BASELINE REPORT (DRAFT)

WDC-PMKSY 2.0 - ASSAM

State Level Nodal Agency | Soil Conservation Government of Assam

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EXECUTIVE SUMMARY

Intervention data was collected from 13 districts and control data was collected from 6 districts. The following sample was achieved.

	Intervention	Control			
	Planned	Achieved	Planned	Achieved	
Villages	104	107	24	22	
Districts	13	13	6	6	
Sampla	13 districts x 175 Households = 2275	2292	12 districts x 50 Households = 600	600	
Sample	Around 22 HHs each from 104 villages	2292	Around 25 HHs each from 24 villages	600	
Micro Watersheds	54	54	None	None	

HOUSEHOLD SURVEY

Background information of respondents

	Total	Intervention	Control
Male (%)	92	91	96
Female (%)	8	9	4
Age (Avg)	44	44	45
Hinduism (%)	62	61	64
Islam (%)	31	31	33
Christianity (%)	7	8	3
Scheduled Caste (%)	10	10	10
Scheduled Tribe (%)	25	27	17
OBC (%)	28	27	33
General (%)	37	36	40
Family size (Avg)	4.9	4.94	4.76
Members work for money (Avg)	1.63	1.63	1.65

A quick snapshot on key background parameters reflects that there is practically no difference between intervention and control areas, showing that the households selected are similar. More number of Hindu households in general categories were found in Control areas than intervention areas. While 27% STs were in intervention, 33% OBCs in Control areas participated in the survey.

Education - Among all, 40% respondents attended schools (classes 6 to 8) and 32% (classes 9-12). There is a slight difference between intervention and control -45% attended classes 6-8 and 29% attended classes 9-12 in control. Only 62% school-going aged children in households are attending schools currently and it is lower in control areas (53%). This shows that many children are not attending schools in the villages of Assam.



Entitlements - Aadhar cards, PAN cards are available with all families. Ration cards and BPL cards are available with most families, a little less among CBVZ and HZ people. There is variation in possessing MGNREGS Job Cards. While 97% HZ people have job cards, only 55% Barak Valley people possess it. Only 55% farmers in control areas have job cards. Among the farmers who have BPL cards, 85% avail AAY across all zones and 15% have PHH Ration cards. 57% of respondents reported having an MGNREGS card (Job Card), with a higher percentage in intervention areas (58%) compared to control areas (55%). The average number of days worked for those with an NREGA card ranged from 13 to 26 days.

Group membership - Overall, 56% are members of SHGs, it is more (58%) in intervention than in control (48%) areas. 9% are user group members and 3% are FPO members in the intervention area. Few families have reported that some of their family members are elected PRI representatives and interestingly they are mostly from the hill zone.

Drinking water - Piped water into dwelling/yard/plot is more prevalent in the intervention group (35%) compared to the control group (2%), with substantial variations across zones. Tube wells or boreholes are a dominant source, especially in the intervention group (73%). Public taps/standpipes and protected dug wells exhibit significant differences between intervention and control groups, with varying usage patterns in different geographical contexts. Cart with small tanks and tanker trunks is more popular source during other months while piped water and boreholes are more popular sources of drinking water during the winter months. In Hill Zone, protected springs were named as drinking water source by only 7% of the households probably because the average distance of the springs from the households is much higher than any other sources.

Access to sanitary toilets - Regarding toilet facilities, most households in both intervention and control groups use flush toilets or pour flush toilets (72% overall). Notably, in the control group, a lower percentage (3%) utilizes pit latrines compared to the intervention group (34%). All the farmers mentioned that toilet is in their household and mentioned that members use the toilet regularly. While 99 % respondents reported that the children member of their household in the control group use toilet regularly, it is 93% in the intervention group.

Cooking fuel - LPG is the most prevalent fuel source (57%). The control group shows a higher reliance on LPG (74%) compared to the intervention group (52%). Wood is a significant fuel source, particularly in the North Bank Plain Zone and Upper Brahmaputra Valley Zone.

Electricity - electricity is the primary source in the evening for most households (95%), with solar lights being more prevalent in Hill zones and Upper Reach of the intervention group.

Amenities - Mobile phones (96%), LPG cylinders (77%), bicycle (77%), electric fan (76%) and television (55%) among others are possessed by the families.

Occupation - The primary occupation is agriculture for total (86%), intervention (85%) and control (88%) farmers. More farmers in control area are into animal husbandry than the intervention area. A good portion of respondents work as agricultural labourers and unskilled labourers.

Occupation	Total	Intervention	Control
Agriculture & Horticulture (%)	86	85	88
Animal Husbandry (%)	13	12	17
Agricultural Labourer (%)	17	17	16
Unskilled Labourer (%)	24	24	21



Migration - Approximately 5% of the total surveyed population had family members residing outside their village/panchayat/region for 15 days or more for work in the last fiscal year. Among those who migrated, the majority engaged in unskilled work, with the highest percentage in the NBPZ intervention group. Migrants commonly moved outside their districts and State, with the highest percentage remitting money coming from the LBVZ. The most common reason for migration is unavailability of work in the village.

Land ownership - Almost 98% farmers own lands. Among those who own land possess an average of 4.91 Bigha, showcasing variations across zones. Notably, 2% of households indicate no agricultural land ownership.

Agricultural practices - Among the farmers who own land, there is season-wise cultivation practices variation, particularly in the Kharif season, where the Upper Reach demonstrates, a higher average area cultivated compared to the Medium and Lower Reaches. Examining irrigation patterns, the Kharif season sees variations in the average number of plots cultivated and the area cultivated in Bigha, with the Upper Reach exhibiting higher averages.

4% of surveyed households have leased in agricultural land, with variations across zones. The average amount of leased land is 3.18 Bigha, with the CBVZ showing the highest at 4.42 Bigha. Season-wise cultivation reveals variations, with the highest average number of plots and area cultivated during the Kharif season, especially in the Medium Reach. For households leasing out land, the average area of land leased out is minimal (0.04 Bigha). The season-wise cultivated land that is irrigated follows a similar trend, with the highest average in the Kharif season.

Irrigation - In the Kharif season, 3% of households rely on wells, 38% on ponds for irrigation. Other alternative sources collectively account for 49% of irrigation, particularly in the control area (53%). In the Boro season, wells are used by 4% of households, with ponds remaining a significant source at 10%. Rivers, canals, and springs exhibit varied contributions, while diverse alternatives dominate, constituting 79%. Rivers contribute significantly to Dima Hasao and Canals play a role in Dhubri while springs have minimal impact. During the Rabi season, wells are used by 2%, with ponds contributing 13%. Rivers, canals, and springs display diverse usage patterns, and other alternative sources collectively represent 80%.

Wells demonstrate consistent availability across reaches, with slight variations observed during summer and monsoon months. Ponds are widespread, particularly in the Upper Reach, exhibiting diverse usage patterns in the Middle and Lower reaches during both seasons. Rivers are present, with distinct usage across reaches and seasons. Canals show varying availability and usage, more prominently in the Middle Reach. Springs exhibit diverse patterns of availability and utilization. Other irrigation sources present varied usage across reaches and seasons.

Crop details

Paddy – 93% of farmers cultivate paddy as a kharif crop and the average area of land cultivated during the season was 5 bigha. The average cost incurred was Rs 22,221/-. Very little paddy is grown in rabi and boro seasons. In the control area the average expenditure was higher than the intervention area across all seasons.

Maize - Interestingly, negligible maize cultivation is reported during all three seasons in both areas. The production of maize was highest in the Rabi season, producing 1333.3 Kgs of maize during the season and the average cost incurred Rs 10111.



Pulses - The average area cultivated, irrigated, and under High-Yielding Variety (HYV) is more prominent in the Rabi season. They produce 894 Kgs in the Rabi season, and the average expenditure was highest in the Rabi season, Rs 12923.

Potato – 5% farmers cultivate potato in the rabi season. The cost incurred during Rabi season and Boro season was Rs 4017 and Rs 7000 on an average, respectively. In Rabi season the average rate of potato was highest at Rs 35 /kg.

Vegetables - In the Rabi season, both intervention and control areas show significant participation, with 5% farmers from each area. Additionally, the Boro season sees 3% cultivation in the intervention area and 1% in the control area.

Fruits - In the Kharif season, the Hill zone and upper reach from the intervention area demonstrates active participation with 3% fruits cultivation, while the control area shows minimal engagement.

Mustard - cultivation is observed in varying degrees, with 1% in the Kharif season, 8% in the Rabi season, and negligible occurrences in the Boro season in the intervention area. Mustard cultivation shows significant variation across seasons, zones, and reaches. While Rabi season dominates, especially in the intervention area (LBVZ), the average production was higher in Rabi season, 534Kg, this average was higher in NBPZ (761Kg).

Spices & condiments - there is no reported cultivation of spices and other condiments in the kharif season, the Rabi season showcases a 2% engagement in the intervention area and 4% in the control area.

Fodder – cultivation was reported for rabi season, mostly in hill zones.

Income from agriculture - Paddy stands out as a primary contributor to farmers' income, with an overall average of Rs. 49,203/-. Potato cultivation emerges as a lucrative venture, especially in the NBPZ of the intervention area, generating an average income of Rs 2,637. Mustard, other spices, and condiments contribute significantly to farmers' income, showcasing variations across zones and reaches.

Livestock & Poultry - Cattle are primarily concentrated in the NBPZ, CBVZ and LBVZ. Notably, they contribute significantly to milk production (49%) and selling of animals (62%). The average number of cattle owned by the farmers is 1. Among 2892 farmers 66 farmers own Buffaloes. Out of the 66 farmers, 6% is engaged in milk production and 98% in selling animals. Goats were owned by 815 farmers, exhibit widespread distribution, particularly in the LBPZ and Lower and Medium reaches, and contribute 5% to meat production and 95% to selling animals. Pigs were owned by 317 farmers, contributing 12% to meat production and 88% to selling animals. Poultry owned by 947 farmers, are dispersed across various zones, contributing 5% to meat production, 82% to selling animals, and 35% to egg production.

Income from livestock & poultry - Cattle rearing emerges as a significant source of income, with an overall average of 7,404 Rupees. Buffalo farming contributes notably to farmers' income, showcasing distinct patterns across zones. Goat farming is another lucrative venture, with an overall average income of 4,453 Rupees. Pig farming, though less common, presents significant income variations, with the UBZV in the intervention area reporting the highest average income at 5,959 Rupees. Poultry and other livestock activities also contribute to farmers' income, with varying degrees of prominence across zones and reaches.

Income from orchards, plantation, and agro-forestry - The Upper Reach in the intervention area reports the highest average income from fruits at Rs.698. Nut-bearing trees and rubber cultivation exhibit



limited income, with negligible figures reported in certain zones and reaches. Tea cultivation emerges as a substantial source of income, with an overall average of Rs.1,058. The UBVZ in the intervention area leads in tea cultivation income, reaching Rs.6,353. Sal and teak cultivation also contribute, while other agroforestry activities exhibit notable income variations across different zones and reaches.

Income from Fisheries – Fish cultivation is done in 2 bighas of ponds or water bodies, ensuring consistency across zones and reaches. The average income derived from fishery exhibits variations, with the Upper Reach in the intervention area securing the highest at Rs 12,222, while the Hills Zone (HZ) records the lowest at Rs 719.

Income from wages - Approximately 43% to 74% of households receive receipts from wage labour. The average number of days worked per year varies between 71 and 211 days. The average rate per day ranges from Rs 350 to Rs 419, with the highest figure observed in the Upper Reach of the intervention area. Consequently, the average total earnings vary from Rs 46,010 to Rs 84,850, showcasing economic disparities in different geographical settings.

Total income - The average total income from all sources Rs 105359, showcasing significant variations in economic prosperity among different geographical settings.

Annual expenditure – On an average Rs. 83,572/- is the average annual expenditure per household, there is disparity between intervention and control areas.

	Total	Intervention	Control
Consumables (x 12)	75876	77712	68844
Festivals, weddings	3656	3673	3591
Medical expenses	4040	4039	4043
Total	83572	85424	76478

Access to services and facilities - agricultural extension services within the village are less prevalent in control areas (4%) compared to intervention areas (12%), while education at the primary school level exhibits lower accessibility within 5 km in control areas (6%) than in intervention areas (8%) but primary school within the village is more accessible in the control area (93%). Disparities also extend to healthcare, veterinary services, credit facilities, and accessibility to agricultural inputs and markets.

Around 21% in intervention areas said that there is a market for crops within the village, the response from control in this regard is quite low (9%).

Bank and financial institutions are not available within village. 27% said within 5 kms and 21% said more than 5kms. There is a distinct difference between intervention and control - while 29% from intervention areas said that facilities are within 5 kms and 29% from control areas said that they are 5 kms away from the village.

Around 55% respondents said that ATMs are more than 5 kms away, similarly 53% from intervention areas and 65% from control areas said likewise. 66% from CBVZ and 72% from HZ said that ATMs were far away from their villages.

Mobile connectivity offices are within 5 km for both intervention and control areas.

Self-sufficiency - In terms of food, the majority in both groups reported year-round availability, with a slightly higher percentage in the control group (100%) than the intervention group (97%). Similar patterns were observed for fodder, fuel, and drinking water, with the intervention group generally



reporting higher percentages of year-round availability. Notably, in the employment category, the intervention group reported a higher percentage (28%) of year-round availability compared to the control group (22%).

Awareness on Climate Change and Disasters - Out of the total households, 39% were aware of climate change, with a higher awareness rate in the intervention group (40%) compared to the control group (34%). Among those aware of climate change, the majority perceived changes in weather conditions (59%), with the intervention group showing a slightly higher perception (57%) than the control group (48%). Notable differences between the intervention and control groups include the perception of heavy rainfall, scarce rainfall, and drought. For heavy rainfall, 48% in the intervention group perceived it compared to 41% in the control group. Conversely, 53% in the control group perceived scarce rainfall compared to 28% in the intervention group. In terms of drought, 37% in the intervention group perceived it compared to 55% in the control group.

Food security - Nearly all households reported food sufficiency for all family members in the past 12 months, with minor variations between intervention (98%) and control (97%) groups. On average, households experienced a low number of days with insufficient food, but there were notable differences between zones. CBVZ had a food shortage for 32 days in the past 12 months, where the farmers did not eat any protein and only ate rice with potato, highlighting the harsh conditions of the respondents. A significant percentage in the control group (82%) did not consume fish/meat/egg at all during shortages. Moreover, 22% of households reduced milk intake for children, with interventions showing a higher impact (100%). 68% of households in the Intervention area received PDS support compared to 70% in the corresponding control group. When examining the frequency of PDS distribution among those who received it, the majority (91%) reported receiving rations once a month. A small percentage (9%) received rations once a week.

Food intake - a high percentage of adults across both groups reported the consumption of starchy foods, with 94% in the total sample, 92% in the intervention group, and 98% in the control group. Notable differences emerge in the consumption of vegetables, where 73% of all adults reported consumption, with similar proportions in both intervention and control groups. 38% of all adults consumed fruits, with a lower percentage in the intervention group (38%) compared to the control group (50%). Similarly, in the protein category, 49% of all adults consumed protein, with a lower percentage in the intervention group (49%) compared to the control group (61%). Both the intervention and control groups show that most children in both groups consumed starchy foods, with 91% in the total sample, 89% in the intervention group, and 99% in the control group. Similarly, significant proportions of children in both groups reported the consumption of vegetables, fruits, dairy, protein, and fats. 49% of all children in the intervention group consuming protein, compared to 53% in the control group.

Health expenditure - it was found that 11% of the households faced health issues medical exigencies faced in the last 2 months for which they had to seek health services in the intervention areas and 14% in the control area. Most of the respondents from the intervention area as well as control areas went to the district hospitals (72% in the intervention area and 75% in the control area). The average expenditure was stated to be Rs. 3766 in the intervention area and Rs 1398 in the control area.



VILLAGE SURVEY

Interviews were carried out in 13 districts across Assam. The village heads served as representatives during the interviews. A total of 129 villages were part of the study, with 107 in the intervention group and 22 in the control group.

Around 372 households are in total area. There are more (396) HHs in intervention area than in control area (256). Total average population of the village is 1685 (male -868, female -817). There is significant difference between intervention and control areas -1803 in intervention and 1112 in control area.

	Total	Intervention	Control
Male (Avg)	868	930	567
Female (Avg)	817	873	545
Hinduism (Avg)	707	739	556
Islam (Avg)	870	937	543
Christianity (Avg)	108	127	13
Scheduled Caste (%)	174	187	110
Scheduled Tribe (Avg)	176	201	52
OBC (Avg)	366	380	299
General (Avg)	969	1034	651

Social parameters - the average number of landless households is 32, with the intervention group exhibiting a slightly higher count (38) compared to the control group (29). Similarly, the average number of women-headed households is 31. Regarding households with Below Poverty Line (BPL) cards, the average count is 352, further emphasizing the disparity between the intervention and control groups, with the intervention group consistently having higher numbers. The mean number of persons who migrated out is 196, with the intervention group experiencing a higher migration rate (233) compared to the control group (13), while the median was 15.

Land and water - The average village area varies, with the highest average in the NBPZ for the intervention group (1408.31 Ha) and the control group (270.41 Ha). The intervention group generally has higher values in most land categories, indicating potential differences in land utilization or environmental characteristics. The intervention group exhibits higher values in categories such as culturable wasteland, fallow lands, and current fallows, suggesting potential distinctions in agricultural practices or land use patterns. In intervention area the average number of waterbodies is 4.15 and it is 2.09 in the control area. Average water body coverage is 4.87 ha in intervention and 3.0 ha in control.

Livelihood - Agriculture emerges as the predominant livelihood for the surveyed population across all zones, with a substantial majority, 124 villages mentioning it to be their most important livelihood. The second most import livelihood mentioned by the representatives was agricultural labour, mentioned by 44 villages. Supplementary role of animal husbandry and. fisheries also needs to be mentioned.

Livelihood support - Agriculture, particularly in the form of seeds, emerges as the predominant area of assistance, with 74 villages benefiting from this support. Furthermore, support for agricultural processes and technology is notable, as indicated by 49 villages. The focus on agriculture is reinforced by 43 respondents receiving support for irrigation. Livestock-related support is also significant, with 24 respondents reporting assistance in animal husbandry. Fisheries support extends to 20 respondents, highlighting a diversified approach to livelihood enhancement.



Common resource property – grazing grounds, water bodies, non-timber forest products are some of the common resource properties in the villages.

Water table - In the summer months (April-June), the BVZ records the highest average depth at 25.00 meters, while the LBVZ has the lowest at 16.04 meters. During the monsoon months (July-Sept), and winter months (Oct-Mar), the LBVZ again records the least depth. While in summer and monsoon HZ records the most depth, in winter the depth is much higher in UBVZ. These variations in water table depth underscore the diverse hydrological conditions in the studied regions.

Erosion - The table also captures the impact of soil erosion in the villages, with 23 respondents acknowledging soil erosion. Rain Drop or Splash Erosion is the most observed type, with 19 villages reporting it as a cause, primarily in the HZ and the LBVZ. The data further identifies instances of Rill Erosion and Gully Erosion, with variations across zones. The average rainfall in the past year was 643.15mm and the highest rainfall was noted in UBVZ and CBVZ. Changes in rainfall patterns over the last three years are noted, with 116 respondents acknowledging these shifts. Increased rainfall is predominant, reported by 91 respondents, particularly in the LBVZ and the UBVZ.

Forest cover - However, a notable proportion of villages (94 respondents) report no forest cover, with variations across zones. The average forest area cover was 2.58 Ha, and the highest forest area was noted in UBVZ, 10.50Ha. Out of the total of 129, only 35 villages acknowledged that there are areas under Forest/Groves in the village, out of which only 6 are from control area. Tropical Wet Evergreen, Tropical Semi-Evergreen, and Tropical Moist Deciduous are the primary types of forest/groves reported. Tropical Semi-Evergreen is the most prevalent type, with 21 respondents mentioning its presence. The UBVZ and LBVZ stands out with Tropical Wet Evergreen, while the BVZ has the highest count for Tropical Moist Deciduous.

Streams and rivers - Most respondents (97) report perennial water availability in streams, with the highest counts in the Intervention areas, particularly in the NBPZ and BVZ. Seasonal water availability is reported by 32 respondents, with varied occurrences across zones.

Disasters - A significant number of respondents (46) have experienced <u>floods</u>, particularly in the LBVZ. The average longest duration of floods in the last two years is 13.33 days, with varied durations across zones and the highest duration was noted in BVZ. <u>Water shortages</u> are reported by 28 respondents, with the highest count in the LBVZ. Shortages are witnessed predominantly in Summer and Winter, with a limited occurrence in Autumn. <u>Crop failure</u> is reported by 37 respondents, with the highest counts in the LBVZ. Drought, Excessive Rain, and Flood are identified as primary reasons for crop failure, especially rain flood in LBVZ. All respondents (129) express a lack of awareness regarding the proportion of soil organic carbon in their villages.

Village-level institutions - The most common types of institutions are Self-Help Groups (SHG) associated with ASRLM, with 114 respondents reporting their presence. Other types include Village Organization (VO) associated with ASRLM, Clubs/Community-Based Organizations (CBOs), and others specified by respondents. The main activities of institutions include Social Mobilization, Livelihoods, Finance, Recreation, and Sports. Finance-related activities are prominent, with 66 respondents indicating their presence, Livelihood-related activities are also significant, with 48 villages mentioning it.

Access to Government schemes – The most famous is the Mid-Day Meal (88), followed by NRLM (84), PM Ujjwala scheme (83) and PMKSY (74), among a host of others.



Watershed and Springshed activities - Most villages (60) participated in afforestation programs in the last two fiscal years. Barak Valley Zone has the highest participation, with 15 respondents and highest participation rate in UBVZ where 13 out of 16 villages participated in the programme, while NBPZ has the lowest with 5. A significant number of villages (21) reported the development of cultivable wasteland under land development projects, especially in LBVZ with 8 villages. Various water harvesting structures have been constructed in the village. Construction of check dams involved 23 villages; Field ponds were constructed in 35 villages as water harvesting structures. Earthen periphery bunds were constructed in 17 villages. Waterbodies or ponds were rejuvenated in 17 villages, particularly in LBVZ and BVZ.

Out of the 107 villages, only five reported the presence of spring sheds, all 5 villages from the Hill Zone in the intervention area. Among the villages with spring sheds, the majority (three villages) reported having one spring shed, while two villages reported having four. Four villages, where spring sheds were present, conducted toxicity tests to ensure the quality and safety of the water. The average number of households within the recharge area under the spring shed is 44. Four villages reported the construction of water tanks or other water storage structures, while one village engaged in other protective measures. 4 out of 5 villages used spring sheds as a source of drinking water. Washing clothes, and irrigation was other popular uses. Washing animals, bathing and toilets are less popular purposes for using a spring shed. Only 12 out of the 107 villages have identified interventions for aquifer recharge.

Awareness and community participation - The most common awareness activity was through meetings, implemented in 88 out of 107 villages. Wall writing, banners posters and rallies were other tools for generating awareness among the habitants of the villages.

Among the 107 villages, 46 reported the presence of user groups, with an average of 11.93 user groups per village. The average number of members associated with user groups varies across zones, with UBVZ having the highest at 102.31. Watershed committees are prevalent in 61 villages, with an average committee size ranging from 10.72 to 13.38 members, showcasing active community engagement. In terms of activities, a significant number of villages (80) are involved in livelihood-related projects.

CONCLUSION

In conclusion, the comprehensive data analysis illuminates the intricate socioeconomic dynamics within the intervention and control areas of Assam. While similarities exist, disparities across demographic, educational, entitlement, group membership, amenity access, and occupational dimensions underscore the need for nuanced and region-specific interventions. The findings serve as a valuable resource for the department, guiding them in formulating targeted strategies that address the unique challenges and opportunities present in the surveyed districts.



1. STUDY DETAILS

1.1. WDC-PMKSY 2.0

The Ministry of Rural Development, GoI has been implementing the Centrally Sponsored Scheme (CSS) Integrated Watershed Management Programme (IWMP) since 2009-10, which aimed at sustainable development and management of watersheds across the country, comprehensively addressing the challenges of soil erosion, water scarcity, land degradation, and rural poverty through integrated watershed management approaches.

In 2015-16, IWMP was accelerated as Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), with the major objective to achieve convergence of investments in irrigation at the field level, expanding cultivable area under assured irrigation, improving on-farm water use efficiency to reduce wastage of water, enhancing the adoption of precision-irrigation and other water saving technologies, enhancing recharge of aquifers and introducing sustainable water conservation practices by exploring the feasibility of reusing treated municipal waste water for peri-urban agriculture and attracting greater private investment in the precision irrigation system. PMKSY being an umbrella scheme, consisted of two major components – (i) Accelerated Irrigation Benefit Programme (AIBP), and (ii) Har Khet Ko Pani (HKKP), being implemented by Ministry of Jal Shakti. In addition, PMKSY also consisted of Watershed Development Component (WDC) implemented by Department of Land Resources, Ministry of Rural Development. Further, Per Drop More Crop (PDMC) component, which was a component of PMKSY, is now being implemented separately after 2021. The continuation of WDC-PMKSY has been allowed by Government of India on 15.12.2021 as WDC-PMKSY 2.0 for the project period of 2021-2026. On the recommendations of NITI Aayog, rejuvenation of Springshed has been incorporated as a new activity in the WDC-PMKSY 2.0.

The Watershed Development Component (WDC) under Pradhan Mantri Krishi Sinchayee Yojana (WDC-PMKSY) involves comprehensive planning and implementation of measures to conserve soil, water, and other natural resources within a specific watershed area. Its primary objective is to achieve a balance between socioeconomic development and the sustainable use of water resources while maintaining ecological integrity and resilience within the watershed using Rainwater Harvesting, Soil and Moisture Conservation, Afforestation and Horticulture, Livelihood Support, Integrated Farming Systems and Public Participation.

The Department of Soil Conservation, Government of Assam had been implementing the Integrated Watershed Management Programme (IWMP) since 2009 in the state. The State Government had established a separate agency namely **State Level Nodal Agency (SLNA)** for speedy implementation of IWMP schemes under the Soil Conservation Department as per the Central guidelines. SLNA has successfully implemented the first phase of PMKSY and is now implementing WDC-PMKSY 2.0.

SLNA, Assam has taken up various schemes in 31 districts of Assam for Watershed Component of PMKSY like construction of check dams, renovation, restructuring and excavation of new farm ponds, construction of water harvesting structures for soil and water conservation and ground water recharge, gully control projects, forestry and horticulture plantations, riverine land protection, erection of spurs for prevention of soil erosion, construction of brick drainage canals, spring-sheds, livelihood programmes like piggery, duckery, fisheries etc. with minimum financial involvement and maximum benefits to the farmers and villagers.



Vision EIS Consulting has been engaged by State Level Nodal Agency, WDC-PMKSY for monitoring, evaluation, learning and documentation (MEL&D) of various watershed projects on-going under PMKSY 2.0. The objective of this consultancy is to establish an effective MEL&D system to provide unbiased, reliable, and relevant information on progress and performance of each project by reflecting the actual status of the implementation process (both quantitative and qualitative) and propose timely corrective measures as required. MEL&D agency is responsible for 29 projects in 28 districts comprising 126 microwatersheds.

TABLE 1: PMKSY 2.0 PROJECT SPREAD

SN	District	Number of Projects	Number of Blocks	Number of Gram Panchayats / Village Councils	Number of Villages	Number of WSCs
1	Baksa	1	2	7	23	4
2	Barpeta	1	2	6	28	4
3	Bongaigaon	1	1	5	27	4
4	Cachar	1	3	8	30	4
5	Chirang	1	1	6	31	5
6	Darrang	1	3	7	34	5
7	Dhemaji	1	1	5	35	4
8	Dhubri	1	2	10	24	4
9	Dibrugarh	1	2	8	52	5
10	Dima Hasao	1	1	2	10	8
11	Goalpara	1	1	2	15	3
12	Golaghat	1	2	6	27	4
13	Hailakandi	1	2	7	21	4
14	Hojai	1	2	9	30	4
15	Jorhat	1	1	5	26	4
16	Kamrup	1	1	3	23	5
17	Karbi Anglong	2	7	10	33	8
18	Kokrajhar	1	1	8	26	4
19	Lakhimpur	1	1	4	32	4
20	Majuli	1	2	5	21	4
21	Morigaon	1	2	7	24	4
22	Nagaon	1	3	12	27	4
23	Nalbari	1	1	4	23	4
24	Sivsagar	1	2	7	30	5
25	Sonitpur	1	1	7	29	4
26	Tinsukia	1	1	4	53	5
27	Udalguri	1	2	9	31	5
28	West Karbi Anglong	1	1	1	13	4
	Total	29	51	174	778	126



One of the main activities of the MEL&D Agency has been to conduct the Baseline Survey of the project. Detailed consultations in this regard have been held with SLNA to finalise the study design.

1.2. BASELINE STUDY DESIGN

Based on the State Cabinet decision on December 2022, the state is now divided into thirty-one (31) districts. It has five (5) divisions – North Assam, Upper Assam, Central Assam, Lower Assam, and Barak Valley.

The state has also been broadly divided into six agro-climatic zones (ACZ) based on patterns of rainfall, terrain, soil type and climatic conditions. They are North Bank Plains Zone (NBPZ), Upper Brahmaputra Valley Zone (UBVZ), Central Brahmaputra Valley Zone (CBVZ), Lower Brahmaputra Valley Zone (LBVZ), Barak Valley Zone (BVZ) and Hills Zone (HZ).

TABLE 2: ACZS AND ADMINISTRATIVE DIVISIONS

Agro-Climatic Zones (ACZ)	Districts	Administrative Divisions	Districts	PMSKY 2.0 Districts
North Bank Plains Zone (NBPZ)	Darrang, Dhemaji, Lakhimpur, Sonitpur, Udalguri	North Assam	Darrang, Sonitpur, Udalguri	Darrang, Dhemaji, Lakhimpur, Sonitpur, Udalguri
Upper Brahmaputra Valley Zone (UBVZ)	Charaideo, Dibrugarh, Golaghat, Jorhat, Majuli, Sivasagar, Tinsukia	Charaideo, Dhemaji, Dibrugarh, Golaghat, Jorhat, Lakhimpur, Majuli, Sivasagar, Tinsukia		Dibrugarh, Golaghat, Jorhat, Majuli, Sivsagar, Tinsukia
Central Brahmaputra Valley Zone (CBVZ)	Morigaon, Nagaon, Hojai		Dima Hasao, East Karbi	Morigaon, Nagaon
Hills Zone (HZ)	East Karbi Anglong, West Karbi Anglong, Dima Hasao	Central Assam	Anglong, West Karbi Anglong, Morigaon, Nagaon	Dima Hasao, Hojai (Nagaon), East Karbi Anglong, West Karbi Anglong
Lower Brahmaputra Valley Zone (LBVZ)	Baksa, Barpeta, Bongaigaon, Chirang, Dhubri, Goalpara, Kamrup (Metro), Kamrup (Rural), Kokrajhar, Nalbari, South Salmara- Mancachar	Lower Assam	Baksa, Barpeta, Bongai gaon, Chirang, Dhubri, Goalpara, Kamrup (Metro), Kamrup (Rural), Kokrajhar, Nalbari, South Salmara-Mankachar	Baksa, Barpeta, Bongaigaon, Chirang, Dhubri, Goalpara, Kamrup, Kokrajhar, Nalbari
Barak Valley Zone (BVZ)	Cachar, Karimganj, Hailakandi	Barak Valley	Cachar, Hailakandi, Karimganj	Cachar, Hailakandi
6 ACZ	32 Districts	5 Divisions	31 Districts	28 Districts



A quasi-experimental, difference-in-difference approach was be adopted. The difference-in-differences method compare the changes in outcomes over time between a population enrolled in a program (the treatment group) and a population that is not (the comparison group).

The quantitative data collection established empirical evidence between agro-climatic zones (ACZ) as well as between the intervention and the control area to understand the impact of intervention vis a vis non-intervention.

$$Y_R = (Y_t - Y_0) - (C_t - C_0)$$

where,

 Y_R = the resultant change in the independent variable

Y_t = the independent variable in the intervention area in the end line

 Y_0 = the independent variable in the intervention area in the baseline

C_t = the independent variable in the control area in the end line

 C_0 = the independent variable in the control area in the baseline

The difference between C_t - C_0 might happen due to some trickle-down effect or some other changes due to demographic factors. This needs to be subtracted to understand the result due to intervention alone.

Determination of sample size

In the pre- and post-assessment study the following formula is used for the sample size determination:

$$n = (Z_{\alpha/2} + Z_{\beta})^{2*} (p_1(1-p_1) + p_2(1-p_2)) / (p_1-p_2)^2,$$

where $Z_{\alpha/2}$ is the critical value of the Normal distribution at $\alpha/2$ (e.g., for a confidence level of 95%, α is 0.05 and the critical value is 1.96), Z_{β} is the critical value of the Normal distribution at β (e.g., for a power of 80%, β is 0.2 and the critical value is 0.84) and p_1 and p_2 are the expected sample proportions of the two groups, the baseline, and the end-line.

The project does not specify the expected change in any parameter; hence we consider a baseline value of 50% (usually considered in the absence of parametric values) and we expect a change to 60% for the indicator in consideration. The narrower the change more sample is required.

 $P_1 = 0.50$

 $P_2 = 0.60$

The required sample size is 197.

Since sample distribution is not random, we consider a **design effect** of 1.77 (197 x 1.77) and the stipulated **sample size is 350** in each agro-climatic zone with a total intervention sample of (350×6) 2100 for the project area.

Sampling Intervention

- Step 1: In each agro-climatic zone, 2 project districts were chosen randomly.
- Step 2: Within each district, 4 micro watersheds were selected.
- **Step 3:** 2 villages from each micro watershed were randomly selected. From each village 22 household interviews will be conducted



• **Step 4:** The household samples were distributed by the habitation marked by upper reach, middle reach, and lower reach within the village.

The Baseline Survey primarily selected two districts from each ACZ; hence the survey was conducted in 12 districts (nearly 43% geographical coverage). Lower Brahmaputra Valley Zone (LBVZ) has several project districts, hence additionally 1 more district from this ACZ with an additional sample size of 1 was taken up.

Hence the total sample size for Intervention areas will be 2100 + 175 = 2275 HHs from 13 districts covering 52 micro watersheds, 104 villages

Setting the Counterfactual or Control

The control area should be free from the influence of the intervention but need to have similar demographics in all respects to the intervention area. In this study, the control area was also divided into agro-climatic zones.

The study considers 100 samples per agro-climatic zone. Hence a **total of 600 samples were considered per ACZ for control.**

Sampling Control

- **Step 1:** Two far-off blocks where the intervention has not happened will be chosen from the district which has been selected for intervention or a district where no intervention has happened will be chosen.
- Step 2: From within the district 2 blocks will be selected,
- Step 3: From each block, 2 villages will be selected,
- Step 4: From each village, 25 interviews will be conducted,

Hence a total of 100 samples will be covered per ACZ for the control.

1.2.1. SAMPLING

Based on random sampling, 2 districts were chosen from each of the ACZs, additionally, 1 more district was chosen from LBVZ for increased representation and approval on the same was sought from SLNA.

