

TAMILNADU IRRIGATION AGRICULTURE MODERNISATION PROJECT



WRD



**SOCIAL
DEVELOPMENT**



AGRICULTURE



FISHERIES



HORTICULTURE



**AGRICULTURE
ENGINEERING**



**ANIMAL
HUSBANDARY**



**AGRICULTURE
MARKETING**



AGRI BUSINESS



TNFU



TNAU



TANUVAS



**Multi- Disciplinary Project Unit
Government of Tamilnadu**

INTRODUCTION

The World Bank Supported TN IAM (Irrigation for Agriculture Modernisation) Project is a follow up of IAMWARM (Irrigation for Agricultural Modernisation and Water Resource Management) Project which has made significant development impacts in the state by modernising irrigation infrastructure, improving water use efficiency, enhancing yields and productivity of agriculture in a climate resilient production systems, diversification towards high value crops, strengthening the institutional reforms through Participatory Irrigation Management (PIM) and Water Users Association (WUA). The IAM Project will bring the policy and institutional development achieved under IAMWARM project to a new level and will serve as the key vehicle for implementing the Tamilnadu Government agenda in further enhancing water and agriculture productivity in a sub basin framework.

The project will also rehabilitate and high-priority tank irrigation systems in 66 sub basins of the sub-basins of the state, which were not part of IAMWARM.

The five major areas of focus present themselves:

- ❖ Improved irrigation infrastructure
- ❖ Crop diversification through high value crops
- ❖ Climate Resilient technologies for improved productivity
- ❖ Improved market access system of value addition
- ❖ Institutionalising PIM & Improving water management

It is, with this back ground, the Irrigated Agriculture Modernization (IAM) Project is designed through the convergence of all Line Departments.



Project Beneficiaries

The main project beneficiaries are farmers, water users associations, farmer producer organizations and other entrepreneurs. The project will actively promote gender inclusion and women participation in all key project interventions. The project will reachout to 5 Lakh farmers in which 2.25 Lakhs are women.

Project Scope and Area

The project will cover rehabilitation of about 4778 tanks in 66 sub basins. The total command area to be covered will be 5, 43,000 hectares.

SCOPE

Project Outlay

Rs.2962 Crore

Project Period

7 years

66 Sub Basins

(4778 Tanks, 477 Anicuts & Water Carriers)

Project Area

5.43 Lakh ha

Multi Sectoral

(7 Depts, 3 Universities)

Phases	No. of Sub Basins
I	18
II	18
III	20
IV	10

Project Development Objectives

“To enhance productivity and climate resilience of irrigated agriculture, improve water management and increase value-addition for farmers and agro entrepreneurs in selected sub basins of Tamil Nadu.”

COMPONENTS

Irrigation Systems modernization

- Improve water delivery through modernization of irrigation systems
- Streamlining O&M Activities

Climate Resilient Agricultural Intensification

Build on the improved water delivery to increase the productivity of agriculture –through intensification, diversification, value addition and alternative livelihood sources

Water Resources Management

Improve the Institutional arrangements Modernization (including PIM & SWaRMA) both on the demand & supply side towards collective and sustainable water resources management

INNOVATIONS IN APPROACH

Gender Development

Mainstreaming of gender is one of the strengths of the project and targeted which focus on female members of Community Based Interest Group Organizations (CBIGO) such as Water Users Associations (WUAs), Commodity Groups and Farmer Producer Companies.

Strategy

- ❖ Encourage women participation and create awareness about project activities and water user association
- ❖ Inform about the project activities and benefits
- ❖ Sensitise other stakeholders on gender issues
- ❖ Encourage equal wages for equal work in all project works

Social Development

- ❖ An increased social capital and collective action through Water User Associations (WUA), Farmer Producer Organizations and Commodity Interest Groups.
- ❖ Socio-economic empowerment of women farmers, small farmers, increased employment and income opportunities for local rural producers and local wage earners.

