

KRISHI VIGYAN KENDRA, KHAGARIA

Comprehensive Crop Diversification and Contingency Plan of KVK, Khagaria

1. General Information

Region	Koshi
Districts	Khagaria
Agro Climate Region	Zone-II, North – East Alluvial Plain

2. Agro – Climatic Profile

Parameter	
Weather/temperature (max/min)	Max- 43, Min – 4
Rainfall (mm/years) (annual for last 5 years)	1150 mm

3. Rainfall Data (Last 5 Years)

Month	2021	2022	2023	2024	2025
January	0	0	0	0	0
February	0	0	0	4.3	2.1
March	0	0	16.2	42.1	0.1
April	0	0	12.5	0	90.1
May	226.9	87.4	55.6	40.4	53
June	373.0	149.2	108.2	24.5	62.4
July	243.3	93.7	103.4	307.6	312.5
August	222.6	120.9	417.5	179.6	292.4
September	75.5	155.5	373.6	237.8	273.2
October	235.8	156.5	135.9	52.8	106.6
November	0	0	0	0	54.9
December	15.4	0	4.5	0	0

4. Soil Condition

Soil Type	Area (ha)	pH	Organic Carbon	Major Constraints
Sandy loam to clay loam	1,04,000	6.5 to 8.2	0.33 to 0.60	Drought & Flood

5. Irrigation Facilities

Source	Area/Number	% Share
Tube well	72,000	72

6. Major Crop Statistics

Crop	Season	Area (ha)	Production (MT)	Productivity (q/ha)
Paddy	Kharif	16,768	47,578	28.37
Maize	Kharif	18,195	39,483	21.70
Wheat	Rabi	24,900	8,88,71	35.69
Maize	Rabi	32,871	2,48,932	75.73

7. Cropping System

Existing System	Area Covered (ha)	Constraints	Opportunities
Paddy-Wheat	12022	Significant crop damage due to frequent flood & drought	High yielding during normal condition
Paddy-Maize	15411		
Maize-Wheat	14332		
Maize-Maize	16146		

8. Horticulture & Plantation

Crop	Area (ha)	Production (MT)	Production (q/ha)
Mango	1,642	15,763	96.00
Litchi	318	1,100	34.60
Guava	411	2,585	62.90
Banana	1,310	58,950	450.00
Papaya	330	24,750	750.00
Brinjal	1,250	31,390	251.12
Turmeric	15	382	255.00
Potato	4,109	10,8654	264.43
Tomato	1,201	30,346	252.67
Cauliflower	1,259	20,353	161.66
Garlic	37	83	22.50
Coriander	164	147	8.97
Okra	1,226	19,866	162.03
Louki	442	7,160	148.75
Parwal	450	7,061	156.90

9. Livestock Resources

Species	Male	Female	Total
Total no. of Indigenous cattle	-	1,253	1,253
Total no. of cross breed	-	2,56,547	2,56,547
Total no. of Buffalo	-	28,053	28,053
Total no. of Goat	-	2,46,451	2,46,451
Total no. of Sheep	-	187	187
Total no. of commercial dairy unit	-	15	15
Total no. of commercial goatry unit	-	06	06

10. Poultry Resources

Type	No. of Farms	Breed Population
Boiler	16	58,125
Layer	04	4,360
Backyard	25	6,465

11. Fisheries Resources

Type	Area / Number	Production (MT)
Ponds	3073.36 (ha) 1691 (No.)	31.030

12. Climate Risk Profile

Hazard	Frequency	Severity	Affected Area
Drought	1	High	36,195
Flood	1	High	38,205

13. Economics Loss Assessment

Factors	Crop Loss %	Livestock Loss %	Fishery Loss %
Drought	43.6	20.10	50.60
Flood	55.1	40.30	40.10
Storm / Cyclone	68.3	21.6	30.40
Extreme Cold wave	03.7	5.8	10.50
Extreme Heat wave	1.2	10.30	20.10

14. Market & Value Chain Analysis

Commodity	Major Market	Demand Trend	Value Addition Potential
Paddy	Khagaria	Stable	Rice-milling
Maize	Khagaria	Stable	Cattle feed, flour, Ethanol
Wheat	Khagaria	Stable	Flour, Sujji, Maida, bakery product
Banana	Khagaria	Stable	Powder, Chips & fruits
Milk	Sudha, Khagaria	High	Paneer, Curd, Ghee

15. Crop Diversification Opportunities

Existing Crop	Alternative Crop	Justification	Expected benefit
Maize (Kharif)	Soybean	High profitable	Better market price

16. Climate Resilient Technologies

Technology	Target Crop / System	Expected Outcome
DSR	Paddy	10 % increase in profit
Zero Tillage Wheat	Wheat	15 % increase in profit

17. Natural Farming Opportunities

Practices	Current Status	Scope for Expansion
Natural farming in cereals & vegetables	22	Training & Awareness

18. Water Use Efficiency Measures

Technology	Coverage	Potential Area
Micro- Irrigation	50 ha	1032 ha

19. Nutrition Security Interventions

Intervention	Target Group	Expected Impact
MEP	Children's, Male & Female (above 18 years)	Improvement in hemoglobin & BMI (Body mass index)

20. Emerging Technologies

Technology	Application	Adoption Status
Drought Tolerant	Suitable for drought condition	Farmers started the adoption
Flood Tolerant	Suitable for flood condition	Farmers started the adoption

21. Contingency Plan – Drought

Situation	Recommended Action	Responsible Agency
Kharif, 2026	ICAR – CRIDA, Hyderabad	KVK in coordination with CRIDA

22. Contingency Plan – Flood

Situation	Recommended Action	Responsible Agency

23. Contingency Plan – Heat / Cold Wave

Situation	Recommended Action	Responsible Agency

24. Pest & Disease Contingency

Problem	Mitigation Strategy	Remarks
Fall Army Worm in maize	Integrated Pest Management	

25. Recommended Varieties

Crop	Verities	Duration	Special Trait
Paddy	Sabour Harshit	120-125	Suitable in drought & flood condition

26. District Action Plan

Activity	Timeline	Agency	Expected Outcome
Action Plan, 2026	January to December	KVK	Working according to action plan

27. Monitoring Indicators

Indicator	Baseline	Target	Frequency
Training & Field visit	Farmers Feedback	As per action plan	As per action plan

Add any other information which is not included in the above :-