TABLE 3: SAMPLED DISTRICTS

North Bank Plains Zone (NBPZ)	Upper Brahmaputra Valley Zone (UBVZ)	Central Brahmaputra Valley Zone (CBVZ)	Hills Zone (HZ)	Lower Brahmaputra Valley Zone (LBVZ)	Barak Valley Zone (BVZ)
Darrang	Dibrugarh	Hojai	Dima Hasao	Baksa	Cachar
Dhemaji	Golaghat	Morigaon	East Karbi Anglong	Barpeta	Hailakandi
Lakhimpur	Jorhat	Nagaon	West Karbi Anglong	Bongaigaon	
Sonitpur	Majuli			Chirang	
Udalgirl	Sivasagar			Dhubri	
	Tinsukia			Goalpara	
				Kamrup (Rural)	



North Bank Plains Zone (NBPZ)	Upper Brahmaputra Valley Zone (UBVZ)	Central Brahmaputra Valley Zone (CBVZ)	Hills Zone (HZ)	Lower Brahmaputra Valley Zone (LBVZ)	Barak Valley Zone (BVZ)
				Kokrajhar	
				Nalbari	

TABLE 4: VILLAGE & MWS DETAILS

SN	Project Name	Block Name	Gram Panchayat/ Village Council	Village Name	MWC
1	BARPETA-WDC - 1 /2021-22	BARPETA	RADHAKUCHI	Panichilla	Radhakuchi MWC
2	BARPETA-WDC - 1 /2021-22	BARPETA	RADHAKUCHI	Radhakuchi	Radhakuchi MWC
3	BARPETA-WDC - 1 /2021-22	GOMAPHULBARI	BARBILA	Bara	Sitolijan MWC
4	BARPETA-WDC - 1 /2021-22	GOMAPHULBARI	BARBILA	Barbila	Sitolijan MWC
5	BARPETA-WDC - 1 /2021-22	GOMAPHULBARI	BARBILA	Bar Suha (Barsoha)	Batikuriha MWC
6	BARPETA-WDC - 1 /2021-22	GOMAPHULBARI	BARBILA	Kaljahi	Batikuriha MWC
7	BARPETA-WDC - 1 /2021-22	GOMAPHULBARI	GUMA	Balapara	Guma MWC
8	BARPETA-WDC - 1 /2021-22	GOMAPHULBARI	GUMA	Guma (Goma)	Guma MWC
9	CACHAR-WDC - 1 /2021-22	SALCHAPRA	KRISHNAPUR BHAIRABNAGAR	Bhairab Nagar	Krishnapur MWC
10	CACHAR-WDC - 1 /2021-22	SALCHAPRA	KRISHNAPUR BHAIRABNAGAR	Krishna Pur	Krishnapur MWC
11	CACHAR-WDC - 1 /2021-22	SALCHAPRA	KUMARPARA NIZ-JOYNAGAR	Balighat	Niz Joynagar MWC
12	CACHAR-WDC - 1 /2021-22	SALCHAPRA	KUMARPARA NIZ-JOYNAGAR	Kumarpara	Niz Joynagar MWC
13	CACHAR-WDC - 1 /2021-22	SALCHAPRA	RAJNAGAR	Manikpur	Patherigram MWC
14	CACHAR-WDC - 1 /2021-22	SALCHAPRA	RAJNAGAR	Nischintapur	Patherigram MWC
15	CACHAR-WDC - 1 /2021-22	SALCHAPRA	SALCHAPRA	Salchapra Pt I	Salchapra MWC
16	CACHAR-WDC - 1 /2021-22	SALCHAPRA	SALCHAPRA	Sridharpur	Salchapra MWC



SN	Project Name	Block Name	Gram Panchayat/ Village Council	Village Name	MWC
17	DARRANG-WDC - 1/2021-22	BECHIMARI	CHAKARABASTI	Baruapara	Baruapara MWS
18	DARRANG-WDC - 1/2021-22	BECHIMARI	CHAKARABASTI	Borgora Bagicha	Baruapara MWS
19	DARRANG-WDC - 1/2021-22	BECHIMARI	DALGAON	Chakaragaon	Dalgaon MWS
20	DARRANG-WDC - 1/2021-22	BECHIMARI	DALGAON	Dalgaon Town	Dalgaon MWS
21	DARRANG-WDC - 1/2021-22	BECHIMARI	LALPOOL	Madhupur	Chikanmati MWS
22	DARRANG-WDC - 1/2021-22	BECHIMARI	LALPOOL	Nadirkash	Chikanmati MWS
23	DARRANG-WDC - 1/2021-22	DALGAON- SIALMARI	BIHUDIA	Alikhash	Bihdia MWS
24	DARRANG-WDC - 1/2021-22	DALGAON- SIALMARI	BIHUDIA	Bihdia	Bihdia MWS
25	DIBRUGARH-WDC - 1/2021-22	TINGKHONG	KONWORIGAON	Betoni No.1	Betoni
26	DIBRUGARH-WDC - 1 /2021-22	TINGKHONG	KONWORIGAON	Betoni No.2	Betoni
27	DIBRUGARH-WDC - 1 /2021-22	TINGKHONG	MOHMORA BORPATHER	Bortani No.1	Sishumora
28	DIBRUGARH-WDC - 1 /2021-22	TINGKHONG	MOHMORA BORPATHER	Bortani No.2	Sishumora
29	DIBRUGARH-WDC - 1 /2021-22	TINGKHONG	MOHMORA BORPATHER	Simaluguri	Mahmora
30	DIBRUGARH-WDC - 1 /2021-22	TINGKHONG	MOHMORA BORPATHER	Thulaichuk	Mahmora
31	DIBRUGARH-WDC - 1/2021-22	TINGKHONG	TINGKHONG	Latomoni	Raidangia
32	DIBRUGARH-WDC - 1 /2021-22	TINGKHONG	TINGKHONG	Purani Sripuria	Raidangia
33	DIMA HASAO- WDC - 1 /2021-22	HARANGAJAO	Harangajao Autonomous Council Constituency	Boro Mulkoi	Boro Muolkoi MWC
34	DIMA HASAO- WDC - 1 /2021-22	HARANGAJAO	Harangajao Autonomous Council Constituency	Choto Mulkoi	Choto Muolkoi MWC



SN	Project Name	Block Name	Gram Panchayat/ Village Council	Village Name	MWC
35	DIMA HASAO- WDC - 1 /2021-22	HARANGAJAO	Harangajao Autonomous Council Constituency	Jatinga Lampu	Miyungkro MWC
36	DIMA HASAO- WDC - 1 /2021-22	HARANGAJAO	Harangajao Autonomous Council Constituency	Kapurchera	Mailongdisa MWC
37	DIMA HASAO- WDC - 1 /2021-22	HARANGAJAO	Harangajao Autonomous Council Constituency	Mailongdisa Rly. Station	Mailongdisa MWC
38	DIMA HASAO- WDC - 1 /2021-22	HARANGAJAO	Harangajao Autonomous Council Constituency	Miyungkro	Miyungkro MWC
39	DIMA HASAO- WDC - 1 /2021-22	HARANGAJAO	Jatinga Autonomous Council Constituency	Jatinga Khasia	Jatinga MWC
40	DIMA HASAO- WDC - 1 /2021-22	HARANGAJAO	Jatinga Autonomous Council Constituency	Retzol	Retzol MWC
41	DHUBRI-WDC - 1 /2021-22	GAURIPUR	DHARMASALA	Kachuar Khas Pt. I	Borbila MWC
42	DHUBRI-WDC - 1 /2021-22	GAURIPUR	DHARMASALA	Kachuar Khas Pt. II	Borbila MWC
43	DHUBRI-WDC - 1 /2021-22	GAURIPUR	JHAGRARPAR	Jhagra Pt. I	Jhagra MWC
44	DHUBRI-WDC - 1 /2021-22	GAURIPUR	JHAGRARPAR	Jhagra Pt. II	Jhagra MWC
45	DHUBRI-WDC - 1 /2021-22	GAURIPUR	MADHUSOULM ARI TIYAMARI	Madhusoulm ari Pt. I	Dumardaha MWC
46	DHUBRI-WDC - 1 /2021-22	GAURIPUR	MADHUSOULM ARI TIYAMARI	Rowah Pt. I	Rowah MWC
47	DHUBRI-WDC - 1 /2021-22	GAURIPUR	MADHUSOULM ARI TIYAMARI	Rowah Pt.III	Rowah MWC
48	DHUBRI-WDC - 1 /2021-22	GAURIPUR	MADHUSOULM ARI TIYAMARI	Tiamari Pt. II	Dumardaha MWC
49	JORHAT-WDC - 1 /2021-22	TITABOR	BORHOLLA	Borholla Grant	Borholla



SN	Project Name	Block Name	Gram Panchayat/ Village Council	Village Name	MWC
50	JORHAT-WDC - 1 /2021-22	TITABOR	BORHOLLA	Orangial Gaon	Borholla
51	JORHAT-WDC - 1 /2021-22	TITABOR	EKORANI	Bosa Gaon	Bosa
52	JORHAT-WDC - 1 /2021-22	TITABOR	EKORANI	Ikarani Gaon	Bosa
53	JORHAT-WDC - 1 /2021-22	TITABOR	RAJABAHAR	Abhaypuria	Rajabahar
54	JORHAT-WDC - 1 /2021-22	TITABOR	RAJABAHAR	Gohain Gaon	Rajabahar
55	JORHAT-WDC - 1 /2021-22	TITABOR	RAJABAHAR	Rajabari	Rajabari
56	JORHAT-WDC - 1 /2021-22	TITABOR	RAJABAHAR	Sonowal Kachari	Rajabari
57	HAILAKANDI-WDC - 1/2021-22	ALGAPUR	BASHBARI	Chandipur Grant	Chandipur MWS
58	HAILAKANDI-WDC - 1/2021-22	ALGAPUR	CHANDIPUR	Chandipur Pt II	Bhatirkupa MWS
59	HAILAKANDI-WDC - 1/2021-22	ALGAPUR	CHANDIPUR	Chandipur Pt III	Bhatirkupa MWS
60	HAILAKANDI-WDC - 1 /2021-22	ALGAPUR	PANCHGRAM	Badarpur Grant	Dakhin Badarpur MWS
61	HAILAKANDI-WDC - 1/2021-22	ALGAPUR	PANCHGRAM	Dakhin Badarpur	Dakhin Badarpur MWS
62	HAILAKANDI-WDC - 1/2021-22	ALGAPUR	PANCHGRAM	Thandapur	Chandipur MWS
63	HAILAKANDI-WDC - 1/2021-22	ALGAPUR	UTTAR KANCHANPUR	Dholidahar	Dholidhar MWS
64	HAILAKANDI-WDC - 1 /2021-22	ALGAPUR	UTTAR KANCHANPUR	Dholidahar Grant	Dholidhar MWS
65	MORIGAON-WDC - 1/2021-22	BHURBANDHA	AZARBARI	Ajarbari	Ajarbari MWC
66	MORIGAON-WDC - 1/2021-22	BHURBANDHA	AZARBARI	Karaibari	Ajarbari MWC
67	MORIGAON-WDC - 1/2021-22	MAYANG	GHAGUA	Ghagua Pahar	Silsaku MWC
68	MORIGAON-WDC - 1/2021-22	MAYANG	GHAGUA	Morigaon	Silsaku MWC
69	MORIGAON-WDC - 1 /2021-22	MAYANG	JAGIBHAKATGA ON	Bhakatgaon	Kumoi MWC



SN	Project Name	Block Name	Gram Panchayat/ Village Council	Village Name	MWC
70	MORIGAON-WDC - 1/2021-22	MAYANG	JAGIBHAKATGA ON	Chatabori	Khola MWC
71	MORIGAON-WDC - 1/2021-22	MAYANG	JAGIBHAKATGA ON	Dayangial Gaon	Kumoi MWC
72	MORIGAON-WDC - 1/2021-22	MAYANG	JAGIBHAKATGA ON	Dimoruguri	Khola MWC
73	NAGAON-WDC - 1 /2021-22	DOLONGGHAT	MAJ JAJORI	Majgaon	Majgaon MWC
74	NAGAON-WDC - 1 /2021-22	DOLONGGHAT	MAJ JAJORI	Maj Jajari	Majgaon MWC
75	NAGAON-WDC - 1 /2021-22	KHAGARIJAN	BORBHETI	Barbheti	Simaluguri MWC
76	NAGAON-WDC - 1 /2021-22	KHAGARIJAN	BORBHETI	Kawaimari	Simaluguri MWC
77	NAGAON-WDC - 1 /2021-22	KHAGARIJAN	KUCHAMARI	Auguri	Auguri MWC
78	NAGAON-WDC - 1 /2021-22	KHAGARIJAN	KUCHAMARI	Bamun Gaon	Takawbari MWC
79	NAGAON-WDC - 1 /2021-22	KHAGARIJAN	KUCHAMARI	Mahe Khosha	Auguri MWC
80	NAGAON-WDC - 1 /2021-22	KHAGARIJAN	KUCHAMARI	Takowbari	Takawbari MWC
81	NALBARI-WDC - 1 /2021-22	BARIGOG BANBHAG	BALITARA	Balitara No.1.	Balitara MWC
82	NALBARI-WDC - 1 /2021-22	BARIGOG BANBHAG	BALITARA	Balitara No.2	Balitara MWC
83	NALBARI-WDC - 1 /2021-22	BARIGOG BANBHAG	CHATAIBARI	Mayusiral	Velamari MWC
84	NALBARI-WDC - 1 /2021-22	BARIGOG BANBHAG	CHATAIBARI	Mohina	Velamari MWC
85	NALBARI-WDC - 1 /2021-22	BARIGOG BANBHAG	DIHJARI	Bar Bistupur	Keherua MWC
86	NALBARI-WDC - 1 /2021-22	BARIGOG BANBHAG	DIHJARI	Barghopa	Keherua MWC
87	NALBARI-WDC - 1 /2021-22	BARIGOG BANBHAG	DIHJARI	Dihjari	Nilpur MWC
88	NALBARI-WDC - 1 /2021-22	BARIGOG BANBHAG	DIHJARI	Ghohkuchi Gathiakuchi	Nilpur MWC
89	UDALGURI-WDC - 1/2021-22	ODALGURI	Ambagaon	Bicharchuburi	Bisar Chuburi



SN	Project Name	Block Name	Gram Panchayat/ Village Council	Village Name	MWC
90	UDALGURI-WDC - 1/2021-22	ODALGURI	Ambagaon	Khash Raonagarh	Bisar Chuburi
91	UDALGURI-WDC - 1/2021-22	ODALGURI	Bangaon	Chaibari	Pachim- Phutkibari
92	UDALGURI-WDC - 1/2021-22	ODALGURI	Bangaon	Gerua	Pachim- Phutkibari
93	UDALGURI-WDC - 1/2021-22	ODALGURI	Harisinga	Baniapara	Kathalguri
94	UDALGURI-WDC - 1/2021-22	ODALGURI	Harisinga	Niz Harisinga	Kathalguri
95	UDALGURI-WDC - 1/2021-22	ODALGURI	Sastrapara	Bhura Chuburi	Khokhagaon
96	UDALGURI-WDC - 1/2021-22	ODALGURI	Sastrapara	Chamtabari	Khokhagaon
97	WEST KARBI ANGLONG-WDC - 1/2021-22	SOCHENG	Amreng	Chongkhili	Motha
98	WEST KARBI ANGLONG-WDC - 1/2021-22	SOCHENG	Amreng	Langlongpak	Prisek
99	WEST KARBI ANGLONG-WDC - 1/2021-22	SOCHENG	Amreng	Langsomepi	Langsomepi
100	WEST KARBI ANGLONG-WDC - 1/2021-22	SOCHENG	Amreng	Mutha	Motha
101	WEST KARBI ANGLONG-WDC - 1/2021-22	SOCHENG	Amreng	Prisek	Prisek
102	WEST KARBI ANGLONG-WDC - 1/2021-22	SOCHENG	Amreng	Rongjangpho ng (Langsomepi)	Langsomepi
103	WEST KARBI ANGLONG-WDC - 1/2021-22	SOCHENG	Amreng	Taseng	Thatskai
104	WEST KARBI ANGLONG-WDC - 1/2021-22	SOCHENG	Amreng	Thatskai	Thatskai



1.3. SURVEY DETAILS

Intervention data has been collected from 13 districts and control data has been collected from 6 districts.

Agro-Climatic Zones	Intervention Districts (13)	Control Districts (6)
North Bonk Blains Zona (NBBZ)	Darrang	Darrang
North Bank Plains Zone (NBPZ)	Udalguri	
Unner Brohmanutra Vallay Zona (UD)/Z	Dibrugarh	
Upper Brahmaputra Valley Zone (UBVZ)	Jorhat	Jorhat
Control Brokmonutro Vollov Zono (CD)/Z	Morigaon	Morigaon
Central Brahmaputra Valley Zone (CBVZ)	Nagaon	
	Dima Hasao	Dima Hasao
Hills Zone (HZ)	West Karbi Anglong	
	Barpeta	
Lower Brahmaputra Valley Zone (LBVZ)	Dhubri	
	Nalbari	Nalbari
Barok Valley Zana (DVZ)	Cachar	Cachar
Barak Valley Zone (BVZ)	Hailakandi	

The sample details are provided in the table below:

TABLE 5: SAMPLE SNAPSHOT

	Intervention	Control
Villages	104	24
Districts	13	6
Cample	13 districts x 175 Households = 2275	12 districts x 50 Households = 600
Sample	Around 22 HHs each from 104 villages	Around 25 HHs each from 24 villages
Micro Watersheds	54	None

1.3.1. SURVEY TOOLS

Preparation of Questionnaire – Two detailed questionnaires – (i) household level and (ii) village level was designed and shared in the Inception Report. Detailed discussions on survey methodology and questionnaires were held with SLNA. Feedback on questionnaires was sought and incorporated.

Revision and finalisation – The revised questionnaires were again shared for finalisation.

Translation – the interview schedules were translated into Assamese for survey work.

Design CAPI programming – the software program was designed after the finalization of the interview schedules. The software application for the survey is versatile and takes care of the range checks, filters and skipping instructions, consistency checks and validation.

• **CAPI application programming** - A document containing logical checks was prepared and shared with the IT team.



• CAPI application conversion in local languages and syncing on the tabs - The IT team adopted the English tool into local language instruments. Research instruments were uploaded. Through dedicated login IDs, enumerators synced the tools on their local machines (tabs).

1.3.2. TRAINING

Team

A twenty-seven (27) member team headed by a Field Survey in-charge was selected to conduct the baseline survey across 13 districts.

	Male	Female	Total
Field Survey in-charge	1	0	1
Supervisors	5	0	5
Enumerators	14	8	22
Total	21	8	28

Training

A two-day residential training was organised for the baseline survey team by MEL&D agency on 17th and 18th August 2023 in Hotel Fortune, Ulubari. A team of 27 investigators and supervisors were trained thoroughly on the quantitative tools (household and village questionnaires).

Shri Dipu Kumar Deka, ACS - Chief Executive Officer, SLNA and Shri Monidip Chutia, Joint Director, and TE, SLNA also briefed the participants and provided the necessary information.





1.3.3. FIELD WORK

SLNA was informed about the survey team's contact and movement details. Field work started from August 23, 2023, onwards. Five teams were formed.

Project / District	F/W Start Date	F/W End Date	Team No
BARPETA-WDC - 1/2021-22	23/08/23	30/08/23	5
CACHAR-WDC - 1 /2021-22	29/08/23	03/09/23	1 & 2
DARRANG-WDC - 1 /2021-22	08/09/23	19/09/23	2
DIBRUGARH-WDC - 1 /2021-22	23/08/23	30/08/23	3
DIMA HASAO-WDC - 1 /2021-22	23/08/23	28/08/23	1 & 2



Project / District	F/W Start Date	F/W End Date	Team No
DHUBRI-WDC - 1 /2021-22	31/08/23	07/09/23	5
JORHAT-WDC - 1 /2021-22	31/08/23	11/09/23	3
HAILAKANDI-WDC - 1/2021-22	04/09/23	07/09/23	2
MORIGAON-WDC - 1/2021-22	08/09/23	19/09/23	4
NAGAON-WDC - 1 /2021-22	23/08/23	30/08/23	4
NALBARI-WDC - 1 /2021-22	08/09/23	19/09/23	1
UDALGURI-WDC - 1 /2021-22	08/09/23	15/09/23	5
WEST KARBI ANGLONG-WDC - 1/2021-22	31/08/23	07/09/23	4



2. KEY FINDINGS

2.1. HOUSEHOLD SURVEY

The interviews were conducted in 13 districts of Assam, namely Barpeta, Cachar, Darrang, Dibrugarh, Dima Hasao, Dhubri, Jorhat, Hailakandi, Morigaon, Nagaon, Nalbari, Udalguri, and West Karbi Anglong, involving a total of 2892 farmers in both intervention and control. The geographical diversity of the study area was further delineated into various six agro-climatic zones (ACZ) - North Bank Plains Zone (NBPZ), Upper Brahmaputra Valley Zone (UBVZ), Central Brahmaputra Valley Zone (CBVZ), Hills Zone (HZ), Lower Brahmaputra Valley Zone (LBVZ), and Barak Valley Zone (BVZ) and then across 3 reaches - Upper Reach, Middle Reach and Lower Reach. Notably, the total study comprises 2292 farmers in the intervention group and 600 in the control group.

TABLE 6: SAMPLE SIZE

Agro-Climatic Zones	Districts	Intervention	Districts	Control
North Bank Plains	Darrang	168	Darrang	100
Zone (NBPZ)	Udalguri	175		
Upper Brahmaputra	Dibrugarh	176		
Valley Zone (UBVZ)	Jorhat	181	Jorhat	100
Central Brahmaputra	Morigaon	176	Morigaon	101
Valley Zone (CBVZ)	Nagaon	181		
Hills Zone (HZ)	Dima Hasao	176	Dima Hasao	99
niiis zone (nz)	West Karbi Anglong	180		
	Barpeta	177		
Lower Brahmaputra Valley Zone (LBVZ)	Dhubri	179		
vane, 20110 (2512,	Nalbari	180	Nalbari	100
Barak Valley Zone	Cachar	172	Cachar	100
(BVZ)	Hailakandi	171		
TOTAL		2292		600

Background Information

Sex and Age of respondents - It is observed that out of the total sample of 2892 farmers (respondents), 92% are male, and 8% are female. This gender distribution is consistent across various zones, with significant number of male respondents in both the intervention and control groups. The average age of respondents is around 44 years. District-wise examination highlights notable differences, with Darrang boasting the highest mean age (46 years) and Barpeta the lowest (41 years). The zones display diverse age demographics, with the Barak Valley Zone recording the highest mean age (47 years) and the Upper Brahmaputra Valley Zone the lowest (41 years).



TABLE 7: AGE & SEX OF RESPONDENTS

	Total					Inter	ventio	n				Control
		Total			A	CZ				Reach		Total
			NBPZ	NBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Base	2892	2292	343	357	357	1158	809	600				
	%	%	%	%	%	%	%	%	%	%	%	%
Sex												
Male	92	91	100	87	75	96	93	93	95	87	94	96
Female	8	9	0	13	25	4	7	7	5	13	6	4
The average age in years	44.01	43.8	43. 67	45. 50	45. 59	41. 98	42. 67	44.1 7	44.0 7	44.2 2	43.1 9	44.67

Religion and Social Group — Most respondents (62%) identified themselves as Hindu, with variations across zones, only 5% of respondents from NBPZ from the control area identified as Hindu, whereas in the intervention area, only 3% of respondents from Dhubri identified as Hindu. Islam is the second-largest religious group, constituting 31% of the total sample. Christians make up 7% of the population, with a higher concentration in Hill Zone. The data reveals that 37% identify as General, with significant variation across districts, ranging from 9% to 96%; SC (Scheduled Caste) comprises 10%, showing a more consistent distribution, ST (Scheduled Tribe) accounts for 25%, and OBC (Other Backward Classes) forms 28%.

TABLE 8: RELIGION & SOCIAL CATEGORY OF RESPONDENTS

	Total					Interv	ention/					Control
		Total			AC.	Z				Reach		Total
			NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Base	2892	2292	343	357	357	356	536	343	325	1158	809	600
	%	%	%	% % % % % % % %								
Religion												
Hindu	62	61	45	99	97	64	38	34	64	77	38	64
Islam	31	31	41	0	3	0	62	64	10	19	56	33
Christian	7	8	13	1	0	36	0	2	26	4	6	3
Social Cate	egory											
SC	10	10	11	1	14	4	13	14	2	11	11	10
ST	25	27	43	9	20	96	2	5	72	25	12	17
OBC	28	27	1	84	54	0	10	18	9	42	12	33
General	37	36	44	6	12	0	75	63	17	22	65	40



Family details – 95% of the respondents identified themselves as the head of the household and the rest 5% interviews were conducted with other family members (not Head of the Household). The average number of family members in the surveyed area is around 4.90. When examining specific categories, the average number of adult males is approximately 1.77, adult females is about 1.73. Children (below 18 years) males is roughly 0.74, and females is around 0.65. The average number of employed family members per household is 1.63. On average, there are 1.39 and 0.23 employed adult males and adult females per household respectively.

TABLE 9: FAMILY DETAILS

	Total					Inter	ventior	1				Control
		Total			A	CZ				Reach		Total
			NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Base	2892	2292	343	357	357	356	536	343	325	1158	809	600
	%	%	%	%	%	%	%	%	%	%	%	%
Relationshi	ip to the	Head o	of the H	louseh	old							
Self	95	94									99	
Average nu	ımber o	f memb	ers in t	he fam	ily							
Total	4.90	4.94	5.21	4.72	4.49	5.12	4.98	5.11	4.93	4.72	5.26	4.76
Adult Male	1.77	1.77	1.83	1.78	1.68	1.92	1.66	1.83	1.94	1.73	1.77	1.78
Adult female	1.73	1.73	1.74	1.80	1.72	1.90	1.62	1.64	1.81	1.70	1.73	1.75
Children (Male)	.74	.76	.74	.59	.63	.76	.88	.87	.63	.67	.92	.70
Children (Female)	.65	.68	.89	.55	.44	.54	.82	.76	.53	.61	.85	.54
The averag	e numb	er of m	ember	s of the	family	are en	ployed	d (work	for Mo	ney)		
Total	1.63	1.63	1.61	1.64	1.31	1.84	1.57	1.85	2.01	1.54	1.60	1.65
Adult (Male)	1.39	1.39	1.46	1.27	1.24	1.52	1.35	1.55	1.56	1.34	1.41	1.39
Adult (Female)	.23	.23	.13	.36	.07	.30	.21	.29	.43	.20	.19	.26

Education - Illiterate farmers constitute 5% of the total, with slightly higher percentages in the intervention area (6%) compared to the control area (4%). The literacy distribution varies across districts, with Darrang (intervention) exhibiting the highest illiteracy rate (10%) and Barpeta the lowest (6%). Similarly, the distribution across education levels shows interesting patterns, with 40% farmers, having education levels up to Classes 6-8 and 32% attending Classes 9-12. 62% of children in the project area attend school regularly. When comparing intervention and control zones, it is observed that the percentage of children attending school is relatively higher in intervention areas (64%) compared to control areas (58%). It needs to be noted that a good number of children are out-of-school in these areas.



TABLE 10: EDUCATION DETAILS

	Total					Interv	ention/					Control
		Total			AC	Z.				Reach		Total
			NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Base	2892	2292	343	357	357	356	536	343	325	1158	809	600
	%	%	%	%	%	%	%	%	%	%	%	%
Literacy stat	us											
Illiterate	5	6	6	4	4	12	4	6	11	5	5	4
Read and write	5	5	4	1	2	5	7	9	6	4	6	8
Class 1-5	15	15	17	6	14	19	23	10	13	12	21	14
Class 6-8	40	39	38	39	29	42	35	51	46	36	39	45
Class 9-12	32	33	31	49	44	22	28	24	23	40	26	29
Graduation	2	2	3	1	6	0	3	0	0	3	2	0
Above Graduation	0	0	0	0	1	0	1	0	0	0	0	0
Children of s	chool-g	oing ag	e (6-14	years)	attend	ing Sch	nool					
Yes	62	64	58	65	73	68	65	58	63	65	63	53
No	17	17	19	33	8	17	16	12	17	17	18	15

Occupation - nearly 86%, are engaged in Agriculture & Horticulture (owned, shared, leased in), indicating the predominant reliance on agriculture as the primary livelihood source. Animal Husbandry and Fisheries play a negligible role, each representing less than 1% of the total sample. In Udalguri 17% of the respondents were unskilled labourers (other than agricultural labourers) and in the control areas of Morigaon, 25% were involved in petty business. Salaried positions are minimal across zones contributing to only 2% of the total sample size. As the secondary occupation, 14% of farmers are engaged in agriculture and horticulture (own, shared, leased in), a trend consistent across different zones, emphasizing the continued importance of agriculture also as a secondary occupation. Another popular secondary occupation was unskilled labourers (other than agricultural labourers).

TABLE 11: OCCUPATION

	Total					Inter	ventio	n				Control
		Total			AC	Z				Reach		Total
			2						Lower Reach			
Base	2892	2292	343						325	1158	809	600
	%	%	%							%	%	%
Primary Livelih	nood											
Agriculture & Horticulture	86	85	77	95	78	97	79	87	94	83	84	88



Secondary occ	cupation	า										
Agriculture & Horticulture (own, shared, leased in)	14	15	23	5	22	3	21	13	6	17	16	12
Animal Husbandry	13	12	1	17	17	8	17	9	13	11	12	17
Fisheries	1	1	1	0	1	1	3	1	2	1	2	1
Agricultural Labourer	17	17	17	22	8	21	10	29	31	16	13	16
Skilled Labour	7	7	2	13	3	6	6	13	11	8	5	8
Unskilled Labour (other than Agr. Lab)	24	24	24	47	18	12	33	8	18	25	25	21
Petty Business/ Enterprise	9	8	5	11	7	3	11	13	10	9	7	10
Salaried (Govt + Pvt)	1	1	0	1	4	0	0	0	1	1	0	0

Membership and Participation

Social membership - The table provides insights into the types of institutions existing in the surveyed region, particularly Self-Help Groups (SHGs), User Groups (UGs), Farmer Producer Organizations (FPOs), and other entities. The data indicates that 56% of households have members who are part of SHGs, with an average family membership of 1.06. Additionally, 8% are part of User Groups, averaging 1.05 family members. Farmer Producer Organizations have 2% membership, while 5% are associated with other institutions. Furthermore, the table explores political engagement, revealing that a small percentage (0.28%) of households have elected Panchayat members. Among these, the gender distribution shows 63% male and 38% female representation, particularly from the HZ districts. In the control area, only Nalbari district reported households with elected Panchayat members.

TABLE 12: MEMBERSHIP

	Total					Interv	entior					Control
		Total			AC	CZ				Reach		Total
			NBPZ									
Base	2892	2292	343	357	357	356	536	343	325	1158	809	600
	%	%	343 357 356 536 343 325 1158 809 % % % % % % %							%		
SHG member	56	58	48	83	78	24	82	23	30	65	61	48



User Group member	8	9	11	9	1	3	19	2	3	7	14	5
FPO member	2	3	8	0	0	0	8	0	0	3	5	0
Elected members of Panchayat in family	0.28	0.3	0	1	0	0.28	1	0	1	0	0	0.17
Gender of th	ne electo	ed mem	ber									
Male	63	57		50	0	100	67		50	50	67	100
Female	38	43		50	100	0	33		50	50	33	0

Possession of valid identity proofs

- Ration cards and BPL Cards The majority possess Ration Cards, the lowest 81% and 82% in CBVZ and HZ respectively.
- Aadhar card and PAN card Almost all people have Aadhar and PAN cards.
- Job Cards There is variation in possessing MGNREGS Job Cards. While 97% HZ people have job cards, only 55% Barak Valley people possess it. Only 55% farmers in control areas have job cards.

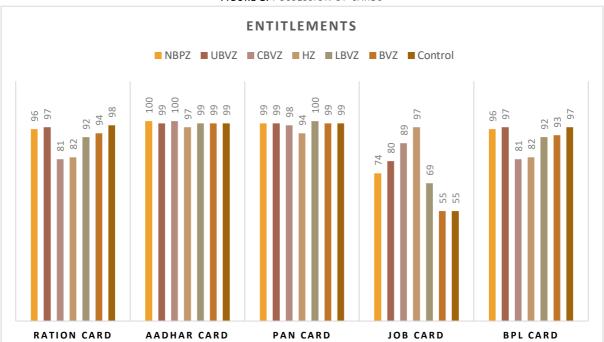


FIGURE 1: POSSESSION OF CARDS

Landholding

The average size of plots for house construction varies, with the CBVZ having the highest at 3.66 Kantha, while the UBVZ reports the lowest at 1.85 Kantha. Regarding agricultural land ownership, 98% farmers own land and those who own land possess an average of 4.91 Bigha, showcasing variations across zones.



TABLE 13: LAND OWNERSHIP

	Total					Interv	ention					Control
		Total			A	CZ				Reach		Total
			NBPZ	NBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Base	2892	2292	343	357	357	356	536	343	325	1158	809	600
	%	%	%	%	%	%	%	%	%	%	%	%
Farmers who own land	98	98	99	99	96	98	98	99	98	99	99	99
Average size of the plot on which the house is built (in kantha)	2.77	2.78	3.17	1.85	3.66	2.95	2.37	2.95	2.71	2.97	2.55	2.74
Average amount of agricultural land owned (in Bigha) (Those who own land)	4.91	4.94	5.13	5.50	4.25	5.88	3.96	5.36	5.48	4.91	4.76	4.79

Agricultural Practices

Farmers who own land - Season-wise cultivation practices reveal nuances, particularly in the Kharif season, where the Upper Reach demonstrates, a higher average area cultivated compared to the Medium and Lower Reaches. Examining irrigation patterns, the Kharif season sees variations in the average number of plots cultivated and the area cultivated in Bighas, with the Upper Reach exhibiting higher averages.

TABLE 14: AGRICULTURAL PRACTICES

	Total					Interv	ention					Control
		Total			A	CZ				Reach		Total
			UBVZ CBVZ CBVZ LBVZ BVZ BVZ Reach Medium Reach Reach Reach Reach Reach									
Base = those who own land	2842	2246	341	357	346	352	507	343	321	1145	780	596
	%	%	%	%	%	%	%	%	%	%	%	%



Kharif												
Average number of plots cultivated	1.92	1.88	3.08	1.81	1.91	1.47	1.07	2.33	1.68	2.08	1.65	2.11
Average area cultivated in Bigha	4.39	4.34	4.93	5.06	4.14	4.36	2.97	5.24	4.56	4.66	3.78	4.58
Average number of plots cultivated (with irrigation)	.96	.95	2.10	1.60	.28	.64	.28	1.14	1.00	1.08	.76	.97
Average area cultivated in Bigha (with irrigation)	1.88	1.93	3.04	4.45	.79	1.35	.66	1.83	2.01	2.29	1.37	1.71
Rabi												
Average number of plots cultivated	.27	.28	.90	.06	.08	.35	.27	.01	.25	.10	.54	.26
Average area cultivated in Bigha	.48	.51	1.39	.13	.08	.97	.50	.03	.55	.18	.99	.36
Average number of plots cultivated (with irrigation)	.13	.14	.37	.01	.05	.18	.21	.01	.15	.05	.27	.08
Average area cultivated in Bigha (with irrigation)	.21	.25	.44	.02	.05	.44	.44	.01	.26	.09	.48	.05
Boro												
Average number of plots cultivated	.22	.24	.10	.00	.25	.18	.67	.04	.06	.11	.51	.17



Average area cultivated in Bigha	.38	.40	.15	.01	.44	.54	.98	.04	.22	.18	.81	.31
Average number of plots cultivated (with irrigation)	.21	.22	.01	.00	.23	.18	.64	.04	.06	.09	.46	.17
Average area cultivated in Bigha (with irrigation)	.35	.36	.02	.00	.42	.45	.94	.04	.15	.15	.75	.31

The figure below clearly shows that the most preferred season for cultivation is the kharif season across all areas. Rabi and Boro crops are cultivated in lower reaches in some quantities.

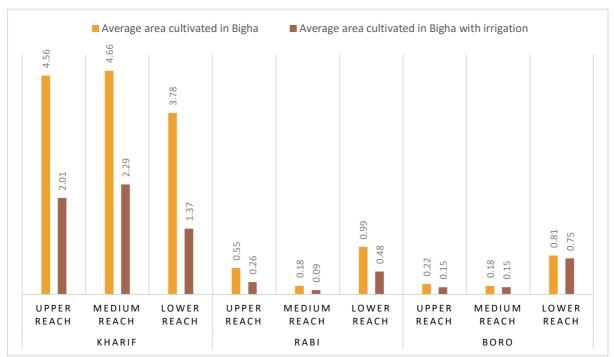


FIGURE 2: AGRICULTURAL PRACTICES

Farmers who lease land - The table below presents an insightful analysis of agricultural land leasing, cultivation, and irrigation practices across different zones and reaches in both intervention and control areas. Among the key findings, 4% of surveyed households have leased-in agricultural land, with variations across zones. The average amount of leased land is 3.18 Bigha, with the CBVZ showing the highest at 4.42 Bigha. Season-wise cultivation reveals variations, with the highest average number of plots and area cultivated during the Kharif season, especially in the Medium Reach. For households leasing out land, the average area of land leased out is minimal (0.04 Bigha). The season-wise cultivated land that is irrigated follows a similar trend, with the highest average in the Kharif season.



	Total					Interv	ention/					Control
		Total			AC					Reach		Total
			NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Base = Those who have leased in agricultural land	125	121	10	0	19	7	85	0	6	30	85	4
Average amount of agricultural land leased in (in Bigha)	3.18	3.13	2.10	0	4.42	3.57	2.93	0	3.50	3.63	2.93	4.75
	%	%	%	%	%	%	%	%	%	%	%	%
Kharif					I							
Average number of plots cultivated	.97	.93	1.70	0	1.89	1.14	.61	0	1.00	1.83	.61	2.00
Average area cultivated in Bigha	1.84	1.75	2.10	0	4.42	3.57	.96	0	3.50	3.63	.96	4.50
Average number of plots cultivated. (with irrigation)	.26	.26	1.00	0	.16	.29	.19	0	.33	.43	.19	.50
Average area cultivated in Bigha (with irrigation)	.45	.41	1.00	0	.26	.43	.38	0	.50	.50	.38	1.50
Rabi												
Average number of plots cultivated	.35	.36	.10	0	.00	.00	.50	0	.00	.03	.50	.00
Average area cultivated in Bigha	.63	.65	.10	0	.00	.00	.92	0	.00	.03	.92	.00



Average number of plots cultivated (with irrigation)	.34	.36	.10	0	.00	.00	.49	0	.00	.03	.49	.00
Average area cultivated in Bigha (with irrigation)	.63	.65	.10	0	.00	.00	.92	0	.00	.03	.92	.00
Boro												
Average number of plots cultivated	.96	.95	.00	0	.00	.00	1.36	0	.00	.00	1.36	1.25
Average area cultivated in Bigha	1.38	1.33	.00	0	.00	.00	1.90	0	.00	.00	1.90	2.75
Average number of plots cultivated (with irrigation)	.75	.74	.00	0	.00	.00	1.05	0	.00	.00	1.05	1.25
Average area cultivated in Bigha (with irrigation)	1.14	1.09	.00	0	.00	.00	1.55	0	.00	.00	1.55	2.75

Irrigation

The table illustrates the diverse sources of irrigation utilized by households during different seasons across zones and reaches in the project area. In the Kharif season, 3% of households rely on wells, while ponds emerge as the primary source, constituting 38%, with notable contributions in UBVZ (81%) and Middle and Lower Reach. Rivers, canals, and springs also play distinct roles. Other alternative sources collectively account for 49% of irrigation, particularly in the control area (53%). In the Boro season, wells are used by 4% of households, with ponds remaining a significant source at 10%. Rivers, canals, and springs exhibit varied contributions, while diverse alternatives dominate, constituting 79%, especially in UBVZ. Rivers contribute significantly to Dima Hasao and Canals play a role in Dhubri while springs have minimal impact. During the Rabi season, wells are used by 2%, with ponds contributing 13%. Rivers, canals, and springs display diverse usage patterns, and other alternative sources collectively represent 80%. Overall, the data underscores the varied irrigation practices influenced by geographic and topographic factors in different zones and reaches.



TABLE 15: SOURCES OF IRRIGATION

	Total					Inter	ventic	n				Control
		Total			AC			<u> </u>		Reach		Total
			NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach		Lower	
Base	2892	2292	343	357	357	356	536	343	325	1158	809	600
	%	%	%	%	%	%	%	%	%	%	%	%
Sources of irr	igation	used in	differe	nt seas	ons by	the h	ouseh	old				
Kharif	T				T	T						
Well (including shallow / Submersible	3	3	14	0	0	1	2	3	4	5	1	0
Pond	38	38	53	81	12	6	38	42	15	43	41	36
River	11	12	19	13	0	20	13	4	30	4	15	7
Canal	13	11	33	8	5	8	4	15	11	9	14	19
Spring	4	3	0	1	0	18	0	2	20	0	1	6
No Irrigation Used	49	49	25	12	83	59	57	50	41	49	51	53
Boro												
Well (including shallow / Submersible	4	3	3	0	9	0	7	0	0	4	5	5
Pond	10	12	24	0	3	4	26	10	4	11	18	1
River	4	5	4	0	0	13	8	0	14	1	6	1
Canal	5	5	5	0	1	4	12	5	2	2	11	4
Spring	2	2	0	0	0	11	0	0	5	0	3	2
No irrigation Used	79	77	70	100	87	75	56	84	82	84	65	89
Rabi												
Well (including shallow / Submersible	2	2	5	0	2	0	4	0	0	2	3	1
Pond	13	14	40	2	1	3	24	11	3	11	23	10
River	5	6	12	0	0	14	8	0	15	1	9	1
Canal	8	7	24	0	1	2	11	4	1	2	17	11
Spring	1	1	0	0	0	4	0	0	3	0	1	1
No Irrigation Used	80	78	50	97	97	83	62	85	83	86	64	87



The figure presents a comprehensive overview of water sources and their utilization in different reaches and zones, comparing intervention and control groups. Wells demonstrate consistent availability across reaches, with slight variations observed during summer and monsoon months. Ponds are widespread, particularly in the Upper Reach, exhibiting diverse usage patterns in the Middle and Lower reaches during both seasons. Rivers are present, with distinct usage across reaches and seasons. Canals show varying availability and usage, more prominently in the Middle Reach. Springs exhibit diverse patterns of availability and utilization. Other irrigation sources present varied usage across reaches and seasons.

