



WBADMIP
Horticulture Support Services



HORTICULTURE ACHIEVEMENT AT A GLANCE "TILL MARCH 2019"



**WEST BENGAL ACCELERATED DEVELOPMENT OF MINOR IRRIGATION PROJECT
(WBADMIP)**

MAJOR ACHIEVEMENT UNDER HORTICULTURE

OUTCOMES

With assured irrigation, farmers are getting more interested in growing diversified vegetables & fruits.

Project encourages farmers with training, exposure & inputs.

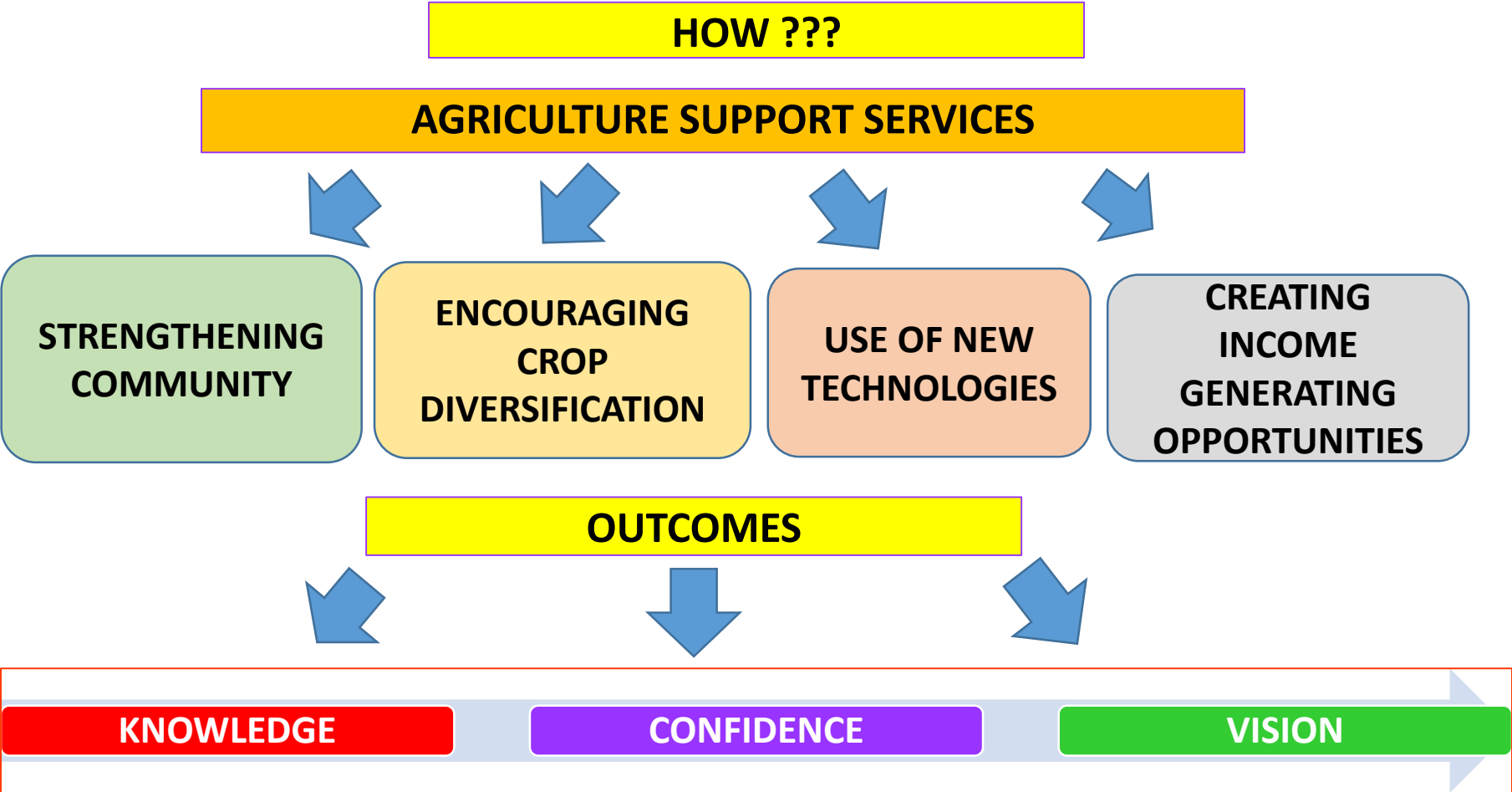
It has helped farmers to generate additional source of income as well as food diversity.

