



SEAWEED INDIA 2022

Technical Session 3

Regulatory Framework for

Farming & Import of Seed & Planting Material

**G.Arumugam, M.F.Sc.,
Additional Director of Fisheries**

**Department of Fisheries & Fishermen Welfare
Government of Tamil Nadu**

Status of seaweed sector in Tamil Nadu

HISTORY

- Collection of wild sea weed like Sargassum, Gracillaria etc happening in Tamil Nadu, particularly from Ramanathapuram District, Mandapam, Vedhalai region
- Catering **Agar and Alginate** industries
- Good number of Fisherwomen involved in this natural seaweed collection
- Farming of (*Kappaphycus alvarezii*) was introduced in Tamil Nadu in 2000 by CSMCRI in collaboration with Pepsico Ltd.,
- Sea weed farming was introduced as alternative livelihood option for fisherfolk
- Sizeable number SHGs members participated

Present Status

Major sea weed production locations in Tamil Nadu

Sl.No	District	Type of Farming	Approx. Production Wet Wt (MT)
1	Ramanathapuram	Raft & Monoline	5,800
2	Pudukottai	Monoline	6,400
3	Tuticorin	Monoline	2,500
4	Thanjavur	Monoline	Commenced
5	Kanniyakumari	Raft	Commenced
Total			14,700

Present Status-contd.

- About 650 Groups in the above 4 district are actively involved in the sea weed farming
- Total sea weed production in Tamil Nadu is about 15,000 MT (10,000 MT from Monoline and about 5000 MT from Raft)(Wet Wt.)
- Estimated seaweed production potential of Tamil Nadu is about 1,60,000 MT from 5000 Ha

Seaweed Industry installed capacity

- Installed processing capacity in Tamil Nadu (Wet wt):1,15,150 MT/annum.
- Current Processing (capacity utilization) (wet wt) : 23,240 MT/annum (\approx 20.3%)
- Current import of seaweed from other States (wet wt) : 8,550 MT/annum.
- Current procurement locally from Tamil Nadu (wet wt) : 11,700 MT/annum.



Government Support to Seaweed Farming

State and Central Government support sea weed farming right from the beginning

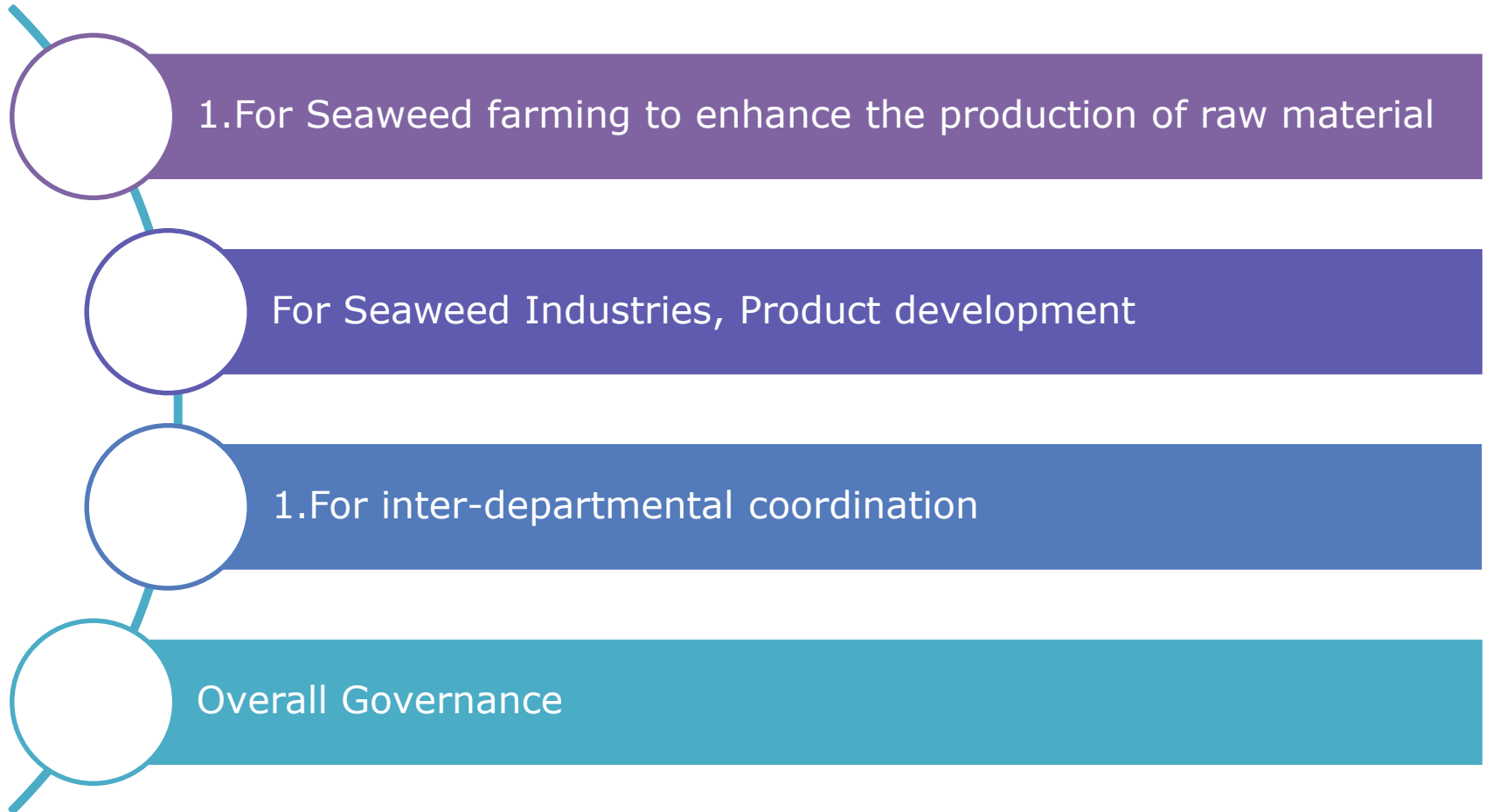
- Formation of Seaweed farming Self Help Groups(SHGs)
- Subsidy and Institutional financial assistance to Seaweed Farming groups
- Training and capacity building in farming and value addition
- Subsidy assistance through various schemes such as SGSY, Sate Balance Growth Fund, Blue Revolution, Gaja Rehabilitation , reconstruction programme, PMMSY etc.,

