सत्यमेव जयते

Bringing Green Revolution to Eastern India

Operational Guidelines

Department of Agriculture & Cooperation
Ministry of Agriculture
Government of India
January 2015

Bringing Green Revolution to Eastern India

Guidelines

Department of Agriculture & Cooperation
Ministry of Agriculture
(Government of India)
Krishi Bhavan, New Delhi-110 014
January,2015

TABLE OF CONTENTS

Guidelines of Bringing Green Revolution to Eastern India

1. Introduction

Bringing Green Revolution to Eastern India (BGREI) program is the outcome of the recommendations of the Task Force constituted by Government of India in pursuance of the decisions taken in the meeting of the Committee of Secretaries held on 29th November, 2009 to make short and medium term recommendations for efficient management of water, power and other inputs as well as subsidy to maximize agricultural production on a sustainable basis. The Task Force was inter-alia ascribed to assess the existing scenario of water resources development, utilization and management of food-grains production in the country, with a particular reference to North-Western and Eastern India, taking into consideration the problems being faced due to over-exploitation of water resources in the states like Punjab, Haryana and Western Uttar Pradesh as well as to generate recommendations for developing infrastructure relating to water, power, marketing, storage and rural connectivity in Eastern and North-Eastern regions of the country to support sustainable agricultural production.

Accordingly, "Bringing Green Revolution to Eastern India (BGREI)" program was initiated in 2010-11 to address the constraints limiting the productivity of "rice based cropping systems" in Eastern India comprising of seven (7) States namely, Assam, Bihar, Chhattisgarh, Jharkhand, Odisha, Eastern Uttar Pradesh and West Bengal. The goal of the BGREI program is to harness the water potential for enhancing rice production in Eastern India which was hitherto underutilized. During 2010-11, the major focus of the States was on promotion of improved crop production technologies of major crops, water harvesting measures and their utilization for overall agriculture development. In the subsequent years 2011-12 and 2012-13, the program provided a more focused approach on medium and long term strategies for asset building activities of water conservation and utilization along with short-term strategies pertaining to transfer of technology of major cereals. Accordingly, BGREI comprised of three broad categories of

interventions: (i) block demonstrations; (ii) asset building activities such as construction of check dam, minor irrigation tank and other water resources development works; and (iii) site specific activities for facilitating petty works such as construction/renovation of irrigation channels/electricity for agricultural purposes in a cluster approach for convenience and cost effectiveness. Under BGREI program, adoption of new seed varieties, farm machines & implements, nutrients, pesticides and knowledge based interventions are being promoted in different agro-climatic zones of eastern states. During 2013-14, based on the experience of last three years of implementation of the program, marketing support including post harvest management was included as an intervention.

2. Objectives:

2.1. To increase production & productivity of rice and wheat by adopting latest crop production technologies;

2.2. To promote cultivation in rice fallow area to increase cropping intensity and income of the farmers;

2.3. To create water harvesting structures and efficient utilization of water potential; and

2.4. To promote post harvest technology and marketing support.

3. Strategy:

I. To promote improved production technology of rice on massive scale including popularization of newly released HY cultivars and hybrids;

II. To bring rice fallow areas under cultivation through cropping system based approach;

III. To popularise adoption of stress tolerant rice varieties;

IV. To create irrigation structures like farm ponds, lift irrigation point etc to improve irrigation potential;

V. To promote use of farm machineries and implements suitable for small land holding sizes;

VI. To create infrastructure such as godown, procurement centre, marketing infrastructure, etc;

VII. To provide technical backstopping by scientists of CRRI, SAU & ICAR institutions.

4. Structure

4.1 Central Steering Committee (CSC): The program would be reviewed at the national level by the Central Steering Committee constituted under chairmanship of Secretary (A&C). The composition of the CSC is given below:-

1	Secretary (A&C)	Chairman
2	Secretary, M/o Power	Member
3	Secretary, D/o Food & Public Distribution	Member
4	Secretary, D/o Rural Development	Member
5	Secretary, M/o Panchayati Raj	Member
6	Secretary, D/o Chemicals & Fertilizers	Member
7	Secretary, M/o Water Resources	Member
8	Additional Secretary (RKVY)	Member
9	DDG (Crop Science), ICAR	Member
10	Agriculture Commissioner, DAC	Member
11	Joint Secretary (Seeds), DAC	Member
12	Joint Secretary (RKVY), DAC	Member
13	Joint Secretary (Credit), DAC	Member
14	Adviser (Agriculture), Niti Ayog	Member
15	Director, CRRI-Cuttack	Member
16	Joint Secretary (Crops)	Member Secretary

4.1.1 Terms of Reference of the Central Steering Committee:

a. The committee shall meet once in every six months;

b. It shall review the implementation of the program, make suggestions for improvement in the structure of interventions, etc;

c. Resolve various inter-ministerial issues.

