

## PARTICIPATIVE MANAGEMENT AND THE DEVELOPMENT OF FISHING IN DEVELOPING COUNTRIES: WHAT LESSONS TO LEARN FROM IFAD<sup>1</sup> PROJECT IN ALGERIA?

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***Abstract:** Generally speaking, traditional fishing in developing countries helped decrease poverty and build food security (FAO, 2005). In Algeria, despite the efforts made by the public authorities to alleviate financial constraints and allow a take-off in the traditional fishing sector, the results obtained remained far behind the envisaged effects (Chakour & Alegret Tegero, 2007). If the dominant thesis in development theories argued that the failure of a number of projects was due to inefficient public policies (Brasseul, 1993), in our view, the lack of a follow-up and an evaluation approach remained one of the reasons behind this failure. This paper sought to evaluate IFAD project, on the basis of a survey carried out on two fishing communities in 2006. It tried to explain the relative failure of some projects and the apparent success of others. The aim of this paper was to demonstrate the need for a participative approach taking into accounts both the expectations and aspirations of the fishing community.*

***Key words:** development, fishing, financing development, IFAD, participative management, adaptive approach, local-level vocation and specificities.*

### INTRODUCTION

Being regarded as the dominant fishing mode in the Mediterranean (Farrugio et al, 1993; H. Farrugio, 1996), and having significant comparative advantages over industrial fishing in terms of economic effectiveness and harmful effects on the environment (Kurien and Willmann, 1982), traditional fishing is capable of playing a determinant role in sustainable development of the fishing sector in developing countries.

Out of 38 million aqua culturists and fishermen recorded by FAO worldwide, 90% are estimated to be traditional fishermen (FAO, 2004; FAO, 2014).

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Developing traditional fishing requires, after all, the mastery of its social and economic dimension through the study of producers as actors-subjects and the comprehension of logics guiding private or public, individual or collective choices, taking into account available opportunities and subsequently the constraints of limited means (Féral, 2001).

In this context, this paper seeks the evaluation of pilot development project of traditional fishing in Algeria known as "IFAD project". The basic hypothesis formulated for this purpose is as follows: in the absence of follow-up and participative management for the so-called project, the results risked being far behind the envisaged effects. This hypothesis does not necessarily mean that the project has not generated some positive effects, but these remain to a large extent the work of logics developed by the fishing community.

## METHODOLOGY

We have chosen a comparative approach based upon surveys. This choice rests on two fishing areas: Ziama Mansouriah at Jijel and Stora at Skikda, both bordering each other in eastern Algeria. Our survey has been strengthened with views coming from witnesses and other sources. It should be noted, however, that data have also been collected from some institutions.

To ensure a better representation, we chose to interrogate thirty six beneficiaries of the IFAD project selected at random from the two fishing areas.

### Some Results of the Evaluation of " IFAD" project

#### *1. Introduction to the project for the development of traditional fishing (IFAD)*

The aim of this project is to create jobs for the fishing community located in the eastern coast and to enhance the value of the fishing resources. Partially financed by IFAD, the development of traditional fishing<sup>ii</sup> consists of providing fishermen, organized in the form of co-operatives, with boats of 6.80 meters long (J.O.R.A, DP n° 92-219). The fishing cooperative provides 5% of the funds to purchase the equipped boat, the "Youth Employment Scheme" covers 30% of the costs, and 65% of the finance comes from IFAD (J.O.R.A, DP n° 92-318). The survey carried out on two fishing communities in 2006 aims to assess the success or failure of the project from the point of view of fishermen. In addition, the survey seeks to explain the relative failure of some projects and the apparent success of others.

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ii. The term 'traditional fishing' is a one that was popularized. Despite its global importance, 'the traditional fishing' is a concept used by everyone, but no common definition of it has been given. For further information, confer to: (Remi Debeauvais 1985; Mamadou Diallo, 1995; Ridha MR et al. 2011).

## 2. Analyzing the results of the survey

### 2.1. The results: The interest of traditional fishing.

**Table 1**  
**Is the development of artisanal fishing interesting ?**

		<i>Frequency</i>	<i>Percent</i>	<i>Valid percentage</i>	<i>Cumulated percentage</i>
Valid	Yes	35	97.2	97.2	97.2
	No	1	2.8	2.8	100.0
<b>Total</b>		<b>36</b>	<b>100.0</b>	<b>100.0</b>	

*Source:* Personal realization, results of our research

The development of traditional fishing is seen by sea fishermen, as a salvation project elaborated to ensure the relief from a situation of domination and subordination which has existed for so long. So, 97.2% of the beneficiaries considered the project to be interesting and deserved to be closely followed up. This can be explained by the traditional character of fishing in Algeria (S.C.Chakour, 2013; S.C.Chakour et Boncoeur.J, 2005; Sahi.M et Bouaicha.M, 2003; Père Oliver et Ramon Franquesa, 2005; Jacques.S, 2005) and by the role it can play in the alleviation of poverty. Sea fishermen believe that the development of traditional fishing will have some positive stimulating effects on the take-off of the fishing sector.