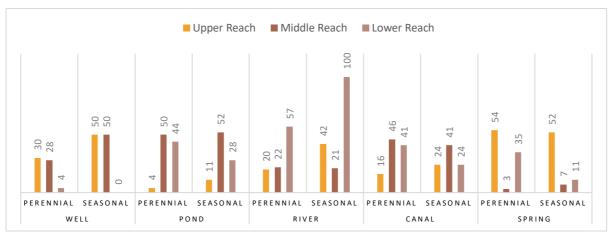


FIGURE 4: IRRIGATION SOURCES

In the summer months, the need for irrigation is high for ponds, rivers, and canals.

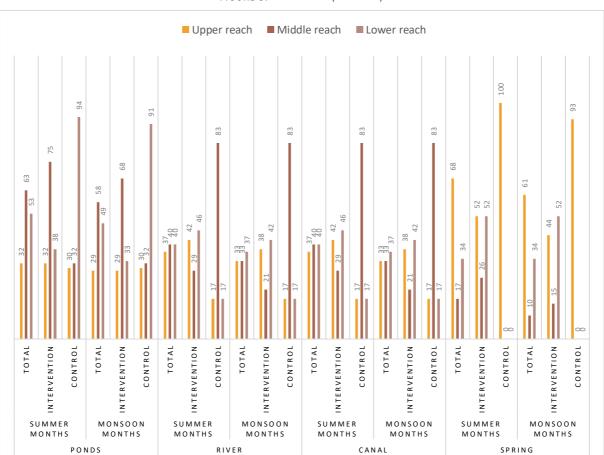


FIGURE 3: IRRIGATION (SEASONS)



Drinking water

The table below presents a detailed breakdown of drinking water facilities, focusing on different sources and their utilization patterns across zones and reaches in both the intervention and control groups. Piped water into dwelling units/yard/plot is more prevalent in the intervention group (35%) compared to the control group (2%), with substantial variations across zones. Tube wells or boreholes are a dominant source, especially in the intervention group (73%). Public taps/standpipes and protected dug wells exhibit significant differences between intervention and control groups, with varying usage patterns in different geographical contexts. The utilization of rainwater and tanker trucks also shows disparities. Cart with small tanks and tanker trunks is a popular source during other months while piped water and boreholes are more popular sources of drinking water during the winter months. Protected springs were named as drinking water source by only 7% of the households probably because the average distance of the springs from the households is much higher than any other sources. It is to be noted that it is only prevalent in the Hill Zones.

TABLE 16: DRINKING WATER

	Total					Inte	rventic	n				Control
		Total			AC	Z				Reach		Total
			NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Base	2892	2292	343	357	357	356	536	343	325	1158	809	600
	%	%	%	%	%	%	%	%	%	%	%	%
Type of Sou	ırces											
Piped water into dwelling/ yard/plot	23	21	35	0	2	26	7	67	30	21	17	32
Public tap/ standpipe	12	12	10	2	3	30	2	31	26	10	9	12
Tube well or borehole	73	72	73	99	97	11	100	37	22	77	85	75
Protected dug well	11	13	17	10	1	31	1	27	29	16	4	4
Protected spring	7	7	0	0	0	43	0	0	33	0	6	6
Rainwater	6	3	2	1	0	10	0	9	19	1	0	15
Tanker truck	1	0	0	0	0	1	0	0	1	0	0	4
Cart with small tank	0	0	0	0	0	1	0	0	1	0	0	0
Bottled water	2	2	0	0	0	4	2	5	7	1	1	1
Other	1	1	0	1	0	1	0	4	5	0	0	3



Information collected also provides insights into various aspects of drinking water sources, focusing on the total, intervention, and control groups across different zones and reaches. Among those with available drinking water sources, the majority in the intervention group rely on "Piped water into dwelling/yard/plot" (81%), "Tube well or borehole" (87%), and "Protected dug well" (76%) as their main sources. Notably, in the control group, "Rainwater" serves as the main source for 45%, showcasing a unique trend. The utilization of "Tanker truck" and "Cart with small tank" is more prevalent in the intervention group (33% and 67%, respectively) compared to the control group, indicating potentially more flexible or informal water supply systems in the intervention areas. Additionally, the control group shows a higher reliance on "Public tap/standpipe" as the main source (34%) compared to the intervention group (30%).

Household Amenities

Access to sanitary toilets - Regarding toilet facilities, most households in both intervention and control groups use flush toilets or pour flush toilets (72% overall). Notably, in the control group, a lower percentage (3%) utilizes pit latrines compared to the intervention group (34%). In Barpeta district majority of the respondents (94%) utilise pit latrines. The average time required to reach the toilet varies, with the North Bank Plain Zone (NBPZ) having the longest time (1.07 mins) compared to other zones.

Total Control **ACZ** Medium Reach UBVZ Reach Lower Reach NBPZ CBVZ **BVZ** 무 Base % % % % Kind of toilet facility usually used by the members of household Pit latrine Flush toilet/Pour flush toilet Toilet is within the dwelling

TABLE 17: ACCESS TO TOILETS

Cooking and Lighting - Interestingly, the use of biogas for cooking is absent, while LPG is the most prevalent fuel source (57%). The control group shows a higher reliance on LPG (74%) compared to the intervention group (52%). Wood is a significant fuel source, particularly in the North Bank Plain Zone and Upper Brahmaputra Valley Zone. The average time required to obtain fuel is consistent across zones. For lighting, electricity is the primary source in the evening for most households (95%), with solar lights being more prevalent in Hill zones and Upper Reach of the intervention group. All the farmers mentioned that toilet is in their household and mentioned that mostly all the male and female members use the toilet regularly. While 99 % respondents reported that the children member of their household in the control group use toilet regularly, it is 93% in the intervention group.



TABLE 18: FUEL & ELECTRICITY

	Total					Inte	ventio	n				Control
		Total			A	CZ				Reach		Total
			NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Base	2892	2292	343	357	357	356	536	343	325	1158	809	600
	%	%	%	%	%	%	%	%	%	%	%	%
Fuel housel	nold mai	nly use t	use for cooking									
Electricity	2	2	2	5	0	2	0	3	5	2	1	2
LPG	57	52	56	17	62	39	59	79	64	50	50	74
Coal	1	1	0	0	2	5	0	0	0	1	2	0
Charcoal	6	7	0	0	14	28	1	0	8	7	6	1
Wood	34	37	42	78	21	25	39	18	23	40	40	23
Average time require to get fuel (in mins)	26.5 7	27.0 0	31. 41	30. 22	25. 06	25. 46	25. 36	25. 39	27.9 7	27.2 3	26.2 7	24.94
Main source	e of light	ting in th	ne evei	ning of	your h	ouse						
Electricity	95	93	99	100	100	60	99	100	87	96	92	100
Solar Light	5	7	0	0	0	40	1	0	13	4	8	0

Consumer Durable Assets

The figure below shows consumer durable assets available in the households. Analysing the data reveals notable variations in asset ownership across regions. Most of the households had mobile phone and television. Compared to intervention group more farmers in the control group had access to LPG cylinder.

Total Intervention Control

Total Intervention Control

Total Intervention Control

Reserved in the Reserved i



Migration

The table provides insights into migration patterns, work types, and financial contributions among households in different zones and reaches. Approximately 5% of the total surveyed population had family members residing outside their village/panchayat/region for 15 days or more for work in the last fiscal year. Among those who migrated, the majority engaged in unskilled work, with the highest percentage in the NBPZ intervention group. Skilled workers were prominent in the Medium Reach. Self-employed professionals were notably high in the control area. Migrants commonly moved outside their districts and State, with the highest percentage remitting money coming from the LBVZ. The average annual remittance varied across zones and reaches, with the highest amount in the Upper Reach intervention group.

TABLE 19: MIGRATION

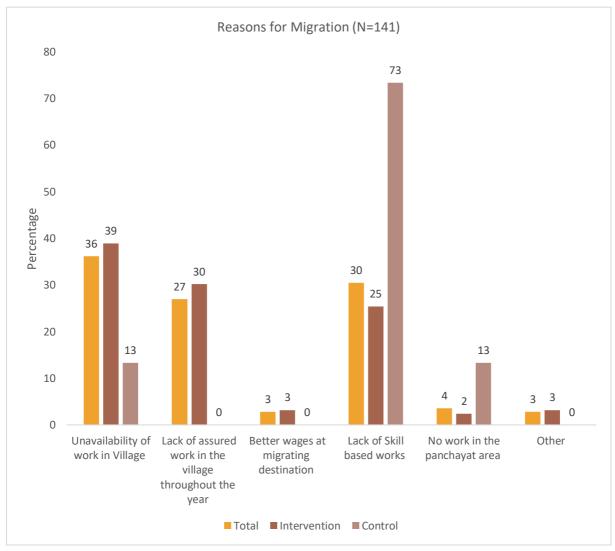
	Total					Inter	ventio	n				Control
		Total			A	CZ				Reach		Total
			NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Base	2892	2292	343	357	357	356	536	343	325	1158	809	600
	%	%	%	%	%	%	%	%	%	%	%	%
Member of more for we		-		side th	e villa	ge/ par	nchaya	t/regio	on contir	nuously 1	or 15 da	ays or
Members	5	5	3	14	2	0	9	0	2	5	7	2
Base=Tho se who migrate	133	119	10	51	8	0	50	0	5	56	58	14
	%	%	%	%	%	%	%	%	%	%	%	%
Type/s of w	ork they	go outs	ides									
Unskilled worker	36	40	80	2	25		74		20	18	64	0
Skilled worker	26	28	0	37	25		24		20	32	24	14
Entertain ment industry	1	1	0	2	0		0		0	2	0	0
Farming / Agricultur e labour	1	1	10	0	0		0		0	2	0	0
Services (job)	8	9	10	14	25		2		0	16	3	0
Self- employed	27	20	0	43	25		0		40	30	9	86
Petty trader/ shop owner	1	1	0	2	0		0		20	0	0	0



Places they	migrate	to										
Outside block	20	21	50	31	0		8		80	30	7	14
Outside District	46	49	40	10	67		88		0	26	76	14
Outside State	34	30	10	59	33		4		20	44	17	71
Remit money	95	94	80	96	89		96		100	91	97	100
Average am	ount of	money	remit t	o hous	ehold	annua	lly (in F	Rs)				
Average money	3715 8.23	3770 8.81	356 25. 00	338 36. 73	178 75. 00		453 14. 48		2440 0.00	3142 3.08	4473 3.84	32714. 29

The figure shows the reasons for migration. The most common reason unavailability of work in the village. In control region majority of 70% of the households who had members who migrated cited reason for migration to be the lack of skill-based works.

FIGURE 6: MIGRATION - REASONS





Cultivation of Crops

<u>Paddy</u> is grown across all the seasons, except in Rabi season in the control area. Paddy is not grown in NBPZ in Rabi and Boro season, UBVZ and BVZ in Boro season. Even though only 4% of the respondents from the upper reach cultivated in the Rabi season but the area of land was largest during that time (6 Bigha). In the control area the none of farmers cultivate paddy in the rabi season and in the intervention area it is only 1%, mostly from Hill Zone. The average area cultivated under HYV in the Boro season was more compared to other seasons. The average cost in kharif season was higher in the intervention area, but the control area average expenditure was higher in rabi season. Among 2892 farmers, 93% cultivated paddy in the Kharif season and the average area of land cultivated during the season was 5 bigha. The average cost incurred was Rs 22221 during kharif season. In the control area the average expenditure was higher than the intervention area across all seasons. The average area irrigated was greater in Boro season (3 bigha) compared to rabi and kharif season.

In the intervention area, 1% of respondents from the lower reach engage in <u>Maize</u> cultivation in Rabi season, while no farmers cultivate maize in the Rabi season in the control area. The average area cultivated, irrigated, and under High-Yielding Variety (HYV) is consistently higher in the Boro season. Interestingly, negligible maize cultivation is reported during all three seasons in both areas. The production of maize was highest in the Rabi season, producing 1333.3 Kgs of maize during the season and the average cost incurred Rs 10111.

Only 1% farmers from the control area grow <u>Pulses</u> in the Kharif season. The average area cultivated, irrigated, and under High-Yielding Variety (HYV) is more prominent in the Rabi season. They produce 894 Kgs in the Rabi season, and the average expenditure was highest in the Rabi season, Rs 12923.

<u>Potato</u> is primarily grown in the Rabi season, with 5% of the interviewed farmers cultivating, and the cultivation is more prevalent in the NBPZ and Lower reaches in intervention area and in Control area. Even though more farmers cultivate potato in the Rabi season, the production of potato was higher during the Boro season, producing 1627 kgs of potato on an average. In the Boro season the average land irrigated was more than other seasons, especially in the intervention area. The cost incurred during Rabi season and Boro season was Rs 4017 and Rs 7000 on an average, respectively. In Rabi season the average rate of potato was highest in Rabi season at Rs 35/kg.

<u>Mustard</u> cultivation is observed in varying degrees, with 1% in the Kharif season, 8% in the Rabi season, and negligible occurrences in the Boro season in the intervention area. In the intervention area, Rabi season cultivation is more prominent at 21%, with sporadic instances in the Kharif season. Mustard cultivation shows significant variation across seasons, zones, and reaches. While Rabi season dominates, especially in the intervention area LBVZ, the average production was higher in Rabi season, 534Kg, this average was higher in NBPZ (761Kg). The cost/expenditure is notable, particularly in the Kharif season, Rs 10192, suggesting potential economic considerations and the expenditure in the Rabi season was Rs9133, this difference was result of the rate of mustard being higher in kharif season (Rs54/Kg) than in the Rabi season (Rs47/Kg).

While there is no reported cultivation of <u>spices and other condiments</u> in the kharif season, the Rabi season showcases a 2% engagement in the intervention area and 4% in the control area. Boro season, however, sees 3% cultivation in the NBPZ from intervention area. The average area cultivated was 2 bigha in the Rabi season. Notably, Rabi season production stands out with the intervention area reporting 2021 kgs and the control area showcasing 728 kgs. The average rate of produce per kg



remains consistent between intervention and control areas, with Rabi season figures of 31 rupees per kg and 32 rupees per kg, respectively. Expenditure analysis reveals substantial differences, particularly in the Rabi season, the average being Rs 19708. The average cost incurred was significantly high in the Upper reach from the intervention area, Rs 34750.

There is no reported cultivation of <u>vegetables other than potato</u> during the Kharif season in the control area, the intervention area engages in 1% cultivation, particularly in HZ. In the Rabi season, both intervention and control areas show significant participation, with 5% farmers from each area. Additionally, the Boro season sees 3% cultivation in the intervention area and 1% in the control area. The average area cultivated, irrigated, reveals variations, with notable figures in the Kharif season. Total production reflects substantial differences, especially in the Kharif season, where the control area reports 350 kgs compared to the intervention area's 1167 kgs. The average production was higher in the Kharif season, followed by Boro season even though control area farmers does not cultivate vegetables during the season. The average rate of produce per kg and expenditure analysis further elucidates the distinctions. In the Kharif season, the rate stands at Rs 40 /kg in the intervention area, and it incurs higher costs at Rs13167, highest being in the Hill Zone (Rs.16250). The Rabi season witnesses a contrasting scenario, with the control area incurring higher costs at Rs 10333 against the intervention area's Rs 9874.

In the Kharif season, the Hill zone and upper reach from the intervention area demonstrates active participation with 3% <u>fruits</u> cultivation, while the control area shows minimal engagement. Interestingly, during the Rabi season, only the Upper Reach from intervention area reports 1% cultivation. The average area cultivated and irrigated in these areas was 3 bigha during Kharif season. The average total production during Kharif season was higher in the Middle Reach (3000Kgs) compared to Upper Reach (397Kgs). Even though more farmers cultivate fruits in the Kharif season, the average production was more in Rabi season, 910 Kgs. The average rate of produce per kg and expenditure analysis further underscores the distinctions. In the Kharif season, the rate stands at 54Rs/kg, and cost incurred Rs 1153. In the Rabi season the average cost incurred was Rs3600.

Notably, the Kharif season witnesses minimal involvement, with 1% <u>Fodder</u> cultivation reported only in the HZ from intervention area. In contrast, the Rabi season presents a similar scenario, demonstrating 2% cultivation solely in the HZ and lower reach. The average area cultivated and irrigated, was higher in rabi season, 11 bighas and 2 bighas, respectively. Total production also exhibits notable differences, where in the rabi season yields 3,000 kgs compared to 1,250 kgs in the kharif season. The average rate of fodder was higher in the rabi season, Rs40/Kg and the average expenditure during the season was Rs.38556.

Paddy emerges as a staple crop, prominently cultivated in the Kharif season by 93% of the 2,892 farmers, while other crops like potato and mustard showcase distinct seasonal preferences. This detailed crop-wise analysis provides a foundation for informed decision-making, guiding sustainable agricultural practices and facilitating the development of strategies tailored to the specific needs of each region.



TABLE 20: INCOME DETAILS OF FARMERS FROM CROPS

	Total					Inte	rventio	on				Control
		Total			A	CZ				Reach		Total
			NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Average Inco	me Ann	ual in Ru	pees									
Paddy	4920 3	4851 8	48 08 3	39 33 5	46 63 9	41 96 6	56 15 5	55 33 2	4540 5	4425 7	5586 8	51820
Maize	204	257	64	0	14 0	0	96 6	0	0	43	667	0
Pulses	131	136	0	0	34	35 9	32 2	0	92	95	214	111
Potato	1019	1172	26 37	34 92	13 7	10 1	63 4	32 0	180	1423	1211	434
Mustard	1767	2013	74 65	71 7	54 3	10 6	28 07	18 0	11	1178	4013	829
Spices and condiments	706	678	59 5	18 2	45	32 81	0	29 2	1477	318	871	813
Vegetables other than potato	1281	1269	45 10	68 1	82 0	68 3	90 4	28 4	1280	845	1872	1329
Fruits	222	249	0	0	40 3	73 4	30 8	0	804	124	204	118
Fodder	316	399	0	0	0	20 45	22	50 6	0	150	915	0

The above table provides a detailed overview of the average annual income, in Rupees, derived by farmers from various crops they grow in both the intervention and control areas, segmented across different zones, and reaches. Paddy stands out as a primary contributor to farmers' income, with an overall average of Rs. 49,203. The BVZ in the intervention area reports the highest average income from paddy at 55,332 Rupees, whereas the UBVZ in the intervention area exhibits the lowest at 39,335 Rupees. Maize cultivation, though relatively less common, demonstrates notable income variations across zones, reaching its peak at Rs966 in the LBVZ of the intervention area. Pulses contribute modestly, with an average income of Rs 131, and the HZ in the intervention area reports the highest at Rs 359. Potato cultivation emerges as a lucrative venture, especially in the NBPZ of the intervention area, generating an average income of Rs 2,637. Mustard, other spices, and condiments contribute significantly to farmers' income, showcasing variations across zones and reaches. Notably, the NBPZ in the intervention area reports the highest average income from mustard at Rs 7,465. Vegetables, fruits, and fodder exhibit diverse income patterns, emphasizing the economic significance of crop diversification in different geographical contexts. The NBPZ in the intervention area stands out with the highest average income from vegetables (Rs 4,510) and the upper reach from the intervention area exhibits highest income from fruits (Rs 804). Fodder cultivation, while less common, indicates potential income opportunities, particularly in the intervention area's Lower Reach, with an average income of Rs 915.



LIVESTOCK & POULTRY

The livestock distribution and output in the examined region reveal diverse patterns. <u>Cattle</u>, totalling 1152, are primarily concentrated in the North Bank Plains Zone (NBPZ), Central Brahmaputra Valley Zone (CBVZ), and Lower Brahmaputra Valley Zone (LBVZ). Notably, they contribute significantly to milk production (49%) and selling of animals (62%). The average number of cattle owned by the farmers is 1, but in Lower Reach and NBPZ in the intervention zone, the average is 2. The cost and revenue from selling the cattle is much higher than selling the milk of the cattle. While the average cost of milk was Rs.56 per litre and the average revenue was Rs 17007 from selling milk. The average cost from selling animal was Rs 12647 and the average revenue was Rs 35767. The average revenue was higher in the control area.

Among 2892 farmers 66 farmers own <u>Buffaloes</u>. The average number of buffaloes owned in very low. Out of the 66 farmers, 6% in milk production and 98% in selling animals. The average cost of selling animals was Rs 32955 and it was highest in UBVZ at Rs 45000. The average revenue from selling animal was Rs 110879.

<u>Goats</u> were owned by 815 farmers, exhibit widespread distribution, particularly in the LBPZ and Lower and Medium reaches, and contribute 5% to meat production and 95% to selling animals. The average cost for selling animals was Rs 5412 and that for selling meat was Rs 612. The average revenue from selling animals was Rs 20485 and the revenue from selling animals was highest in BVZ, Rs 30080.

<u>Pigs</u> were owned by 317 farmers, contributing 12% to meat production and 88% to selling animals. Most farmers who own pigs, are from medium reach, 183 farmers. The average cost from selling pigs was Rs8945 and the average revenue was Rs 25203. The average revenue from selling pigs was highest in the LBVZ at Rs 43633.

<u>Poultry</u> was owned by 947 farmers, are dispersed across various zones, contributing 5% to meat production, 82% to selling animals, and 35% to egg production. The average number of poultry owned was 13 and it was highest in the upper reach (79) from the intervention area. The revenue generated in the control area is much lower than the intervention area. The average cost for selling animals (Rs.1571) was higher than selling meat and eggs. The average revenue from selling animal was Rs 5391 and this average was highest in the HZ from the intervention area (Rs. 7556). The average revenue from selling eggs was Rs 1979. Only 2 farmers own other livestock, both from the intervention area.

TABLE 21: INCOME DETAILS OF FARMERS FROM LIVESTOCK AND POULTRY

	Total					Inter	ventio	n				Control		
		Total			A(CZ				Reach		Total		
			NBPZ	UBVZ	CBVZ	ZH	Upper Reach	Medium Reach	Lower Reach					
Average in	Average income annual in Rupees													
Cattle	7404	7281	117 27	489 5	851 0	167 8	888 6	734 5	3482	6869	9396	7872		
Buffalo	1797	1931	554	728	84	258 1	743	766 8	2492	2296	1184	1282		
Goat	4453	4466	732 0	557 3	312 7	150 6	346 5	648 9	2770	4692	4823	4404		



Pig	1992	2142	217	595	199	295	188	499	3397	2747	772	1418
	1332	2142	1	9	6	9	100	433	3337	2/4/	//2	1410
Poultry	1289	1316	125	181	997	692	181	106	1201	1227	1489	1184
	1200	1010	5	4		002	0	6			1.00	
Other livestock	23	29	0	52	131	0	4	0	-8	59	3	0

The above table presents a comprehensive overview of the average annual income, measured in Rupees, generated by farmers from livestock and poultry activities across different zones and reaches in both the intervention and control areas. Cattle rearing emerges as a significant source of income, with an overall average of 7,404 Rupees. The NBPZ in the intervention area stands out with the highest average income from cattle at 11,727 Rupees, while the UBVZ reports the lowest at 4,895 Rupees. Buffalo farming contributes notably to farmers' income, showcasing distinct patterns across zones. The BVZ in the intervention area reports the highest average income from buffalo at 7,668 Rupees, whereas the CBVZ exhibits the lowest at 84 Rupees. Goat farming is another lucrative venture, with an overall average income of 4,453 Rupees. Notably, the NBPZ in the intervention area leads in goat farming income, reaching 7,320 Rupees. Pig farming, though less common, presents significant income variations, with the UBZV in the intervention area reporting the highest average income at 5,959 Rupees. Poultry and other livestock activities also contribute to farmers' income, with varying degrees of prominence across zones and reaches. The Upper Brahmaputra Valley Zone (UBVZ) in the intervention area reports the highest average income from poultry at 1,814 Rupees.

ORCHARDS, PLANTATION CROPS AND AGROFORESTRY

Percentage of farmers cultivating fruit trees is higher in the Intervention group (2%) compared to the Control group (1%). The average number of trees is slightly higher in the Intervention group (177) compared to the Control group (87). The average area covered in fruit trees was 1.2 Bighas. The average cost incurred, and the revenue generated was Rs7646 and Rs 18979. Revenue and income generated from fruit trees are generally higher in the Intervention group.

<u>Nut-bearing trees</u> are cultivated by a negligible percentage of farmers in both groups and the average number of trees was just 100. The average area covered by nut bearing trees was just 1 Bigha and the average cost and revenue were Rs 4000 and Rs 6000, respectively. Cultivation of nut bearing trees was more prominent in NBPZ and Medium reach from the intervention area.

<u>Rubber cultivation</u> is more prevalent in the Intervention group (2%), particularly in Hill Zone and Upper Reach. The average number of rubber trees was 201. The average area covered was 2.2 Bigha. The average cost incurred was Rs2833 and the average revenue was Rs37667.

<u>Tea cultivation</u> is prominent in Assam, and 4% of the farmers interviewed were involved in Tea cultivation, particularly in the UBVZ where 27% of the surveyed households were involved in tea plantation. The average number of tea plants were 3966. even though in UBVZ more farmers are involved in tea cultivation, the average number of tea plants was more in Upper Reach (6495). The average cost incurred was Rs 17725 and the average revenue was Rs 44078.

<u>Sal and Teak cultivation</u> are less common, with minimal differences between Intervention and Control groups and the average number of trees were just 15 and 67 respectively. Teak cultivation was prominent in Upper Reach in the intervention zone. Other types of trees are cultivated by a small percentage of farmers, with variations in the types of trees and their cultivation intensity. Cultivation



of other trees was prominent in UBVZ and the average number of trees in that area was 152 and the average number of trees was more in NBPZ (288).

Majority farmers in both groups (92% to 100%) are not involved in orchards or plantation crops.

TABLE 22: INCOME DETAILS OF FARMERS FROM ORCHARDS, PLANTATION, AGROFORESTRY

	Total					Interv	ention					Control
		Total			Tota	al				Reach		Total
			NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Average	Income	Annual	nual in Rupees									
Fruits	162	186	58	0	93	632	243	52	698	51	173	73
Nut bearing trees	1	1	6	0	0	0	0	0	0	2	0	0
Rubber	72	91	0	0	0	587	0	0	643	0	0	0
Tea	1058	1248	102	6353	619	496	299	0	2359	1640	241	331
Sal	5	6	0	0	0	0	0	39	42	0	0	0
Teak	48	61	117	0	0	233	30	0	255	35	20	0
Other	627	620	1409	1429	492	206	114	341	411	910	289	657

The above table provides a detailed breakdown of the average annual income, measured in Rupees, derived by farmers from orchards, plantation crops, and agroforestry practices in both the intervention and control areas, across various zones and reaches. Fruit cultivation stands out as a significant contributor, with an overall average income of 162 Rupees. The Upper Reach in the intervention area reports the highest average income from fruits at 698 Rupees, while the Medium Reach in the control area showcases the lowest at 51 Rupees. Nut-bearing trees and rubber cultivation exhibit limited income, with negligible figures reported in certain zones and reaches. Tea cultivation emerges as a substantial source of income, with an overall average of 1,058 Rupees. The UBVZ in the intervention area leads in tea cultivation income, reaching 6,353 Rupees. Sal and teak cultivation also contribute, though with varying degrees of prominence, while other agroforestry activities exhibit notable income variations across different zones and reaches.

FISHERY

TABLE 23: FISHERIES

	Total					Inter	ventio	n				Control
		Total			A	CZ				Reach		Total
			Zdan	NBPZ UBVZ CBVZ HZ LBVZ BVZ						Medium Reach	Lower Reach	
Number of farmers engaged	132	108	6	16	13	4	56	13	7	39	62	24



in fisheries												
Average area of the pond or water body where fishery is done (in bigha)	2.0	2.0	2.0	2.0	2.0	2.0	2	2.0	2	2	2	2
Average Quantity Produced (Kg)	460	489	767	286	282	264	585	429	315	389	570	340
Average price per Kg (in Rs)	213	216	228	202	189	167	232	202	186	198	231	202
Average Total Return (in Rs)	4707	5244	290 6	288 5	230 5	844	147 77	280	1688	2702	1031 6	2662
Average To SSP, Fish fe							desiltin	g, Lime	e, Fish se	ed, Cow	/ Dung, l	Jrea,
Average Cost (in Rs)	1565 1	1758 8	103 33	900 0	953 6	888 0	243 06	113 64	7738	1050 0	2300 8	7500
Average income (in Rs)	4006	4438	272 5	258 4	193 1	719	122 22	241 3	1497	2380	8568	2362

The above table presents a comprehensive overview of the fishery-related metrics, comparing both intervention and control areas across various zones and reaches. On average, farmers cultivate fishery in 2 bighas of ponds or water bodies, ensuring consistency across zones and reaches. The average quantity produced varies, with the NBPZ in the intervention area leading at 767 kg, while the Hills Zone (HZ) lowest at 264 kg. Interestingly, despite comparable quantities, the average price per kg differs, affecting the total return. The LBVZ in the intervention area attains the highest total return at Rs 14,777, while the Hills Zone sees the lowest at Rs 844. However, the costs associated with fishery, covering dewatering, desilting, inputs like lime, fish seed, cow dung, urea, SSP, fish feed (pellets), labour wages, and other miscellaneous costs, are notably higher in the intervention area across all zones and reaches. Consequently, the average income derived from fishery exhibits variations, with the Upper Reach in the intervention area securing the highest at Rs 12,222, while the Hills Zone (HZ) records the lowest at Rs 719.

NON-TIMBER FOREST PRODUCE

The data reveals that fruits constitute a significant portion of NTFPs, with 15% collected and primarily consumed (92%), indicating their crucial role in household consumption. Surprisingly, NBPZ stands out with 39% of fruits collected, emphasizing local variations. The average revenue from sold fruits shows



substantial disparities, ranging from Rs 8,000 to Rs 21,000, further underlining the economic diversity in different zones. In the HZ the average revenue was highest at Rs21000. Nuts, fungi, fibres, and medicinal plants exhibit minimal engagement, yet their economic value is evident in the revenue from sales. The percentage of non-timber forest products collected is quite low across all parameters. While few products are mainly collected for consumption, others contribute significantly to income through sales, showcasing the economic diversity of these forest resources. The category generating the most revenue is "Fish, Animals Hunted, and Other Animal Products." Specifically, the LBVZ stands out with the highest average revenue from sales in this category, reaching Rs 30,267.

TABLE 24: INCOME FROM NON-TIMBER FOREST PRODUCE

	Total			ACZ Reach Reach								Control
		Total			A	CZ				Reach		Total
			NBPZ	NBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Average In	come A	nnual in	Rupee	es								
Fruits	1665 8	1744 5	200 00									8000
Nuts	4533	4533	600 0				600			6500	600	
Fung	150	150	0				300			0	300	
Fibres	450	450	0				900			0	900	
Medical plants	150	150	0				300			0	300	
Ornamen tal plants	200	200	0				400			0	400	
Mosses	300	300	0				600			0	600	
Charcoal	5100	5100	0				765 0			0	7650	

The above table provides a comprehensive overview of the annual income generated from non-timber forest produce (NTFP) in both intervention and control areas, segmented across different zones and reaches. Fruits emerge as a significant contributor to income, with the average annual revenue ranging from Rs 6,000 to Rs 21,267. The Hills Zone (HZ) in the intervention area stands out with the highest average income from fruits, emphasizing the importance of regional variations. Nuts, representing another key category, exhibit consistent figures, with average annual incomes ranging from Rs 4,533 to Rs 6,500. Interestingly, charcoal production demonstrates substantial income differences, reaching up to Rs 7,650, in LBVZ, reflecting economic diversity within the utilization of forest resources. Fung, fibres, medicinal plants, ornamental plants, mosses, and other non-timber products contribute to income, although the figures vary.



WAGE LABOUR

TABLE 25: DETAILS ABOUT WAGE LABOURERS

	Total					Inte	rventio	on				Control
		Total			A	CZ				Reach		Total
			NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Base	2892	2292	34 3	35 7	35 7	35 6	53 6	34 3	325	1158	809	600
	%	%	%	%	%	%	%	%	%	%	%	%
Received Receipts from Wage labor	43	45	40	74	26	16	64	38	32	47	47	37
Average number of Days Worked per year for all household member	175	178	20 8	16 4	15 6	71	21 1	14 8	105	169	210	163
Average rate per day (in Rs)	383	387	39 6	35 6	36 6	35 0	40 7	41 9	380	378	402	367
Average total earnings (in Rs)	6840 6	7019 5	81 65 5	60 73 4	60 03 8	46 01 0	84 85 0	65 05 1	4840 9	6542 1	8390 4	60547
Member of household earn/receiv e income from any other sources like pension, scholarship, remittance s, etc	15	16	6	13	36	13	16	11	9	20	13	12
Average amount of income from other sources	2353	2476	16 22	36 21	33 83	17 24	20 43	13 51	3290	2556	2088	1798

The above table presents a detailed analysis of wage laborers in both intervention and control areas, categorized across different zones, and reaches. Approximately 43% to 74% of households receive



receipts from wage labour, illustrating the prevalence of this income source across regions, particularly promising in UBVZ. The average number of days worked per year varies between 71 and 211 days, indicating significant differences in labour engagement. Interestingly, the Hills Zone (HZ) in the intervention area records a notably lower average number of days worked and the average number of working days was highest in Lower reach. The average rate per day ranges from Rs 350 to Rs 419, with the highest figure observed in the Upper Reach of the intervention area. Consequently, the average total earnings vary from Rs 46,010 to Rs 84,850, showcasing economic disparities in different geographical settings. Moreover, 15% to 36% of households supplement their income from wage labour with other sources, such as pensions, scholarships, or remittances, with corresponding average amounts ranging from Rs 1,351 to Rs 3,621.

TOTAL INCOME

TABLE 26: DETAILS ABOUT TOTAL INCOME OF FARMERS

	Total					Inter	ventio	n				Control
		Total			A	CZ				Reach		Total
			NBPZ	NBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Average total income from all sources (in Rs)	1053 59	1083 22	124 427	114 298	745 82	709 82	141 177	108 529	8589 8	9922 0	1303 60	94038

The average total income from all sources Rs 105359, showcasing significant variations in economic prosperity among different geographical settings. The Hills Zone (HZ) in intervention areas stands out with lower average total incomes compared to other zones, emphasizing potential economic challenges in these regions. The LBVZ of the intervention area records the highest average total income at Rs 141,177, indicating economic prosperity in that specific location. These figures underscore the diverse economic landscapes in the studied regions, influenced by factors such as agricultural practices, non-timber forest products, livestock, and wage labour.

Work opportunities within village

The table presents data on the possession of MGNREGA cards, across different zones and reaches in both intervention and control groups. In total, 57% of respondents reported having an MGNREGS card (Job Card), with a higher percentage in intervention areas (58%) compared to control areas (55%). The average number of days worked for those with an NREGA card ranged from 13 to 26 days, showcasing variations in participation across regions, the total average being 21 days. The average number of days payment was received varied as well, indicating differences in the efficiency of payment systems between intervention and control areas.



TABLE 27: JOB OPPORTUNITIES

	Total					Inte	ventic	n				Control
		Total			AC	Z				Reach		Total
			NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Base	2892	2292	343	357	357	356	536	343	325	1158	809	600
	%	%	%	%	%	%	%	%	%	%	%	%
Possessing MGNREGA Job Card	57	58	74	80	89	97	69	55	42	60	61	55
Average Number of days worked	21	22	25	25	14	19	26	13	21	22	23	16
Average Number of days payment received	23	25	27	26	25	21	31	13	20	24	26	18

BPL Entitlements

Among the farmers who have BPL cards, 85% avail AAY across all zones and 15% have PHH Ration cards. While the highest numbers 40% farmers are in CBVZ and the lowest 7% from control areas.

TABLE 28: BPL ENTITLEMENTS

	Total					Inter	ventior	1				Control
		Total			AC	Z				Reach		Total
			NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Base	2655	2070	328	347	289	292	494	320	308	1043	719	585
(Possessing BPL Cards)	%	%	%	%	%	%	%	%	%	%	%	%
Antyodaya Anna Yojana (AAY) Ration Card	85	83	74	99	60	77	83	99	89	80	85	93
Priority Household (PHH) Ration Card	15	17	26	1	40	23	17	1	11	20	15	7



Purchase pattern

In terms of rice, the percentage of farmers who bought in the past three months is notably higher in intervention zones (37-56%) compared to control zones (8-51%). For kerosene, a minimal percentage of farmers bought in the past three months, with slight differences between intervention and control zones. Wheat purchasing behaviour indicates that a higher percentage of farmers in CBVZ (90%) bought wheat compared to other intervention zones. Grains and sugar show varied patterns, with intervention zones generally exhibiting higher percentages of farmers buying these commodities. The 'Other' category demonstrates higher purchasing percentages in intervention zones, with notable differences in the average amount bought and average price paid.

