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Nature and Level of Support to the Community based Fisheries Activities in the Coastal Towns

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Abstract--- *This study generally aimed at determining the nature of support institutions to community-based fishery activities, specifically, the profile of respondents, actual support to fisherfolks along Technical services, supply services for fisheries productivity, and supply infrastructure facilities; encountered fisherfolks problems and proposed intervention program. Respondents utilized in the study were chairpersons and members of the different accredited fisherfolks association in Northern Cagayan. Structured questionnaires, and interview guide were employed to gather data. More so, total enumeration was employed. To obtain data on the problems encountered, focused group discussion was used. Result revealed that most of the respondents engaged in fish cage operation, marine fishing, grow-out tilapia, aquasilvi and oyster culture are males, married, high school graduate with capitalization of 41,000-50,000. Municipal C had the highest distribution of fisherfolks association members. The respondents were found to be financially assisted however as regards Supply support along fingerlings, equipment and facilities, ttilapia and bangus are the fingerlings distributed in the different municipalities but are supported as to equipment's and facilities. Further, the most pressing problem encountered by the respondents is on project management and prompt replacement of damaged items. Finally, to strengthen the support mechanism of the government on the fisher folk community, the program of inclusive planning as intervention was raised.*

Keywords--- *Fisherfolks, Association, Stakeholders, Assistance.*

I. INTRODUCTION

1.1. Background

The *Philippines* is the 11th top *fishing* nation in the world. Over 1.6 million Filipinos depend on the fishing industry for their livelihood. The fishing industry's contribution to the country's Gross Domestic Products (GDP) in 2013 was 1.6% and 1.8% at current and constant prices, respectively (Philippine Fisheries Profile, 2014). Philippines is highly wealthy with territorial water resources of 220,000,000 hectares which also houses different fishing grounds ranging from 8 seas, 10 bays, 9 gulfs, 3 channels, 5 straits, and 2 passages as per reported by the Philippine Statistics Authority, 2016)thus bringing continual catch among fisherfolks.

With all of these abundances, to mention Cagayan taking pride of its sea and river resources with its aquatic assets make most Cagayanos regardless of their municipalities engage in fishing as their source of livelihood next to farming. Yet empirical data suggest that the fisherfolks remain to be the poorest sector of the Philippine society. The Philippine fisheries accounted for 3.7 percent of the gross national product at current prices. The sector employed about 990,872 persons. Of the divisions comprising the industry, municipal fisheries continued to contribute the largest share of fish production.

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Accordingly, the government especially the Bureau of Fisheries and Aquatic Resources (BFAR), Integrated Coastal Resources Management Project (ICRMP), Department of Labor and Employment (DOLE), the local government through the Municipal Agriculture Office (MAO) and other agencies continually employ conservation efforts such as seminars, training, farm demonstration, fingerlings dispersal, etc. in order to sustain fishery productivity as the source of livelihood of large number of fisherfolks across the country. It has been obvious that fishery economic activities have been one of the most vulnerable to natural disasters and catastrophes.

However, there was no attempt to quantify the devastations directly or indirectly suffered by fisherfolks. Before the conduct of this study, the researchers were able to talk with a retired Professor who invested a part of her retirement pay in a grow-out fish production. She revealed that after 3 years, she had been harvesting and selling a lot of her produce out of a two hectare fishpond but she could not exactly tell whether she was gaining or losing after considering all her farm inputs e.g. capital, feeds, fingerlings, transportation and labor expenses, etc. In the end, she disclosed that she has been managing her fishpond not anymore as an economic entity but as a leisure activity to pass her time away. The same scenario and problems had been learned from an aramang (*Nematopalaemon Tenuipes*) fishermen at Punta Fishing village. There have been entailly high maintenance and operation expenses due to spiralling prices of fuels, spare parts, net materials, etc. and eventual decrease in catch volume.

Republic Act 8550 otherwise known as the Fisheries Code of 1998 is the governing law in the philippine fisheries to address the interconnected issues of resource degradation and unrelenting poverty among municipal fishers. The cpde further mandates the government to promote the general welfare of municipal fishers through provision of support services and fair laborpractices, Aquino, Ani, P.; Festejo, M (2013).

Support is a key factor in the sustainability of fishery productions. This is specially held true because Cagayan takes pride of its water resources. As a province surrounded by aquatic assets, fishing becomes the source of livelihood of many. Fishing has been the main source of income for the drift and stationary filter net fishers in its towns. OECD, 2017 emphasized that support, even when completely decoupled from effort or capacity, if it puts capital in the hands of entrepreneurs with a history of investing in the fisheries sector, could result in added capacity in the long run. More so, a report from the OECD (2006) also noted that to a greater or lesser extent, all forms of support have an impact on key aspects of the fisheries sector. As support programs are an instrument of economic policy, their impacts are initially reflected in the economic operations of fishers – that is, by reducing costs, raising prices or increasing income. LGU-Aparri executive report (2012-13) revealed that there had been allocations for the development of landing sites and fishpond development, fish markets and financial assistance for fishery business capitalization. It is also disclosed that technical along post-harvest (aramang drying and fishery product-development) has been funded exclusively by LGU-Aparri.

