

## Action Plan 2019-20

### 1.0 A. Basic information about NICRA cluster   DISTRICT: Aurangabad

S.No.	Item	Existing NICRA village	Additional villages selected in the programme*		
			Village 1	Village 2	Village 3
1.1	Village name	Harigoan	Gamhari	BuddhaiKhurd	Miyapur
1.2	Name of mandal/Block	Goh	Goh	Goh	Goh
1.3	Total area (ha)	100	200	125	110
1.4	No. of house holds	151	55	125	130
1.5	converted rainfed area in to irrigated area (ha)	75			

\* Please add columns, if more villages are involved

### B. Technologies proposed to be scaled up in the NICRA village during 2019-20

Sl.No.	Name of technology	No. of farmers covered	Approx. area to be covered (ha)	Remarks
1.	Introducing drought/ temperature tolerance variety	50	20	
2.	Method of Establishment	15	5	
3.	Advancement of planting dates of Rabi crops in areas with terminal heat stress	70	20	
4.	fodder production during drought	20	5	
5.	Preventive vaccination	75	250 cattle	
6.	Animal health check up camp	75	250 cattle	
7.	Additional / assured income generation of land less farmers through back yard poultry	30	3000 chicks	
8.	Introducing improve variety of lentil	40	8	
9.	Introducing improve variety of chick pea	40	8	
10.	Establishment of orchard	2	0.5	

\* Simple and low cost resilient practices are to be scaled up so as to reach as many farmers as possible with minimal cost

### C. Module-wise technologies proposed to be scaled up in the adjoining villages during 2019-20

Sl.No.	Name of technology	No. of farmers covered	Approx. area to be covered (ha)	Remarks
1.	Introducing drought/ temperature tolerance variety	20	10	
2.	Method of Establishment	15	5	
3.	Advancement of planting dates of Rabi crops in	30	10	

	areas with terminal heat stress			
4.	fodder production during drought	10	3	
5	Preventive vaccination	75	250 cattle	
7	Additional / assured income generation of land less farmers through back yard poultry	15	1500 chicks	
8	Introducing improve variety of lentil	25	5	
9	Introducing improve variety of chick pea	25	5	
10	Establishment of orchard	2	0.5	

**\* Simple and low cost resilient practices are to be scaled up so as to reach as many farmers as possible with minimal cost**

#### **D. Module-wise resilient technologies proposed to be demonstrated for the year 2019-20**

<b>S. No.</b>	<b>Module</b>	<b>Climatic constraint addressed</b>	<b>Key intervention</b>	<b>No. of farmers proposed to be involved</b>	<b>Measurable indicator (s)</b>
<b>1</b>	<b>Natural resource management</b>				
		<ul style="list-style-type: none"> <li>• Early depletion of soil moisture.</li> <li>• Wilting of pulse crop due to low moisture availability.</li> </ul>	In-situ moisture conservation	15	<ul style="list-style-type: none"> <li>• Water saving</li> <li>• Weed infestation</li> <li>• Yield</li> </ul>
		<ul style="list-style-type: none"> <li>• Scarcity of water during puddling and transplanting</li> <li>• Scarcity of labuor during transplanting</li> <li>• Low profit and high coast of cultivation</li> </ul>	Conservation tillage like zero tillage/ minimum tillage etc...	20	<ul style="list-style-type: none"> <li>• Yield and economics</li> </ul>
		•Scarcity of water	Water saving irrigation methods (sprinkler)	20	<ul style="list-style-type: none"> <li>• Water saving</li> <li>• yield</li> </ul>
		• Loss of soil fertility	Crop residue incorporation instead of burning	20	<ul style="list-style-type: none"> <li>• Yield and economics</li> </ul>
<b>2</b>	<b>Crop production</b>				
		<ul style="list-style-type: none"> <li>• Drought Situation</li> <li>• Rainfed low land situation</li> <li>• Scarcity of irrigation water</li> </ul>	Introducing drought/ temperature tolerance variety	50	Yield and economics
		• Scarcity of water during puddling and transplanting	Method of Establishment	20	Yield and economics

