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## **GENDER ANALYSIS AT FISHERIES SECTOR IN BITUNG**

Learning Exchange for CTI Countries at USAID OCEANS Learning Site  
(Bitung). Application of e-CDT System

June 25-28, 2018 | Bitung, Indonesia

# OUTLINE

1. INTRODUCTION
2. AIMS AND OBJECTIVES
3. METHODOLOGY
4. RESULTS
  1. Respondents' Profile
  2. Fisheries Value Chain Map
  3. Gender Differential in Value Chain Activities
  4. Gender Roles and Relation in Tuna Value Chain
  5. Information on Gender Dimension Frame Work
5. CONCLUSION
6. ISSUES ON GENDER EQUALITY AND WOMEN EMPOWERMENT
7. GENDER EQUALITY AND WOMEN EMPOWERMENT (ISSUES/PROBLEMS/GAPS)
8. LESSONS LEARNED AND OPPORTUNITIES
9. RECOMMENDATION
10. ACKNOWLEDGEMENT

# INDONESIA'S FISHERIES PROFILE

- Indonesia is the world's largest archipelagic country. Its fishery production in 2014 with a total of 20,8 million tonnes was the second largest after China.
- Small-scale fisheries business dominated the structure of Indonesian fisheries covering 89% of the structure of marine fisheries in Indonesia.
- Surrounding nets, seine nets, gillnets and entangling nets, and hooks and line are fishing gears that produce the highest fish catch.
- Tuna, and tuna-like species (skipjack and Eastern little tuna) are the major catch of Indonesia's marine fisheries.
- The socio-economic characteristics of Indonesia's fishermen (Indonesia's Central Bureau of Statistics, 2014):
  - 66% were in productive age (30-49 years old)
  - 79% had very low educational level (equivalent of elementary school)
  - 57% had small family members (1-4 persons)
  - 93% had owned house
  - 64% of household income were from fishery business
  - Average income US\$ 225 per month



# BITUNG'S FISHERIES PROFILE



- ❖ Bitung is the center of the fishing industry in Eastern Indonesia, particularly for tuna and tuna-like species.
- ❖ There are about 1,040 fishing boats and 90% are categorized as small-scale business (non power boats, outboard motor boats, and inboard motor boats with size < 5GT).
- ❖ The fishery sector in Bitung, which includes fishing, fish processing and marketing, is the source of livelihood for some 2,500 fisheries households. Totally there are 67 fish processing companies operating in Bitung City.
- ❖ Total fish catch landed in Bitung fisheries port in 2016 was 46,522 tones, and about 82% of the catch were tuna and tuna-like species.
- ❖ Tuna fishing is predominantly a male-dominated industry. Conversely, many women involved in fish processing and marketing.
- ❖ Although women play key roles in post-harvest activities, there is an indication that their contribution to the industry has often been undervalued and unappreciated. Therefore, a gender analysis was conducted to understand the different roles and interactions among male and female actors along the tuna value chain and to identify key issues and constraints to achieve gender equality and women empowerment



# AIMS

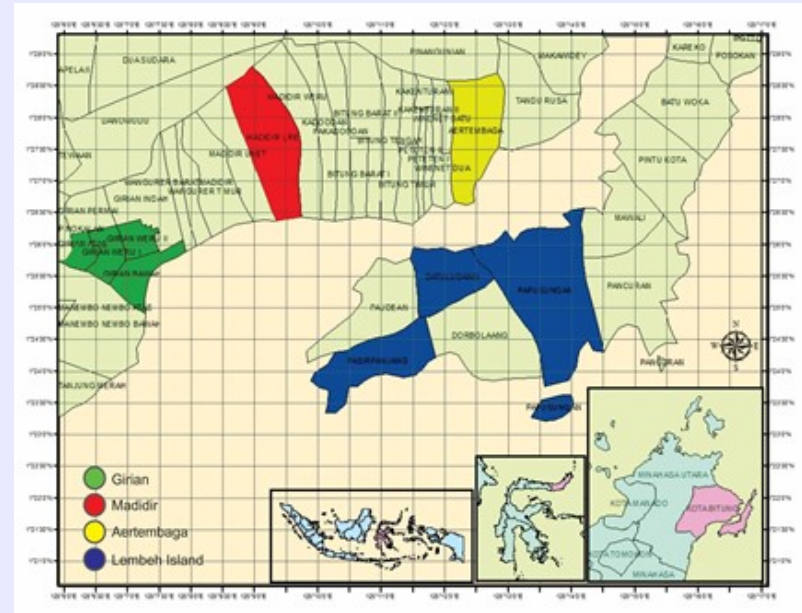
- Identify the different roles and interactions among male and female actors along tuna value chain
- Identifying key issues and constraints to achieve gender equality and women empowerment.
- Identified strategic areas of intervention to empower and build the capacity of women along the fisheries value chain.



