

TECHNICAL PROTOCOL UNDER MKSP

Name of PIA: LOKA KALYAN PARISHAD, WEST BENGAL.

Mention Agro-climate, soil condition, Cropping pattern, major crops of the Intervened area			
Agro Climatic Zones		Name the agro climatic zones in which the PIA works	
Major Crops		A crop calendar can be made, i.e. in which season what crops are cultivated	Crop calendar developed
Major Agricultural Season		Main seasons are Kharif , rabi and zaid	
Pattern of Agriculture		Rainfed or irrigated Sepa	Area under cultivation both rainfed and irrigated
<u>Separate Sheet Attached for the above subject</u>			
Major Agricultural Activities		Practices (Please mention the name of specific practice/method/substance/equipment used)	Training module developed (write yes/ No)
1	Pre Cultivation		
	Crop selection	based on Agro-climatic zone, soil, availability of water etc.	Yes, done
	Seed selection	Indigenous or hybrid based on the availability:	Indigenous & HYVs
	Seed rate	different crops have different seed rate	Yes
	Seed Treatment	Seed treatment is done to avoid seed borne diseases, should be done where seed borne diseases are prevalent and to enhance germination percentage. In case of transplanted crop it can also be seedling treatment	Practicing under S.A. tech.
2	Cultivation		
	spacing	depends on the crop, variety, soil and availability of water	Practicing under S.A. tech
	sowing/ Transplanting	Broadcasting, line sowing by dibbler, seed drill, drum seeder or transplanting by conventional method or improved	Mostly line sowing/transplanting. Broadcasting done on residual moisture crops (Poyra).
	Intercultural operations	weed management (manually/ mechanically/ organic way) earthing up for root crops, soil loosening, many cultural practices for crop management	Manually & Mechanically
3	Water conservation and water management		
	Methods of water	Mulching, some special structure etc.	Including cover

	conservation		crop, low demand crop, fallow plough, plot bund raising etc.
	Methods of irrigation	border strip method, check basin, furrow, drip etc.	Yes, in addition Pitcher drip/seap
	Plan of irrigation	It depends on the critical stages of different crops	Judiciously done as per S.A practice.
4	Soil fertility Mgmt. /Soil health enrichment and crop nutrient management		
	Biofertilizer /Organic Manure/	Jeevamrutha, Panchagavya, Organic urea, FYM, enriched vermicompost, low cost vermicompost, tank silt, vermiwash, microorganism, fish oil, amrit pani, egg lime, egg amino acid handi katha etc.	In addition Rhizobium cultures, Azotobactors, Azospirillum (PSB) are used.
	Methods of application/Practices	depends on the biofertilizer used	Yes, as per application tech.
	Duration/ Scheduling of application	depends on the biofertilizer used	Yes, as per application tech.
	Methods of enhancement of soil biomass	mulching, green manuring, adding of organic biomass in the soil, plantation of tree in the bunds (which add biomass to soil)	Turning of weed in to deep zone practiced in addition.
5	Insect/Pest/ Management		
	Insect/ Pest control methods/ practices (E.G. If NPM, please specify particular method of control under NPM)	biological, mechanical, physical, cultural	In addition, Neem leaf extract, Neem cake & seed extract etc. botanical use, cow dung extract, cow urine, trap crop/plants, bird purtures etc.
	Insect/ Pest control substances(biopesticide/ others etc)	Poochimarandu (herbal solution), effective microorganisms fermented plant extract (em-fpe), agricultural formulation or herbal pesticides, chilli garlic-ginger extract, beejamrutha panchagavya,.	In addition, trap crop/berrier, soup-k-oil emulsion, narium leaf extract, neem leaf extract etc. botanics, soap water, merry gold, basil etc. repellants practiced.
6	Disease Management		