		<ul style="list-style-type: none"> <li>• Scarcity of labuor during transplanting</li> <li>• Low profit and high coast of cultivation</li> </ul>			
		<ul style="list-style-type: none"> <li>• Delay of sowing due to high moisture in soil after paddy harvesting</li> <li>• High cost of production</li> </ul>	Advancement of planting dates of Rabi crops in areas with terminal heat stress	50	Yield and economics
<b>3</b>	<b>Livestock &amp; Fisheries</b>				
		<ul style="list-style-type: none"> <li>• Infertility in milch animal</li> <li>• Low milk production</li> <li>• Poor health</li> </ul>	fodder production during drought	15	<ul style="list-style-type: none"> <li>• Milk production</li> </ul>
		<ul style="list-style-type: none"> <li>• High mortality in milch animal and calf</li> <li>• Low production of milk</li> <li>• Poor health</li> </ul>	Preventive vaccination	100	<ul style="list-style-type: none"> <li>• Reduction (%) in mortality</li> <li>• Milk Yield</li> </ul>
		<ul style="list-style-type: none"> <li>• High mortality in milch animal and calf</li> <li>• Low production of milk</li> <li>• Poor health</li> </ul>	Animal health check up camp	100	<ul style="list-style-type: none"> <li>• Mortality %</li> <li>• Milk Yield</li> </ul>
		<ul style="list-style-type: none"> <li>• Lake of knowledge</li> <li>• Poor socio-economic condition of farmers</li> </ul>	Additional / assured income generation of land less farmers through Goatry	20	<ul style="list-style-type: none"> <li>• Meat production</li> <li>• Income of farmers</li> </ul>
		<ul style="list-style-type: none"> <li>• Lake of knowledge</li> <li>• Poor socio-economic condition of farmers</li> </ul>	Additional / assured income generation of land less farmers through back yard poultry	30	Meat and eggs production Income of farmers
<b>4</b>	<b>Institutional interventions</b>				
		Unavailability of fodder during draught period	Fodder bank	10	Milk production
		Unavailability of quality seed	Seed bank	10	Yield and economics
		Lack of knowledge for operation and adjustment of farm implements.	Custom hiring centre	10	Yield and economics

**\*add rows if required**

## ACTIVITIES AND COSTS

### 2.0 Non-recurring contingencies – Equipment

#### Proposal for Procurement of farm machinery/ implements for Custom Hiringentre

S.No.	Item	Unit cost* (Rs)	No. of units	Total amount (Rs)
1.	Land laser leveler	5,00,000=00	1	8,00,000=00
2.	Tractor (50 HP)	10,00,000=00	1	10,00,000=00
	<b>Total NRC 2.0</b>			<b>18,00,000=00</b>

\* Wherever possible, subsidy extended by State Government for the machinery to be utilized and accordingly rate adjusted. Wherever required, include equipment for village level small weather station, GPS, rain gauge and any other critical equipment for community interventions.

### 3.0 Contingencies

#### 3.1 Module 1 – NRM interventions

##### A) Repair / Renovation of existing water harvesting structures, drainage channels etc.

S.No.	Intervention* and village	Dimension s	No. of units	No. of benefi- ciaries	Convergence value, if any (Rs)	Value of farmers share(Rs)	Cost to project (Rs)
1.	Channel (Arha)  Baktiyarpur	1.5 Km	1	75		5% of total cost as a man power for leveling of embankme nt	20,00,000
	<b>Sub-total 3.1 A</b>						<b>20,00,000</b>

\*De-silting, deepening & clearing of irrigation/drainage channels, repair of defunct wells etc.

