein 1986).

A commodity chain is “a much more powerful conceptual tool when viewed as successive layers of *unequal exchanges*” (Dunaway 2003: 193). On the one hand, those unequal exchanges cause the polarized distribution of resources and commodities, such that world economic outputs are drained from the periphery and concentrated in the core. On the other hand, there is unequal exchange in every node of a commodity chain because capitalists consume resources and labor from households without paying either a “living wage” or the full cost of those inputs (Mies and Shiva 2001). A single commodity chain usually exploits several forms of *waged* and *non-waged* labor (Dunaway 2002: 133). At the world-market level, “the uneven exchange of these commodities between nations. . . constitutes the very essences of global inequality” (Korzeniewicz and Martin 1994: 83). According to Dunaway (2002: 132):

commodity chains are the key structural mechanisms of unequal exchange. They are the chains of the capitalist world-system in three senses: they derive from the system; they link together the diverse local economies of the system; and they entrap and exploit its entire population, almost no household excepted.

Moreover, there can be direct and indirect flows into the capitalist production process from subsistence sectors, from the informal economy and from illegal sectors.

The Household: Smallest Institution of Capitalist World-System

Embedded in every tentacle of the commodity chain are *households*, the basic units of economic production and of labor reproduction and the most neglected institutional pillar of the capitalist world-economy (Wallerstein 2000). At the outset, let me clarify my distinction between *family* and *household*. A family is a social unit, an aggregation of human individuals usually based on blood-relationship, traditionally wife-husband-children, some extended, some nuclear (Benokraitis 2005, Arborg 2002, Daly 1992, Lamina and Redman 2000). In contrast, a household may be comprised of kin and non-kin members. Moreover, a household is more than an aggregation of humans, for it also includes the resources -- both material (e.g., land, house) and non-material resources (e.g., biological reproduction, care-giving) -- which all the members generate or control to provide for their survival (Mies 1987). “Under historical capitalism, as under previous historical systems, individuals have tended to live their lives within the framework of relatively stable structures which share a common fund of current income and accumulated capital, which we may call households” (Wallerstein 1983:23).

The vast majority of the people of the world still reside in households or their cultural equivalents, and it is the household which is the center of human reproduction and distribution of resources, albeit not always equitable, not without patriarchy, and not without conflict (Quick 1992, Wallerstein 1992). In short, the household – with all its human and non-human elements – is the smallest unit of the capitalist world-system. In its power conflicts, status hierarchies, and

inequalities, the household mirrors the structural contradictions of the world-system in which it is nested (Wallerstein 1983). Dialectically, the household is also that space which provides safe haven and nurture for individuals who are assaulted by that crisis-ridden world (Salleh 1999).

The household is complex because of its many varied functions. It is simultaneously a unit of consumption (Polanyi 1944: 95), a unit of economic production, and the base for human reproduction (Ironmonger 1994). Households pool and distribute resources to ensure the material maintenance of members (Wheelock 1996, Wilk 1989, Deere 1990). Feminist economists argue that the household is an important economic institution which makes significant contributions to the gross national product of societies that have been ignored by most scholars (Bryson 1996). Feminists contend that households are arenas of conflict in which female unpaid household labor is devalued while much of female paid labor is rendered invisible by patriarchal customs (Schneider and Shackelford 1998, Quick 2002, Mies 1986, Hart 1992, Ironmonger 1996).

According to Dunaway (2001: 8):

Households are not just producers and consumers. They are also units of reproduction; they are decision-making and resource-allocating units; they are sometimes economic enterprises that produce market commodities; they are arenas that transmit culture and ethnic heritage; and they are units that support and/or organize anti-systemic resistance.

