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For Giving this wonderful platform to me and am grateful to

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An Innovative Approach to Increase the Women Participation in Aquaculture (Reaching the Unreached!!!)

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“The only thing that separates women of colour from anyone else is opportunity”.

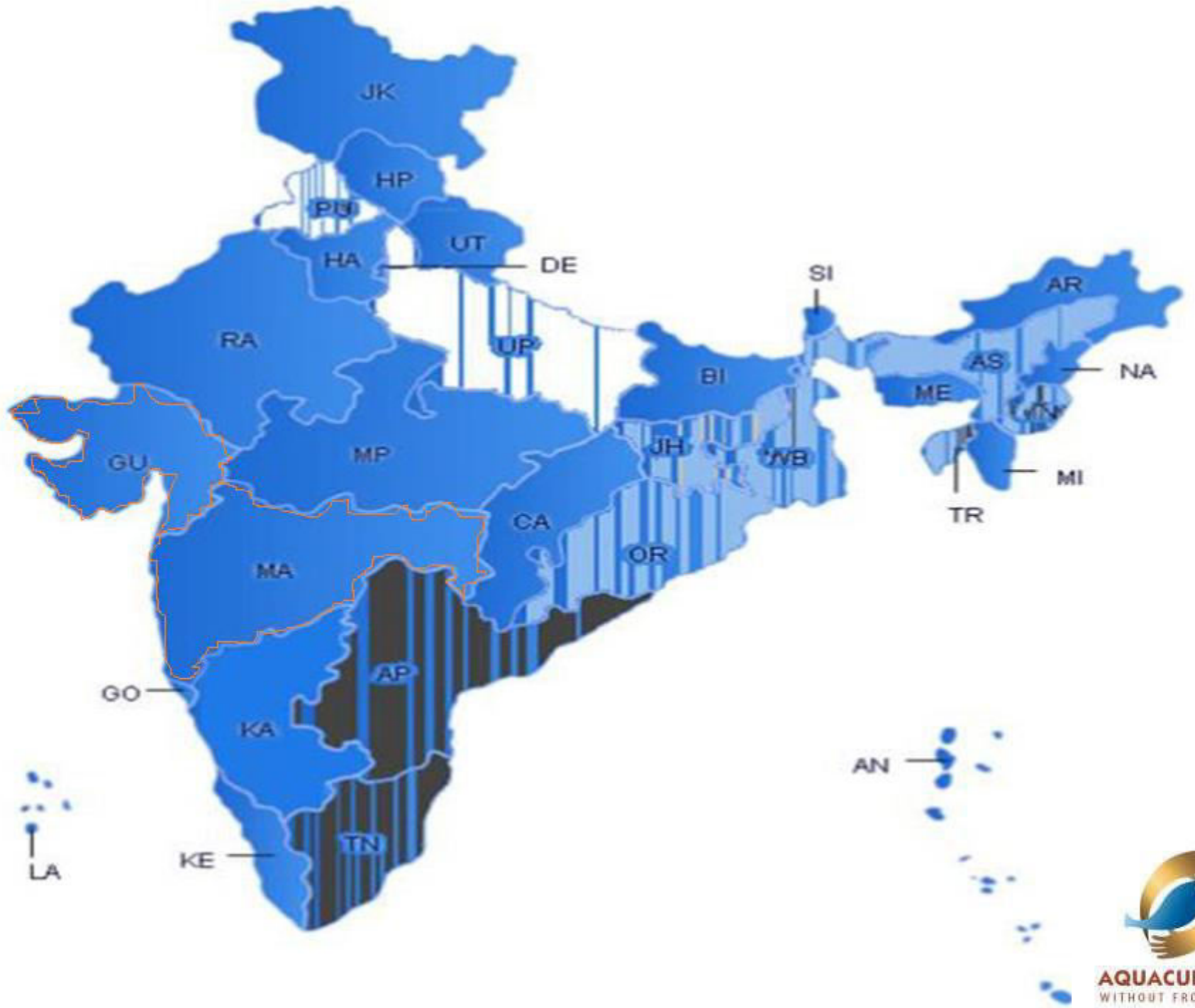
– Viola Davis

Status of Women in India

- ❖ **Women - 48.26% of the total population of India**
- ❖ **Literacy rate- 54.16%**
- ❖ **Rural women literacy rate- 31.6%**
- ❖ **Urban women literacy rate- 54.01%**
- ❖ **Female share of non-agricultural wage employment is only 17%**
- ❖ **Participation of women in the workforce is only 13.9% in the urban sector**
20.01% in the rural sector

