

A lush green rice field with a person in the background. The person is wearing a white shirt and a hat, and is holding a yellow flag. The field is filled with tall, green rice plants. The background shows a dense line of green foliage.

FOOD-GRAIN MISSION

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DEPARTMENT OF AGRICULTURE
TAMIL NADU



Hon'ble Chief Minister's announcement

- In order to attain self sufficiency in Foodgrain production, the Hon'ble Chief Minister on the floor of Assembly, has announced food mission on 6.5.2013 under the Rule 110**

Objective

- **To attain self sufficiency in Foodgrain production**
- **To bridge the yield gap**
- **To design cropping programme by involving farmers, scientists and extension officials**
- **To integrate Paddy, Millets and Pulses missions**
- **To formulate action plan for micro level ie., Revenue village**

Present scenario

S. No	Crop	Area (L.ha)			Prodn (L.Mt)			Productivity (Kg/ha)		
		2010-11	2011-12	2012-13*	2010-11	2011-12	2012-13*	2010-11	2011-12	2012-13*
1.	Paddy	19.06	19.04	15.78	57.92	74.59	44.00	3039	3918	2787
2.	Millets	6.31	6.38	6.96	15.57	23.24	16.45	2465	3642	2364
3.	Pulses	6.37	6.69	6.19	2.45	3.69	2.49	385	552	460

*As per 4th advance Estimate



Strategy to attain

S.No	Crop	Target 2013-14		Potential	
		Area (L.ha)	Production (L.Mt)	Area (L.ha)	Production (L.Mt)
1.	Paddy	20.00	86.50	20.80	89.50
2.	Millets	11.00	26.95	10.00	34.50
3.	Pulses	10.40	6.55	6.88	4.35
	Total	41.40	120.00	36.72	128.35

- 2000-01, an area of 20.8 L.ha and the production of Paddy 73.66 L.MT were achieved as well as under pulses an area of 6.88 L.Ha. and a production of 3.69 L.MT (2011-2012) were achieved
- 2003-04, an area of 9.04 L.ha and the production of Millets 8.88 L.MT were achieved

Productivity Focus

S.No	Crop	Yield (kg/ha)
1.	Paddy	4325
2.	Millets	3450
3.	Pulses	632



ACTION TAKEN- TECH. INTERVENTION - PADDY

- Replacing BPT 5204 with ADT 49, CORH3 with CORH4
- Promotion of Swarna sub1 in Nagai and Tiruvarur and Anna 4 in Ramnad and Sivagangai
- Sowing with seed drill in direct sown area
- Promotion of SRI technology in an area of 12 L.ha (60% of total paddy area) So far, an area of 1.52 L.ha has been covered.
- SRI whole village concept in 2000 villages over an area of 190000ha. So far 30424 ha covered in 402 villages
- Promotion of weedicide in direct sown areas
- Application of Zinc sulphate, Gypsum and MN mixture during last puddling
- Application fertilizers based on the soil test and LCC
- Application of PP chemical based on the ETL

Action taken- Scheme intervention - Paddy

NADP- Outlay : Rs 3420.04 lakhs Expenditure : Rs 308.735 lakhs

- SRI demonstrations
- Weedicide application
- Distribution of HYV seeds
- Solar Pumpsets

NFSM-Rice : Rs 2253.97 lakhs. Expenditure : Rs 175.83 lakhs

- Demonstration
- Distribution of HYV & Hybrid seeds
- Distribution of PP chemical & Micro nutrients
- Distribution of Machineries/implements such as Sprayer, Rotovator, Pumpset, Power conoweeder, Nursery tray

Kuruvai Special package - Rs 600 lakhs. Expenditure : Rs.482.79 lakhs

- Biopesticide, MN mixture, Gypsum and Biofertilizer

Seed Multiplication Scheme

Outlay : Rs.4632.01 lakhs. Expenditure : Rs.1105.084 lakhs

- Procurement and distribution of Paddy (18700 MT) and Millets seeds (480 MT)

Action taken- Tech. intervention - Millets

- **Bringing more area under irrigated condition**
- **Promotion of Paiyur (Ra) 2 and GPU 67 for Ragi, Pusa composite 621 for Cumbu, K11 and CSV 20 for Sorghum**
- **Replacing COHM5 with COHM6**
- **Cropping sequence- Millets followed by Pulses**
- **Micro irrigation on Maize**
- **Application of MN mixture and Millet booster ie., Maize Maxim**