##### B) In situ conservation – Resource Conservation Technologies (RCTs)

Item (specify the interventions) and village	Unit cost Rs/acre	No. of demos	Coverage		Total amount (Rs)	Remarks
			Area (acres)	No. of farmers		
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>A x C</b>	
Surface mulching through crop residue. Harigoan	1000	25	25	25	25000	
Bunding	3000	10	10	10	30000	
<b>Sub-total 3.1 B</b>					<b>55000</b>	

\*Support for improved planting methods, in-situ conservation practices; Specify crops for planting methods and all practices

### 3.2 Module II – Crop production interventions

#### A) Stress tolerant / improved varieties / Short duration / Legume crops

Intervention	Description		Cost (Rs)/acre	No. of demos	Coverage		Amount (Rs)	Remarks (purpose of intervention)
	Crop	Variety (s)			Area (ac)	No. of farmers		
			<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>A x C</b>	
Drought	Paddy	Sabour ardhjal/ Sahbhagi	1500	25	25	25	37500	Assure crop production in drought
High temperature stress	Wheat	HD-2967/DBW-14	2000	25	25	25	50000	Higher yield under terminal heat
Short duration varieties (specify)	Wheat	HD-2985	2000	25	25	25	50000	Increase in yield and resistant to yellow rust
Any other stress (specify, add rows if required)	0	0	0	0	0	0	0	
Crop diversification (to other crops)	Lentil	HUL-57	2000	25	25	25	50000	Nutritional security
Agro-forestry	Teakh		4000	50	5	50	10000	Plantation at bund to reduce the soil erosion
	Mahogani		4000					
	Gamhar		2000					
Seed for green / brown manuring	<i>Susbenia</i>		1000	35	35	35	35000	Improve Soil health and INM
Seed for legume catch crops (specify)	Moong bean	SML-668	1200	20	10	20	24000	Return under stress situation
	Urd bean	Pant urd-30	1200	20	10	20	24000	Return under stress situation
Intercropping systems (specify)	Gram+L inseed	PG-186+garima	2000	20	10	20	20000	Return under stress situation
<b>Sub Total 3.2 A</b>			22900	245	170	245	300500	

\*Add rows for other interventions, if required

## B) Improved agronomic practices and other crop interventions

<i>Intervention</i>		<i>Cost (Rs)/acre</i>	<i>No. of demos</i>	<i>Coverage</i>		<i>Amount (Rs)</i>	<i>Remarks (Purpose of intervention)</i>
				<i>Area (ac)</i>	<i>No. of farmers</i>		
		<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>A x C</i>	
Water saving paddy cultivation methods	DSR	2500	20	12.5	20	31250	Reduced production cost
	Aerobic						
	SRI						
Community nursery		6000	10	1.0	10	6000	Seedling raising for timely transplanting
Critical inputs for Integrated crop management <b>Paddy</b>		1200	10	10	10	12000	Reduce the weed population and labour for weeding and increased in yield
Wheat		2500	10	10	10	25000	Awareness for chemical weed control
Lentil		1200	10	10	10	12000	Control of cuscuta and associated weed
Critical inputs for Integrated Farming systems (specify inputs and crops)							
Other inputs (soil amendments, soil test based nutrient management, bio-fertilizers, other soil and plant health related etc)		1000	10	100	10	100000	Improve soil health and INM
Harvesting and post harvesting related interventions							
Facilitating insurance for crops (specify)							
Income generation activities (Mushroom etc)		1000/50ba ge	20	20	20	20000	Income generation
Income generation activities (Vegetables etc.)							
Facilitation of marketing of farm produce							
Any other (specify), add rows if needed							
<b>Sub-total 3.2 B</b>			90	163.5	90	206250	

#### 4.0 Module 3 – Livestock & Fisheries interventions

##### 4.1 Year round fodder production strategies (annual/perennial fodder) in the village

Season	Name of fodder	Variety	Area (ha)	Unit cost of demo (Rs)*	No. of demos	Amount (Rs)*	Remarks (purpose of intervention & farmers covered)
<i>Kharif</i>							
<i>Rabi</i>	Barseem		0.50	200	10	2000	Availability of green fodder and milk production
	Oat		0.25	300	5	1500	Availability of green fodder and milk production
Summer	Maize		0.25	200	5	1000	Availability of green fodder and milk production
	<b>Sub-total 4.1</b>		<b>1.00</b>		<b>20</b>	<b>4500</b>	