4.2 State Steering Committee: For each of seven BGREI states, a State Steering Committee (SSC) would be set up under the chairmanship of Agriculture Production Commissioner/ Principal Secretary (Agriculture) to

review the programme. The composition of the **State Steering committee** is given below:

1. Agriculture Production Commissioner/ Principal Secretary (Agriculture)	Chairman
2. Secretary (Power)	Member
3. Secretary (Irrigation)	Member
4. Secretary (Rural Development & Panchayati Raj)	Member
5. Secretary (Food & Civil Supply)	Member
6. Secretary (Finance)	Member
7. Vice Chancellor of SAUs	Member
8. Chief General Manager, NABARD	Member
9. Regional Manager, Food Corporation of India	Member
10. Chairman, State Electricity Board	Member
11. MD, State Seeds Corporation	Member
12. Representative of GOI	Member
13. Director of Agriculture	Member Secretary

4.2.1 The Terms of Reference (ToR) of the State Steering Committee as under:

a. It will meet every quarter;

b. To finalise State Action Plan in consultation with ICAR/SAUs and other stakeholders **(*Annexure*-I for rice & *Annexure-II* for wheat).**

c. It shall review district wise physical & financial progress and its transmission/ online data entry of the progress reports.

d. It shall review the progress of technical backstopping by CRRI/ SAUs/ ICAR Institutes and quality of monitoring of these institutions and suggest measures to improve if necessary;

e. It shall assess the convergence of components of other schemes particularly ATMA & MGNREGA with BGREI;

f. It shall also review the adequacy of extension support by state extension machinery to BGREI; and

g. It shall sort out inter- departmental issues affecting crop production.

4.3 District Steering Committee (DSC): A District Steering Committee will be set up under chairmanship of District Magistrate /Chief Development Officer with following composition:-

1.	District Magistrate /Chief Development Officer	Chairman
2.	ATMA in charge	Member
3.	KVK Scientist	Member
4.	Representative of Irrigation department	Member
5.	Lead Bank District Manager	Member
6.	District Manager , FCI	Member
7.	Representative of State Electricity Board	Member
8.	Representative of Food & Civil Supply Department	Member
9	District Manager , NABARD	Member
10	District Agriculture Officer	Member Secretary

4.3.1 Functions of DSC:

a) To prepare District Action Plan on the basis of previous experiences, BGREI guidelines and latest technology;

b) To tie up inputs for implementation of Action Plan;

c) To arrange timely delivery of inputs to the identified beneficiaries of the program;

d) To ensure quality control of inputs;

e) To release incentive to beneficiary -farmers & input suppliers;

f) To ensure documentation & reporting of the progress of program implementation to state headquarters in the formats prescribed by CRRI and

g) To liaise with SAUs/CRRI for ensuring and facilitating technical backstopping.

5. Monitoring Mechanism

5. 1 National Level Monitoring Team:

The National Level Monitoring Teams (NLMTs) will be constituted for each state for monitoring the activities of the program. The composition and terms of reference of NLMT is given at **Annexure-III.**

The team will visit the states at least once in a crop season and will submit the report to Agriculture Production Commissioner of the state, Joint Secretary (Crops) and Director, Directorate of Rice Development (DRD), Patna. National Consultant (BGREI) will present consolidated report to Agriculture Commissioner, GOI.

5.2 District Level Monitoring Team (DLMT): A District Level Monitoring Team will be set up under the chairmanship of the District Agriculture Officer as per following composition:-

1.	District Agriculture Officer	Chairman
2.	ATMA in-charge	Member
3.	KVK Scientist	Member
4.	Nominated Scientist of CRRI/SAU/ICAR Institute for assigned district	Member

The team will visit thrice in a crop season i.e. one before sowing, another in mid of season; and third at harvesting time to check the crop-cutting experiments and will submit the report to Director of Agriculture of respective state with copy to CRRI, Cuttack and Directorate of Rice Development, Patna.

6. Technical backstopping and Monitoring by CRRI, Cuttack:

i. CRRI would be nodal agency to guide, supervise, monitor and suggest technical interventions for BGREI program in coordination with SAUs/ICAR Institutes and concerned State Department of Agriculture. It shall devise the tools/formats for monitoring in consultation with DAC and enforce accordingly to improve the output of program.

ii. CRRI will nominate one scientist for each state as nodal officer to coordinate technical backstopping for the program. The nodal officer will organize annual awareness workshop in each state before the start of kharif season each year to discuss technical matters, package of practices, list of suitable high yielding varieties/hybrids including stress tolerant varieties, latest technology etc. The nodal officer will also help in preparation and finalization of the annual action plan of the state.

iii. CRRI will nominate one scientist from ICAR institutes/SAUs for each BGREI district to provide technical inputs to the farmers/extension functionaries and solve problems instantly with the help of district level authority. The nominated scientist will visit cluster demonstrations in the district at least every fortnight during kharif/rabi seasons.

iv. CRRI will provide formats to the field functionaries to provide technical & field observations on cluster demonstrations, other interventions and crop cutting results.

v. CRRI shall also submit quarterly report covering program performance of all states based on reports of DLMT and nominated scientist by 2nd week of month following the quarter to Joint Secretary (Crops) for placing the outcome before CSC.

7. Role of Panchyati Raj Institutions

Panchyati Raj Institutions will be actively involved in selection of sites of demonstrations, beneficiary-farmers etc. The village selected under Saansad Adarsh Garm Yojana will be given priority.

8. Districts Covered under BGREI

States shall apportion districts between NFSM-Rice and BGREI on basis of allocation of funds under the two programs. Each state shall indicate the names of districts to be covered under NFSM-Rice and BGREI program, separately along with Annual Action Plan of both programs. Under BGREI program, wheat component will be implemented in districts not covered under NFSM-wheat.

9. Mechanism of Fund Flow

The provision of funds for implementing the program will be made annually under RKVY. The approval of Action Plan of each state would be finalized by GOI in consultation with state. The action plans so approved by GOI will be required to be approved by State Level Sanctioning Committee (SLSC) on the pattern of RKVY for issue of GOI administrative & financial

sanction and subsequent release of funds to state.

