Report on

Productive and Sustainable Agriculture Survey 2025

BANGLADESH BUREAU OF STATISTICS
STATISTICS AND INFORMATICS DIVISION
MINISTRY OF PLANNING
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Productive and Sustainable Agriculture Survey 2025

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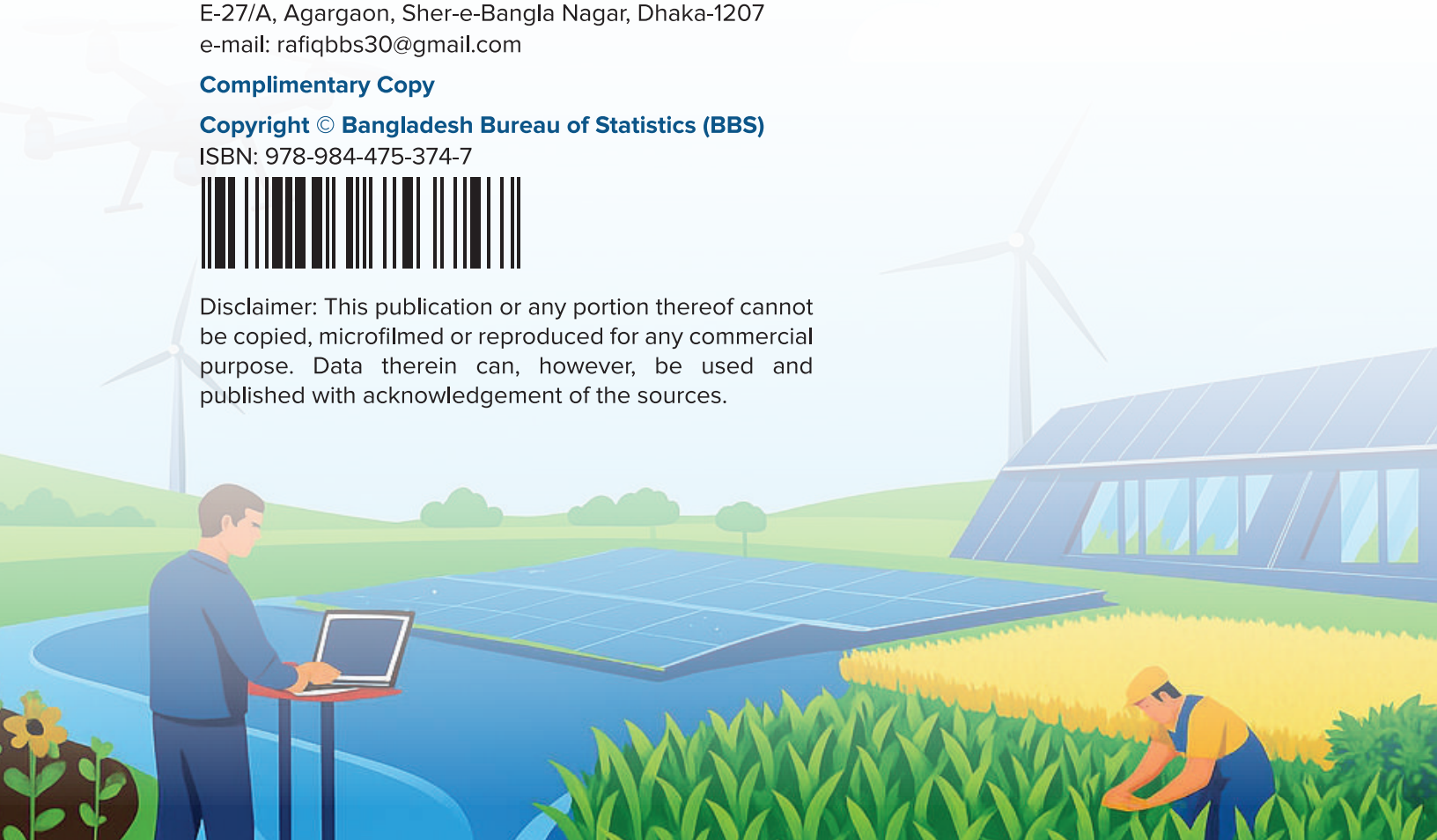

Productive and Sustainable **Agriculture Survey** (PSAS) 2025

June 2025

Sustainable Agriculture Statistics Project

BANGLADESH BUREAU OF STATISTICS (BBS)
STATISTICS AND INFORMATICS DIVISION (SID)
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SUSTAINABLE
DEVELOPMENT
GOALS
2 ZERO HUNGER
SDG Indicator 2.4.1
TARGET 2.4

