

Gender Participation in Seaweed Production in NTT Province Indonesia

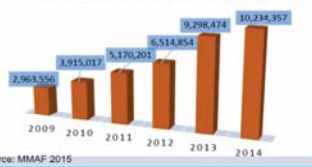
Ria Fitriana
Independent Consultant, based in Jakarta
rfitriana@gmail.com

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Introduction

- Seaweed is globally traded, used and consumed
- Produced by the rural villagers in remote areas
- The cultured seaweed reached 24.9 million tons and value at USD 6 billion worldwide (FAO 2014)
- The cultured seaweed are mainly produce carrageenan (*Kappaphycus alvarezii* and *Eucheema* spp - 8.3 million tons) and followed by alginate producing seaweed (FAO 2014)

Seaweed Production in Indonesia (Ton)



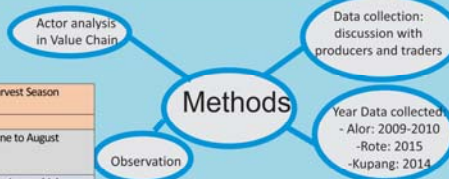
Objectives:

- This study examines the role of women and men in seaweed production in NTT Province, Indonesia.
- Identify the different characteristic of producers, including socio economic classes, ethnic groups, past occupations of men and women and how gender affects farming location.

Farming Characteristic

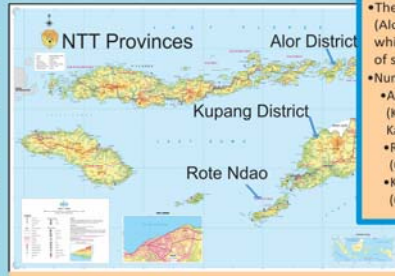
Kupang	No of Farmers	Dominant Ethnic	Farming Method	Length of ropes	Average number of ropes/farmers	Best Harvest Season
Onansila*	100 households	Helong, Rote, Baiau	long line	45m	36 ropes	from June to August
Akle*	243 households	Helong, Rote	long line	30-50m	132	March to August high productivity season. Farm all the year
Nakean*	72 households	Helong, Rote	long line	35m	135 ropes	March to May
Alor						
Blangmerang**	44 farmers	Alorese	Off bottom, lone line	50m	-	January to May
Labuhan Bajo**	14 farmers	Bajau	Off bottom, lone line	50m	-	January to May
Kavana**	72 farmers	Alorese	Lone line	50m	-	January to May
Marisa**	100 farmers	Alorese, Baiau	Long line	50m	-	January to May
Rote Ndao						
Oeseli***	213 female; 184 male	Rote	Off bottom, lone line	35-50m	80-90 ropes	Off bottom: November to March Lone line: May to August
Oenggaot***	918 farmers	Rote	Off bottom but flexible	25-30m	150 ropes	November to March
Dalama***	800 farmers	Rote, Baiau	Long line	50m	100 ropes	April-September (3 times), Nov-Dec: 1 time

*Source: Fitriana (2014)
** Source: Fitriana (2014a)
*** Source: Fitriana (2015)



Sites

- NTT is The 2nd largest producer in Indonesia in 2013 (1.8 million ton) (MMAF 2015)
- Seaweed contributes USD 1.4 million to NTT provinces in 2013
- One of poorest province (WFP 2015)
- The case study takes place in 3 districts (Alor, Rote and Kupang districts) which represent the production area of seaweed in NTT Province
- Number of villages:
 - Alor District: 4 villages (Kabir, Blangmerang, Kayang and Marisa)
 - Rote: 3 Villages (Oeseli, Oenggaot and Dalama)
 - Kupang: 3 Villages (Onansila, Akle, Nakean)