# METHODOLOGY

## STUDY SITE/RESPONDENTS

- Fishers (handline, pool and line, and purse seine): Kel. Aertembaga Satu, Kel. Papusungan, Kel. Batu Lubang, Kel. Pasir Panjang, Kel. Pintu Kota,
- Fish traders: Kel. Aertembaga Satu, Kel. Papusungan, Kel. Batu Lubang, Kel. Pasir Panjang, Kel. Pintu Kota, Kel. Sagerat
- Small-scale fish processors: Kel. Papusungan, Kel. Batu Lubang, Kel. Pasir Panjang, Kel. Pintu Kota, Kel. Girian Atas, Kel. Sagerat
- Workers in large-scale fish processors: Kel. Aertembaga, Kel. Girian Bawah



# APPROACH

- ❑ This study employed *Gender Dimensions Framework* (GDF) as GDF comprises six research framework to understand gender issues and gender differences in roles, constraints and opportunities along tuna value chain in Bitung.
- ❑ The dimensions:
  1. Access and control
  2. Knowledge, beliefs and perceptions,
  3. Practices and participation,
  4. Time and space,
  5. Legal rights and status, and
  6. Power and decision making



## TIME OF FIELD RESEARCH:

Field research was conducted from March to May 2017.

## DATA SOURCES:

- Field survey/observations of 244 respondents (collected data entered into Google Form)
- Focus Group Discussion (FGD)
- Key Informant Interviews (KII)

## ANALYSIS METHOD:

Primary data obtained through interviews were analyzed descriptively using the Google Form. The results of the analysis were confirmed through focus group discussions (FGD), interviews with key informants, and local stakeholders validation workshops

