

Empower women with aquaculture knowledge and skill to increase fish production



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Policy Support Research

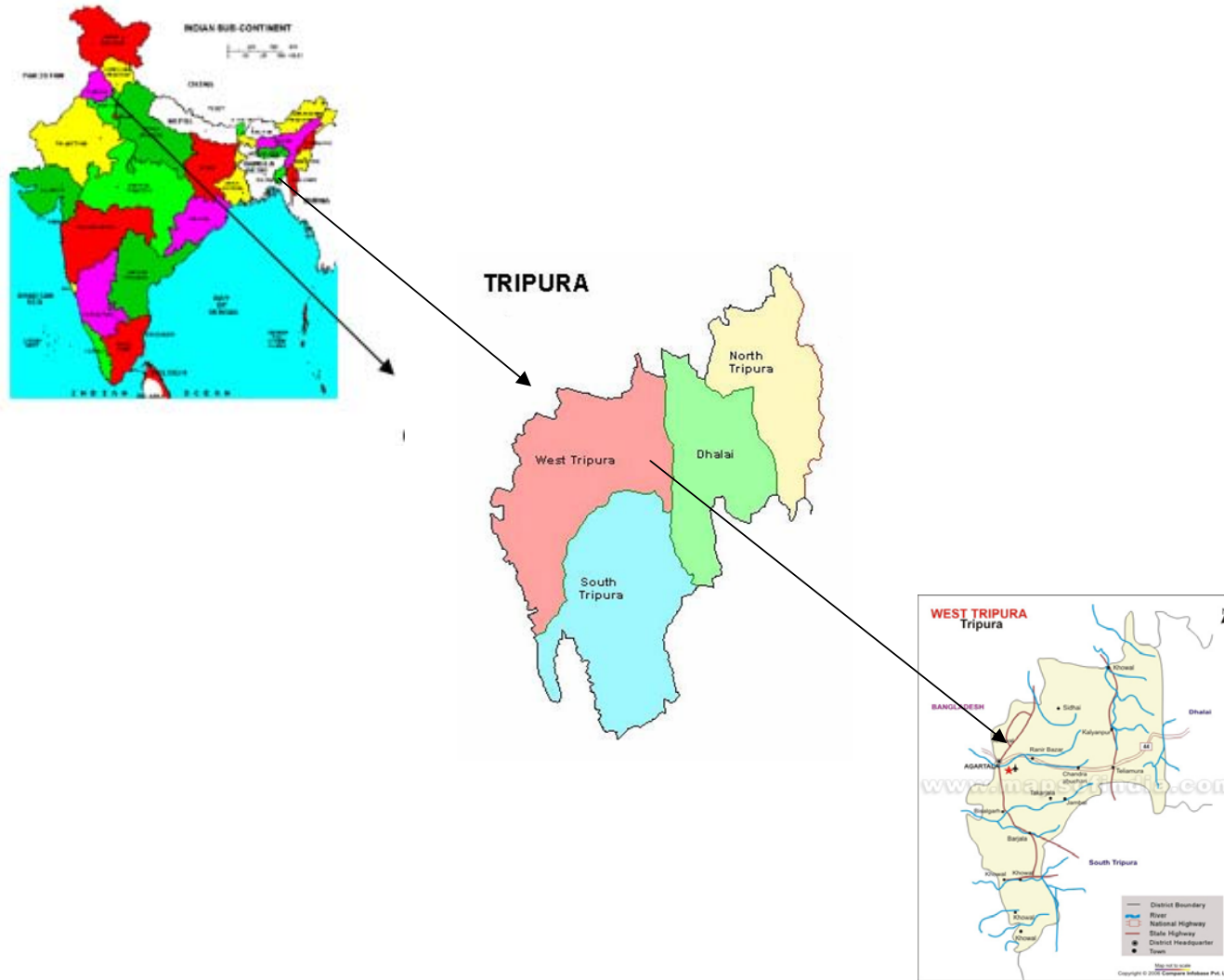
Techno-socio-economic evaluation of aquaculture practices and development of strategies to ensure fish for all in Tripura

Objectives of the project

Identify researchable issues on technical matters and at the same time provide information to Government to evolve policies in their ongoing program of ensuring adequate fish for all by 2012



STUDY AREA



Collection of primary data :

- Administratively Tripura is divided into 4 Districts: for this study West Tripura district was selected.
- West Tripura district has 16 blocks and 481 Gram Panchayats
- From each Block 25% of the total Gaon Panchayats were selected based on the weighted average of three indicators , namely
 - number of fish farmers (20% weight)
 - pond area (30%)
 - and productivity (50%)

Based on the weighted average of these three indicators, ranking of the Panchayats were made and equal number of Best Performing, Medium Performing and Least Performing Panchayats were selected for the study.

DATA COLLECTION

- A survey format designed and tested was used for data collection employing trained enumerators in WEST TRIPURA district
- Focus group discussions were conducted with the community in some selected blocks



Selection of samples :

- Government of Tripura gathers production data from all the registered farmers from each village
- Based on the productivity levels farmers were classified in to
Best Performing Farmers (BPFs)
Medium Performing Farmers (MPFs)
Least Performing Farmers (LPFs)
- The number of samples selected from each panchayets were either 3% of the total numbers of beneficiaries or a minimum of 30 farmers, whichever is more - 1200 samples were collected from all the 16 Blocks of West Tripura District
- Due to data reliability concerns some data formats were eliminated and finally 969 samples were taken for analysis

Population Structure

- Nearly 70% of the population belong to Bengali Community
- Rest of the population consist indigenous tribal population
 - Data gathered consisted **57.23%** non-tribal community
 - Data gathered consisted of **42.77%** tribal population



