

**OPERATIONAL GUIDE LINE FOR IMPLEMENTATION OF
INTEGRATED COTTON DEVELOPMENT PROGRAMME (I.C.D.P.) UNDER
MM-II OF TECHNOLOGY MISSION ON COTTON
DURING THE YEAR 2008.09**

Integrated Cotton Development Programme (ICDP), a centrally sponsored scheme of Technology Mission on Cotton (TMC) was launched during February 2000. The objectives of ICDP under MM-II of TMC are to increase Cotton production, productivity and improvement of cotton fiber quality in order to meet domestic and export demands of the country. This will also help in the reduction of cost of cultivation by way of reduced pesticide consumption for enhancing competitiveness in the international market. In order to meet the growing requirement of spinning / textile mills of the state much emphasis is being given to increase the area and productivity through seed intervention and technology transfer. The following guidelines should be strictly followed while implementing different components of the scheme.

1. Plant Protection

1.1. Farmers' Field School (FFS)

It is a season long programme to impart training to the farmers for one day every week through out the season on various aspects of cotton production and production technology.

The F.F.S. is fully field oriented, participatory and discovery based i.e. "learning by doing". The learning place of F.F.S. is the crop field. Integrated crop Management (ICM) is the major aim of the F.F.S., which includes

- a) Integrated Nutrient Management
- b) Integrated Pest Management
- c) Better agronomic practice
- d) Farm Mechanization.

Principles

- a) Grow a variety / hybrid which has a high yield potential, adaptive to local agro climatic conditions and is of long staple length (i.e.>30 mm.)
- b) Adopt better agronomic practices like deep summer ploughing, line sowing, optimum spacing, timely intercultural practices etc.
- c) Conserve natural enemies.
- d) Conduct regular field observation.
- e) Making farmers ICM experts.

The programme is being conducted in the field from seed to seed, so that the participants can observe and analyze the dynamics of crop ecology through out the crop season. Group field observation will be done weekly.

Characteristics Of F.F.S.

Trainees: - 30 farmers from a particular village will participate as trainees.

Criteria for selection of trainees should be as follows.

- a) Must be a cotton cultivator growing the desired hybrid/variety.
- b) He should be energetic, physically fit and should be less than 45 years old preferably.
- c) Farmers should be interested in learning ICM, willing to attend the FFS regularly.

- d) Farmer should be literate
- e) SF/MF/SC/ST and Women farmer should be given preference.

Demonstration plot

- a) 2 Ac. of crop field should be selected. The field should belong to one of the participant trainees.
- b) It should be easily accessible.
- c) Land having facility for critical irrigation should be preferred.
- d) Critical inputs will be supplied out of the allocation under FFS.

Facilitator

The FFS will be conducted under two modes i.e. General Mode and F to FFS mode. Under the general mode FFS will be facilitated by two technically competent facilitators. Scientists from OUAT / Officers of respective district who had undergone Training of Facilitator (ToF) during 2006-07 & 2007-08 at Bolangir and Ganjam /SMS (Cotton) / Agronomist / Plant Protection Officer / AAO / JAO available with DDA/ DAO/ ADAO and SMS (Cotton) will be selected to work as facilitators. The DDAs of respective ranges will nominate the above officers for the job. The Technical competence is important for IPM skill building i.e. pest and natural enemy identification.. The second mode of FFS will be run by Farmer- Facilitators. Out of 150 nos of FFS, 70 nos of FFS will be run by farmer facilitators. The facilitator farmer's eligibility is as follows.

- a. Farmers trained under FFS during previous years be selected for the purpose. Farmers selected last year for the purpose should not be reselected.
- b. His educational qualification should be at least 10th Class.
- c. He should be between 35 to 45 years of age.
- d. He should be physically alert, energetic having a pleasing /personality.
- e. He should have the motive to learn, acquire and adopt new technology capacity to motivate fellow farmers.
- f. He should not be an active worker of any political party.

The farmers selected under the component will undergo five days orientation training at IMAGE, Bhubaneswar before commencement of FFS. They will be trained by experts drawn from the OUAT / KVKs / AICCIP / State Department of Agriculture. Provision of training of the farmer facilitator will be met out of the financial provision of FFS.

Honorarium of Farmer facilitators shall not be paid directly to them, but will be utilized for their capacity building and training. However, in order to motivate them for taking up technical sessions in the field, they will also be selected as scouts under the

component “ Surveillance and monitoring of diseases and pests” and be engaged for five months on usual payment as per the norm.

Duration:

The FFS lasts for a full crop season covering seed to seed so that the participants can observe and analyze the dynamics of cotton field ecology across the season. There will be 20 training sessions during the period. The first 16 sessions will be weekly and the last 4 sessions will be fortnightly. The time schedule and topics to be covered in each session are as follows: -

Time of Training	Duration	Subject to be dealt
a) June 15 th to July 15th	4 sessions (Weekly)	Soil testing, Land preparation, Variety selection, seed treatment, Line sowing and INM
b) July 15 th to Aug. 15th	-do-	Inter cultural practices, IRM based IPM, Water and Weed management
c) Aug. 15 th to Sept. 15th	-do-	INM and IPM).
d) Sept. 15 th to Oct. 15th	-do-	-do-
e) Oct 15 th to Dec. 15th	4 sessions (Fortnight interval)	Post harvest technology & Fibre - quality management.