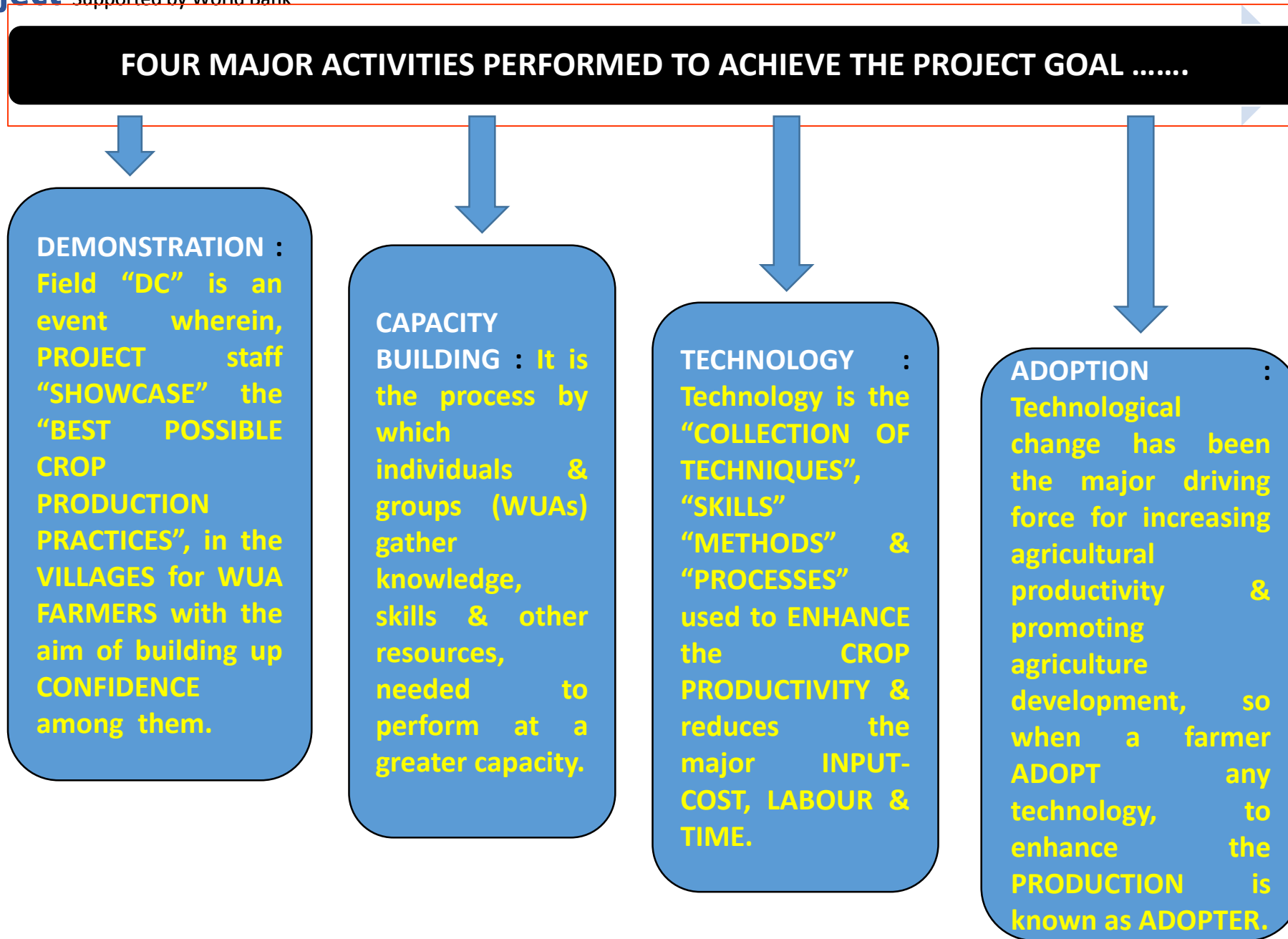
“More than 60000 farmers were benefited from Horticulture activities in different interventions within 5 years”

WB ADMI Project Supported by World Bank

PROJECT DEVELOPMENT OBJECTIVES
(PDO) UNDER HORTICULTURE (COMPONENT-C-II)

The project development objective is to “enhance agricultural production of small & marginal farmers” in the project area.