Grievance Redress Mechanism (GRM)

The Project will establish a multi-level feedback and grievance redress mechanisms including the structures and processes at different levels.

- ❖ Grievances related to various aspects of participatory irrigation and water management will be addressed at regional level state level and district level.

ACTIVITIES TO BE CARRIED OUT BY LINE DEPARTMENT

Water Resources Development

IMPROVING STORAGE

Rehabilitation of Tanks (4778), Repairs / Reconstructing Sluices and Weirs, Construction of Scientific Recharge wells



IMPROVING FLOW

Lining / Regrading Water Carriers
Rehabilitation of Anicuts (477)



IMPROVING WATER MANAGEMENT

Decision Support System (DSS), Drought management - MIS, Promoting drought resistant crop management, Community Collaborative Water Management (CCWM), Sustainable environmental friendly farming techniques

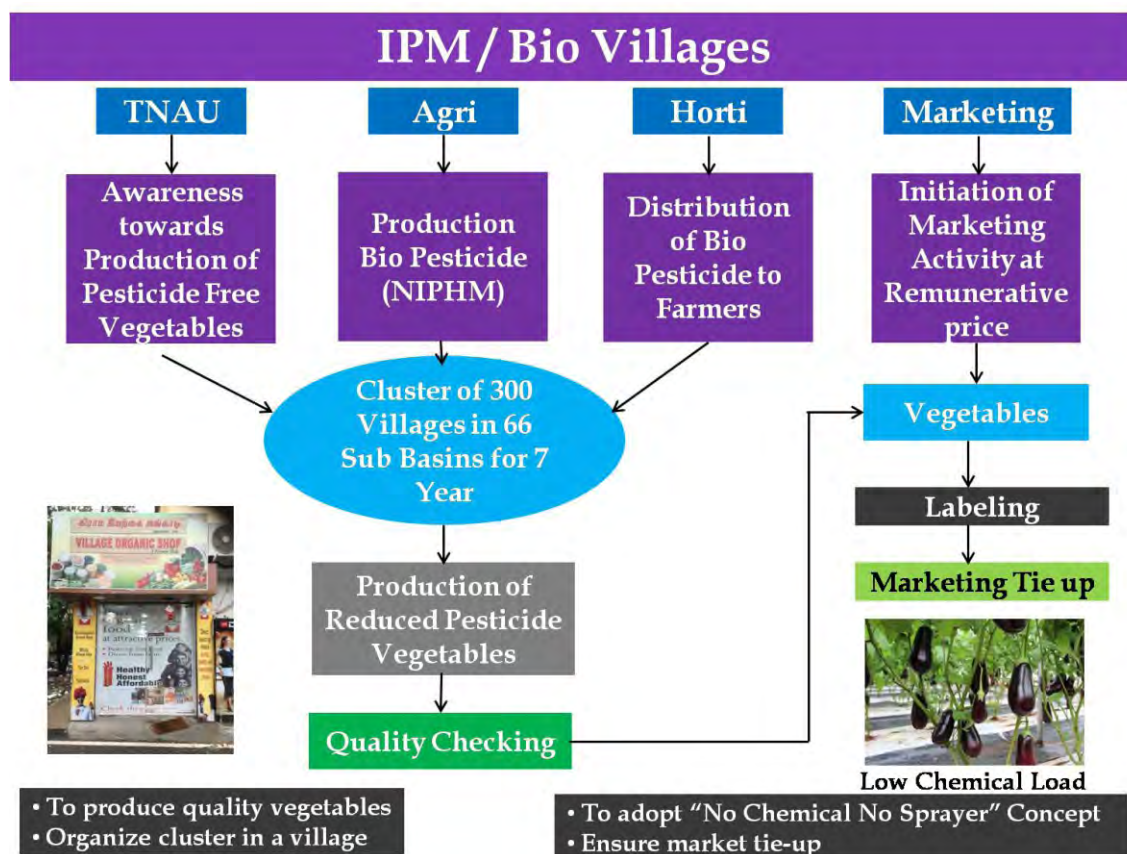


AGRICULTURE

Sustainable intensification and diversification of agriculture production systems will be achieved through a large scale program of awareness creation and on-farm demonstrations on new seeds and promising technologies, capacity building and training activities.