Women Participation in Aquaculture

Regional Category	States
The Northern India	Punjab & Uttar pradesh
The Eastern India	Orissa West Bengal Jharkhand
The North-Eastern India	Tripura Assam Manipur
The Western India	Gujarat Maharashtra
The Southern India	Tamilnadu Andhra pradesh



AQUACULTURE
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Punjab & Uttar Pradesh

Issues

- ❖ Traditional beliefs,
- ❖ Lack of knowledge
- ❖ Priorities for household chores



Status

- ❖ Agriculture as their primary occupation
- ❖ Aquaculture as secondary occupation
- ❖ Women participation in aquaculture negligible
- ❖ Community ponds in Punjab are leased out to migrant labourers from Bihar & U.P.

Orissa

Issues

- ❖ Cultural taboos
- ❖ Fully engaged with house-hold chores
- ❖ Incapability to buy inputs for financial constraints
- ❖ Pond-leasing under Panchayati Raj system upto maximum 3 years only
- ❖ Question of resource allocation to the needful

Status

- ❖ Over all women participation is poor
- ❖ Participation is more visible in socially weaker sections of the society
- ❖ Women from well-to-do families do not opt for aquaculture or fishery related
- ❖ women from economically backward families interested to take up aquaculture if profitable returns are assured with risk coverage activities

West Bengal, Jharkhand

Issues

- ❖ **Most of the families are vegetarian**
- ❖ **Women have no interest in aquaculture even though plenty resources are available**
- ❖ **Lack of social awareness**
- ❖ **Social taboos**
- ❖ **Hindering women development in economically backward classes**

Status

- ❖ **Women participation almost negligible except in some marketing activities**
- ❖ **farmers undertake aquaculture as a secondary activity**



Assam & Tripura

Issues

- ❖ Social stigma hindering women from getting down to pond
- ❖ Obligations to attend to household chores and bringing up children
- ❖ Women have no knowledge about doses & application of feed, fertilizer etc.
- ❖ No clear understanding about aquaculture species & quality
- ❖ Gender biasness while arranging training programmes

Status:-

- ❖ The whole population – an admixture of tribal & non-tribal people
- ❖ No large-scale women participation in aquaculture
- ❖ Participation of women more in animal rearing than in aquaculture
- ❖ But considerable changes (15.19 % increase in production) when women participate

Manipur

Issues:-

- ❖ **Burden of household chores**
- ❖ **Commercial aquaculture practices in small scale only**



Status:-

- ❖ **Grass carp culture predominates because of presence of soft aquatic vegetation**
- ❖ **women participation is the highest in this state in contrast other states**
- ❖ **More in fishing than aquaculture**
- ❖ **No social stigma in women participation irrespective of rich & poor families**

Western India – Gujarat & Maharashtra

Issues

- ❖ Land holdings & ownership in the name of men only
- ❖ Women are less participatory as per family tradition in respect of outdoor work



Status

- ❖ Difficult to convince fish farmers about scientific farming
- ❖ Women participation is negligible
- ❖ Women professionals are also concerned about their children's education & upbringing
- ❖ Because of various reasons ,women prefer jobs in cities

The Southern India:-

Tamil Nadu and Andhra Pradesh

Issues :-

- ❖ **Male dominated society**
- ❖ **House-hold obligations for non-participation**
- ❖ **Lack of knowledge & awareness about aquaculture**
- ❖ **Poor socio-economic status of women in villages**

