

## Organizational Analysis in Value Chain Approach: The Integrated Organizational Model (IOM)

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### Abstract

Organizational analysis is about organizations and people. This covers issues of structure and formality. But it also encompasses issues of process and, in a very fundamental way, change. The Organizational Development and Institutional Strengthening (ODIS) analysis gives an imminent of the Oromia Agricultural Research Institute (OARI), Zeway Fisheries Resources Research Center (ZFRRC). The objective of the paper is to assess the organization from the perspective of fish chain development with a view to analyses constraints and supporting factors for changes in the Organization in order to realize the mainstreaming of value chain approach or improvement of value chains approach.

**Keywords:** Organizational analysis; Integrated organizational model; Ethiopia

### Abbreviations:

ECDPM: European Centre for Development Policy Management; EEPCC: Ethiopian Electric Power Corporation; EIAR: Ethiopian Institute of Agricultural Research; FAO: Food and Agricultural Organization; IOM: Integrated Organization Model; MoARD: Ministry of Agriculture and Rural Development; OARI: Oromia Agricultural Research Institute; VCA: Value Chain Approach; ZFRRC: Zeway Fisheries Resources Research Center

### Introduction

Organizational analysis is about organizations and people. This covers issues of structure and formality. But it also encompasses issues of process and, in a very fundamental way, change. The Organizational Development and Institutional Strengthening (ODIS) analysis gives an imminent of the Oromia Agricultural Research Institute (OARI), Zeway Fisheries Resources Research Center (ZFRRC). The objective of the paper is to assess the organization from the perspective of fish chain development with a view to analyses constraints and supporting factors for changes in the Organization in order to realize the mainstreaming of value chain approach or improvement of value chains approach.

### Justification

Artisanal freshwater fishery is one of the most important economic activities (51,500 t of fish per annum) in Ethiopia, especially in Oromia state [1]. Improvements in fishery sector would contribute to poverty alleviation and environmental sustainability in Ethiopia [2]. Nevertheless, the potential of fishery is not completely developed because of bottlenecks related of marketing fish [3]. Marketing channels are too long (the distance of production area from market and without value addition) with many intermediate agents in the

chain. In Oromia state, there are retail channels around production areas but before reach these outlets fish are sold to a central market and, only after, products achieve retails. In general, fish are sold fresh with no processing and no cold usage, which reinforce problems related to fish quality and since fish was sold as a whole without processing the income for fishermen's was low. These facts cause low prices for fishermen- about 0,17 US\$ (3 birr)/kg at fishermen level and 1,72 US\$ (30 birr)/kg at wholesale level. Furthermore, the role of woman is low in Ethiopian economy, including the fishery sector. For that reason, a potential source of labor from women living around fishery areas could be used on the fish processing, improving value adding as well as strengthening their role in the society.

### Approach and Methodology

The approach used in this report is a combination of three models: the Integrated Organization Model (IOM), Institutional matrix framework and ECDPM 5 Core capabilities [4]. Desk study was used to capture theoretical concepts of these models from literature and data were collected by reading different department reports, each team plan, telephone communications with colleagues in the office and policies related to fish production and marketing.

### Justification for models

IOM is a model to emphasize the interrelationship of different elements of the organization. This model offers an overall tool to put the various elements of the organization in their place. By using this model the most important elements of ZFRRC are described. The Institutional Matrix framework on the other hand is very useful in mapping institutions along the value chain and gives direction on which stage of the chain needs improvement. And the European Centre for Development Policy Management (ECDPM) 5 Core capabilities points out the capacity and performance of ZFRRC and finally is used to give suggestions on possible areas for change in the value chain approach (VCA).

### Research questions

The approach of Value chain mainstreaming in order to improve the governance of fish value chain in Oromia region:

- What are supporting ZFRRC to mainstream value chain approach?
- What are the hindering ZFRRC to mainstream value chain approach?
- What changes are recommended for improving facilitation of governance of sustainable value chain?

### Organisation Description

Zeway Fisheries Resources Research Centre/ZFRRC/ is one of the seventeen Oromia Agricultural Research Centers, found in Oromia Regional state East shoa Zone 160 km from Addis Ababa (capital city of Ethiopia). It is located at 7.90 N & 37.70 E and elevation of 1638 m.a.s.l.