- ❖ Promoting cultivation of short duration and high yielding varieties
- ❖ Installation of micro irrigation drip and fertigation systems
- ❖ Promoting water saving agronomic practices like the system of rice intensification and sustainable sugarcane initiative
- ❖ ICT-based activities like e-Velanmai and Farmer Cropping Advisory will be introduced and expanded
- ❖ Seed Village: Special attention is being paid to raise productivity and area of low productivity crops like green manures, pulses and groundnut. The farmers will be encouraged to produce the seeds required for their villages and they would be supported with revolving fund.





Agriculture Engineering

- Farm ponds will be constructed to harvest rain water from smaller catchments of about 2 to 5 hectares in a land holding of a single farmer.
- 2800 farm ponds would be executed throughout project period.



Horticulture

Diversification through high value crop

- Diversification with vegetables, fruits, plantation crops, spices and flower cultivation through improved crop production technologies.



Pesticide free bio village

- Promotion of pesticide free vegetable production in clusters - implemented in 300 IPM villages.

Precision Farming & Climate resilience technologies

- Promotion of Micro Irrigation with fertigation in vegetables, Fruits and Poly green house.
- Hybrid vegetable using mulching technology



Tamilnadu Agricultural University

Tamil Nadu Agricultural University (TNAU) formulated interventions will support testing, demonstration and dissemination of promising crop husbandry practices and water management technologies.



- ❖ The project would give special emphasis on enhancing crop production to have better market access, crop diversification, value addition and climate resilient agriculture in the sub-basins of Tamil Nadu.
- ❖ The focus will be on how precision farming and improved production technologies could lead to enhanced productivity and production of crops and therefore higher income to farmers

Agri. Business

Promotion of Agri. Enterprises

- ✓ Improving farmer access to markets
Value additions
- ✓ Piloting e-negotiable Warehouse Receipt model



Smart Agri. Marketing

- ✓ Promoting Farmer Producer Companies
- ✓ Promoting Agri entrepreneurs with special emphasis on encouraging women entrepreneur
- ✓ Modernization of regulated markets



Animal Husbandry

- ❖ Farmer extension and technology dissemination programs through farmers' group approach – Dairy Interest Groups (DIG) will be promoted in the sub-basin villages
- ❖ Addressing infertility issues in productive cows and buffaloes
- ❖ Preventive health care and nutrition interventions aimed at improving the survival
- ❖ Fodder development promotion and preservation
- ❖ Strengthening breeding program through strengthening the existing artificial Insemination (AI) network and establishing new AI units by placing a locally trained youth



Tamilnadu Veterinary and Animal Sciences University (TANUVAS)

- ❖ TANUVAS will undertake programs for sensitizing farmers on “Nutritional Supplemental Strategy” to increase productivity in dairy cattle and mitigate methane emission.
- ❖ Establishment of mineralized salt lick production units using TANUVAS technology for Dairy Interest Groups.