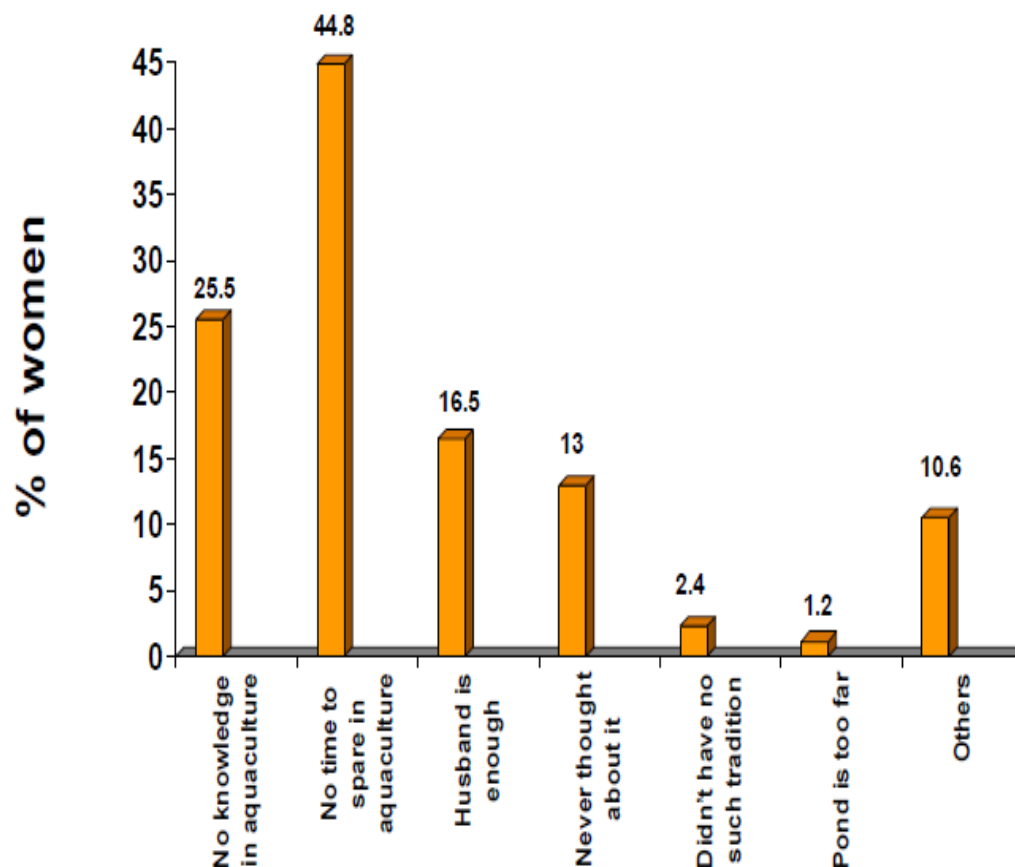
Status:-

- ❖ **Women participation negligible**
- ❖ **If any, only as unskilled labourers, particularly in ornamental fish culture**
- ❖ **Women tend not to work in fields and ponds with the betterment of socio-economic conditions**
- ❖ **Involved in post-harvest handling of fishes in capture fisheries**
- ❖ **Social taboos & cultural inheritance cite women participation as non-traditional**

Overview

- ❖ **Women participation varied widely among the 12 different states**
- ❖ **Low participation** in states like **Andhra Pradesh & Punjab** in spite of higher level of fish production than other states
- ❖ **But considerable participation** in states of **Manipur, Assam & West Bengal** in sustainable aquaculture in pond fertilization, nursery rearing, fish feeding & harvesting
- ❖ **Greater participation of women** through self help groups (**SHG**)

Reasons reported by women for non-involvement in aquaculture



Suggestions for women empowerment in aquaculture

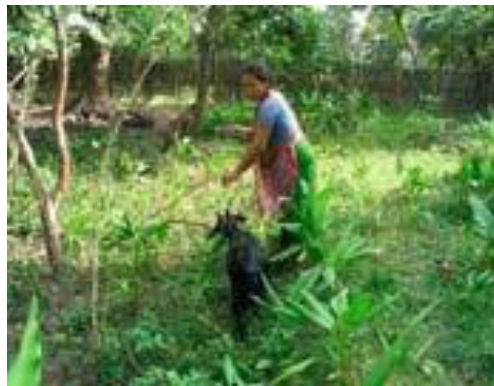
- ❖ Generate **technologies** that are **women friendly**
- ❖ Encourage training of women by adopting **flexible timings** and **training approaches**
- ❖ Promote **credit support** that are **appropriate and sustainable**
- ❖ Promote **crop insurance** to cover various types of risks
- ❖ Celebrate **Aquaculture Gender Day** annually

Suggestions for women empowerment in aquaculture (cont...)