### External components

#### Vision

Food secured and market oriented fishermen and fish farmers in Oromia. This is the supporting vision to achieve the goal of fish value chain. Especially the projects that are already started without considering the Value chain approach.

### Mission

Increase fish production and productivity on sustainable basis through generating, adapting and transferring appropriate technology that will ensure conservation, protection and management of aquatic resources of the region. This is encompasses all the target field of study and sustainability which is the current global agenda.

### Output

ZFRRC conducts research projects on fishery Biology, Limnology, Fishing gear technology, Fishery post-harvest technology and Fishery socio-economic and Extension. Therefore, the output of the center is new or adopted technology, information, training or awareness creation on all departments. For example, integrated fish-poultry farming system project was now popularized in the region after finalizing the profitability and adaptability of the system on station and on farm level.

### Inputs

**Skilled and unskilled manpower:** Currently, the centre has two research teams (Fishery Technology Research and Fishery Socioeconomics and Extension Research team) and three support teams (Human Resource Management, Procurement, Finance & Property Administration and Plan Budget, Monitoring and Evaluation). In research team there is no female researcher but only three females assigned as field assistant (data collector) (Table 1).

No	Team	PhD		DVM		MSc/MA		BSc/BA		Diploma		Other		Total	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F
1	Researchers/Core process team	1		1		6		2		3	1	8	2	22	3
2	Support staff														
2.1	Human Resource Management							1		2				3	
2.2	Procurement, Finance & Property Admin.							1	1	4	3	10	1	15	6
2.3	Plan Budget M & E							1						1	
Total				1		7		5	1	9	4	18	3	41	9

Source: ZFRRC document

**Table 1:** Human resources distribution in ZFRRC.

**Buildings and installations:** The area of the centre's compound is 53,108 m<sup>2</sup>, holding small laboratory, boat building workshop, big building for offices, five cars, one big and five small boats, 16 ponds, one library and one big meeting hall.

**Finance:** A budget allocation trend of the center is exponentially increasing since its establishment as fisheries resources research center. Oromia Agricultural Research institute (OARI) has given a great attention to the center. With all budget type that is capital (budget for undertaking research activities), current (budget for executing some administrative issues of the center), Staff salary and budget from other sources like Ethiopian Institute of Agricultural Research (EIAR) has gradually increased. Capacity building with regard to budget will be required to enhance the abilities of individuals, organizations and systems to undertake and disseminate high quality research and training efficiently and effectively.

**Services of third party:** The ZFRRC is receiving water services from Adami Tulu district Water supply and Sewerage Authority on a monthly basis payment. Electricity is provided by Ethiopian Electric Power Corporation (EEPC) Zeway branch on a prepaid basis. Communication services are readily available from Ethiopian Telecommunication Corporation which is sole company. The quality of the services is very good. But, sometimes the communication facility like internet services broken because of the limited infrastructure (wire which is the cheapest and the lowest quality).

### General environments (factors)

**Political:** The government of Ethiopia is structured in the form of a federal parliamentary republic. There are nine regional states, which are mandate to administrate them by self-administration. The federal government is responsible for overall management. Unfortunately,

there is no demarcation for the management and administration. This factors has impact on the regional government to well perform in the value chain approach because; the federal government can divert the fund for politics whenever they want.

Currently there is fishery management legislation enforced at the Federal level, proclamation No.315/2003 in 2011. It provides broad guidelines relating to resource conservation, food safety and aquaculture. This document puts considerable emphasis on regulation, permits and the role of the fishery inspector. It is intended that the regional administrations should then use this as the broad framework within which their own proclamations are developed.

**Social and Economical:** The area of influence is characterized by intensive cultivation, with low level rain fed crop production. In most of the districts, a large proportion of the households cultivate less than 1 ha of land, which is greater than 0.5 ha of land which is the minimum requirement to fulfill the minimum food needs of an average household for a year. Fishing is another important economic activity practiced mainly in lake Zeway and Koka reservoir.

**Culture:** The most predominant ethnic group is Oromo accounting for 50.4 percent followed by Zay who were the first inhabitants of islands on the Lake Zeway accounting for 44.8 percent. Amhara, Guraghe and other ethnic groups account for two percent each [5]. The community is predominantly Muslim, but there are also Ethiopian Orthodox and Protestant Christians.