Action taken- Scheme intervention - Millets

NADP- Outlay : Rs.830.00 lakhs. Expenditure : Rs .205.156 lakhs

- **Demonstration**
- **Seed distribution**
- **Seed production**
- **Training**
- **District level seminar**

ISOPOM- Maize- Outlay : Rs 118.01 lakhs. Expenditure is Rs.35.77 lakhs

- **Production and distribution of certified seeds**
- **IPM and Block demonstration**
- **Distribution of pipes carrying water**
- **Farmers training and officers training**

Seed Multiplication Scheme - Outlay Rs.4632.01 lakhs. Expenditure : Rs.1105.084 lakhs

- **Procurement and distribution of Paddy (18700 MT) and Millets seeds (480 MT)**

Action taken- Tech. intervention - Pulses

- Introduction of ICRISAT varieties for Redgram transplantation
- Introduction of perennial redgram
- Synchronized maturing varieties
- Seed treatment with Rhizobium and Phosphobacteria
- SPI whole village concept in 1697 villages over an area of 100000 ha.



- Maintaining adequate population
- INM – Gypsum, Micro Nutrient, Bio-fert.
- DAP 2% foliar spray at flowering stage & 15 days there after
- Application of Pulse wonder at flowering stage
- Promotion of Micro irrigation
- IPM package for control of pod borers

Action taken- Scheme intervention - Pulses

NADP - Outlay : Rs. 2615.881 lakhs. Expenditure : Rs 360.749 lakhs

- Red gram transplantation
- Farmers training
- Distribution of Tarpaulin
- Production subsidy for certified seeds
- Promotion of varieties having synchronized maturity
- Distribution of Turbo happy seeder
- Water saving equipments
- DAP foliar spraying
- INM, IPM, Seed minikit distribution

NFSM - Pulses- Rs 2067.045 lakhs. Expenditure : Rs 82.141 lakhs

- Demonstration of improved technologies
- Distribution of certified seeds
- INM- Micro nutrient, Gypsum, Rhizobium / phosphate solubilizing bacteria
- IPM- IPM package, NPV, PP chemicals, Weedicides
- Distribution of Machineries/implements such as Sprayer, Rotovator, Pumpset, Seed drill
- Water saving equipments- Sprinkler, Mobile sprinkler / raingun, pipes carrying water
- Cropping system based training

NFSM - A3P- Outlay Rs 795.0 lakhs. Expenditure is Rs.29.332 lakhs

- INM, IPM, Seed Minikit distribution, e-pest surveillance

SMS- Outlay Rs.2947.21 lakhs. Expenditure is Rs. 184.70 lakhs

- Procurement and distribution of Pulses seeds (4570 MT)



Extension intervention

- As instructed by Hon'ble Minister for Agriculture, village level campaigns have been conducted for weedicide application in Delta districts for a week from 9.9.2013
- State level seminar for Red gram transplantation conducted at Hosur
- Demonstration
- Farmers training
- Farmers Field Schools
- Officers training
- State level workshop
- District level seminar
- Exposure Visits – Farmers (within
- Exposure Visits – Farmers (Outside the State)
- Voice SMS – 45.4 lakhs
- Text SMS – 18.3 lakhs



Action taken- Sensitization programme

- **The meetings have been conducted with the various level of officers at Directorate, Coimbatore, Trichy & Madurai**
- **Instructions issued through Video conferencing on 3.9.2013 and 24.9.2013**
- **Hon'ble Minister of Agriculture, APC and Principal Secretary, Director of Agriculture visited the Delta districts and reviewed the status of food grain production on 5.9.2013 & 6.9.2013**
- **Frequent visit to Districts by Nodal officers**
- **Micro level planning is being evolved to attain highest production and it will be completed before 30.9.2013**
- **Area coverage and estimated productivity will be maintained on weekly basis**
- **The parallel Adangal will be maintained at Village level**

PRODUCTION, PROCESS & MARKETING

SI NO	Crop	Zone
1	Maize	Perambalure, Tirupur & Dindigul
2	Samai	Vellure, Thiruvannamalai, Nakakkal & Dharmapuri
3	Varagu	Thiruvannamalai, Dharamapuri
4	Ragi	Dharmapuri & Krishnagiri
5	Redgram	Krishnagiri, Vellure & Dharmapuri
6	Black Gram	Thiruvarur, Nagai, Salem, Dharmapuri, Cuddalure, Tutucorin, Villupuram & Thiruvannamalai
7	Coconut	Coimbatore, Tirupur

Clusters at Village level

Farmers Producers organization at block level

Market linkage through NCDX (Maharestra Model)

Exploring Export potential for Maize & Coconut to Malaysia

FISCAL MANAGEMENT

- Preseason Season Assessment of inputs
- Procurement of Inputs in time through by floating tenders where ever necessary
- Mobilizing the input to AEC's in time
- Encashment of bills in stipulated time
- Monitoring the Fiscal flow at district level & state level by forming special team
- Intermittent fiscal flow corrections

Benefit tracking

- Online registration of benefits
- Prioritization by the departments
- Monitoring the distribution process
- Assessing the impact
- Providing transparency in governance
- Online input billing facilitates real time information on the availability of inputs to farmers besides auto updation of beneficiary list.