The gap the present study seeks to address is on determing actual nature and level of support extended to the fisher folk community in the coastal municipalities of the Northern Cagayan. Such shall serve as a basis for program intervention. Aware that the government can't exactly address the problem without a policy recommendation coming from results of empirical studies such as this. The researchers precisely dwelt on this study to come with a concrete data that would quantify and qualify supports of stakeholders to community based fishery activities.

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Measuring and classifying support can be used to monitor and quantify developments in fisheries policy.

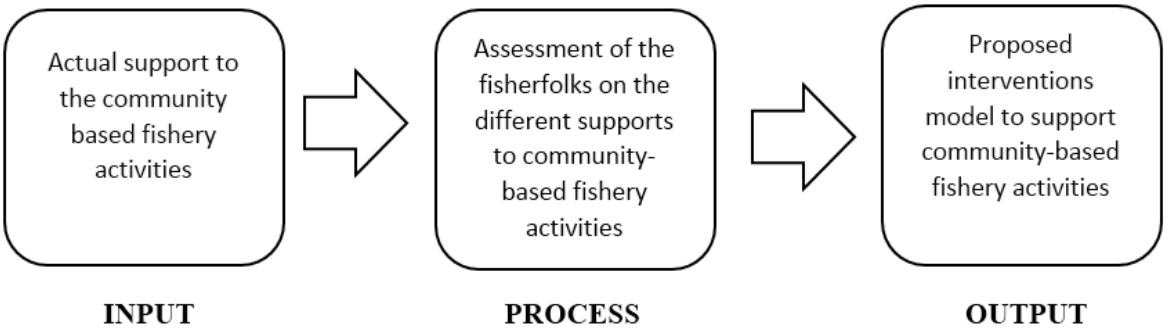

Figure 1: Research Framework of the Study

Objectives of the Study

This research generally aimed at determining the extent of support from various institution to community-based fishery activities:

1. What is the profile of the respondents as to:
   1.1. Sex
   1.2. Civil Status
   1.3. Highest Educational Attainment
   1.4. Capital
   1.5 Accredited Association affiliated with
2. What are the actual support of the different stakeholders to community based fishery activities in terms of Financial.
3. What are the actual support of the different stakeholders to community based fishery activities in terms of Supply.
4. What are the problems encountered by fisherfolks in their fishery activities?
5. What is program intervention model could be developed to support community-based fishery activities

II. METHODS

The descriptive-qualitative method of research was employed in the study. Determined the nature of support institutions to community-based fishery activities, specifically, the profile of respondents, actual support to fisherfolks along Technical services, supply services for fingerling production, equipments and facilities. Qualitative on the other hand was utilized as the study determined the encountered fisherfolks problems through interview. The researchers also made use of documentary analysis to counter validate responses.The data obtained was used as a basis for a proposed intervention program geared towards strengthening support of the different stakeholders on the community based fishery activities of the fisherfolk members of the different accredited organizations.

Respondents utilized in the study were chairpersons and members of the different accredited fisherfolks association in Northern Cagayan. Four municipalities were the locales where the data were gathered. This included

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towns of Aparri, Buguey, Claveria and Sta. Ana. Complete enumeration was the sampling used. More so, the main tool which was used in gathering the data were Structured questionnaires, and interview. Descriptive statistics such as simple frequency count, percentage, means, rank distributions were used.

III. RESULTS

Table 1 shows the profile of the respondents engaged in fish cage operation, marine fishing, grow-out tilapia, aquasilvi and oyster culture.

Table 1: Profile of Respondents Engaging in Fish Cage Operation

Category		*Frequency*	*Percentage (%)*
Profile			
Sex	Male	24	80.00
	Female	6	20.00
Civil Status	Married	22	73.33
	Single	2	6.66
	Widow / widower	6	20.00
Educational attainment	Elementary	2	6.66
	Secondary	15	50.66
	Tertiary	13	43.33
Capitalization	21, 000 – 30, 000	3	10
	31, 000 – 40, 000	4	13.33
	41, 000 – 50, 000	23	76.67
Municipality	**Number of Accredited Associations**	**Number of Association Members**	
A	1	65	
B	3	178	
C	4	238	
D	1	120	

Actual Financial Support of the different Stakeholders to Community based Fishery Activities

Actual Supply Support of the different Stakeholders to Community based Fishery Activities along Fingerlings, Equipment and Facility

Table II shows the actual support extended by the different stakeholders to community based fishery activities.