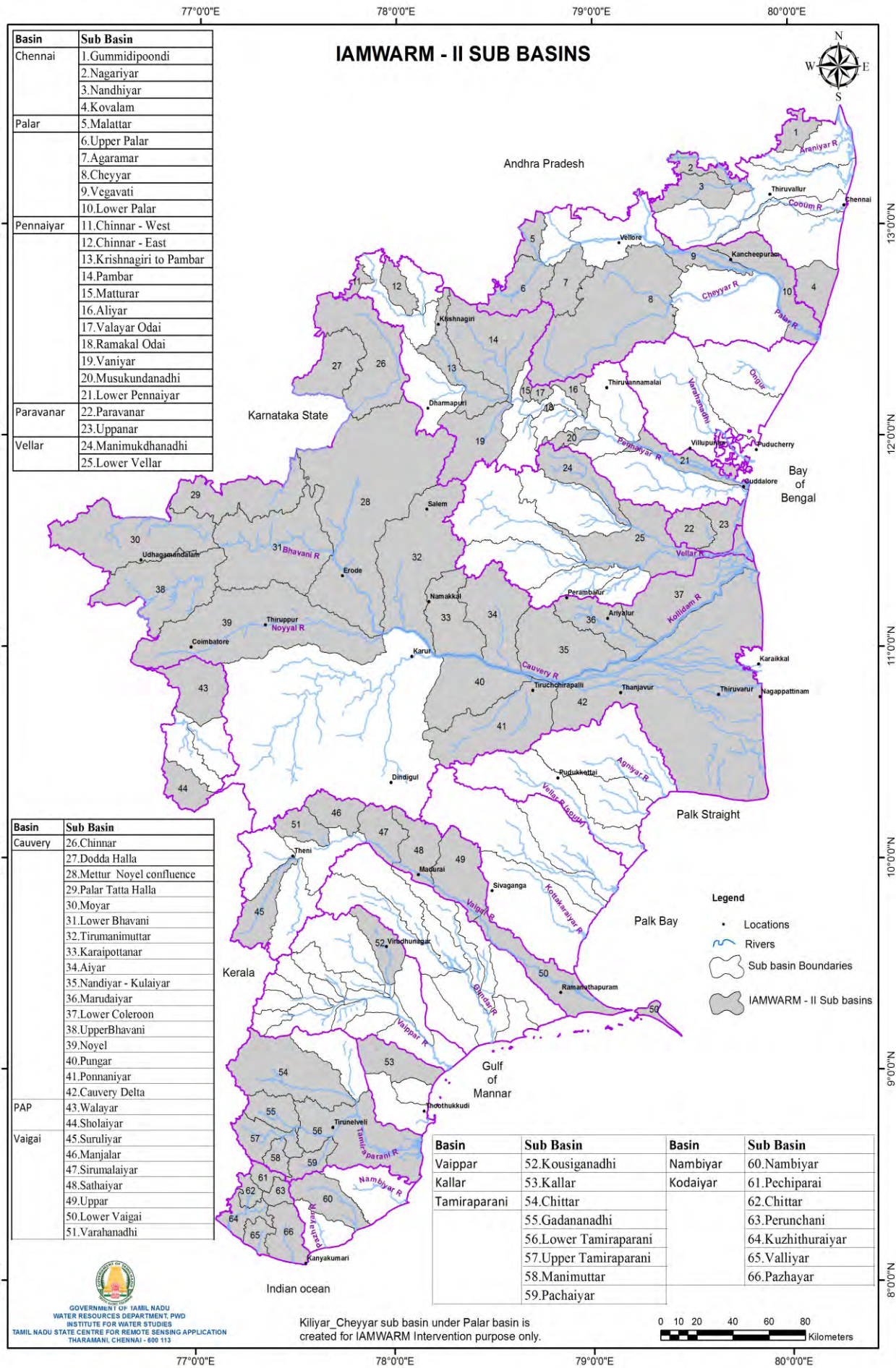
Fisheries Department

- ❖ Inland Fisheries Development activities to be implemented by the Department of Fisheries will promote good aquaculture practices (GAP) on currently available aquatic resources (reservoirs, tanks and ponds) consisting of 25,100 ha effective water spread area in project areas, and support participation of fish farmers in value chains.
- ❖ Cage fish culture would be promoted as a practice of growing fish in confined areas, which facilitate feeding, harvesting and other management procedures



Tamilnadu Fisheries University (TNFU)

- ❖ Laying down production models for the irrigation tanks that are sustainable through scientific intervention in terms of stocking density, species selection, species combination, water quality management, sampling and harvesting procedures.
- ❖ To advise resilient production models that could stand viable irrespective of the seasonal variations for farm ponds aquaculture
- ❖ To demonstrate the viable farming model to the aqua farmers.
- ❖ Extending technical support services to the aqua farmers through Farm Service Vehicle.