Farmer enrollment

Beneficiary Form Detail

District : Trichy Block : Andhanallur Village : Thirupparaithurai
Scheme Name : Special package for Delta Districts Component Name : Community Nursery
Farmer Id : and01067-Chinnayan
Farmer Name : Chinnayan
Father/Husband Name : Kanaralan
Address : 4/252 Ambethgar Theru, Thirupparaithurai
Community : Backward

Scheme Help

Fertilizer Machine : Community Nursery Quantity : 1 Amount(Rs) : 9500
Subsidy(Rs) : 9500 Contribution(Rs) : 0
Estimated Date : 14-09-2012
Distribution Date : 12-09-2014
Expected Benefits : Increase in farm income
Received Benefits : High income



Photograph 1 :



Photograph 2 :



Photograph 3 :

Seed Plan

Mt

Sl No	Crop	Supply plan	Distributed	Stock on hand	Expected procurement	Total Supply	Rabi Supply Plan
1	Paddy	12730	6361	16165	2300	24826	22280
2	Millets	3429	338	651	2456	3445	4792
3	Pulses	1650	280	1344	50	1674	5214
4	Oil Seeds	9366	535	1266	7910	9711	7420
5	Cotton	300	17	38	250	305	225

Mitigate - Crisis Period demand - proposed to produce 20 % of seeds in neighboring states - national & State Seed Corporations and TNAU

Green Manure

- 2012-13 – Distributed 1060 Mt
- 2013-14 – Under SMS Procurement & Distribution 250 Mt
- State Seed Farms production 491 ac -95 Mt

New Rice

- Alternate to BPT 5204 with ADT(R) 49 & CO(R)49
- Green Super Rice
 - Scientific evaluation by TNAU
 - Multi location on farm Trials by Dept

POLICY ON BIOFERTILIZERS & M.N.MIXTURE

- Biofertilizer Production Units : 15 nos – 3850 Mt
- Recommendation - usage of Biofertilizers : to cover 10 % area
- % of area covered by production and distribution of Biofertilizers during 2012-13 :12 %
- **New Initiative Launched:**
- Liquid based Biofertilizers by Tangential Flow Filtration system in five Centers – Cuddalore, Thanjavur, Pudukkottai, Salem and Ramnad & Production commence from Dec'13.
- The Liquid Biofertilizers produced, in excess can be given to sister Department.

M.N. Mixture

- Current capacity 1600mt. Can be increased to 2600mt/year by shift mentod
- Modernization of Kudumian malai unit in progress.

Status of FCMS

1. Total Number of Farm families	81.92 lakhs
• Farmer data registered	46.60 lakhs
• Incremental in a month	7.50 Lakhs
• Average entry per day	25000 Nos.
2. Total Soil Samples collected	
• Acknowledged in the Lab through Portal	21.45 lakhs
3. Total Soil samples analyzed	
• Results uploaded in the portal	8.31 lakhs
4. Crop plans developed	6122 Nos.
5. Voice advisory given to the farmers	45.5 Lakhs
6. Text advisory given to the farmers	18.3 lakhs

Timeline -Form 1 entry

- District which covered <60% should reach 75%-15.10.2013
- < 60 % Districts - Dindigul, Kancheepuram, Kanyakumari, Madurai, Nagapattinam, Permabalur, Pudukottai, Ramnad, Salem, Thanjavur, Thirunelveli, Thiruvallur, Thiruvannamalai , Vellore, Villupuram, Virudhunagar and Trichy
- Districts >70% should complete 100% - 15.10.2013
- >70% Districts - Ariyalur, Coimbatore, Cuddalore, Dharmapuri, Erode, Karur, Krishnagiri, Namakkal, Sivagangai, Theni, Thiruvarur, Thoothukudi and Tiruppur
- 100% should be completed in all the districts by 31.10.2013