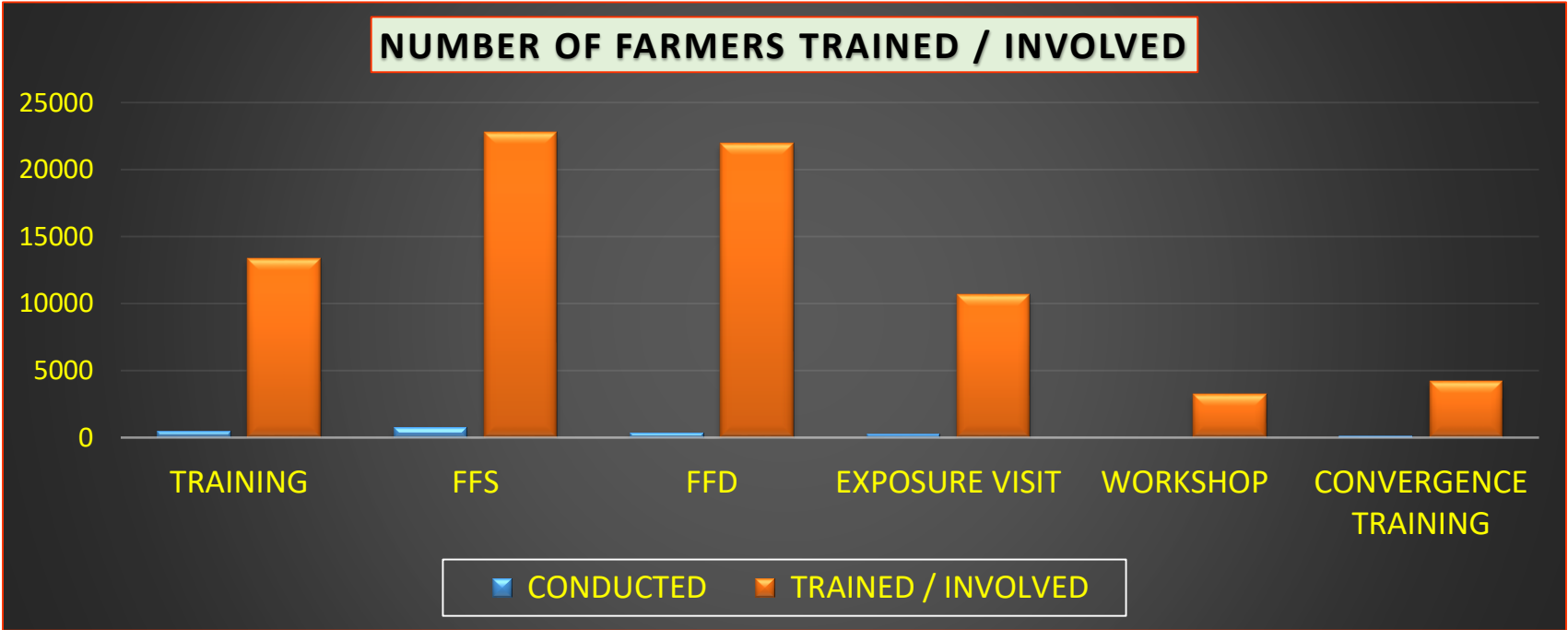
ACHIEVEMENTS OF “DC” UNDER “HORTICULTURE” TILL MARCH 2019

YEAR	TAGET DC (NO's)	ACHIEVEMENTS DC (NO's)	AREA (IN Ha.)	EXPENDITURE (INR Crore)
2013-14	100	165	22	0.11
2014-15	550	669	89.25	0.35
2015-16	1750	3288	438.58	2.37
2016-17	2600	2608	347.87	4.49
2017-18	2500	4167	555.82	3.16
2018-19	5000	6943	926.11	14.06
GRAND TOTAL	12500	17840	2379.63	24.54
2019-20 (Exp.)	6000	8000	1067.09	28
TILL DEC-2019	18500	25840	3446.72	52.54



DETAILS OF CAPACITY BUILDING PROGRAMME UP TO MARCH - 2019

ACTIVITIES	CONDUCTED	TRAINED / INVOLVED
CROP SPECIFIC TRAINING	467	13348
FFS	787	22779
FFD	388	21953
EXPOSURE VISIT	258	10658
WORKSHOP	35	3224
CONVERGENCE TRAINING	126	4203
GRAND TOTAL	2061	76165



“SPECIFIC INTERVENTIONS”

- Introduced quality vegetable seeds as per different agro-climatic condition.
- Promoted soil free vegetable nursery using plug trays to get best quality saplings.
- Transplanting of vegetable seedlings were done on raised bed to get optimum growth.
- Balanced dose of nutrients were applied like FYM & vermicompost to reduce the chemical fertilizers.
- Used different biological IPM practices for pest attack, as a result of which, application of chemical spraying was minimized.
- Sowing & transplanting of seedling with optimum population per unit area was done on time to get optimum production.
- Farmers were encouraged to make vermicompost production units in cement tanks, to use as manure in their fields to maintain the fertility of the soil.
- Introduced drip irrigation, sprinkler & poly houses for high value vegetables to get more yield & better price in off-season.