Wallerstein (1983: 25) contends that “what is new under historical capitalism was the correlation of the division of labor and valuation of work,” explaining that it is in the context of a household that there emerged a *gendered* distinction between *productive* labor (relegated to men, paid) and *unproductive* labor (relegated to women, including unpaid household maintenance and income

earned outside formal waged employment. The emergence of the social distinction between *work* and *non-work* in the household is an invention of capitalism, where *work* was redefined to mean paid or remunerated labor done outside the household. Activities done inside the household were economically relegated to the realms of unpaid or *nonproductive* labor, marking the devaluation of survival work that is so often done by women and girls (Wallerstein 1983).

For example, recent studies (Mabunay 1995, Sobritchea 1993, Ingles et al. 1992, Illo and Pollo 1990) demonstrate this patriarchal pattern in fishing households of the Philippines. Filipino women have a strong presence in fishing and aquaculture as commercial fishers, fish plant laborers, proletarian processors, subsistence or artisanal fishers, processors and marketers, and as “invisible” assistants to adult males in a wide variety of ecological, cultural, political and economic arenas. According to Rodrigues (2001: 2):

Fishing as a way of life depends on women’s unpaid as well as waged work. The patriarchal view of work created a reproduction and production hierarchy in the sexual division of labor. In Philippine society, women are primarily expected to do reproduction work. This is often unpaid, confined to the home, and just as physically and emotionally taxing as paid work outside the home. On the other hand, men’s domain is public production or paid work outside the home which is highly valued more than women’s reproductive work. Therefore, women directly involved in fishing are more likely to be referred to as helpers or auxiliary fishers assisting their husband-fishers in handling simple fishing equipment gleaning, fish processing, trading, and mending of nets.

Illo and Polo (1990) emphasize that Filipino fishing wives have been socialized into contradictory economic roles. On the one hand, the female is a *housewife* with roles and responsibilities revolving around reproduction and home maintenance. On the other hand, the woman is expected to be work alongside husbands in their economic endeavors, and even to acquire income through waged and non-waged work outside the household.

Methods of Inquiry

This study focuses on three small fishing communities along Panguil Bay in Northern Mindanao, one of the poorest regions of the Philippines where the shift to export fishing and aquaculture began in the 1970s and had busted by 1989. I conducted ethnographic fieldwork in three Panguil Bay communities between July and December 2004. Based on my previous community research experiences with the Research Institute for Mindanao Culture (RIMCU), I knew that it was crucial for me to be identified in local communities as a researcher tied to an established Philippines institution.² Before I left the United States, my dissertation committee chair faxed a letter to the Director of RIMCU, requesting that she act as local co-sponsor of my research. The Director agreed to provide me access to their research resources and provided me office space with Internet and e-mail access. Key persons at the regional Bureau of Fisheries and Aquatic Resources recommended Panguil Bay as a diverse aquaculture area. JEP ATRE, the

² RIMCU is the research arm of the Sociology-Anthropology Department of Xavier University, Cagayan de Oro City where I earned my undergraduate degree in sociology and later worked as an assistant researcher doing field research for projects.

NGO which had contracted to implement the current Fishery Resource and Management Program on Panguil Bay, pointed me to Barangay Silanga and Barangay Lapinig as communities that offered the diversity I was seeking for my study. Because seaweed production is concentrated in the area around Ozamis City, a city fishery officer directed me to Barangay San Roque which has been cultivating seaweed since 1985.

Key Informants and Focus Groups

All together, I conducted key informant interviews of 24 city, regional and barangay officials, NGO personnel, community organizers, academic researchers, and a few other local politicians. Over all, local officials were warm and welcoming, extending themselves far beyond the formalities of their offices. Before I began research at Barangay Silanga, for example, a JEP ATRE community organizer took me to pay the necessary courtesy call on the Mayor of Tangub. Because the Mayor was away, we proceeded to the barangay hall. It was lunch time when we arrived, and the Barangay Captain was standing godfather at a wedding. The barangay secretary encouraged me to see the captain at the wedding party which was walking distance from the barangay hall. Even though he was busy, the captain saw me and assured me his barangay was open for my research with his full support. Then we returned to the barangay secretary of whom I asked informational questions and inquired about a local family who might provide me housing. The secretary immediately answered positively but apologized that the family's household would be very rural with no amenities.