10. Reporting System:

State Department of Agriculture will submit Quarterly Progress Reports (QPRs) by the 15th of the month following each quarter. Similarly, the detailed Annual Progress Report (APR) will be sent by respective state within three months after the end of the year in prescribed format given at ***Annexure-IV for Rice and Annexure-V for Wheat.***

11. Evaluation:

Impact Evaluation Study/Studies will be undertaken through an independent agency to assess the impact of the program in increasing the productivity of rice, wheat and enhancement of farmers' income.

12. Criteria for Identification of Areas and Beneficiaries

The allocation of funds will be made for general, Special Component Plan (SCP) for Scheduled Castes and Tribal Sub Plan (TSP) for Scheduled Tribes as per their proportion in state population. Besides, at least 33 % of funds will be earmarked for small and marginal farmers. At least 33 % of funds will be made for women farmers.

13. Interventions:

13.1. **Intervention wise allocation:** The percentage of fund allocation vis-a –vis for various interventions for implementation of program is given as under:

S.l.	Intervention	% age
i.	Block/cluster Demonstrations	40
ii.	Seed Distribution (HYVs/Hybrids)	10
iii.	Seed Production (HYVs/Hybrids)	05
iv.	Need Based Inputs	10
	a) Micro-nutrients & soil ameliorants	05
	b) Plant protection chemicals	04

	c) Cropping system based training	01
v.	Asset Building (farm machines & implements, irrigation devices)	20
vi.	Site Specific Activities	10
vii.	Marketing support including Post-Harvest Management	05
	Total	**100**

State will ensure that out of the outlays communicated by GOI, at least 80 % of outlay will be allocated for rice and up to 20% of outlay may be allocated for wheat for each of the components mentioned above.

14. Block /cluster Demonstrations:

Large areas will be taken up under block demonstration in cluster approach in different ecologies i.e. rainfed upland, shallow low land, medium deep water, deep water. The illustrative cafeteria of interventions for rice and wheat has been given in ***Annexure – VI (a)*** and Annexure – ***VI (b),*** *respectively* to enable states to choose the interventions relevant to particular crop for cluster demonstrations. The selection of interventions for cluster/block demonstration will be finalized in consultation with concerned SAU/CRRI/ICAR/KVKs.

14.1. Cluster demonstration of rice: There will be various types of demonstrations for rice such as System of Rice Intensification (SRI), Direct Seeded Rice (DSR), Hybrid Rice Technology, Line Transplanting, Stress Tolerant Varieties and Improved Package of Practices (variety, nutrient management, integrated pest management etc). Out of funds earmarked for rice demonstrations, 30% will be allocated for promotion of stress tolerant varieties. State should conduct at least 30% of total rice demonstrations under **cropping** system based approach. This entails that demonstrations are to be conducted in cropping sequence on same plot of land to utilize rice fallow areas through cultivation of wheat/ coarse cereals/pulses/oilseeds as second crop.

14.2. Cluster demonstration of wheat: There will be demonstrations on improved package of practices (variety, resource conservation technology, integrated nutrient management, bio-fertilizers, integrated pests management etc).

14.3. Area of operation: The size of each cluster demonstration of rice and wheat will be at least 100 ha. In case, 100 ha contiguous area is not available in same ecology, sub-clusters of not less than 50 hectares of each ecology in one village can be considered. All farmers in the cluster would be included in the demonstrations. For each farmer, at least 0.4 ha area will be included in demonstration. For an individual farmer, the area under demonstration should not exceed 2 ha.

14.4. Selection of beneficiaries: Gram Panchayat should be involved in selection of beneficiary-farmers. Only those farmers are to be selected who are willing to cooperate and contribute some of the resources. Selection of beneficiaries should be done through adopting participatory approach by holding meetings in the village by explaining the objectives of the cluster demonstration and role and responsibilities including expectation from the participating farmers.

14.5. Selection of site: The site of cluster demonstration should be easily accessible for the farmers, extension workers and scientists. It should not be in an isolated field. The selected site should be the representative of soil type and soil fertility status of the area.

14.6. Soil testing: The soil fertility status of the selected farmers' field should be known well in advance for the optimum use of nutrients (macro and micro) and soil ameliorants.

14.7. Identification of technologies to be demonstrated: The improved practices for the cluster demonstration plots in different eco-systems should be identified in consultation with CRRI/ SAU /KVK. However, the most critical inputs should be given top priority. For example correction of soil

acidity through liming should be done while conducting a demonstration on acid soils.

14.8. Development of package of inputs to be distributed: Once the technologies are identified, a package of inputs including micro-nutrients and bio-fertilizers should be finalized as to which inputs are to be provided for the conduct of demonstrations. Similarly, the inputs to be contributed by the beneficiary-farmers (if required) may also be assessed.

14.9. Training of participating farmers: An orientation training programme should be organized to brief the beneficiary-farmers about the procedure to be followed for conducting demonstrations. Farmers should be informed about the critical operations for the demonstrations.

14.10. Display board: A display board containing the following information should be installed at the demonstration plot. In addition to other information, the display board should contain information on the critical inputs used and the interventions being demonstrated.

a) Number of farmers
b) Name of Village
c) Name of Variety/ hybrid
d) Type of demonstration
e) Fertilizers applied
f) Bio-fertilizers applied
g) Micronutrient applied
h) Date of Sowing/Transplanting
i) Seed Rate and Spacing
j) Any other critical input used
k) Mobile number of District Consultant/ Technical Assistant

State should include more than one improved varieties/hybrids/stress tolerant varieties in one cluster demonstration.