- ❖ Enhance knowledge of aquaculture professionals on gender issues
- ❖ **Priority-based agendas** needed from government for women empowerment
- ❖ Introduce **a course on gender for aquaculture students**
- ❖ Attract more girl students to aquaculture courses
- ❖ Encourage **Collection of gender disaggregated data**

Suggestions for women empowerment in aquaculture (cont...)

- ❖ Encourage women part in decision making process in family
- ❖ Appoint **women trainers** for better technology transfer
- ❖ Develop **site-specific aquaculture policies** like hapa breeding in Manipur
- ❖ **Lease out community ponds** to local women groups instead of migrant labourers



Key Gender issues in aquaculture

Aquaculture need women, but whether women need aquaculture???

- ❖ **Land ownership**
- ❖ **Women friendly Technologies**
- ❖ **Access to Markets**
- ❖ **Increased urban migration**
- ❖ **Access to information**
- ❖ **Access to credit**
- ❖ **Unequal access to final output**

Women Entrepreneurship is the Women Empowerment !!!

- ❖ **Women Entrepreneurs in India(Equity and Employment of a business enterprise)**
- ❖ **A woman entrepreneur is defined as an enterprise owned and controlled by a woman having a minimum financial interest of 51% of the capital and giving at least 51% of the employment generated in the enterprise to a woman (GOI)**



Solution -

- ❖ **Economic empowerment with Education for**
- ❖ **Financial Independence**
- ❖ **Acknowledgement of work**

**WEE Card (Women Empowerment
E-card) System for developing Women
Entrepreneurship in Aquaculture sector of
TN, India.**

To be implemented for the first time in TAMILNADU !!! Villiers Tribes of Kulathumedu Village in Thiruvallur district,Tamilnadu India.

- ❖ Tamilnadu is in the fifth position (697.61 tonnes) of total fish production
- ❖ Tamil Nadu (3rd position)-996 in sex ratio
- ❖ Around 100 women will be targeted from 250 families

State	Male	Female
Tamil Nadu	82.33	64.55
	Total	73.47

Objectives

- ❖ To **elevate the women societal status** through **Women empowerment e-card** for the benefit of her family
- ❖ To **achieve empowerment of asset less and marginalised women** through **institute initiatives** to make them **economically self-reliant** .
- ❖ To **disseminate the women friendly technologies** as **viable Livelihood options** for women in **Aquaculture**

How all these could be achieved ???

Well we can !!

Women Empowerment e-card



WEE card :-

- ❖ **A unique identity in India to acknowledge the contribution of women in aquaculture.**
- ❖ **Increases the trust between public and private agencies to support for the upliftment of women**
- ❖ **A call for the improvement of their socio-economic status in the rural areas.**
- ❖ **Enable 'anytime ,anywhere,anyhow' authentication.**
- ❖ **Facilitate entry for poor and underprivileged residents into the formal banking system**
- ❖ **The opportunity to avail services provided by the government private funding agencies**

What this WEE-Card means to HER?

- ❖ A card to recognize a women as an Entrepreneur
- ❖ A card that gives the woman the Freedom of expression.
- ❖ A card that confirms the Economic independence to her
- ❖ A card that release the women from the Societal and family compulsions.
- ❖ A card to announce the arrival of a modern independent women in the society!