FINDINGS



Fig : Educational Level of Women in Fish farmers family of West Tripura District

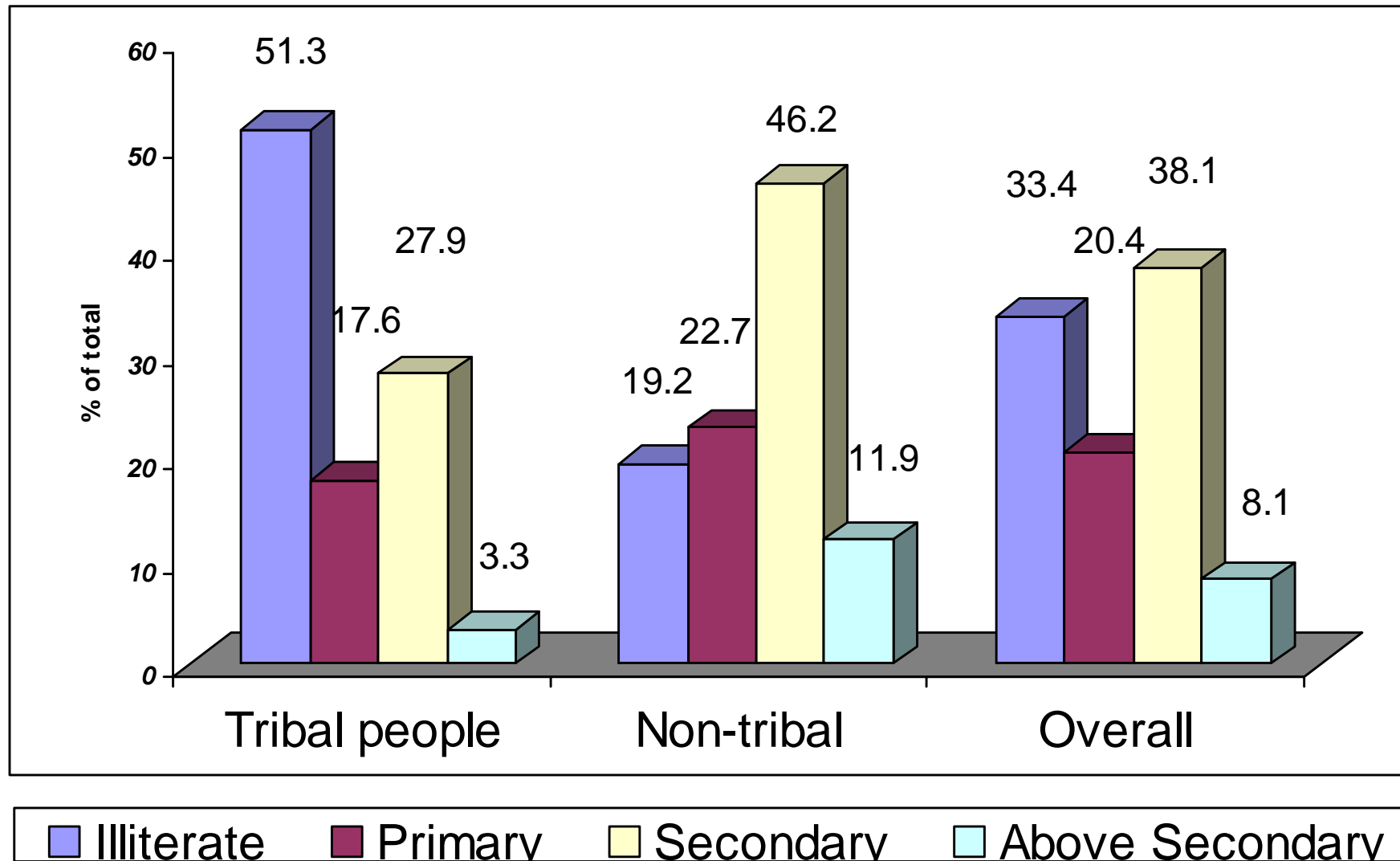


Table : Assets owned by the farmers

Assets owned by the family	Tribal people	Non-tribal	Overall
TV	50.0	67.2	59.9
Radio	32.7	22.9	27.1
Tape recorder	15.2	17.9	16.7
VCD	18.0	17.8	17.9
Refrigerator	6.5	8.7	7.8
By cycle	55.2	72.2	64.9
Scooter / Bike	8.4	11.8	10.4
Telephone	9.5	17.4	14.1

**Table : Socio-economic indicator of Fish farmer's family
of West Tripura District**

Indicator	Tribal people	Non-tribal	Overall
Average water area (in ha.)	0.09(±0.10)	0.09(±0.11)	0.09(±0.10)
Average family size	5.64(±2.09)	5.91(±2.58)	5.79(±2.38)
Average land holding (in ha.)	1.12(±1.13)	0.83(±0.86)	0.95(±0.99)
Per capita income /month (in Rupees.)	898(±747)	851(±773)	871(±762)
Below poverty line	38.9%	24.4%	30.3%

Figures in parenthesis indicate standard deviation.

Table : Purpose of building the pond

Purpose	Tribal people (%)	Non- tribal (%)	Overall (%)
Water storage	1.7	1.9	1.8
Water storage	16.0	23.3	20.10
Fish cultivation	80.8	66.7	72.7
Land elevation	1.0	2.6	2.00
Others	0.4	5.5	3.4



Input usage by fish farmers of West Tripura District

	Tripura	Standard
Fish seed stocking/ha. (no.)	36790	10000
Organic fertilizer/ha. (kg)	6418	10000-20000
Inorganic fertilizer/ha. (kg)	94	200-400
Feed/ha. (kg)	1270	30000
Lime/ha. (kg)	198	500
Cost of medicine/ha. (Rs.)	303	
Production/ha (kg)	1321	10000

Per capita fresh fish & dry Fish consumption (Kg/year)