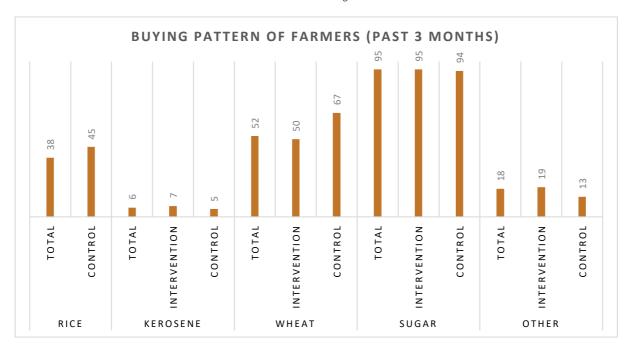


FIGURE 7: Purchasing Pattern

Access to Facilities and Services

The following tables delineates a comprehensive analysis of diverse services and amenities across agricultural zones, segregating them into intervention and control regions. Noteworthy disparities emerge in key sectors. For instance, agricultural extension services within the village are less prevalent in control areas (4%) compared to intervention areas (12%), while education at the primary school level exhibits lower accessibility within 5 km in control areas (6%) than in intervention areas (8%) but primary school within the village is more accessible in the control area (93%). Disparities also extend to healthcare, veterinary services, credit facilities, and accessibility to agricultural inputs and markets. This detailed breakdown provides valuable insights into the nuanced impact of interventions on the availability and accessibility of essential services in agricultural regions, offering a foundation for further analysis and informed decision-making.

Health Facilities

Health Sub Centres – While 25% in the intervention area said that HSC is within the village in the intervention area, only 12% from the control area said so. CBVZ (42%) and LBVZ (37%) are areas with HSC within the village. It must be mentioned that 61% of the HZ said the HSC was more than 5 km away.



Primary Health Centre – Only 35% of respondents from CBVZ said that the PHC was within the village. Most respondents said that the PHC is 5 km and more than 5 km away. It is interesting to note that quite a few couldn't specify the distance.

Block Community Health Centre – Bulk of the respondents stated that the BPHC was either within 5 km or more than 5 km away.

District Hospital – As expected, more than three-fourths of the respondents said that the District Hospital is more than 5 km away from their village.

Veterinary Services – Most respondents were not aware of the distance. 21% from Intervention and 4% from control said that health camps for animals are accessible within the village, while services related to Artificial Insemination (AI) are more than 5 kms away.

TABLE 29: SERVICES & FACILITIES - HEALTH

		Total				lr	iterve	ntion					Control
			Total			AC	CZ				Reach		Total
				NBPZ	UBVZ	CBVZ	ZH	ZNBJ	BVZ	Upper	Medium	Lower	
Base		2892	2292	34 3	35 7	35 7	35 6	53 6	34 3	32 5	11 58	80 9	600
		%	%	%	%	%	%	%	%	%	%	%	%
Health sub- centre	Within the village	22	25	5	15	42	14	37	27	20	23	28	12
	Within 5 Km	38	39	60	51	34	14	45	27	23	43	40	35
	More than 5 kms	32	29	30	33	24	61	10	22	40	28	25	43
Health (PHC)	Within the village	7	9	0	5	35	4	5	9	5	14	4	1
	Within 5 Km	35	37	45	46	23	12	64	15	15	36	47	28
	More than 5 kms	36	35	12	48	37	66	21	30	53	35	26	40
Health (CHC)	Within the village	5	5	0	3	16	2	5	6	3	7	4	6
	Within 5 Km	34	35	42	36	27	12	64	16	13	34	46	27
	More than 5 kms	40	40	15	60	48	67	25	30	58	42	30	40



Health (Districts Hospital)	Within the village	0	0	0	1	0	1	0	0	1	0	0	0
	Within 5 Km	16	17	24	19	5	5	31	9	6	16	23	14
	More than 5 kms	77	77	72	80	94	82	68	69	77	78	74	78
VETERINAR Y SERVICES Health	Within the village	17	21	14	27	42	7	29	1	8	24	21	4
Camp	Within 5 Km	21	19	32	34	17	4	20	9	5	23	20	25
	More than 5 kms	19	18	5	24	15	38	15	12	24	18	17	21
VETERINAR Y SERVICES Al services	Within the village	9	10	17	3	3	1	28	0	1	6	20	2
	Within 5 Km	17	17	31	27	8	2	23	9	3	20	19	16
	More than 5 kms	26	24	9	53	33	24	14	14	27	29	15	32

Education Facilities

Primary School – Overall 89% said that Primary schools are located within the villages with a greater number of people from control (93%) reporting than intervention areas (89%).

Secondary School -41% respondents said that the secondary school was within the villages in the intervention areas compared to 35% in control areas. Nearly similar number of people (around 37%) in intervention and control areas said that the secondary school was within 5 kms away. 54% in the HZ said that it was more than 5 kms away, making access to secondary education difficult in those areas.

High-Secondary School – Nearly half of the respondents said that the HS school is 5 kms away, both in intervention and control areas, while 69% HZ respondents said that the facility was more than 5 kms away.

College – As expected nearly three-fourth of the respondents said that the college was 5 kms away from their village.

TABLE 30: SERVICES & FACILITIES - EDUCATION

	Total					Interv	ention					Control
		Total			A	CZ				Reach		Total
			NBPZ UBVZ CBVZ LBVZ BVZ Upper Medium Lower									
Base	2892	2292	343	357	357	356	536	343	325	1158	809	600
	%	%	%	%	%	%	%	%	%	%	%	%



loo	Within village	89	89	89	73	97	81	94	95	81	88	92	93
Primary School	Within 5 Km	7	8	11	21	2	5	6	3	7	10	5	6
Prima	More than 5 kms	3	3	1	6	1	12	0	1	9	2	2	1
hooh	Within village	39	41	43	22	49	23	51	51	27	38	50	35
Secondary School	Within 5 Km	37	37	51	44	42	17	41	25	19	44	34	38
Secon	More than 5 kms	21	21	6	34	9	54	7	22	45	18	15	24
School	Within village	15	18	4	9	35	5	26	23	8	20	18	7
Higher Secondary School	Within 5 Km	47	45	69	39	41	17	57	40	21	46	54	53
Higher S	More than 5 kms	34	34	26	52	23	69	13	31	60	33	26	36
	Within village	2	2	1	1	1	1	2	4	2	2	1	0
College	Within 5 Km	23	25	25	24	17	7	49	13	7	22	35	17
	More than 5 kms	71	69	72	74	81	78	48	73	75	73	62	80

Agricultural Services and Farm Inputs

Agricultural extension services – very few people said that agricultural extension services are available within the village.

High-Yield Variety seeds, fertilisers, pesticides, weedicides, and diesel are usually within 5 kms or further away from the villages.

TABLE 31: SERVICES & FACILITIES - AGRICULTURE

	Total			Inte	rventi	on						
					A	CZ				Reach		Control
		Total	NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	Total
Base	2892	2292	343	357	357	356	536	343	325	1158	809	600
	%	%	%	%	%	%	%	%	%	%	%	%



				1								1	
Agricultural extension Services	Within the village	11	12	0	13	33	11	7	11	14	17	6	4
tural ext Services	Within 5 Km	27	31	53	25	23	9	51	17	12	32	38	13
Agricult	More than 5 kms	36	33	4	61	41	53	26	14	33	36	29	46
sp	Within the village	0	0	0	1	1	0	0	0	0	1	0	0
HYV Seeds	Within 5 Km	25	27	47	32	7	2	56	6	4	25	40	16
Í	More than 5 kms	22	21	9	54	33	17	7	9	19	29	9	28
le le	Within the village	9	10	26	1	3	3	14	10	5	8	14	7
Fertilizer	Within 5 Km	32	33	40	37	23	12	56	20	17	33	41	26
	More than 5 kms	30	29	9	62	47	35	12	17	34	37	16	35
Se	Within the village	8	8	19	1	2	2	11	9	4	6	12	7
Pesticides	Within 5 Km	32	34	46	38	24	11	56	18	17	34	40	24
3	More than 5 kms	30	28	7	61	44	35	13	17	34	36	16	36
Jes	Within the village	7	7	17	1	2	2	9	9	3	5	11	7
Weedicides	Within 5 Km	31	32	46	38	22	10	52	16	14	34	38	24
Š	More than 5 kms	26	25	6	59	44	30	6	14	27	34	11	31
	Within the village	3	4	3	2	3	0	10	0	0	2	7	0
Diesel	Within 5 Km	30	33	55	49	13	8	53	11	10	34	41	18
	More than 5 kms	28	25	26	46	38	22	7	18	23	31	16	42



Markets for Farm Produce

Around 21% in intervention areas said that there is a market for crops within the village, the response from control in this regard is quite low (9%). Interestingly, markets are in proximity in LBVZ while far away in UBVZ. There are hardly any market facilities for orchard product within the village. In general, markets are within 5 km or more than 5 km away.

TABLE 32: SERVICES & FACILITIES - MARKETS

		Total					Inter	ventio	n				Control
			Total			A	CZ				Reach		Total
				NBPZ	NBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Base		2892	2292	343	357	357	356	536	343	325	1158	809	600
		%	%	%	%	%	%	%	%	%	%	%	%
	Within the village	18	21	48	6	7	6	36	13	9	19	28	9
Crops	Within 5 Km	26	26	23	45	21	10	35	20	15	28	29	25
	More than 5 km	18	16	1	48	29	21	1	4	19	24	4	25
ıtput	Within the village	6	7	16	0	1	0	16	3	0	6	10	1
Orchard Output	Within 5 Km	19	21	34	29	8	7	32	8	10	21	24	11
Orch	More than 5 kms	17	16	6	59	16	11	8	3	13	22	10	19
~	Within the village	11	13	37	1	1	0	33	0	0	12	21	1
Livestock	Within 5 Km	21	22	18	38	12	8	36	12	13	20	28	19
7	More than 5 kms	19	18	3	53	30	16	3	7	19	26	6	24
	Within the village	10	12	25	1	1	0	34	0	0	8	22	0
Fishery	Within 5 Km	16	17	24	21	8	3	29	9	5	17	22	14
_	More than 5 kms	18	16	7	54	26	7	2	6	10	25	6	24



Forest NTFP)	Within the village	2	3	3	0	10	2	1	1	0	4	2	0
imber I ucts (N	5 Km	19	21	33	29	8	4	37	8	4	21	28	13
Non-Timber Products (N	More than 5 kms	22	20	7	62	19	9	17	5	11	26	14	29

Credits and Banking

Bank and financial institutions are not available within village. 27% said within 5 kms and 21% said more than 5kms. There is a distinct difference between intervention and control - while 29% from intervention areas said that facilities are within 5 kms and 29% from control areas said that they are 5 kms away from the village.

ATM - 55% respondents said that ATMs are more than 5 kms away, similarly 53% from intervention areas and 65% from control areas said likewise. 66% from CBVZ and 72% from HZ said that ATMs were far away from their villages.

TABLE 33: SERVICES & FACILITIES - BANKING

		Total		Intervention										
			Total			AC	CZ				Reach		Total	
				NBPZ	NBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower		
Base		2892	2292	343	357	357	356	536	343	325	1158	809	600	
		%	%	%	%	%	%	%	%	%	%	%	%	
Credit Facilities (Bank / financial institution etc)	Within the village	1	1	0	3	1	0	1	0	0	1	0	0	
scilitie institu	Within 5 Km	27	29	51	36	6	2	59	7	3	27	43	17	
Credit Fa	More than 5 kms	21	19	5	47	31	15	8	11	19	26	9	29	
JNK	Within the village	1	1	0	2	1	0	0	1	0	1	0	0	
ATM &/BANK	Within 5 Km	38	40	53	46	28	8	68	25	9	41	52	28	
ATN	More than 5 kms	55	53	42	52	66	72	31	63	77	53	43	65	

There are hardly any workshops for machinery or vehicle repair within villages.

Mobile connectivity offices are within 5 km for both intervention and control areas. 52% from UBVZ and 39% from HZ said the facilities are more than 5 km away.

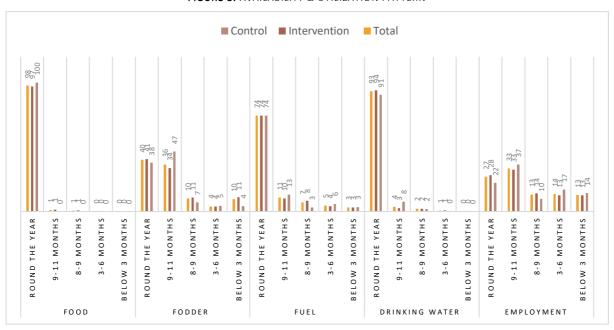


TABLE 34: SERVICES & FACILITIES - OTHERS

		Total		Intervention									
			Total	Total ACZ Reach								Total	
				NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper	Medium	Lower	
Base		2892	2292	34 3	35 7	35 7	35 6	53 6	34 3	32 5	11 58	80 9	600
		%	%	%	%	%	%	%	%	%	%	%	%
Markshan	Within village	0	1	0	0	2	0	1	0	0	1	0	0
Workshop for Machinery/	Within 5 Km	30	31	44	40	22	8	48	15	9	34	35	26
Vehicles	More than 5 kms	35	34	24	59	25	28	34	30	33	34	33	41
	Within village	4	5	2	1	5	2	14	1	2	3	9	2
Mobile Connectivit	Within 5 Km	39	39	52	47	37	10	54	24	16	43	42	38
y Offices	More than 5 kms	26	26	8	52	21	39	16	22	41	27	17	27

A comprehensive analysis of the frequency of use of various services in intervention and control regions across different zones. In terms of agricultural extension services, most respondents in both intervention and control regions reported using services monthly or annually, with the highest daily usage in the UBVZ (81%). In terms of education, primary school education was reported as a daily activity for a significant proportion of respondents, with a higher daily frequency in the Intervention

FIGURE 8: AVAILABILITY & UTILIZATION PATTERN





group. Interestingly, there is a higher frequency of daily usage for health sub-centres in control regions. Regarding veterinary services, both intervention and control groups showed a preference for monthly or annual usage. In terms of credit facilities, the intervention group reported higher frequencies of fortnightly and monthly usage compared to the control group. The usage of farm inputs such as HYV seeds, fertilizers, pesticides, and diesel is more prevalent in the intervention group, with notable differences in daily and weekly usage. The market for farm produce and mobile connectivity usage is higher in the intervention group, particularly in daily and weekly frequencies. The availability of ATM/bank services is reported more frequently in the control group, particularly in weekly and fortnightly frequencies.

Self-sufficiency - A detailed breakdown of resource availability and utilization patterns in both intervention and control groups across various categories, namely food, fodder, fuel, drinking water, and employment. In terms of food, the majority in both groups reported year-round availability, with a slightly higher percentage in the intervention group (97%) compared to the control group (100%). Similar patterns were observed for fodder, fuel, and drinking water, with the intervention group generally reporting higher percentages of year-round availability. Notably, in the employment category, the intervention group reported a higher percentage (28%) of year-round availability compared to the control group (22%). Differences in other time frames (9-11 months, 8-9 months, 3-6 months, and below 3 months) were minimal across both groups in all categories. Overall, the intervention group tends to have slightly higher percentages in categories like year-round availability of various resources, suggesting potential positive impacts of the intervention. The total figures indicate that most households have access to these essential resources year-round, with minimal variations between the intervention and control groups.

The figure below presents insightful details about the adoption of new farming technology and associated practices in both the intervention and control groups. A noteworthy finding is that 7% of households overall have used the new farming technology, with a higher adoption rate in the intervention group (9%) compared to the control group (0%). Among those who adopted the technology, the majority (45%) reported that the technology was demonstrated in their village or nearby. This demonstration was particularly effective, as 90% of those who received a demonstration found it helpful. In terms of technology providers, the Agriculture Department played a significant role (75%) in disseminating the new farming technology, emphasizing the impact of institutional support. Regarding specific farming practices, Integrated Nutrient Management and Integrated Disease Management were the most widely adopted practices, with 16% and 15% adoption rates, respectively. The Integrated Pest Management practice had a 6% adoption rate. Notably, most households (63%) did not adopt any of these practices, suggesting potential areas for targeted interventions. Overall, the data underscores the positive impact of the intervention in fostering the adoption of new farming technology, with the Agriculture Department being a key player in this process. The control group's notably lower adoption rates emphasize the effectiveness of the intervention in promoting technological advancements in agriculture.

Information provides insights into agricultural practices in both intervention and control groups. Only 1% of households received training, with a slight increase in the intervention group (2%). The Agriculture Department played a significant role, as 88% of the intervention group received training. Farmer's Collective membership was low (1%), and stall feeding of livestock was reported by a negligible percentage in the intervention group, majorly in the Hill Zones. Fodder cultivation was undertaken by



4%, with 5% in the intervention group and 1% in the control group. Among those not cultivating fodder, 48% in the control group bought it from the market, compared to 29% in the intervention group.

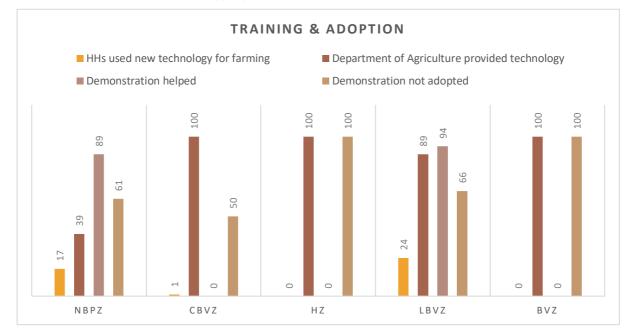


FIGURE 9: NEW AGRICULTURAL TECHNOLOGIES

Data reveals significant variations in the adoption of machinery across different stages of cultivation among intervention and control groups. In the "Land Preparation" stage, the use of tractors is noticeably higher in the control group (83%) compared to the intervention group (70%), suggesting a disparity in mechanized land preparation practices. However, in the "Irrigation of Crops" and "Threshing of Crops" stages, the intervention group exhibits a higher utilization of machinery, particularly tractors. Notably, in the "Harvesting" stage, the control group relies more on tractors (33%) compared to the intervention group (17%). These distinctions highlight the influence of the intervention on machinery adoption in specific cultivation stages.

Climate Change and Disasters

The figure below provides detailed insights into climate change awareness and perceptions among households in both the intervention and control groups. Out of the total households, 39% were aware of climate change, with a higher awareness rate in the intervention group (40%) compared to the control group (34%). Among those aware of climate change, the majority perceived changes in weather conditions (59%), with the intervention group showing a slightly higher perception (57%) than the control group (48%). Notable differences between the intervention and control groups include the perception of heavy rainfall, scarce rainfall, and drought. For heavy rainfall, 48% in the intervention group perceived it compared to 41% in the control group. Conversely, 53% in the control group perceived scarce rainfall compared to 28% in the intervention group. In terms of drought, 37% in the intervention group perceived it compared to 55% in the control group. These variations suggest that the intervention may have influenced the perception of certain climate-related events. The data highlights the need for targeted climate change awareness programs, especially in the control group where awareness and perceptions appear lower. The differences in perceptions of specific climate events emphasize the localized impact of interventions and the importance of considering regional variations in climate change awareness campaigns.



Food Security

The above table presents details on food security among households in the intervention and control groups across different zones and reaches. Nearly all households reported food sufficiency for all family members in the past 12 months, with minor variations between intervention (98%) and control (97%) groups. On average, households experienced a low number of days with insufficient food, but there were notable differences between zones. Alarmingly, in Central Brahmaputra Valley Zone had a food shortage for 32 days in the past 12 months, where the farmers did not eat any protein and only ate rice

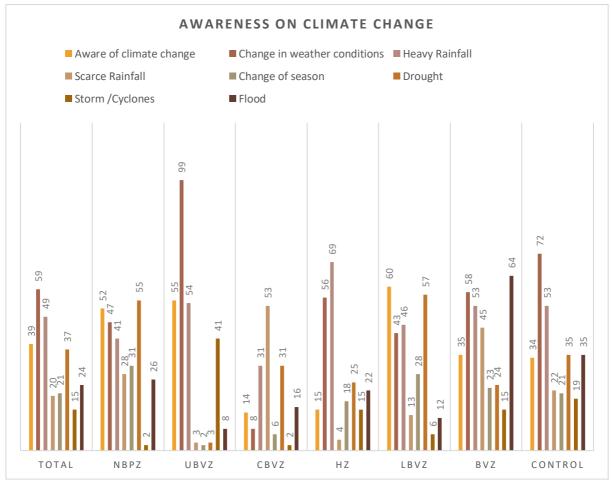


FIGURE 10: CLIMATE CHANGE AWARENESS

with potato, highlighting the harsh conditions of the respondents. The severity of food shortages varied, with some households resorting to specific coping strategies. For instance, a significant percentage in the control group (82%) did not consume fish/meat/egg at all during shortages. Moreover, 22% of households reduced milk intake for children, with interventions showing a higher impact (100%). Regarding the Public Distribution System (PDS), 68% of households received food items, and the frequency of distribution varied across zones. Notably, 68% of households in the Intervention area received PDS support compared to 70% in the corresponding control group. When examining the frequency of PDS distribution among those who received it, the majority (91%) reported receiving rations once a month. A small percentage (9%) received rations once a week. Notably, no households reported receiving rations more than four times in a month. Only very few percentages of respondents in the intervention area received ration through PDS once in 15 days.



TABLE 35: FOOD SECURITY

	Total					Inter	ventio	n				Control
		Total			AC	Z				Total		
			NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper Reach	Medium Reach	Lower Reach	
Base	2892	2292	343	357	357	356	536	343	325	1158	809	600
	%	%	%	%	%	%	%	%	%	%	%	%
Food sufficiency for all family members in the past 12 months	98	98	100	97	100	97	98	98	96	99	99	97

Food intake

Food Intake (day before) by adult: data on the food consumption patterns of adults in both the intervention and control groups shows a high percentage of adults across both groups reported the consumption of starchy foods, with 94% in the total sample, 92% in the intervention group, and 98% in the control group. Notable differences emerge in the consumption of vegetables, where 73% of all adults reported consumption, with similar proportions in both intervention and control groups. However, disparities are observed in the consumption of fruits, dairy, protein, and fats. For instance, 38% of all adults consumed fruits, with a lower percentage in the intervention group (38%) compared to the control group (50%). Similarly, in the protein category, 49% of all adults consumed protein, with a lower percentage in the intervention group (61%).

Food Intake (day before) by Children: the dietary patterns of children in both the intervention and control groups show that most children in both groups consumed starchy foods, with 91% in the total sample, 89% in the intervention group, and 99% in the control group. Similarly, significant proportions of children in both groups reported the consumption of vegetables, fruits, dairy, protein, and fats. Notable differences between the groups emerge in the consumption of fruits, where 40% of all children in the intervention group reported consumption compared to 43% in the control group. Additionally, variations are observed in the protein category, with 49% of all children in the intervention group consuming protein, compared to 53% in the control group. These differences suggest potential disparities in the nutritional intake of specific food categories among children in the intervention and control groups, emphasizing the importance of targeted interventions to address nutritional needs.

Health expenditure

The respondents were asked about the medical exigencies faced in the last 2 months and it was found that 11% of the households faced health issues for which they had to seek health services in the intervention areas and 14% in the control area. Most of the respondents from the intervention area as well as control areas went to the district hospitals (72% in the intervention area and 75% in the control area). The average expenditure was stated to be Rs. 3766 in the intervention area and Rs 1398 in the control area- the difference arises because in the control area, both for OPD services and IPD services,



they sought services from the government facilities. In the intervention area particularly from CBVZ, many the respondents sought services from private healthcare providers/institutions.

TABLE 36: HEALTH EXPENDITURE

Tota												
	lota					Interve	ention					Contr ol
		Tota I			AC	Z				Reach		Total
			NBPZ	UBVZ	CBVZ	ZH	LBVZ	BVZ	Upper	Medium	Lower	
Base	289 2	229 2	343	357	357	356	536	343	325	115 8	809	600
	%	%	%	%	%	%	%	%	%	%	%	%
Member of the household fell sick for which s/he sought health services from a health professio in the last 2 months												essional
	12	11	16	0	3	7	14	27	12	11	12	14
				A place	where t	hey we	nt to O	PD				
Base	344	262	56	1	12	25	77	91	39	126	97	82
	%	%	%	%	%	%	%	%	%	%	%	%
Sub centre	17	17	5	0	8	48	25	10	31	9	22	20
PHC	5	7	18	0	0	4	9	0	3	8	7	0
CHC/BPHC	1	2	2	100	0	0	3	0	0	2	2	0
District Hospital	74	72	75	0	33	48	64	89	67	75	69	80
Private Qualified doctor	2	3	0	0	58	0	0	1	0	6	0	0
If admitted t	o hospi	tal, froi	n wher	e did h	e seek s	ervice						
Governme nt Hospitals	90	87	86	100	42	100	81	97	100	86	85	99
Private Hospitals & Nursing Homes	3	4	0	0	58	0	0	3	0	8	0	1
Services not sought from IPD	7	9	14	0	0	0	19	0	0	6	15	0
The average months (in R		t spent	on me	dicine a	and cons	ultatio	ns for tl	he men	tioned	illnesse	es in the	last 2
	320 2	376 6	313 3	500 0	1587 5	262 0	464 2	212	252 1	421 3	368 6	1398



2.2. VILLAGE SURVEY

Interviews were carried out in 13 districts across Assam, including Barpeta, Cachar, Darrang, Dibrugarh, Dima Hasao, Dhubri, Jorhat, Hailakandi, Morigaon, Nagaon, Nalbari, Udalguri, and West Karbi Anglong. The village heads served as representatives during the interviews. A total of 129 villages were part of the study, with 107 in the intervention group and 22 in the control group. The study area's geographical diversity was further categorized into six agricultural zones: North Bank Plains Zone (NBPZ), Upper Brahmaputra Valley Zone (UBVZ), Central Brahmaputra Valley Zone (CBVZ), Hills Zone (HZ), Lower Brahmaputra Valley Zone (LBVZ), and Barak Valley Zone (BVZ). This segmentation, combined with the agro-climatic conditions, highlighted the nuanced distribution of villages. This approach enables a detailed examination of intervention impacts on agricultural practices, revealing regional disparities and offering valuable insights into the diverse agricultural landscape of Assam.

Agro-Climatic Zones	Districts	Districts
North Book Blains Zone (NBDZ)	Darrang	Darrang
North Bank Plains Zone (NBPZ)	Udalguri	
Upper Brahmaputra Valley Zone	Dibrugarh	
(UBVZ)	Jorhat	Jorhat
Central Brahmaputra Valley Zone	Morigaon	Morigaon
(CBVZ)	Nagaon	
Hills Zone (HZ)	Dima Hasao	Dima Hasao
nilis zorie (nz)	West Karbi Anglong	
	Barpeta	
Lower Brahmaputra Valley Zone (LBVZ)	Dhubri	
(25 12)	Nalbari	Nalbari
Barak Valley Zone (BVZ)	Cachar	Cachar
Barak valley zorie (BVZ)	Hailakandi	
TOTAL - 129	Number of Villages -107	Number of Villages -22

Area & Population Details

The table below presents a comprehensive analysis of population details across different zones, distinguishing between intervention and control groups. The intervention group comprises 107 villages, with the Lower Brahmaputra Valley Zone (LBVZ) and Barak Valley Zone (BVC) having notable average total populations of 3369 and 2405, respectively. Across all zones, the male population is more than the female population, except in Hill Zone where the average female population (220) is more than the average male population (212). In the intervention area, the average male population and female population are 930 and 873, respectively, while in the control area, it is 567 and 545, respectively. The average population of 0 to 6 years was 199, while in Lower Brahmaputra Valley Zone and Dhurbi it was considerably higher 648 and 1460, respectively. In terms of household averages, the Lower Brahmaputra Valley Zone (LBVZ) leads with 869 households in the intervention group, while the control group's total household average is 256. The table further provides information about the religion and social category of the population in the selected villages.



TABLE 37: AREA & POPULATION

					Interventi	on			Control
	Total	Total							Control
		TOtal	NBPZ	UBVZ	CBVZ	HZ	LBVZ	BVZ	Total
Base	129	107	16	16	16	18	25	16	22
Average number of Households in the village	372	396	365	193	195	94	869	432	256
Population									
Average total population	1685	1803	2192	899	810	432	3369	2405	1112
Average male population	868	930	1076	452	432	212	1737	1306	567
Average female population	817	873	1116	447	377	220	1632	1100	545
The average population of 0-6 years	199	229	167	76	41	29	648	202	51
Religion									
The average population of Hindu	707	739	413	788	697	202	816	1539	556
The average population of Islam	870	937	1297	30	113	2	2552	834	543
The average population of Christian	108	127	482	80	0	228	0	33	13
Social category	,								
Average SC population	174	187	424	27	141	7	47	576	110
Average ST population	176	201	357	186	246	421	40	21	52
Average OBC population	366	380	110	638	225	4	548	710	299
Average General category population	969	1034	1301	48	198	0	2734	1099	651

Social details

Examining specific demographic indicators, the average number of landless households is 32, with the intervention group exhibiting a slightly higher count (38) compared to the control group (29). Similarly, the average number of women-headed households is 31. The total number of landless households



varies across zones, with the highest in BVZ (112) and the lowest in HZ (6). Regarding households with Below Poverty Line (BPL) cards, the average count is 352, further emphasizing the disparity between the intervention and control groups, with the intervention group consistently having higher numbers. The mean number of persons who migrated out is 196, with the intervention group experiencing a higher migration rate (233) compared to the control group (13), while the median was 15. The intervention group consistently shows higher numbers in landless households, women-headed households, households with BPL cards, and migration rates compared to the control group. The data suggests a need for targeted interventions, especially in zones with higher vulnerability, as indicated by metrics like landlessness, poverty (BPL cards), and migration.

TABLE 38: OTHER POPULATION DETAILS

				li	nterventic	n			Control
	Total	Total							Control
		Total	NBPZ	UBVZ	CBVZ	HZ	LBVZ	BVZ	Total
Base	129	107	16	16	16	18	25	16	22
Average No. of Landless Households (Households without Farmland)	32	38	29	6	27	4	112	11	4
Average No. of Women- Headed Households	31	36	27	10	15	8	103	16	11
Average No. of Households with BPL Cards	352	387	273	155	202	109	1030	228	179
Number of pe	ersons mig	grated (ou	ıt) in the l	ast 5 year	S	·	·	·	·
Mean	195.67	233.18	78.50	41.19	16.88	5.33	895.16	18.13	13.27
Median	15.00	17.00	32.50	25.00	10.00	4.50	150.00	16.00	11.00

Land & Water details

The table presents information on village characteristics, land classification, and water resources for the intervention and control groups across different zones. The average village area varies, with the highest average in the NBPZ for the intervention group (1408.31 Ha) and the control group (270.41 Ha). The intervention group generally has higher values in most land categories, indicating potential differences in land utilization or environmental characteristics. The intervention group exhibits higher values in categories such as culturable wasteland, fallow lands, and current fallows, suggesting potential distinctions in agricultural practices or land use patterns. LBVZ and HZ show considerable differences. It is to be noted that 35 of these villages reported having no water bodies. In intervention area the average number of waterbodies is 4.15 and it is 2.09 in the control area. Average water body coverage is 4.87 ha in intervention and 3.0 ha in control.



TABLE 39: DETAILS ABOUT THE AREA

				Int	erventio	n			Control
	Total	Total							Control
		TOtal	NBPZ	UBVZ	CBVZ	HZ	LBVZ	BVZ	Total
Base	129	107	16	16	16	18	25	16	22
The average area of the village in Ha	448.71	485.36	1408.31	312.31	66.63	171.83	411.72	622.00	270.41
Average area by	y land clas	ssification	in Ha						
Forest	4	4	0	1	1	1	7	13	2
The area under Non- culturable Use	16	17	0	10	4	33	7	48	12
Barren and Un-culturable Land	12	13	0	0	4	14	5	57	8
Permanent Pastures and other Grazing Lands	15	15	2	10	4	2	6	75	13
Land under Miscellaneous Tree Crop, etc	26	26	1	44	4	23	13	77	29
Culturable Waste Land	35	40	76	0	3	2	105	24	9
Fallow Lands	15	17	10	0	4	23	26	31	9
Current Fallows	10	11	1	0	1	5	14	43	5
Net area sown	87	79	11	193	0	4	82	193	127



Livelihood

Agriculture emerges as the predominant livelihood for the surveyed population across all zones, with a substantial majority, 124 villages mentioning it to be their most important livelihood, indicated by Rank 1. The highest reliance is observed in the North Bank Plains Zone (NBPZ), Upper Brahmaputra Valley Zone (UBVZ), and Central Brahmaputra Valley Zone (CBVZ). It is to be noted that majority of villages depended on agriculture, as the second most import livelihood mentioned by the representatives was agricultural labour, mentioned by 44 villages. While not ranked as the primary livelihood (Rank 1) for most respondents, it becomes more significant as the secondary (Rank 2) livelihood, notably in UBVZ. This suggests the supplementary role of animal husbandry in these areas. Fisheries was another important secondary livelihood, especially in LBVZ and BVZ. Petty business choice is notable in the CBVZ, indicating entrepreneurial activities that contribute to the economic fabric of the region. Out of the total of 129 villages 10 reported not receiving any livelihood support from the project, out of which 8 villages were from control area. The average number of households who received livelihood support from the project is 94.97, and the average was much higher in intervention area than in the control area.

TABLE 40: PRIMARY LIVELIHOOD

					Int	erventio	on			Contr
		Tota				A	CZ			ol
			Total	NBP Z	UBV Z	CBVZ	HZ	LBVZ	BVZ	Total
Base		129	107	16	16	16	18	25	16	22
Importan ce	Primary livelihood									
Rank 1	Agriculture Horticulture (owned, shared, leased in)	124	103	15	16	15	17	24	16	21
	Animal Husbandry	1	1	1	1	1	1	-	1	-
	Fisheries	•	1	1	1	-	1	-	1	-
	Agricultural Labourer	1	1	1	0	0	0	0	0	0
	Skilled Labour	2	2	0	0	1	0	1	0	0
	Unskilled Labour (other than Agr. Lab)	ı	1	1	1	1	1	-	ı	-
	Petty Business/Enterp rise	2	1	0	0	0	1	0	0	1
	Salaried (Govt + Pvt)	ı	ı	ı	ı	-	ı	-	1	-
Rank 2	Agriculture Horticulture (owned, shared, leased in)	2	1	0	0	0	0	1	0	1
	Animal Husbandry	23	16	0	11	0	4	1	0	7



Fisheries	27	25	4	0	0	2	8	11	2
Agricultural Labourer	44	36	8	2	4	3	14	5	8
Skilled Labour	13	13	4	2	4	3	0	0	0
Unskilled Labour (other than Agr. Lab)	8	6	0	1	1	4	0	0	2
Petty Business/Enterp rise	8	6	0	0	5	1	0	0	2
Salaried (Govt + Pvt)	4	4	0	0	2	1	1	0	0
ge no. of s that received support from the	94.9 7	101.3 6	59.5 0	40.0 6	178. 13	43.3 9	150. 32	116. 44	63.91

Agriculture, particularly in the form of seeds, emerges as the predominant area of assistance, with 74 villages benefiting from this support. Furthermore, support for agricultural processes and technology is notable, as indicated by 49 villages. The focus on agriculture is reinforced by 43 respondents receiving support for irrigation. Livestock-related support is also significant, with 24 respondents reporting assistance in animal husbandry. Fisheries support extends to 20 respondents, highlighting a diversified approach to livelihood enhancement.

AGRICULTURE (SEEDS)

AGRICULTURE (PROCESSES - TECHNOLOGY)

SUPPORT RECEIVED ON LIVELIHOOD(N=119)

AGRICULTURE (IRRIGATION)

AGRICULTURE (IRRIGATION)

AGRICULTURE (IRRIGATION)

HUSBANDRY

FISHERS

OTHER

FIGURE 11: LIVELIHOOD SUPPORT

Common Resource Property

The table presents data on the sources from common property, including Grazing Reserves/Grounds, Water Bodies, Forests (source of Non-Timber Forest Products - NTFP), and other sources. Grazing Reserves/Grounds serve as a significant source of fodder, with an average of 65.81 households benefitted and most of the villages 28 used it for 1 month in a year. Water Bodies also play a crucial



role, particularly in LBVZ, with an average of 282.40 households benefitted, emphasizing the significance of water resources in this zone, 4 of the villages from this region depended on water bodies for 7 months in a year. Forests, as a source of NTFP, contribute to the livelihoods of the surveyed population and are used for 2 months, emphasizing the importance of forest resources in these zones.

TABLE 41: SOURCE FROM COMMON PROPERTY

		Intervention								
		Total								Control
			Total	NBPZ	UBVZ	CBVZ	HZ	LBVZ	BVZ	Total
Base		129	107	16	16	16	18	25	16	22
Sources of fodder										
Grazing				М	onths U	sed in th	e Year			
Reserve/Ground	1	28	22	8	0	0	6	0	8	6
	2	2	2	0	0	2	0	0	0	0
	3	10	9	0	1	6	1	1	0	1
	4	9	5	0	0	0	2	3	0	4
	5	8	6	0	0	0	2	2	2	2
	6	6	6	1	1	0	1	3	0	0
	7	7	7	0	2	1	0	3	1	0
	8	8	7	0	2	2	0	2	1	1
	9	3	2	0	0	0	0	1	1	1
	10	3	3	0	0	0	0	0	3	0
	12	6	5	0	0	3	2	0	0	1
Average No. of Benefitted	HH	65.81	66.08	86.44	41.44	82.25	10.44	95.92	70.19	64.50
Water Bodies				М	onths U	sed in th	e Year			
	1	26	20	8	0	0	4	1	7	6
	2	9	9	0	0	3	5	1	0	0
	3	10	10	0	1	4	3	2	0	0
	4	6	4	0	0	1	2	1	0	2
	5	4	4	1	0	0	0	2	1	0
	6	8	8	2	1	2	1	2	0	0
	7	7	7	1	2	0	0	4	0	0
	8	6	5	1	1	0	0	2	1	1
	9	1	1	0	0	0	0	1	0	0
	11	1	1	0	0	0	0	1	0	0
	12	1	0	0	0	0	0	0	0	1
Average No. of Benefitted	HH	68.43	81.07	44.31	3.88	12.75	18.72	282.40	18.88	6.95
Forest (source				М	onths U	sed in th	e Year			
of NTFP)	1	6	5	0	0	0	3	0	2	1
	2	24	18	8	0	1	2	2	5	6
	3	4	3	0	0	2	1	0	0	1
	4	5	5	0	0	1	1	2	1	0
	5	3	3	0	0	0	0	3	0	0
	6	4	3	0	1	0	0	1	1	1
	7	1	1	0	1	0	0	0	0	0
	8	1	1	0	1	0	0	0	0	0



	9	1	1	0	0	0	0	1	0	0
	12	2	2	0	0	2	0	0	0	0
Average No. of Benefitted	НН	11.62	12.31	.00	4.06	11.56	3.06	37.40	4.81	8.27
Other				М	onths Us	sed in th	e Year			
	1	8	7	0	0	1	2	2	2	1
	2	23	18	8	0	0	3	0	7	5
	3	1	1	0	0	0	1	0	0	0
	4	1	1	0	0	0	0	1	0	0
	5	5	3	0	1	0	0	2	0	2
	6	17	11	0	7	0	1	3	0	6
	7	9	6	0	5	0	0	0	1	3
	8	3	3	0	1	0	0	2	0	0
	10	2	2	0	0	0	0	1	1	0
	11	4	4	0	0	0	0	0	4	0
	12	1	1	0	0	0	0	0	1	0
Average No. of Benefitted	НН	33.22	29.98	.00	81.50	.00	2.17	41.16	52.25	49.00

The next table provides insights into the sources from private property, including Grazing Reserves/Grounds, Water Bodies, and other sources, comparing the intervention and control groups across different zones. Grazing Reserves/Grounds serve as a crucial source of fodder from private property, with an average of 22.09 households benefitted. Water Bodies also contribute to the livelihoods of the surveyed population, with an average of 6.91 households benefitted. HZ exhibits a higher average at 23.06 households benefitted, highlighting the importance of water resources in this zone. Furthermore, 33 villages report user charges associated with water bodies. Other private property sources, including those for fodder, show an average of 10.67 households benefitted. User charges are reported in 14 villages, indicating a notable financial aspect associated with these resources.