Method and Approach

- a. Before the start of FFS, a benchmark survey of the entire village including that of the 30 participants shall be conducted to know the detail status of cotton crop grown in that village which includes the area coverage, variety/ hybrid grown, fertilizer and pesticide use, productivity level etc.
- b. A crop calendar for cotton for the village including the demonstration plot should be made after discussing with the farmers.
- c. Proliferation of variety / hybrid should be avoided in the FFS village.
- d. Soil testing of the cotton fields including the demonstration plot should be made and fertilizer application should be made accordingly.
- e. On the beginning of the training session all the trainees should be grouped into four groups and the groups should be maintained till harvest.
- f. The FFS will have a gathering place close to FFS field, where the farmers will be able to gather, make drawings on their field observation, discuss and make presentation etc.
- g. Each session of FFS will last for 4 -5 hours and shall run in the morning hours only.
- h. Towards the end of the FFS session a field day shall be conducted where the trainee farmers themselves will use the study plots to explain the ICM on cotton. Other farmers of FFS village, local leaders may be asked to attend the field day. The FFS should have a minimum amount of lecture. Most concept and skills are taught through interaction.
- i. At the end of the FFS an evaluation study on the FFS based on the benchmark study shall be made and reported.

Financial Break Up:

I) FFS under General Mode :

1) Honorarium for two facilitators @ Rs. 75.00 per session per facilitator for 20 sessions.		Rs. 3000.00
2). FFS training materials		
a) Approx. Input cost for two Ac. demonstration plot		
i) Chemical fertiliser, 80:40:40kg of NPK per ha. Fertiliser application should be on the basis of soil test report)	Rs. 1750.00	
ii) Bio-Fertilizer (Azotobactor- 2kg, per ac. or Azospirillum- 2kg, per ac.+ Phosphorus solubilising Microbe (PSM) 2kg per ac.)	Rs. 320.00	
iii) Bio-pesticide (Azadirachtin 1500 PPM @ 1 lt. Per demon.)	Rs. 160.00	
iv) Pheromone Trap @ 10 traps per ha.	Rs. 300.00	
v) Bio agent (HNPV) @ 500 LE per ha.	Rs. 700.00	
vi) Arhar seed for intercropping	<u>Rs. 60.00</u>	
Total	Rs. 3290.00	
	or	
	Rs. 3300.00	
b) Training materials i.e. Writing pad & pen	Rs. 700.00	Rs. 4000.00
3. Tea/snacks for trainees & trainers @ Rs. 10 per participants per session – for 20 sessions.		Rs. 6000.00
4. Field day and Misc. Expdt. (Tea snacks for 50 farmers @ Rs. 10 per farmer) Construction of concrete sign Board, POL and others including documentation, & Photograph.		Rs. 4000.00
	Total	Rs. 17,000.00

NB: 1) The cost of inputs given at point 2(a & b) is indicative and can be interchanged keeping total allocation under the head constant.

2) The chemical fertilizer for the demonstration should be purchased from local OAIC Ltd / MARKFED and Arhar seeds from the Departmental Sale centres . Supply order of other Components like Bio-fertiliser, Pheromonetraps and Bio agents are to be issued by the concerned SMS(Cotton) to the firms approved by SLPC.

Dist. wise Physical breakup of FFS & F to FFS

	Normal	FFS	F to FFS
Kalahandi		19	19
Nuapada		4	2
Rayagada		18	19
Koraput		2	1
Bolangir		19	19
Ganjam		9	5
Gajapati		9	5
TOTAL		80	70

COST STRUCTURE FOR ORIENTATION TRAINING OF FARMER FACILITATORS DURING 2008-09

1.	Training aid @ Rs.100/- per farmer for 140 farmers	Rs.14, 000.00
2	Fooding (Two meals and Two Tiffin's per day) & accommodation @ Rs.130/- per farmer per day for five days for 140 farmers	Rs.91, 000.00
3	Daily Allowance @ Rs.50/- per farmer per day for five days for 140 farmers	Rs.35, 000.00
4	Honorarium to Resource persons @ Rs.200/- per class for 18 classes for training batch for four such batches	Rs.14, 400.00
5	To and fro conveyance as per actual fare in ordinary express bus but limited to Rs.350/- per person for 140 persons	Rs.49, 000.00
6.	Miscellaneous expenses	Rs.6, 600.00
	TOTAL	Rs.2, 10,000.00

1.2 Season Long Training Of Facilitators (ToF)

Aim: -

1. It is a season long training of 120 days with 2-3 small breaks. The prime objective of this training is to create a resource group of master trainers from the departmental field Officers.
- 2) To promote cooperation for cotton IPM among Government , Agril. University, KVKs and NGOs working for rural development
- 3) To build up participants' confidence for carrying out scientific studies and to develop skills to discover scientific concepts through experimentation.
- 4) To develop skills in organizing and facilitating full season FFS.

Methodology of ToF

1. Participatory
2. Field oriented
3. Need based
4. Recovery based
5. Learning by doing.

Characteristics:**Facilitators (Master trainer):**

Two numbers of ToF are proposed to be conducted during 2008-09, one each at RITE, Bolangir and RITE, Rangeilunda, Berhampur. 6 facilitators (Master Trainers) will be required for organizing each TOF. They will be selected out of the officers who have undergone TOF training at Srirampur of Maharashtra during 2005-06, at RITE, Bolangir during 2006-07 and 2007-08, and at RITE, Rangeilunda, Berhampur during 2007-08.

Trainees:

30 trainees are to be selected for the training for each TOF from the Agriculture Deptt., NGOs, KVKs and cooperatives. The tentative breakup of the trainees will be as follows;

Category of officers	Kalahandi	Koraput	Bolangir	Ganjam
SMS	3	3	3	3
AAO/JAO	6	4	6	4
AO/VAW	6	4	6	4
NGO	2	1	1	-
KVK/OUAT	4 (Dean Research OUAT to suggest name)			

Technical co-coordinator: The respective Range Deputy Director of Agriculture/ Principal, RITE will act as the technical coordinator of the training programme.