Details Includes

- ❖ **Encode gender**
- ❖ **Encloses personal information of an individual**
- ❖ **Machine readable technology**
- ❖ **Protect the resident's privacy**
- ❖ **Random number**

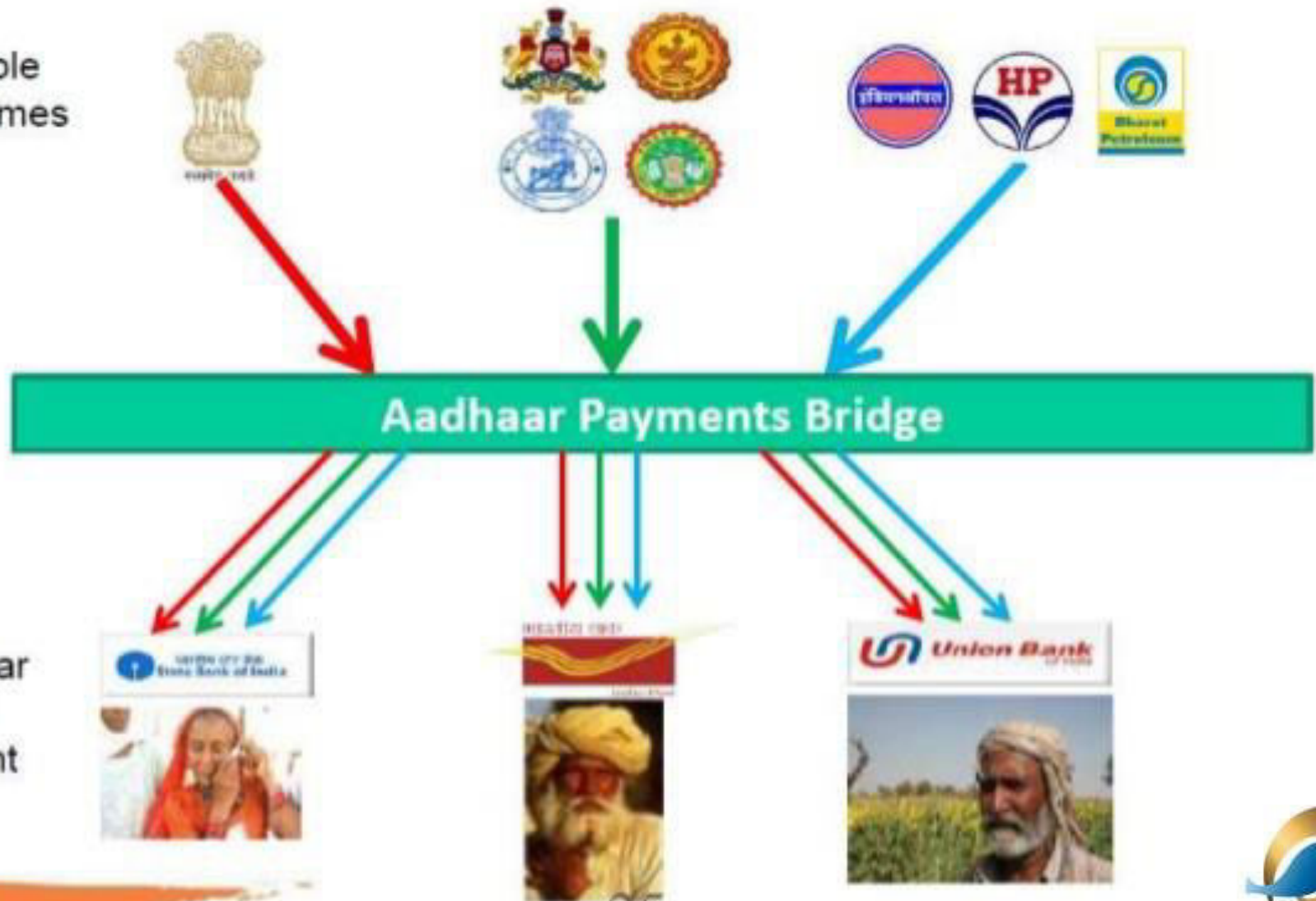


Financial Independence in a secured way :-

- ❖ The credit supports will be given to the women in a secured way
- ❖ A unique system of fund transfer will be tied up with the National Aadhar scheme.
- ❖ Aadhar Card Number is a 12 digit identification number, issued by unique identification Authority of India (UIDAI) to all the residents of India for the purpose of Unique Identification for individuals

