

# Economic Contribution of Women In Fishery Development

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## ABSTRACT

*The United Nations call for a fuller integration of women in the economic, social, political and cultural life of their respective societies. In the Philippines, the involvement of women as a resource and partner in the management of fishery production technologies contribute to socio-economic development. In Asia, women on the average constitute 40% of the agriculture workforce. They produce 50-60% Asia 's food requirement.*

*The study determined the economic contribution of women in fishery development in La Union, Philippines. The descriptive method was used involving 100 respondents.*

*The fishery production profile covered monoculture (milkfish (*Chanos chanus*) and tilapia (*Oreochromis niloticus* and *Oreochromis mosambicus*) and polyculture (milkfish + tilapia and milkfish + siganids (*Siganus guttatus*)). Milkfish production provided the respondents an annual income of ₱70, 030.65, while tilapia production, ₱13, 372.50.*

*All the respondents spent from 1 to 10 hours a day in attending to their reproductive, productive and work. On reproductive work, the respondents consumed 7.68 hours a day, 2.72 hours for productive and managing work and 1.54 hours a day in performing their multi-farious task.*

*A respondent earned ₱29.03 a day for performing reproductive work, ₱43.33 for productive work and ₱38.38 for managing work or an average annual income of P 29,234.62. The amount represents the value of unpaid labor or their contribution to economic development in performing their triple roles in fishery production.*

*On the average participation, about 26 respondents allocated two hours a day in attending to any of the different aquaculture-based management system. Moreover, nine respondents utilized hours a day for crop-based and animal-fish farming system.*

*Women are also active members of private organizations with the purpose of sustaining and managing fishery as natural resource.*

*Constraint encountered by women, as equal or full partners of men in economic development, were household activities, child bearing/rearing chores and lack of knowledge and skills on fishery production. Problems associated with fishery resource development were degradation of the coastal area, poor implementation of laws, illegal fishing, and coastal protection.*

Keywords: Women in Development, Economic Contribution, Fishery

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## **Introduction**

The fishery of the Philippines is an important the economy, which should not be overlooked. Next to the Agriculture sector, it contributes a large portion to the country's GDP for over the last two decades. From 1980 to 1995, the fishery sector's contribution to GDP averaged 4.7%. in 1995, it accounted to 17.0% of the GVA of ₱412.9 B in agriculture, fishery and forestry sector which was the largest share next to agricultural crops (BFAR, 1995). Likewise, NSCB (1999) reported that national value of fish production was P84.5 M wherein GRDP (Region 1) for agriculture and fishery was ₱11.1 M covering 40.05%.

Republic Act 8550 also claims that three million Filipinos are dependent on fisheries for livelihood and subsistence (PCAMRD Waves, 1998).

The government to recognize the role of nation building has enacted various measures. Republic Act 7192 (1991) paved the way to formally recognize and promote the integration of women as full and equal partners of men in development, in Nation building, and in other productive endeavor. Considering the manual contribution of women in fishery production, the study would like to accounts on the value of the efforts provided by women.

## **Objectives**

The study aimed to determine:

1. the socio-economic and fishery production profile engaged in fish production;
2. the economic contribution of women in performing productive or fishery development role; reproductive or family and household role, and managing or community development role;
3. the time allocation and level of participation of women in coastal-based and aquaculture-based management system;
3. the participation of women in other agri-fishery related projects; and
4. the constraints and problems encountered by women in fishery development.

## **Methodology and Framework of the Study**

The descriptive survey was used in the study through a survey questionnaire. The study sampled one Hundred (100) respondents who are presently engaged in fish production covering coastal-based and aquaculture management. These are distributed in nine (9) towns of La Union, namely: Rosario, Sto. Tomas, Agoo, Aringay, Caba, Naguilian, Sn. Fernando, Luna, and Bacnotan.

Fishery accounts to 4.8% share of the total 27.4% to share for agriculture, fishery and forestry as reflected in the Philippines Development Report of 1988. From 1980 to 1995, the fishery sector's contribution to GDP averaged to 4.7%. The women of today are playing vital role in economic development. They performed multiple tasks despite the fact that they remained to be unpaid in performing productive, managing, and reproductive work. Their effort was never duly recognized and time element involved in these various tasks was never documented and

given monetary value in return, which could serve as a point of reference as to women contribution to the GDP. In this regard, women in a growing society where they play a crucial role in fishery production which are good sources of food and income should be duly recognized. The effort exerted by women engaged in fishery production should call for special attention in order to have a universal standard of determining the monetary value in the form of cash returns that could be plowed back to the total income of the family and that should be quantitatively measured to help increase to GNP.

