

GAF9 conference  
Bangkok 1-3 October 2025



## Gender equality in achieving research career success: a case study of two Indonesian aquaculture institutes

Silva Larson, Asda Laining\*, Yasmina Nirmala Asih, Anna Larson and Michael A. Rimmer

*\*Presenter*



Primary Industries

A part of ACIAR Project FIS/2016/130

- *Accelerating the development of finfish mariculture in Cambodia through south-south research cooperation with Indonesia*

## Women in STEM

- In studies across Australia, EU and USA, women are now more than 50% of university students at bachelor level in science fields – yet comprise not more than 10% to 20% of those at the highest academic employment levels.
- For a similar length of research career, women show slower promotion and lower incomes
- Similar trends have been observed in the field of agricultural research.

This study:  
Explored gender equality in achieving career success, in both objective and subjective terms in two aquaculture research institutes in Indonesia

- Study participants: two aquaculture research institutes in Indonesia

1. Research Institute for Coastal AQ and Fisheries Extension-RICAFE (Maros, South Sulawesi)
  2. Institute for Mariculture Research and Fisheries Extension-IMRAFE (Gondol, Bali)
- Two institutes under Ministry of Marine Affairs and Fisheries**



In 2022, the institutes transformed to the new agency:

***National Research and Innovation Agency***

Table presents total numbers of research staff at each participating Institute, with corresponding numbers of respondents (disaggregated by gender)

	RICAFE Maros	IMRAFE Gondol
Total number of researcher staff	45	38
Male	25	21
Female	20	17
Total number of respondents	31	28
Male	15	14
Female	16	14
<b>Percentage participating (total)</b>	<b>69%</b>	<b>74%</b>

# Methods

*This study were approved by the University of Sunshine Coast Human Research Ethics Committee (approval number A181189).*

Male and female researchers from partner institutes anonymously filled in a structured questionnaire

A. Survey (issue identification) for equal career opportunities, included:

A.1 Objective indicators of career progression:

- degree held (BSc, MSc or PhD) and employment/pay grade.

A.2 Objective indicators of research productivity:

- scientific publication output.

A.3 Subjective perceptions of 'career success'.

- access to training opportunities, publications, grants received.

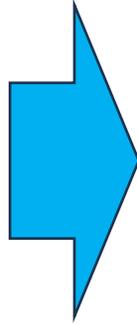
# Methods



## B. FGDs (finding solutions), 57 participants

- Presentation of the survey results to all staff members at two institutes
- Discussion on results: :- patronage; – inequalities due to gender, religion, ethnicity, background or any other personal characteristic; and – career progression issues that are common to all the staff, including explanations (perceived barriers and enablers)

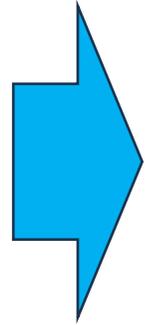
Results:  
A.1 Objective  
indicators of  
career  
progression



- Multiple regression models (SPSS) to explore influence of years working, degree held and gender on current position/pay grade.
- 'Years working' and 'Degree' significantly impact current position/pay grade.
- 'Gender' and the regression equation constant are not significant.

Variables	Data Coef. B (SE)
(Constant)	.143 ** (.317)
Years working	.704 *** (.089)
Degree	.382 ** (.136)
Gender	-
Adjusted R2	.714
F	44.692***

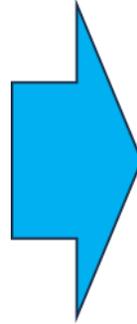
A.2 Objective indicators of research productivity:  
*Publication records*



- Published conference papers: average 34 papers for women and 32 for men
- National journals: 23 papers for women compared to 21 for men
- International journals: average of 2.6 for women compared to 3.4 for men.

Variables	(a) Conference papers Coef. B (SE)
(Constant)	36.518 (16.938)**
Gender	- 15.245 (11.403)
Position pay grade	35.679 (14.091)**
Degree	- 6.745 (12.119)
Adjusted R2	095
F	2.281*
(df)	(4,45)
DW	1.797

# A.3 Subjective perceptions of 'career success'



Variable	Self-reported satisfaction scores	
	Female	Male
Position / Pay level	7.79	7.83
Title /degree	7.69	7.77
Promotions in last 3 years	5.71	7.23 **
Responsibilities <sup>1</sup>	6.26	7.30
Research grants received	4.96	5.36
Access to management training	4.49	5.79
Access to technical training	5.76	6.36
Access to national scholarships	5.21	5.70
Access to international scholarships	4.85	5.04
National conferences	7.31	7.07
International conferences	5.86	6.07
Conference publications	7.71 *	7.07
Pub. in national journals	7.26 *	6.53
Pub.in international journals	5.50	4.72
Satisfaction with the career overall	7.55	8.07 *
Motivation at work	8.14	8.45
Life satisfaction (LS) now	8.07	8.03
LS before starting work	7.34 *	6.60

## B. FGD – Barriers and enablers at the Workplace

- FGDs participants were of opinion that their career progression is based on merit and no discrimination against women.
- No gender-based institutional barriers to progression were identified.

- Discussion on distribution of duties at work: some jobs were seen as more suited for women (like precise laboratory work) and others for men (like sample collection from the boats) – Is this ‘stereotyping’ of women’s capabilities?
- Solutions discussed included a general agreement that both jobs and duty allocations should be equal for all; ensuring that those employed to do a job have both capability and willingness to engage with all the duties required in that job.



## B. FGD –Barriers outside the Workplace

- The majority of gender barriers discussed were not related to workplace, but rather were related to culture and obligations in private life.
- Outside of the institute, family and household duties, in particular looking after children, were seen as an issue creating pressure and burden on women's time.
- This resulted in lack of time to engage with work-related development (such as time for reading scientific literature) outside of the workplace.
- Female staff reported lack of motivation to seek promotions: being at the higher position/pay grade was regarded as enhancing women's time-poverty.



## B. FGD – Enablers outside the Workplace

- Improving communications within the family, which would result in load-sharing of the housework and duties.
- Ways for promoting support from husbands were discussed, including the need to work together with families and community and religious leaders in this respect.

Proposed as potential solutions:

- Working on general public awareness of women's 'time poverty',
- Reducing women's burden at home by sharing household duties
- Promotion of gender equality at all levels and through various forums



# Acknowledgments

- We thank Mr Imran Laping and Mrs Suliyanti Hakim Dalle for their generous assistance with data entry and translations
- Ministry of Marine and Fisheries Affairs in Indonesia, The University of Sunshine Coast and Australian Centre for International Agricultural Research (ACIAR) for institutional and financial support including travel support to attend the GAF9 conference
- We also thank all research staff of both institutes for their participation and willingness to share their perceptions.

Thank you for your kind attention