**SOIL FREE NURSERY RAISING
UNDER HORTICULTURE SPECIAL PROGRAMME, WBADMIP
DISTRICT – BANKURA, PURULIA & PASCHIM MEDINIPUR, CROP – CAULIFLOWER,**



MAIN FIELD TRANSPLANTING TRAINING UNDER HORTICULTURE SPECIAL PROGRAMME, WBADMIP DISTRICT – BIRBHUM, CROP – TOMATO, VILLAGE - NANDULIA



TRANSPLANTING PROCESS UNDER GRAVITY DRIP IRRIGATION SYSTEM UNDER HORTICULTURE SPECIAL PROGRAMME, WBADMIP DISTRICT – PASCHIM MEDINIPUR, CROP – BRINJAL, VILLAGES – KATNIMARO & BAGMARI



**MAIN FIELD SITUATION UNDER GRAVITY DRIP IRRIGATION SYSTEM
UNDER HORTICULTURE SPECIAL PROGRAMME, WBADMIP
DISTRICT – PASCHIM MEDINIPUR, CROP – BRINJAL,
VILLAGES – KATNIMARO & BAGMARI**



MAIN FIELD SITUATION UNDER GRAVITY DRIP IRRIGATION SYSTEM UNDER SPECIAL PROGRAMME, WBADMIP, DISTRICT – BANKURA, CROP – CAULIFLOWER, VILLAGES – JAMTHOLE, BHAKTABANDH, DUMDA & HARAKBEDIA



**MAIN FIELD SITUATION UNDER GRAVITY DRIP IRRIGATION SYSTEM
UNDER HORTICULTURE SPECIAL PROGRAMME, WBADMIP
DISTRICT – BIRBHUM, CROP – TOMATO, VILLAGE - NANDULIA**





FEW GLIMPSES OF CAPSICUM FIELD.....



FEW GLIMPSES OF MINI CUCUMBER FIELD.....



FEW GLIMPSES OF SEED-LESS BRINJAL FIELD.....



IMPACT OF CROP GUARD IN THE NURSERY (LOW COST INSECT TRAP) UNDER HORTICULTURE SPECIAL PROGRAMME, WBADMIP DISTRICT – BANKURA, CROP – CAULIFLOWER, VILLAGE - DOLPUR



FEW NEW HIGH VALUE CROPS PROMOTED..... “TURMERIC & WATER MELON”



FEW NEW CROPS PROMOTED....."SWEET PEA, BROCCOLI, CARROT & BEET ROOT" ETC.



PROJECT DEVELOPMENT OBJECTIVES (PDO) UNDER HORTICULTURE

RESULT FRAME WORK UNDER HORTICULTURE TILL DEC - 2019
(AVERAGE PRODUCTION OF FEW MAJOR VEGETABLE CROPS IN "MT / HECTARE")

CROPS	2014-15	2015-16	2016-17	2017-18	2018-19	END PROJECT TARGET
CAULIFLOWER	18	19	19	20	20	20
BRINJAL	12	13	14	14	15	15
TOMATO	13	14	15	16	16	16
ONION	10	11	12	13	13	13
OKRA	4	5	6	7	7	7

RESULT FRAME WORK (ACHIEVEMENT) TILL MARCH - 2019
(Average production achieved of few major vegetable crops "MT/Hectare")

MAJOR CROPS	2014-15		2015-16		2016-17		2017-18		2018-19		END PROJECT TARGET
TARGET / ACHIEVEMENT	T	A	T	A	T	A	T	A	T	A	T
CAULIFLOWER	18	19.52	19	20.34	19	21.23	20	21.54	20	21.66	20
BRINJAL	12	14.25	13	16.76	14	18.39	14	18.66	15	18.77	15
TOMATO	13	14.2	14	16.87	15	17.22	16	17.35	16	17.62	16
ONION	10	12.5	11	14.34	12	16.65	13	18.23	13	19.12	13
OKRA	4	6.6	5	7.6	6	9.64	7	9.78	7	9.88	7

MILESTONE MATRIX UNDER HORTICULTURE TILL DEC - 2019

MILESTONE	PROJECT TARGET
No of Demonstration	4800
Area under Horticulture (Ha.)	252
No of Adopter of Horticulture technology	24000
No of Female Adopters	4320
No of Tribal Adopters	3120
No of Small & Marginal Adopters	19200

MILESTONE MATRIX (ACHIEVEMENT) TILL MARCH - 2019

TOPIC	CUMULATIVE UP TO MARCH-2016	CUMULATIVE UP TO MARCH 2017	CUMULATIVE UP TO MARCH 2018	CUMULATIVE UP TO MARCH 2019	PROJECT TARGET
No of Demonstration	4217	9449	13616	20559	4800
Area under Horticulture (Ha.)	514	1098	1654	2580	252
No of Adopter of Horticulture technology	4553	12350	17850	20580	24000
No of Female Adopters	819	2223	3215	4473	4320
No of Tribal Adopters	592	1606	1923	4038	3120
No of Small & Marginal Adopters	3142	8521	12165	17333	19200