Status of FIHB

- Distributed :22Lakhs
- Available on hand & to be distributed(Printed) :23.2 Lakhs
- Here after farmer data will be printed in FIHB through computer and distributed before 15th December 2013.
- The 46.60 lakhs form 1 data already uploaded in the server has been extracted and given to the districts for cleansing(Oct10th)
- 52 lakhs sample collected - reconciled with the Form1 data registered (Oct2013)
- Already analyzed 34 lakhs data will be matched to the form 1 details available and uploaded – (Nov15th 2013)

GIS Mapping

- Issue of FIHB in three year programme since 2011
- Soil samples collected : 52 lakhs
- Samples analyzed : 34 Lakhs
- FIHB issued : 22 lakhs

Man Power Assistance

- Junior Research fellow :176 Nos
- Data entry operator :92 Nos
- Lab assistants :90 Nos
- Rs.22.48 lakhs allotted to TNAU - GIS mapping.
- Initially programmed Kudavasal, Periyanaickenpalayam blocks and all the blocks of Sale
- Field maps, Farmer Data & Soil test results furnished to TNAU.
- GIS mapping is done by NRM - TNAU

INTEGRATED FARMING SYSTEM

- District level seminar - 23.7.13
(HOD & Field functionaries participated)
- Block Level Officials Training - 26.7.13
(Tindivanam KVK)
- Brain Storming Secession - 31.7.13
(selected farmers)
- District level Committee formed -16.8.13
- 12 Nodal officers appointed.
- PRA would be conducted on 1st fort night of Oct13
(NGO-ATMA funds)
- Gap funding will arrived after PRA

CES - 2013-2014

Unit : Nos

Crop	Kharif	Rabi	Total
Paddy - K/ K / S (*)			428
Paddy - Samba			1260
Paddy - N / K (**)			300
Paddy - Total			1988
Cholam -	300	300	600
Cumbu	240	150	390
Ragi	160	200	360
Maize	256	172	428
Varagu	112		112
Samai	100		100

(*) K / K / S - Kar / Kuruvai / Sornavari

(**) N / K - Navarai / Kodai

CES-2013-2014 (contd)

Unit : Nos

Crop	Kharif	Rabi	Total
Redgram		336	336
Blackgram	44	312	356
Greengram	56	308	364
Horsegram		188	188
Groundnut	700	460	1160
Gingelly	196	220	416
Sunflower	60	164	224
Cotton	564	246	810
Sugarcane	468		468
TOTAL	3256	3056	8300

CES - Uploading Data

- ✓ Uploading through Yield Monitoring Module in the Agrisnet (www.tnagrisnet.tn.gov.in)
- DISTRICTWISE ENTRY: Cropwise - Plotwise Random Nos.
- BLOCK LEVEL ENTRY:
 - Fasali Year, Village Name, Survey No.(upto sub-division), Name of Cultivator, Crop / Season, Type of Irrigation
 - Variety / DoS & DoP
 - Pre-assigned details (the assigned officers should monitor the experiments from plot selection to harvest)
 - Submission of Form 1 , Form 2 & Form 3
 - Plot Yield / Hectare Yield
 - (inclusive of Wet and Dry weights)yield in terms of rice also

Training & Technology Transfer (3T)

AO/DY.AO

WEEK I

REVENUE
NO 1

REVENUE
NO 2

REVENUE
NO 3

REVENUE
NO 4

AAO

**8 REVENUE
VILLAGE**

WEEK II

REVENUE
NO 5

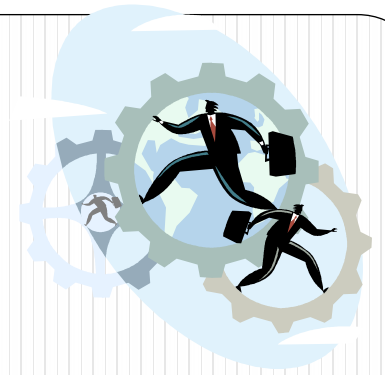
REVENUE
NO 6

REVENUE
NO 7

REVENUE
NO 8



3 T



- ❖ **Aims at providing professional extension service that is capable of assisting farmers in raising production and income.**
- ❖ **It was adopted successfully in Tamilnadu during 1980's**
- ❖ **It helps in Creation of a dynamic link between farmer - extension professionals - researchers.**



Professionalism & Single line of Command

**Appropriate advice to increase the income of the farmer by
By extending scientific developments and research.**

**Extension worker is fully trained and continuously trained to
handle his responsibilities**

- **Extension service is under single line of technical and
administrative command**
- **Knowledge transfer from Research institute**