**Table 2**  
**The most profitable fishing system.**

	<i>Frequency</i>	<i>Percent</i>	<i>Valid percentage</i>	<i>Cumulated percentage</i>
Small boat	8	22.2	22.2	22.2
Sardine boat	14	38.9	38.9	61.1
Trawler	14	38.9	38.9	100.0
<b>Total</b>	<b>36</b>	<b>100.0</b>	<b>100.0</b>	

*Source:* Personal realization, results of our research

While nearly all surveys consider the development of traditional fishing to be an interesting project, the most profitable fishing systems remain sardine fishing-boats and trawlers, representing 38.9% of the fishing systems, whereas 22.2% see in small jobs the most profitable fishing system. Sardine fishing-boats and

trawlers, known for their profitability, are not the subject of interest for this type of fishermen, simply because they cannot afford to buy a trawler. According to them, a sardine fishing-boat or a trawler can only be acquired in the medium or long term.

### Profitability of the project

**Table 3**  
**Is the project profitable?**

	<i>Frequency</i>	<i>Percent</i>	<i>Valid percentage</i>	<i>Cumulated percentage</i>
Yes	25	69.4	69.4	69.4
No	11	30.6	30.6	100.0
<b>Total</b>	<b>36</b>	<b>100.0</b>	<b>100.0</b>	

*Source:* Personal realization, results of our research

As to the profitability of the project, 69.4% of the fishermen think that 'IFAD' project is profitable. Indeed, when targeting expensive white fish, 'small jobs', assuming no breakdown problems or weather constraints- are able to procure interesting incomes. In this way, a large number of beneficiaries are convinced of the profitability that such a project can generate.

Fishermen, including those who think that the project is profitable, are not satisfied of the supplied equipment, arguing that it is not suited to their activities. For this purpose, it should be reminded that coastal fishing requires boats with specific equipment, while IFAD boats are endowed with equipment which required large funds. This explains, to a certain extent, recourse to some modifications, allowing the practice of both 'small jobs' coastal fishing and sardine fishing.

### *Opinions on fishing equipment.*

**Table 4**  
**Are you satisfied of the material?**

	<i>Frequency</i>	<i>Percent</i>	<i>Valid percentage</i>	<i>Cumulated percentage</i>
Yes	1	2.8	2.8	2.8
No	35	97.2	97.2	100.0
<b>Total</b>	<b>36</b>	<b>100.0</b>	<b>100.0</b>	

*Source:* Personal realization, results of our research

It has been revealed that fishing equipment (such as boats) are far from satisfying for the beneficiaries, and that is what display at least our results: 97.2% of the beneficiaries are not satisfied of the fishing equipment and consider that it does not comply with their needs simply because it is not suited to their activities. This unsuitedness has undoubtedly affected the return of fishing units. Indeed, this can be confirmed through the examination of the beneficiaries' opinion on the equipment.

**Table 5**  
**Do you have a problem of material?**

	<i>Frequency</i>	<i>Percent</i>	<i>Valid percentage</i>	<i>Cumulated percentage</i>
Yes	34	94.4	94.4	94.4
No	2	5.6	5.6	100.0
<b>Total</b>	<b>36</b>	<b>100.0</b>	<b>100.0</b>	

*Source:* Personal realization, results of our research

It has been revealed that 94.4% of the beneficiaries assert having considerable equipment problems. Frequent breakdowns of the fishing equipment (nets, floats, winches...) which does not comply with the requirements of their fishing systems, have significantly limited their going outs for fishing. This has further affected negatively the profitability of fishing units (Issa F.O et al, 2013; John Kengere. O, 2004; S. A. Adewuy et al, 2010; Eugene. W.A et al, 1997; Alexandre. P and João Mario. C, 2008). According to what an interrogated fisherman said, "this has been amplified by after-sale services because they do not frequently respond to our calls, and when they respond, they only come to make their reports".