Table 2: Actual Technical Support of the different Stakeholders to Community based Fishery Activities along Financial Assistance

Financial Support	*Amount Given*
Grow-out tilapia production (cages)	300, 000
Grow-out tilapia production (ponds)	405, 000
Aramang Bagoong cube making (processing)	300, 000
Grow-out tilapia /bangus production	800, 000 (estimated)
Outboard Motor	450,000
Fiberglass Boats	180,000
Fish Cages	580,000
Crab cages	560,000
Total Financial Assistance	3,575,000

Shown in table three is the support extended by the various stakeholders to community based fishery activities in the three categorized areas which include fingerling distribution, equipment and facilitative support.

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Table 3: Actual Supply Support of the different Stakeholders to Community based Fishery Activities along Fingerlings, Equipment and Facility

Supply Support	*Quantity*	*Number of Beneficiaries*
Fingerling production		
Tilapia	650,000	41
Bangus	410,000	92
Equipment Support		
Gillnets	200	
Squid Jiggers	450	
Hand Line	300	
Long Line	100	
Payao	4	
Vests	265	
Oyster Rafts	22	
Fiber Glass Boats	36	
Demo Farm		
Fingerlings Rehabilitation Assistance		

Problems Encountered by Fisherfolk members

Evident in Table 4 is the problems encountered by the fisherfolks as revealed in the interview.

Table 4: Problems Encountered

	Frequency (n=30)	Rank
Trainings on Proper Management	14	6
Absence of formal MOA/ MOU between two parties	18	5
Prompt assistance on replenishment	30	1
Inadequacy of fund	26	2
Monitoring mechanism	25	3
No marketing assistance	23	4

*** Multiple Responses**

IV. DISCUSSION

Profile of Respondents Engaging in fish Cage Operation

Table 1 shows the profile of the respondents engaged in fish cage operation, marine fishing, grow-out tilapia, aquasilvi and oyster culture. The table reveals that majority of the respondents are male (24 or 80 percent). this m ay be attributed to the occupational role that fishing is basically for men. However, it is still worthy to note that women are not any longer excluded from the fishing working field as represented by the six or 20 percent fish cage operators. Most of the respondents were married (73.33 percent); secondary graduate with 15 or 50.66 percent and are mostly operating with a capital of 41,000-50,000 pesos.

Meanwhile, as to the frequency distribution of members as to affiliation with accredited fisher folk organization, the data clearly reveals that the municipality with highest number of association members is municipal C with a frequency of 238. Municipal B has 178 association members form the three associations while Municipal D has 120 members. On the other hand, the municipal A also obtained 65 members. Such finding indicates that there are nine accredited fisher folks association in Northern Cagayan. While the study observes research ethics, the municipalities were coded as A, B, C and D.

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C	4	238	
D	1	120	

Actual Financial Support of the different Stakeholders to Community based Fishery Activities

Table II shows the actual support extended by the different stakeholders to community based fishery activities. The table revealed that the stakeholders such Bureau of Fishery and Aquatic Resources (BFAR); Local Government Unit- Municipal Agriculture Office and the Integrated Coastal Resources Management Project (ICRMP) provided financial support through the following items.

Fish cages for grow-out tilapia production of 300,000 and tilapia production in ponds with an extended f financial support of 405,000. Meanwhile as to aramang bagoong production, a financial assistance of 300,000 was extended while an estimated 800,000 was likewise given for tilapia or bangus production. More so, fisherfolks from the different accredited associations were also extended with outboard motor, fiberglass boats, fish cages and crab cages costing 450,000, 180,000; 580,000 and 560,000 respectively.

The total financial assistance of 3,575,000 were extended to the fisherfolks during the conduct of the study. This study indicates that they are financially supported in their fishery actibities.

Table 2: Actual technical support of the different stakeholders to community based fishery activities along Financial Assistance

Financial Support	*Amount Given*
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Actual Supply Support of the different Stakeholders to Community based Fishery Activities along Fingerlings, Equipment and Facility

Shown in table three is the support extended by the various stakeholders to community based fishery activities in the three categorized areas which include fingerling distribution, equipment and facilitative support. As regards fingerlings, a total quantity of 650,000 tilapia fingerlings were distributed in the different municipalities benefitting 41 number of fishers. Moreover, bangus fingerlings with the respective quantity of 410,000 were also supplied to 92 fisherfolk members. This finding indicates that the fisherfolks are supported by the stakeholders. On focused grouped discussion, it has been reported by the interviewed fisher-folk members that the stakeholders also do fingerling replenishment. "BFAR would replace fingerlings only after submission of a damage report validated by LGU-MAO" said one chairperson from the different stakeholders. More so, fisherfolks from the accredited associations also revealed that an individual fisherfolk would usually be given 5,000 – 10,000 fingerlings depending upon the availability of stocks and extent of damages or mortality rate.