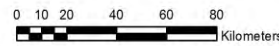


Basin	Sub Basin
Chennai	1.Gummidipoondi
	2.Nagariyar
	3.Nandhiyar
	4.Kovalam
Palar	5.Malattar
	6.Upper Palar
	7.Agaramar
	8.Cheyar
	9.Vegavati
	10.Lower Palar
Pennaiyar	11.Chinnar - West
	12.Chinnar - East
	13.Krishnagiri to Pambar
	14.Pambar
	15.Matturar
	16.Aliyar
	17.Valayar Odai
	18.Ramakal Odai
	19.Vaniyar
	20.Musukundanadhi
Paravanar	21.Lower Pennaiyar
	22.Paravanar
	23.Uppanar
Vellar	24.Manimukhdanadhi
	25.Lower Vellar

Basin	Sub Basin
Cauvery	26.Chinnar
	27.Dodda Halla
	28.Mettur Noyel confluence
	29.Palar Tatta Halla
	30.Moyar
	31.Lower Bhavani
	32.Tirumanimuttar
	33.Karaipottanar
	34.Aiyar
	35.Nandiyar - Kulaiyar
	36.Marudaiyar
	37.Lower Coleroon
	38.UpperBhavani
	39.Noyel
	40.Pungar
	41.Ponnaiyar
PAP	42.Cauvery Delta
	43.Walayar
Vaigai	44.Sholaiyar
	45.Suruliyar
Vaigai	46.Manjalal
	47.Sirumalaiyar
	48.Sathaiyar
	49.Uppar
	50.Lower Vaigai
	51.Varahanadhi
	52.Kousiganadhi
	53.Kallar
	54.Chittar
	55.Gadanadhi
	56.Lower Tamiraparani
57.Upper Tamiraparani	
58.Manimuttar	
59.Pachaiyar	
Nambiyar	60.Nambiyar
	61.Pechiparai
	62.Chittar
	63.Perunchani
	64.Kuzhithuraiyar
	65.Valliyar
66.Pazhayar	