MIXED FRUIT TREE PLANTATION PROGRAMME

The Project took up an initiative to raise mixed fruit tree / spices / sericulture / beverages plantation program in 2018-19

The objectives is to make productive use of “current fallow” land available in abundance specially in Paschimanchal & a few other districts

Mixed fruit tree plantation with the purpose of generating income throughout the year

Intercropping taken up to get the farmers engaged at the site all the year round as well as generate income from beginning

This may generate income for the family for more than 30 years & seasonal income through different vegetables from inter-cropping.



About 4 lakhs Mix fruit plantation carried out in 1500 Ha wasteland

ONE OF THE MAJOR ACHIEVEMENT UNDER PLANTATION IN SOUTH 24 PARGANAS

AROUND 117 KMs AREA (170 Ha.) FROM BOTH SIDE OF THE EMBACMENT, WERE BROUGHT UNDER MIXED FRUIT PLANTATION PROGRAMME LIKE “COCONUT, BEETEL NUT, PINEAPPLE, PAPAYA & DRUM STICK” ETC.

“Bird’s eye view of cluster of WDS”



BLOCKS : CANNING-I, CANNING-II, BARUIPUR, JOYNAGAR-I, GOSABA & KULTOLI

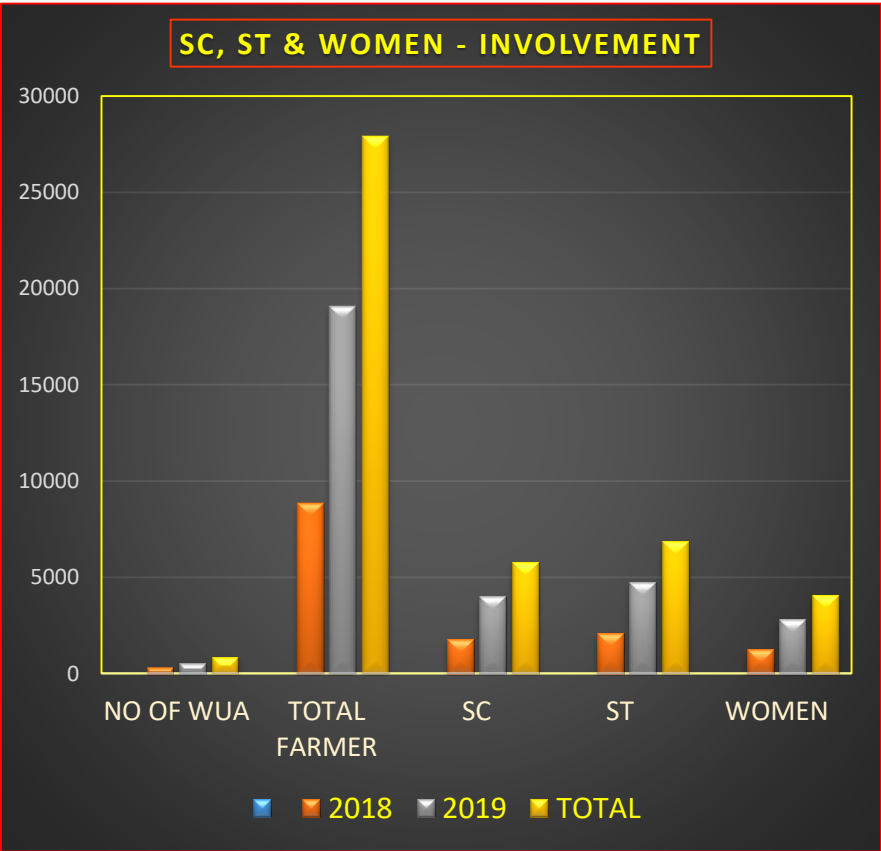
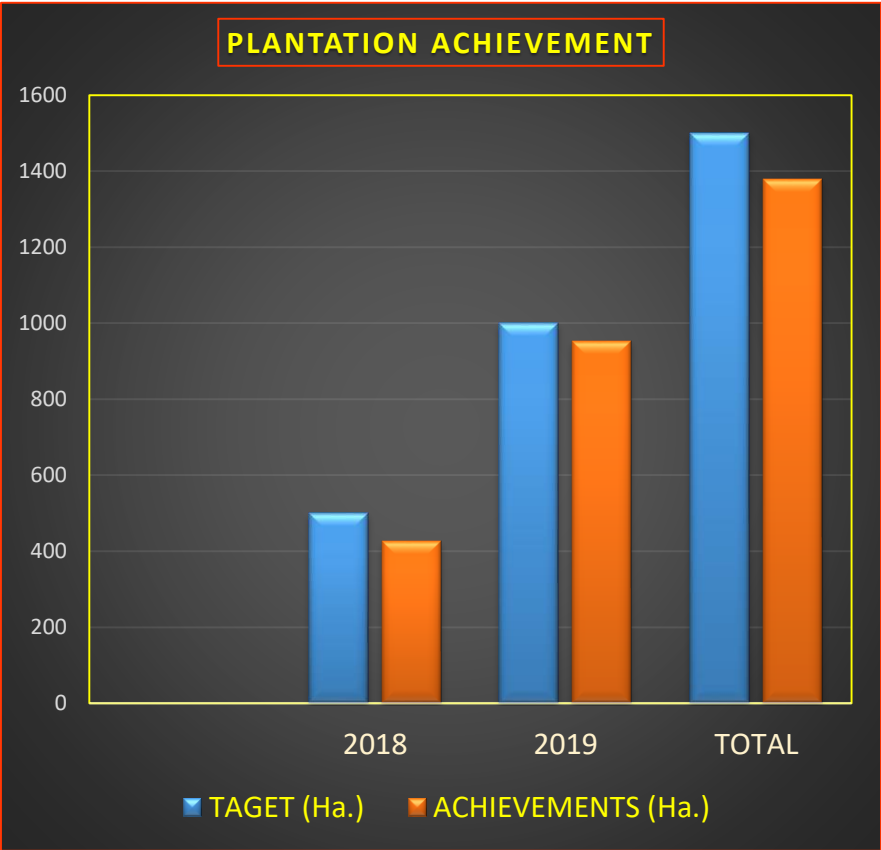
ONE OF THE 2ND MAJOR ACHIEVEMENT UNDER PLANTATION IN DARJEELING (KALIMPONG)