Activities as seaweed producers per gender

	Male	Female	Notes
Find seedlings	v		Find seedlings most conducted by men as it sometimes they have to go to other villages
Clean the ropes	v	v	Men and women involve in cleaning the ropes before seedlings are tied
Tying seedlings to rope	v	vv	This is family work, dominantly done by women. It sometimes involves children.
Attach to the main rope in the sea	vv	v	This is mainly conducted by men as they needs to attach the rope to the main rope in the sea. Women help in doing this activity
Daily maintenance at the sea	v	-	They leave the seaweed grow but it still requires to be maintained to check the rope and clean from other algae and mud
Collect fallen seaweed	v	vv	Women mostly collected fallen seaweed. In Alor, women dived to collect the fallen seaweed while in other areas the women only collect the fallen seaweed along the coast.
Harvest	v	v	Men harvest the seaweed in the sea using dugout canoe and bring to the shore
Untie seaweed	v	vv	Women mostly untie seaweed
Sun-drying process	v	v	This is family work where the untied seaweed is spread on the rubble/plastic rack for sundrying. They normally sundry in two days and put the sundried seaweed into a plastic sack and sell to local traders
Selling to traders	v	v	Men normally deal with local traders. However, if the local trader is a woman, the woman producer deals with the woman trader.

Seaweed farming

Species farmed:
Kappaphycus alvarezii and *Eucheuma* spp

Farming location
In Rote District (e.g. Oeseli and Landu Island), women has their own spot that is different with men

It is family business, men & women share the ropes and work on the same site.

Working system

	Working in group
Kupang	
Onansila*	Madene: working in group for tying and untying the seaweed during post harvest
Akle*	Madene: working in group for tying and untying. Members are those whose seaweed rope was nearby one and another help each other
Nakean*	Hired people to tying the seaweed (USD 1/line/person)
Alor	
Blangmerang**	Working in group during tying process
Labuhan Bajo**	Family work
Kayang**	Family work
Marisa**	Family work
Rote	
Oeseli***	Individual work
Oenggaot***	Individual work, hire labour for tying seaweed
Dalama***	Working in group during tying process

Changes in Producers History

- Seaweed is one productive activity for family business.
- This adds one productive activity for women apart from other productive roles.
- Significant additional cash income from seaweed farming for life improvement. On the other hand, seaweed farmers need to understand that seaweed farming requires a certain cash flow to cover material and operating costs, to provide for times when production is unfavourable. So they will not collapse and depend on external support.
- Most of the farming location is far from their own house.
- The geographical distance between family houses on the island and production sites require the farmers to spend extended periods away from home and limit caring their school children.
- Adaptation to sea environment.
- The changing of sea temperature with farming method needs to be improved in order to have effective seaweed farming

Conclusion

- Women and men both have important role in seaweed culture. It involves all members of the household in all production and marketing activities.
- Seaweed farming was found to be essentially as a family enterprise
- Knowing who does what can guide strategies for efficient technology transfer and improve quality

Acknowledgement

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References

- BPS (2015). Statistik Indonesia. BPS, Jakarta
- FAO (2014). Data of Fisheries and Aquaculture. Available at www.fao.org/fishery/statistics/software/fishstat/en
- Fitriana, R (2014). Participatory Value Chain Analysis and Development Plan for Seaweed in Kabupaten Kupang, NTT: Decent Work for Food Security in NTT. A Report to ILO CO Office for Indonesia and Timor Leste, July 2014
- Fitriana, R (2014a). Assessing the Impact of a marine protected area on coastal livelihoods: A case study from Pantar Island, Indonesia. PhD thesis. Research Institute for the Environment and Livelihoods Faculty of Engineering, Health, Science and the Environment Charles Darwin University.
- Fitriana, R (2015). Sustainable Use of Marine Resources that benefits People and Biodiversity in Rote Ndao District East Nusa Tenggara. A Report to The Nature Conservancy. March 2015
- MMAF (2015). Marine and Fishery in Figures in 2014. MMAF
- WFP (2015). Food Security and Vulnerability Atlas of Indonesia 2015. Dewan Ketahanan Pangan, Kementerian Pertanian dan WFP