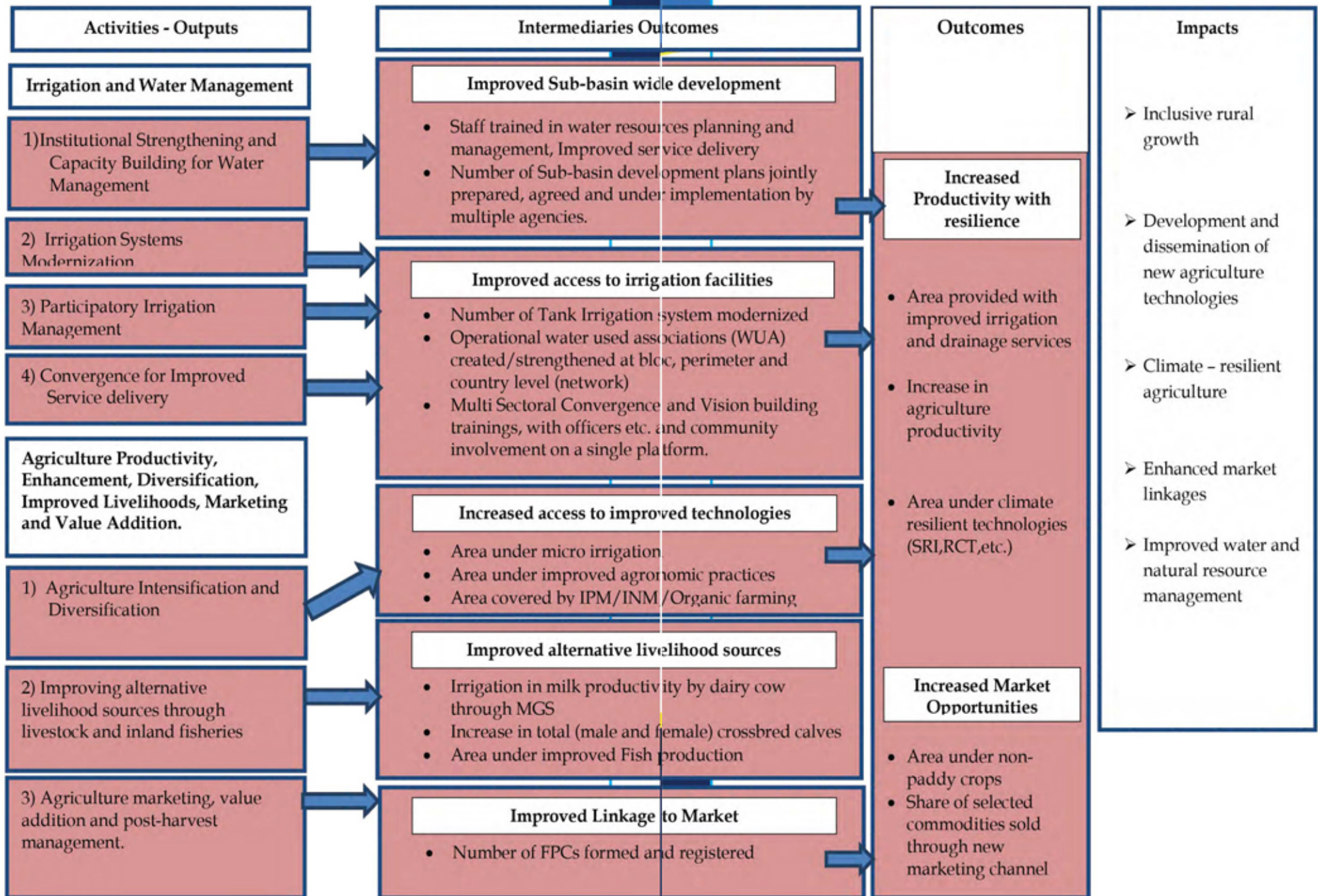
Basin	Sub Basin	Basin	Sub Basin
Vaippar	52.Kousiganadhi	Nambiyar	60.Nambiyar
Kallar	53.Kallar	Kodaiyar	61.Pechiparai
Tamiraparani	54.Chittar		62.Chittar
	55.Gadanadhi		63.Perunchani
	56.Lower Tamiraparani		64.Kuzhithuraiyar
	57.Upper Tamiraparani		65.Valliyar
	58.Manimuttar		66.Pazhayar
	59.Pachaiyar		

Kiliyar_Cheyar sub basin under Palar basin is created for IAMWARM Intervention purpose only.



GOVERNMENT OF TAMIL NADU
 WATER RESOURCES DEPARTMENT, PWD
 INSTITUTE FOR WATER STUDIES
 TAMIL NADU STATE CENTRE FOR REMOTE SENSING APPLICATION
 THARAMANI, CHENNAI - 600 113

Outcome Indicators



Project Outlay - Departments

Sl. No.	Department	Estimate in US Dollar (in Million)	Estimate (Rs. in Crores)
1.	Water Resources Department	352.80	2292.48
2.	Agriculture	13.32	86.55
3.	Horticulture	33.40	217.03
4.	Agricultural Engineering	2.39	15.53
5.	Agricultural Marketing & Agri-Business	19.93	129.51
6.	Tamil Nadu Agricultural University	13.46	87.46
7.	Animal Husbandry	6.30	40.94
8.	Fisheries	6.60	42.89
9.	MDPU	7.60	49.38
	Total	455.80	2962



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