TABLE 42: SOURCE FROM PRIVATE PROPERTY

					Int	erventio	n			Control
		Total	Total							Control
			Total	NBPZ	UBVZ	CBVZ	HZ	LBVZ	BVZ	Total
Base		129	107	16	16	16	18	25	16	22
Sources of fodder	•									
Grazing				Мс	nths Use	ed in the	Year			
Reserve/Ground	1	29	22	8	0	0	6	1	7	7
	3	3	3	0	0	0	0	2	1	0
	4	6	4	0	0	0	0	3	1	2
	5	8	5	0	0	0	0	4	1	3
	6	4	4	0	2	0	0	1	1	0
	7	2	1	0	0	1	0	0	0	1
	8	1	1	0	0	0	0	0	1	0
	9	1	1	0	0	0	0	0	1	0
Average No. of HI Benefitted	4	22.09	20.80	74.88	2.94	.00	4.39	10.04	40.69	28.36



There are user ch	arges	38	31	5	2	1	3	9	11	7
Water Bodies	Month	ıs Used i	n the Ye	ar						
	1	27	20	8	0	0	4	1	7	7
	2	1	1	0	0	0	1	0	0	0
	3	2	2	0	0	0	1	1	0	0
	4	1	1	0	0	0	0	0	1	0
	5	1	1	0	0	0	0	1	0	0
	7	3	3	0	2	0	0	1	0	0
	8	3	3	0	0	1	0	2	0	0
Average No. of Hi Benefitted	1	6.91	7.15	23.06	2.38	.00	2.50	2.76	15.25	5.77
There are user ch	arges	33	27	5	1	1	3	10	7	6
Other	Month	s Used i	n the Ye	ar						
	1	10	9	1	0	0	4	3	1	1
	2	21	16	7	0	0	2	0	7	5
	4	3	3	0	0	0	0	2	1	0
	5	3	1	0	0	0	0	1	0	2
	6	8	6	0	2	0	0	3	1	2
	7	7	3	0	3	0	0	0	0	4
	8	4	3	0	0	0	0	2	1	1
	9	2	2	0	1	1	0	0	0	0
	10	1	0	0	0	0	0	0	0	1
Average No. of Hi Benefitted	+	10.67	6.02	0	17.81	.00	1.22	12.12	2.13	33.27
There are user ch	arges	14	12	0	1	0	0	10	1	2

Soil, Water & Vegetation

The average depth of the water table, measured in meters below ground level, exhibits variations across seasons and zones. In the summer months (April-June), the BVZ records the highest average depth at 25.00 meters, while the LBVZ has the lowest at 16.04 meters. During the monsoon months (July-Sept), and winter months (Oct-Mar), the LBVZ again records the least depth. While in summer and monsoon HZ records the most depth, in winter the depth is much higher in UBVZ. These variations in water table depth underscore the diverse hydrological conditions in the studied regions. The table also captures the impact of soil erosion in the villages, with 23 respondents acknowledging soil erosion. Rain Drop or Splash Erosion is the most observed type, with 19 villages reporting it as a cause, primarily in the HZ and the LBVZ. The data further identifies instances of Rill Erosion and Gully Erosion, with variations across zones. The average rainfall in the past year was 643.15mm and the highest rainfall was noted in UBVZ and CBVZ. Changes in rainfall patterns over the last three years are noted, with 116 respondents acknowledging these shifts. Increased rainfall is predominant, reported by 91 respondents, particularly in the Lower Brahmaputra Valley Zone and the Upper Brahmaputra Valley Zone and. However, a notable proportion of villages (94 respondents) report no forest cover, with variations across zones. The average forest area cover was 2.58 Ha, and the highest forest area was noted in UBVZ, 10.50Ha.



 TABLE 43:
 ENVIRONMENTAL LANDSCAPE AND VILLAGE CHARACTERISTICS

		Intervention									
	Total								Control		
		Total	NBPZ	UBVZ	CBVZ	HZ	LBVZ	BVZ	Total		
Base	129	107	16	16	16	18	25	16	22		
Average Dep	th of Wate	er Table	(meters b	elow gro	und level						
Summer Months April -June	21.64	19.6 2	18.06	24.06	20.38	16.56	16.04	25.00	31.50		
Monsoon Months July-Sept	19.66	18.0 8	19.81	22.50	17.19	14.50	13.48	24.06	27.32		
Winter Months Oct – Mar	21.67	19.9 9	19.19	30.19	18.75	16.72	13.60	25.50	29.82		
There has been soil erosion in the village	23	22	5	2	0	6	7	2	1		
Type of soil e	rosion ob	served									
Rain Drop or Splash Erosion.	19	18	3	1		6	6	2	1		
Rill Erosion	3	3	0	0		1	2	0	0		
Gully Erosion	1	1	1	0		0	0	0	0		
Other	2	2	1	1		0	0	0	0		
Average rain	fall (in mn	n) last ye	ar (In mn	n)							
In mm	643.15	663. 05	76.92	2545. 98	2466. 00	415.0 0	79.06	97.33	512.15		
Change in the rainfall pattern in last 3 years	116	97	16	15	11	16	23	16	19		
Change note	s (Those w	vho ackr	owledge	d change	in rainfall)					
Increased	91	74	13	15	3	10	18	15	17		
Areas under Forest/ Groves in Village	25	23	3	0	8	6	5	1	2		
Average area in Ha	2.58	2.72	1.13	10.50	2.80	1.60	1.50	3.43	1.87		
NO FOREST COVER	94	78	8	14	11	13	23	9	16		



Out of the total of 129, only 35 villages acknowledged that there are areas under Forest/Groves in the village, out of which only 6 are from control area. Tropical Wet Evergreen, Tropical Semi-Evergreen, and Tropical Moist Deciduous are the primary types of forest/groves reported. Tropical Semi-Evergreen is the most prevalent type, with 21 respondents mentioning its presence. The UBVZ and LBVZ stands out with Tropical Wet Evergreen, while the BVZ has the highest count for Tropical Moist Deciduous.

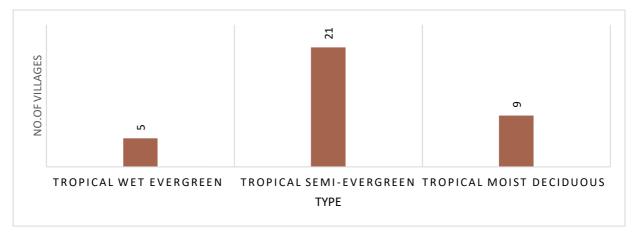


FIGURE 12: TYPE OF FOREST/GROVES IN VILLAGE

Most respondents (97) report perennial water availability in streams, with the highest counts in the Intervention areas, particularly in the North Bank Plains Zone (NBPZ) and BVZ. Seasonal water availability is reported by 32 respondents, with varied occurrences across zones. For those reporting seasonal water availability, the months are specified. June emerges as the prominent month, with 18 respondents highlighting water availability and some in July. Notably, a few respondents' express uncertainty regarding seasonal water availability. A significant number of respondents (46) have experienced floods, particularly in the LBVZ. The average longest duration of floods in the last two years is 13.33 days, with varied durations across zones and the highest duration was noted in BVZ. Water shortages are reported by 28 respondents, with the highest count in the LBVZ. Shortages are witnessed predominantly in Summer and Winter, with a limited occurrence in Autumn. Crop failure is reported by 37 respondents, with the highest counts in the LBVZ. Drought, Excessive Rain, and Flood are identified as primary reasons for crop failure, especially rain flood in LBVZ. All respondents (129) express a lack of awareness regarding the proportion of soil organic carbon in their villages. The prevalence of floods, water shortages, and crop failures highlights the need for targeted interventions and adaptive strategies to enhance resilience in the face of varying environmental conditions. Additionally, the low awareness of soil organic carbon emphasizes the potential for educational initiatives in sustainable agricultural practices across the studied regions.

					,				
	Total			Ir	nterventior	1			Control
	Total	Total	NBPZ	UBVZ	CBVZ	HZ	LBVZ	BVZ	Total
Base	129	107	16	16	16	18	25	16	22
Water Availal	oility in t	he Strea	ms						
Perennial	97	82	15	1	14	13	23	16	15
Seasonal	32	25	1	15	2	5	2	0	7

TABLE 44: WATER AVAILABILITY, FLOODS, SHORTAGES, AND CROP FAILURE



Months in wh	nich wate	er is avail	lable in stre	eam (those	who said s	seasonal)			
April	2	2	0	0	0	2	0		0
May	1	1	0	1	0	0	0		0
June	18	16	1	11	0	2	2		2
July	6	4	0	3	0	1	0		2
August	3	2	0	0	2	0	0		1
Can't Say	2	0	0	0	0	0	0		2
Experience floods in the region	46	39	8	2	3	0	22	4	7
Average longest duration of the flood in the last 2 years (in days)	13.33	13.97	4.13	10.50	15.00		16.77	19.25	9.71
Shortage of water in any season in the last 2 years	28	26	5	5	0	2	12	2	2
Season in wh	ich short	age was	witnessed						
Summer	14	13	2	5		0	6	0	1
Winter	13	12	3	0		2	5	2	1
Autumn	1	1	0	0		0	1	0	0
Village has experienced crop failure in the last 2 years	37	33	8	1	5	0	15	4	4
Reasons for c	rop failu	re							
Drought	13	12	6	1	3		2	0	1
Excessive Rain	2	2	0	0	1		0	1	0
Rain Flood	22	19	2	0	1		13	3	3
Aware of the	proport	on of so	il organic c	arbon in th	is village				
No	129	107	16	16	16	18	25	16	22

The figure provides a detailed assessment of the damage incurred during floods as reported by 46 respondents across different zones, including both Intervention and Control areas for those who experienced flood in their region. Twenty-three respondents, the majority from Intervention areas, indicate a high level of damage. Notably, the LBVZ and NBPZ report the highest counts. Eighteen respondents report some damages, with varying occurrences across zones, it is more pronounced in



the control area. Three respondents report extensive damage and only 2 villages experienced few damages.

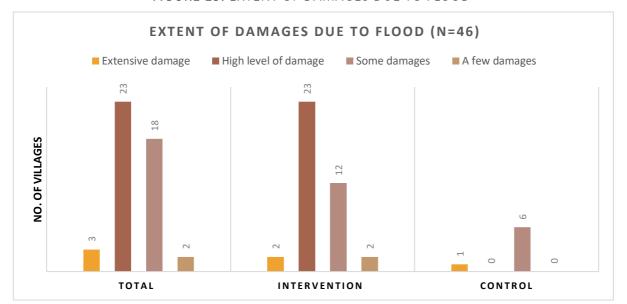


FIGURE 13: EXTENT OF DAMAGES DUE TO FLOOD

Village Level Institutions (Non-Political/Non-Religious)

The mean number of institutions per village is 2.05, with a median of 1.00 and a standard deviation of 3.73. Most villages have 0 to 1 institution, with a few reporting higher numbers, especially in the Upper Brahmaputra Valley Zone (UBVZ). The most common types of institutions are Self-Help Groups (SHG) associated with ASRLM, with 114 respondents reporting their presence. Other types include Village Organization (VO) associated with ASRLM, Clubs/Community-Based Organizations (CBOs), and others specified by respondents. The main activities of institutions include Social Mobilization, Livelihoods, Finance, Recreation, and Sports. Finance-related activities are prominent, with 66 respondents indicating their presence, Livelihood-related activities are also significant, with 48 villages mentioning it.

Government Schemes

The figure below delves into the awareness levels of villages in various government schemes. National Food Security Mission (NFSM): Respondents were aware, with 64 acknowledging its benefits. However, 65 respondents couldn't confirm their awareness. Prime Minister Krishi Sinchayee Yojana: Like NFSM, 71 respondents were aware, while 58 couldn't confirm their awareness. Rashtriya Krishi Vikas Yojana (RKVY): While 16 respondents were aware, 113 were uncertain about their awareness of this agricultural scheme. Mid-day meal and Pradhan Mantri Awas Yojna were other schemes that most villages were aware of. Most respondents were uncertain about their awareness of several schemes, indicating a potential need for increased outreach and information dissemination. Awareness levels varied across schemes, with some showing higher awareness than others. Control areas generally exhibited lower awareness compared to Intervention areas.

The table below presents the number of beneficiaries in villages across various government schemes, categorized into Intervention and Control areas, with a breakdown for different agro-climatic zones. The base comprises 129 respondents, with 107 in Intervention areas and 22 in Control areas. The key findings from the table are:



<u>National Food Security Mission (NFSM):</u> The average number of beneficiaries in Intervention areas is notably higher (272) than in Control areas (157). Disparities exist among agro-climatic zones, with the highest average in LBVZ (739) and the lowest in Hills Zone (12).

<u>Prime Minister Krishi Sinchayee Yojana:</u> Intervention areas have a higher average of beneficiaries (153) compared to Control areas (43).

<u>Green Revolution - Krishonnati Scheme:</u> Intervention areas report a considerable average of 152 beneficiaries, primarily driven by LBVZ and UBVZ. Control areas in this scheme show limited data, with some zones reporting zero beneficiaries.

<u>National Rural Livelihood Mission:</u> While Intervention areas report a high average (84), particularly in BVZ.

<u>Mahatma Gandhi National Rural Employment Guarantee Scheme:</u> Intervention areas have a higher average (85) than Control areas (58), with notable differences among zones.

<u>Mid-Day Meal Programme:</u> Intervention areas report a higher average (204) compared to Control areas (56), with significant variation among zones.

National Food Security Mission and ICDS were other schemes with a greater number of beneficiaries. Further investigation is needed for schemes with limited or zero reported beneficiaries in Control areas.

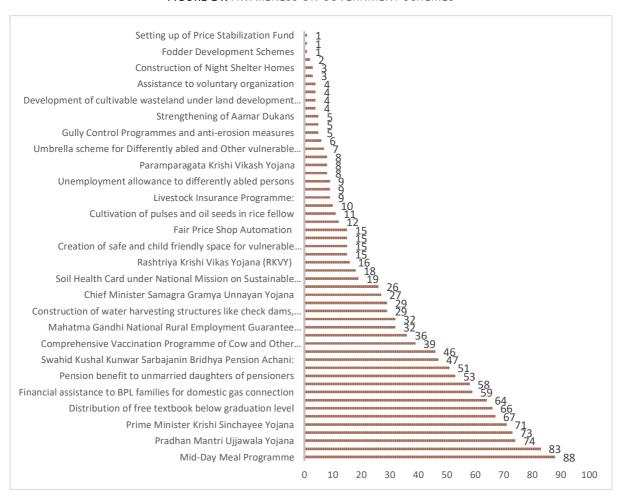


FIGURE 14: AWARENESS ON GOVERNMENT SCHEMES

People availing Government Schemes



TABLE 45: NUMBER OF BENEFICIARIES IN THE VILLAGE OF GOVERNMENT SCHEMES

	Intervention								
	Total								Control
		Total	NBPZ	UBVZ	CBVZ	HZ	LBVZ	BVZ	Total
Base	129	107	16	16	16	18	25	16	22
Average Number	of benef	iciaries ir	the villa	ge					
National Food Security Mission (NFSM)	253	272	108	159	63	12	739	282	157
Prime Minister Krishi Sinchayee Yojana	133	153	101	74	30	16	373	65	43
Green Revolution - Krishonnati Scheme	152	152		100		0	809	0	
Rashtriya Krishi Vikas Yojana (RKVY)	63	33		21		3	73	35	256
Paramparagata Krishi Vikash Yojana	28	28		30		22	50		
Soil Health Card under National Mission on Sustainable Agriculture	81	83		337		1	29	5	68
Mission Organic Value Chain Development for NE Region	0	0				0			
Cultivation of pulses and oil seeds in rice fellow	30	20		15		3	25	30	65
Chief Minister Samagra Gramya Unnayan Yojana	20	23		5	5	31	38	21	12
Assam Agribusiness Rural Transformation Project (APART)	51	49				0	83	30	60
National Rural Livelihood Mission	84	84		2	5	13	80	265	
Mahatma Gandhi National	77	85		27		2	179	115	58



		Intervention							
	Total								Control
		Total	NBPZ	UBVZ	CBVZ	HZ	LBVZ	BVZ	Total
Base	129	107	16	16	16	18	25	16	22
Rural									
Employment									
Guarantee									
Scheme									
National Social									
Assistance	11	11		2		0	30		
Programme									
Pradhan Mantri									
Awas Yojana –	64	70	274	48	52	45	109	74	40
Rural		, 0	27 .	10	32	13	103	, ,	10
Kanaklata									
Mahila									
Sabalikaran	15	15		17	9	0	30	20	16
Yojana:									
Swahid Kushal									
Kunwar									
Sarbajanin	38	42	100	39	30	36	80	200	16
Bridhya Pension	30	42	100	39	30	30	80	200	10
Achani:									
Integrated									
Watershed	12	15		19		6			0
Development									
Programme	10	1.5				0		20	0
Afforestation	10	15		•	•	0	•	30	0
Development of									
cultivable									
wasteland	5	8		8					0
under land									
development									
project:									
Construction of									
water									
harvesting									
structures like									
check dams,									
field ponds, and	29	23		1		5	218	18	70
earthen									
periphery bunds									
under land									
development									
projects									
Gully Control									
Programmes	10	10						20	
and anti-erosion	10	10	•	•	•	0	•	20	
measures									



				lr	nterventio	on			Control
	Total	Total							Control
		TOtal	NBPZ	UBVZ	CBVZ	HZ	LBVZ	BVZ	Total
Base	129	107	16	16	16	18	25	16	22
White									
Revolution	•	•	•	•	•	•	•	•	•
Livestock									
Insurance	32	32		37		2			
Programme:									
Capacity									
Development of	49	49		38		67		0	
Livestock and									
Poultry Farmers									
Comprehensive Vaccination									
Programme of	140	148		61		2	264	216	118
Cow and Other	140	140	•	01	•	2	204	210	110
Animals									
Supply of									
Feeder Seeds	69	69				2		103	
Fodder									
Development	0	0				0			
Schemes									
National Food	205	200	226	162	7.4	20	020	221	205
Security Mission	295	308	226	162	74	28	830	221	205
Pradhan Mantri	119	122	43	102	14	15	299	104	104
Ujjawala Yojana	113	122	43	102	14	13	233	104	104
Strengthening									
of Aamar	1	1	•	1	•			0	
Dukans									
Amar Dukan on	170								170
Wheels:									
Setting up of									
Price									
Stabilization Fund									
Financial									
assistance to									
BPL families for	131	127	14	79	14	72	252	163	143
domestic gas				, ,		, -			1.5
connection									
Fair Price Shop	4	4	-	4			4	4	_
Automation	1	1	0	1	•		1	1	0
National									
Literacy Mission	76	81	143	22		0	57	158	49
(NLM)									
Mid-Day Meal	179	204	285	61	20	17	756	103	56
Programme	1/3	204	203	01	20	1/	,50	103	50



	T. 1. 1			lr	nterventio	n			Control
	Total	Total	NBPZ	UBVZ	CBVZ	HZ	LBVZ	BVZ	Total
Base	129	107	16	16	16	18	25	16	22
Sarva Shiksha									
Abhiyan (SSA)	75	80	219	40	20	25	146	64	56
Pratyahban	0	0	0			0		0	0
Distribution of bicycle to girl students	34	38	94	7	15	9	27	79	17
Waiver of admission and tuition fee	29	32	15	23	10	4	115	53	14
Distribution of free textbook below graduation level	85	95	364	19	10	26	29	105	49
Free textbook for the students of the degree courses	111	121	364	16		18		174	61
Distribution of two-wheeler to the top girl's student	8	9	21	3		6	8	12	5
The Mission for Protection and Empowerment of Women	11	12	0	15		0			10
Integrated Child Development Services (ICDS)	207	207	486	33				300	
National Nutrition Mission- SNP, POSHAN Abhiyan	12	12	0	15					
Umbrella scheme for Differently abled and Other vulnerable persons	3	3	0	5		0		·	
PM Matri Vandana Yojana	19	17	0	25	5	16	40	2	28
Pension benefit to unmarried daughters of pensioners	13	13	1	12		9	20	21	10



				Ir	nterventic	on			Control
	Total	Total		Control					
		Total	NBPZ	UBVZ	CBVZ	HZ	LBVZ	BVZ	Total
Base	129	107	16	16	16	18	25	16	22
Creation of safe and child friendly space for vulnerable children in the children's homes	4	4		5		·		2	6
Scholarship to differently abled students	10	10	10	13		0		3	10
Unemployment allowance to differently abled persons	16	16		16	٠				٠
Construction of Night Shelter Homes	10	10	0		٠	20	٠		
Assistance to voluntary organization	3	3		3					٠

ONLY INTERVENTION AREA

Soil Conservation and Water Shed / Spring Shed Management

The table provides insights into soil conservation and watershed/spring management initiatives in a village across various zones, including North Bank Plains Zone (NBPZ), Upper Brahmaputra Valley Zone (UBVZ), Central Brahmaputra Valley Zone (CBVZ), Hills Zone (HZ), Lower Brahmaputra Valley Zone (LBVZ), and Barak Valley Zone (BVZ). The base comprises 107 villages only from the intervention area. Most villages (60) participated in afforestation programs in the last two fiscal years. Barak Valley Zone has the highest participation, with 15 respondents and highest participation rate in UBVZ where 13 out of 16 villages participated in the programme, while NBPZ has the lowest with 5. A significant number of villages (21) reported the development of cultivable wasteland under land development projects, especially in LBVZ with 8 villages. Various water harvesting structures have been constructed in the village. Construction of check dams involved 23 villages; Field ponds were constructed in 35 villages as water harvesting structures. Earthen periphery bunds were constructed in 17 villages. Waterbodies or ponds were rejuvenated in 17 villages, particularly in LBVZ and BVZ.

TABLE 46: DETAILS ABOUT SOIL CONSERVATION AND WATER SHED/SPRING MANAGEMENT

	Total		Zones								
	TOLAT	NBPZ	UBVZ	CBVZ	HZ	LBVZ	BVZ				
Base	107	16	16	16	18	25	16				
Afforestation programme taken	60	5	13	10	10	15	7				



up in the village in the last 2 FY							
Cultivable wasteland under land development project been developed	21	0	4	0	4	8	5
Construction of wat	er harvesti	ng structure	s happened	l in the villag	ge		
Construction of check dams	23	0	2	4	5	9	3
Construction of field ponds	35	0	13	4	4	10	4
Construction of earthen periphery bunds	17	0	4	4	1	4	4
Rejuvenation of ponds /water bodies	17	0	1	1	2	6	7

Out of the 107 villages, only five reported the presence of spring sheds, all 5 villages from the Hill Zone in the intervention area. Among the villages with spring sheds, the majority (three villages) reported having one spring shed, while two villages reported having four. Four villages, where spring sheds were present, conducted toxicity tests to ensure the quality and safety of the water. The average number of households within the recharge area under the spring shed is 44. And out of 5, 1 of the village reported having no household near the spring shed. On average, 12.50 households within the recharge area are dependent on the spring for their water needs. Ongoing projects have initiated activities related to the maintenance and protection of springs in the villages with spring sheds. Four villages reported the construction of water tanks or other water storage structures, while one village engaged in other protective measures.

TABLE 47: DETAILS ABOUT SPRING SHED

	Total		Zones									
	TOLAT	NBPZ	UBVZ	CBVZ	HZ	LBVZ	BVZ					
Base	107	16	16	16	18	25	16					
Presence of spring shed in the village	5	0	0	0	5	0	0					
No. of spring shed present												
1	3	-	-	-	3	-	-					
4	2	-	-	-	2	-	-					
Toxicity Test of the spring sheds Undertaken	4				4							



Average no. of households is within the recharge area under the spring shed	44.00	-	-	-	44.00	-	-
Out of the total households in the recharge area, the average no. of households that dependent on the spring	12.50	-	1	-	12.50	1	-
Activities related to	o mainter	nance and pr	otection of	springs alrea	dy taken up	under ongoi	ng project
Construction of water tank or any other water storage structure	4				4		
Other	1				1		

The majority, 4 out of 5 villages used spring sheds as a source of drinking water. Washing clothes, and irrigation was other popular uses. Washing animals, bathing and toilets are less popular purposes for using a spring shed.

Purposes the spring shed (N=5) Toilet purposes Washing Animls Bathing Drinking water Washing clothes 3 Irrigation 3 0 1 2 2 3 3 5 1 4 Number of villages

FIGURE 15: USES OF SPRINGS

The table presents additional details regarding springs in the villages in the intervention area. Only 12 out of the 107 villages have identified interventions for aquifer recharge. Notably, the Lower Brahmaputra Valley Zone reported the highest participation with six villages. Seven villages, particularly from the Lower Brahmaputra Valley Zone (three villages) and Hill Zone (three villages), have taken up initiatives to divert excess runoff water to the spring from its catchment area. 45 villages, especially from UBVZ (15 villages) and LBVZ (14 villages), undertook initiatives related to road construction. 28 villages acted against deforestation, with LBVZ leading again with 9 villages. A total of 36 villages are aware that people were trained on managing community resources/assets. Notably, UBVZ reported the



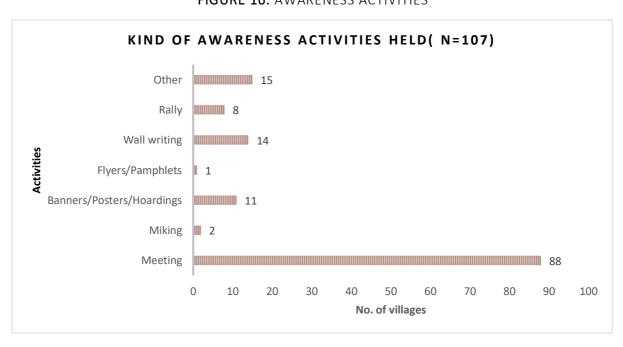
highest awareness, with nine villages. The Lower Brahmaputra Valley Zone (BVZ) emerged as the zone with the highest number of initiatives across various categories related to springs. It demonstrated notable engagement in aquifer recharge interventions, runoff water diversion initiatives, and actions addressing challenges such as over-grazing, deforestation, artificial gullies, road construction, and over-extraction.

TABLE 48: OTHER DETAILS ABOUT SPRING

	Total			A	CZ		
	Total	NBPZ	UBVZ	CBVZ	HZ	LBVZ	BVZ
Base	107	16	16	16	18	25	16
The village has identified							
interventions for aquifer	12	0	2	0	2	6	2
recharge							
Village has taken up initiatives to							
divert excess runoff water to the	7	0	0	0	3	3	1
spring from its catchment area							
The initiative taken by the village t	hrough ru	ulings of f	ines or pu	nishment	S		
Over-grazing	22	0	2	7	4	8	1
Deforestation	28	0	2	7	9	8	2
Artificial gullies	15	0	3	2	3	7	0
Road construction	45	0	15	3	6	14	7
Over extraction	8	0	0	0	1	7	0
Aware that people were trained							
on managing community	36	2	9	6	5	9	5
resources/assets							

The above figure shows the tools adopted for making awareness about training on managing community and resources. The most common awareness activity was through meetings, implemented in 88 out of 107 villages. Wall writing, banners posters and rallies were other tools for generating awareness among the habitants of the villages.

FIGURE 16: AWARENESS ACTIVITIES





Community Participation

Table 16 presents insights into community participation in watershed and spring shed projects across different zones. Among the 107 villages, 46 reported the presence of user groups, with an average of 11.93 user groups per village. The Upper Brahmaputra Valley Zone (UBVZ) stands out with the highest average number of user groups (22.40), indicating substantial community involvement. The average number of members associated with user groups varies across zones, with UBVZ having the highest at 102.31. Watershed committees are prevalent in 61 villages, with an average committee size ranging from 10.72 to 13.38 members, showcasing active community engagement. In terms of activities, a significant number of villages (80) are involved in livelihood-related projects. Regarding participation in watershed/spring shed projects, a notable observation is that 73 villages reported no participation at all, indicating room for improvement. However, 62 villages reported appreciable community involvement in decision-making at the local government level. The data suggests mixed employment opportunities in villages, with 45 villages indicating sufficient opportunities, especially in LBVZ, while others reported less favourable conditions. Interestingly, many villages (52) observed a reduction in migration in the last two years, indicating positive local developments, especially in LBVZ. In terms of wage rates, 33 villages pay more than the minimum wage rate, showcasing a commitment to fair compensation. Additionally, 43 villages believe that women have sufficient employment opportunities, and 47 villages feel that vulnerable communities also have satisfactory employment opportunities within the community.

TABLE 49: COMMUNITY PARTICIPATION

	Total			A	CZ		
	Total	NBPZ	UBVZ	CBVZ	HZ	LBVZ	BVZ
Base	107	16	16	16	18	25	16
Have user groups in villages	46	4	15	4	4	15	4
The average number of user groups present	11.93	1.75	22.40	1.00	1.00	12.13	4.00
The average no. of members is associated with the user groups	21.14	2.81	102.31	3.38	3.56	12.48	9.38
Have a watershed committee in the village	61	8	16	12	8	16	1
Average no. members are part of the committee	10.72	2.25	11.94	11.83	13.38	12.25	.00
Village engaged in activities							
NRM	26	0	15	3	4	1	3
Production	28	0	13	6	4	4	1
Livelihood	80	16	14	2	10	22	16
Other	11	0	0	7	4	0	0
Community members of the village pa	rticipate	in the wa	atershed/	spring sh	ed proje	ct	
Yes, to a large extent	1	0	0	0	1	0	0
Yes, to some extent	16	1	1	0	7	4	3
Very rare participation	17	7	0	1	3	1	5
No participation at all	73	8	15	15	7	20	8
Involvement and participation of the	62	7	14	1	7	24	9



community in decision-making at the local government level							
There are sufficient employment opportunities in the village	45	8	3	1	1	24	8
Wage rate given to people							
Equal to the minimum wage rate	11	0	2	0	1	1	7
More than minimum wage rate	33	8	1	1	0	22	1
Less than minimum wage rate	1	0	0	0	0	1	0
The observed reduction in migration in the last 2 years	52	8	9	1	4	22	8
Women have sufficient employment opportunities in the village	43	8	2	1	1	23	8
Vulnerable communities have sufficient employment opportunities in the community	47	8	7	0	1	24	7



CONCLUSION

HOUSEHOLD SURVEY

The extensive baseline dataset compiled from the intervention and control areas in Assam offers a nuanced understanding of the socioeconomic landscape, revealing both similarities and disparities across various dimensions. While demographic characteristics are comparable, there are variations in the representation of different agro-climatic zones (ACZs). Agricultural practices, income sources, and expenditure patterns also exhibit variations based on geographical contexts. These findings highlight the diverse socioeconomic dynamics within the surveyed regions and provide valuable information for understanding the conditions and needs of households in Assam.

The survey highlights the initial impression that the intervention and control areas share fundamental similarities. However, divergences emerge in demographic attributes, specifically in religion and caste. Control areas have a higher concentration of Hindu households in the general category, while intervention areas exhibit a slightly higher percentage of Scheduled Tribes (STs).

The educational landscape presents a mixed picture. While a considerable percentage of respondents attend schools, variations exist between intervention and control areas. The concerning revelation of a significant number of children not attending schools, particularly in control areas, signals the need for community-based organisations (CBOs) to promote and ensure universal access to quality education.

The possession of essential documents like Aadhar and PAN cards is widespread, indicating a level of government penetration. However, disparities emerge in the availability of ration cards and Below Poverty Line (BPL) cards, particularly among CBVZ and HZ people. The uneven distribution of MGNREGS Job Cards, with a higher percentage in HZ areas compared to Barak Valley, suggests the need for targeted employment generation efforts in specific regions.

The prevalence of Self-Help Groups (SHGs) among respondents is notable, with a higher percentage in intervention areas. There is a need to speed-up the process of user-group formation in the project.

Disparities in access to basic amenities, such as water supply and sanitary facilities, are evident. Piped water supply is more prevalent in the intervention group, while control areas rely on tube wells or boreholes. The divergence in sanitation practices, with a higher percentage of pour flush toilets in intervention areas and reliance on pit latrines in control areas, emphasizes the need for targeted infrastructure improvements.

Agriculture remains the primary occupation for the majority in both intervention and control areas, with a slight variation in the engagement of farmers in animal husbandry in control areas. The prevalence of land ownership is a positive indicator, though slight variations across zones emphasize the need for targeted agricultural support. Variations in cultivation practices, irrigation patterns, and crop preferences across seasons and areas necessitate region-specific agricultural strategies for optimal yield and sustainability. The project will have to focus on agriculture cultivation in Boro and Rabi seasons by ensuring the availability of water for irrigation.

A varied income portfolio, including agricultural activities, livestock rearing, orchards, plantations, agroforestry, fisheries, and wage labour, highlights the resilience of households. Paddy cultivation emerges as a significant contributor to income, emphasizing its economic importance. However, income from wage labour highlights the importance of non-agricultural avenues for livelihood.



The expenditure patterns, encompassing consumables, festivals, weddings, and medical expenses, reflect the multifaceted financial demands on households. Variations in annual expenditure between intervention and control areas point to potential disparities in access to resources and the need for targeted financial inclusion initiatives.

Agricultural extension services are less prevalent in control areas, emphasizing the need for targeted support. Educational accessibility varies, with primary schools more accessible within villages in control areas. Discrepancies extend to healthcare, banking services, and market accessibility for crops.

Bank and financial services within villages are limited, with a notable difference in proximity. ATMs are generally more than 5 km away, posing challenges for both groups. Mobile connectivity offices are accessible within 5 km for both. Self-sufficiency in food, fuel, and employment slightly favours the control group.

Awareness of climate change is relatively low, with variations in perception between intervention and control groups. Food security is generally high, but differences in dietary patterns and PDS distribution frequency suggest challenges. Health expenditure is higher in intervention areas, indicating potential financial burdens.

In conclusion, the comprehensive data analysis illuminates the intricate socioeconomic dynamics within the intervention and control areas of Assam. While similarities exist, disparities across demographic, educational, entitlement, group membership, amenity access, and occupational dimensions underscore the need for nuanced and region-specific interventions. The findings serve as a valuable resource for the department, guiding them in formulating targeted strategies that address the unique challenges and opportunities present in the surveyed districts.

VILLAGE SURVEY

The village survey conducted across 13 districts in Assam encompassed 129 villages, with 107 in the intervention group and 22 in the control group. Key findings include demographic variations, such as disparities in household numbers and population between intervention and control areas. Social parameters highlight differences in landless and women-headed households, as well as variations in religion and caste. Agriculture emerges as the primary livelihood, with notable support in agriculture-related areas. Common resource properties, water table depth variations, and soil erosion challenges were identified.

Land characteristics show potential distinctions in land use patterns, and water resource management varies between intervention and control areas. Forest cover is limited, and perennial water availability is common in streams. Disasters, including floods, water shortages, and crop failures, affect villages, with LBVZ experiencing higher counts. Villages lack awareness regarding soil organic carbon proportion.

Village-level institutions, such as Self-Help Groups (SHGs), are prevalent, engaging in diverse activities. Access to government schemes is widespread, with notable participation in afforestation and land development programs. Spring sheds, though limited, are primarily present in the intervention area.

The survey underscores the need for targeted interventions addressing demographic, environmental, and livelihood challenges. The data provides valuable insights for the department to design region-specific strategies for sustainable development in Assam.



ANNEXURE - I (HOUSEHOLD QUESTIONNAIRE)

VISION EIS	HOUSEHOLD QUESTIONNAIRE	GEOLOCATION
ভিজন ইআইএছ	পৰিয়ালৰ প্ৰশ্নাৱলী	ভূ-অৱস্থান

<u>SECTION 1 - IDENTIFICATION PARTICULARS</u> <u>শাখা 1 - চিনাক্তকৰণ বিৱৰণ</u>

101.	Type প্ৰকাৰ	Intervention 1; Control 2 হন্তক্ষেপ ১; নিমন্ত্রণ ২
102.	Name of the District/Project জিলাৰ নাম /প্ৰকল্প	
103.	Name of the Block ব্লকৰ নাম	
104.	Name of the GP জিপি(গাওঁপঞ্চায়ত)ৰ নাম	
105.	Name of the Revenue /Forest Village ৰাজহ /ফৰেষ্ট ভিলেজৰ নাম	
106.	Name of the Habitation বাসস্থানৰ নাম	
107.	Address with the landmark of the Respondent লেওমাৰ্কৰ সৈতে উত্তৰদাতাৰ ঠিকলা	
108.	Name of the Respondent উত্তৰদাতাৰ নাম	
109.	Name of the Investigator ইনভেট্টৰৰ নাম	
110.	Name of the Supervisor চুপাৰভাইজাৰৰ নাম	
111.	Mobile Number of the Respondent উত্তৰদাতাৰ মোবাইল নম্বৰ	
112.	Name of the Micro watershed ক্ষুদ্ৰ জলভাগৰ নাম	



113.	Position of the Habitation in the Watershed	Upper Reach :1. Medium Reach: 2, Lower Reach:3 উচ্চ উপলব্ধতা :1। মধ্যম উপলব্ধতা: 2, নিম্ন উপলব্ধতা:3
	জলভাগত বাসস্থানৰ অৱস্থান	

Namaskar My name is	Ne are doing a survey to und	derstand about the livelihood includi	ing agricultural practices water
সাক্ষাৎকাৰৰ তাৰিখ: / /23		ইন্টাৰভিউৰ সমাপ্তি সময়	
DATE OF INTERVIEW: / /23		INTV END TIME	
ফিল্ড নিয়ন্ত্রণ তথ্য		ইন্টাৰভিউৰ আৰম্ভণি সময়	
FIELD CONTROL INFORMATION		INTV START TIME	

use, water resources, irrigation etc.