14.11. Field day: A field day will be organized during reproductive phase of the crop preferably at grain filling stage. The participation of scientists from SAUs/KVKs should be ensured for critical observations and solution of problems. Some relevant extension literature like leaflets, pamphlets etc should also be made available to the participating farmers.

14.12. Reporting of the results: The results of the demonstrations should be compiled at block, district and state level. At state level, the results of the demonstrations should be compiled in the form of document. **The state should analyze the contribution of various interventions undertaken under cluster demonstrations and up-scaling of particular intervention in succeeding years.**

14.13. Cost norms of demonstration: The cost of demonstration for one ha area for sole crop will be limited to Rs 7500/- for rice and wheat; and Rs.12500/- per ha for cropping system approach. The cost of demonstrations includes organization of field day, distribution of publicity material and visit of scientists/GOI & state officials @Rs. 250, Rs. 250 and Rs. 300, respectively. In the annual Action Plan, State Government will clearly specify the interventions proposed to be demonstrated. The identified interventions should be vetted by CRRI/SAU/KVK. Beneficiary-farmers will be required to arrange recommended quantity of chemical fertilizers.

15. Distribution of HYVs/Hybrid seed of rice and wheat

Seed producing agencies such as NSC/ State Seed Corporation/SAU/ICAR institutes/Private companies authorized by state will distribute seeds of rice & wheat in identified districts for the varieties which are not older than 10 years. The assistance on HYVs seed of rice & wheat will be Rs. 10/-per kg or 50% of the cost whichever is less and hybrid rice @ Rs. 50/-kg or 50% of the cost whichever is less. Assistance for each farmer will be limited to 2 ha.

16. Production of HYVs/Hybrid Seed of Rice and Wheat

Assistance will be provided to NSC/ State Seed Corporation/Private companies authorized by state for production of seed of less than 10 year old varieties/hybrid of rice and wheat at farmers' fields within the state. This assistance will be provided @ Rs. 1,000 per quintal for HYVs and Rs. 5,000 per quintal for hybrids. Out of above, 75% amount of subsidy is meant for farmers and 25 % to seed producing agencies for meeting expenditure including certification cost. Besides, Seed Producing Agencies shall be eligible

for incentive only when they purchase the seed produced from the farmers and issue a certificate to this effect.

17. Need Based *Inputs*

17.1. Nutrient management and soil ameliorants: The micro-nutrients/lime /gypsum/ other sulphur containing fertilizers such as phospo-gypusm/bentonite sulphur will be applied as basal /foliar application based on recommendations of SAU/ICAR. Assistance will be given for a maximum of 2 ha area for the target crop for individual farmer. Following assistance or 50% of the cost whichever is less will be provided

a. Micro-nutrients @ Rs. 500 /- per hectare.

b. Lime or paper mud or liming material @ Rs. 1,000 /- per hectare

c. Gypsum/other sources of sulphur @ Rs. 750/- per hectare.

d. Bio-fertilizers @ Rs 300/- per hectare.

17.2. Plant protection measures: Financial assistance of Rs. 500 per hectare or 50% of the cost whichever is less will be provided for plant protection measures including chemicals, bio-pesticides and bio-agents and weedicides. Assistance for a maximum of 2 ha area for the target crop will be given for individual farmer.

17.3. Cropping system based training: Training of farmers plays crucial role in speedy dissemination of improved crop production practices. Since the BGREI has adopted cropping system based approach, four session of each training will be organized i.e. one at the beginning of kharif and rabi seasons, one each during kharif and rabi seasons. The training will be imparted by crop/subject matter specialists of SAUs/KVKs/ ICAR institutes and will target crop management (agronomic and plant protection) practices including primary processing of produce, storage etc. There will be a group of 30 participants/farmers in each session and participants in all four sessions will be same. The training will be organized in cropping system demonstration areas. A sum of Rs. 14000/- per training (Rs. 3500/-per session) will be available. The item-wise breakup of training given as under:

Item	Rates (Rs.)	Amount (Rs.) for 4 sessions
Honorarium for one trainer	Rs. 500/- per session	2000.00
Training material & stationary	Rs. 500/- per session	2000.00
Refreshment for trainees, supporting staff	Rs. 50/- per session for 35 person	7000.00
Contingency, POL transport etc.	Rs. 750/- per session	3000.00
Total		**14000.00**

18. Asset Building Intervention

The Asset Building Intervention will include assistance for farm machineries & implements like cono-weeder, manual/power sprayer, drum seeder, seed drill/zero-till seed drill, power weeder, self propelled paddy transplanter, rotavator, multi crop thresher, laser land leveler, pump set as per norms under NFSM. Assistance for any other farm machine suitable for cultivation of rice as per approved cost norms of Sub-Mission on Agricultural Mechanization (SMAM) can also be considered. For irrigation, construction of shallow tubewell/bore well/dug well can be taken up with 100% assistance within following cost norms. The list of interventions along with their rates & pattern of assistance are given in ***Annexure VII***.