**AROUND 170 Ha. OF AREA BOTH FROM DARJEELING & KALIMPONG, WERE BROUGHT UNDER MIXED FRUIT
“MANDARIN ORANGE, LEMON, MUSOMBI, AVAGADO, APPLE, PEARS, BANANA, GUAVA, JACK FRUIT” & SPICES
“BLACK PEPPER, LARGE CARDAMOM, BEETEL NUT & COFFEE” PLANTATION PROGRAMME LIKE ETC.**



ACHIEVEMENTS UNDER “MIXED FRUIT TREE PLANTATION” TILL 2019

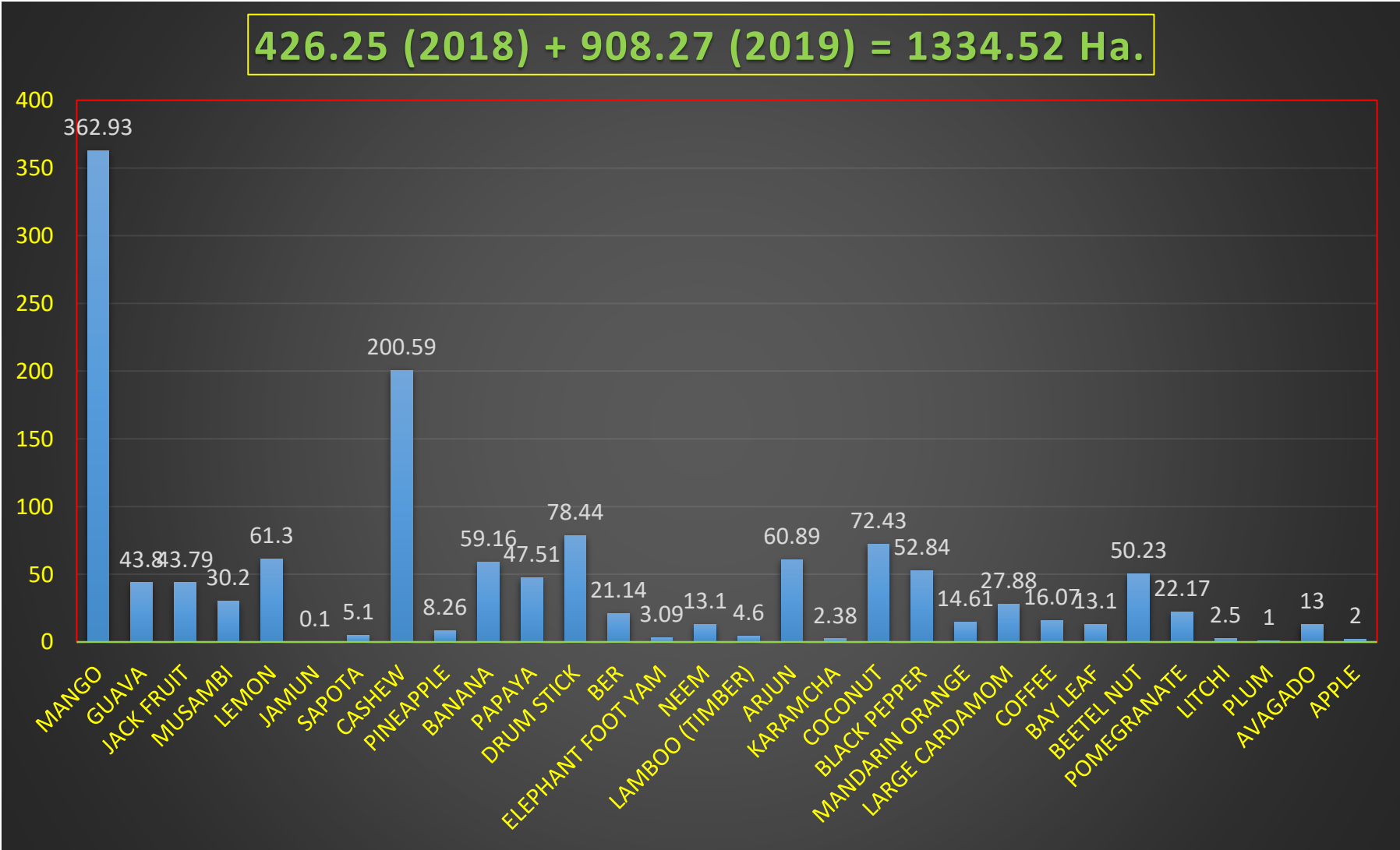
YEAR	TARGET AREA IN Ha.	ACHIEVEMENTS AREA IN Ha.	TOTAL SAPPLINGS	DPMU	NO OF WUA	TOTAL FARMER	SC (%)	ST (%)	WOMEN (%)
2018	500	426.25	431621	15	305	8830	1795 (20.33)	2115 (28.95)	1258 (14.24)
2019	1000	908.27	1366803	18	545	19065	4012 (21.04)	4726 (24.79)	2811 (14.74)
TOTAL	1500	1334.52	1798424	18	850	27895	5807 (20.69)	6841 (26.87)	4069 (14.49)



DISTRICT WISE PLANATATION PROGRAMME DURING KHARIF – “2018 & 2019”