Technical Protocol Under MKSP

Kalchini Block, Jalpaiguri Terrai-Teesta Aluvial zones:	Soil Condition	Cropping pattern	Major Crops
	Flood prone, well drained, sandy loam to loamy sand with stone, shallow alluvial soil cap deposited over deep river sand. Soil is moderately acidic, low in organic matter, low in NPK etc. major nutrients, well drained.	Major area is covered under tea and forest. Agri. Cropping pattern: i) Rice - fallow ii) Maize – Maize iii) Maize – Vegetable iv) Rice – Wheat/Oil seeds Agriculture pattern: Rain fed	i) Plantation crops: Tea, Aeronaut. ii) Food grain – Rice, Maize, Wheat. iii) Oil seeds: safflower, Mustered. iv) Seasonal veg: Colocasia, Flat bean, Long bean, Leafy vegs. (Mustered family) Cole crops, Gourds, Radish, Carrot etc. v) Collected: forest food & herb products.
Ithar Block, Goalpukur Block Uttar Dinajpur Terrai-Teesta Aluvial zones:	Deep flood prone moderately drained, sandy loam to clay loam. Soil slightly acidic to natural. Medium in soil nutral, Low in organic carbon, soil fertility medium to high.	i) Rice – Mustard - Mustard ii) Jute – Rice – Mustard iii) Rice – Wheat iv) Maize _ Rice – Mustard/ Pulses v) Maize – Rice – Veg. vi) Veg – Rice – Veg. Agriculture pattern: Rain fed	Food grains: Rice, Wheat, Maize. Oil seeds: Mustered, Seseme Pulses: Pigion pea. Seasonal Veg: Flat bean, Long bean, Different gourds. Fruits: Mango, Jack fruit, Arecanut, Coconut, Pineapple, Banana, Guava etc.
Harirampur & Banshira Block Dakshhin Dinajpur	Moderately drained, deep loam to clay loam. Low in organic carbon. Medium in P.K & other minerals soil	i) Rice – Mustard - Mustard ii) Jute – Mustard – Mustard	Food grains: Rice, Wheat, Maize. Oil seeds: Mustard, Sesame, Groundnut, Pulses: Pigion pea,

<i>Gongetic Aluvial zones:</i>	fertility is medium to high.	iii) Rice – Wheat iv) Maize – Rice – Mustard/Pulses v) Maize – Rice – Veg. vi) Veg – Rice – Veg. Agriculture pattern: Rain fed	Seasonal Veg: Flat bean, Long bean, Different gourds. Fruits: Mango, Jack fruit, Arecanut, Coconut, Pineapple, Banana, Guava etc.
Illambazr, Md. Bazar & Khairasole Block Birbhum <i>Congetic Aluvial zones:</i>	Deep (>90 cm) well drained loamy to sandy loam occurring on gently slopping to undulating plain with moderate erodibility. Soil reaction ranges from 5.0-6.0, Low in fertility.	Rice – Fallow Rice – Mustard/Veg. Rice – Mustard Rice – Veg. Rice - Pulses Agriculture pattern: Rain fed	Food grains: Rice, Wheat Seasonal Veg.: Colocasia, Leafy veg, Broad bean, Long bean, Potato, Gourds. Pulses: Gram, Black gram, Red gram, Sesemum. Fruits: Mango, Banana, Guava Papaya, Jack fruits, Moringa etc.
Jhalda -2, Jaipur Block Purulia <i>Red laluitic Aluvial zones:</i>	Shallow to deep, stony, well drained, Loamy to sandy loam occurring on gentle to undulating plain with moderate erodibility, Soil reaction 5.0-6.0. Low in organic carbon & major minerals, Low in soil fertility.	Rice – Fallow Rice – Mustard/Veg. Rice – Mustard Rice – Veg. Rice – Pulses Agriculture pattern: Rain fed	Food grains: Rice, Wheat, Maize, Pulses: Black gram, Horse gram, Bengal gram. Seasonal Veg.: Colocasia, Leafy veg, Broad bean, Long bean, Potato, Gourds, Moringa. Fruits: Mango, Banana, Jackfruit, Papaya.