Google forms

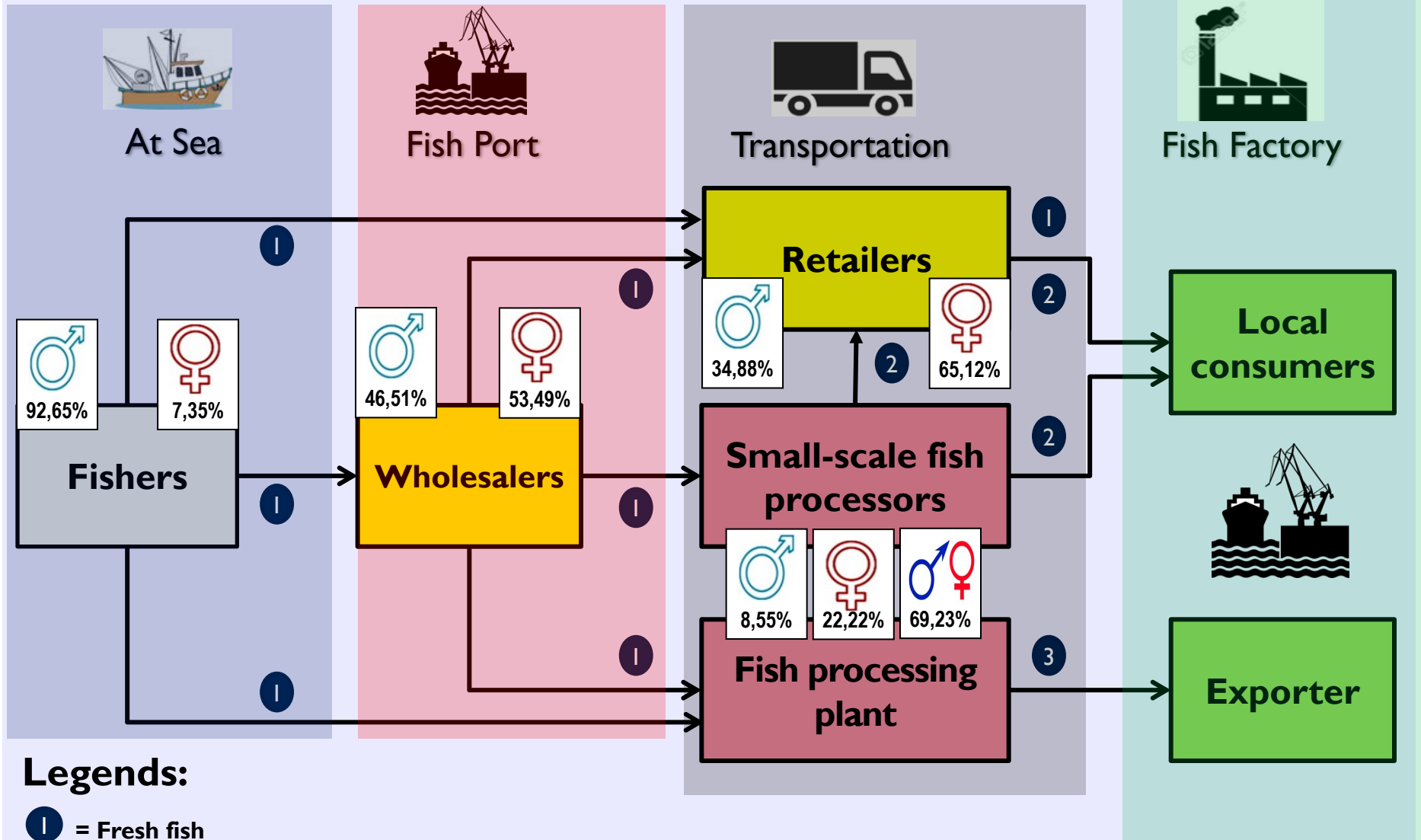


# RESULTS

## RESPONDENTS PROFILE

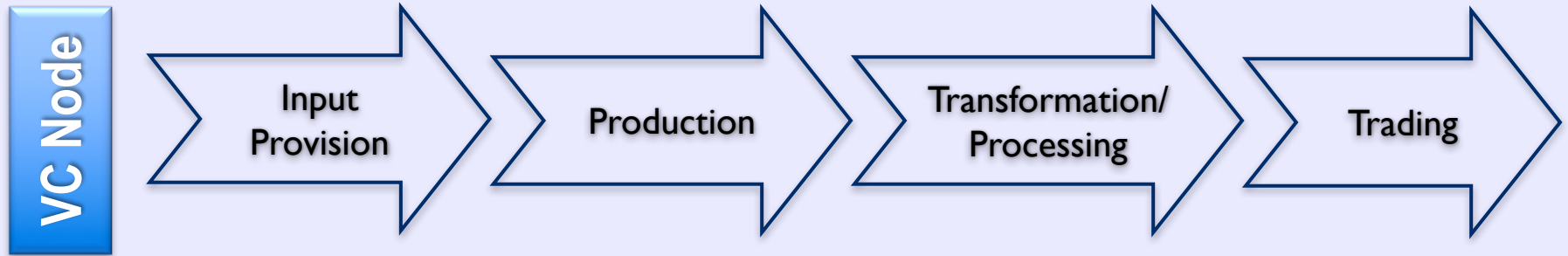
- **Age: 15-65 years, majority were aged 26-55 years (85%)**
- **Education: Majority were graduated from Junior High School and High School (66%)**
- **Number of dependents in family: Majority were 1-5 persons (85%)**
- **Ethnics: Majority were Sangihe (42%) and Gorontalo (28%)**
- **Gender: 48% male, 52% female**
  - Fishers (59 persons): 93% male, 7%
  - Fish traders (43 persons): 43% male, 57% female
  - Small-scale fish processors (16 persons): 38% male, 62% female
  - Workers in large-scale fish processors (126 persons): 26% male and 74% female.