Fig-Per capita fresh fish consumption

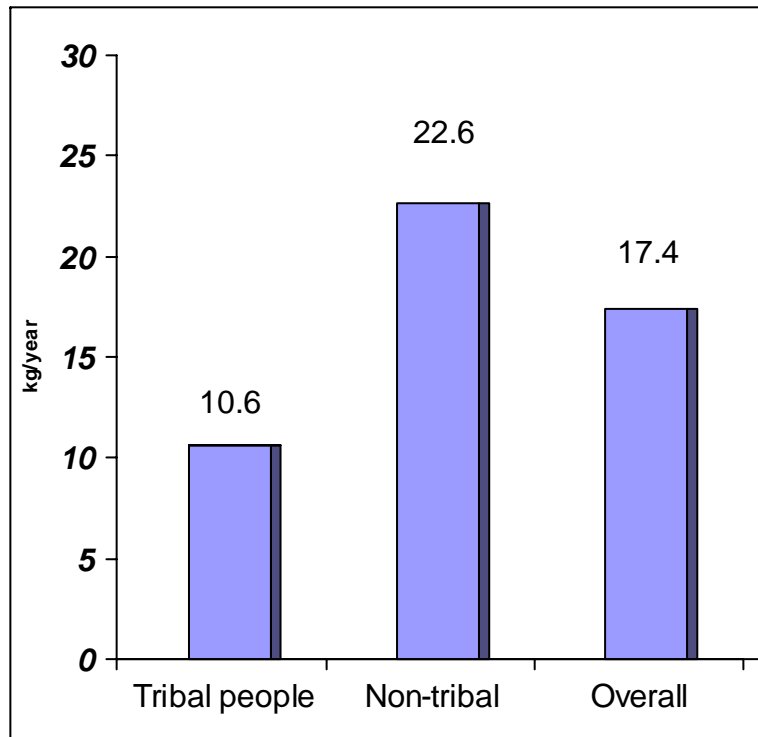


Fig- Per capita dry fish consumption

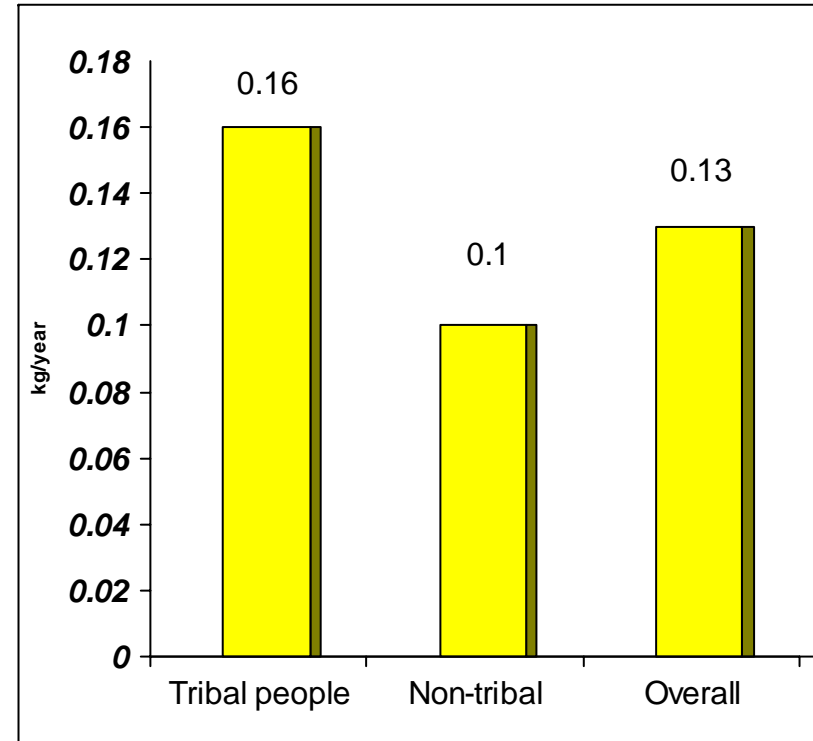


Table : Involvement of women in different aquaculture activities

Activities	Tribal people (%)	Non-tribal (%)	Overall (%)
Not involved in any aquaculture activity	40.0	44.6	42.7
Seed procurement	25.5	21.2	22.7
Fertilization	29.8	52.7	44.6
Feeding management	38.7	45.2	42.9
Phased harvesting for family consumption	67.2	52.2	57.5
Final harvest	38.3	11.4	20.9
Marketing of fish	8.5	3.5	5.3
Others	0.9	0.5	0.6

