STRATEGIES FOR MEETING THE FISHING INPUT REQUIREMENTS OF SMALL SCALE ARTISANAL FISHERIES.

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INTRODUCTION

The need for the development of the small scale fisheries has won the attention of both international and national organisations. The small scale (artisanal) fisheries account for over 80 percent of total fish production in Nigeria in 1989 despite its atomistic and antiquated mode of production (FDF, 1989). This developmental awareness has over the years enunciated government intervention through procurement and distribution of subsidized inputs to the fishing communities. Consequently, many projects including the National Accelerated Fish Production Programme (NAFPP) were initiated especially during the Forth Development plan period to increase the effort and output of the canoe fisherman and to upgrade the quality of rural life through the supply of subsidized inputs, credits and training of fishermen. However, these impact of the various government direct interventionist strategies through the delivery of subsidized inputs could not be sustained because they hinged on large scale extension services and production support. Fisheries development projects on resulting there from focussed solely and irrevocably, on the introduction of appropriate, if sometimes high technology, degeneratin invariably into mere distribution or "delivery" system for subsidized inputs. And the fishermen were neither resistant to change nor totally indifferent. On the contrary. tehy recognized the cost-effective advantages and promptly embraced the subsidized inputs and other production stimulating innovations.

Although existing approaches to the delivery of inputs to the small-scale artisanal fishermen are notorious for high rate of failure in sustaining its impact in development projects, little or no attention was paid in these project appraisals to social and economic factors associated with its potential failure rather major thrust has been the exorbitant cost of inputs and the need for subsidy. The paper therefore examines the socio-economic factors associated with the failure of existing appraches and stipulates radical strategies for meeting the input requirement of the small scale artisanal fishermen.

METHOOLOGY

The study was undertaken in three major fishing settlements in Akwa-Ibom State viz Uta-Ewa, Okoroete and Iko because of the notably long presence of government developmental activities. The subject involved are the fishermen and the secretaries of the fishermen co-operative societies. The fishermen were randomly selected. The instrument included structured interviews schedule construction for the fishermen and the secretaries of the cooperatives societies.

RESULTS AND DISCUSSIONS

1) MEETING THE INPUT REQUIREMENTS THROUGH FISHERMEN CO-OPERATIVE

Fishing unlike farming is a highly skilled profession. A good understanding of the marine environment and fishing operation is paramount to an efficient and effective delivery of inputs. The short-term periodicity of marine income. Middlemen in most fishing communities have had long experience with fishermen and their adaptation to the sea. They therefore understand these environment constraints and usually act accordingly by having various types of fishing inputs in stock and also adapting to variability of catch by permitting some flexibility in the repayment of loans. the periodic nature of marine resources often place the middlemen in the role of benefactor to fishermen when catches suddenly rise or fall and his ability and willingness to provide loans when the sea destroys or damages productive equipemnt strengthens this role.

Table 1 - shows the benefits derived from participating in cooperative society activites according to the fishermen.

TABLE 1: BENEFITS DERIVED FROM PARTICIPATING IN COOPERATIVE SOCIETY ACTIVITES-PERCENT RESPONDENT.

TYPE OF BENEFIT	UTA-EWA	IKO	OKOROETE	AVERAGE
Savings	12	8	6	8.7
Benevolent activities	0	1.5	8	4.75
Purchase of inputs	82	78.5	52	70.8
Loans	6	10	21	12.3
Joint fishing	0	0	8	8.0
Improved relations with other	0	2	5	3.5

SOURCE: FIELD SURVEY, 1992.

Purchasing of inputs as a reason for joining the cooperative society registered the highest response with an average of 70.8 percent. It thus seems that small scale fishermen see the cooperative primarily as a means of obtaining inputs. The fact that none of the independent socio-economic variables - age, education, membership in a cooperative or years of fishing was related to the distribution of this response category indicates that it is widely shared attribute, forming part of the conceptualization of fishermen's cooperative among the fishermen in the sample. On the other hand, attributes which tends to strengthen the cooperative organisation received less response. Joint fishing actively, benevolent activites, and improved relations with other categories received 8.0, 7.45 and 3.5 percents respectively. This perception of the cooperative organisation cannot sustain it. The broad repercussions, (which were lobserved in the past) is that these inputs dependent cooperative societies will collapse with slight failure of inputs.