S N	DISTRICT	2018		2019		GRAND TOTAL	
		Ha.	ZONAL WISE	Ha	ZONAL WISE	Ha	ZONE WISE
1	PURULIA	100.72	247.23	234.94	541.13	335.66	788.36
2	BANKURA	112.81		148.89		261.70	
3	BIRBHUM	6.8		22.2		29	
4	PASCHIM MEDINIPUR	26.9		135.1		162	
5	DARJEELING	48	92.88	124	228.61	172	321.49
6	JALPAIGURI	9.52		46.26		55.78	
7	COOCHBEHAR	17.26		30.04		47.3	
8	UTTER DINAJPUR	14.5		16.93		31.43	
9	DAKSHIN DINAJPUR	0		6.62		6.62	
10	MALDA	3.6		4.76		8.36	
11	HOWRAH	2.66	86.14	4	138.53	6.66	224.67
12	HOOGHLY	3.33		3.08		6.41	
13	NORTH 24 PARGANAS	2		3.4		5.4	
14	SOUTH 24 PARGANAS	74.37		93.82		168.19	
15	NADIA	2.18		13.27		15.45	
16	MURSHIDABAD	1.6		2.4		4	
17	PURBA MEDINIPUR	0		13.87		13.87	
18	BARDHAMAN	0		4.69		4.69	
GRAND TOTAL		426.25		908.27		1334.52	