Recent assistance extended

Name of the scheme	No. of Beneficiaries	No. of rafts/ Monoline	Subsidy (in lakh)
TN FIMSUL	450	3,000	32.27
NFDB	75	3,000	54.00
GRRRP	120	1,200	14.90
PMMSY	1,311	8,160	142.47
Total	1,956	15,360	243.64



Regulatory Legal Framework



Regulatory Legal Frame work-contd.

Seaweed Farming to enhance raw material production

- Permission to farm sea weed in the year 2000 in Palk Bay, in Ramanathapuram district by SHGs as Livelihood activity is the first legal permission issued by Government.

Permission issued with the conditions that,

1. Without encroaching the berthing places of fishing boats
2. Do not interfere with the passage of fishing boats while venturing into the sea and back
3. Restrictions by Department of Environment and Forest for natural collection of seaweed in Gulf of Mannar after declaration of Gulf of Mannar Bioreserve

**G.O. (MS). 299, Environment and Forest Department.
Dated:20.12.2005**

- No objection for carrying out seaweed cultivation by SHGs in sea water North of Palk Bay and south of Tuticorin
- SHGs can apply for CRZ clearances for seaweed cultivation
- Proponent should get necessary permissions from Maritime Board and Wild Life Warden for the use of sea expanse beyond the Low Tide Line (LTL)
- To conduct Environment Impact Assessment (EIA) study to assess adverse impacts on marine life of Gulf of Mannar
- General clearance available for Palk Bay for SHGs.

Present Regulatory Legal Framework - Farming

**G.O (MS). 299, Environment and Forest Department,
Dated:20.12.2005**

No clear guidelines issued on;

- Extent of farming area in the sea, beyond LTL
- No areas mapped for seaweed farming
- Generally Fisherwomen use the sea area adjoining the Village/hamlet
- No eligibility criteria defined for SHGs or individuals in case of competition for space
- No well defined Authority for Regulation and enforcement
- Since it is a common resource, multiple stakeholders claim on the property

Present Regulatory Legal Framework - Farming

1. Extent of sea weed farming area from LTL, particularly in the context of the proposed expansion of farming area
 - Mapping of potential areas to be done
2. Areas for seaweed farming and berthing places, passages have to be defined to avoid conflicts with the fishing sector
3. Eligibility/ Priority should be defined
4. Over all Governing authority to be in place to achieve the targets in raw material production, product development, export etc.

Present Regulatory Legal Framework – Farming

Contd..