19. Site Specific Activities

a. The component of Site Specific Activities has been provided **to** induce flexibility in the program to take up the activities not covered under other components of the program which contribute in productivity of rice and wheat. Assistance will be provided 50% of the project cost for individual beneficiary and 100% for community assets. However, these assets need not be created under the ownership of any public body (Government/Public Corporations/Boards) and the responsibility of maintaining these assets lies with the beneficiary – farmers.

b. Tree plantation on farm bunds can also be taken with approved cost norms of Rs 2000 per hectare for cost of tree sapling.

c. The extent of the Site Specific Activities would be approved and

communicated through GOI administrative approval & financial sanction in respect of each BGREI State.

20. Marketing Support

Adoption of good agriculture practices and response to improved technologies by the farmers has resulted in significant increase in the share of eastern region in total production of rice in the country. However, procurement and storage is of concern.

Assistance for activities that would help in enhanced procurement, creation of storage facility, marketing and value addition will be provided. These activities will include promotion/creation of primary processing facilities (drying, grading, par-boiling of paddy and bagging etc) including farm level storage, institution building, linkage for procurement operations/ marketing. Assistance will be provided 50% of the project cost for individual beneficiary and 100% for community assets.

****

Annexure- I

Action Plan of BGREI Rice for the Year.....

State: (Financial Rupees in Lakhs)

Sl. No.	Intervention	Approved Rate of Assistance	Unit	Targets Proposed by State		Final Targets Approved By GOI	
				Physical	Financial	Physical	Financial
1	2	3	4	5	6	7	8
I	**Cluster Demonstrations (100 ha each)**						
	(i) Direct Seeded Rice	Rs. 7500/-per ha	Ha				
	(ii) Line Transplanting	Rs. 7500/-per ha	Ha				
	(iii) SRI	Rs. 7500/-per ha	Ha				
	(iv) Stress tolerant varieties	Rs. 7500/-per ha	Ha				
	(v) Hybrid Rice	Rs. 7500/-per ha	Ha				
	(vi) Cropping system based	Rs. 12,500/-per ha	Ha				
	Total Demonstrations		**Ha**				
II	**Production of Seeds**						
	(a) Hybrid Rice	Rs. 5,000/qtl	Qtls.				
	(b) Certified Seeds	Rs. 1,000/qtl	Qtls.				
	Total		**Qtls.**				
III.	**Distribution of Seeds**						
	(a) Hybrid rice	Rs. 5,000/qtl	Qtls.				
	(b) Certified seeds of HYVs	Rs. 1,000/qtl	Qtls.				
	Total		**Qtls.**				
IV.	**Nutrient Management and Soil Ameliorants**						
	(a) Micro-nutrients	Rs. 500/ha	Ha				
	(b) Lime	Rs. 1000/ha	Ha				
	(c) Bio-fertilizers	Rs. 300/ha	Ha				
	(d) Gypsum	Rs.750/ha	Ha				
	Total						
V.	**Integrated Pests Management**						
	(a) PP Chemicals & Bio Pesticides /Bio-agents	Rs. 500/ha	Ha				
	(b) Weedicides	Rs. 500/ha	Ha				
	Total						

Annexure I (contd.)

Action Plan of BGREI Rice for the Year.....

State: (Financial Rupees in Lakhs)

Sl. No.	Intervention	Approved Rate of Assistance per unit	Unit	Targets Proposed by State		Final Targets Approved By GOI	
				Physical	Financial	Physical	Financial
	2	3	4	5	6	7	8
VI.	**Asset Building**						
	a) Dug well	Rs. 30,000/-	Nos.				
	b) Bore well	Rs. 30,000/-	Nos.				
	c) Shallow Tube Well	Rs. 12000/-	Nos.				
	d) Drum Seeder	Rs. 1,500/-	Nos.				
	e) Seed Drill	Rs. 15000/-	Nos.				
	f) Rotavator	Rs. 35000/-	Nos.				
	g) Self Propelled Paddy Transplanter	Rs. 75,000/-	Nos.				
	h) Pump set	Rs.10000/-	Nos.				
	i) Cono-weeder	Rs. 600/-	Nos.				
	j) Manual Sprayer	Rs. 600/-	Nos.				
	k) Power Knap Sack Sprayer	Rs. 3000/-	Nos.				
	l) Power Weeder	Rs. 15000/-	Nos.				
	m) Paddy Thresher	Rs. 40000/-	Nos.				
	n) Multi crop Thresher	Rs. 40000/-	Nos.				
	o) Laser Land Leveler (For a group of 10 farmers.)	Rs. 1.50 lakh	Nos.				
	s) Any other machine		Nos.				
	Total		**Nos.**				
VII.	**Site Specific Activities**						
	(i)						
	(ii)						
	Total						
VIII	**Post Harvest & Marketing Support**						
	(i)						
	(ii)						
	Total						
IX.	Cropping system based trainings (4 Sessions)	Rs. 3500/-per Session and Rs. 14,000 per training.					
	GRAND TOTAL						
	Allocation by GOI						

Annexure-II

Action Plan of BGREI Wheat for the Year----------

State (Financial Rupees in Lakhs)