নমস্কাৰ। মোৰ নাম ____হ্ম। আমি কৃষি পদ্ধতি, পানীৰ ব্যৱহাৰ, জলসম্পদ, জলসিঞ্চন আদিকে ধৰি জীৱিকাৰ বিষয়ে বুজিবলৈ এক সমীক্ষা কৰি আছো।

I shall be grateful to you if you can spare some of your valuable time. The interview will help us to provide useful information for improving the interventions and thereby improve agricultural practices and water conservation in rural Assam and benefit many persons like you: যদিহে আপুলি আমাক আপোলাৰ কিছু মূল্যৱাল সময় প্ৰদাল কৰিব পাৰে তেন্তে মই আপোলাৰ ওচৰত কৃতজ্ঞ হ'ম। সাক্ষাৎকাৰটোৱে আমাক মধ্যস্থতাকৰণ উন্নত কৰাৰ বাবে উপযোগী তথ্য প্ৰদাল কৰাত সহায় কৰিব আৰু ইয়াৰ দ্বাৰা গ্ৰাম্য অসমত কৃষি পদ্ধতি আৰু পালী সংৰক্ষণ উন্নত কৰিব আৰু আপোলাৰ দৰে বহুলোকক উপকৃত কৰিব:

Please ask for an interview with the household

অনুগ্ৰহ কৰি পৰিয়ালটোৰ সৈতে এটা সাক্ষাৎকাৰ লব বিচাৰিব

ALL YOUR RESPONSES WOULD BE USED SOLELY FOR RESEARCH PURPOSES.

আপোনাৰ উত্তৰসমূহ কেৱল গৱেষণাৰ উদ্দেশ্যে ব্যৱহাৰ কৰা হ'ব।

Do you agree to participate?

আপুনি অংশগ্ৰহণ কৰিবলৈ সন্মত নে?



BACKGROUND INFORMATION ABOUT RESPONDENT /FARMER (Both 1 and 2)

উত্তৰদাতা /কৃষকৰ বিষয়ে পৃষ্ঠভূমিৰ তথ্য (১ আৰু ২ দুয়োটা)

201.	What is your primary Livelihood? আ(পানাৰ	Agriculture & Horticulture (own, shared, leased in)1 কৃষি আৰু উদ্যান শস্য (নিজস্ব, ভাগ বতৰা কৰা, লীজত দিয়া)
	প্রাথমিক জীৱিকা কি? SINGLE RESPONSE	Animal Husbandry2 পশুপালন
	একক উত্তৰ	Fisheries
		Agricultural Labourer4 কৃষি শ্রমিক
		Skilled Labour5 দক্ষ শ্রমিক
		Unskilled Labour (other than Agr. Lab)
		Petty Business/Enterprise
		Salaried (Govt + Pvt)
		Other (Specify) অন্যান্য (উল্লেখ কৰক)
202.	What is your Secondary	কৃষি আৰু উদ্যান শস্য (নিজস্ব, ভাগ বতৰা কৰা, লীজত দিয়া)
	Occupation/s? আপোনাৰ চেকেণ্ডাৰী	Animal Husbandry2 পশুপালন
	জীৱিকা/সমূহ কি কি?	Fisheries
	MULTIPLE RESPONSES POSSIBLE	মীন পালন Agricultural Labourer4



	Ç 5	
	একাধিক উত্তৰ সম্ভৱ	কৃষি শ্রমিক
		Skilled Labour5 দক্ষ শ্রমিক
		Unskilled Labour (other than Agr. Lab)
		Petty Business/Enterprise
		Salaried (Govt + Pvt)
		Non-Timber Forest Produce9 অনা-কাঠৰ ফৰেষ্ট উৎপাদন
		None
		Other (Specify) অন্যান্য (উল্লেখ কৰক)
203.	Gender of the	Male1
	Respondent?	পূৰুষ
	উত্তৰদাতাৰ লিংগ?	Female2 মহিলা
204.	Please mention the relationship to the	Self1 নিজে
	Head of the Household অনুগ্ৰহ কৰি পৰিমালৰ	Wife/Husband2 পত্নী/স্বামী
	মুৰব্বীৰ সৈতে সম্পৰ্কটো উল্লেখ	Son /Daughter3 পুত্ৰ /কন্যা
	কৰক	Daughter-in-law/Son in law4 বোৱাৰী/জোৱাঁই
		বোষাৰা/বোষাৰ Granddaughter/ Grandson5 নাতিনী/ নাতি
		Parents6
		অভিভাৱক
		Other (Specify) অন্যান্য (উল্লেখ কৰক)
		2.31.37 (2.42.1.1.1)



205.	What is your religion? আপোনাৰ ধৰ্ম কি?	Hindu1 হিন্দু
		Islam2 ইছলাম
		Christian3 খ্রীষ্টান
		Buddhist4 বৌদ্ধ
		বৈষ্ণ Jain5
		Sikh6
		শিখ Other (Specify)
		অন্যান্য (উল্লেখ কৰক)
206.	What is your social category?	SC1 অনুসূচীত জাতি
	আপোনাৰ সামাজিক শ্ৰেণী কি?	ST2 অনুসূচীত জনজাতি
	Carl Nov	OBC3 অন্যান্য পিছপৰা শ্ৰেণী
		General4 সাধাৰণ
		Do not know/can't say5
		নাজানো/ক'ব নোৱাৰো
207.	What is your age? আপোনাৰ ব্যুস	In Years
	কিমান?	বছৰত
208.	What is your literacy status?	Illiterate
	আপোনাৰ শিক্ষাৰ	
		Read and write
	স্তৰ কিমান হয়?	পঢ়িব আৰু লিথব পাৰে



				3						
		Class 6-8 6ষ্ঠ-8ম শ্রেণী		4						
		Class 9-12 9ম-12শ শ্রেণী		5						
			Graduation স্নাতক 6							
		Above Graduation স্নতকৰ ওপৰত		7						
209.	How many Members	Adult male								
	are there in your	প্ৰাপ্তব্যস্ক পুৰুষ								
	family?	Adult Female								
	আপোনাৰ পৰিয়ালত	প্রাপ্তব্যস্ক মহিলা								
	কিমানজন সদস্য	Children (below 18) Male								
	আছে?	শিশু (18 বছৰৰ তলৰ) পুৰুষ								
		Children (below 18) Female								
		শিশু (18 বছৰৰ তলৰ) মহিলা								
		Total members of the family								
		পৰিয়ালৰ মুঠ সদস্য								
210.	Are all the children of	Yes		1						
	school-going age (6- 14 years) attending	হয়								
	School?	No คอม		2						
	ষুললৈ যোৱা ব্যুসৰ			3						
	সকলোবোৰ শিশুৱে	এই ব্যুসৰ ভিতৰত কোনো সন্তান নাই								
	(6-14 বছৰ)	वर प्रमय । ७७५७ (पराला महाग गाः	•							
	বিদ্যালয়ত পঢ়ি আছে									
	াবদ্যালয়ভ শাঢ় আছে নেকি?									
211.	ls there anyone in the	Type of Institution	Yes =1, No =2	Number of members participated						
211.	household who is a	প্ৰতিষ্ঠানৰ প্ৰকাৰ	res −1, No −2 হ্য =1, লহ্য =2	অংশগ্ৰহণ কৰা সদস্যৰ সংখ্যা						
	member of the	SHG আত্মসহায়ক গোট	₹,4 =1, 4₹,7 =2	St 184 77 71 71 71 71 71 71 7						
	institution? If yes how	User Group								
	many members	oser Group ব্যৱহাৰকাৰী গ্ৰুপ								
	(SOCIAL CAPITAL)	Farmer Producer Organisation								
	পৰিয়ালত এনে কোনো	কৃষক উৎপাদক সংস্থা								
		र्यमण ७१ मानम गर्श								



	ব্যক্তি আছে নেকি মি প্রতিষ্ঠানটোৰ সদস্য হয়? যদিহে হয় কিমান জন সদস্য (সামাজিক মূলধন)	Other (specify) অন্যান্য (উল্লেখ কৰক)
212.	Are any members elected member of Panchayat কোনো এজন সদস্য পঞ্চায়তৰ সদস্য হিচাপে বাছনি হৈছে নেকি	Yes
213.	If yes is the member male or female যদিহে হয় সদস্য পুৰুষ বা মহিলা হয়	Male
214.	How many members of the family are employed (work for Money) পৰিমালৰ কিমান জন সদস্য কামত নিযুক্ত হৈ আছে (ধনৰ বাবে কৰা কাম)	Adult male
LAND	DHOLDING (Both 1 an	d 2) লেওহোল্ডিং (১ আৰু ২ দু্য়োটা)
301.	What is the size of the plot on which your	katha



	T				1
	house is built? আপোনাৰ ঘৰটো	কঠাত			
	যিটো প্লটত নিৰ্মাণ				
	কৰা হৈছে তাৰ আকাৰ				
	কিমান?				
302.	How much agricultural	In Bigha			
	land do you own?				
	আপোনাৰ কিমান	বিঘাত			
					88
	কৃষিভূমি আছে?	কোনো ভূমিৰ মালিকাৰ	ाधान नर्ग		
303.	Out of this, how much		Kharif	Rabi	Boro
	do you cultivate		থাৰিফ	ৰবি	বডো
	season wise	Number of plots		-	
	ইয়াৰ ভিতৰত, আপুনি	প্লটৰ সংখ্যা			
	ঋতু অনুসৰি কিমান	Area in Bigha			
	থেতি কৰে	বিঘাত এলেকা			
304.	How much of the		Kharif	Rabi	Boro
	cultivated land is		থাৰিফ	ৰবি	বড়ো
	irrigated? থেতি কৰা মাটিৰ	Number of plots			
	ি যোত কৰা শাচিৰ কিমানখিনিত	প্লটৰ সংখ্যা			
		Area in Bigha			
	জলসিঞ্চন কৰা হ্ম?	বিঘাত এলেকা			
305.	How much agricultural	In Bigha			
	land have you LEASED	বিঘাত	••••••		
	আপুনি কিমানখিনি	No Land Owned			99
	কৃষিভূমি লীজত লৈছে?			•••••••••••••••••••••••••••••••••••••••	
306.	Out of this, how much	रमाना श्रीनय नामकाना	Kharif	Rabi	Boro
	do you cultivate		থাৰিফ	ৰবি	বডো
	season wise?	Number of plots		-	1.
	ইয়াৰ ভিতৰত, আপুৰি	প্লটৰ সংখ্যা			



	ঋতু অনুসৰি কিমানখিনিত খেতি কৰে?	Area in Bigha বিঘাত এলেকা			
307.	How much of the cultivated land is irrigated? থেতি কৰা মাটিৰ কিমানখিনিত জলসিঞ্চন কৰা হ্ম?	Number of plots প্লটৰ সংখ্যা Area in Bigha	Kharif থাৰিফ	Rabi ৰবি	Boro বড়ো
308.	How much land have you leased out? আপুনি কিমান মাটি লীজত দিছে?	In Bigha বিঘাত			
309.	Please mention the distribution of land and operational holding in the micro watershed (in Bigha) অনুগ্ৰহ কৰি স্কুদ্ৰ জলভাগত ভূমি বিতৰণ আৰু কাৰ্যকৰী ধাৰণৰ কথা উল্লেখ কৰক (বিঘাত) Upper Reach (UR) - HHs at ridge of the watershed, Middle Reach (MR) - HHs in middle of the watershed Lower Reach (LR) - HHs at valley of the watershed	Classifications শ্রেণীবিভাজন Owned মালিকানাধীন Leased In লীজত লোৱা হৈছে Leased Out লীজত দিয়া হৈছে	Upper Reach উচ্চ উপলব্ধতা	Middle Reach মধ্যম উপলব্ধতা	Lower Reach নিম্ন উপলব্ধতা



IRRIG	উচ্চ উপলব্ধতা (ইউআৰ) - জলবিভাজিকাৰ ৰিজত পৰিয়াল, মিডল ৰিচ্চ (এমআৰ) - জলভাগৰ নিম্ন ৰিচ্চ (এলআৰ) পৰিয়াল - জলভাগৰ উপত্যকাত পৰিয়াল	ং) জলসিঞ্জ (১ আৰু ২	দু্য়োটা)		
401.	What are the sources of irrigation used in different seasons by	Sources উৎসসমূহ	Kharif থাৰিফ	Rabi बवि	^{Boro} বড়ো
	the household? পৰিয়ালৰ দ্বাৰা বিভিন্ন ঋতুত ব্যৱহাৰ কৰা জলসিঞ্চনৰ	Well (including shallow /Submersible কুঁৱা (অগভীৰ / গভীৰ সহ	1	1	1
	উৎসসমূহ কি কি? (MULTIPLE RESPONSES ARE POSSIBLE IN	Pond পুথুৰী	2	2	2
	EACH SEASON) (প্ৰতিটো ঋতুত একাধিক উত্তৰ সম্ভৱ)	River ब पी	3	3	3
		Canal থাল/কেনেল	4	4	4
		Spring জুৰি	5	5	5
<u> </u>		Other (Specify)			



402.	2. Please mention the number of sources available in the micro watershed/spring shed. Also, mention if water is available in the sources perennially	Sources of irrigation	Nature of Source উৎসৰ প্ৰকৃতি		No of sources উৎসৰ সংখ্যা		
		জলসিঞ্চনৰ উৎস		Upper Reach (UR) উচ্চ উপলব্ধতা (ইউআৰ)	Middle Reach মধ্যম উপলব্ধতা	Lower Reach নিম্ন উপলব্ধতা	
	or seasonally. (Only 1) অনুগ্ৰহ কৰি	Well (including shallow	Perennially বার্ষিক				
	ক্ষুদ্ৰ জলভাগ/স্প্ৰিং খেডত উপলব্ধ উৎসৰ	/Submersible) কুঁৱা (অগভীৰ / গভীৰ সহ)	Seasonally ঋতু অনুসৰি				
	সংখ্যা উল্লেখ কৰক। লগতে, উৎসবোৰত	Pond	Perennially বার্ষিক				
	বার্ষিক বা ঋতু	পুখুৰী	Seasonally ঋতু অনুসৰি				
	অনুসৰি পানী উপলব্ধ হয় নেকি উল্লেখ	River	Perennially বার্ষিক				
	কৰক। (মাত্ৰ ১)	वपी	Seasonally ঋতু অনুসৰি				
	`	Canal	Perennially বার্ষিক				
		থাল/কেনেল	Seasonally ঋতু অনুসৰি				
		Savina	Perennially বার্ষিক				
		Spring জুৰি	Seasonally ঋতু অনুসৰি				
		Other (Specify)	Perennially বার্ষিক				
		অন্যান্য (উল্লেখ কৰক)					



403.	Water Availability in the indicated months for the micro watershed/spring shed (FOR SEASONAL SOURCES ONLY) (Only 1) স্কুদ্র জলভাগ/ স্প্রিং মেডৰ বাবে নির্ধাৰিত	Sources of Irrigation জলসিঞ্চনৰ উৎস	Summer April - গ্রীয়াৰ এপ্রিল Yes=1, Yes= No=2 No= হম=1, হম= নহম=2 নহম		e	No=2 No=2 No=2 로젝=1, 로젝=1,		। इ	! No=2 No=2 No= , হম=1, হম=1, হম=		r र
	মাহবোৰত পানীৰ উপলব্ধতা (কেৱল ঋতুগত উৎসৰ বাবে) (মাত্ৰ ১)		Upper Reach উচ্চ উপলব্ধ তা	Middle Reach মধ্যম উপলব্ধ ভা	Lower Reach निञ्च উপলব্ধ তা	Upper Reach উচ্চ উপলব্ধ তা	Middle Reach মধ্যম উপলব্ধ ভা	Lower Reach निन्न উপলব্ধ ভা	Upper Reach উচ্চ উপলব্ধ তা	Middle Reach মধ্যম উপলব্ধ তা	Lower Reach নিম্ন উপলব্ধ তা
		Well (including shallow /Submersible) কুঁৱা (অগভীৰ /চাবমার্চিবল সহ)									
		Pond পুখুৰী River নদী Canal খাল/কেনেল									
		Spring জুৰি Other (Specify) অন্যান্য (উল্লেখ কৰক)									



501.	KING WATER (Both 1 and Please mention the	Type of Sources	Sources regularly	usad		Time select	Main source=1
301.	details about the	উৎসৰ প্ৰকাৰ	Used=1 निম্মীমাকৈ ব্যৱহৃত উৎস। ব্যৱহৃত=1		Distance to	Time taken (in Minutes)	
	drinking water	0 714 3414			source (in metres)	মোলাভিজ মোৱাৰ বাবে লোৱা সম্ম (মিলিটভ)	প্রধান উৎস=1 Other regular=2 অন্যান্য নিয়মীয়া=2
	facilities. অনুগ্ৰহ কৰি				উৎসটোলৈ দূৰত্ব (মিটাৰত)		
	খোৱা পানীৰ সুবিধাবোৰৰ বিষয়ে বিৱৰণ উল্লেখ কৰক।						
			Summer	Other Season			
			গ্রীষ্মকাল	অন্যান্য ঋতু			
		Piped water					
		into dwelling/					
		yard/plot					
		বাসস্থান/গজ/প্লট					
		ত পাইপ যুক্ত					
		भा नी					
		Public tap/					
		standpipe					
		ৰাজহুৱা টেপ/					
		ষ্টেগুপাইপ					
		Tube well or					
		borehole					
		টিউবৱেল বা					
		বোৰহোল					
		Protected dug					
		well					
		সুৰক্ষিত কুঁৱা					
		Protected spring					
		সুৰক্ষিত জুৰি					
		Rainwater					
		বৰষুণৰ পাৰী					
		Tanker truck					
		টেংকাৰ ট্ৰাক					



		Cart with small tank সৰু টেংকৰ মৈতে কাৰ্ট Bottled water বটলৰ পানী							
		Community RO plant সমূহিয়া আৰ অ'							
		Other (Specify) অন্যান্য (উল্লেখ কৰক)							
HOUS	EHOLD AMENITIES (Both	1 and 2)							
601.	What kind of toilet facility do members of your household usually use? (Single Response Possible) আপোনাৰ পৰিয়ালৰ সদস্যসকলে সাধাৰণতে কেনে ধৰণৰ শৌচাগাৰৰ সুবিধা ব্যৱহাৰ কৰে? (একক উত্তৰ সম্ভৱ)	and 2) Open fields 1 খেলা ফিল্ড 2 Pit latrine 2 Flush toilet /Pour Flush toilet 3 ভ্লাশ উমলেট 4 Community Toilet 4 সমূহিয়া শৌচাগাৰ ক্লাছ লোহোৱাকৈ উমলেট Other (Specify) এক্যান্য (উল্লেখ কৰক)							
602.	If coded 2,3 and 4 in Q601, what is the distance between the toilet and your dwelling? যদিহে Q601-ত 2,3,	Within the dwelling							



	আৰু 4 কোড কৰা হয়, শৌচাগাৰ আৰু আপোনাৰ বাসস্থানৰ মাজৰ দূৰত্ব কিমান?	More than 1 km 1 কিমিতকৈ অধিক		4
603.	Do all the members of the household use the toilet regularly? পৰিমালৰ সকলোবোৰ সদস্যই নিম্মীমাকৈ শৌচাগাৰ ব্যৱহাৰ কৰে নেকি?	Male পুৰুষ Female মহিলা Children	Yes=1 १.ग=1	No=2 নহয়=1
604.	How much time is required to reach the toilet? শৌচাগাৰ পাবলৈ কিমান সময়ৰ প্রয়োজন?	Minutes		
605.	Whether livestock or any other materials (observe) are kept in the toilet? পশুধন বা অন্য কোনো সামগ্রী (পর্যবেক্ষণ) শৌচাগাৰত ৰথা হয়নে?	Yes হয় No নহয়		2
606.	What type of fuel does your household	Electricity विपूर९		1



mainly use for cooking? এলপিজি 2 আপোনাৰ পৰিয়ালে Bio Gas 3 মুখ্যতঃ ৰন্ধনৰ বাবে কেনে ধৰণৰ ইন্ধন Kerosene 4 ব্যৱহাৰ কৰে? কেনাচিন 5 কম্লা Charcoal 6 Wood 7
আগোনাৰ পৰিয়ালে মুখ্যতঃ ৰন্ধনৰ বাবে কেনে ধৰণৰ ইন্ধন ব্যৱহাৰ কৰে? Kerosene ক্ৰাচিন Coal Charcoal Charcoal Wood 7
কৈনে ধৰণৰ ইন্ধন ব্যৱহাৰ কৰে? Coal
ব্যৱহাৰ কৰে? Coal
Coal
কয়লা Charcoal
Charcoal
কাঠকমূলা Wood7
Wood7
ু কাঠ ১ ৫ ৫ ৫
Straw/Grass/leaves
(থৰ/ঘাঁহ/পাত
Agricultural crop waste9
ক্ষিজাত শস্যৰ আৱৰ্জনা
Cowdung/dung cake10
গোবৰ/গোবৰ কেক
Other (Specify) অন্যান্য (উল্লেখ কৰক)
607. How much time is
required to get your Minutes
fuel? মিলিট
ইন্ধন লাভ কৰিবলৈ
কিমাল সম্মৰ
প্রয়োজন হয়ঃ
608. What is the main Electricity
source of lighting in the
evening of your house? LPG Petromax
আপোনাৰ পৰিয়ালৰত এলপিজি পেট্ৰোমেক্স
সন্ধিয়া সময়ত্ Bio Gas-Based Light
পোহৰৰ মু্থ্য উৎস কি বায়ো গেছ–আধাৰিত পোহৰ



	E370	Caloudiaha 4
	इ.स.?	Solar Light4 চলাৰ লাইট
		Kerosene Oil Lamp5
		কেৰাচিন তেলৰ লেম্প
		Other (Specify)
		অন্যান্য (উল্লেখ কৰক)
CON	SUMER DURABLE ASSETS	(Both 1 and 2) উপভোক্তা সামগ্ৰীসমূহ (১ আৰু ২ দুয়োটা)
701.	Do you have consumer	Sewing machine1
	durable assets?	চিলাই মেচিল
	আপোনাৰ উপভোক্তা	Refrigerator2
	শ্বায়ী সম্পদ আছে	ৰেক্ৰিজেৰেটৰ
	নেকি ? (Multiple)	Washing Machine3
		রাচিং মেচিন
		Almirah4
		আলমাৰী
		Kerosene stove5
		কেৰাচিন ষ্টোভ
		Cookstove/Oven6
		কুকষ্টোভ/অভেন
		Bicycle
		চাইকেল
		Manual Rickshaw8
		মেনুৱেল ৰিক্সা
		Motorized Two-wheeler9
		মটৰচালিত দুচকীয়া বাহন
		Car/jeep/tempo/mini-truck/truck/10
		গাড়ী/জীপ/টেম্পো/মিনি-ট্রাক/ট্রাক
		Motorized 3-Wheeler (including E-Rickshaw)11
		মটৰচালিত 3-হুইলাৰ (ই-ৰিক্সা সহ)
		Landline Telephone
		লেণ্ডলাইন টেলিফোন
		Mobile phone13



		ম'বাইল ফোন	
		Television	.14
		টেলিভিচন	
		VCR / CD /DVD player	.15
		ভিচিআৰ / চিডি /ডিভিডি প্লেয়াৰ	
		Electric fan	.16
		ইলেকট্রিক ফেন	
		Computer/laptop	.17
		কম্পিউটাৰ/লেপটপ	
		Pressure cooker	.18
		প্ৰেছাৰ কুকাৰ	
		Cooler	.19
		কুলাৰ	
		Air Conditioner	.20
		এ্যাৰ কণ্ডিচনাৰ	
		Radio/Transistor	.21
		ৰেডিঅ'/ট্ৰেঞ্জিষ্টৰ	
		LPG Cylinder	.22
		এলপিজি চিলিণ্ডাৰ	
		TATA Sky/ Set top box/satellite disc/Cable TV	.23
		টাটা স্কাই/ ছেট টপ বক্স/ছেটেলাইট ডিস্ক/কেবল টিভি	
		Gold	.24
		সোণ	
		Silver	.25
		बृश	
		Other (Specify) অন্যান্য (উল্লেথ কৰক)	
MIGR	ATION (Both 1 and 2) 33	জন(১ আৰু ২ দুয়োটা)	· · · · · ·
801.	Has anyone in the	Yes1	If No,
	family resided outside	হ্ম	Go to
	the village/	No2	The
	panchayat/region	नर्म	Next
	continuously for 15		Section



	days or more for work? (Last FY year) পৰিমালৰ কোনোবাই কামৰ বাবে 15 দিল বা তাতোকৈ অধিক সম্ম নিৰন্তৰভাৱে গাওঁ/পঞ্চামত/অঞ্চলৰ বাহিৰত বাস কৰিছে নেকি? (মোৱা বিত্তীম বৰ্ষত)		যদিহে নহম, পৰৱৰ্তী শাখালৈ যাওক
802.	What are the reasons for migration? প্ৰৱজনৰ কাৰণবোৰ কি আছিল? (Multiple) (একাধিক উত্তৰ)	Unavailability of work in Village	.3
803.	For what type/s of work he goes outsides কি ধৰণৰ কামৰ বাবে তেওঁ বাহিৰলৈ যায়	Other (Specify) অন্যান্য (উল্লেখ কৰক) Unskilled worker (Construction labour, loader, house help, caretaker, watchman, etc) অদক্ষ শ্রমিক (নির্মাণ শ্রমিক, লোডাৰ, ঘৰুৱা সহায়ক, কেয়াৰ্টেকাৰ, ৱাটচ্মেন ইত্যাদি) Skilled worker (carpenter, plumber, driver, mason, mechanic) দক্ষ কর্মী (কাঠমিব্রী, প্লাম্বাৰ, ড্রাইভাৰ, মিব্রী, মেকানিক) Entertainment industry (circus or plays) মনোৰপ্তন উদ্যোগ (চার্কাচ বা নাটক) Farming /Agriculture labour	.1 .2 .3
		Services (job)	.5



		1	_						T	
		সেৱাসমূহ (চা								
		Self-employed	d professional .	•••••				•••••	6	
		শ্ব–নিয়োজিত	–ি ৰি য়োজিত পেছাদাৰী							
		Housemaid	ousemaid7							
		হাউচমেইড								
		Petty trader/	shop owner				•••••		8	
		ষ্ণদ্ৰ ব্যৱসায়ী	/ দোকাৰৰ গৰ	াকী						
804.	What are the places								1	
	they migrate to	ব্লকৰ বাহিৰত								
	তেওঁলোকৈ প্রব্রজন						••••		2	
	কৰা ঠাইসমূহ কি কি	জিলাৰ বাহিৰ							_	
							••••		3	
		ৰাজ্যৰ বাহিৰ								
805.	Does he remit money?	Yes							1	
	তেওঁ ঘৰলৈ টকা প্ৰেৰণ	হ্য								
	কৰে নেকি?	No							2	
	***************************************	নহয								
806.	If yes, how much does	IN Rupees								
	he remit to the HH,					•••••	•••••			
	annually? যদিহে হ্যু,	টকাত								
	তেওঁ পৰিয়ালটোলৈ									
	বছৰত কিমান টকা									
	(প্ৰৰণ কৰে?									
6000	* ***									
	S GROWN (Both 1 and 2					T	T	,		
901.	Please tell us the	MULTIPLE	Total Area	Irrigated	Area	Total	The average	The cost/	Income =	
	income of the crops	RESPONSES POSSIBLE	Cultivated	Under each	Cultivated	Production	rate of the	Expenditure	(Total	
	grown last year after harvest net of all	UNDER	under each Season (In	season (In Bigha)	under HYV (In Bigha)	in the cultivated	produce per	incurred under each	Production * Market	
	expenses	EACH CROP	Bigha)	(iii bigiid)	(in bigna) এইচ ৱাই	area in	kg by season in	row	Price)-Cost	
	অনুগ্ৰহ কৰি সকলো	প্রতিটো	প্রতিটো প্রতিটো	জল সিঞ্চিত	এংচ শ্বাং ভি-ৰ	each season	rupees	প্রতিটো	(Auto	
	থৰ্চ বাদ দি শস্য			প্রতিটো		in kgs	টকাত ঋতৃ	শাৰীৰ	calculate	
	495 9 1 1 17) 	শস্যৰ	ঋতুৰ	នា២៤រ	অধীনত	কিগ্ৰা.ত	অনুসৰি	- ।।व।व	row and	
							~ ત્રુપાત			



চপোৱাৰ পিচ্ছত মোৱা বছৰ উৎপন্ন হোৱা শস্যৰ মুঠ উপাৰ্জন কিমান আছিল কওঁক	অধীনত একাধিক উত্তৰ সম্ভৱ	অধীনত খেতি কৰা মুঠ এলেকা (বিঘাত)	ঋতুৰ সময়ত (বিঘাত)	খেতি কৰা এলেকা (বিঘাত)	প্ৰতিটো ঋতুত খেতি কৰা এলেকাত হোৱা মুঠ উৎপাদন	প্ৰতি কিলোগ্ৰাম উৎপাদনৰ গড় হাৰ	অধীনত হোৱা থৰছ/ ব্যম	total) উপার্জন=(মু ঠ উৎপাদন * বজাৰ মূল্য)-ব্যম (শ্বমং গণনা শাৰী আৰু সর্বমুঠ)
Paddy धान	Kharif=1 থাৰিফ=1 Rabi=2 ৰবি=2 Boro=3 বড়ো=3 Not Applicable=4 প্রযোজ্য নহম্							
Maize ऒोंक	Kharif=1 থাৰিফ=1 Rabi=2 ৰবি=2 Boro=3 বড়ো=3 Not Applicable=4 প্রযোজ্য নহম্							
Pulses মাহজাতীয় শস্য	Kharif=1 থাৰিফ=1							



	, 	
	Rabi=2 बिव=2	
	Boro=3	
	বড়ো=3	
	Not Applicable=4	
	প্রযোজ্য	
	नर्	
	Kharif=1	
	থাৰিফ=1	
	Rabi=2	
	ৰবি=2	
Potato	Boro=3	
আলু	বড়ো=3	
	Not Applicable=4	
	প্রযোজ্য	
	बर्ग	
	Kharif=1	
	থাৰিফ=1	
	Rabi=2	
AA	ৰবি=2	
Mustard সৰিম্হ	Boro=3	
אקאווי	বড়ো=3	
	Not Applicable=4	
	প্রযোজ্য	
	बर्ग	
Other Spices &	Kharif=1	
Condiments	থাৰিফ=1	
অন্যান্য মচলা আৰু	Rabi=2	



মছলা	ৰবি=2			
	Boro=3			
	বড়ো=3			
	Not			
	Applicable=4			
	প্রযোজ্য			
	नर्ग			
	Kharif=1			
	থাৰিফ=1			
	Rabi=2			
Vegetable other than	ৰবি=2			
potato আলুৰ বাহিৰে আন পাচলি	Boro=3			
आधूव या। राव आण	বড়ো=3			
าเดเต	Not			
	Applicable=4 প্রযোজ্য			
	নহয় Kharif=1			
	থাৰিফ=1			
	Rabi=2			
Fruits	ৰবি=2			
ফলমূল	Boro=3			
100	বড়ো=3			
	Not Applicable=4			
	প্রযোজ্য			
	नर्			
	Kharif=1			
Fodder	থাৰিফ=1			
পশু থাদ্য	Rabi=2			
	ৰবি=2			



LIV/FC	TOCK & DO	III TDV (Dl. 1	Boro=3 বড়ো=3 Not Applicable=4 প্রযোজ্য নহয়						
902.				মাৰু হাঁহ-কুকুৰা পালন Income) পশুধনৰ মালি			ন)		
	Numbers Owned Particulars Nilk=1, Meat=2			Output 2 Selling of Animals=3, Eggs: ংস=2 পশু বিক্রী=3, কণী=4	Re =4 IN Rs	evenue s. ৰাজহ টকা	Cost দাম		Income= evenue - Cost উপাৰ্জন= ৰাজহ - ব্যম
	Cattle গৰু Buffaloes ম'হ								
	Goats ছাগলী								
	Pigs গাহৰি Poultry হাঁহ-কুকুৰা Others								
	আন্যান্য								
ORCH 903.	Details of Nut bearin (Income is Income net expenses) ফল-মূল ই উভ্পাদনৰ	Fruit and ng Trees the annual	PS AND AGROFO Type of plants উদ্ভিদৰ প্ৰকাৰ	ORESTRY (Both 1 and 2 Areas Covered in Bigha (Auto-convert to Ha) বিঘাত আৱৰি থকা এলেকাসমূহ (হেক্টৰলৈ শ্বমংক্রিমভাবে	Number of Trees গছ/উদ্ভিদৰ সংখ্যা	ৰাপণ শস্য আৰু Years Started আৰম্ভ কৰা বছৰ	কৃষি বলালীকৰণ Cost/ Expenses Incurred দাম/ব্যুম্	(১ আৰু ২ দুমোট Revenue/ Earning ৰাজহ/ উপাৰ্জন	ী) Income উপার্জন



		1					,				
	সকলো ব্যয়ৰ বাৰ্ষিক উপাৰ্জনৰ নেট)	Fruit Trees ফলমূলৰ গছ									
	G 110141 (410)	Nut Bearing									
		Trees									
		বাদামৰ গছ									
		Rubber									
		ৰবৰ									
		Tea									
		চাহ									
		Coffee									
		কফি									
		Sal									
		শাল									
		Teak									
		চেগুৰ									
		Other (specify									
		অন্যান্য 🧷									
		(উল্লেখ কৰক									
		None									
FISHER	RY (Both 1 and 2) কিছাৰ	(১ আৰু ২ দুয়োট	ो)								
904.	What is the pond or	In Bigha		•••••				•••••			
	water body area you	'_	(Autocorrect to Ha)								
	do fishery?	বিঘাত						•••••			
	আপুৰি মীনপালন কৰা	((স্ব্যুংক্রিয় ৰূপা	ন্তৰ হেক্টৰ লৈ))								
	পুখুৰী বা জলভাগৰ	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,								
	অঞ্চলটো কিমান হয়?										
905.	Details of the fishery	Type of Fish	Quantity	Price per Kg	Total Return	Total Cost for the por	d for	Income			
	operations last year	মাছৰ প্ৰকাৰ	Produced	প্রতি	মুঠ ৰিটাৰ্ণ	Dewatering and desil		উপাৰ্জন			
	(income is net of all		(Kg)	কিলোগ্রামত		seed, Cow Dung, Ure					
	expenses)		উৎপাদিত	মূল্য		feed (Pellets), Labour	Wages, Other				
	যোৱা বছৰৰ মীল		পৰিমাণ	ヹ "		costs	C C				
						পানী নিষ্কাশন আৰু প	ाल विश्वागन,				



পালন কাৰ্মৰ বিৱৰণ	(কিলোগ্রামত	চূণ, মাছৰ বীজ, গৰুৰ গোবৰ,
(উপাৰ্জন হৈছে সকলো	}	ইউৰিয়া, এছএছপি, মাছৰ থাদ্য
ব্যয়ৰ মুঠ)		(পেলেট), শ্ৰমিকৰ মজুৰি, অন্যান্য
		(পেলেট), শ্ৰমিকৰ মজুৰি, অন্যান্য ব্যয়ৰ বাবে পুখুৰীৰ সৰ্বমুঠ ব্যয়
	Rohu ৰৌ	
	Catla কাটলা	
	Mrigal মৃগাল	
	Silver Carp চিলভাৰ কাৰ্স	
	Grass Carp গ্রাছ কার্প	
	Common Carp কমন কার্প	
	Small Carp and other	
	local species (Mola, Cheniputhi,	
	Chela, Dhela, etc.)	
	সৰু কাৰ্প আৰু অন্যান্য	
	শ্বানীয়	
	প্রজাতি (মোৱা,	
	চেনিপুঠি,	
	চেলা, ধেলা ইত্যাদি)	



		1	1	T	1			
		Tilapia						
		টিলাপিয়া						
		Rupchanda						
		প্রদা						
		Other						
		(Specify)						
		অ ৰ ্যাৰ্য						
		(উল্লেখ ৰক)						
NON-	TIMBER FOREST PRODUC	E (Both 1 and 2)	কাঠবিহীন বনজ	্ উৎপাদন (১ ত	াৰু ২ দুয়োটা)			
906.	NTFP Output and Earning	g – Output and		d = 1/Not	Consumed =1	, Sold=2, Both =3	Earnings from the	e amount sold
	Earnings	_ ,		ted=2	খোৱা =১,বিএ	লী=২, দুয়োটা =৩	বিক্ৰী হোৱা পৰিম	ণ ৰ
	এনটিএফপি আউটপুট অ		সংগ্ৰহ কৰা হৈছে				পৰা উপাৰ্জন	
	উৎপাদন আৰু উপাৰ্জনত	cs	কৰা হোৱা নাই	=2				
	Fruits							
	ফলমূল							
	Nuts							
	বাদাম							
	Fung							
	ফাং							
	Fibres							
	ফাইবাৰ							
	Medicinal Plants							
	ঔষধি উদ্ভিদ							
	ornamental plants							
	আলংকাৰিক উদ্ভিদ							
	Mosses							
	শেলুৱৈ							
	dyes,							
	ডাইড							
	resins,							
	ধৃৰা গছ							