## *2.2. The Absence of a Rigorous Follow-up*

**Table 6**  
**Were you contacted by the after-sale service?**

	<i>Frequency</i>	<i>Percent</i>	<i>Valid percentage</i>	<i>Cumulated percentage</i>
Yes	8	22.2	22.2	22.2
No	28	77.8	77.8	100.0
<b>Total</b>	<b>36</b>	<b>100.0</b>	<b>100.0</b>	

*Source:* Personal realization, results of our research

Indeed, after-sale services whose task is to follow up the project closely, and provide assistance when technical problems occur, has not played the role that has been assigned. The results reached in this survey confirm this statement made by the fishermen, because 77.8% of the interrogated said that they have not seen any visitors coming from the after-sale services. After earnest request, however; 22.2% of those claimed seeing visitors from the service. Still, the quasi-totality of these stated that the visits have not had the envisaged effects. Considering the nature of its financing -financing from foreign funds-, such an important project of economic, social and financial dimension deserves to be upgraded through a rigorous follow-up.

### 2.3. Concerning Popularization

**Table 7**  
**Popularization: Visits of popularizers?**

		<i>Frequency</i>	<i>Percent</i>	<i>Valid percentage</i>	<i>Cumulated percentage</i>
Valid	Yes	15	41.7	41.7	41.7
	No	21	58.3	58.3	100.0
<b>Total</b>		<b>36</b>	<b>100.0</b>	<b>100.0</b>	

*Source:* Personal realization, results of our research

With the aim of accumulating the means of production, popularization, in the case of pilot projects, becomes more than necessary. Inability to master certain fishing techniques and misuse of new equipment has significantly affected the level of catches. This has made popularization a priority. Unfortunately, though very receptive and favorable to popularization sittings, and even if 41.7% among them stated having received popularization visits, the quasi-totality of the beneficiaries complain of the manner in which fishing techniques are popularized and agree to say that popularization must be carried out in the open and not in workshops.

#### **The role of fishing headquarters.**

**Table 8**  
**The role of fishing Administration**

		<i>Frequency</i>	<i>Percent</i>	<i>Valid percentage</i>	<i>Cumulated percentage</i>
Valid	Yes	14	38.9	38.9	38.9
	No	22	61.1	61.1	100.0
<b>Total</b>		<b>36</b>	<b>100.0</b>	<b>100.0</b>	

*Source:* Personal realization, results of our research

Even the fishing headquarters do not seem to have any relations with the fishermen. They neither listen to their complaints and the rest, nor give help when needed. In this respect, 61.1% of the beneficiaries stated that they do not have direct relations with the fishing headquarters, with the exception of periodic administrative formalities.

*2.4. The lack of a participative approach: an explanatory reason of failure*

Although many experiences witnessed satisfying results of the participative approach (Van Den Hove, 2001; B. Gentner and others, 2013; Adams J and Rietbergen-M, 1994; Ali Rezagui et al, 2004; Blanc-Pamard C., Fauroux E, 2004), this is still lacking in governance in terms of sustainable development in the Algerian fishing sector. Indeed, within the framework of IFAD project, the different fishing actors have not been associated. In this case, the success of such projects remains dependent on the degree of involvement of scientists and seamen.

*a. The relation Scientists – fishing community:* A break-up that explains, to some extent, the failure of public policies in the development of the fishing sector. The fishing community as an actor-subject is not involved in the conception of development strategies.

*b. The relation administration – fishing community:* A tense relationship! Being tense (Said Chaouki. C, 2013), the relationship between the administration and the fishing community, in the absence of dialogue in a participative context, is at the origin of the failure of public policies in the field of fishing. For this purpose, we can mention, for instance, the problems of follow-up-valuation of development projects, communication, popularization and dialogue. This situation reflects the absence of an associative and participative approach (Elinor. O, 2010; Irene G, 2014; Said Chaouki. C and Salah Eddine. G. 2014).

*2.5. Concerning Success*

**Table 9**  
**Is it a success?**

		<i>Frequency</i>	<i>Percent</i>	<i>Valid percentage</i>	<i>Cumulated percentage</i>
Valid	Yes	21	58.3	58.3	58.3
	No	15	41.7	41.7	100.0
<b>Total</b>		<b>36</b>	<b>100.0</b>	<b>100.0</b>	

Source: Personal realization, results of our research

Only 58.3% of the examined fishermen testified the success of IFAD project, even though a big minority of them stated that the project was not a success. A particular analysis of the answers given by 15 fishermen who think that the project was not a success reveals that 14 out of 15 answers come from the examined fishermen at Stora fishery (Skikda)!