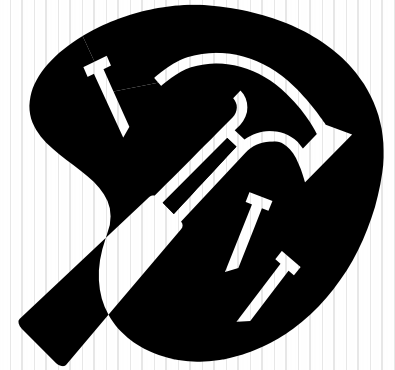


Time bound work



- **Messages and skills must be taught to farmers in regular and timely fashion**
- **The AAO must visit his farmers regularly once in fortnight**
- **All other extension staff will visits fields timely and regularly as required.**

Field and Farmer Orientation



- **Contact must be on a regular basis and known to farmers.**
- **All extension other staff should spend their large part of their time in farmers field.**
- **District extension officers should visit farmers field regularly.**

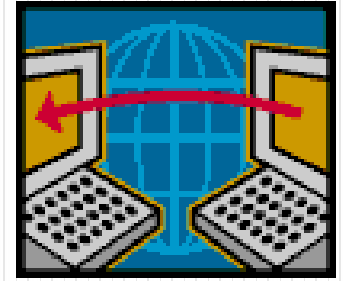


Regular and continuous training

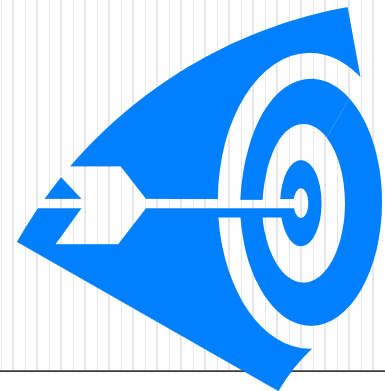


- **Regular and continuous training to extension workers to teach and discuss recommendations required by farmers for forthcoming fortnight**
- **Bringing farmers problems to the attention of researchers and immediate relevance to farmers fit to local conditions**

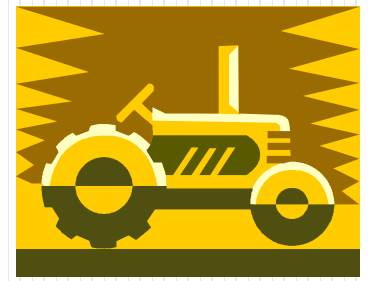
Linkage with Research



- **Effective two-way linkage with research**
- **Seasonal and monthly workshop and joint field trips of research and extension staff to solve field problems.**
- **Research's awareness to actual problems increased through responding problems forwarded by AO/Dy.Ao/AAO and field visits**



AO / Dy.AO



**Guide and help
AAO'S in his
jurisdiction**

**Spend 8 days in a
fortnight with AAO's**

**Confirm that
farmers are
receiving
technologies**

**Check contact
farmers are selected
as per guidelines**

AAO

**Grass root level
worker of T&V
System**

**Creating awareness
on new technologies**



**Teaching and
Demonstrating of
new Technologies**

**Responsible for
Holistic
development of
Agrl. In the village**

AAO

Spend more time in farmers field

Encouraging contact farmers to spread practices to other farmers



All contact farmers should adopted with new practices

Each village should be visited by each fortnight

Farm Ponds

- **Excavation under MGNREGS**
- **Farm ponds to save rainwater runoff & surface water to improve the ground water table.
Helps irrigation at critical crop stage
Increases the cropping efficiency**

	Target	Farmers identified
Delta Districts	15,000	22042
Non-delta districts	50,000	36135

- **Identification completed**
5 Delta Districts + 10 Non delta Districts
Other districts will be completed by 30.9.2013.

Officers Quarters

- Proposal Sent – PART 1 Schemes (in lakhs)

- Districts-

● Namakkal	27.35
● Madurai	151.00
● Vellure	240.70
● Erode	50.02
● Theni	44.10
● Thiruvallure	5.61
● Sivagangai	68.45
● Total	721.13

AEC Repair (in lakhs)

- Districts

● Virudhunagar		1.00
● Madurai		7.00
● Ariyalur		4.60
● Dharmapuri	4.85	
● Coimbatore	7.75	
● Tanjore		6.00
● Karur		5.00
● Namakkal		3.28
● Erode		7.15
● Kanchipuram		3.85
● Thiruvallure	7.50	
● Cuddalore		3.00
● Vellure		5.00
● Total		65.98 (Funds Released)

Proposal for 4 Crores is to be submitted

Thank You