5. Multiple stake holders interest should be protected to avoid legal disputes in future
6. Various Line Departments such as Environment and Forest, Rural development, Revenue Department, should be consulted
7. Interests of Mariculture activities, Offshore wind energy production, Shipping & Navigation, Coastal infrastructure, water sports, etc., need to be addressed

**Regulatory Framework
for
Import of Seed & Planting Material**

Seaweed seedlings import plan for achieving 50% seed replacement

Particulars	Unit	Year 1	Year 2	Year 3	Total
Production estimate per annum	Tons	19,700	30,600	49,000	
Current seed requirement (50% seed replacement)	Tons	778	1,153	1,539	
Volume of seedlings to be imported					
Tissue culture & micropropagation	Kg	91	91	91	273
Field seedlings for field propagation	Kg	800	1200	1600	3600
Total volume of seedlings to be imported	Kg	891	1,291	1,691	3,873
No of import consignments	Nos	4	5	7	16
Total volume of seedlings to be produced	Kg	7,77,510	11,52,510	15,39,270	34,69,290

Inter-Departmental Coordination in Seaweed Seed Import

- ❖ Department of Agriculture, Cooperation and Farmers Welfare.
- ❖ Directorate of Plant Protection Quarantine and Storage (DPPQ & S).
- ❖ National Bureau of Plant Genetic Resources (NBPGR)
- ❖ Indian Institute of Horticultural Research.
- ❖ Tamil Nadu Agriculture University.



Role & Responsibilities

Sl. No	Ministry/Department/Organization	Role & Responsibilities
1	Joint Secretary, Department of Agriculture, cooperation and farmer welfare	<ul style="list-style-type: none">• Authority to issue permit for import of plant materials.
2	Plant Protection Adviser, Directorate of Plant Protection Quarantine and Storage (DPPQ & S)	<ul style="list-style-type: none">• Approval of Post entry quarantine facilities jointly with concerned inspection authority.
3	Deputy Director , Regional Plant Quarantine Station, Chennai	<ul style="list-style-type: none">• Issue of permit for consignment at the point of entry.• Approval of Post entry quarantine facility and inspection of samples.

Contd...,

Sl. No	Ministry/Department/ Organization	Role & Responsibilities
4	National Plant Protection Organization of export country	<ul style="list-style-type: none">• Issue of Phytosanitary certificate
5	Director, National Bureau of Plant Genetic Resources (NBPGR)	<ul style="list-style-type: none">• Authorized to issue permits for import of germ plasm/Genetically modified plants.
6	Head - Indian Institute of Horticultural Research	<ul style="list-style-type: none">• Inspection authority for tissue culture raised plant
7	Head -Division of plant pathology, Tamil Nadu Agriculture University	<ul style="list-style-type: none">• For certification of post entry quarantine facilities and inspection of growing plants

Seaweed Seed Import Requirements

Sl. No	Particulars	Forms and Documents required
A	<p>Identification of exporting country- Identification of exporter</p> <ul style="list-style-type: none"> ➤ Country of Preference – Indonesia/Philippines ➤ Selection of Company/Organisation for import 	<ul style="list-style-type: none"> ➤ PQ Form 24 -Technical Details of the plant to be given by National Plant Protection Organization
	<ul style="list-style-type: none"> ➤ Phytosanitary certificate issued by the country of origin 	<ul style="list-style-type: none"> ➤ PQ Form 21 - Biological details of the plant to be given by National Plant Protection Organization

Sl. No	Particulars	Forms and Documents required
B	Import permit for Kappaphycus	
	<ul style="list-style-type: none"> ➤ Request for including seaweed in the permitted list of items to be imported 	<ul style="list-style-type: none"> ➤ PQ Form no 23 (Application for PRA) ➤ PQ Form no 24 Technical information requirement for PRA
	<ul style="list-style-type: none"> ➤ Plant Protection Adviser, DPPQS, Faridabad(Hariyana) or JS (PP)DAC &FW, Krishi Bhavan, New Delhi 	
	<ul style="list-style-type: none"> ➤ Pest Risk Analysis - PRA along with import Permit has to be send to the exporter for including the details in the phytosanitary certificate 	<ul style="list-style-type: none"> ➤ PQ Form no 23 (Application for PRA) & PQ Form no 24 Technical information requirement for PRA

Sl. No	Particulars	Forms and Documents required
C	<ul style="list-style-type: none"> ➤ Post entry quarantine division (Purpose- to get certificate of approval for post entry quarantine facility) 	<ul style="list-style-type: none"> ➤ PQ form no 18 & 19 -Application for certificate of approval of post entry quarantine facility. ➤ PQ form no 20-Undertaking for the post entry quarantine facility.
D	<ul style="list-style-type: none"> ➤ Point of entry of imported plant material 	<ul style="list-style-type: none"> ➤ All consignment of plants for propagation shall only be imported to India through regional plant quarantine station. ➤ On arrival of first point of entry - consignment shall be inspected by the plant protection adviser or designated officer - samples shall be drawn for testing (PQ-16/17). ➤ PQ-15-request for quarantine inspection of imported feed.

Sl. No	Particulars	Forms and Documents required
	<ul style="list-style-type: none">➤ Germ Plasm- Commercial purpose/ Research.➤ For research purpose the approval issued by the Director, NBPGR, New Delhi.	<ul style="list-style-type: none">➤ PQ form no 08-application to be submitted.➤ PQ form no 09 and 10 - permit shall be issued

Thank You