The examination of the results reached on the two fishing areas allowed confirming the above-mentioned disparities. The project turned out to be not having the same effects on the two fishing areas. It seems to have done better in Ziama fishery because 94.4% of the beneficiaries in this area considered the project to be a success, compared to 22.2% only in Stora fishery. In our view, the recorded disparities can be explained by the difference in the exploitation modes which are themselves the result of different logics developed by each of the two fishing communities. To check the truthfulness of this hypothesis, we were compelled to identify the production systems, to compare them, to understand the logics which govern the selection of each actor and to draw lessons from them.

### Comparative Analysis of the Results and the Trial of a Typology

1. *Identification of the existing production systems: exploitation modes reflecting different production systems.*

**Table 10**  
**Identification of production systems**

	<i>System of fishing</i>	<i>Site</i>			
		<i>Stora (Skikda)</i>		<i>Ziama (Jijel)</i>	
<i>Mod of exploitation</i>		<i>number</i>	<i>%</i>	<i>number</i>	<i>%</i>
Mod 1:	T1	18	100	02	11.11
Mode 2:	T2	00	00	01	5.56
Mode 3:	T12	00	00	15	83.33
Total	–	18	100	18	100.00

*Source:* Personal realization, results of our research

After close scrutiny of the fishing modes being practiced in the two fisheries we revealed three fishing systems:

**T1** : A fishing system based on catching white fish in uneven plateaus.

**T2** : A fishing system targeting deep-sea fish, particularly sardines.

**T12** : A mixed fishing system where both fishing sardine and fishing white fish are practiced.



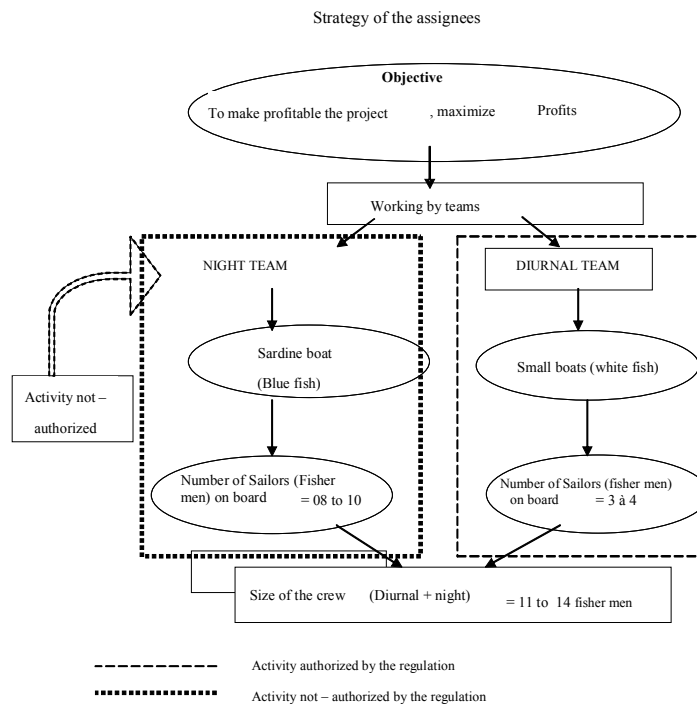
## 2. IFAD project in Ziama fishery: A success resulting from the work of fishermen's strategy and not from that of designers!

### 2.1. Analysis of some results.

Considering the abundance of blue fish, in this case sardine, in Ziama fishery, 'small jobs' are not content with small jobs activity but work in teams:

- One team working days and targeting mainly white fish by practicing what is commonly known as 'small job'. This type of fishing targeting expensive fish does not require more than four seamen. Still, the catches are less important than those achieved by sardine fishermen targeting deep-sea fish. This fishing is often called diurnal fishing.
- A second team targeting small deep-sea fish (sardine, anchovy...) whose job is commonly called 'sardine fishermen'. It is something to do with nocturnal fishing, requiring a relatively important number of workers varying from five to ten seamen on board. Unlike the fishing type targeting white fish, this fishing type is characterized by an important quantity of catches capable of compensating for the modest prices of blue fish.