# FISHERIES VALUE CHAIN MAP





# Gender Differentials In VC Activities



| VC Node       | Input Provision   |        | Production  |        | Transformation/Processing   |  | Trading   |        |
|---------------|---|--------|---|--------|---|--|---|--------|
|               | Male  | Female | Male  | Female | Male  | Female   | Male  | Female |
| VC Activities | <ul style="list-style-type: none"> <li>✓ Fishing, ship building</li> <li>✓ Ice loading</li> <li>✓ Engine maintenance</li> </ul> |        | <ul style="list-style-type: none"> <li>✓ Fish unloading</li> <li>✓ Fish transportation</li> </ul> |        | <ul style="list-style-type: none"> <li>✓ Fish unloading</li> <li>✓ Fish transportation</li> <li>✓ Processing tools cleaning</li> <li>✓ Machinery operator</li> <li>✓ Fish eviscerating</li> </ul> | <ul style="list-style-type: none"> <li>✓ Filleting</li> <li>✓ Sorting</li> <li>✓ Skinning</li> </ul> | <ul style="list-style-type: none"> <li>✓ Transporting</li> </ul>  |        |
|               | <ul style="list-style-type: none"> <li>✓ Food preparation, fishing gears preparation</li> </ul>                                 |        | <ul style="list-style-type: none"> <li>✓ Grading</li> <li>✓ Administration</li> </ul>             |        | <ul style="list-style-type: none"> <li>✓ Packing</li> <li>✓ Administration</li> <li>✓ Quality control</li> </ul>  |  | <ul style="list-style-type: none"> <li>✓ Fish marketing</li> <li>✓ Administration</li> <li>✓ Quality control</li> </ul> |        |

# GENDER ROLES AND RELATIONS IN TUNA VALUE CHAIN

## FISHERIES CAPTURE:

- ❑ Tuna fishing is dominated by male, starting from completing permits and documentations, preparations of go fishing (fuel, water, food, cigarettes, fishing gears), fishing and fish handling at sea, and unloading the catch.
- ❑ On land, procuring the block ice and *crushing it* into smaller size pieces are performed by men. The process of icing the fish is mostly done by men, but some women are also involved in this work.



# GENDER ROLES AND RELATIONS IN TUNA VALUE CHAIN

## SMALL-SCALE PROCESSORS:

- ❑ Fish purchasing is done by women, but fish transportation to processor's location is performed by men.
- ❑ Butchering and cleaning the fish, dividing the fish into two parts, clamping the fish by using bamboo, and smoking the fish are all performed by men. Fish selling and managing the finance is performed by women.





# GENDER ROLES AND RELATIONS IN TUNA VALUE CHAIN

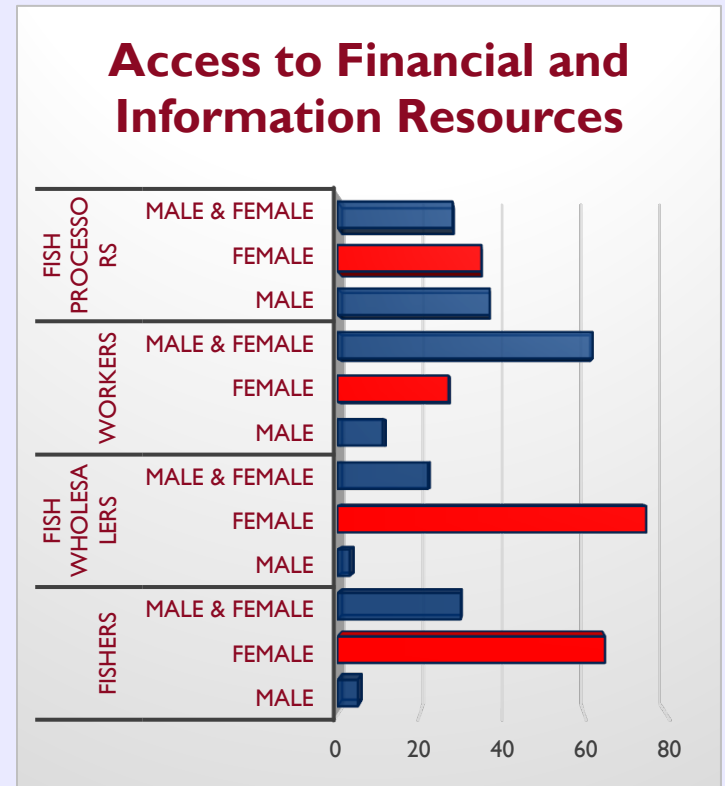
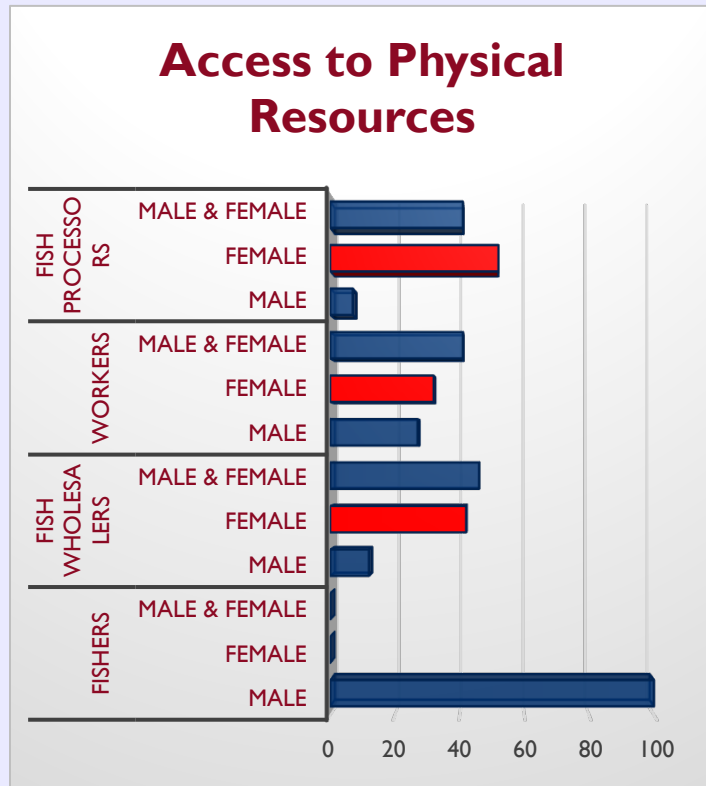
## MARKETING:

- ❖ The marketing of fresh and processed fish in large quantities, including fish transportation to destination is generally done by men. Women are less involved in these activities due to the nature of the work that requires physical strength.
- ❖ Small retail sales of fresh fish and processed fish, including in fish auction site and peddling fish in residential neighborhood on foot, are generally done by women. Women are less capable of carrying/transporting fish in large quantities, and also they have responsibility to take care of the housework.



# INFORMATION ON GENDER DIMENSIONS FRAMEWORK (GDF)

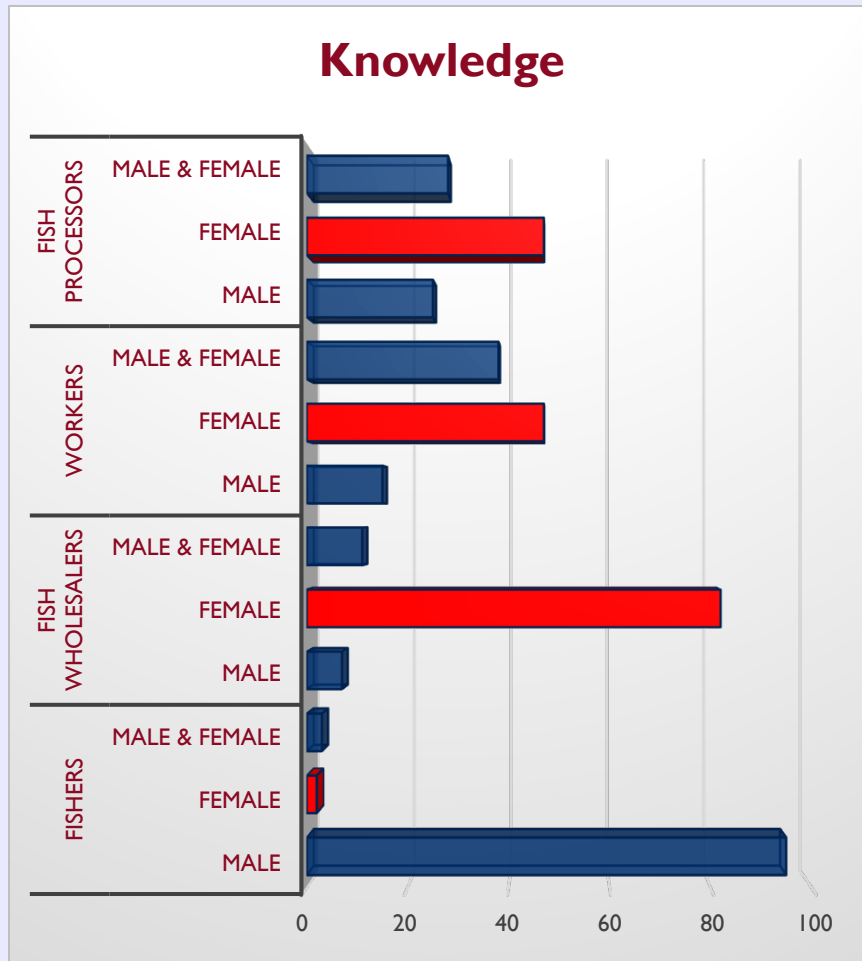
## I. ACCESS AND CONTROL



- In capture fisheries, the access to and control over assets are held by men.
- In small-scale processors, women as owners hold the access and control over assets.
- In large-scale fish processing firms, the access and control of the company's assets is dominated by men.
- In fish marketing, the access and control of assets are held jointly by men and women.

# INFORMATION ON GENDER DIMENSIONS FRAMEWORK (GDF)

## 2. KNOWLEDGE, BELIEFS AND PERCEPTION



- Men have much knowledge in fish catching activities, while women have much knowledge in fish processing and marketing.
- There are beliefs and perceptions in society that women are unsuited to fishing jobs due to physical factors as well as women's responsibility to take care of home and children.



# INFORMATION ON GENDER DIMENSIONS FRAMEWORK (GDF)

## 3. PRACTICES AND PARTICIPATION

- Men do more heavy physical work (such as transporting fish), while women do more light work but require persistence (such as loaning).
- Women prefer to participate in social activities, such as “arisan” (Regular social gathering whose members contribute to and take turns at winning an aggregate sum of money).



## 4. TIME AND SPACE

- The time spent by women and men in the tuna value chain is relatively similar.
- Women spend more time than men in fish processing activities, but outdoor activities along the value chain (fishing, transportation fish and processed fish, and selling fish) are relatively comparable between men and women.



# INFORMATION ON GENDER DIMENSIONS FRAMEWORK (GDF)

## 5. LEGAL RIGHTS AND STATUS

There is no gender-discriminatory law that inhibits women's rights to own property, including fishing vessels. Women working in large-scale fish processing plants also face no constraints to obtain their legal rights and status. Both men and women thus have equal rights and legal status in all activities in the tuna value chain.