As reflected in the same table, the aforementioned stakeholders also extend supply support by the production of equipment's. OECD (2006) emphasized that when governments provide fisheries infrastructure without charging for its use, fishing enterprises will be saved some cost which they would otherwise have to pay in the form of user fees or for the provision of the infrastructure on it on their own account. These costs could be charged to the industry in a variety of ways; through a landings fee, through a fee on fishing boats, or even through a fee on fishing effort, although the latter seems impractical. In any case, as shown in the Annex and argued above, it does not much matter for the final outcome how these costs would be recovered, the effect of this implicit subsidy is much the same in any case.

Table 3: Actual supply Support of the different Stakeholders to Community based Fishery Activities along Fingerlings, Equipment and Facility

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Oyster Rafts	22	
Fiber Glass Boats	36	
Facility Support		
Demo Farm		
Fingerlings Rehabilitation Assistance		

Problems Encountered by Fisherfolk Members

Evident in Table 4 is the problems encountered by the fisherfolks as revealed in the interview. Fisherfolks revealed that prompt assiastance on replenishment of damage items with 30 total frequency ranking as first followed by the inadequacy of funds (26); monitoring mechanism (25); absence of marketting assistance (23); absence of

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forman Memorandum of Agreement and or Memorandum of Understanding defining and stipulating therein the duties and responsibilities of both first and second parties- Fisherfolks Association and the funding agencies as concretized by the frequency of 18 and trainings on proper management (14) which ranked second, third, fourth, fifth and sixth repectively. As revealed in the table, the data clearly unveils that prompt assistance on replishment and inadequacy of funds are the most presisng problems confronting the fisherfolk members.

Since assistance is always interwoven with funds, it is then clearly insinuated that while there were no readily available assistance from the concerned agencies, they are not able to promptly assist replenishments of fisherfolks who have been victims of calamities. Assistance for repairs and replenishment of facilities/ stocks would undergo the basic budgeting procedures e.g. submission of validated reports and estimation of budgetary requirements for inclusion in the agency Annual Procurement Plan (APP). This so results to the great majority of fisherfolks who could not feel the impact of the assistance thus causing them to shy away from their associations.

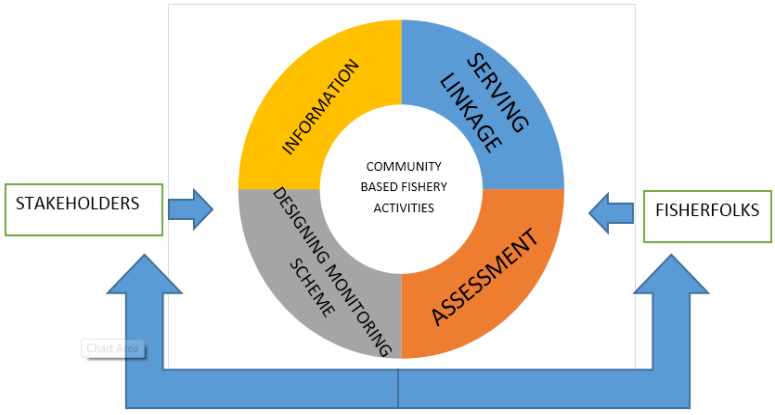
Table 4: Problems Encountered

	Frequency (n=30)	*Rank*
Trainings on Proper Management	14	6
Absence of formal MOA/ MOU between two parties	18	5
Prompt assistance on replenishment	30	1
Inadequacy of fund	26	2
Monitoring mechanism	25	3
No marketing assistance	23	4

*** Multiple Responses**

Program Intervention model to support Community-based Fishery Activities

To enhance the extent of support to community-based fishery, the program ISDA should be implemented. I is representative of information through Trainings, S is on Serving linkages, D for designing monitoring scheme and A for Assement. The model discloses that stakeholders should address information dessemination of proper management of fishery resources through seminars and trainings; build and serve more linkages; design a monitoring scheme and assess production, maintenance and marketing of fisherfolks. There must be an open communication line for feedbacking mechanisms for a more strengthen support to community based fishery activities. Such program intervention model was based on the problems encountered by the fisherfolks.



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V. CONCLUSION

In consideration of the foregoing findings, the researchers hereby conclude that of the nine accredited fisher folk association in Northern Cagayan, the government technically finance the fisher folks equally. As regards Supply support for fisheries productivity, tilapia and bangus are distributed in the different municipalities. Only few from the nine associations in northern Cagayan are given assistance as per type of production. Further, the most pressing problem encountered by the respondents is on prompt assistance on replenishment of damage items. Finally, to strengthen the support mechanism of the government on the fisher folk community, the program ISDA model as intervention was raised.

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