Figure: Impact of Woman involvement in different communities on Fish production

Fig- percentage of women involmnet in aquaculture

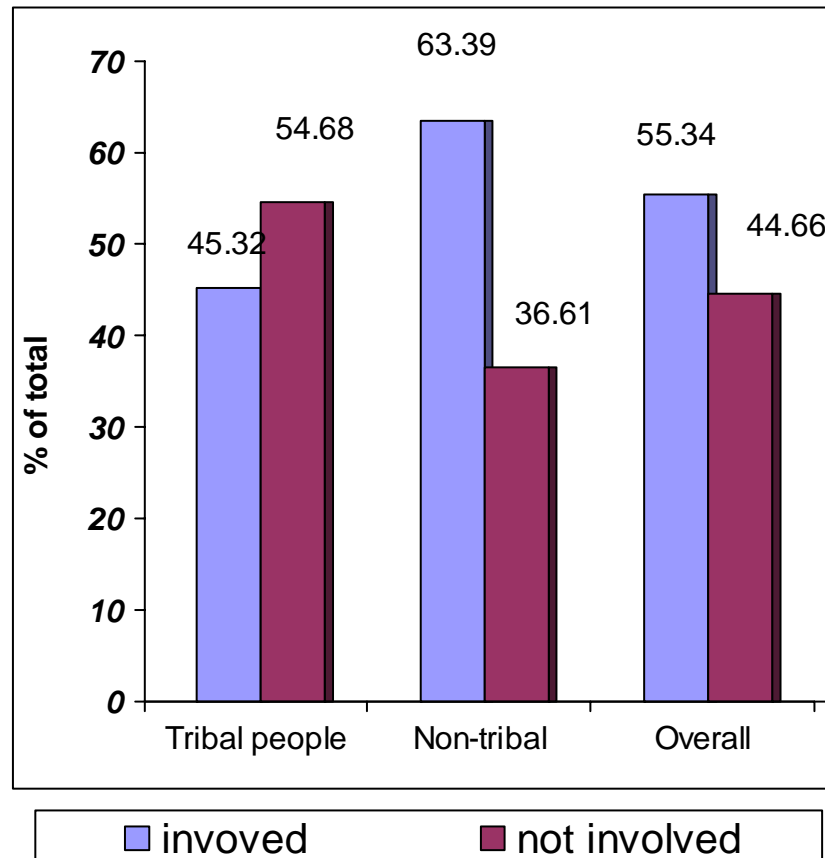


Fig- Impact of women involvement on fish production

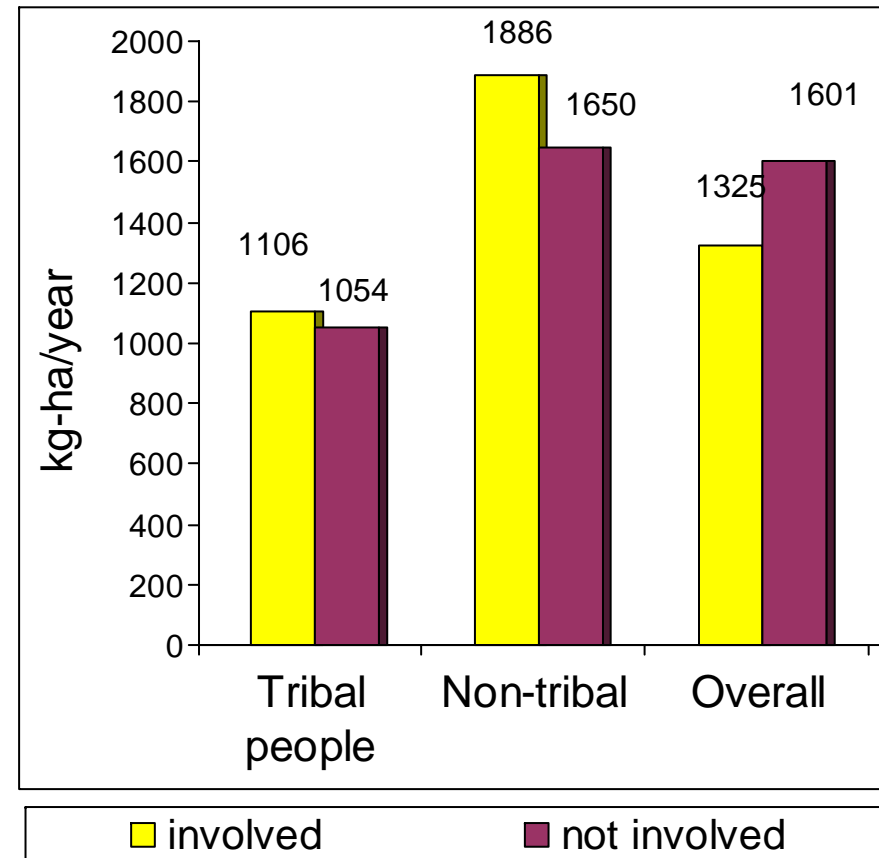


Table : Intensity of involvement of women in aquaculture

Intensity of Involvement (%)	Tribal people (%)	Non-tribal (%)	Overall (%)
<10	19.6	24.3	22.6
11-25	27.5	25.2	26.1
26-50	38.6	29.5	32.8
51-75	6.9	13.4	11.0
Above75	7.4	7.6	7.5

Fig: Percentage of Involvement of women in different economic activities other than household activities