### The Specific Environments (Actors)

**Vertical linkages:** There is hierarchical linkage between the director of the center, the teams and staffs at center level, but horizontal linkages also exists between each research teams and supporting staff teams (Figure 1).

**Target groups:** As its mission is to increase fish production and productivity on sustainable basis through generating, adapting and transferring appropriate technologies of fisheries and aquaculture in Oromia region, the research activities have been done under different projects and components. These projects and components were set in order to address all the parts of the sector from the water limnology study up to the socio-economic aspect of the fisheries. Therefore, the position of center in fish value chain is to conduct and facilitate research activities and consulting with different actors in the chain. The majority of attention was given for the biological part of research. This is the hindering factor for value chain approach.

**Input suppliers:** The inputs for the organization are budget from Regional government and Federal Research Institute, staff which is available through regional government or regional research institute.

### Internal components

#### Strategy

Zeway fisheries resources research center has strategies and objective in the fish value chain and gender empowerment. The main objective is to analyze the fishery value chain in Oromia in order to propose, by a participatory process, strategies to improve added value and to strengthen women participation in the chain. The specific objectives are:-

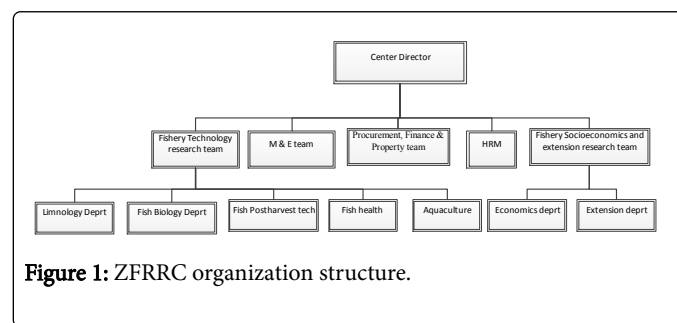
- To describe the structure of the global value chain and their governance affecting market relationship between fishermen and

buyers. Information about the market will be used as a basis for identifying opportunities of adding value to fish, the existing ones or that one with potential to be developed.

- To propose strategies to improve fish added value for fishermen: the achievement of this objective is directly concerned to woman’s strengthening strategies and it will be based on workshops, training and technology demonstrations by a participatory process.
- To propose strategies to enhance woman participation in the chain: To reach this goal, this project proposes to understand the women status at the fishery community and then to draw strategies to include women to the sector through strengthening their technical capacity and increasing awareness of gender issues at its community.

### Structure

The strategy mentioned above were supporting factor for the value chain approach for fishery sector in research. Unfortunately, the research project which is proposed was not functional currently.



**Figure 1:** ZFRRC organization structure.

The center director is appointed by head office (Oromia Agricultural Research Institute) and researchers are recruited based on their performance and qualification at head office. But, other supporting staffs are recruited at center level. The ZFRRC has two teams under research working process and three teams under supporting working process [6].

The organization has hierarchical structure vertically. At the top of the structure is a single person, who has a small number of people reporting directly to him. Each of these people have several people reporting into them and the number of people at each level increases as you move down the structure. At the same time there is flat relationship between each team. Due to the relationship between each departments smooth; all of the workers can understand what is going in the each research activities.

### My position and roles in the organization

My position is socioeconomics researcher. My responsibilities are writing proposals, data collection, conducting, monitoring, implementing and writing scientific report of all fishery Socio-Economic research activities. After full write up of the document I participate in training of fishermen’s how to access market in the value chain, how to add value to their product and empowering women’s in the chain at the processing stage.

### Systems and processes

All researchers have the responsibility to develop proposals depending on the problem identification results. All proposals should be reviewed at center and regional level to be approved for funding.

Every researchers and supporting staffs are required to have his/her own action plan for implementation in the stated year. Action plans from different researchers are collected at the team for formulating strategies to implement those plans. That means each team has prepared their own monthly and yearly plan on each research activities. There are 30 research activities for 2016. Strategies are formulated through departmental meetings. There is monitoring and evaluation team to check appropriate utilization of budget and research were done according to the proposals. For this purpose there is format developed depending on the indicators. The supporting staffs facilitate the financial and logistics for the researchers.

### Staff

Graduates from different universities are appointed by the Oromia Agricultural Research Institute at regional level basing on the needs for the researchers. The supporting staff is appointed at center level according to the vacancy announced.