Demonstration plot

1. A 2 ha. Crop field should be selected.
2. It must have assured source of irrigation
3. It should be easily accessible having a road.

Duration

It will start from the month of July and will continue up to November with 2 to 3 short breaks

A total of 120 working days will be devoted for the training leaving aside the small breaks.

Module and method of approach.

The six facilitators (master trainers) of the TOF will meet prior to commencement of TOF and will work out the module and method of approach basing on the local field conditions, requirement and experience of Srirampur/ Bolangir TOF. Such meetings of Master trainers will be convened by the Technical coordinator and the module prepared by them will be sent to the DA&FP (O) for approval.

Selection of Trainees and Trainers.

The detail bio-data of 12 Master Trainers and trainees selected will be sent by the concerned DDA to the Directorate for final approval.

Accommodation:

As it is fully residential training programme, accommodation is to be arranged by the technical coordinator for the trainees and master trainers.

Financial break up

<i>Sl. No</i>	<i>Item</i>	<i>Amount in Rs.</i>
1	Honorarium for technical coordinator @ Rs. 250 x 1 x 120 days	30000
2	Honorarium for 6 facilitators @ Rs.150 x 6 x 120 days	108000
3	Packet allowance for trainees @ Rs. 50 x 30 x 120 days	180000
4	Payment for supporting staff @ Rs 80 x 2 x 120 days	19200
5	Hostel charges @ Rs. 40 x 30 x 120 days days	144000
6	Field charges – 2 ha. @ Rs. 15000 x 2	30000
7	Food arrangement for 40 persons including trainers and supporting staff @ Rs.75 x 40 persons x 120 days	360000
8	POL, hiring and minor repairing charges	50000
9	Training materials	20000
10	Honorarium to guest for special topics @ 400 x 20	8000
11	Field orientation programs @ 15000 x 2	30000
12	Study tour for trainees	8000
13	Miscellaneous expenditure	12800
	TOTAL	10,00,000

Funds for the purpose will be placed with Range DDA/ Principal, RITE of the district where the TOF will be conducted.

1.3 Surveillance & Monitoring of diseases and pests.

Cotton crop is severely affected by a number of diseases and pests. Indiscriminate use of chemicals is harmful to both the crop and environment. The detection of pest and diseases for their management at threshold level is of paramount importance for reducing crop losses. Hence surveillance and monitoring are most important aspects of pest management. On the basis of such surveillance pest built up is studied and chemical control is only applied at the time of need.

- (a) For field purpose scouts will be engaged for surveillance of pest and diseases. On the basis of such surveillance, pest and diseases will be monitored and steps, will be taken to manage the pest and diseases when their population exceeds ETL,
- (b) The number of scouts to be selected will be limited to 40 for each of 7 Cotton growing districts of Bolangir, Kalahandi, Nuapada, Rayagada, Koraput, Ganjam & Gajapati. The SMS (Cotton) however may deviate this number in consultation with the concerned DDAs to select such number of scouts per district proportionate to the Cotton area achievement within the area of his jurisdiction but subject to the maximum numbers allotted to him.
- (c) IPM trained knowledgeable cotton farmers well versed in cotton cultivation and preferably exposed to cotton crops of out side state should be selected. Due emphasis will be given for ST/SC and SF/MF & women while selecting these scouts.
- (d) Scouts should preferably be selected from the villages where large area of cotton is grown. For selection of scouts a meeting of cotton growers to be conducted. The farmers would select the scouts in the said meeting in the presence of the SMS (Cotton) / AAO /JAO. A resolution to this effect will be made. The resolution and list of scouts should be sent to this Directorate by 1.8.2008.
- (e) Scouts engaged in previous years should preferably not be selected during 2008-09.
- (f) Each scout will be provided with a diary /notebook where he will maintain date wise following information:-
 - (I) Date of visit-
 - (ii) Day of visit-
 - (iii) Place of visit-
 - (iv) Name of the farmer's contacted-
 - (v) Stage of the crop-
 - (vi) Major operation in the field –

Details of observations in the prescribed proforma (Annexure-I).

The scouts should work at weekly intervals on a random sample of 20 plants per acre in the early stage of the crop.

- (g) Area of operation of each scout will be notified. A copy of same should be available with SMS (Cotton) and local AAO / JAO.
- (h) Each scout will give a weekly surveillance report on pest and diseases to concerned SMS through AAO / JAO in the prescribed proforma. Oriya leaflet on Cotton cultivation and IPM on cotton should be supplied to each scout.
- (i) Each farmer scout will be given an honorarium of Rs. 500.00 per month commencing from the month of July 2008 to November 2008.
- (j) SMS (Cotton) after satisfying himself about the work of the scout will disburse the honorarium to the scout on monthly basis. Before disbursement verification of diary and receipt of weekly surveillance report be ensured. Besides the local AAO / JAO will give a certificate for payment of honorarium as per the following proforma.

Proforma of certificate.

Certified that I have verified the work of Sri.....of village.of GP.....who has been engaged as a scout for surveillance of pest and diseases in an area of.....hect. Under ICDP (Cotton). I have conducted.....no. of surprise visits for the purpose during(month). I have also verified his daily diary. I recommend to pay Rs.500/- towards honorarium for the month of

Signature of AAO / JAO
with seal.