All direct cash transfers into one account

Multiple Schemes



One
Aadhaar
linked
account

Old age pension payment in Tripura



The Mahatma Gandhi National Rural Employment Guarantee Scheme

MNREGA payments through Micro-ATM in Jharkhand

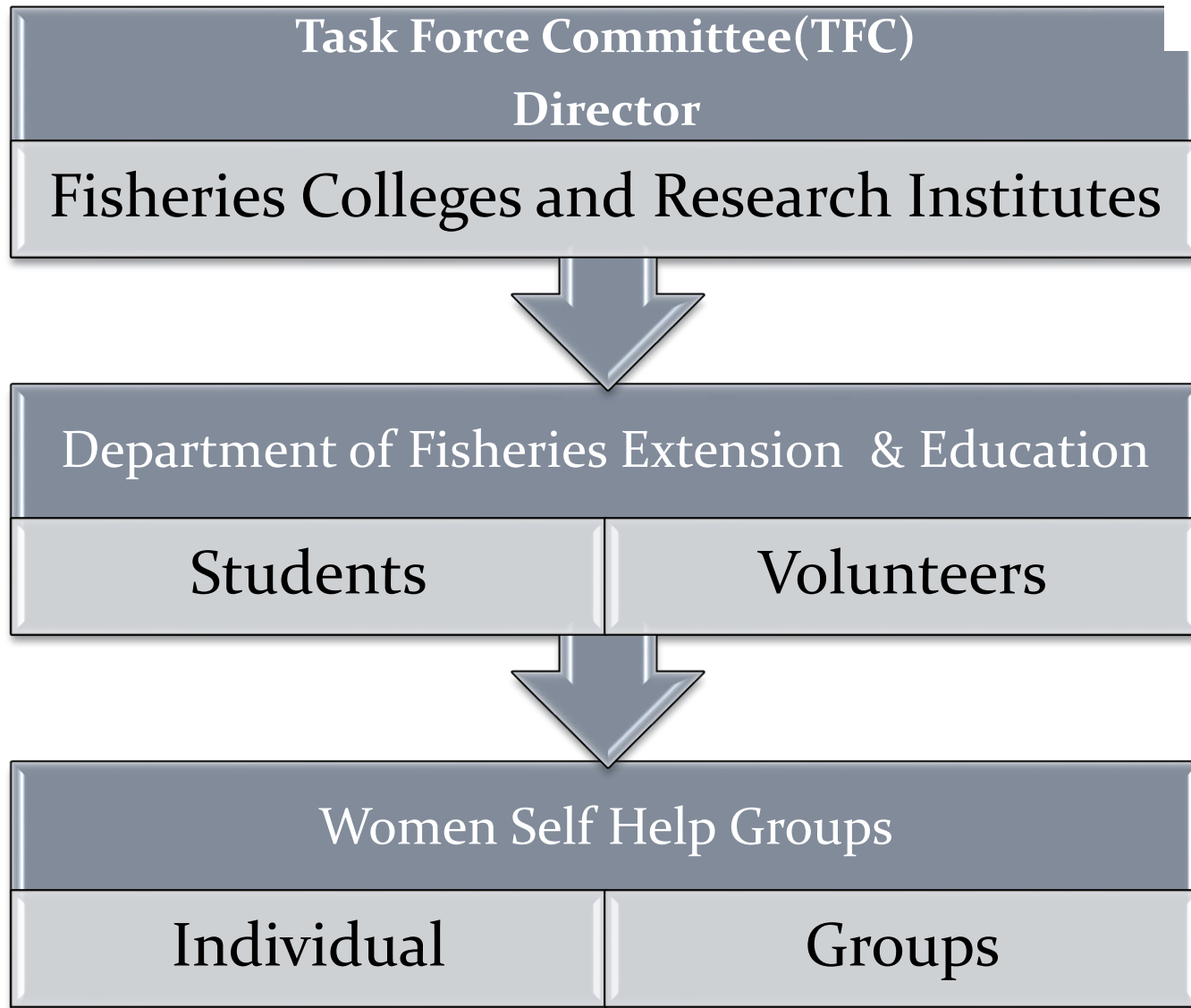


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Advantage of proposed System