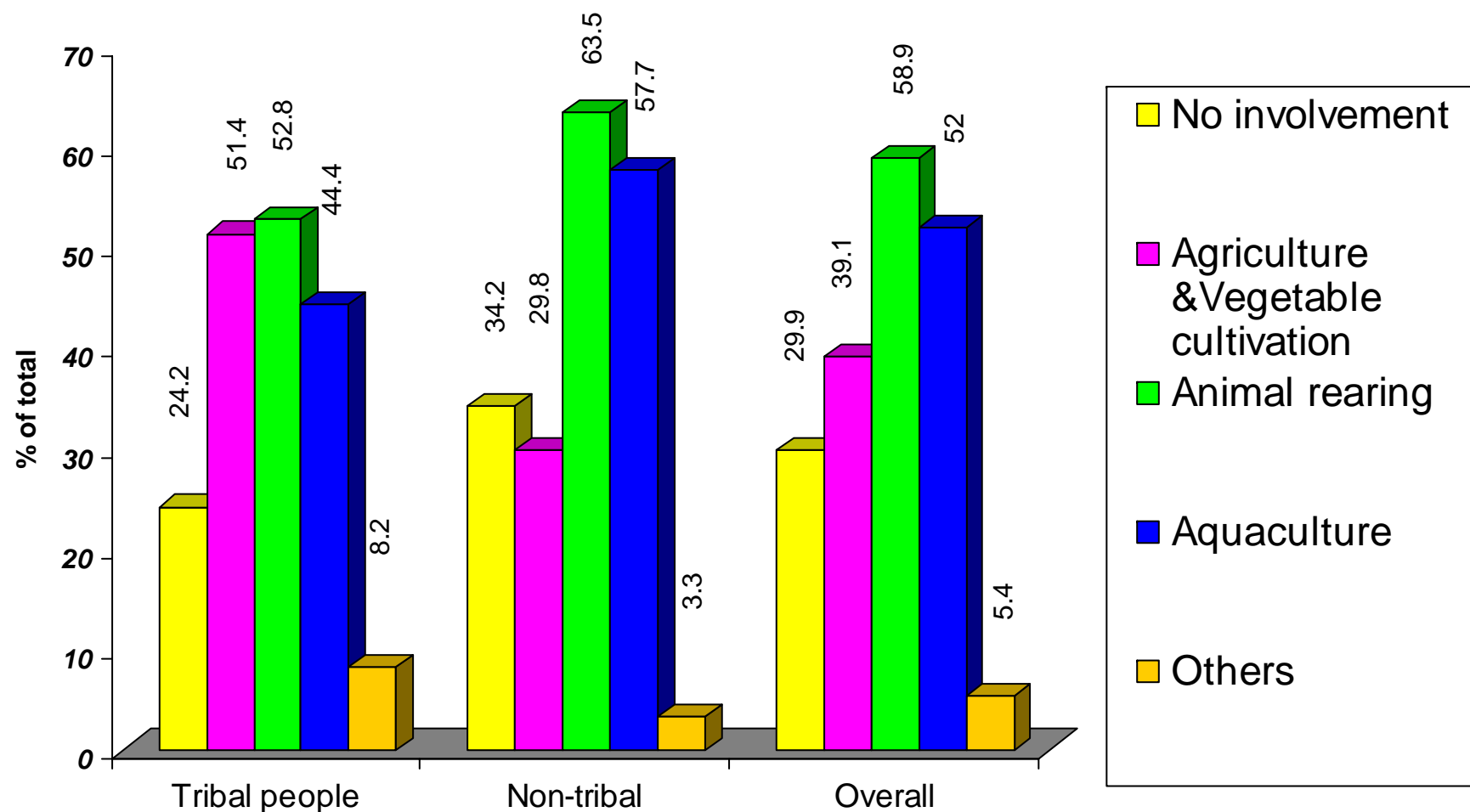


Table : Reasons reported by women for non-involvement in aquaculture

Reasons	Tribal people (%)	Non-tribal (%)	Overall (%)
No knowledge in aquaculture	41.2	6.3	25.4
No time to spare in aquaculture	59.6	27.9	45.2
Didn't have no such tradition	0.4	5.3	2.6
Husband is enough	4.4	30.0	16.0
Never thought about it	19.3	4.7	12.7
Others	3.1	20.5	11.5

Table : Women participation in training and its impact on production.

Attended any training	Tribal people		Non-tribal		Overall	
	%of total	Production /ha.	%of total	Production /ha.	%of total	Production /ha.
Yes	0.5	1232	2.3	1704	1.4	1632
No	99.5	1065	97.7	1788	98.6	1453