\*if applicable

##### 4.2 Feed demonstrations for crop residue management / stress management: silage / feed blocks/ mineral mixture (MM) blocks / feed enrichment

Details of feed demo*	Unit cost of demo (Rs)	No. of demos	Amount (Rs)	Remarks (purpose of intervention & farmers covered)
a) Silage demos				
b) Feed block demos				
c) Mineral mixture demos	1500	20	30000	To improve the health and milk production of milch animal 10
d) Unconventional feed resources (eg., red gram stalks, cotton stalks etc) used in preparation of complete feed				
e) Any other (specify), add rows if needed				
f) Feeding management & disease control programme in livestock (Total Mixed Ration, Mineral block, medicines & disinfectant solution)	200	125	25000	To improve the health and milk production of milch animal
<b>Sub-total of 4.2</b>		<b>145</b>	<b>55000</b>	

\*Specify fodder & animal type for demos; here indicate cost of demo, if any; cost of establishment of new units to be given in item 2.0 (equipment), if any.

#### 4.3 Improved housing /shelter for protection of livestock against extreme weather

Type of shelter improvement *	Unit cost of demo (Rs)	Cost to project (Rs)	Farmer's share (Rs)	No. of demos	Total amount (Rs)	No. of farmers covered	Remarks (purpose of intervention)
<b>Sub-total of 4.3</b>							

\*Specify animal type and material used; Plan innovative demonstrations using locally available material

#### 4.4 Livestock / Fisheries units

A	B	C	D	E	F	G
Enterprise/unit*	Unit cost (Rs)	Convergence share in unit cost, if any** (Rs)	Project share in unit cost (Rs)	No. of units/farmers	Cost to Project (D x E) (Rs)	Remarks (purpose of intervention & farmers covered)
Backyard poultry	10000	1000	9000	10	90000	Improved socio economy, no. of farmer- 10
Fish cultivation	3500	500	3000	5	15000	Increase fish production, no. of farmer- 5
<b>Sub-total of 4.4</b>				<b>15</b>	<b>105000</b>	

\* Stress tolerant breeds/piggery/goatery/duckery/backyard poultry/ fisheries/bee keeping etc. Also include livestock component of Integrated Farming Systems (IFSs)

### 5.0 Module 4 – Community interventions

#### 5.1 Establishment of fodder banks (hay)

Name of the SHG	Fodder type	Quantity of storage (t)	Unit cost (Rs.)	No. of units	Amount (Rs.)	Remarks (purpose of intervention & farmers covered)
Pashupalaksamuh	Paddy straw	5	30000	1	30000	Improvement of health, no. of farmers- 10
<b>Sub-total 5.1</b>		<b>5</b>		<b>1</b>	<b>30000</b>	

#### 5.2 Establishment of Seed banks



Name of the SHG	Crop and variety	Quantity of storage (t)	Unit cost (Rs.)	No. of units	Amount (Rs.)	Remarks (No. of beneficiaries & Period of use)
Beejutpa daksangh	Lentil (HUL-57)	2	25000	1	25000	No. of beneficiaries-50
	wheat	2	25000	1	25000	No. of beneficiaries-30
	Paddy	1	3800	1	3800	No. of beneficiaries-25
<b>Sub-total 5.2</b>		<b>5</b>		<b>3</b>	<b>53800</b>	

## 6.0. Capacity Building & Training Programmes

### 6.1 Training Courses proposed

Theme	Title of training course	Proposed month	No. of participants	Cost to project (Rs.)
Fodder management	Cultivation of green fodder and dairy management	April	25	1625
RCT	Advantage of summer ploughing	May	25	1625
RCT	Direct seeding of paddy	May	25	1625
Nursery management	Nutrient and weed management in paddy nursery	May	25	1625
IPM	Insect pest management in paddy	June	25	1625
IPM	Insect pest management and weed management in paddy	june	25	1625
INM	Integrated nutrient management in paddy	June	25	1625
Vermi compost	Vermi compost making	july	25	1625
Disease management	Animal health care	August	25	1625
Crop management	Scientific cultivation of pulses	October	25	1625
Crop management	Scientific cultivation of wheat	October	25	1625
IPM	Pest and diseases management in pulses	October	25	1625
RCT	Use and advantage of zero tillage machine	October	25	1625
IPM	Insect pest management in pulses	October	25	1625
IWM	Water management in wheat	November	25	1625
ICM	Scientific cultivation of wheat late sowing of HD 2985	November	25	1625
Weed management	Weed management in wheat and parthenium control	November	25	1625
Micro irrigation	Use of sprinkler irrigation in rabi crops	December	25	1625
Crop management	Cultivation of summer moong	January	25	1625
<b>Sub-total 6.1</b>			<b>475</b>	<b>30875</b>