1.4 Distribution of Pheromone traps.

Pheromone trap is one of the key components of cotton IPM and is mostly utilized for monitoring the pest population so that timely action are taken.

- (a) Assistance will be provided to farmers @ 50% of the cost limited to Rs.300/- per hect.
- (b) 10 Pheromone traps per hect. will be supplied out of which 5 shall be for monitoring Helicoverpa and 5 for Spodoptera with 3 lure per each trap.
- (c) Pheromone trap will be installed at 45 DAS and lure of each trap will be changed at 15 days interval.
- (d) The pheromone traps and lures will be purchased as per the recommendation of the SLPC.
- (e) The supplying agencies will supply pheromone traps to the concerned SMS (Cotton) who in turn will make it available to the farmers at subsidized rate through Departmental sale centers after receiving permit from AAO / JAOs. **The concerned range DDAs will facilitate sale of inputs through the Departmental sale centres & ensure collection and deposit of farmers' share within a week of sale.**
- (f) The farmers' share will be remitted to the supplying agencies by the SMS (Cotton) immediately after sale.
- (g) A certificate to the effect of farmer's share payment to the concerned supplying agencies will be given on the body of the bill.

1.5 Supply of Bio-agents.

Release of bio control agents, parasitoids during 35-65 days after sowing to manage white fly population, release of chrysoperla Predator at 30-60 days to control nymph and adult population and release of boll worm parasitoids, Trichogramma, Trichoderma and microbial insecticides such as HaNPV and Btk for the management of eggs are beneficial to pest prone crop like Cotton. Apart from this, use of bio pesticides like Neem oil, Neemderivatives, Sesamum oil, Karanj oil has proved effective against American bollworms. To acquaint the cultivators with the bio agents, assistance will be provided @ 50% of the cost limited to Rs. 900/- per ha. Bio agents like NPV; Btk along with Neem formulation will be supplied under this component. Selections of brands will be as per the

recommendation of the SLPC. The procedure for sale, collection & deposit of farmers' share will be as described under Pheromone traps.

1.6: Distribution of P.P. Equipments: (MO & P.O. Sprayer)

- a) The Plant protection equipments are to be supplied either by OAIC / Manufacturers or Suppliers on the basis of SLTC's decision.
- b) Assistance of 50% of the cost limited to Rs. 800/- and Rs. 2000/- will be provided on purchase of MO sprayer and PO Sprayer respectively.
- c) The State Level Technical Committee will approve the cost of different make of PP equipments and subsidy will be admissible only on SLTC approved cost of different makes and models.
- d) Selected beneficiary must be a Cotton Farmer.
- e) The make and the model of the PP equipment will be as per farmer's choice out of the approved list.
- f) The farmer should apply to the SMS (Cotton) in prescribed application form (Annexure-II) through the JAO/ AAO concerned in order to get subsidy. The permit number and date issued to the farmer to avail subsidy should be mentioned on the top of the application form for official record.
- g) The Farmer who availed subsidy on the sprayer in the previous year should not be re-entertained.
- h) The supplying Agency will supply the sprayers to the farmers or utilizing the departmental sales center after receiving permit and farmer's share & claim subsidy from the SMS (Cotton). The supplying agencies may also supply sprayers to the concerned SMS (Cotton) who in turn will sell it to the farmers at subsidized rate through Departmental sale centers after receiving permit from AAO / JAOs. **The concerned range DDAs will facilitate sale of inputs through the Departmental sale centers & ensure collection and deposit of farmers' share within a week of sale.**
- i) The AAO/ JAO will maintain the list of beneficiaries with their address and other details in a separate Register and submit the same to the SMS (Cotton) at the end of the season.

2. Supply of water saving devices (Sprinkler set).

In order to enhance cotton area under irrigation and to improve water use efficiency assistance will be provided to the farmers for installation of sprinkler irrigation system in farmers' field .The procedure for administering subsidy and implementation of this component is as follows:

- (a) Assistance available under this component will be 33% of the cost limited to Rs.10,000/- per set for general category farmers and 50% of the cost limited to Rs.15,000/- per set for ST/SC/SF/MF/Women farmers.
- (b) The sprinklers of only BIS mark as approved by the SLTC will be supplied to the farmers by the supplying agencies.
- (c) The farmer is free to make his own choice of make, model, size and brand out of the approved brands.
The farmer will apply to the SMS (Cotton) in the prescribed application form and deposit the required farmers' share in his office.
- (d) The SMS (Cotton) will place orders to the concerned supplier on the basis of application and farmers share for supply and installation.

- (e) The supplier on receiving the order shall supply and install the system in the Farmers' field.
- (f) The installation will be verified by the /person authorized by him; on getting the farmers satisfaction certificate, installation certificate by AAO/JAO/VAW, performance and quality certificate by A.A.E. concerned, challans and bills, the SMS (Cotton) shall draw the subsidy and release the same to the party along with farmers' share.

3. Human Resources Development

State level training of Extension workers.

- (a) ADAO/SMS/AAO/JAO/A.O/V.A.W of cotton growing areas will be trained on latest technology on cotton.
- (b) Training assistance will be provided @ Rs.15, 000.00 per training for
- (c) 30 participants for 2 days.
- (d) Training module for extension workers will be finalized by DA&FP.
- (e) Training will be organized by IMAGE, Bhubaneswar/ RITE, Bolangir/Rangeilunda. The venue and date will be finalized by DA&FP (O) in consultation with the training organizers.
- (f) The training organizer should prepare and provide study materials to all participants.
- (g) Cost structure for each training programme is as follows.