I conducted one formal focused group discussion during a barangay women's meeting in Silanga. Though women were the invited participants, men standing nearby also offered

unsolicited-- but not unwelcome-- extensions of the female responses. At Lapinig, an impromptu focused group discussion occurred with women who were sitting in the *sala* of a *pawod* buyer, waiting for their weekly pay. Though unplanned, this discussion group proved productive and enlightening. I was not able to tape these focused group discussions, so I kept notes.

Selection of Households to Be Interviewed

Barangay and NGO staff assisted with the selection of households to be interviewed. I provided them with characteristics of the types of household I needed to study, and they pinpointed families that met those criteria. These local informants were quite helpful because they were knowledgeable about the work schedules and sleeping hours of household members. My *barangay research buddies* proved invaluable in the selection of households and at easing my entry into the households. A barangay research buddy was a kind of gatekeeper who showed me around the barangay, accompanied me to the houses for interviews and pointed out to me areas in the barangay which might be relevant to my research. In Silanga, I received a lot of help from a barangay official who also provided me a place to stay. She belonged to a fishing family and was an expert in fishing herself, so her insights were very useful. For instance, she knew almost every fishing household in the barangay and could advise me about the availability of the husband or the wife. In Lapinig, my research buddy was a barangay council officer who was also a *pawod* buyer active in the fisherman's cooperative. In San Roque, my research buddy was an elderly seaweed farmer who introduced me to many of other *guso* growers.³

³ *Pawod* is thatched *nipa*, a palm-like plant. *Guso* is seaweed.

Household Interviews

Using a structured questionnaire format (see Appendix A), I conducted 26 household interviews in the dialect of the respondents: 11 located in Silanga households, 8 situated in Lapinig, and 7 at San Roque (see Appendices B, C, and D for description of the households). Most were interviewed in their homes. However, I interviewed some seaweed households and *nipa* thatchers at their workplaces, so I could observe their economic activities. Usually, I interviewed husbands and wives together. While any adult children present participated, I did not interview young children. These interviews were designed to map household living conditions, especially focusing on their fishing activities, their involvement with aquaculture, their income level, and their non-fishing economic activities. I also asked questions about the needs of the household members and how those needs were met within their present economic constraints. In addition to the questionnaire, many of the interviews evolved into small group discussions between me, my barangay research buddy, and the adult members of the households.

In all these interviews, I attempted both taping and note taking. I also kept an introspective field journal in a small notebook that I kept with me at all times. I recorded notes, reactions, and new questions as often as possible, at least once daily. I adjusted to the circumstances, so I could take advantage of moments of privacy. Often I wrote in the evenings after I had left my host family to bed down. Other times, I took advantage of the morning hours when no one was around. As often as possible, I made notes while waiting for a respondent or while observing some activity or meeting. One of the richest parts of my data collection is the photographic journal I kept of fishing and economic activities.

I had to adjust to the situation and quickly develop on-the-spot techniques to overcome problems in the interview contexts. The first issues I encountered in my data gathering had to do with the choice of respondents. Even though my research buddies offered positive and important contributions in doing fieldwork, they could also cause difficulties. The first such problems occurred in the household selection process. In San Roque, my male contact only introduced me to male-headed household. Probably with the intentions of making things less difficult for me, they would recommend households which were most easily accessible. It was not unusual for them to select more affluent-looking houses. Sometimes, it was difficult to insist on the type of households I wanted to interview. To overcome their reluctance, I would point my finger toward a specific household type, like the stilted ones, and explain slowly that I needed to interview a family with specific characteristics, such as a family with children that relied only on hook and line fishing and did not raise seaweed farming. Infrequently, difficulties occurred because research buddies stayed during the interviews and interjected comments. To overcome such problems, I patiently explained to my buddies or made note of questions that would require a follow-up visit. In addition, I conducted follow-up meetings and in-depth interviews alone.