## **Results and Discussion**

### **A. Socio- Economic Profile.**

Women engaged in Fishery Production have a wide range from 21 to 60 years old, married and have an average of 4 children. A good number of women (99%) have access to the educational system and spent 11.95 years of farming. Fifty one percent of the respondents are under the poverty threshold.

On fishery production profile, the respondents practiced monoculture (milkfish and tilapia) and polyculture (milkfish+tilapia and milkfish+siganids).

On monoculture (milkfish production), an average of 2.3 hectares was stocked with 7,445.65 fingerlings. The respondents had 2.4 cropping per year with 3.5 months culture period per cropping. The farmers had a total harvest of 935.31 kilos sold at ₱72.87 per kilo, usually with 4.8 pieces per kilo. This provided an income of ₱70,030.65. The result reveals that the production for milkfish was 406.61 kilos/hectare. On tilapia production, the respondents had an average area of 1.4 hectare. Stocked with 3,527.52 fingerlings. With 4.3 139 kilos/ha. tilapia was sold at ₱65.50 kilo. This generated an average income ₱13,372.50. On milkfish, it was observed that the respondents doubled their required stocking rate compared to recommend rate of 2,000 to months culture period, the respondents usually have 2.5 croppings per year. The total harvest of 195 kilos/ 1.4 ha or 139 kilos/ha of tilapia was sold at ₱65.50 kilo. This generated an average income ₱13,372.50.

On milkfish, it was observed that the respondents doubled their required stocking rate compared to recommended rated of 2,000 to 3,000 fingerlings/ha. It is a common observation that the farmers practices “overstocking” of milkfish in order to provide allowances for mortality.

On polyculture, the respondents had an average of 1.4 hectare. For the culture of milkfish+tilapia stocked with 4,270.69 fingerlings, the respondents had 3.16 cropping/year in 4.8 months per culture. This culture method produced 6.5 pieces per kilo and sold at ₱64.73/kilo. On the average, the respondents earned a minimal income of ₱9, 731.75. On the other hand, milkfish+siganids polyculture are raised in ¼ hectare. Stocked with 1, 700 fingerlings in 5.4 months and usually the respondent only have 2.4 cropping. As a result, fish were harvested at 6.37 pieces/kilo. The income generated was ₱16, 206.30 sold at ₱82.50/kilo.

## **B. Economic Contribution**

To determine the contribution of women to fishery economic development, there's a need to establish a data on time allocated per work performed. On the average, 41.33% of the respondents spent 1-2 hours a day in performing their multi-farious tasks.

A respondent earned ₱29.30 a day for performing reproductive work or family and household activities; ₱43.33 for productive work or fishing production-related activities and ₱38.38 for managing or community development work as an average monthly income of ₱2, 436.22/month. If the monetary value of the efforts of women are recognized, a respondent earns as much as ₱29, 234.62 annually.

## **C. Participation of women in aquaculture and coastal-based management system**

An aquaculture practice is a hard task for women. They spent a lot of time for the cultural activities. On the average, the rate of participation of women is 25.80%. They allocate two hours a day to attend to any of the different cultural practices in milkfish, tilapia, and siganids. The numbers hours spent by the respondents on aquaculture jibe with the time allocation indicated on productive work.

Following a generation-old division of labor, men land their boats and turn over most of the sorting, packing and marketing chores to women. Despite the nature of the job on coastal-based fishing, women still are tasked with the responsibilities of providing assistance along the areas of per-departure and arrival activities, marketing, and processing. The participation rate is 9.22% wherein they allocate 2.42 hours per coastal fishing activity performed by their husband. Combining the two system, the participation rate is 17.51% and a respondents spend 2.18 hours per day.

Despite of the hectic schedule of women in the reproductive, productive and managing work, they can also participate in crop production. Women integrate crop in their production system. Integrated crop-fish and animal-fish farming system served as additional income.

## **D. Constraints on women's full participation to fishery Development**

Household activities are mostly done by women, hence, household chores was ranked first by the respondents as a constraints to their full participation to fishery development; second, was child bearing/rearing chores; third, lack of knowledge and skill on fishery production; fourth, assisting husband in family's main source income; fifth, is personal; sixth, is health; and the seventh, is culture-based traditional role of women that they should stay home and care for the family only.

## **E. Problems affecting participation to fishery resource development.**

Only 6% of the respondents are involved in fishery resources management. Respondent, given a chance to participate in fishery resource development, will address the following

problems in order for the region to sustain the fishery resource such as: formulating rules to prevent the continuous degradation of the coastal area; maintaining cleanliness in the coastal area and protecting the coral reefs.