	Gums আঠা উত্পাদন কৰা গছ			
	fuel-wood			
	ইন্ধন-কাঠ			
	Charcoal			
	কাঠক্য়লা			
	Leaves as fodder			
	পশুথাদ্য হিচাপে পাত			
	Honey,			
	মৌ			
	Fish, Animals Hunted and other ani	mal		
	products			
	মাছ, জীৱ-জক্ত চিকাৰ কৰা আৰু			
	অন্যান্য পশুজাত সামগ্ৰী			
WAG	E LABOUR (Both 1 and 2) মজুৰি শ্ৰা	মক (১ আৰু ২ দুয়োটা)	-	
907.	Receipts from Wage labor	Days worked per year for all household	Rate per day/ Average হাৰ/ৰেট	Total Earned
	শ্ৰমিকৰ মজুৰীৰ পৰা লাভ কৰা	members	. , , ,	মুঠ উপাৰ্জন
	-	প্ৰতি বছৰে কাম কৰা দিলসমূহ		
	1 V 53			
	1.Yes इ.ग			
	2.No ครุง			
907A	Please tell if any member of household	Yes হ্ য়		1
	earn/receive income from any other sources like pension, scholarship,	No নহ য়		2
	remittances, etc. If yes, mention the	IN D		
	amount?	IN Rupees টকাত		
	ঘৰৰ কোনো সদস্যই আন কোনো উৎস	। ७५।७		
	যেনে পেঞ্চন, বৃত্তি, ৰেমিটেন্স ইত্যাদিৰ পৰা			
	উপাৰ্জন/ লাভ কৰে নেকি অনুগ্ৰহ কৰি			
	জনাওক।			
	please also include if any remittances mentation in Q806			
	memanon in wood			



TOTA	L INCOME মুঠ উপার্জন		
908.		IN Rupees টকাত	
TOTA	L EXPENDITURE OF THE HH (Both	1 and 2) পৰিয়ালটোৰ সৰ্বমুঠ ব্যয় (১ আৰু ২ দুয়োটা)	
909.	How much do you expend on consumables (groceries), School fees, tuition fees electricity, mobile bill, regular medicine and other expenditures to run the HH in a month? পৰিয়াল চলাবলৈ আপুনি এমাহত ব্যৱহাৰযোগ্য সামগ্ৰী (গেলামালৰ), বিদ্যালয়ৰ মাচুল, টিউচন মাচুল বিদ্যুৎ, মোবাইল বিল, নিয়মীয়া ঔষধ আৰু অন্যান্য ব্যয়ৰ ওপৰত কিমান থৰছ ক্ৰে?	In Rupees উকাত	
910.	What was your expenditure last year on festivals, family occasions (marriage etc.)? উৎসৱ, পাৰিবাৰিক অনুষ্ঠানত (বিবাহ ইত্যাদি) যোৱা বছৰ আপোনাৰ কিমান ব্যুম হৈছিল?	In Rupees টকাত	
911.		In Rupees টকাত	



912.	AUTO CALCULATE	In Rupees	
	=Q909*12+Q910+Q911		
	শ্বয়ং গণনা	টকাত	
	=Q909*12+Q910+Q911		
SAVIN	IGS & CREDITS (Both 1 and 2) সং	ট্য আৰু ঋণ ৰ	
(১ আ	ৰু ২ দুয়োটা)		
	Do you save any amount?	Yes1	
	আপুনি কোনো ধন জমা কৰে	হ্ম	
	নেকি?	No	
	Coll Ast	नर्ग	
1002	What is the amount saved last	In Rupees	
1002.	year?	in ropees	
	যোৱা বছৰ সঞ্ম কৰা ধনৰ	টকাত	
	পৰিমাণ কিমান আছিল?		
1000			
1003.	Where did you save?	SHG	
	আপুনি ক'ত সঞ্ম কৰিছিল?	আল্প সহায়ক গোট	
		Banks (other than SHG)	
		বেঙ্ক (আত্ম সহায়ক গোটৰ বাহিৰে)	
		Post office3	
		ডাকঘৰ	
		Mutual funds4	
		মিউচুরেল ফাণ্ড	
		Shares /Stocks	
		খে্মাৰ টেক	
		Land6	
		ভূমি	
		Gold7	
		সোণ	
		Other (Specify) অন্যান্য (উল্লেখ কৰক)	
1004.	Did you take loans in the last 3	Yes	
1004.	years?		
	, 5 6.5.	হ্ম	



	আপুনি যোৱা 3 বছৰত ঋণ লৈছিল নেকি?	No គহ រុ					2
1005.	If yes, how many loans did you take in the last 3 years? যদিহে হ্ম, যোৱা 3 বছৰত আপুনি কিমান কিমানবাৰ ঋণ লৈছিল?	Numbers কিমাৰবাৰ	ৰ (সংখ্যাত)				
1006.	Please tell me the details of the loans অনুগ্ৰহ কৰি ঋণৰ বিৱৰণ দিওঁক	LOANS ৠণ	From where did you take the loan? SHG =1, Banks=2, MFI=3, Moneylenders =4, Friends & Relatives =5, Other (Specify আপুনি ঋণটো ক'ৰ পৰা লৈছিল? আস্প্ৰসহায়কগোট =1, বেংক=2, মাইক্ৰফাইনান্স=3, মানি লেণ্ডাৰ =4, বন্ধু আৰু আস্প্ৰীয় =5, অন্যান্য (উল্লেখ কৰক)	Has the loan been repaid or continuing? Repaid = 1 Continuing = 2 ঋণটো পৰিশোধ কৰা হৈছে নে অব্যাহত আছে? পৰিশোধ কৰা হৈছে = 1 চলি আছে=2	Amount of Loan taken লোৱা ঋণৰ পৰিমাণ	What was the rate of interest of the loan Yearly বছৰত ঝণৰ সূতৰ হাৰ কিমান আছিল	Time period of Loan (In Months) NA=88 NA=88 NA= NATION NA=88 NATION NA=88
		Loan 1 ঋণ 1					
		Loan 2 ঋণ 2					
		Loan 3 ঋণ 3					
1007.	Did you take loans in the last 3 years? আপুনি যোৱা 3 বছৰত ঋণ লৈছিল নেকি?	Yes No					2



GOVE	RNMENT ENTITLEMENT (Both 1 a	nd 2) চৰকাৰী অ	ধকাৰ (১ আৰু ২ দুয়োটা)		
	Have you /Your HH got NREGA card? আপুনি /আপোনাৰ পৰিয়ালে এনৰেগা কাৰ্ড লাভ কৰিছে নেকি?	Yes হয় No নহয়			2
	If yes, Number of days worked? যদিহে হ্ম, কিমান দিন কাম কৰিছিল?	Number of days দিনৰ সংখ্যা			
1103.	IF MORE THAN 0 in 1102, Number of days payment received? যদিহে 1102-ত 0 তকৈ অধিক হয়, পেমেন্ট লাভ কৰা দিনৰ সংখ্যা?	Number of days দিনৰ সংখ্যা			
1104.	Have you got a ration card? আপুনি ৰেচন কার্ড লাভ কৰিছে নেকি?	Yes २ . No			2
	Have you got a Aadhaar Card? আপুনি আধাৰ কার্ড লাভ কৰিছে নেকি? Have you got a PAN Card? আপুনি পান কার্ড লাভ কৰিছে	Yes ૨ ૫ No ㅋ૨ ૫ Yes ૨ ૫			2
1107.	ৰেকি? Items purchased and quantity	No নহ ্ম Items	Bought in the last 3 months	The total amount bought in last 3	Price Paid, if any (in
110/.	Purchased	সামগ্রীসমূহ	Yes=1, No=2 (यादा 3	months (in kg) যোৱা 3 মাহত ক্র্য	Rs.) মূল্য পৰিশোধ



	ক্ৰম কৰা সামগ্ৰী আৰু ক্ৰম কৰা পৰিমাণ			কৰা হৈছে হয়=1, হয়=2	কৰা মুঠ পৰিমাণ (কে	জিত)	কৰা হৈছে, যদিহে থাকে (টকাত)
		Rice চাউল					1101 (5115)
		Kerosene কেৰাচিন					
		Wheat ঘেঁহু					
		Grains শস্য					
		Sugar (हबी					
		Other (Specify) অন্যান্য					
		(নিৰ্দিষ্ট কৰক)					
1108.	Do you have these BPL cards (Multicolored cover page)? আপোনাৰ ওচৰত এইধৰণৰ বিসিএল কাৰ্ড আছে নেকি (বহুৰঙী কভাৰ পৃষ্ঠা)?	Antyodaya Anno অন্তধ্যমা অন্ন যে Priority Househol	া <mark>জনা (এএৱা</mark> ld (PHH) Ratio	ই) ৰেচন কাৰ্ড			
ACCES	SS TO SERVICES (Both 1 and 2) C	৷ দৱাসমূহৰ প্ৰৱেশা	ধিকাৰ (১ আ	ৰু ২ দুয়োটা)			
1201.	Do you or your household have access to these services	Service সেৱা				যদিহে হয়	
	আপোনাৰ বা আপোনাৰ পৰিয়ালে এই সেৱাসমূহ লাভ কৰিছে নেকি	(2141)			Where provided Within the village =1, Within 5 Km =2, More than 5 kms=3 ক'ত প্ৰদান কৰা হৈছিল	Daily =1 Fortnight Annually: use= 7, 1	requency of Use , Weekly=2, ly=3, Monthly =5, =6, Never use/Don't NA for non-user=88
					গাওঁথনৰ ভিতৰত =1, 5		ৰ সঘৰতা ক =1, সাপ্তাহিক=2,



	কিমি =2 ৰ ভিতৰত, 5 কিমিতকৈ অধিক=3	পাক্ষিক=3, মাহিলী =5, বাৰ্ষিক=6 কেতিয়াও ব্যৱহাৰ কৰা নাই/ব্যৱহাৰ নকৰে = 7, ব্যৱহাৰ নকৰাসকলৰ বাবে প্ৰযোজ্য নহয়=88
Agricultural extension Services কৃষি সম্প্রসাৰণ সেৱাসমূহ		
Education (Primary School) শিক্ষা (প্রাথমিক বিদ্যাল্ম)		
Education (Secondary school) শিক্ষা (মাধ্যমিক বিদ্যাল্ম)		
Education (Higher Secondary School) শিক্ষা (উচ্চতৰ মাধ্যমিক		
বিদ্যাল্ম) Education (College) শিক্ষা (মহাবিদ্যাল্ম)		
Health sub-centre শ্বাস্থ্য উপ-কেন্দ্ৰ		
Health (PHC) স্বাস্থ্য (পিএইচচি) Health (CHC)		
মাস্য (চিএইচচি) Health (Districts Hospital)		
শ্বাস্থ্য (জিলা চিকিৎসাল্ম) VETERINARY SERVICES		
Health Camp পশু চিকিৎসা সেৱাসমূহ		
শ্বাস্থ্য শিবিৰ		



	VETERINARY SERVICES		
	Al services		
	পশু চিকিৎসা সেৱাসমূহ		
	এআই সেৱাসমূহ		
	Credit Facilities (Bank / financial		1
i	nstitution etc)		
	ক্রডিট সুবিধাসমূহ		
	FARM INPUTS - HYV Seeds		
	দাৰ্ম ইনপুট - এই চ ৱাই ভি		
	বীজ		
	FARM INPUTS - Fertiliser		
	দাৰ্ম ই লপু ট - সাৰ		
	FARM INPUTS - Pesticides		
	फार्म रेन পूট - कीটनाশक		
	FARM INPUTS - Weedicides		
	দাৰ্ম ইনপুট - অপতৃণনাশক		
	ARM INPUTS - Diesel		
	দাৰ্ম ইনপুট - ডিজে ল		
	MARKET FOR FARM PRODUCE -		
	Crops কৃষিজাত সামগ্ৰীৰ		
	বজাৰ - শস্য		
	MARKET FOR FARM PRODUCE -		
	Orchard Output		
	কৃষিজাত সামগ্ৰীৰ বজাৰ -		
	বাগিচাৰ আউটপুট		
	MARKET FOR FARM PRODUCE -		
	ivestock কৃষিজাত সামগ্ৰীৰ		
	বজাৰ - পশুধন		
	MARKET FOR FARM PRODUCE -		1
	ishery কৃষিজাত সামগ্ৰী ৰ		
	বজাৰ - মীন পালন		
	MARKET FOR FARM PRODUCE -		
	Non-Timber Forest Products		



		(NTFP) কৃষিজাত বজাৰ - কাঠবিই সামগ্ৰী (এনটিএফ Mobile Connectiv ম'বাইল সংযোগ- ATM &/BANK এটিএম আৰু বেম্ধ WORKSHOP FO MACHINERY/VEH যন্ত্ৰ/বাহনৰ বাবে	ोन वनज िम) vity-Offices -कार्यालय R HICLES					
	self-sufficient?	নিৰ্ভৰশীলতা (১ অ Areas /Items এলেকা /সামগ্ৰী	াৰু ২ দুমোটা) Round the year বছৰটোৰ	9-11months 9-11 মাহ	8-9 months 8-9 মাহ	3-6 months	Below 3 months 3 মাহৰ তলত	,
	কোনটো ক্ষেত্ৰত আপুনি শ্বাৱলম্বী হয়?	Food খাদ্য	সকলো সম্যতে			3-6 মাহ		
		Fodder পশুথাদ্য						
		Fuel ইন্ধন						
		Drinking Water থোৱা পানী						
		Employment নিযুক্তি						
OTHER	R QUESTIONS ON IMPROVED AC	GR PRACTICES (Bot	h 1 and 2) উন্নত এ	এজিআৰ অনুশীল	ানৰ ওপৰত অন্যান	া্য প্ৰশ্ন (১ আৰু	২ দুয়োটা)	
1401.	Has the household used the new technology for farming? পৰিয়ালটোৱে খেতিৰ বাবে নতুন প্ৰযুক্তি ব্যৱহাৰ কৰিছে	Yes হয় No					2	If No, Go to Q1406 यपि
	নেকি?							নহয়,



			তেন্তে যাওক প্রম ১৪০৬
1402.	IF YES, who provided the technology? যদিহে হ্ম, প্ৰযুক্তিটো কোনে প্ৰদান কৰিছিল?	Agriculture Department	
1403.	Did they demonstrate the technology in the village or nearby? তেওঁলোকে গাওঁখনত বা ওচৰৰ প্ৰযুক্তি প্ৰদৰ্শন কৰিছিল নেকি?	Yes	
1404.	Did it help the household to earn more? এইটোৱে পৰিয়ালটোক অধিক উপাৰ্জন কৰাত সহায় কৰিছিল নেকি?	Yes	
1405.	Has the household adopted the following practices? পৰিয়ালটোৱে নিম্নলিখিত পদ্ধতিসমূহ গ্ৰহণ কৰিছে নেকি?	Integrated Nutrient Management	



		Not Adopted4 গ্ৰহণ কৰা হোৱা নাই
1406.	Are you aware of Climate change?	Yes1 इ.य
	আপুনি জলবামু পৰিৱৰ্তনৰ বিষয়ে জানে নে?	No2 बर्ग
1407.	change?	Change in weather conditions1 বতৰৰ পৰিশ্বিতিৰ পৰিৱৰ্তন
	জলবামু পৰিৱৰ্তনৰ অৰ্থ কি? Multiple options	Heavy Rainfall2 ধাৰাসাৰ বৰষ্ণ
		Scarce Rainfall
		Change of season4 ঋতুৰ পৰিৱৰ্তন
		Drought5
		Storm /Cyclones6 ধুমুহা /ঘূণীবভাহ
		र्भूदा / मृनापडार Flood7 वाबशाबी
		Other (Specify)
		অন্যান্য (উল্লেখ কৰক)
1408.	Has any of them received	Yes1
	training on agricultural	হয়
	practices? তেওঁলোকৰ কোৰো	<u>No</u>
	এজনে কৃষি পদ্ধতিৰ ওপৰত	नर्
	প্ৰশিক্ষণ লাভ কৰিছে নেকি?	
1409.	,	Agriculture Department1
	training on improved agricultural practices?	কৃষি বিভাগ
	উন্নত কৃষি পদ্ধতিৰ ওপৰত	Assam Agricultural University
	আপুনি ক'ৰ পৰা প্ৰশিক্ষণ লাভ	অসম কৃষি বিশ্ববিদ্যাল্য
	আমুল কৰ বৰা গ্ৰাম্ফণ গাঙ	ATMA3



	কৰি(ছ?	আস্লা/এটিএমএ								
	Multiple options	IRRI	IRRI4							
		আই আৰ আৰ অ	াই							
		Other (Specify)								
		অন্যান্য (উল্লেখ	কৰক)							
1410.	Are you a member of any		•••••		•••••	•••••	•••••	1		
	Farmer's Collective / Cluster?	इ .स						_		
	আপুনি কোনো কৃষকৰ সমষ্টি /		•••••		•••••	•••••	•••••	2		
2 42 2	ক্লাষ্টাৰৰ সদস্য হয় নেকি?	নহ য়	T = .		T	T 5	C			
1411.	What are the machineries used for the different stages of	Stages of Cultivation	Tractor ট্ৰেক্টৰ	Power tiller পাৱাৰ টিলাৰ	Combine কম্বাইন	Rotavator ৰোটাভাটৰ	Shallow Tube	None		
	cultivation?	থেতিৰ স্তৰ	(প্ৰকৰ	শাৱাৰ টেলাৰ	কথা২ণ	ৰোটাভাটৰ	অগভ <u>ী</u> ৰ	এটাও		
	থেতিৰ বিভিন্ন পৰ্যায়ৰ বাবে কি						টিউব রে ল	নহয়		
	যন্ত্ৰ-পাতি ব্যৱহাৰ কৰা হ ম ়	Land					1004(4)			
	•	Preparation								
		ভূমি প্রস্তুতি								
		Irrigation of								
		Crops								
		শস্যৰ জলসিঞ্চন								
		Harvesting								
		শস্য চপোৱা								
		Threshing of								
		Crops শস্যৰ খ্ৰেছিং								
1412.	THOSE INVOLVED WITH	াস)ৰ (খ্ৰাহ্ণং Yes	<u> </u>		1			1		
1412.	LIVESTOCK, [Union of the control of	res হয়	•••••	••••••	••••••	•••••	•••••	1		
	পশুধনৰ সৈতে জডিত,	No						2		
	do you carry stall feeding of	নহয়								
	livestock									
	আপুনি পশুধনৰ ষ্টল খোৱা									
	কঢ়িয়াই নিয়ে নেকি									
	Stall feeding of livestock									



1413	means to keep and feed an animal in a stall (inside the shed or house) for keeping them away from grazing outside. Inside the shed or house, the animals are cared and are given controlled feed to have better growth and development of the animals. সত্তধন খোৱা বন্ধ কৰাৰ অৰ্থ হৈছে জক্ত এটাক বাহিৰত চৰাৰ পৰা আঁতৰাই ৰখাৰ বাবে দোকাৰ এখনত (গোহালি বা ঘৰৰ ভিতৰত) ৰখা আৰু খুৱাই দিয়া। খেড বা ঘৰৰ ভিতৰত, জক্তবোৰৰ মন্ধ লোৱা হয় আৰু জীৱ-জক্তৰ উন্ধত বিকাশ আৰু বিকাশৰ বাবে লিয়ন্ত্ৰিত খাদ্য দিয়া হয়।				TOTAL FORDER	
1413.	IF YES, Details of quantity of fodder used, numbers and type of animals (CONSIDER AN AVERAGE FOR ALL AGE GROUPS) যদিহে হয়, ব্যৱহৃত পশুথাদ্যৰ পৰিমাণ, সংখ্যা আৰু প্ৰাণীৰ	Type of animals পশুৰ প্ৰকাৰ Cows	Number of animals জীৱ-জক্তৰ সংখ্যা	Quantity of Fodder usedcccccs per animal in kgs (per month) প্রতিটো পশুৰ বাবে কেজিত ব্যৱহৃত পশুথাদ্যৰ পৰিমাণ	TOTAL FODDER REQUIREMENT (AUTO CALCULATE প্রয়োজন হোৱা সর্বমুঠ পশুথাদ্য (শ্বমং গণনা	
	প্ৰকাৰৰ বিৱৰণ	reduction of the cows				
	(সকলো ব্যুসৰ লোকৰ বাবে	Bulls				
	গড় হিচাপত বিবেচনা কৰক)	ম'হ				
	•	Oxen				
		ষাঁড				
		Buffaloes				



		ম'হ
		Goats
		ष्टागली
		Pigs _
		গাহৰি
		Other (specify)
		অন্যান্য (উল্লেখ কৰক)
1414.	Do you undertake fodder	Yes1
	cultivation?	হয়
	আপুনি পশুথাদ্য থেতি কৰে	No
	লেকি [?]	नर्ग
1415.	If NO,	Get from neighbours and Relatives free
	From where do you source	চুবুৰীয়া আৰু আত্মীয়ৰ পৰা বিনামূলীয়াকৈ লাভ কৰে
	fodder? Multiple options	Buy from the neighbours and relatives2
		চুবুৰীয়া আৰু আত্মীয়ৰ পৰা ক্ৰয় কৰে
	যদি নহ্য়	Buy from the market
	_	বজাৰৰ পৰা ক্ৰয় কৰে
	আপুনি ক'ৰ পৰা পশুথাদ্য	Other (Specify)
	লাভ কৰে?	অন্যান্য (উল্লেখ কৰক)
FOOD	SECURITY (Both 1 and 2) থাদ্য স্	বুৰক্ষা(১ আৰু ২ দুয়োটা)
1501.	Over the past 12 months, was	Yes1
	there always enough food for	হয়
	all family members to have at	No2
	least two full meals every	নহয়
	day?	
	যোৱা 12 মাহত, পৰিয়ালৰ	
	সকলোবোৰ সদস্যই প্ৰতিদিনে	
	কমেও দুবাৰ সম্পূৰ্ণ আহাৰ	
	গ্ৰহণ কৰাৰ বাবে প্ৰতিদিনে	
	পর্যাপ্ত থাদ্য আছিল নে?	



1502.	How many days in the last 12 months there were not enough food? যোৱা 12 মাহত কিমান দিন পর্যাপ্ত থাদ্য নাছিল?	Number of days ————————————————————————————————————
1503.	During the period of food scarcity this past year, how severe was food shortage? মোৱা বছৰ থাদ্যৰ অভাৱৰ সম্মছোৱাত, থাদ্যৰ অভাৱ কিমান গুৰুতৰ আছিল?	We did not eat dal at all
1504.	Do you receive any food items through the Ration/Public Distribution System? আপুনি ৰেচন/ৰাজহুৱা বিতৰণ প্ৰণালীৰ জৰিয়তে কোনো থাদ্য সামগ্ৰী লাভ কৰে নেকি?	Yes
1505.	How frequently do you receive your Ration through Public Distribution System? ৰাজহুৱা বিতৰণ প্ৰণালীৰ জৰিমতে আপুলি কিমান সঘনাই আপোনাৰ ৰেচন লাভ কৰে?	Once a week 1 এসপ্তাহত এবাৰ 2 Once in 15 days 2 15 দিনত এবাৰ 3 Once in month 3 এমাহত এবাৰ 4 More than 4 times in a month 4 এমাহত 4 বাৰতকৈ অধিক



HEALT	H & NUTRITION (Both 1 and 2) 됨	াস্থ্য আৰু পৃষ্টি(১ আৰু ২ দুয়োটা)	
1601.		Yes	If No, Skip to 1605 यपि नश्य , তেৱে ১৬০৫ লৈ
1602.	IF YES, where did they go for OPD services? যদি হয়, তেওঁলোকে অ'পিডি সেৱাৰ বাবে ক'লৈ গৈছিল?	Sub centre 1 উপ কেন্দ্ৰ/চাব চেন্টাৰ PHC 2 পিএইচটি CHC/BPHC 3 চিএইচচি/বিপিএইচটি District Hospital 4 জিলা চিকিৎসালয় Private Qualified doctor 5 ব্যক্তিগত যোগ্যচিকিৎসক Indigenous Health care Provider 6 খলুৱা স্বাস্থ্য সেৱা প্রদানকাৰী Services not sought from OPD 7 আ'পিডিৰ পৰা সেৱা বিচৰা হোৱা নাই Other (Specify) অন্যান্য (উল্লেখ কৰক)	
1603.	lf admitted in hospital, from where did he seek service? যদি চিকিৎসাল্যত ভৰ্তি কৰা হয়, তেন্তে তেওঁ ক'ৰ পৰা সেৱা	Government Hospitals	



	বিচাৰিছিল?	আইপিডিৰ পৰ	া সেৱা বি	চৰা হো	ৱা নাই								
1604.	What amount had to be spent on medicine and consultations for the mentioned illnesses in last 2 months? মোৱা 2 মাহত উল্লেখিত ৰোগবোৰৰ বাবে ঔষধ আৰু পৰামৰ্শৰ বাবে কিমান পৰিমাণৰ ধন ব্যয় কৰিব লগা হৈছিল?	In Rupees টকা	<u>9</u>										
1605.													
	yesterday? প্রাপ্তবমৃদ্ধ আৰু শিশুসকলে কালি নিম্নলিথিত থাদ্যসমূহ থাইছিল নেকি?		All Adults সক লো প্রাপ্তব মুস্ক	Most of the adults বেচ্ছি ভাগ প্রাপ্তব মুশ্ক	Some of the adults কিছু মান প্রাপ্তব	A few adults কেইজ নমান প্রাপ্তব মৃদ্ধ	None of the adults কো লো প্রাপ্তব যুদ্ধ নাই	All Childre n সকলো শিশু	Most of the children বেছিভাগ শিশু	Som e of the child ren কিছু মান	A few childre n কেইটা মান শিশু	None of the children কোনো শিশু নাই	
		Starchy Food (Rice, Roti) শ্বেতসাৰযুক্ত থাদ্য (চাউল, ৰুটি)	1	2	3	4	5	1	2	3	4	5	
		Vegetables শাক-পাচলি	1	2	3	4	5	1	2	3	4	5	
		Fruits ফলমূল	1	2	3	4	5	1	2	3	4	5	
		Dairy (milk, milk products) দুশ্ধজাত	1	2	3	4	5	1	2	3	4	5	



সামগ্ৰী (গাখীৰ, গাখীৰৰ গ ভৈয়াৰ ক সামগ্ৰী)	ৰা ৰা										
Protein (meat, poultry, eq dal, nuts e প্র'টিন (মা হাঁহ-কুকুব কণী দালি বাদাম ইত্যাদি)	ggs tc) १म , 1	2	3	4	5	1	2	3	4	5	
Fat (oil, gl butter) চর্বি (তেল ঘিউ, মাথ	r, ¹	2	3	4	5	1	2	3	4	5	



ANNEXURE - II (VILLAGE QUESTIONNAIRE)

VISION EIS	VILLAGE QUESTIONNAIRE	GEOLOCATION
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SECTION 1 - IDENTIFICATION PARTICULARS চেক্চন 1 - চিনাক্তকৰণৰ বিৱৰণ

	(0 (0 1	10-110-11-11-11-11-11-11-11-11-11-11-11-
101.	Type প্ৰকাৰ	1. Intervention 2. Control 1. হয়ক্ষেপ 2. নিমন্ত্রণ
102.	Name of the District/Project জিলা/প্ৰকল্পৰ নাম	
103.	Name of the Block বক্লৰ নাম	
104.	Name of the GP গাওঁ পঞ্চায়ত/জিপিৰ নাম	
105.	Name of the Revenue /Forest Village ৰাজহ /ফৰেষ্ট ভিলেজ/ গাওঁৰ নাম	
106.	Name of the Habitation বাসস্থানৰ নাম	
107.	Address with the landmark of the Respondent লেণ্ডমাৰ্কৰ সৈতে উত্তৰদাতাৰ ঠিকলা	
108.	Name of the Respondent উত্তৰদাতাৰ নাম	
109.	Name of the Investigator ইনভেষ্টিংগটৰৰ নাম	
110.	Name of the Supervisor চুপাৰভাইজাৰৰ নাম	
111.	Mobile Number of the Respondent উত্তৰদাতাৰ মোবাইল লম্বৰ	
112.	Name of the Micro watershed স্কুদ্ৰ জলভাগৰ নাম	
1		

FIELD CONTROL INFORMATION ফিল্ড নিয়ন্ত্ৰণ তথ্য	INTV START TIME ইন্টাৰভিউৰ আৰম্ভণি
। किछ । वस्तु १७४) ।	সম্য
DATE OF INTERVIEW: / /23	INTV END TIME
সাক্ষাৎকাৰৰ তাৰিথ:/23	ইন্টাৰভিউৰ সমাপ্তি সম্য

Namaskar. My name is We are doing a survey to understand about the livelihood including
agricultural practices, water use, water resources, irrigation etc
নমস্কাৰ। মোৰ নামহ্ম। আমি কৃষি পদ্ধতি, পানীৰ ব্যৱহাৰ, জলসম্পদ, জলসিঞ্চন আদিকে ধৰি
জীৱিকাৰ বিষয়ে বুজিবলৈ এক সমীক্ষা কৰি আছো।
I shall be grateful to you if you can spare some of your valuable time. The interview will help us to provide
useful information for improving the interventions and thereby improve agricultural practices and water

conservation in rural Assam and benefit many farmers:

MEL&D AGENCY 137



যদিহে আপুনি আপোনাৰ কিছু মূল্যৱান সময় আমাক প্ৰদান কৰিব পাৰে তেন্তে মই আপোনাৰ ওচৰত কৃতজ্ঞ হ'ম। সাক্ষাৎকাৰটোৱে আমাক হস্তক্ষেপ উন্নত কৰাৰ বাবে উপযোগী তথ্য প্ৰদান কৰাত সহায় কৰিব আৰু ইয়াৰ দ্বাৰা গ্ৰাম্য অসমত কৃষি পদ্ধতি আৰু পানী সংৰক্ষণ উন্নত কৰিব আৰু বহুতো কৃষকক লাভান্বিত কৰিব:

Please ask for an interview with village head which was prefixed because other household members cannot be substituted

অনুগ্ৰহ কৰি গাওঁ প্ৰধানৰ সৈতে সাক্ষাৎকাৰ এটা লোৱাৰ বাবে অনুৰোধ কৰক যিটো পূৰ্বনিৰ্ধাৰিত আছিল কিয়নো ঘৰৰ আন সদস্যসকলক সলনি কৰিব লোৱাৰিব

ALL YOUR RESPONSES WOULD BE USED SOLELY FOR RESEARCH PURPOSES.

আপোনাৰ সকলোবোৰ উত্তৰ কেৱল গৱেষণাৰ উদ্দেশ্যে ব্যৱহাৰ কৰা হ'ব

Do you agree to participate? আপুনি অংশগ্ৰহণ কৰিবলৈ সন্মত নেং

YES------1 CONTINUE NO-------2 TERMINATE AND EXIT হয়-----1 অব্যাহত ৰাথক লহ্য়------2 সমাপ্ত কৰক আৰু প্ৰস্থান কৰক

AREA & POPULATION DETAILS (Both 1 and 2) এলেকা আৰু জনসংখ্যাৰ বিৱৰণ (1 আৰু 2 দুয়োটা) 215. Please mention Number the number of total সংখ্যা Households in the village অনুগ্ৰহ কৰি গাওঁখনৰ মুঠ পৰিয়ালৰ সংখ্যা উল্লেখ কৰক 216. Please mention the population of the Village অনুগ্ৰহ কৰি গাওঁখনৰ Female. জনসংখ্যা মহিলা উল্লেখ কৰক 217. Please mention Number the population of 0-6 years সংখ্যা অনুগ্ৰহ কৰি 0-6 বছৰৰ জনসংখ্যা উল্লেখ কৰক 218. Please mention the population by religion Islam. অনুগ্ৰহ কৰি ইছলাম ধৰ্মঅনুসৰি Christian খ্রীষ্টান জনসংখ্যা উল্লেখ কৰক Buddhist বৌদ্ধ Jain... জৈৰ



শিথ Other (Specify) অন্যান্য (উল্লেখ কৰক) 219. Please mention SC..... the population অৰুসূচীত জাতি by social ST category অৰুসূচীত জৰজাতি অনুগ্ৰহ কৰি OBC সামাজিক অন্যান্য পিছপৰা শ্ৰেণী শ্ৰেণী অনুসৰি General জনসংখ্যা সাধাৰণ উল্লেখ কৰক Other (Specify) অন্যান্য (উল্লেখ কৰক) 220. Please Mention No. of Landless Households (Households without Farm Land) the Household ভূমিহীন পৰিয়ালৰ সংখ্যা (খেতিপখাৰ অবিহনে পৰিয়াল) of the No. of Women headed Households..... following মহিলাৰ নেতৃত্বত থকা পৰিয়ালৰ সংখ্যা population No. of Households with BPL Cards অৰুগ্ৰহ কৰি বিপিএল কার্ড থকা পৰিয়ালৰ সংখ্যা নিম্নলিখিত পৰিয়াল**ৰ** জনসংখ্যা উল্লেখ কৰক 221. Please mention Number the number of persons সংখ্যা migrated (out) in the last 5 years অনুগ্ৰহ কৰি যোৱা 5 বছৰত প্ৰব্ৰজন কৰা (বাহিৰলৈ) ব্যক্তিৰ সংখ্যা উল্লেখ কৰক 222. Please mention In Ha the area of the village হেক্টৰত অনুগ্ৰহ কৰি গাওঁখনৰ এলেকাটো উল্লেখ কৰক 223. Please Mention Land Classification Area in HA the area by ভমি শ্রেণীবিভাজন হেক্টৰত এলেকা land **Forest** classification ফ(ৰষ্ট (REMARKS ON Area under Non-culturable Use LAND কৃষিৰ ব্যৱহাৰ বাবে অধীন নোহোৱা এলেকা CLASSIFICATI Barren and Un-culturable Land ON IN THE অনুৰ্বৰ আৰু কৃষিৰ অধীন নথকা ভূমি ANNEXURE) অনুগ্ৰহ কৰি Permanent Pastures and other Grazing Lands শ্বামী চৰণীয়া পথাৰ আৰু অন্যান্য চৰণীয়া ভূমি ভূমি Land under Miscellaneous Tree Crop, etc. শ্ৰেণীবিভা**জ**ৰ বিবিধ গছশস্য আদিৰ অধীনত থকা ভূমি



Culturable Waste Land ৰ দ্বাৰা কৃষিৰ আৱৰ্জনা ভূমি এলেকাটো Fallow Lands other than Current Fallows উল্লেখ কৰক বৰ্তমানে শস্য নকৰা মাটিৰ বাহিৰে অন্যান্য শস্য (পৰিশিষ্টত নকৰাকৈ ৰাখি খোৱা মাটি ভূমি Current Fallows শ্ৰেণীবিভা**জ**ন বৰ্তমানে শস্য নকৰাকৈ থোৱা মাটি ৰ ওপৰত Net area Sown cultivable Land মন্তব্য) শস্য সিঁচা নেট এলেকা 224. Please mention Number how many water bodies সংখ্যা are there in the village অনুগ্ৰহ কৰি গাওঁখনত কিমানটা জলাশ্য আছে উল্লেখ কৰক 225. Please mention Total Area of the water bodies approximate জলাশ্য সমূহৰ মুঠ এলেকা area in hectare অনুগ্ৰহ কৰি আৰুমানিক এলেকাক হেক্টৰত উল্লেখ কৰক 226. Rank 3 What are the Rank 1 Rank 2 primary 1. Agriculture & Horticulture (own, shared, Livelihoods of leased in) the কৃষি আৰু উদ্যানপালন (নিজম্ব, ভাগ population? বঁতৰা কৰা, লীজত দিয়া) (MENTION THE 2.Animal Husbandry FIRST THREE পশুপালন **IMPORTANT** 3.Fisheries ONES) মীন পালন জনসংখ্যাৰ 4.Agricultural Labourer প্রাথমিক কৃষি শ্রমিক জীৱিকা কি? 5.Skilled Labour প্ৰেথম তিনিটা দক্ষ শ্রমিক গুৰুত্বপূৰ্ণ বিষ্ম 6.Unskilled Labour (other than Agr. Lab) উল্লেখ কৰক) অদক্ষ শ্ৰমিক (কৃষিৰ বাহিৰে) 7.Petty Business/Enterprise পেটি বিজ্লেছ/এন্টাৰপ্ৰাইজ 8.Salaried (Govt + Pvt) বেতনভোগী (চৰকাৰী + প্ৰাইভেট) 9.Other (Specify) অন্যান্য (উল্লেখ কৰক) 227. How many Number households have received সংখ্যা livelihood support from the project?