Staff appraisal is conducted at the beginning and at the end of each financial year. Every staff is required to fill an appraisal form under supervision of the team leader. In this form the agreed objectives and targets are discussed between the staff and the team leader. At the beginning of the year the discussion is about the detail program or plans and at the middle and end of the year the progress and result of the projects.

**Staff motivation systems:** Every year one team is selected in the center from rest of teams as the best team of the year. This team is rewarded money and a certificate. There is a salary increment of 10 percent each two years for all workers in the organization.

**Staff training possibilities:** There is budget kept in place for researcher training (until September 2015: 14 Researchers has got the

opportunity for Master and 1 PhD student). The selection criteria for the training are that only experience. But there is training opportunities for supporting staffs. The center has the responsibility to pay the salary of the researchers when they are on study and cover research fund when training is in home country. If the training opportunity is from scholarship, the center pays only half of his/her salary and no research fund at all.

### Style of management

The ZFRRC has monthly meeting for evaluation every plan which is conducted by center director. All teams should prepare report monthly. The Monitoring and evaluation team check whether the action plan is accomplished. If the action plan does not accomplished, the center management team which is the combination of team leaders will take decision on what they have to do. According to Rollinson [7], my organizational structure is hierarchical but the style of management is participatory.

### ZFRRC Culture

My organization's culture characterized by clan culture type, because every job is done together that means our project is mega project. No single activities done separately. According to Kim SC and Robert EQ [8], Clan oriented cultures are family-like, with a focus on mentoring, nurturing, and "doing things together."

### Institutional Environment

In this chapter, Institutional matrix framework is used to map (see Appendix 1) the fish value chain. Actors, their functions, key institutional or policy factors and their implication towards value chain approach are presented clearly in the following table (Table 2).

Functions	Actors	Key Institutions/Policy factors Influencing chain dynamics and actor behavior	Implication towards value chain approach
Input supplying	Union/ fishermen's cooperatives	-Fishery legislation -Union law	Fishery proclamation at federal and regional level encourages the appropriate mesh size and doing for sustainability
Producing	Fishermen's	-Union/cooperative law -Wetland policy and Institutional gaps -Fishery legislation -Gender participation (less value addition and gender participation)	MoARD strategies-Encourage drainage and wetland cultivation; Ministry of Health-Encourages the filling up or drainage of wetlands to eradicate communicable or water borne diseases such as malaria; The Ministry of Mines-Allows the miner to use, among other things, water resources in the area of lease; Ministry of Water Resources-Encourages preventing the formation of the new wetlands by using appropriate mechanisms, Avoid formation of waterlogged areas and Conducting appropriate drainage works on all wetlands -fish without further value addition
Processing			
Collection	Assembler	-Free marketing policy -Small and medium enterprise policy -Infrastructure	-Every chain actors has the right to sale the products to everybody that means market is liberalized -the assemblers facilitate the value chain through small scale enterprise -lack of infrastructure through value chain hinder the marketing
Wholesaling	Wholesaler		
Trading	Retailers/Restaurants		
Consuming	Consumers	Consumers species preference and attitudes	Consumers prefer tilapia due to their better taste

**Table 2:** Institutional environments mapped on the value chain.

## **Organisational Capacity, Performance and Change**

ZFRRC is the organization which has the mandate all over Oromia region to do research activities on fisheries. In our organization value chain approach was started during 2012. The research entitled "Development of strategies for adding value and strengthening of woman participation in fishery sector, based on approach of governance of the global value chain". However, this project was terminated during 2014.

### **The 5 core capabilities**

The European Centre for Development Policy Management (ECDPM) 5 Core capabilities model is used to assess the capacity, performance and suggestions for change of our organization. All 5 capabilities are analyzed below.

#### **Capability to Act and commit**

The ZFRRC fund was from Oromia Agricultural Research Institute. Therefore, sometimes they are committed to the political situation in country. At that time they can impose to terminate some of the research activities due to research fund were diverted to other political meeting/facilitation. The termination was comes from center research teams by prioritizing research activities. The Global Value chain approach is the most important to tackle problems through fish value chain. Due to less knowledge of the staff about the approach, ZFRRC has less able to act and commit according to its mandate.