<i>Sl. No</i>	<i>Particulars</i>	<i>Amount (Rs)</i>
(i)	Honorarium to the resource persons (10 persons@ Rs.400/-)	4000
(ii)	Training kits and material to 30 participants (@ Rs. 75/-)	2250
(iii)	Stationery / audio-visual aids field units (Vehicles to hire)	1000
(iv)	Field visit (hiring of vehicles)	1750
(v)	Refreshment (40 persons including resource persons @ Rs.50/- per meal /per person for two lunch& one dinner	6000
	TOTAL	15000

A report-indicating place of training, date of training, resource persons attended, major topics covered in the trainings is to be prepared by the training organizer soon after completion of training and submitted to DA&FP, Orissa.

4.1 Front Line Demonstration (FLD) on IPM technology-

In order to popularize location specific IPM modules, FLD on IPM technology will be implemented. This component will be implemented in a whole village in 50 ha area. This project will be implemented through NGOs operating in the area having experience in agriculture extension and technical manpower. In case they do not have the required technical manpower, the services of the SMS (Cotton), PPOs available with DDA/DAO/ADAO and scientists of OUAT may be utilized. In the IPM demonstration villages training will be imparted to 30 farmers in each IPM demonstration for 20 weeks in the same way as FFS. There is a provision for supply of critical inputs to all the farmers of the 50 ha. area. (If in any district 50 Ha. Continuous/contiguous patch is not available; this can be taken up in a smaller area on prorata basis but not in smaller patch than 10 Ha.)

Financial break up- (Approx.)**(a) Input cost**

(i) Neem derivatives 1500 PPM @ 1 lt. Per ha. Rs. 160.00 - per litre	-Rs. 160.00
(ii) Btk @ 500 gm per ha. @ Rs.300/- per 500 gm.	-Rs. 300.00
(iii) Planofix @ 300 ml. Per ha. @ Rs.35/- per 100 ml.-for two sprays	-Rs. 105.00
(iv) 2% DAP spray	-Rs. 97.00
(iv) 2% Urea spray	-Rs. 50.00
Total: -	Rs. 712.00
(b) Pheromone trap for monitoring Helicoverpa & Spodoptera 10 traps & 30 lures per ha..	- Rs. 370.00
(c) HaNPV -500 LE/ha-	-
	Rs. 700.00
Total -	Rs.1782 .00
(d) IPM Kits for 30 farmers (Rs. 193/- per kit)	Rs. 5790.00
Total input cost per FLD. (Limited to)	- Rs. 88000.00
POL for hiring of vehicles for monitoring & surveillance	- Rs. 7000.00
Post harvest management	-Rs. 2000.00
Literature/Pamphlet/ display material	-Rs. 3000.00
	GRAND TOTAL- Rs. 1,00,000.00

NB: - The inputs like Bio pesticides, Pheromone traps and Bio agents will be Purchased as per the recommendation of the State Level purchase committee (SLPC). While monitoring the programme the selection of NGO should be made with the approval of the Collector of the district. SMS (Cotton) Kalahandi, Bolangir, Rayagada and Berhampur shall monitor implementation of the programme through the NGO.

General Instructions for FLDs (Implement & IPM)

- (i) FLDs should be conducted under the supervision of Scientists/Subject Matter Specialists.
- (ii) It is expected that the concerned officers / Scientists will inspect and monitor various crucial aspects of the FLDs. All necessary assistance should be extended to facilitate such inspection and the inspection reports should be submitted to the Directorate.
- (iii) Bench mark Survey has to be conducted before taking up the trial, which will include informations on the crops and cropping system of the area including inter cropping. The average yield levels of cotton and the local practices adopted in terms of irrigation, use of fertilizer, plant protections etc. are to be collected. Information on the cost of cultivation may also be collected for the area as a whole. An impact analysis after the harvest may be carried out in the light of reduction in pesticides use, reduction in cost of cultivations, awareness in modern technology etc. Analysis of the yield levels in the control plots along with the earlier production levels should also be carried out.

District wise Physical breakup of FLD on IPM Technology

Sl No	Name of the District	Nos to be conducted
1	Kalahandi	6
2	Nuapada	2
3	Rayagada	5
4	Koraput	1
5	Bolangir	6
6	Ganjam	1
7	Gajapati	1
	TOTAL	22

4.2 FLD ON PRODUCTION TECHNOLOGY

FLD on production technology will be conducted for transfer of modern / improved cotton production technology to the farmers.

b) Demonstration of integrated nutrient management, use of Bio fertilizer, Bio pesticide, water management, intercropping are very useful for the farmers to increase the yield and reduce the production cost significantly.

e) It is also a feed back for the cotton scientist from the farmers and also helps in rapid spreading of technology.

f) For conducting FLD on production technology the concerned SMS (cotton) will function as nodal officer.

g) The cost of FLD on production technology is Rs. 2000/- per Ac. out of which Rs. 1400/- will be used for essential inputs for demonstration and the rest Rs. 600/- will be utilized for POL , hiring of vehicles, Kisan Melas and printed materials , and demonstration boards etc.

FINANAICIAL BREAK UP OF FLD ON PRODUCTION TECHNOLOGY FOR ONE AC.