The fishermen also claimed that cooperative societies should have been able to supply these inputs to meet their meeds at unexpected bumper catch period. Loans could also be obtained from societies for the emergency purchase of fishing inputs. Thus, if fishermen's cooperative organisations are to succeed, they must amnifest the same types of flexibility to match the periodic nature of the marine resources. Also, they must be able to envisage anequilibrium situation whereby the demand for input at a given time is equal to the supply at that time plus level of inventory and security or buffer-stock requirements

2) INPUT REQUIREMENT BY TYPE

When asked which of the fishing inputs do they need at the time and would solicit government assistance, the responses were as shown below:

TABEL 2: DEGREE OF NEED OF FISHING INPUTS AS SHOWN BY FREQUENCY OF RESPONSE

TYPE	UTA-EWA	OKOROETE	IKO	TOTAL	AVERAGE
Outboard Engine	8	13	11	32	10.6
Nets	8	15	13	36	12
Leads	4	7	5	16	5.3
Floats	4	2	4	10	3.3
Twine	3	3	4	10	3.3
Hook	14	6	8	28	9.3
Fishing line	4	6	8	18	6.0
Boat	6	4	0	10	3.3
Compass	1	4	3	8	2.6

SOURCES:- FILED SURVEY, 1992

Highest frequency was registered for outboard engine, nets and hooks. these inputs are scarce and command exorbitant prices because of the tariff charged on importation and the financial burden imposed by the middlemen. These inputs appear to be the basic fishing inputs required by the fishermen. These expensive input cost are beyond the wildest purchasing power dreams of most operators.

These needs of the fishermen were not reflected in the inputs distributed to them. The fishermen expressed dissatisfaction at the inappropriateness of the inputs in view of their urgent and preferred need. Though, the inputs were embraced, they were only bought to take advantage of their relatively cheap prices. Most were either sold off at exorbitant prices by the cooperatives and individual fishermen or kept redundant in the store.

The specification (or model) of the inputs supplied was also contract to the requirement of the fishermen. The government supplied 15HP engines while the demand of the fishermen were engines with higher horsepower. Table 3 presentes fishermen preference for outboard engine models.

TABLE 3: DEMAND FOR DIFFERENT MODELS OF OUTBOARD ENGINE AS SHOWN BY NUMBER OF RESPONDENT

SETTLEMENT MODEL	8HP	15HP	25HP	40HP
Uta-Ewa	1	1	7	6
Okoroete	0	1	12	2
Iko	0	2	13	0
Total	1	4	32	8
Present	2.22	8.88	71.1	17.8

Source: Field Survey

Fishermen show strong preference for 25HP outboard engine accounting for 71.1 percent of total respondent while 40HP, 15HP and 8HP recorded 17.8 percent, 8.88 percent and 2.22 percent resepctively. According to the fishermen's opinion, 25HP performs better and are more suitable for fishing activities. The demand for 25HP motor enignes significantly outweighed the demand for other models in all the fishing settlements except Uta-Ewa. This is mainly due to the influence of "trawler by catch " fishermen who are known to be economically better off. This fihsermen are known to operate with 40HP motor enigne to the deep sea. There is a vivid social stratification between these fishermen and thus the canoe fishermen opt for "by catch" fishing if they could only obtain a 40HP engine. This income disparity needs to be addressed before supporting any move to subsidize inputs distribution to the fishermen.

Distance of Uta-Ewa to the fishing ground also appeared to affect the high demand for 40HP engine.