#### **Capability to deliver on development objectives**

Turnover of the researchers is due to satisfaction of salary (minimum salary) hinders the Value chain approach, funding constraint and the center director decision always towards value chain research activities is not good enough. Therefore, service delivery is inefficient.

#### **Capability to relate to external stakeholders**

Some research activities were done with a different organizational partnership. A number of BSc, MSc and PhD students have used this centre as supportive institution to carry out their research and have partnership with universities, research centers. This is because; it is located in the middle rift valley, the home for economically, ecologically and socially important water bodies and center. Even if ZFRRC has strong partnership with government organizations, poor relationship with NGO's who are willing and doing on fish value chain is another hindering factor. From the partnerships some of the stakeholders are interested in the fish value chain like chamber of commerce, Ministry of Science and Technology and NGO's.

#### **Capability to adapt and self-renew**

The needs of the community is always changing, consumers' preference are also changing. The demand of quality services keeps increasing, the ability of our organization to maintain the same quality and quantity of services provided with the changing community demand is very low. Actually, the organization was ready for the change by giving chance of training for the researchers. But, the salary for the researchers is not enough as such comparing to the other equivalent position in other institutions. So turnover of the staff is the most problems in value chain adaptation.

## **Capability to achieve coherence**

Coherence can be achieved if all staffs have a common understanding. In our organization; all staffs are aware about the vision and mission of our organization. Therefore, cooperation towards value chain approach between center director, team leaders and other staff members is very high making a strong cultural coherence. This has been achieved due to existence of clear working rules, regulations, procedures and job description of every staff in the center. Actually, vision and mission is the dream. Fortunately, the mission encompasses all target area and sustainability issue.

## **Conclusions**

The conclusions are given based on each part of the report; that is the organization description, institutional environments and the organizational capacity performance and change.

In the organization, mission is clearly mentioned but vision is mentioned in one way that mean no sustainability issue. The well division/structures of the departments in ZFRRC are the opportunities for room maneuver on value chain approach. Unfortunately, ZFRRC has hierarchy structure, teams are smooth relationships and with center directors. According to information from Center Director (Getachew) even if many new/adopted technologies, information's are ready for use, because of the country policy (no demarcation on decision making ability between federal and regional governments) the technologies are not popularized yet. Budget for value chain approach is diverted to political meeting and other activities by grasp of federal government.

Institutional environments have hindering and supporting factors for fishery value chain approach. Different policy proclamation is raised at different time and they are not supportive each other. For example: MoARD strategies-Encourage drainage and wetland cultivation; Ministry of Health-Encourages the filling up or drainage of wetlands to eradicate communicable or water borne diseases such as malaria; The Ministry of Mines-Allows the miner to use, among other things, water resources in the area of lease; Ministry of Water Resources-Encourages preventing the formation of the new wetlands by using appropriate mechanisms, avoid formation of waterlogged areas and Conducting appropriate drainage works on all wetlands, all these policy compliance has great effect on fish Value chain approach. The supporting factors are marketing is liberalized, active producers and producers organizations.

The center staff has less awareness on the value chain approach. Turnover of the researchers due to salary satisfaction is very high. That means, most of the researchers interested to join university because of the salary of the lecturer was higher in 20% than researchers. ZFRRC located in the middle rift valley, the home for economically, ecologically and socially important place due to this different institution easily made collaboration. Training opportunity for the researchers is mandatory in the research center; this is supporting factor for room maneuver and ready for change.

## **Recommended Changes and Room to Manoeuvre**

The following are the suggested changes and my room to maneuver those changes.

As socioeconomic researcher in the center, I can do awareness creation on:

- VCA for the staff and higher officials as it is a mandatory to keep it up the fund for value chain approach to mainstream marketing problem and empowering women in the chain. This is because of the fund for empowering fish value chain was diverted to political meeting and the project which is proposed was collapsed.
- Detail discussion with center director to prioritize the projects under the socio economic department and other teams to give attention for the value chain approach and women empowerment.

To reduce staff turnover, the organization's center director should push and discuss in detail with higher officials at least to equivalent with the same institution's salary where the researchers can join like Federal research institutes and universities.

There is poor relation with our key partners (NGO). They are working on fish value chain and we also work on the same value chain, but we don't put our efforts together instead we are working differently on the same people. In my team I will call a meeting with our key partners and suggest putting together our budgets for better performance. This is the best solution for the issue that higher officials diverting funds to political meeting.

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