1) Seed Cost (to be borne by the farmers)	
2) Fertilizer (80:40:40) application should on the . basis of soil test report) limited up to Rs.700.00	Rs. 700.00
3) Bio Fertiliser (4 kg per Acre @ 2kg each of Azotobacter &PSM)	Rs. 160.00
4) Bio pesticide, Aza diractin 1500 PPM/500ml. /Acre.	Rs. 80.00
5) Pheromonetrap and lures	Rs. 150.00
6) Bio Agent (HNPV) 200 LE	Rs. 280.00
7) Arhar seed for intercropping	Rs. 40.00
Total	Rs.1410.00 or say Rs.1400.00
8) POL hiring of vehicles, Kisan Mela /printed materials / demonstration board.	Rs. 600.00

TOTAL Rs.2000.00

The cost of the inputs are indicative. The SMS (Cotton) can make slight interchange if required. But the total input cost should be limited to Rs.1400/- per demonstration.

**District wise physical break up of FLD on
Production Technology**

Sl No	Name of the District	Acres to be conducted
1	Kalahandi	560
2	Nuapada	40
3	Rayagada	490
4	Koraput	60
5	Bolangir	600
6	Ganjam	150
7	Gajapati	100
	TOTAL	2000

5. Other Components

5.1 Contingencies

A) Exposure visit within the state.

Cotton is mainly grown in seven districts namely I) Bolangir ii) Kalahandi iii) Nuapada iv) Rayagada v) Koraput vi) Ganjam and vii) Gajapati with great diversity in farming practices . For example the farmers of Kalahandi and Bolangir adopt IPM practices scrupulously but the Rayagada farmers are oblivious to IPM practice and use pesticide indiscriminately. However the Rayagada farmers are ahead of other districts as far as the agronomic practices like deep summer ploughing, line sowing, weeding and other intercultural operations are concerned. Ganjam is the upcoming cotton district.

- 1) Keeping in view the above facts, exposure visit of farmers inside the state is planned as below:

<u>Name of the dist.</u>	<u>No. of visit</u>	<u>Destination of the exposure visit</u>
1. Ganjam ,	1	Kalahandi
2. Gajapati	1	Rayagada
3. Nuapada	1	Rayagada
4. Koraput	1	Bolangir
5. Kalahandi	1	Bolangir
6. Rayagada	1	Kalahandi
7. Bolangir	1	Rayagada

- The detail visit plan should be chalked out by S.M.S(Cotton) in consultation with the SMS (Cotton) of the districts to be visited.
- Farmers visiting Kalahandi must visit AICCIP, Bhawanipatna
- The exposure visit should be conducted during the month of August and Sept. when the crop is in its prime growth.
- Only cotton farmers should be selected, farmers who have already availed of the facility previously should not be selected again.
- A group shall constitute of 20 farmers and two guide officers in consultation with the concerned Rang DDAs.

7, Each farmer has to pay Rs. 10/- only towards application fees. The application fees so collected should be deposited in the Treasury as miscellaneous receipt in favour of DA&FP(O). The application form is given at Annexure – III(a)

8. A maximum amount of Rs. 750/- will be spent per farmer per visit. The financial breakup is as follows:

a. Maximum expenditure on conveyance per farmer	Rs. 350.00
b. Daily allowance @ Rs. 75/- per day for 4 days	Rs. 300.00
c. Misc. expenditure	<u>Rs.100.00</u>
Total	Rs. 750.00

9. The daily allowance to the farmer cannot be changed under any circumstances. However, interchange of expenditure on bus fare and misc. expenditure can be made with the approval of DA&FP (O)

10. Funds will be placed with SMS (Cotton) for the purpose.

11. A total amount of Rs. 1,05,000/- will be spent for seven such visits.

B) Exposure visit outside the state

20 farmers, 5 extension workers and two guide officers shall constitute one group for the exposure visit to out side the State to gather knowledge in improved scientific Cotton production Technology. Four such exposure visits shall be organised during 2008-09

(a)JDA (Information) will organise the visit. Funds will be placed with JDA(information) for the purpose.

(b) The SMSs (Cotton) will select the Cotton farmers and send the list to JDA (Inf) through concerned range DDAs.

(c) Each of the farmers selected should be in age group of 18 to 50 years.

(d) Each farmer has to pay Rs. 50/- only as application fee. The application form should be submitted in prescribed proforma as per Annexure-III (b). The amount so collected will be deposited into the treasury as misc. receipt in favour of DA& FP, Orissa.

(a) Selected farmers will have to deposit Rs. 200/- (Rupees two hundred) only towards caution money at the time of submission of application form. If the selected farmers fail to join the exposure visit, the caution money will be forfeited to Government.

(b) The farmers are required to be well informed about the visit programme and provision of funds under the programme.

(c) There will be two guide officers kept in each group. The concerned Range DDA will select one guide officer & the second guide officer will be nominated by DA&FP(O). The DA&FP(O) will send proposal to Agriculture Department for sanction of journey of these two guide officers. While sending the above proposal, details of proposed programme along with place of visit should be intimated to Agriculture Department by the concerned Range DDAs. Proposal

for sanction of their journey from the government is to be obtained by the DDA before commencement of the visit.

(d) The farmers who have been selected for outside the state exposure visits on any other scheme during previous years shall not be selected.

Cost Structure for the exposure visit (per participant): -

Sl.No.	Particulars	Amount (Rs.)
(i)	Bus fare from village to dispersal center and back	Rs. 300/-
(ii)	To and fro train fare per farmer	Rs.1000/-
(iii)	Daily allowance @ Rs. 100/- for 8 days	Rs. 800/-
(iv)	Conveyance and accommodation in the visiting state	Rs. 800/-
(v)	Local conveyance and arrangement	Rs. 100/-
	TOTAL	Rs. 3000.00

i) A total amount of Rs. 3,00,000/- will be earmarked for the purpose.