The implication of this inappropriateness of inputs supplied was noticed on the productivity, investment cost and fishing time of fishermen. Beneficiaries of the 15HP engine complained of low catch as a result of the inability to penetrate the deep sea and also greater time required to sail to the fishing ground. For nets, hooks and monofilament, the fishermen incurred extra cost to purchase the specific type needed. This does not negate the cost of procuring the unused gears thus cumulating to a very high cost of operation. Much time is also lost by moving around or travelling to source for these gears. As most of the gears are not obtained within the environment, an average of one fishing day is lost per week per fisherman.

3) AFFORDABLE PRICE LEVEL OF FISHING INPUTS

Fishermen were interviewed to measure the price they can afford to procure the major fishing inputs

TABLE 4: FISHING AFFORDABLE PRICE LEVEL, GOVERNEMENT PRICE AND OPEN MARKET FOR FISHING INPUTS

PRICE (N) PER UNIT

INPUT/SETTLEMENT	UTA-EWA	OKOROETE	IKO	AVE	GOV	OPEN MARK.
Outboard Engined (25HP)	8,000	14,000	12,000	11,330	6,000	35,000
Net-shark	800	1,000	1,000	933	1,000	1,200
Net-Bonga	600	800	850	750	600	1,300
Lead	200	350	300	280	500	500
Hook	50	50	45	48	30	50
Rope	100	150	130	126	58	200
Fishing Line	100	150	130	126	17	250
Twine	35	30	35	33	15	35
Boat-dug-out	3,500	2,000	2,600	2,366	--	3,000
Boat-planked	2,500	4,000	3,500	3,333	--	3,500

SOURCE: FIELD SURVERY, 1992

There is a positive, strong and highly significant correlection between average affordable price level of the fishermen and the government price.

K = 7.6 * * at 5% level

This value of k is so large that it is beyond the range of the normal curve table. This also confirms the perception of the fishermen on the expected role of the government in fishing inputs procurement and idstribution. Though the correlation of the fishermen affordable price level and the open market price show a positive and significant relationship at 5 percent level it it however, lower than that the government price.

k = 3.0144

Government subsidy programme out weighed among suggested solution to the exorbitant fishing inputs prices as shown in table 5.

TABLE 5: SUGGESTED SOLUTION TO THE EXHORBITANT FISHING INPUTS PRICES BY FISHERMEN

SOLUTION	FREQUENCY	PERCENT
Provision of loan	26	23
subsidy	38	34
Direct procurement	12	11
Build government shops	28	25
others	9	8

Source: Field Survey

This affordable price level was also related to the earnings and the capital that can be raised within a short period without necessarily asking for credit that can be obtained and repaid without folding up fishing activities or defaulting.

From table 4, outboard engine, nets, lead, rope, and fishing line appear to be the most important fishing input demanding government subsidy. The cost of fishing craft (N3,000) could easily be met while N500 for lead sheet could not be met. It therefore, implies that affordable price level of fishermen also depend on the value attached to each fishing input. Higher value is attached to fishing boat than any other fishing input. The fishermen thus have a negative perception for government support for fishing craft. This is however particular to only traditional boats as modern boats like fibre glass will need to be subsidized or supported as incentive to its adoption. This affordable price level of fishermen and their perception of government responsibility is necessary in determining the type of input that requires support and the level of support required. It is also important in determining the level of government support to be given.

CONCLUSION AND RECOMMENDATIONS

The idealogy of the fishermen of the role of cooperative society is wrong and specific programmes need to be directed towards correcting this perception. This perception helps first to explain fishermen's attitudes towards cooperative; second, it facilitates recognition of areas of dissonance that might arise from perception that do not match the real effects of cooperative; and third, it is an aid in the development of information programmes that will produce more realistic perceptions of the effects of fishermen's cooperatives, which will enhance its success. Therefore for any meaningful support program for the artisanal small-scale fishermen, the perception of the fishermen about the cooperative organisation must first be aligned rightly.

This paper also concludes and suggest determination of the fishing input requirement by type and specification as a preliminary step in the delivery of inputs to fishermen. Social, economic and cultural variables should be related to the requirement by the fishermen. The price level of fishermen will determine the direction and level of government support required.

REFERENCES

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