### 6.2 Field Days proposed

Theme	Title of training course	Proposed month	No. of participants	Cost to project (Rs.)
Technology demonstration	Direct seeding in paddy	November	100	20000
	Weed management in paddy	August	100	20000
	Sowing of wheat through zero tillage machine	March	100	20000
<b>Sub-total 6.2</b>			<b>300</b>	<b>60000</b>

### 6.3 Exposure Visits proposed

Place of visit	Purpose of visit	Proposed month	No. of participants	Cost to project (Rs.)
BAU, Sabour	Awareness about latest technology	February	50	75000
ICAR Complex, Patna	Awareness about latest technology	January	50	25000
<b>Sub-total 6.3</b>			<b>100</b>	<b>100000</b>

### 7.0 Plan for contingency situations involving various crops during the cropping season 2018-19

Sl. No	Possible contingency situation	Measures envisaged	Unit cost/ acre	No. of farmersto be covered	Cost to project (Rs.)	Remarks
1.	Late onset of monsoon	*Direct seeding Rice * use of Zero Tillage Machine for paddy sowing + Dhaincha *Use Short duration variety of Paddy	2000	15	30000	
2.	Prolonged breaks during the season	*Life saving irrigation * Gap filling	1000	15	15000	
3.	Early withdrawal of monsoon	*Life saving irrigation	1000	15	15000	
4.	Intense storms					
5.	Temporary flooding/ Water logging due to heavy rains					
6.	Any other, ..					
<b>Sub-total 7.0</b>					<b>60000</b>	

### 8.0 Contractual Manpower (SRFs/YPs)

Category	Rate/month (Rs.)	No. of months	Amount (Rs.)
General	26250	12	315000
<b>Sub-total 8.0</b>			<b>315000</b>

### 09.0 Media Products to be developed (video films/brochures/bulletins proposed to be developed)

Item description	No. of copies	Amount (Rs.)
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Leaflet	1000	10000
Bulletin	1000	25000
Pamphlet	1000	10000
<b>Sub-total 9.0</b>		<b>45000</b>

**Summary of budget Estimates for 2018-19 (Tentative)**

<i>Item number</i>	<i>Title of the Item</i>	<i>Amount (Rs.)</i>
2.0	Procurement of farm machinery/implements for CHC	1800000
3.1 A	Repair/ Renovation of existing water harvesting structures & drainage channels etc.	2000000
3.1 B	<i>In situ</i> conservation – Resource Conservation Technologies (RCTs)	55000
3.2 A	Stress tolerant/ Improved varieties	300500
3.2 B	Improved agronomic practices and other crop interventions	206250
4.1	Year round fodder production strategies (annual/perennial fodder) in the village	4500
4.2	Feed demonstrations for crop residue management / stress management: silage / feed blocks/ mineral mixture blocks / feed enrichment	55000
4.3	Improved housing /shelter for protection against extreme weather	0
4.4	Livestock/fisheries units	105000
5.1	Establishment of fodder banks (hay)	30000
5.2	Establishment of seed banks	53800
6.1	Training courses	30875
6.2	Field days	60000
6.3	Exposure visits	100000
7.0	Plan for contingency measures for various crops during the cropping season 2018-19	60000
8.0	Contractual manpower (SRFs/YPs)	315000
9.0	Media products to be developed	45000
10.0	Any other contingencies (TA etc)	0
	<b>Grand total (Rs.)</b>	<b>5220925</b>