Sl. No.	Intervention	Approved Rate of Assistance	Unit	Targets Proposed by State		Final Targets Approved By GOI	
				Physical	Financial	Physical	Financial
	2	3	4	5	6	7	8
I.	**Cluster Demonstrations(100 ha each)**						
	(a) HYV	Rs. 7500/-per ha	Ha				
	Total		**Ha**				
II.	**Production of seeds**	Rs. 1000/qtl.	Qtl.				
III.	**Distribution of HYVs Seeds**	Rs. 1000/qtl.	Qtl.				
IV.	**Nutrient Management and Soil Ameliorants**						
	(a) Micro-nutrients	Rs. 500/ha	Ha				
	(b) Gypsum	Rs. 750/ha	Ha				
	(c) Bio-fertilizers	Rs. 300/ha	Ha				
V.	**Total**						
IV.	**Integrated Pests Management**						
	(a) PP Chemicals /bio-pesticides / bio-agents	Rs. 500/ha	Ha				
	(c) Weedicides	Rs. 500/ha	Ha				
V.	**Total**						
VI.	**Asset Building**						
	a) Zero Till Seed Drill	Rs. 15,000/-	Nos.				
	b) Seed Drill	Rs. 15,000/-	Nos.				
	© Multi-crop Thresher	Rs. 40,000/-	Nos.				
	(d) Pump set	Rs. 10,000/-	Nos.				
	s) Any other machine						
	Total		**Nos.**				
	GRAND TOTAL						
	Allocation by GOI						

Annexure-III

Composition of NLMT for monitoring of BGREI in Eastern States

Name of the Crop Development Directorate	Assigned State (s)	Composition of NLMT
Directorate of Rice Development, **Patna**	Bihar	1.Director, Directorate of Rice Development – **Coordinator** 2. Scientist from CRRI, Cuttack- **Member** 3. Nodal Officer/In charge of BGREI/nominated officer from State Department of Agriculture not below the rank of Joint Director- **Member**
	Odisha	1. Director, Directorate of Rice Development – **Coordinator** 2. Scientist from CRRI, Cuttack- **Member** 3. Nodal Officer/In charge of BGREI/nominated officer from State Department of Agriculture not below the rank of Joint Director- **Member**
	Jharkhand	1. Director, Directorate of Rice Development – **Coordinator** 2. Scientist from CRRI, Cuttack- **Member** 3. Nodal Officer/In charge of BGREI/nominated officer from State Department of Agriculture not below the rank of Joint Director- **Member**
Directorate of Sugarcane Development, **Lucknow**	Uttar Pradesh	1. Director, Directorate of Sugarcane Development – **Coordinator** 2. Scientist from CRRI, Cuttack- **Member** 3. Nodal Officer/In charge of BGREI/nominated officer from State Department of Agriculture not below the rank of Joint Director- **Member**
Directorate of Pulses Development, **Bhopal**	Chhattisgarh	1.Director, Directorate of Pulses Development – **Coordinator** **2.** Scientist from CRRI, Cuttack- **Member** **3.** Nodal Officer/In charge of BGREI/nominated officer from State Department of Agriculture not below the rank of Joint Director- **Member**
Directorate of Jute Development, **Kolkata**	Assam	1. Director, Directorate of Jute Development – **Coordinator** **2.** Scientist from CRRI, Cuttack- **Member** **3.** Nodal Officer/In charge of BGREI/nominated officer from State Department of Agriculture not below the rank of Joint Director- **Member**
	West Bengal	1. Director, Directorate of Jute Development – **Coordinator** 2. Scientist from CRRI, Cuttack- **Member** 3. Nodal Officer/In charge of BGREI/nominated officer from State Department of Agriculture not below the rank of Joint Director- **Member**

The Term of Reference (ToR) of NLMTs is given as under:

a. During the visit, the team should have the expert of crop which is being monitored, Director; Crop Development Directorate (CDD) of the particular team will be Convener of the monitoring team.

b. Each team will visit to states concerned at least once in each Crop Season. Each visit will be approximately of three to five days, excluding journey days. The concerned Director, CDD will arrange the visits in coordination with State Officials.

c. Each team will conduct in depth inspection of various activities specified under BGREI Program as in the Approved Action Plan. The team will also assess the impact of the activities carried out under site specific activities.

d. Each team will meet the Director of Agriculture and concerned District Level Authorities for briefing & debriefing sessions.

e. The team will mainly focus on the implementation of activities in terms of their quantity, quality, delivery system adopted and their impact.

f. The reports may be supplemented by visual aids such as photographs and video films of field level implementation.

g. The team will analyse and submit the final monitoring report within 20 days of completion of the tour.

h. The analyzed report should include concrete suggestions for necessary correctives in implementation of Mission.

i. Coordinator will present the final report to the Joint Secretary (Crops).

j. Consolidated and analyzed monitoring report of all the teams would be presented by the National Consultant to Agriculture Commissioner.

Annexure-IV

Quarterly /Annual Progress Report of BGREI Rice for the Year.....

State: (Financial Rupees in Lakhs)

Sl. No.	Intervention	Approved Rate of Assistance	Unit	Targets Proposed by State		Final Targets Approved By GOI		Quarterly/Annual Progress Report			
								Achievements for quarter I/II/III		Achievements till 31st March	
				Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financi
1	2	3	4	5	6	7	8	9	10	11	12
1	**Cluster Demonstrations (100 ha each)**										
	(i) Direct Seeded Rice	Rs. 7500/-per ha	Ha								
	(ii) Line Transplanting	Rs. 7500/-per ha	Ha								
	(iii) SRI	Rs. 7500/-per ha	Ha								
	(iv) Stress Tolerant varieties	Rs. 7500/-per ha	Ha								
	(v) Hybrid Rice	Rs. 7500/-per ha	Ha								
	(vi) Cropping System based	Rs. 12,500/-per ha	Ha								
	Total		**Ha**								
II.	**Production of Seeds**										
	(a) Hybrid Rice	Rs. 5,000/qtl	Qtls.								
	(b) Certified Seeds	Rs. 1,000/qtl	Qtls.								
	Total		**Qtls.**								
III.	**Distribution of Seeds**										
	(a) Hybrid of Rice	Rs. 5,000/qtl	Qtls.								
	(b) Certified Seeds of HYVs	Rs. 1,000/qtl	Qtls.								
	Total		**Qtls.**								
IV.	**Nutrient Management and Soil Ameliorants**										
	(a) Micronutrients	Rs. 500/ha	Ha								
	(b) Lime	Rs. 1000/ha	Ha								
	(c) Bio-fertilizers	Rs. 300/ha	Ha								
	(d) Gypsum	Rs.750/ha	Ha								
	Total										

Annexure-IV (contd.)