## 6. POWER AND DECISION MAKING

In fishing activities, the decision to go fishing made by the vessel owner or the captain who are mostly male. In fish processing activities, the decision to produce smoked skipjack fish is also made by the business owner who are mostly women (purchase of raw fish as raw materials, recruitment of labour to be used for work, fish processing by labour and the sale of processed fish). In fish marketing, both wholesaling and retailing, power and decision making are generally in the hands of women as business owners. This indicates that power and decisions made by men and women are relatively equal.



# Opportunities and Constraints: Small-Scale Fisheries in Bitung

|                        | OPPORTUNITIES  |  | CONSTRAINTS  |  |
|------------------------|--|--|--|--|
|                        | Male   | Female   | Male   | Female   |
| <b>MARKETING</b>       | Market expansion (national/international), higher income   |  | Market fluctuation, limited market, unregistered products (SNI, BPOM, Halal)   |  |
| <b>PROCESSING</b>      | Product diversification, market expansion, by-prod added, knowledge and skills development, funding assistance (MMAF, MFO, other aid agencies, additional income source) |  | Lack of raw materials (ie. due to fishing moratorium policy, unmanaged women's groups, low awareness of hygiene, limited capital, low knowledge and skills on fish processing (diverse fish products, handling, vacuum packaging)) |  |
| <b>FISHING</b>         | Assistance from MMAF/MFO/other aid agencies on fishing gears and vessels   | Additional income (ie. grading)                                | Limited fishing vessels and gears, lack of capital and low entrepreneurial capacity on fish capture, low knowledge and skills on fishing technology  |  |
|                        |  |  | Reluctant to get fishing permits   | Less women involvement in fish capture activities  |
| <b>INPUT PROVISION</b> | Operational cost reduction, fishing vessel registration thus increased fish price, gaining information on fisheries regulation   |  | Unregistered small fishing vessels, difficult to obtain fishing permits, low knowledge on fishing gears,   | Poor handling of raw materials for fish processors |
|                        | Fish capture training  | Administering fishing permits and catch reports/documentations |  |  |