Figure 1: The beneficiaries' strategy



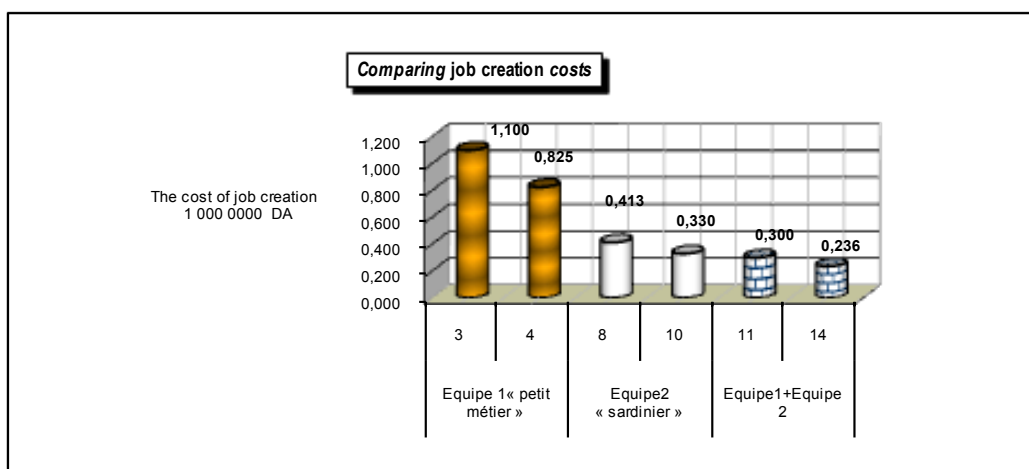
Source: Personal realization, results of our research.

## 2.2. The Beneficiaries' Strategy in Ziama Fishery

Our analysis on Ziama fishery has allowed us to identify the logics governing the choices of beneficiaries from the point of view of available opportunities, under the constraints of limited means. These logics translate the strategy of the fishing community. The shape below clarifies the strategy of IFAD cooperatives.

## 2.3. In Search of a Financial, Economic and Social Profitability

Graph 1. Comparing costs



Source: Personal realization, results of our research

By targeting the development of traditional fishing, IFAD project aimed to establish cooperatives to create three to four permanent jobs by every craft. This operation costs about 3.30 millions Algerian Dinars (J.O.R.A, DP n° 92-219). This reveals that the creation of one job costs 1.100 million Algerian Dinars. However, the upgrading of IFAD project by the beneficiaries led to the cost reduction of permanent jobs: by working in teams, the number of jobs became swinging between eleven and fourteen jobs. This helped lowering the cost of job creation to 0,300 million Algerian Dinars per job, when eleven seamen are taken into account. In this way, the upgrading of the project by the fishing community, compared to the project designers' estimates, helped decrease the cost of job creation to more than a third.

In a coastal enclave, where fishing represents an economic activity for living and revenue generation- the creation of permanent jobs becomes a priority objective.

For this purpose, it should be pointed out that in several developing countries traditional fishing is the largest job-creating sector and the principal supplier of fish on the domestic market (DFID/FAO, 2006). Compared to the results expected by the project designer, recourse to the fishing system of the "T12" type allowed the creation of three times more permanent jobs.

These results are of considerable significance, as they translate a strategy adopted by fishermen. They help the designers of such development projects to better understand the logics developed by the fishing community and to integrate their expectations and aspirations as variables in future development models. From the point of view of the results reached by several projects and surveys on the management of fishing resources in Africa, specialists emphasize the idea of recourse to participative approaches for a better accumulation of life resources for the fishing community (PMED/GTZ, 2002). In other words, recourse to a participative approach involving the fishing community becomes a prerequisite for the success of such projects.

## **CONCLUSION**

Considering the problem of financing development, developing countries are called to upgrade the development projects financed through foreign funds. In this context, through the assessment of pilot development projects in the fishing sector in a developing country, namely Algeria, this paper helped to clarify the interest and necessity of a participative management involving all the actors with far or close links to the fishing activity. The project assessment and the results reached from the survey made it possible to identify some bottlenecks and the reasons behind the relative failure of some projects and the success of others. Ziama fishermen considered the project a success because they found means by which they managed to make small jobs profitable. Every craft is used to fish white fish during the day with a team respecting the regulation in terms of the number of seamen on board (less than six). At night, the crafts are used to fish sardine which requires a bigger number of seamen (at least ten). In so doing, seamen earn more money, but at the expense of their lives, by neglecting the rules of maritime security.

Finally, it should be noted that the absence of follow-up-evaluation and a participative approach has hindered the effects envisaged by the project designers, even though the beginnings of its success have already started to be felt at the level of some fisheries. It should be reminded, however, that this success was mainly the work of the fishing community and the result of the logics that this community has developed.

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J.O.R.A. N° 36 : Loi n° 01-11 du 11 Rabie Ethani 1422 correspondent au 03 juillet 2001 relative à la pêche et à l'aquaculture.

**Notes:**

Note 1. The term 'traditional fishing' is a one that was popularized. Despite its global importance, 'the traditional fishing' is a concept used by everyone, but no common definition of it has been given. For further information, confer to: (Remi Debeauvais 1985; Mamadou Diallo, 1995; Ridha MR et al. 2011).