- ❖ For transaction related to govt.departments the ID and pin number are quoted.
- ❖ The UID doesn't allow duplicate application for any type of card
- ❖ UID will facilitate entry for poor and underprivileged residents into the formal banking system and the opportunity to avail services provided by the government
- ❖ Address changes easily updated

Authorisation in Implementation





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Viable & Feasible Technologies

- ❖ **Mud crab fattening in FRP Cages**
- ❖ **Seaweed culture on bamboo rafts**
- ❖ **Cage culture of high value Brackishwater fishes**
- ❖ **Breeding and seed production Technology of *Etroplus suratensis***
- ❖ **Production and manufacturing of artificial diets for commercially important Fish species**



Ornamental Fish Breeding Unit



Ornamental Multispecies Hatchery



Live Feed Culture unit



Small scale Aquaponics



Training of Fisherfolks for Etroplus breeding



Vermiculture Unit



Training on Fish products Development



Cage culture in reservoir

Viabale & Feasible Technologies

- ❖ **Small Scale Aquaponics like One cent Aquaponics, Backyard Aquaponics, terrace model of Aquaponics**
- ❖ **Development of innovative fish products like Fish Kurkure, Fish paneer, Seaweed soup**
- ❖ **Live feed culture technologies for high value ornamental fish species culture**
- ❖ **Vermicompost Technology**



Viabale & Feasible Technologies

- ❖ **Nursery culture and rearing of high value species and lobster fattening**
- ❖ **Rearing of commercially important ornamental fish varieties in small scale**
- ❖ **Development of low cost cage farming technology for reservoir fisheries**
- ❖ **Indoor live feed culture techniques for Daphnia**
- ❖ **Technology for mass production of Mesocyclops**

Benefits

- ❖ **The women entrepreneurs can directly sell to prospective purchasers**
- ❖ **The status holders can avail credit and consumption needs for aquaculture from government .**
- ❖ **The educational loans for the status holders children will be given at low interest rate.**

Benefits: (cont...)

- ❖ **Development of Aquaclinics for the testing of the disease animal in the laboratory level**
- ❖ **Installing the air conditioned FRESH FISH SALES OUTLET in the heart of the cities.**
- ❖ **Training women in AQUASCAPING which yields lucrative returns in the big industries as Annual Maintenance Chiefs.**

Benefits : (cont...)

- ❖ **Opportunity to work in the FISH TECHNOPARK and other BUSINESS INCUBATION CENTRES established by the university.**
- ❖ **Allowed for free participation in all the training programmes organized by the university**
- ❖ **Recommended to the government for providing them ,permanent government jobs in the fisheries department as well as in the university jobs.**

Projected Outcome

- ❖ Adoption by 250 women either in groups or individuals for efficient fish production practices
- ❖ Adoption and of equitable, productive aquaculture production systems for the resource-poor vulnerable with land ownership
- ❖ Development of small scale aquaculture, resulting in greater benefits sustainable positive change in income of the families
- ❖ Development of diversified livelihood portfolios to the families' for future resilience to climate risks
- ❖ WEE-card system will assist 2000 direct beneficiaries and indirectly 1.6 billion people will be benefitted

Sustainability

- ❖ The development of Women Aqua industries promotion corporation of Tamilnadu (**WAICOT**)- industrial complexes exclusively for women
- ❖ Serve as a **structured package of assistance to large industrial units and the small scale aquaculture** can create a positive impact on the large scale industrial units.
- ❖ The development of **women link chain** to create a cosmopolitan women group for sharing their ideas and experiences