Initially, I was concerned about interviewing husbands and wives together, but I quickly saw that women added information to male responses without any tensions or negative reactions from males. In many instances, husbands and wives extended one another's responses in a warm exchange that was probably more detailed than it would have been if I had interviewed them alone. Each gender provided different perspectives about the questions I asked. Still, I insured that wives had opportunities for extensive responses that would represent female interests by conducting more in-depth interviews with women.

Another concern was the drift of the interview. Occasionally, an interviewee became so comfortable that she began to share sensitive personal information that was not relevant to the research questions. In such instances, I attempted to guide her back toward less sensitive ground by inserting a transitional question, such as: “Before you continue and before I forget this, what time do you go out to fish? And who goes the fishing? Do you go, too?” I certainly was reminded that technology is not perfect, for the tape recorder stopped periodically, leaving information gaps in the interview. In several instances, I needed to return to the household with follow-up questions. I was also concerned that many interviewees would not provide estimates of their cash incomes. To overcome this problem, I inquired about how many kilos of rice or corn they purchased weekly-- since almost all indicated that one of these grains was the commodity they most often buy. I could then compare their consumption with income averages indicated in local secondary studies and government data.

In-Depth Interviews

I conducted seven in-depth household interviews of at least two-hours in length. I selected at least 2 interviewees from each barangay for a total of 4 women, 1 man, and 1 wife-husband combination. I selected respondents for in-depth interviews based on three criteria:

1. Openness of the respondent in providing information;
2. Their previous introduction of an interesting topic that needed further inquiry;
3. The need to select a diverse small group for follow-up interviews.

During these extended interviews, I asked for detailed information about:

1. how successful the family was at meeting its basic survival needs;

2. how they survived when their stable income was not sufficient to meet family needs;
3. the kinds of income and resource inputs made by women and men;
4. The labor and economic contributions of children.

In Silanga and Lapinig, women comprised most of these respondents while men were more represented among those interviewed in San Roque.

Participant and Non-participant observation

As I rode through areas, I informally observed and interviewed *sikad* or “pedicab drivers,” who proved to be excellent sources of information about economic conditions, community gossip, and specific families.⁴ I also attended meetings of community organizations and barangay women’s groups at which local problems were discussed. Most importantly, I had many opportunities to observe the daily life of the fishing households. Since I stayed with local families, I shared their living conditions and could make a first-hand assessment of the degree of difficulties involved in aspects of their daily lives-- such as the thousands of rice fleas that fill the night-time sleeping hours, the constancy of high mold levels in houses on and near wet areas, the lack of modern facilities to insure water safety and sanitation. One is immediately struck with wonder about families who live the rugged existence inside a stilted house. During my first visit to Lapinig, there occurred one of the “dreaded floods” that has become routine over the last thirty years. Naively, I inquired why there was such a flood when there had been no rain. Locals explained that heavy rains in the adjacent mountains had overflowed the vast rice fields of

⁴ A pedicab is a bicycle which has attached seats for passengers.

Kapatagan. Because the flood control device was not working, high waters hit Lapinig—transforming the irrigation canal into a deep river rushing toward Panguil Bay. I was able to witness how Lapinig residents handled the problems caused by flooded streets, contaminated spring and water pipes and damaged homes. Efforts had to be made to get to dry ground the *nipas* needed for thatching, one of the non-fishing economic activities I was invited to watch. Since though the flood waters had not subsided, we had to travel in a small canoe through the river-level irrigation canal for me to have my first views of Panguil Bay. When it began to rain in the distant mountains, we headed back immediately because my three guides were afraid there might be a sudden fatal current in the canal. We escaped safely, though somewhat wet from the splashing flood water. To seek shelter, we stopped underneath a stilted house for the rain to pass. While there, I was able to interview a fisherman who was selling his catch for the day, so a daring adventure proved highly beneficial.