	প্ৰকল্পটোৰ পৰা		
	কিমানটা		
	পৰিয়ালে		
	জীৱিকাৰ সহায়		
	লাভ কৰিছে?		
228.	If received	Agriculture (seeds)1	_
	livelihood	কৃষি (বীজ)	
	support, in	Agriculture (Processes -technology)2	
	what areas	কৃষি (প্রক্রিয়া -প্রযুক্তি)	
	are the support given?	Agriculture (irrigation)3	
	যদিহে	কৃষি (জলসিঞ্চন)	
	জীৱিকাৰ	Animal Husbandry4	
	সমর্থন লাভ	পশুপালন ।	
	কৰা হয়,	Fishers	
	ক্ৰা ২২, কোনবোৰ	ফিচাৰী	
		Other (Specify)	
	ক্ষেত্ৰত সমৰ্থন	অন্যান্য (উল্লেখ কৰক)	
	দিয়া হয়?		
AMENI	Multiple TIES (Both 1 and	2)	T
	সমূহ (I আৰু 2 দুয়ে		
229.	Does the	Yes1	
	village have	হ্য	
	Electricity	No 2	
	Subblas	नर्ग	
	গাওঁখনত		
	বিদ্যুৎ যোগাৰ		
	আছে নেকি?		
230.	IF YES,	Number	
	Number of electrified	TOATY	
	households?	সংখ্যা	
	যদিহে আছে,		
	বিদ্যুৎ ব্যৱহাৰ		
	কৰা		
	পৰিয়ালৰ		
	সংখ্যা किमान ?		
231.	Does the	Yes1	_
	village have	হ্য	
	Rural Piped	No 2	
	Water Supply	नर्	
	গাওঁখনত		
	গ্রাম্য		
	পাইপযুক্ত		
	পাৰী যোগাৰ		
	আছে নেকি		
232.	IF YES, Nos. of	Number	
	Households Connected?	TO AITY	
	যদিহে আছে,	সংখ্যা	
	সংযোজিত		
	পৰিয়ালৰ -		
	সংখ্যা কিমান?		
233.	সংখ্যা কিনানং Does the	Yes	
233.	village have	1 = 3	



	l bi i i i		Т .
	Black-topped	इ .स	
	Access Road?	No 2	
	গাওঁখনত ব্লেক–	नर्य	
	টপড এক্সেছ		
	ৰোড আছে		
	নেকি?		
234.	IF NO, Is the	Yes	
204.	village	হ্য	
	connected by	No	
	a metal led		
	road?	নহ্য	
	যদিহে নাই,		
	গাওঁথন		
	মেটেলৰ দ্বাৰা		
	চালিত ৰাস্তাৰ		
	দ্বাৰা সংযুক্ত		
	কৰা হৈছে		
	নেকি?		
235.	Does the	Yes	1
200.	village have a	হ্য	
	Lower Primary	No	
	School?	नर्य	
	গাওঁথনত নিম্ন	יארו	
	প্রাথমিক		
	বিদ্যাল্য আছে		
	নেকি?		
227		1.1	-
236.	IF NO, what is the distance of	In km	
	the distance of the nearest	কিমিত	
	Lower Primary	שייויין	
	School?		
	যদিহে নাই,		
	নিকটতম নিম্ন		
	প্রাথমিক		
	বিদ্যাল্য়ৰ দূৰত্ব		
	কিমান?		
237.	Does the	Yes1	
	village have a	হ্য	
	Secondary	No 2	
	School?	नर्म	
	গাওঁখনত		
	মাধ্যমিক		
	বিদ্যালয় আছে		
	নেকি?		
238.	IF NO, what is	In km	
	the distance of		
	the nearest	কিমিত	
	Secondary		
	School?		
	যদিহে নাই,		
	<u> </u>		
	মাধ্যমিক		
	বিদ্যালয়ৰ দূৰত্ব		
	কিমানং		
	12.011416		
ī	i .	1	1



	7		
239.	Does the	Yes1	
	village have a Higher	হয়	
	Secondary	<u>No</u> 2	
	School?	नर्	
	গাওঁখনত		
	উচ্চতৰ		
	মাধ্ <u>য</u> মিক		
	বিদ্যালয় আছে		
	নেকি?		
240.	IF NO, what is	In Km	
	the distance of		
	the nearest	কিমিত	
	Higher		
	Secondary		
	School?		
	যদিহে নাই,		
	<u> </u>		
	উচ্চতৰ		
	মাধ্যমিক		
	বিদ্যালয়ৰ দূৰত্ব		
	কিমান?		
241.	Is there a	Yes	
241.	Anganwadi	হ্য	
	Kendra?	No	
	অংগৰৱাডী	नर्य	
	কেন্দ্ৰ আছে		
	নেকি?		
242.		NL	
242.	IF YES, please mention the	Number	
	number of	সংখ্যা	
	AWCs in the		
	Village?		
	যদিহে আছে,		
	অনুগ্ৰহ কৰি		
	গাওঁখনত থকা		
	অংগৰৱাদী		
1	কেন্দ্ৰৰ সংখ্যা		
	উল্লেখ কৰিব?		1
243.	Does the village	Yes1	
1	have a	হ্য	
	Subcentre? গাওঁখনত এটা	No 2	
1	চাবচেন্টাৰ আছে	नर्य	
	চাবচেণ্ডাৰ আছে নিকি?		
229A	পোকং IF No, what is	In KM	1
ZZYA	the distance of	III IVII	
1	the nearest		
	Subcentre		
1	অনুগ্ৰহ কৰি		
	চাব–চেন্টাৰৰ		
	সংখ্যা উল্লেখ		
	কৰক (যদিহে		
	চাব-চেন্টাৰ নাই		
	0 লিথক)		
	,		
		•	1



244.	Distance in Km to nearest (IF	Amenities সুবিধাসমূহ		istance in লামিটাৰত	
	WITHIN THE	× ×	140(פוטאווי	নূৰশ্ব
	VILLAGE	Rail Station ৰেল ষ্টেচন			
	WRITE 0 KM)				
	কিমিত	State Highway ৰাজ্যিক ঘাইপথ			
	নিকটতম দূৰত্ব (যদিহে গাওঁৰ	National Highway ৰাষ্ট্ৰীয় ঘাইপথ			
	ভিতৰত থাকে				
	০ কিমি লিখক)	Motorable Road			
	० विशेष (विस्तर)	মটৰ-গাড়ী চলা পথ			
		Post Office			
		ডাকঘৰ			
		Bank বেংক			
		PHC			
		পিএইচচি			
		Community Hospital (30 bedded) কমিউনিটি হস্পিটেল (30 বিচনাযুক্ত)			
		College মহাবিদ্যাল্য			
		Veterinary Centre পশু চিকিৎসা কেন্দ্র			
		Daily Bazar			
		দিনিক বজাৰ			
		Weekly Bazar			
		সাপ্তাহিক বজাৰ			
		10111			
		Agriculture Extension Offices			
0.45) A (1	কৃষি সম্প্ৰসাৰণ কাৰ্যালয়		I D I O	I D I D
245.	What are the	1.Piped water into dwelling/ yard/plot	Rank 1	Rank 2	Rank 3
	main sources of Drinking	সাইপেৰে বাসস্থান/গজ/প্লটলৈ অহা পানী			
	Water?	2.Public tap/ standpipe			
	(FIRST 3)	ৰাজহুৱা টেপ/ ষ্টেণ্ডপাইপ			
	খোৱা পানীৰ	3.Tube well or borehole			
	मूथा উৎসসমূহ	টিউবরেল বা বোৰহোল			
	কি কিং	4.Protected dug well সুৰ্ষ্ঠিত কুঁৱা			
	(প্রথম 3 টা)	5.Protected spring		1	
		্য s.Protected spring সুৰক্ষিত জুৰি			
		6.Rainwater		+	
		বৰ্ষুণৰ পানী			
		7.Tanker truck		+	
		টেংকাৰ ট্ৰাক			
		8.Cart with small tank		1	
		সৰু টেংকৰ সৈতে কাৰ্ট			
		9.Bottled water বটলৰ পানী			
				1	
		10.Community RO plant কমিউনিটি আৰঅ প্লান্ট			
246.	What are the		Rank 1	Rank 2	Rank 3
	Main Sources	1.Electricity বিদ্যুৎ			
	of Fuel for	2.LPG এলপিজি		1	
	Cooking for	3.Bio Gas বায়ো গেছ		1	
	the villagers				



	(FIRST 3)	5.Coal ⁷	ক্য়লা						
	গাওঁবাসীৰ বা	বে 6.Charc	oal কাঠকয়লা						
	ৰন্ধনৰ বাবে	7.Wood	7.Wood কাঠ						
	ইন্ধনৰ মুখ্য	8.Straw	/Grass/leaves (থৰ/	′ঘাঁহ/পাত					
	উৎসসমূহ কি	9.Agricu	ultural crop waste र्का	ষিজাত শস	্যৰ আৱৰ্জনা				
	কি	10.Cow	dung/dung cake গো	বৰ/গোবৰ	িকক				
	(প্রথম 3টা)		er (Specify) অন্যান্য						
247.	What are the	,					Rank 1	Rank 2	Rank 3
27/ •	main sources	1.Oats ·	<u> </u>					1	
	of fodder?		er Grass নেপিয়াৰ গ্ৰা						
	(FIRST 3)		ean ৰাইচ বিন						
	পশুথাদ্যৰ মুখ	τ	edir परित्र । पर्म nanath Grass দीनानाः	ലെ					
	উৎসসমূহ কি		a Grass গিনি গ্রাছ	१ यार					
	কিং (প্রথম	0.000	bea (Leesera) কাও ি	ਕੇ ∕ ਜੀ ਨਤ	τ)				
	3টা)		Ged (Leeserd) কাও । Grass ৰিনা গ্ৰাছ	1 (11(64	1)				
			arass ৰিশা আছ Grass (পৰা গ্ৰাছ						
			Grass (শৰ। গ্ৰাহ্ : /Corn মাকৈ /মাকৈ						
COMA	AON DESOURCE		Y (Both 1 and 2)						
	লতাম KE3OOKC তীয়া সম্পদ সম্								
248.	What are the		Particulars					Are the	re any user
240.	main sources			Months	S Used in the		of HH		es (Yes=1,
	of fodder?				Year	Бепе	fitted	N	o=2)
	পশুথাদ্যৰ মুখ		mon Property						
	উৎসসমূহ কি	Grazin	g Reserve/Ground						
	কিং	Ψ,	Water Bodies Forest (source of NTFP)						
	1111	Forest	Other						
		Priv	rate Property						
			g Reserve/Ground						
			/ater Bodies						
			Other						
			LATED (Both 1 and						
<u>~</u>		ঠিদ্ভিদ সম্পর্ক	ीय़ (1 আৰু 2 দুয়ো	টা)					
249.	Depth of				Summer		Monsoon	-	nter Months
	Water	Month			Months		Months		Oct - Mar
	Table (meters	মাহ			April -June		July-Sept		ণীতৰ মাহ
	below				গ্ৰীপ্সৰ মাহ		मोहूमी मा		াকৌবৰ -
	ground				এপ্রিল –জুন	জু	নাই-ছেপ্টে	শ্বৰ	गार्চ
	level)?		ers below ground I						
	পানীৰ স্তৰৰ	গভাৰতা (ভূমি-স্তৰৰ তলৰ বি	মটাৰ)					
	গভীৰতা								
	(ভূমি–স্তৰৰ								
	তলৰ								
	মিটাৰ) ?								
250.	Has there be	en any soil	Yes		• • • • • • • • • • • • • • • • • • • •			I	1
	erosion in the		হ্য						
	গাওঁখনত কো	লো মাটি	No		•••••			•••••	. 2
	থহনীয়া হৈছে	নেকি?	নহ্য						
251.	-	-			on			•••••	.1
	soil erosion is		বৰষুণৰ টোপাল						
	observed?		Sheet Erosion					•••••	. 2
	যদিহে হয়,কে		শ্বীট থহনীয়া						
	মাটিৰ খহনীয়	া দেখা	Rill Erosion					•••••	.3
	1		1 Con 1 A Con A Co	m					
	যায়?		ৰিল/জুৰি থহনীয়া Gully Erosion 4						



		গলি থহনীয়া Stream Bank Erosion5 ষ্ট্রীম বেঙ্ক থহনীয়া
252.	What is the average rainfall (in mm) last year? যোৱা বছৰ হোৱা গড় বৰষুণ (মিমিত) কিমান?	In mm মিমিত Can't Say
253.	Was there any change in the rainfall pattern in last 3 years? যোৱা 3 বছৰত বৰষুণৰ ধাৰাত কোনো পৰিৱৰ্তন হৈছিল নেকি?	Yes
254.	IF YES, has it increased or decreased? যদিহে হয়, এয়া বৃদ্ধি হৈছে নে হ্ৰাস হৈছে?	Increased1 বৃদ্ধি হৈছে Decreased
255.	Areas under Forest/ Groves in Village (in Ha, etc.) গাওঁত বন/ বাগিচাৰ অধীনৰ এলেকা (হেক্টৰত আদিত)	IN HA হেক্টৰত NO FOREST COVER
256.	IF YES, type of Forest/Grove যদিহে হয়, ফৰেষ্ট/বাগিচাৰ প্ৰকাৰ	Tropical Wet Evergreen 1 উপিকেল ৱেট এভাৰগ্ৰীন Tropical Semi-Evergreen 2 উপিকেল চেমি–এভাৰগ্ৰীন Tropical Moist Deciduous 3 উপিকেল মইষ্ট ডেচিডুআচ Tropical Dry Deciduous 4 উপিকেল ড্ৰাই ডেচিডুআচ Sub-Tropical Pine Forests 5 উপ–গ্ৰীষ্মমণ্ডলীয় পাইন বনাঞ্চল
257.	Water Availability in the Streams? সোঁতত পানীৰ উপলব্ধতা?	Perennial1 বার্ষিক Seasonal
258.	IF SEASON, MENTION MONTHS FROM - TO যদিহে ঋতু, মাহৰ পৰা - লৈ উল্লেখ কৰক	January 1 February 2 March 3 April 4 May 5 June 6 July 7 August 8 September 9 October 10 November 11 December 12 Can't Say 13
259.	Do you experience floods in the region? আপোনালোকৰ অঞ্চলটোত বানপানী হ্য নেকি?	Yes



		<u> </u>
260.	IF YES, what was the longest duration of the flood in the last 2 years? যদিহে হ্ম, যোৱা 2 বছৰত বানপানী হোৱাৰ	ln Days
	আটাইতকৈ দীঘলীয়া সম্মটো কিমান আছিলং	
261.	What was the damage in the flood you mentioned? আপুনি উল্লেখ কৰা বানপানীৰ ফলত হোৱা স্কৃতিৰ পৰিমান কিমান আছিল?	Extensive damage
262.	Was there a shortage of water in any season in the last 2 years? যোৱা 2 বছৰত কোনো ঋতুত পানীৰ অভাৱ আছিল নেকি?	Yes 1 হয় No 2 নহয় 2
263.	IF YES, please mention the seasons? যদিহে হয়, অনুগ্ৰহ কৰি ঋতুবোৰ উল্লেখ কৰক?	Summer
264.	Has the village experienced crop failure in the last 2 years? যোৱা 2 বছৰত গাওঁখনে শস্যৰ বিফলতা/নোহোৱা অনুভৱ কৰিছে নেকিং	Yes
265.	What are the reasons for crop Failure? শস্য বিফল/নোহোৱা হোৱাৰ কাৰণবোৰ কি কি?	Drought
266.	Are you aware of the proportion of soil organic carbon in this village? আপুনি এই গাওঁখনত মাটিৰ জৈৱিক কাৰ্বনৰ অনুপাতৰ বিষয়ে জানে নেকি?	Yes



267.	If yes, what is the range?	FROM (in %)(%)ৰ পৰা	
	যদিহে জানে, পৰিসৰটো কিমান হয়?	TO (in %)(इंग %) ल	

VILLAGE LEVEL INSTITUTIONS (NON-POLITICAL/NON-RELIGIOUS) (Both 1 and 2) গাওঁ পৰ্যায়ৰ প্ৰভিষ্ঠানসমূহ (অ-ৰাজনৈতিক/অ-ধৰ্মীয়) (1 আৰু 2 দুয়োটা)

268.	What is the type of		Type of Village	Name of	Year of	Number of	Main	
200.			Institutions				_	
	village institutions you			the	Formation	Members	Activities	
	have in this village?		গ্ৰাম্য প্ৰতিষ্ঠানৰ	Institution	MM/YYYY	সদস্যৰ সংখ্যা	মুখ্য	
	আপোনাৰ এই গাওঁখনত		প্ৰকাৰ	প্রতিষ্ঠানটো	গঠন হোৱাৰ		কার্যকলাপ	Г
	কেনে ধৰণৰ গ্ৰাম্য		Codes: SHG	ৰ নাম	বছৰ		সমূহ	
	প্রতিষ্ঠান আছে?		(ASRLM) = 1,		মাহ/বছৰ		Social	
			Village				mobilisati	ion
			Organisation-VO				=1,	
			(ASRLM), Clubs/				Livelihood	=sb
			CBOs = 3, Other				2,	
			(Specify)				Finance=	3,
			কোডসমূহ:				Recreation	
			আত্মসহায়ক				, Sports =	=5
			গোট (এএছআৰএলএম					
) = 1 , ভিলেজ				সামাজিক	
			অর্গেলাইজেচন–				সংগ্ৰাম =	1,
							জীৱিকা=2	2.
			ভিঅ'(এএছআৰএলএম				বিত্তীয়=3,	
),ক্লাব/ চিবিঅ'=3,				-	
			অন্যান্য (উল্লেখ				মূলোৰঞ্জন	
			কৰক)				क्रींज़ =5	
		1						
		2						
		3						
		4						
		5						

GOVERNMENT SCHEMES (Both 1 and 2) চৰকাৰী আঁচলি (1 আৰু 2 দুয়োটা)

269.	Details of Government Schemes that the village getting benefited from in the last financial year যোৱা বিত্তীয় বৰ্ষত গাওঁখনে লাভান্বিত	Depart ment বিভাগ	Name of the Scheme আঁচলিৰ লাম	Codes - Schemes কোডসমূহ - আঁচনি Can't Say	Number of beneficiaries in the village গাওঁখনত হিতাধিকাৰী ৰ সংখ্যা Can't Say
	হোৱা চৰকাৰী আঁচনিসমূহৰ বিৱৰণ	Agricult	National Food Security Mission (NFSM) ৰাষ্ট্ৰীয় খাদ্য সুৰক্ষা মিছন (এনএফএছএম)	1.	
		ure Central = 1	Prime Minister Krishi Sinchayee Yojana প্রধানমন্ত্রী কৃষি সিঞ্চায়ী যোজনা	2.	
		কৃষি কেন্দ্ৰীয় = 1	Green Revolution - Krishonnati Scheme সেউজ বিপ্লৱ – কৃষনাতি স্কীম	3.	
			Rashtriya Krishi Vikas Yojana (RKVY) ৰাষ্ট্ৰীয় কৃষি বিকাশ যোজনা	4.	



		(
		(আৰকেভিৱাই)		
		Paramparagata Krishi Vikash Yojana পৰম্পৰাগত কৃষি বিকাশ যোজনা	5.	
		Soil Health Card under National Mission on Sustainable Agriculture বহনক্ষম কৃষিৰ ওপৰত ৰাষ্ট্ৰীয় অভিযানৰ অধীনত চইল হেল্খ কাৰ্ড	6.	
		Mission Organic Value Chain Development for NE Region উত্তৰ-পূব অঞ্চলৰ বাবে মিছন অৰ্গেনিক ভেলু চেইন ডেভলপমেন্ট	7.	
		Cultivation of pulses and oil seeds in rice fellow ধানৰ বাবে ৰাখি খোৱা মাটিত মাহজাতীয় শস্য আৰু তেলবীজৰ খেতি	8.	
		Chief Minister Samagra Gramya Unnayan Yojana মুখ্যমন্ত্ৰী সমগ্ৰ গ্ৰাম্য উন্নামন যোজনা	9.	
	Agricul ture State = 2 কৃষি ৰাজ্য = 2 P&RD - Centre = 3 পি এণ্ড আৰ ডি - কেন্দ্ৰ = 3	Assam Agribusiness & Rural Transformation Project (APART) অসম কৃষি ব্যৱসাম আৰু গ্ৰাম্য পৰিৱৰ্ত্তৰ প্ৰকল্প (এপিডিঅ')	10.	
		National Rural Livelihood Mission ৰাষ্ট্ৰীয় গ্ৰাম্য জীৱিকা মিছন	11.	
		Mahatma Gandhi National Rural Employment Guarantee Scheme মহাস্লা গান্ধী ৰাষ্ট্ৰীয় গ্ৰাম্য নিযুক্তি গেৰাণ্টি স্কীম	12.	
		National Social Assistance Programme ৰাষ্ট্ৰীয় সামাজিক সহায় কাৰ্যসূচী	13.	
		Pradhan Mantri Awas Yojana – Rural প্রধানমন্ত্রী আৱাস যোজনা - গ্রাম্য	14.	
	P&RD - State	Kanaklata Mahila Sabalikaran Yojana: কানাকলতা মহিলা সবলীকৰণ যোজনা:	15.	
	পি এণ্ড আৰডি – ৰাজ্য	Swahid Kushal Kunwar Sarbajanin Bridhya Pension Achani: শ্বহিদ কুশল কোঁৱৰ সাৰ্বজনীন বৃদ্ধ পেঞ্চন আঁচনি:	16.	
	Soil Conser vation	Integrated Watershed Development Programme সংহত জলভাগ উন্নয়ন কাৰ্যসূচী	17.	
	মাটি সংৰক্ষণ	Afforestation বনানীকৰণ	18.	
	•	Development of cultivable	19.	



	wasteland under land		
	development project: ভূমি উন্নয়ন প্রকল্পৰ অধীনত		
	কৃষিযোগ্য পতিত ভূমিৰ বিকাশ:		
	Construction of water harvesting		
	structures like check dams, field		
	ponds, and earthen periphery		
	bunds under land development		
	projects	20.	
	ভূমি উন্নয়ন প্ৰকল্পৰ অধীনত চেক		
	বান্ধ্ৰ, পথাৰ পুখুৰী, আৰু মাটিৰ		
	পৰিধিৰ বান্ধৰ দৰে পানী সংগ্ৰহৰ		
	গাঁথনি নির্মাণ		
	Gully Control Programmes and		
	anti-erosion measures	21.	
	গলি নিয়ন্ত্ৰণ কাৰ্যসূচী আৰু		
	থহনীয়া-বিৰোধী ব্যৱস্থা		
	White Revolution	22.	
An	হোৱাইট ৰিভলুচন		
	sban Livestock Insurance Programme: sban প্ਰশুধন ਰੀমা ক্রাম্মী	23.	
l l -	terin Capacity Development of		
ary	Livestock and Poultry Farmers	24.	
Dα		24.	
	velo স্ক্রমতা বিকাশ		
	ent Comprehensive Vaccination		
	· I rogramme or cow and office	_	
	আৰু Animals গৰু আৰু অন্যান্য জন্তুৰ ব্যাপক	25.	
পহ	8 1		
	''		
	क्षान नियन व्यापन	26.	
	Fodder Development Schemes		
	পশুথাদ্য বিকাশ আঁচনি	27.	
	National Food Security Mission	28.	
Foo	~	20.	
Civ	· · · · · · · · · · · · · · · · · ·	29.	
s a	2414481 O-3441 (410141		
	strengthening of Aamar Dukans আমাৰ দোকানৰ শক্তিশালীকৰণ	30.	
me	A B 1 1/1/1		
Aff খাদ	uns	31.	
	Setting up of Price Stabilization		
ু প্ৰ	Fund	32.	
	মূল্য স্থিৰকৰণ পুঁজি স্বাপন কৰা		
	গান Financial assistance to BPL		
আৰ্			
	ভো connection ঘৰুৱা গেছ সংযোগৰ বাবে	33.	
ু জা জ			
শাৰ	ক্রিমা বিপিএল পৰিয়ালবোৰক বিত্তীয় সাহাম্য		
	Fair Price Shop Automation		
	^{Jcati} উচিত মূল্যৰ দোকানৰ অটোমেচন	34.	
on শিঃ	National Literacy Mission (NLM)	35.	
	বাষ্ট্ৰীয় সাক্ষৰতা মিছন	33.	



	(এৰএলএম)		
	Mid-Day Meal Programme		
	মধ্যাহ্ন ভোজন কার্যসূচী	36.	
	Sarva Shiksha Abhiyan (SSA)	27	
	সৰ্বশিক্ষা অভিযান (এছএছএ)	37.	
	Pratyahban	38.	
	প্ৰত্যাহাৰ		
	Distribution of bi-cycle to girl students	39.	
	ছোৱালী-ছাত্ৰীক চাইকেল বিতৰণ	39.	
	Waiver of admission and tuition		
	fee	40.	
	নামভূৰ্তি আৰু টিউচন মাচুল	40.	
	ৰেহাই		
	Distribution of free textbook below graduation level		
	স্লাতক পৰ্যায়ৰ তলৰ বিনামূলীয়া	41.	
	পাঠ্যপৃথিৰ বিতৰণ		
	Free textbook for the students of		
	the degree courses	40	
	ডিগ্ৰী পাঠ্যক্ৰমৰ শিক্ষাৰ্থীসকলৰ	42.	
	বাবে বিনামূলীয়া পাঠ্যপুথি		
	Distribution of two-wheeler to the top girl's student		
	শীৰ্ষস্থান লাভ কৰা কন্যা-ছাত্ৰীক	43.	
	দুচকীয়া বাহল বিতৰণ		
	The Mission for Protection and		
	Empowerment of Women	44.	
	মহিলাৰ সুৰক্ষা আৰু সশক্তিকৰণৰ	44.	
	অভিযান		
	Integrated Child Development Services (ICDS)		
	ইন্টিগ্লেটেড চাইল্ড ডেভেলপমেন্ট	45.	
	চার্ভিচেচ্ছ (আইচিডিএছ)		
	National Nutrition Mission- SNP,		
	POSHAN Abhiyan	46.	
	ৰাষ্ট্ৰীয় পুষ্টি মিছন- এছএনপি,	40.	
	পোষাণ অভিযান		
Social	Labled and Other vulnerable		
Welfar	persons	47.	
সমাজ কল্মাল	বেলেগ ধ্ৰণে সক্ষম আৰু অন্যান্য		
কল্যাণ	দুৰ্বল ব্যক্তিৰ বাবে ছাতি আঁচনি		
	PM Matri Vandana Yojana	48.	
	প্রধানমন্ত্রী মাতৃ বন্দনা যোজনা		
	Pension benefit to unmarried daughters of pensioners		
	পেঞ্চনাৰৰ অবিবাহিত কন্যালৈ	49.	
	পেঞ্নৰ সুবিধা		
	Creation of safe and child		
	friendly space for vulnerable		
	children in the children's homes শিশুগৃহত দুৰ্বল শিশুৰ বাবে	50.	
	সুৰক্ষিত আৰু শিশু অনুকূল স্থান		
	সৃষ্টি কৰা		
	10 11		



		Scholarship to differently-abled students বিভিন্ন ক্ষমতাসম্পন্ন ছাত্ৰ-ছাত্ৰীলৈ বৃত্তি	51.	
		Unemployment allowance to differently abled persons বিভিন্নধৰণে সক্ষম ব্যক্তিসকলক নিবনুৱা ভাট্টা	52.	
		Construction of Night Shelter Homes নাইট চেলটাৰ হোম নিৰ্মাণ	53.	
		Assistance to voluntary organization শ্বেচ্ছ্যাসেৱী সংগঠনক সহায়	54.	
SOIL CO	NSERVATION AND W	ATER SHED/SPRING MANAGEMENT (Only1)		•
মাটি সংব	ৰক্ষণ আৰু জলভাগ/নি	গৰা ব্যৱস্থাপনা (কেৱল 1)		
270. 271.	Has afforestation programme taken up in the village in the last 2 FY years? মোৱা 2টা বিত্তীয় বৰ্ষত গাওঁখনত বৃক্ষৰোপণ কাৰ্যসূচী গ্ৰহণ কৰা হৈছে নেকি? Has cultivable wasteland under land development project been developed? ভূমি উন্নয়ন প্ৰকল্পৰ অধীনত ক্ষিযোগ্য ভূমি বিকশিত কৰা হৈছে নেকি? Have the	Yes	1	No=2
·	Construction of water harvesting structures happened in the village? গাওঁখনত পানী সংগ্ৰহৰ গাঁখনি নিৰ্মাণ কৰা হৈছে নেকি?	Construction of check dams চেক বান্ধ নিৰ্মাণ Construction of field ponds পথাৰত পুথুৰী নিৰ্মাণ Construction of earthen periphery bunds মাটিৰ পৰিধিৰ বান্ধ নিৰ্মাণ Rejuvenation of ponds /water bodies পুথুৰী /জলাশ্যৰ পুনৰুজীৱিতকৰণ	रग्र=1	নহয়=2
	• •	পুখুৰ৷ / জলাশ্যৰ পুলৰুঞা৷ৱতকৰণ		
	SHED (Only1) চ(নিজৰা) (কেৱল 1)			
273.	Is there a spring shed in the village? গাওঁখনত এটা স্প্রিং শ্বেড (নিজৰা) আছে নেকি?	Yes হয় No নহয়		



	•		·		
274.	IF YES, how many spring sheds are there and please specify name and recharge area? যদি হয়, কিমানটা স্প্রিং (মড (নিজৰা) আছে আৰু অনুগ্রহ কৰি নাম আৰু ৰিচাৰ্জ এলেকা নির্দিষ্ট কৰক?	Numbe r সংখ্যা 1 2 3 4 Number	Name of the Spring Shed স্প্ৰিং শ্বেড(নিজৰা)ৰ নাম	Recharge area in HA হেক্টৰত ৰিচাৰ্জ এলেকা	Toxicity Test Undertaken Yes=1, No=2 পানীৰ বিষাক্ততা পৰীক্ষা কৰা হৈছে হ্য=1, নহ্য=2
	IF YES, how many households are within the recharge area under the spring shed? যদিহে হয়, স্প্ৰীং (নিজৰা) ৰ তলৰ ৰিচাৰ্জ এলেকাৰ ভিতৰত কিমানটা পৰিয়াল আছে?	সংখ্য <u>া</u>			•
276.	Out of them, how many are dependent on the spring? তেওঁলোকৰ ভিতৰত, কিমানজন নিজৰাটোৰ ওপৰত নিৰ্ভৰশীল?	Number সংখ্যা			
277.	Please mention the purposes the spring is used for? অনুগ্ৰহ কৰি নিজৰাটো ব্যৱহাৰ কৰা উদ্দেশ্যবোৰ উল্লেখ কৰক? Mutiple	Irrigation			
278.	What are activities related to maintenance and protection of springs already	Afforestation			



	taken up under ongoing project? চলিত প্ৰকল্পৰ অধীনত ইতিমধ্যে গ্ৰহণ কৰা নিজৰাসমূহৰ ৰক্ষণাবেক্ষণ আৰু	পানীৰ টেংক বা আন যিকোনো পানী Other (Specify) অন্যান্য (উল্লেখ কৰক)		
	সুৰক্ষা সম্পৰ্কীয় কাৰ্যকলাপসমূহ কি কি? Mutiple			
279.	Has the village identified interventions for aquifer recharge? গাওঁখনে জলধাৰা ৰিচাৰ্জৰ বাবে হস্তক্ষেপ চিনাক্ত কৰিছে নেকি?	Yes হয় No নহ্য		
280.	Has the village taken up initiatives to divert excess run off water to the spring from its catchment area? গাঁওখনে নিজৰ জলাশ্য় এলেকাৰ পৰা অভিৰিক্ত বৈ যোৱা পানীক নিজৰাটোলৈ লৈ অহাৰ পদক্ষেপ লৈছেনে?	Yes হয় No নহয়		
281.	Has the village taken up initiatives to prevent the following through rulings or fines or punishments? গাওঁখনে ৰাম বা জৰিমনা বা শাস্তিৰ জৰিমতে নিম্নলিখিতবোৰ প্রতিৰোধ কৰিবলৈ পদক্ষেপ লৈছে নেকি?	Anti - Environment activities পৰিৱেশ বিৰোধী কাৰ্যকলাপ Over-grazing অত্যাধিক চৰণীয়া পথাৰ Deforestation বলধ্বংস Artificial gullies কৃত্ৰিম গলি Road construction পথ নিৰ্মাণ Over extraction অত্যাধিক নিষ্কাশন	Yes =1 হয় =1	No=2 बर्ग =2
282.	Are you aware, were people trained on managing community resources/assets? আপুনি জানেনে, সামূহিক সম্পদ/সম্পদ পৰিচালনাৰ বাবে	Yes হয় No নহয়		



	লোকসকলক	
	প্রশিক্ষণ দিয়া হৈছে	
	নেকি?	
283.	What kind of	Meeting1
	awareness	মিটিং
	activities were	Miking2
	held?	मार् किः
	কেনে ধৰণৰ	Banners/Posters/Hoardings3
	সজাগতা কার্যকলাপ	বেনাৰ/পোষ্টাৰ/হৰ্ডিং
	অনুষ্ঠিত হৈছিল?	Flyers/Pamphlets4
	Mutiple	ক্লাইয়াৰ/পামক্লেট
	· ·	Wall writing5
		দেৱাল লিখন
		Rally6
		ৰেলী
		Other (Specify)
		অন্যান্য (উল্লেখ কৰক)
	NITY PARTICIPATION	(Only1)
সম্প্রদায়	ৰ অংশগ্ৰহণ (কেৱল 1)	
284.	Do you have user	Yes1
	groups in the	इ स
	village?	No 2
	আপোনালোকৰ	नर्य
	গাওঁখনত	
	ব্যৱহাৰকাৰী গোট	
	আছে নেকি?	
285.	If yes, how many	Number
	user groups are	সংখ্যা
	there? যদিহে আছে,	
	কিমানটা	
	ব্যৱহাৰকাৰী গোট	
	আছে?	
286.	How many	Number
	members are	সংখ্যা
	associated with the	
	user groups?	
	ব্যৱহাৰকাৰী	
	গোটবোৰৰ সৈতে	
	কিমানজন সদস্য	
	জড়িত আছে?	
287.	Do you have	Yes1
	watershed	इ .स
	committee in the	No2
	village? গাওঁথনত আপোনাৰ	নহ্য
	জনবিভাজিকা	
	সমিতি আছে	
25.5	নেকি?	
288.	If yes, how many	Number
	members are part of the committee?	VIO AUT
	of the committee? যদিহে আছে,	সংখ্যা
	The state of the s	
	সমিতিখনত কিমান	
	জন সদস্য আছে?	



	T	T
289.	Is the village engaged in the following activities? (MULTIPLE RESPONSE POSSIBLE) গাওঁখন নিম্নলিখিত কাৰ্যকলাপবোৰত নিমোজিত আছে নেকি? (একাধিক উত্তৰ সম্ভৱ)	NRM
290.	Do community members of the village participate in the watershed/spring shed project? গাওঁখনৰ সম্প্ৰদায়ৰ সদস্যসকলে জলবিভাজিকা/স্প্ৰিং ষেড প্ৰকল্পত অংশগ্ৰহণ কৰে নেকি?	Yes, to a large extent
291.	Do you think Involvement and Participation of the community in decision-making at the local government level is appreciable? আপুলি ভাবেলে যে স্থানীয় চৰকাৰৰ পৰ্যায়ত সিদ্ধান্ত লোৱাৰ ক্ষেত্ৰত সম্প্ৰদায়ৰ অন্তৰ্ভুক্তি আৰু অংশগ্ৰহণ প্ৰশংসনীয়?	Yes
292.	Are there sufficient employment opportunities in the village? গাওঁখনত পৰ্যাপ্ত নিমুক্তিৰ সুযোগ আছে নেকি?	Yes1 হয় No
293.	On average is the wages rate given to people? আপোনাৰ মতে, মজুৰিৰ হাৰ পৰ্যাপ্ত নেকি (নিম্নতম মজুৰিৰ হাৰ অনুসৰি)?	Equal to minimum wage rate



294.	Have you observed reduction in migration in the last 2 years? আপুনি যোৱা 2 বছৰত প্ৰৱজন ফ্ৰাস হোৱা লক্ষ্য কৰিছে নেকি?	Yes
295.	Do you think women have sufficient employment opportunities in the village? আপুনি ভাবেনে যে গাওঁথনত মহিলাসকলৰ বাবে পৰ্যাপ্ত নিযুক্তিৰ সুযোগ আছে?	Yes
296.	Do you think the vulnerable communities have sufficient employment opportunities in the community? আপুনি ভাবেনে যে দুৰ্বল সম্প্ৰদায়বোৰৰ সমাজত পৰ্যাপ্ত নিযুক্তিৰ সুযোগ আছে?	Yes



NOTES:

Classification of Land	Remarks
ভূমিৰ শ্ৰেণীবিভাজৰ	মন্তব্য
Forest ফ্ৰেষ্ট	Incl. private forests ব্যক্তিগত অৰণ্য/ফ্ৰেষ্ট অন্তৰ্ভুক্ত কৰক
Area under Non-culturable Use কৃষি ক্ষেত্ৰত ব্যৱহাৰ নকৰা অধীনৰ এলেকা	Incl. all lands occupied by buildings, roads & railways or under water, e.g., rivers & canals and other lands put to uses other than agriculture বিল্ডিং, পথ আৰু ৰেলপথ বা পানীৰ তলত থকা সকলো ভূমি, যেনে নদী আৰু থাল আৰু কৃষিৰ বাহিৰে অন্যকামত ব্যৱহাৰ কৰা ভূমি অন্তৰ্ভুক্ত কৰক
Barren and Un-culturable Land অনুৰ্বৰ আৰু কৃষি নকৰা ভূমি	Land which cannot be brought under cultivation except at an exorbitant cost অত্যাধিক ব্যমৰ বাবে খেতি কৰিব নোৱাৰা ভূমি
Permanent Pastures and other Grazing Lands স্থায়ী চৰণভূমি আৰু অন্যান্য চৰণীয়া ভূমি	Incl. village common grazing land গাওঁৰ সাধাৰণ চৰণীয়া ভূমি
Land under Miscellaneous Tree Crop, etc. বিবিধ গছ–গছনি আদিৰ অধীনত থকা ভূমি	Incl. all cultivable land which is not included 'Net area sown' but is put to some agricultural uses. Lands under Casuarina trees, thatching grasses, bamboo bushes and other groves for fuel, etc. which are not included under 'Orchards. সকলো কৃষিযোগ্য ভূমি অন্তৰ্ভুক্ত কৰিব যাক 'শস্য সিঁচা নেট এলেকা' অন্তৰ্ভুক্ত কৰা নহয় কিন্তু কিছুমান কৃষিগত ব্যৱহাৰৰ বাবে ৰখা হয়। কাচুয়াৰিনা গছৰ তলৰ ভূমি, ঘাঁহ, বাঁহৰ জোপোহা আৰু ইন্ধনৰ বাবে অন্যান্য বনাঞ্চল আদি যিবোৰ 'বাগিচা'ৰ অধীনত অন্তৰ্ভুক্ত নহয়।
Culturable Waste Land কৃষিক্ষেত্ৰৰ আৱৰ্জনা ভূমি	Lands available for cultivation, whether not taken up for cultivation or taken up for cultivation once but not cultivated during the current year and the last five years or more in succession for one reason or other খেতিৰ বাবে উপলব্ধ ভূমি, খেতি কৰা নহম বা এবাৰ খেতি কৰে কিন্তু চলিত বৰ্ষত আৰু যোৱা পাঁচ বছৰত বা আন কোনো কাৰণত একেৰাহে খেতি কৰা হোৱা নাই
Fallow Lands other than Current Fallows বৰ্তমানে শস্য নকৰা মাটিৰ বাহিৰে অন্যান্য শস্য নকৰাকৈ ৰাখি খোৱা মাটি	Included all lands, which were taken up for cultivation but are temporarily out of cultivation for a period of not more than one year and not more than five years সকলো ভূমি অন্তৰ্ভুক্ত কৰি, যিবোৰ খেতিৰ বাবে লোৱা হৈছিল কিন্তু অস্থায়ীভাৱে এক বছৰতকৈ বেছি আৰু পাঁচ বছৰতকৈ বেছি সময়ৰ বাবে লহয় খেতি কৰা হোৱা নাই
Current Fallows বৰ্তমানে শস্য নকৰাকৈ খোৱা মাটি	This represents cropped area, which are kept fallow during the current year এইটোৱে কৃষি কৰা এলেকাক প্ৰতিনিধিত্ব কৰে, যাক চলিত বছৰত খেতি নকৰাকৈ ৰখা হৈছে
Net area Sown শস্য সিঁচা নেট এলেকা	This represents the total area sown with crops and orchards এইটোৱে শস্য আৰু বাগিচাৰ সৈতে ৰোপণ কৰা মুঠ এলেকাক প্ৰতিনিধিত্ব কৰে