# Opportunities and Constraints: Large-Scale Fisheries in Bitung

|                        | OPPORTUNITIES  |                       | CONSTRAINTS  |  |
|------------------------|--|-----------------------|--|--|
|                        | Male   | Female                | Male   | Female   |
| <b>MARKETING</b>       | High demand/market for tuna and tuna like species, government support on obtaining trading permits, increased job availability |                       | Limited supply of tuna (ie. due to season, fishing moratorium policy), difficulties in meeting the International standard quality and quantity |  |
| <b>PROCESSING</b>      | More job availability  |                       | Lack of raw materials (ie. due to season, fishing moratorium policy)   |  |
|                        |  |                       | Less conscientious   | No women's group, less women at high management level, no supporting facilities for female workers (ie. child care, breast feeding room) |
| <b>FISHING</b>         | Investment on fishing vessels and gears, increased fish catch  |                       | Lack of capital  |  |
| <b>INPUT PROVISION</b> |  | More job availability |  | Time constraints (due to multiple tasks)   |



# ISSUES ON GENDER EQUALITY AND WOMEN EMPOWERMENT

- ❑ Cultural norms which applies to small scale fish processors, fish vendors, fishers and workers as to the type of work men and women do in each node of the chain that is often defined according to the physical demand of the task (such as catching, carrying and transporting fish being conducted by men while buying, sorting and eviscerating fish as well as book keeping activities are conducted by women). Limited access to resources such as fishing vessels by women.
- ❑ Limited access to resources such as raw materials due to low bargaining power in determining the price of fish products because of monopsony in small scale women fish processors (*katsuobushi*).
- ❑ Time constraints for money-making activities for women due to their responsibilities to the household and children.
- ❑ Lack of access to public transportation for women fish vendors to landing centers / harbors very early in morning that make them vulnerable to harmful condition such as sexual abuse.
- ❑ Poor access to financial sources due to limited or no collateral, and also too small-scale business are not interested to the financial institution in providing credit. This lack of finance support has limited the women from upgrading their fisheries businesses, and therefore not been able to form sustainable and viable fish trade especially when it comes to the export of fish and other fishery products.
- ❑ Limited access to information, networks, extension and associations.

# GENDER EQUALITY AND WOMEN EMPOWERMENT

## ISSUES / PROBLEMS / GAPS

| Categories   | Issues/Problems/Gaps  |
|--|---|
| <b>Catch Documentation and Traceability (CDT)</b>                                    | <ul style="list-style-type: none"> <li>- Due to lack or no information on CDT, women require information through special training and embrace them to get involve in CDT.</li> <li>- Simplification of CDT method to be easily understood and used by women considering their educational background</li> </ul> |
| <b>Sustainable Fisheries Mgt/ Ecosystems Approach to Fisheries Management (EAFM)</b> | <ul style="list-style-type: none"> <li>- Limited/less raw materials for women fish processors</li> <li>- Lack of knowledge on conservation thus fisheries sustainability</li> </ul>   |
| <b>Governance/Institutional/Political</b>  | <ul style="list-style-type: none"> <li>- No National regulation on gender equality and women empowerment</li> </ul>   |
| <b>Industry</b>  | <p>Still less women at level of decision making at commercial scale despite the fact that most of the workers are women.<br/>Women skills are less desired compare to men</p>   |

# RECOMMENDATIONS

For Oceans and Fisheries Partnership especially gender interventions relevant to CDT and SFM/EAFM

- Formation of a local and national organization for fisher women
- Strengthen the existing group of fish processing women
- Capital assistance through linkage program with financial institution for small scale fish processors, small scale capture fisheries industries and small scale fish vendors
- Assistance on marketing of small scale fish processing products
- A continuous fostering/mentoring of fish processing group through counseling and training on processing, marketing, group management.
- Equal roles between women and men in public decision-making at village, sub-district and city levels
- Providing cold storage for fish processing group in Lembeh