Fig: Reason reported by women for not attending any training program

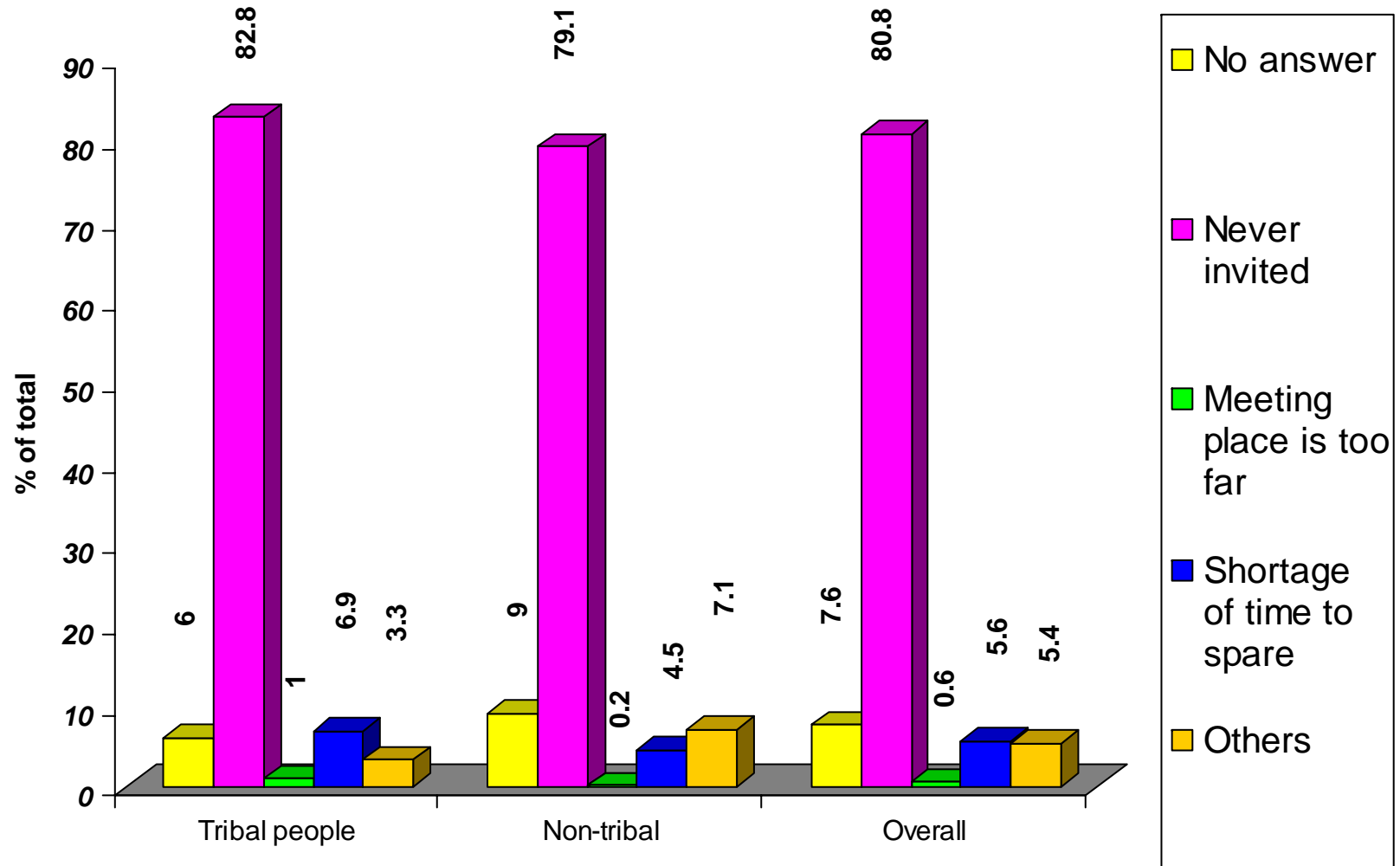


Fig: Willingness to attend training if invited