C) Expenditure on POL, Traveling allowance, Maintenance / hiring charges of vehicle, preparation & Purchase of training aids, Purchase of computers & accessories, wages of drivers where there is no driver, conveyance and accommodation of resource personnel's for training, expenses related to SALMOT including honorarium for its members etc. can be made out of contingencies. While making different purchases all formalities shall be maintained.

D) One AC is proposed to be installed in the Computer Room of DDA (Cotton) at an estimated cost of Rs.0.25 lakh.

E) Four nos. of Storage godowns for storage of Agricultural machineries at SMS (Cotton) level are proposed to be constructed at an estimated cost of Rs.75,000/- each totaling to Rs.3,00,000/-.

5.2 Electronic print media: -

Printing of Book-lets/leaflets/pamphlets etc for distribution to farmers; sponsoring of AIR/Door Darshan programmes; purchase of LCD projector, Fax machine, Xerox machine, Camcorder etc. will be taken up under this component depending upon the availability of funds to facilitate smooth monitoring and documentation of the Scheme.

The DA& FP (O) will finalize the distribution of funds under the component keeping in view the practical necessities.

5.3 New Intervention.**a) Farmers' awareness campaign on fibre quality management: -**

The quality of Orissa cotton in terms of staple length, micronaire and strength is one of the best in India but contamination at and after harvest reduces the price of seed cotton. In order to supply contamination free quality cotton to the market farmers need to be made aware about the quality management of cotton fibres. A total number of 70 such fibre quality management campaigns (one each in every block of cotton growing districts) will be undertaken at a total cost of 7.00 lakhs as new intervention. This awareness campaign shall be organized during September / October 2008.

Rs.10, 000/- will be provided for each awareness campaign as per the cost structure given below.

Sl. No.	Particulars	Amount (Rs.)
(i)	Allowance for 100 participants @ Rs.30/-	3000
(ii)	Fooding for 100 participants @ Rs.30/-	3000
(iii)	Honorarium for guest lecture @ Rs.300/-	1200
(iv)	Printed literature & training material	2000
(v)	POL & Misc	800
	Total	10000

The DDOs can increase number of training programme to double by limiting the expenditure to Rs.5000/- per campaign if needed. Local distributors, Cotton Traders, RMC and CCI should also be involved in the training and requested to co-operate.

b) Supply of weedicide

Weedicides will be supplied at 25% subsidy limiting to Rs. 250/- per hect. . A total area of 500 hect. will be covered under this component at a cost of Rs. 1.25 lakhs.

c) Farmer's Training: -

- Farmers training is an important activity for upgrading knowledge of the farmers to promote agricultural development by enlightening the farmers regarding series of skills and latest package involved in crop production.
- In each training programme 30 farmers including women farmers and farm labours will be trained for one day . The cost will be Rs. 5000/- per day for each training.
- It must be held at the beginning of the crop season.
- Working lunch should be at the cost not exceeding Rs. 50/- per farmer per day.
- The location of the training should be available near the cotton field.
- Trainers from RRTTS , KVKs and departmental Officers will impart the training.
- Oriya leaflet on “Unnata pranalire Kapa Chasa” should be supplied to the farmer trainees.
- The following course module should be followed during the training.
 - (A) Importance and methods of soil testing .
 - (B) Improved varieties / hybrids and their characteristics .
 - (C) Land preparation, seed treatment, sowing time, spacing, seed rate, plant population, intercultural practices, intercropping etc.
 - (D) Fertilizer and nutrient management, water management.
 - (E) Use of growth regulators in cotton
 - (F) Integrated pest and diseases management.
 - (G) Harvesting and post harvesting technology.
 - (H) Marketing.
 - (I) Interaction with the farmers on other aspects relating to cotton cultivation.

The concerned SMS cotton will prepare the action plan for conducting farmer's training along with the selection of the trainers . The concerned DDA will monitor this and ensure timely conducting of the training programme.

On completion of the training brief report indicating the detail aspect of the training programme should be sent to DA&FP (O).

The cost structure for organization of farmers training is detailed below.

a) working lunch @ Rs. 50/- per farmers for 30 farmers per day .	Rs. 1,500.00
b) Allowance @ Rs. 50/- per day per farmer for 30 farmers.	Rs. 1,500.00
c) Training materials for trainees @ Rs.15/- for 30 trainees	Rs. 450.00
d) Misc. Contingencies for arrangement training place ,banner ,public address System , photograph etc.	Rs. 550.00
e) Honorarium for (5 trainers)	<u>Rs. 1,000.00</u>
TOTAL	<u>Rs. 5,000.00</u>

District wise Physical breakup of farmers training

Sl No	Name of the District	Nos to be conducted
1	Kalahandi	60
2	Nuapada	7
3	Rayagada	55
4	Koraput	2
5	Bolangir	56
6	Ganjam	22
7	Gajapati	22
	TOTAL	224

GENERAL

- I) Sprinklers sets can be supplied by OAIC or approved distributors.
- II) While implementing the scheme it should be ensured that benefit should flow to the SC/ST farmers in proportion.
- III) SF/MF/Women farmers should be given preference and accommodated as far as possible.
- IV) One farmer having received benefit under one component can also be benefited out of another component.
- V) While implementing the scheme, the village approach should be preferred i.e. in few selected villages many components can be implemented so that all round development in Cotton Production of that village can be achieved.
- VI) MPR on the scheme in the prescribed format should be sent to this Directorate before 5th of every month.
- vii) The physical target under each component can be enhanced keeping the financial target intact.

Annexure-III (a)

Name of the Scheme:

Application form for participation in the Exposure visit inside the State during 2008-09.