Quarterly /Annual Progress Report of BGREI Rice for the Year.....

State: (Financial Rupees in Lakhs)

Sl. NO.	Intervention	Approved Rate of Assistance	Unit	Targets Proposed by State		Final Targets Approved By GOI		Quarterly/Annual Progress Report			
								Achievements for quarter I/II/III		Achievements till 31st March	
				Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financi
1	2	3	4	5	6	7	8	9	10	11	12
V.	**Integrated Pests Management**										
	(a) PP Chemicals & Bio-Pesticides /Bio-agents	Rs. 500/ha	Ha								
	(b) Weedicides	Rs. 500/ha	Ha								
	Total										
VI.	**Asset Building**										
	a) Dug well	Rs. 30,000/-	Nos								
	b) Bore well	Rs. 30,000/-	Nos								
	c) Shallow Tube Well	Rs. 12000/-	Nos								
	d) Drum Seeder	Rs. 1,500/-	Nos								
	e) Seed Drill	Rs. 15000/-	Nos								
	f) Rotavator	Rs. 35000/-	Nos								
	g) Self Propelled Paddy Transplanter	Rs. 75,000/-	Nos								
	h) Pump set	Rs.10000/-	Nos								
	i) Cono-weeder	Rs. 600/-	Nos								
	j) Manual Sprayer	Rs. 600/-	Nos								
	k) Power Knap Sack Sprayer	Rs. 3000/-	Nos								
	l) Power Weeder	Rs. 15000/-	Nos								
	m) Paddy Thresher	Rs. 40000/-	Nos								
	n) Multi crop Thresher	Rs. 40000/-	Nos								
	o) Laser Land Leveler	Rs. 1.50 lakh for group of 10 farmers.	Nos								
	p) Any other machine		Nos								
	Total		**Nos**								
VII.	**Site Specific Activities**										
	(i)										
	(ii)										
	Total										
VIII	**Post Harvest & Marketing Support**										
	(i)										
	(ii)										
	Total										
IX.	**Crop Based Trainings of 4 Sessions**	Rs. 3500/-per Session and Rs. 14,000 per training.									
	GRAND TOTAL										
	Allocation by GOI										

Annexure- V

Quarterly /Annual Progress Report of BGREI Wheat for the Year.....

State: (Financial Rupees in Lakhs)

Sl. No.	Intervention	Approved Rate of Assistance	Unit	Targets Proposed by State		Final Targets Approved By GOI		Quarterly/Annual Progress Report			
								Achievements for quarter I/II/III		Achievements till 31st March	
				Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financia
1	2	3	4	5	6	7	8	9	10	11	12
I.	**Cluster Demonstrations (100 ha each)**										
	(a) HYV	Rs. 7500/- per ha	Ha								
	Total		**Ha**								
II.	Production of seeds	Rs. 1000/qtl.	Qtl.								
III.	**Distribution of HYVs Seeds**	Rs. 1000/qtl.	Qtl.								
IV	**Nutrient Management and Soil Ameliorants**										
	(a) Micro-nutrients	Rs. 500/ha	Ha								
	(c) Gypsum	Rs. 750/ha	Ha								
	(b) Bio-fertilizers	Rs. 300/ha	Ha								
	Total		**Ha**								
V	**Integrated Pests Management**										
	(a) PP Chemicals & Bio- Pesticides/ Bio-agents/IPM	Rs. 500/ha	Ha								
	(c) Weedicides	Rs. 500/ha	Ha								
	Total										
VI	**Asset Building**										
	a) Zero Till Seed Drill	Rs. 15,000/-	Nos.								
	b) Seed Drill	Rs. 15,000/-	Nos.								
	(c) Multi crop Thresher	Rs. 40,000/-	Nos.								
	(d) Pump set	Rs. 10,000/-	Nos.								
	Total		**Nos.**								
	GRAND TOTAL										
	Allocation by GOI										

Annexure-VI (a)

Illustrative Cafeteria of Interventions for Block Demonstration of Rice

S.No	Name of Interventions
1	Demonstration of potential of High Yielding varieties of rice. Transplanted and direct seeded
2	Demonstration of SRI Technique with HYV
3	Demonstration of potential of Hybrids of rice
4	Demonstration of SRI Technique with Hybrid rice
5	Demonstration on stress tolerant varieties
6	Seed treatment
7	Promotion of use of Micro-nutrients and bio-fertilizers
7.1	Zinc Sulphate
7.2	Boron(Borax deca hydrate, Borax penta hydrate)
7.3	Iron (Ferrous sulphate)
7.4	Bio-fertilizers such as Azospirillium, Azotobactor, PSB, Potash mobilizing, zinc solubilizing bacteria and Trichoderma.
8	Demonstration on use of lime/liming material to correct soil acidity
9	Demonstration on effectiveness of Weedicides
10	IPM in rice including mechanical devices
11	Promotion of mechanical transplanting
12	Moisture stress management chemicals like PPFM bacteria
13	Green Manuring
14	Pigeon pea Plantation on Rice bunds

1. Interventions may be selected by the States in consultation with SAUs/CRRI/ICAR.
2. The cost of demonstrations is inclusive of organization of field day, distribution of publicity material and visit of scientists/States and GoI official @ Rs. 250, 250/- and 300/- per ha, respectively.