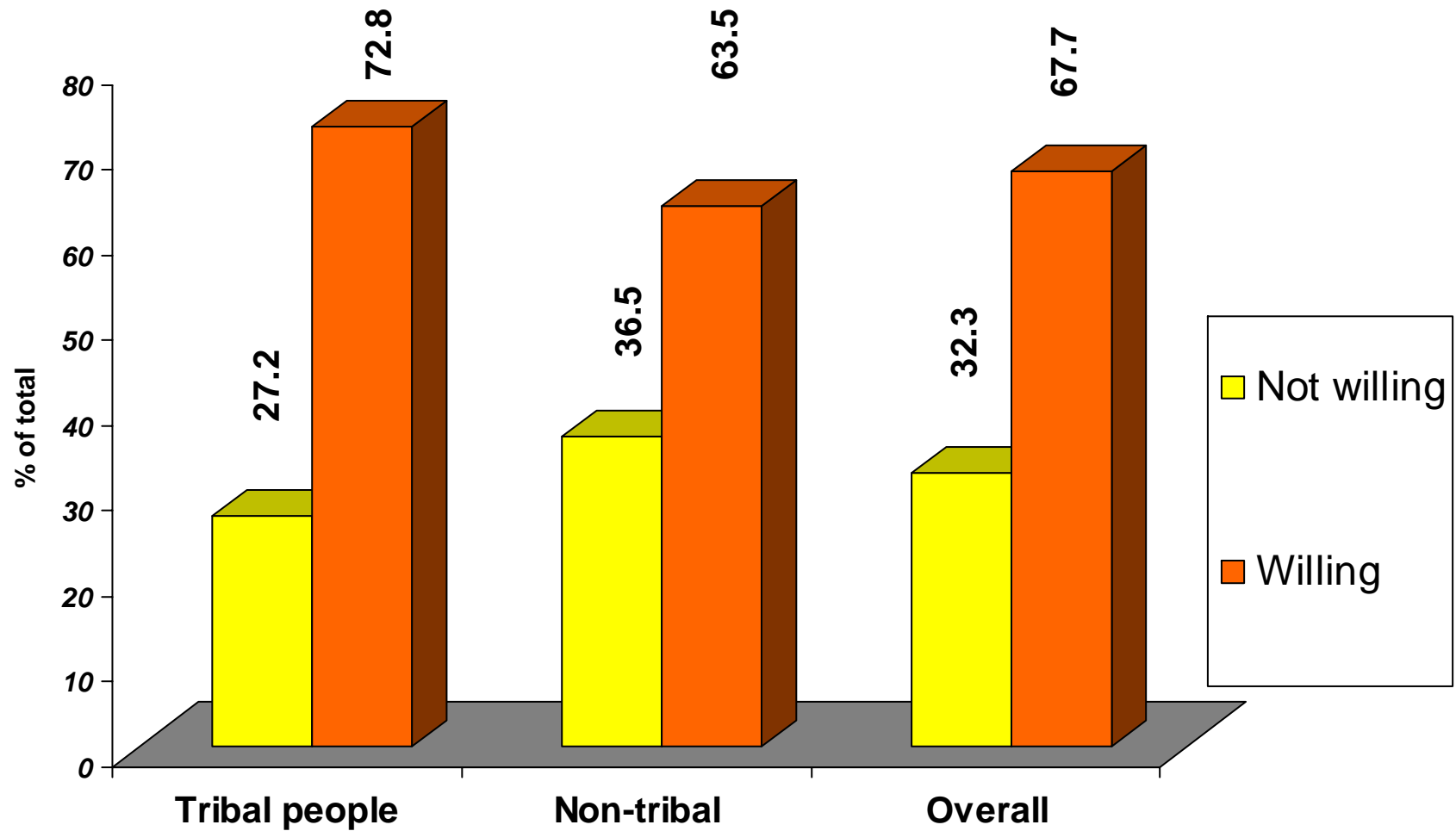


Fig : Participation of men in aquaculture related raining programs

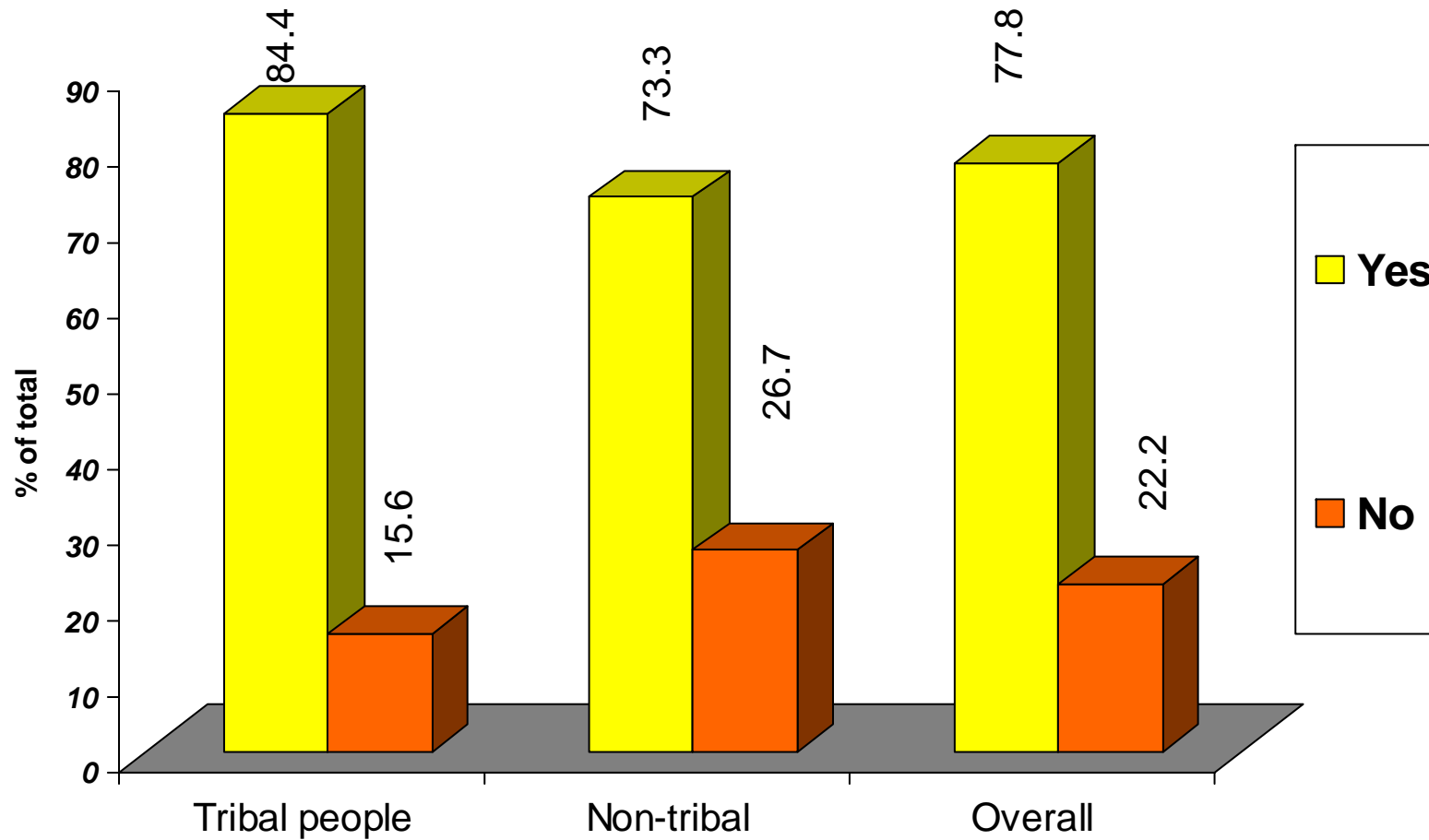
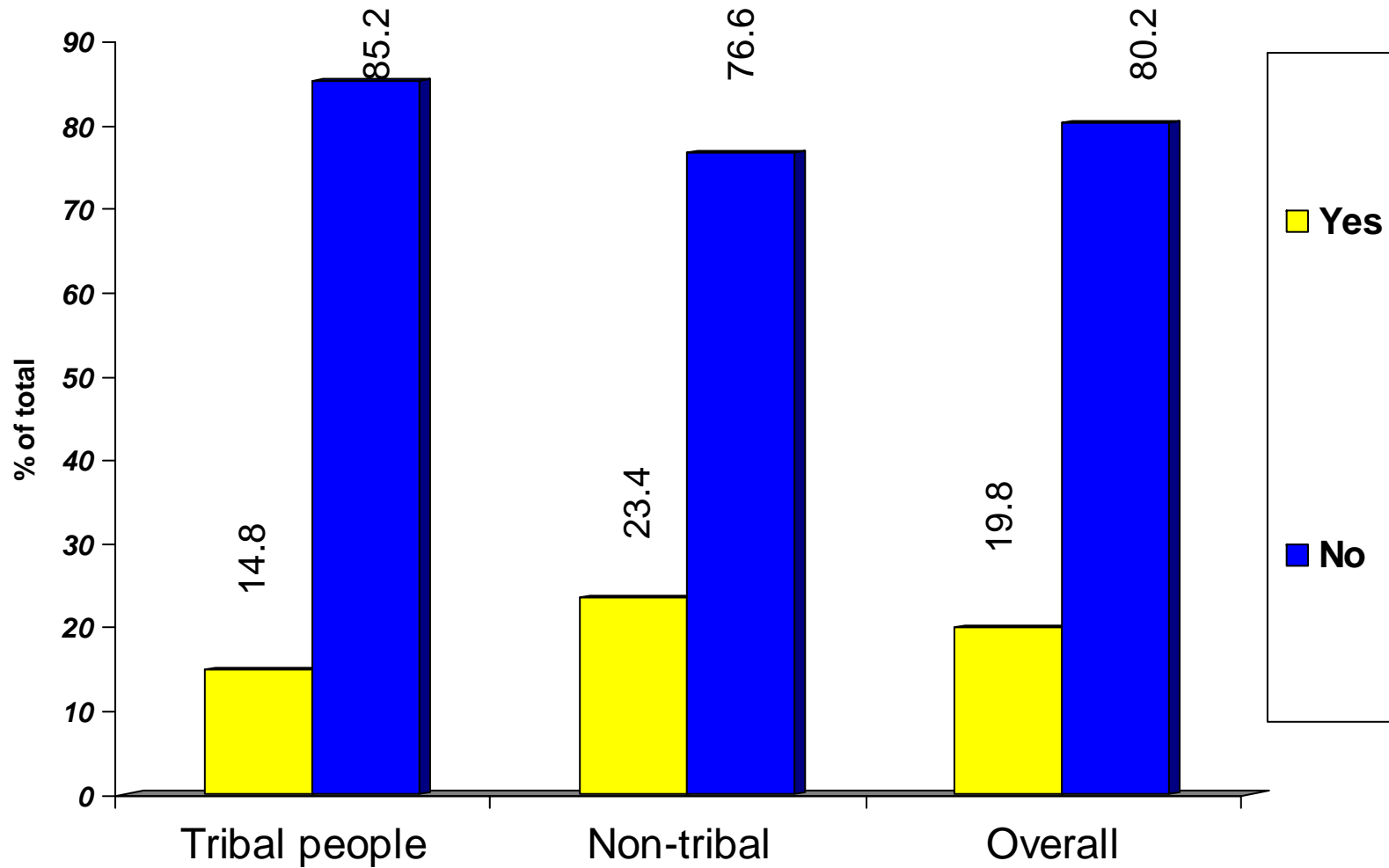