TYPES OF PLANTS PROMOTED UNDER “MIXED FRUIT TREE PLANTATION” TILL 2019



30 DIFFERENT TYPES OF PLANTS PROMOTED ACCORDING TO AGROCLIMATIC ZONE

MAJOR PLANT TYPES WITH % OF TOTAL AREA & DISTRICTS UNDER PLANTATION IN TWO YEARS

FRUIT PLANT	AREA IN Ha.	% OF TOTAL AREA	MAJOR DISTRICTS
MANGO	362.93	27.20	WESTERN DISTRICTS
CASHEW	200.59	15	PASCHIM MEDINIPUR & BANKURA
JACK FRUIT	13.79	1.03	WESTERN DISTRICTS
BANANA	59.16	1.03	SOUTH BENGAL DISTRICTS
MUSAMBI	30.2	2.26	WESTERN & NORTH BENGAL DISTRICTS
POMEGRANATE	22.17	1.66	WESTERN & NORTH BENGAL DISTRICTS
LEMON	61.3	4.59	WESTERN & NORTH BENGAL DISTRICTS
GUAVA	43.8	3.28	WESTERN & NORTH BENGAL DISTRICTS
PAPAYA	47.51	3.56	WESTERN & NORTH BENGAL DISTRICTS
DRUM STICK	78.44	5.87	WESTERN & NORTH BENGAL DISTRICTS
MANDARIN ORANGE	14.61	1.1	KALIMPONG
COCONUT	72.43	5.43	SOUTH BENGAL DISTRICTS
ARJUN (SERICULTURE)	60.89	4.56	PASCHIMANCHAL DISTRICTS
OTHERS	116.58	8.74	ALL DISTRICTS
SPICES PLANT	AREA IN Ha.	% OF TOTAL AREA	MAJOR DISTRICTS
BLACK PEPPER	52.84	4	DARJEELING
LARGE CARDAMOM	27.88	2.1	KALIMPONG
BAY LEAF	3.1	0.16	UTTER DINAJPUR & COOCHBEHAR
BEETEL NUT	50.23	3.76	NORTH BENGAL DISTRICTS
COFFEE	16.07	1.2	DARJEELING

INCOME THROUGH INTER-CROPPING UNDER PLANTATION PROGRAMME

PURULIA, BANKURA & PASCHIM MEDINIPUR (2018-19)

DISTRICT	CROP	% COVERAGE AREA	AVERAGE INCOME
PURULIA	Tomato, Coriander leaves, Spinach, Pumpkin, Bottle gourd, Chilli, Radish	65-70% (of total plantation area)	Rs.60,000/-
BANKURA	Green gram, Red gram, Pumpkin, Bitter gourd, Bottle gourd, Spinach, Beans, Tomato, Amaranthus	80% (of total plantation area)	Rs.45,000/-
PASCHIM MEDINIPUR	Pumpkins, Red gram, Beans & Spinach	45% (of total plantation area)	Rs.24,500/-

ADDITIONAL INCOME GENERATE THROUTH INTER-CROPPING (PURULIA, BANKURA & PASCHIM MEDINIPUR)

DISTRICT	TOTAL AREA (2018-19)	% COVERAGE AREA	ADDITIONAL INCOME GENERATE
PURULIA	100.72 (Ha.)	65.45 (Ha.)	Rs.39,27,000/-
BANKURA	112.81 (Ha.)	90.25 (Ha.)	Rs.40,61,250/-
PASCHIM MEDINIPUR	26.9 (Ha.)	12.15 (Ha.)	Rs.29,16,00/-

IMPACT ASSESSMENT REPORT BY “IWMI (2018-19)” ON HORTICULTURE

**FOR FIVE PASCHIMANCHAL DISTRICT
(BANURA, PURULIA, BIRBHUM, JHARGRAM & PASCHIM MEDINIPUR)**

(A) AREA UNDER VEGETABLE & FRUIT CULTIVATION

2013-14 (BASE LINE AVERAGE)	2018-19 (AFTER PROJECT INTERVENTION)	% INCREASED (IN VEGETABLE & FRUIT CULTIVATION)
5.3 % OF THE CCA	29.4 % OF THE CCA	24.1 % OF THE CCA

IF CONSIDERING AVERAGE OF TWO MOST PRIORITY DISTRICTS COVERAGE.....		
PURULIA	5.3 % OF THE CCA (BASE LINE)	30.7 % OF THE CCA INCREASE
BANKURA		27 % OF THE CCA INCREASE

(B) INCREASE OF MEAN INCOME UNDER HORTICULTURE

2013-14 (BASE LINE AVERAGE)	2018-19 (AFTER PROJECT INTERVENTION)	AVERAGE % INCREASED (INCOME)
Rs.41,184.00 / Ha.	Rs.74,880.00 / Ha.	(81.8 %)

FUTURE PLANNING & WAY FORWARD

- **Emphasize on “Post Plantation Management”**
- **Promotion of “Fruit Collection Center” for marketing.**
- **Developing “Spices & Floriculture Hub” for North Bengal districts.**
- **Promotion of “Organic farming” & “Integrated Pest Management” technologies.**
- **Emphasize on “Protective cultivation” in North Bengal Districts.**
- **Emphasize on “Demand based” cropping calendar for selected Districts.**
- **Emphasize on “Technical Service Provider” to manage specific program, which has secure market demand.**

OUR EXPERIENCE

If you give a man a fish, you feed him for one day, BUT If you give a man a fishing rod he feeds himself for a lifetime.