Annexure- VI (b)

Illustrative Cafeteria of Interventions for Block Demonstration of Wheat

S.No	Name of Intervention
1	Demonstration on new HYV
2	Lime and Liming Material for acidic soils
3	Use of Gypsum/Phospho gypsum in moderately alkaline soils
4	Promotion of use of Micro Nutrients and bio-fertilizers
4.1	Zinc Sulphate
4.2	Boron(Borax deca hydrate, Borax penta hydrate)
4.3	Iron (Ferrous sulphate)
4.4	Bio-fertilizers such as Azospirillium, Azotobactor, PSB, Potash mobilizing and zinc solubilizing bacteria
5	Demonstration on use of Sulphur as a nutrient
6	Seed treatment with fungicide
7	Soil treatment for Termite control
8	Promotion of leveling using Laser land leveler
9	Promotion of line sowing using seed drills.
10	Demonstration on use of chemical weedicides
11	Moisture stress chemicals Potassium chloride or hydrogel
12	Green Manuring

1. Interventions may be selected by the States in consultation with their SAUs/CRRI/ICAR..
2. The cost of demonstrations is inclusive of organization of field day, distribution of publicity material and visit of Scientists/ States and GoI official @ Rs. 250, 250/- and 300/- per ha, respectively.

Annexure- VII

SUMMARY OF PATTERN OF ASSISTANCE

Components and Pattern of Assistance under BGREI

Sl.	Name of Interventions	Pattern of Assistance	Interventions to be covered	
			Rice	Wheat
1	2	3	4	5
1	**Demonstration**			
1.1	Demonstration of Improved Packages of Practices	Rs.7500 per ha	√	√
1.2	Cropping System Based Demonstrations	Rs.12,500 per ha	√	-
1.3	Demonstrations on Stress Tolerant Rice varieties	Rs.7500 per ha	√	-
2	**Production of Seeds**			
	(a) Hybrid	50% of the cost limited to Rs. 5,000/- per quintal.	√	-
	(b) Certified Seeds of HYVs	50% of the cost limited to Rs. 1,000/- per quintal.	√	√
3	**Distribution of Seeds**			
	(a) Hybrid Rice	50% of the cost limited to Rs. 5,000/- per quintal.	√	-
	(b) Certified Seeds of HYVs	50% of the cost limited to Rs. 1,000/- per quintal.	√	√
4	**Nutrient management and soil ameliorants**			
	(a) Micro-nutrients	50% of the cost limited to Rs. 500/- per ha.	√	√
	(b) Lime	50% of the cost limited to Rs. 1,000/- per ha.	√	-
	(c) Bio-fertilizers	50% of the cost limited to Rs. 300/- per ha.	√	√
	(d) Gypsum	50% of the cost limited to Rs. 750/- per ha.	√	√
5	Integrated Pests Management (IPM)			
	(a) PP Chemical/Bio-pesticides/Bio-agents	50% of the cost limited to Rs. 500/ha	√	√
	(b) Weedicides	50% of the cost limited to Rs. 500/ha	√	√

Annexure- VII (contd.)

SUMMARY OF PATTERN OF ASSISTANCE

Components and Pattern of Assistance under BGREI

Sl.	Name of Interventions	Pattern of Assistance	Interventions to be covered	
			Rice	Wheat
1	2	3	4	5
6	**Asset Building**			
	(a) Dug well	100% of cost limited to Rs. 30,000/-	√	-
	(b) Bore well	100% of cost limited to Rs. 30,000/-	√	-
	(c) Shallow Tube Well	100% of cost limited to Rs. 12000/-	√	-
	(d) Drum Seeder	Rs.1500/- per machine or 50% of the cost whichever is less	√	-
	(e) Zero Till Seed Drill	Rs. 15000/- per machine or 50% of the cost whichever is less	-	√
	(f) Seed Drill	Rs. 15000/- per machine or 50% of the cost whichever is less	√	√
	(g) Rotavator	Rs. 35000/- per machine or 50% of the cost whichever is less	√	-
	(h) Self Propelled Paddy Transplanter	Rs. 75000/- per machine or 50% of the cost whichever is less	√	-
	(i) Pump set	Rs. 10000/- per machine or 50% of the cost whichever is less	√	√
	(j) Cono-weeder	Rs. 600/- per machine or 50% of the cost whichever is less	√	-
	(k) Manual Sprayer	Rs. 600/- per machine or 50% of the cost whichever is less	√	-
	(l) Power Knap Sack Sprayer	Rs. 3000/- per machine or 50% of the cost whichever is less	√	-
	(m) Power Weeder	Rs. 15000/- per machine or 50% of the cost whichever is less	√	-
	(n) Paddy Thresher	Rs. 40000/- per machine or 50% of the cost whichever is less	√	-
	(o) Multi-crop Thresher	Rs. 40000/- per machine or 50% of the cost whichever is less	√	√
	(p) Laser Land Leveler (For a group of farmers)	Rs. 1.50 lakh per machine or 50% of the cost whichever is less	√	-