Fig : Percentage of men sharing the knowledge gained with their spouses



Will you encourage wife to attend training , if there will be an opportunity

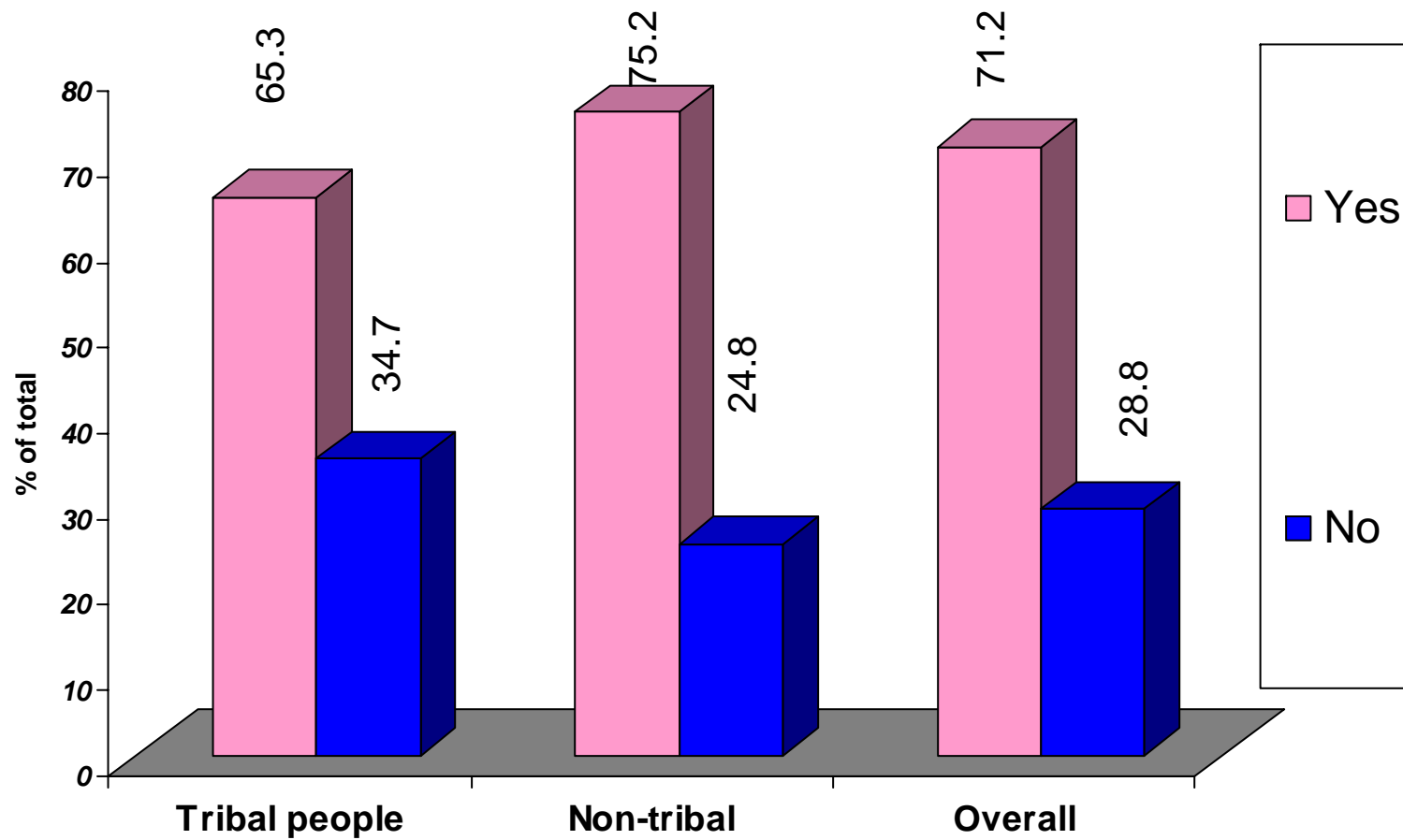


Table : Decision making process in regard to aquaculture activities

Decision taken by	Tribal people (%)	Non-tribal (%)	Overall (%)
Male alone	81.1	70.6	75.4
Female alone	3.9	4.7	4.3
Jointly	15.0	24.6	20.2

Table : Decision making process on financial matters

Decision made by	Tribal people (%)	Non-tribal (%)	Overall (%)
Male alone	12.6	46.7	31.1
Female alone	3.6	5.5	4.7
Jointly	83.7	47.7	64.2

**Table : Overall decision making process
in the family**

Decision Taken by	Tribal people (%)	Non-tribal (%)	Overall (%)
Male alone	3.4	26.3	15.9
Female alone	2.8	4.3	3.6
Jointly	94	69.4	80.5

Table : How do women rate their contribution to family economy.

Intensity	Tribal people (%)	Non-tribal (%)	Overall (%)
High	1.9	2.6	2.3
Medium	27.0	78.4	54.9
Low	59.2	13.0	34.2
Nil	11.8	6.0	8.7

আমার বউ
MY WIFE



কাজ করে না
DOES NOT WORK

অফেন এবং স্বত্বাধিকারী
এনজেলা গোমেজ
বাচতে শেখা
যশোর, বাংলাদেশ

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Status of women in the society

Table : Relevance of the picture with their family & In the area where they are living

	Relevance of the picture with their family			In the area where they are living		
	Tribal people (%)	Non-tribal (%)	Overall (%)	Tribal people (%)	Non-tribal (%)	Overall (%)
Intensity						
Highly relevant	1.9	2.4	2.2	2.1	2.8	2.5
Moderately relevant	.5	1.8	1.2	1.9	5.1	3.6
Low relevance	15.8	18.4	17.2	29.8	35.7	33.0
No relevance	81.8	77.3	79.4	66.2	56.4	60.9

Source of INCOME at home and ownership by women

From 'animal resources' like selling milk, egg etc.

From 'plant resources' like selling coconut, beetle nut and other fruits

Income from 'kitchen garden'



➤ Perception of women on aquaculture

“It is a job for men”

“women are better suited for household works”

➤ Cultural inheritance -

“Never seen my mother working in pond”

“Men are more stronger so he is the best suited for outside activities”

“Its difficult for us to work wearing SHAREE in water”



➤ Social stigma -

“If a wife will work in pond, it will reflect on the husband’s incapability ” .

If women dare to netting then people will compare and call them as having “manly attitude”

➤ Less exposure -

“We do not have knowledge about the doses and application of feed, fertilizer etc.

“We can be cheated while procuring fish seed as we do not have clear understanding about species and quality”

Source of INCOME at home:

From 'animal resources' like selling milk, egg etc.

From 'plant resources' like selling coconut, beetle nut and other fruits

Income from 'kitchen garden'



➤ Family bindings and burden

“Where is the time to spare? Till sunset we have to perform household activities”

“Who will take care of my child?”

“I have to take permission for attending training”



Needs TRAINING



Appointing women trainer can give better result in technology transfer by avoiding social hindrances

Not only men, but women also need to know about aquaculture



Training schedule should be arranged according to convenience of women

Women's perception of aquaculture



Fish is INVISIBLE..... so until harvested all remains mystery

It is not possible to know the hunger of fish unlike other animals like pig or cattle

“However, still we can harvest fish by hook and line for family consumption when needed.



Women need.....

**Empowerment with
AQUACULTURE knowledge and
skills**



**Women friendly aquaculture
technologies**

**Specially designed NETS convenient
for women to harvest fish**



**Mechanism to view fish in pond
easily through - television set !**

Conclusion

- Adopt family approach in training programs
- Use flexible timings in training programs
- Use tactile tools to train farmers
- Employ more women staff in the Department
- Gender sensitize staff



THANK YOU