# RECOMMENDATIONS

- **Private Sector Industry**
  - Accommodating fish products of small-scale fish processors, assisting in forming groups of small-scale women fish processors and providing technical skills on particular products with export standard methods, assisting the fishers in achieving export standard products
- **Educational and Training Institutions**
  - Providing both degree and non-degree training for coastal communities on fisheries related science and skills, providing skilled workers for industrial scale.
- **Research Institutions**
  - Future research is required to understand better of women's and men's roles and relationships in the fisheries sector and to promote more sustainable fisheries development, conduct research on the quality and nutritional content of the products produced, research on the application of appropriate technology for the process of smoked fish, research of financial management for fish processor to increase prosperity of their family
- **NGOs, Civil Society Organizations, Farmers' group/associations, women's group**
  - Developing networking of women's groups to enable them to contact each other to gain experiences, skills, information on various fisheries related activities including market opportunities, prices, resources and financial aids/supports.
- **Development Assistance Agencies**
  - Assistance on aids in the form of research, capital, training, sharing information, and other activities related to coastal community empowerment.



# RECOMMENDATIONS

- **Oceans and Fisheries Partnership**

- Assisting the fishers, fish processors, and workers in achieving USAID Oceans objectives to support the development of an electronic CDT system by providing these players with CDT related skills through training, while also giving them some incentives which could be in the form of capital to start or develop their fisheries business activities. This form of aid however, needs to be assisted or monitored closely to ensure that the fund provided will be effectively use to improve the livelihood of the target groups.
- Empowerment of Fisher and fish processor groups through various fisheries related training by introducing technologies that could boost their business and assisting in marketing network to improve market opportunities and bargaining power.

- **Local Government Units**

- Monitoring on fisheries business activities including product quality maintenance and business sustainability, proving fisheries related training/skills, extension of new fisheries technology, extension of fisheries regulations as well as controlling the enforcement of the regulations, assisting in finding financial support, assisting in the formation of fisher and fish processor groups, self-help group micro finance, fostering fish processing group through counseling and training on processing, marketing, group management, continuously, and assisting in obtaining business permits

- **Country Government**

- Issuing regulations, laws and policies that take into account local conditions (Bitung City), monitoring on fisheries business activities including product quality maintenance and business sustainability, proving fisheries related training/skills , extension of new fisheries technology
- Enhancing coordination and collaboration among agencies and stakeholders through EAFM

# LESSONS LEARNED & OPPORTUNITIES

- Alternative fisheries livelihoods activities took up by women to support their families and their communities (in an existing group or individual)
- Testimonies by other women are better encouragement for women to try something new (i.e.. Fish processing technology) • Income earned by women is more likely to help support family needs (food, education, health etc.).
- Livelihoods support and training provided by government agencies, NGOs etc., became the basis for the start of women's business in groups that later done independently in individual.

# CONCLUSIONS

- ❑ Men control the access to physical resources (ships, fishing gear and industrial-scale processing units), while women gain access to small-scale processing units and local marketing activities. Access to capital and information resources, especially for small-scale ventures, are most often dominated by women.
- ❑ Both men and women have roles in Bitung's fisheries sector. Men complete more heavy physical tasks like fishing and transporting fish, while women are more involved in fish processing and marketing. The participation of women and men in fisheries value chain is relatively comparable.
- ❑ Men were found to be more knowledgeable in fishing activities, while women have more knowledge in fish processing and marketing activities. These gender roles are reinforced in the community through beliefs and perceptions that women are not suitable for fishing activities, either because of physical factors or their responsibility to take care of the house and the children.
- ❑ Time spent by women and men in tuna value chain is relatively equal. Women spend more time than men in fish processing activities, but outdoor activities along the value chain are relatively comparable between men and women.
- ❑ Men and women have equal legal rights and status in all activities of tuna value chain. Power and decision-making varies across the value chain, but on average are relatively comparable and reasonable.



# ACKNOWLEDGEMENTS

Thanks to:

- ✓ Fishermen, fish traders, small-scale fish processors, and workers in large-scale fish processing companies that have been willing to be respondents.
- ✓ Head of Bitung Fisheries and Marine Affairs Agency
- ✓ Head of Bitung Oceanic Fisheries Port
- ✓ Leaders of companies that have participated in this research (PT Delta and PT Sari Tuna Makmur)
- ✓ Leaders of agencies and groups involved in FGDs, local workshops, and acting as key informants.



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