## **Conclusions**

Based from the findings of the study, the following conclusion are made:

1. On the socio-economic profile, the respondents had a mean age of 44, which is still considered as the most productive age in fishing activities. Ninety percent (90%) are married and had an average number of 4 children. Majority of the respondents (35%) started operating within the period of 5 years and the mean average years of experience is 11.95 years. All of the respondents had primary sources of income, 54% had secondary sources and 355 are involved in other income generating projects. Of the total respondents, 90% engaged in fish culture and fish related source of primary income while the other 10% are engaged in the fishing industry as secondary or income-generating projects. The respondents earn ₱8,420.50 for primary sources, ₱5,815 for their income generating projects. The respondents earn considered above the Philippine poverty threshold level.
2. The fishery production profile involves monocultures (milkfish and tilapia) and polyculture (milkfish+tilapia and milkfish+siganids). On milkfish monoculture production, the respondents had area of 2.3 hectares stocked with 7,445.65 fingerlings, cultured for 4.3 months and usually gave 2.5 cropping per year. This provided an average of ₱13, 372.50.
3. On polyculture, the respondents had an average of 1.4 hectares on the culture of milkfish+tilapia stocked with 4,270.90 fingerlings having 3.16 cropping/year in 4.8 months period per culture. Sold at ₱64.73/kilo with 6.5 piece/kilo, a minimal income of ₱9,731.75 was derived. On the other hand, milkfish+siganids polyculture are raised in ¼ hectare stocked with 1, 710 fingerlings 5.4 months. The respondents have 2.4 cropping/year.
4. The respondents spent from 1 to 10 hours a day in attending to their reproductive, productive and managing work. More than one-half (51%) of the respondents allocated 9-10 hours in doing reproductive work, while 65% of the respondents performed productive work and 56% of managing work. This reveals that a woman collectively utilized as much as 11.94 hours a day in performing their multi-farious tasks.
5. Wage equivalent per day performing reproductive, productive, and managing work was determined using RA 7655, BAS daily nominal wage, and National Budgets Circular No.458, respectively. A respondent earned ₱29.03 a day for performing reproductive work or family and household activities; ₱43.33 for productive work or fishing production related activities and ₱38.38 for managing or community development work or an average monthly income of ₱2, 436.22. The amount represents the value of unpaid labor for women performing their triple roles. If the monetary value of the efforts of women are recognized, a respondent earns as much as ₱29, 234.62 annually. The result further suggests that women's contribution to the GDP, can contribute to the economic development of the country, if taken collectively.

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6. The time allocated and level of participation of women in aquaculture management system reveals that a respondent at least allocate two hours a day to attend to any the different cultural practices. The rate of participation was 25.80% which was devoted to raising of either milkfish, tilapia and siganids, while on coastal-based management, the rate of participation was 9.22% utilizing 2.31 hours a day per coastal fishing activity performed by their husband. As a whole, the participation rate of the respondent is 17.51% utilizing 2.18 hours per day.
7. The respondents also participated in agri-fishery related projects which is an integrated crop-fish and animal-fish farming systems. Twenty five percent were involved in poultry and 45% on livestock production, 11% were involved in poultry and 45% on livestock production. On crop production, 11% were involved in cereal, 10% on vegetables and 5 % on root crops. Activities performed by 51% of the respondents on animal production were feeding, others on pasturing and cleaning (12%) and 21% were involved in watering crops and 17% for planting and the others are involved in weeding and harvesting.
8. Constraints and problems are always associated with the desire of women to fully participate in fishery development. Household activities, child bearing/rearing chores, lack of knowledge and skills on fishery production were among the top three constraints. Only 6% were involved in fishery resource development. Among the problems, women would like to address on fishery resource development or formulation of rules to prevent continuous degradation of the coastal area, implementation of laws, no illegal fishing observe sanitation, no garbage throwing in the coastal area and protecting the coral reef. Other problems encountered were declining fish catch, lack of capital, illegal fishing, sharing system, harassment from other fishing boats and lack of implementation of rules and regulation.

## **Recommendations**

Gender-responsive interventions are hereby recommended in order to maximize the economic contribution of women in fishery development. As of a result this study, the following recommendations are forwarded to researchers, policy makers and the respondents.

1. Establishment of specific socio-economic and fishery production profile indicators that are gender-differentiated in order to come up with reliable data on the real economic contribution of women in fishery development.
2. Development policies on wage labor covering women reproductive, productive and managing roles should recognized, valued in terms of cash returns in order to gauge the economic contribution of women in fishery development.
3. Home- based female-dominated tasks should be shared by men in order to create a better equitable distribution of roles in the productive activities in order for women to increase their rate of participation in coastal-based in aquaculture-based management system;

4. Strong government initiated along support a services should be institutionalized in order to sustain and strengthen the participation of women and other agri-fishery related projects; and
5. Encourage the massive participation of women in fishery resource management their utmost priority should revolve around the home and since women are regarded a symbol of “light” in every home.

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