1. Name and address of the farmer
(Name in Capital letters)
Village
Post
PS
Block
District
2. Date of Birth /Age
3. Father's name
4. Whether SC/ST/Gen
5. Total area of cultivable land
Owned by the farmer
6. Total area under the crop(s)
cultivated by the farmer
7. Area under cultivation (in ha)

	Kharif	Rabi	Total
Total area			
Irrigated area			
Highland area			
Crops grown in irrigated lands			
Crops grown in highlands			
Mixed cropping done, if any			
In high lands.			

- Strike out whichever not applicable

DECLARATION

1. Certified that the information furnished above is true to the best of my knowledge and belief.
2. I undertake to abide by the terms and conditions prescribed by the Agriculture Department as well as the instructions of the guide Officers during the whole period of visit.
3. Certified that I am medically fit to undertake the journey and free from any known chronic ailments / I shall carry the required prescriptions/ medicines as may be required for any ailment. I suffer from during the entire period of journey and I am personally responsible for the same.

Contd-

4. I further undertake to bear additional expenses, if any. Over and above the Government assistance provided to me as per; norms.
5. I have not undertaken any journey outside the state under the exposure visit / farmers' exchange programme/ any other programme sponsored by the Agriculture Department in the past.

Signature of the farmer

FOR OFFICIAL USE ONLY

CERTIFICATE

(Certificate to be given by AAO/ JAO)

I, Shri have inspected the cultivable area / land owned by the farmer and to the best of my knowledge and belief the farmer is engaged in cultivation of the crop mentioned in the application form.

Signature

Name

Seal & Designation

Countersigning remarks by DAO/ ADAO

Signature of the DAO/ ADAO

Seal.

APPROVED

Deputy Director of Agriculture (Seal)

Annexure-III (b)

Application form Participation in the Exposure visit outside the State during 2008-09.

1. Name and address of the farmer
(Name in Capital letters)
Village
Post
PS
Block
District
2. Date of Birth /Age
3. Father's name
4. Whether SC/ST/Gen
5. Total area of cultivable land
Owned by the farmer
6. Total area under the crop(s)
cultivated by the farmer
7. Area under cultivation (in ha)

	Kharif	Rabi	Total
--	--------	------	-------

Total area
Irrigated area
Highland area
Crops grown in irrigated lands
Crops grown in highlands
Mixed cropping done, if any
in high lands.

-
- Strike out whichever not applicable

DECLARATION

1. Certified that the information furnished above is true to the best of my knowledge and belief.
2. I undertake to abide by the terms and conditions prescribed by the Agriculture Department as well as the instructions of the guide Officers during the whole period of visit.
3. Certified that I am medically fit to undertake the journey and free from any known chronic ailments/ I shall carry the required prescriptions/ medicines as may be required for any ailment. I suffer from during the entire period of journey and I am personally responsible for the same.

Contd-

- 4. I further undertake to bear additional expenses, if any. Over and above the Government assistance provided to me as per; norms.
- 5. I have not undertaken any journey outside the state under the exposure visit / farmers exchange programme / any other programme sponsored by the Agriculture Department in the past.

Signature of the farmer

FOR OFFICIAL USE ONLY

CERTIFICATE

(Certificate to be given by AAO/ JAO)

I, Shri have inspected the cultivable area / land owned by the farmer and to the best of my knowledge and belief the farmer is engaged in cultivation of the crop mentioned in the application form

Signature
Name
Seal & Designation

Countersigning remarks by DAO/ ADAO

Signature of the DAO/ ADAO
(Seal)

APPROVED

Deputy Director of Agriculture (Seal)

APPENDIX – 1/26

See Rule 101 Sl. No. 15(1)

CERTIFICATE FORM

Concession for Kisan in Small parties

(To be submitted by Kisan Traveling in Small parties not less than twenty in number for obtaining travel concession)

I _____ (Name)* son of /daughter of/ wife of _____ aged _____ of _____ village _____ (Taluk) _____ District declare that I am a Kisan by virtue of * owning and working and land and 1* being agricultural worker and the following members of my family, who also participate in agriculture operations propose to undertake the tour for the purpose of visiting the country / river valley and other national projects and I, therefore request that the necessary travel concession may be offered to me. The organizer of this party is Shri _____

Contd-

PARTICULARS OF FAMILY MEMBERS

Sl. No.	Name	Age	Sex	relationship	Signature or thump Impression
1.					
2.					
3.					
4.					

Place : _____

Date : _____

Signature of Kisan

This is to certify that the above named is a bonafied * Kisan owning and working and land and 1* being agriculture worker and his family members are entitled for travel concession notified in the Ministry of Railways/ Railway Boards letter No. TO-II / 2464 / 58 dated 16.1.1959

Signature

- * District Magistrate
- * Deputy Commissioner
- * District Agriculture Officer
- * Block Development Officer.
(Seal of Officer)

OFFICIAL SEAL
STRIKE OUT WORDS NOT APPLICABLE

Annexure-II

APPLICATION FORM FOR SPRAYER

Permit No. Date

Scheme Name.

Farmer Name

Father's Name

Age Caste – ST/SC/OBC/OC Sex Farmer SF/MF/BF
Category

Address

Sprayer makes & Model:

Capacity

Application fee Rs. 2/-

Declaration: I hereby declare that, I have not availed any subsidy on sprayer earlier.

Signature of the farmer

Recommendation of JAO/ AAO :

Verification by DDO :

OFFICE USE

Subsidy amount proposed by
JAO/ AAO

Subsidy Amount Admissible :-

Subsidy Amount paid :-

Date of payment :-

Signature of the D.D.O.