In Silanga, I was able to go with a woman to the seashore while she gathered oysters—now a main ecological source of female-generated income in that barangay. In San Roque, I rode the boat with a seaweed grower. Because the shallow areas are no longer productive, he took me to see the so-called “mid-deep sea” areas where seaweed gardens are cultivated. Along the way on the highways of the ocean, we interacted with other seaweed growers in their parallel boats.

Unpublished Primary Sources and Government Research Online

While export agriculture has been extensively studied in most peripheral countries, scholars have ignored the impacts of aquaculture on poor nations. Since there is almost no recent research about the impacts of export aquaculture on fishing communities of the Philippines, it was

necessary for me to access unpublished reports and studies at local government entities. For information about barangay poverty levels, health conditions, water quality, and fish catch trends, I visited such local agencies as regional offices of the Bureau of Fishing and Aquatic Resources and the local health centers. City fishing offices supplied reports about impacts of flooding and changes in fish catches caused by ecological change or natural disasters. Such documents are cited at numerous places throughout this study. In addition to those unpublished documents, I made use of the array of census, health, and nutrition documents that have been placed online by the Philippines government. Unlike most poor nations, Philippines government agencies maintain many public websites at which are kept updated such public information as population data, employment and poverty trends, health and mortality information, sanitation and water safety problems, and recent nutritional and malnutrition studies. In addition, the World Bank branch located in Manila annually publishes online the *Philippines Environmental Monitor* which was very useful in documenting ecological degradation throughout the country. Two NGOs shared their studies about Panguil Bay fishing, about the environmental changes caused by aquaculture, and about local households. I located unpublished applied research reports at the local college and at the state university which operates the country's Fishery School. I also searched for unpublished applied research reports written by university faculty. In several instances, I sought to substantiate information from interviewees by searching local and regional newspapers, often through online sites.

Research Questions and Format of the Study

By studying households in the context of fishing and aquaculture commodity chains, I will

be able to uncover the “double-register of history,” an approach seriously lacking in most research approaches. Braudel (1979: 29) argues that we need to reveal “the dialectical interplay between the *macro* – the realm of major historical events- and the *micro* – the ground floor of history that lay in the images of daily life.” In this way, everyday life will not become the “great absentee in history” (Dunaway 2003:9). Capturing the “everyday life” of households directs our attention to the human processes of development and away from a mechanistic exploration of economic issues and political issues. Only when we are able to comprehend the micro-phenomena within households can we measure ground level impacts of global change. Thus, it is my goal to examine the interplay between global and local by measuring the impact of global policies on the survival strategies of households, thereby capturing how the daily struggles of men, women and children lives have changed due to macrostructural trends. To examine how global neoliberal policies are affecting Filipino fishing villages and households, I will explore the following questions:

1. How has export fishing and aquaculture affected the living conditions of fishing households?
2. What are the survival strategies of fishing households?
3. What costs are externalized by export fishing and aquaculture commodity chains to households?
4. How do fishing households subsidize the global aquaculture commodity chains?

Chapter 1 examines the interconnections between global neoliberalism, aquaculture, and the globalized food chain. In Chapter 2, I overview aquaculture as a national Philippines economic growth agenda, with a special focus on the expansion of this industry as part of the broader shift to export agriculture which has characterized the global neoliberal policies of the last three

decades. Chapters 3, 4, and 5 examine the impacts of export fishing and aquaculture on three Panguil Bay communities and pinpoint the survival strategies of fishing households. In Chapter 6, I conceptualize the Philippines boom-to-bust cycle of export aquaculture in the broader context of the crises in the global food chain. I also explore how export fishing and aquaculture externalize costs to Panguil Bay fishing households and how these fishing households engage in survival strategies.