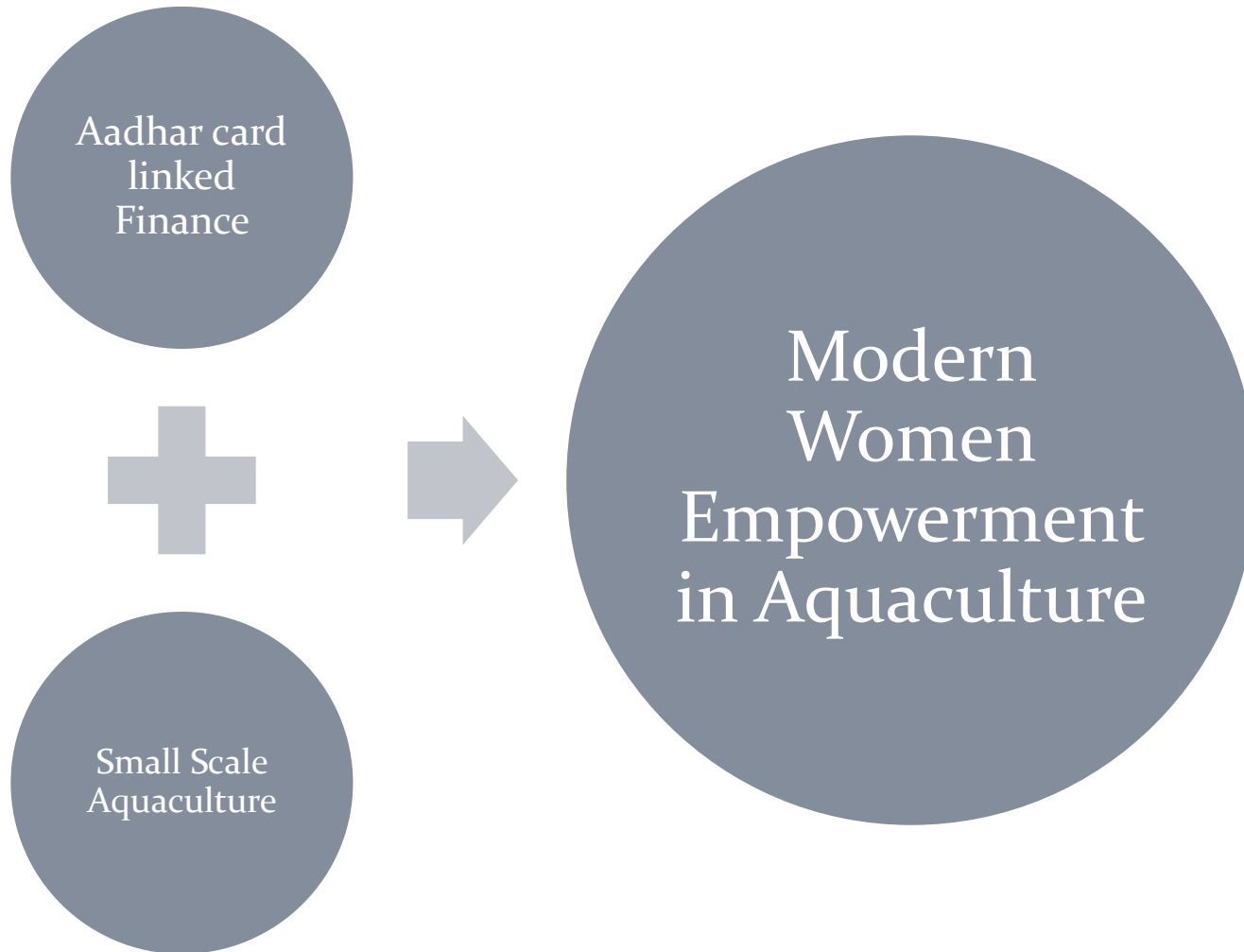
Sustainability: (cont...)

- ❖ The **GDP** percentage (Gross Domestic product) of the country will be increased through the active role of women's participation in the aquaculture sector.
- ❖ The **per capita fish consumption** can be increased by increasing the production to meet the local domestic fish markets
- ❖ The **use of available natural resources** can take place effectively by adopting the small scale aquaculture practices.

Sustainability (cont...)

- ❖ Provides an opportunity for the institute to develop a Women friendly technology.
- ❖ **Social relationships among the students** inculcated in curriculum will bring drastic change in perception of concepts and issues in the sector .
- ❖ This could be the **viable option for achieving 'Fish for all'** concept in a successful way in the developing countries
- ❖ The establishment of **FRESH FISH SALES OUTLET** from the small scale fish produce in every village will take Indian aquaculture to a different level.

Smartway to achieve women empowerment in Aquaculture





**When women move forward,
the family moves ,
the village moves and
the Nation moves.
THANK YOU !!!**