Director General
Bangladesh Bureau of Statistics

Preface

Bangladesh Bureau of Statistics (BBS) has conducted 'Productive and Sustainable Agriculture Survey 2025' during 20th January to 5th March 2025. The objective of the survey is to assess SDG Indicator 2.4.1 on sustainable agriculture. This report of the survey reflects the multiple dimensions of sustainability: economic, environmental and social. A set of 11 sub-indicators are defined, organised in themes, each mapped to one of the three dimensions. I believe that the report of 'Productive and Sustainable Agriculture Survey 2025' will guide policymakers and planners in preparing and implementing pertinent agricultural development agenda for achieving the targets of Sustainable Development Goals (SDGs).

I would like to convey my thanks and gratitude to the Secretary, Statistics and Informatics Division for the continuous support and guidance towards smooth and successful implementation of the survey activities. I also thank Food and Agriculture Organization (FAO) of the United Nations for their technical support in adding multidimensional analytical approaches to explore the root causes of the relevant perception.

Finally, I would like to thank those who associated with different responsibilities of the survey and provided inputs for bringing out this publication. Special thanks to the Project Director and his team for their successful implementation of the survey activities. Thanks to all the officials of BBS, participants and all concerned in this survey. I express my sincere thanks to the respected members of Project Steering Committee, Project Implementation Committee and other relevant committees for their valuable inputs to finalise the report.

Any comments and observations regarding the survey report will be highly appreciated.

Dhaka
June 2025

Mohammed Mizanur Rahman

Project Director
Sustainable Agriculture Statistics Project
Bangladesh Bureau of Statistics

Acknowledgement

It is with great pride and sincere appreciation that I acknowledge the successful completion of the comprehensive report titled 'Productive and Sustainable Agriculture Survey 2025' assessment based on SDG Indicator 2.4.1 and its 11 Sub-Indicators. This landmark publication represents a pivotal achievement in our continued efforts to build a more resilient, inclusive and environmentally sustainable agricultural sector in Bangladesh. By addressing the multifaceted dimensions of sustainable agriculture, the report not only enriches our understanding of the current landscape but also serves as a strategic resource for guiding future policy, planning and action towards the realization of Sustainable Development Goal 2.

The survey and its corresponding report provide an in-depth assessment of the sustainability of agricultural practices in Bangladesh, guided by the 11 sub-indicators under SDG Indicator 2.4.1. These sub-indicators encompass vital aspects such as land productivity, profitability, resilience, soil health, water use efficiency, management of fertilizer and pesticide use, biodiversity, decent employment, food security and secure tenure rights. The analytical depth and participatory methodology employed in the survey reflect a robust and evidence based approach to understanding the state of our agricultural systems.

I would like to express my profound gratitude to the Secretary, Statistics and Informatics Division (SID), Ministry of Planning for the support and guidance to publish this report on time. I sincerely acknowledge the valuable suggestions and wholehearted administrative support provided by Mr. Mohammed Mizanur Rahman, Director General of BBS.

I gratefully recognize the services of the members of Project Implementation Committee, Project Steering Committee, Editors Forum and working group for their significant contributions. I also express my gratitude to all officials of SID and BBS who were involved in this process.

Special appreciation is due to Dr. Dipankar Roy, Joint Secretary of SID, for his kind support and guidance throughout this project. I am deeply indebted to the enumerators for their utmost dedication and sincerity in field-level work. Heartfelt thanks are also extended to Mr. Alauddin Al Azad, Director, Agriculture Wing, BBS for his invaluable support.

Finally, I express my sincere gratitude to the SAS Project team for their devoted service since the project's inception.

I believe that this report is expected to serve as a valuable tool for policymakers, researchers, practitioners and development stakeholders. It provides a practical and data-driven foundation for policy formulation, program implementation and strategic planning in the agricultural sector. Moreover, it will support Bangladesh's national and international reporting obligations on the SDGs and help in identifying targeted interventions for improving sustainability in agriculture. Your kind feedback and valuable suggestions for improving the future activities of the SAS Project team will be greatly appreciated.

Dhaka
June 2025

Muhammad Rafiqul Islam

ACRONYMS

BBS	Bangladesh Bureau of Statistics
CAPI	Computer Assisted Personal Interviewing
CBD	Convention on Biological Diversity
DBF	Database File
EA	Enumeration Area
FIES	Food Insecurity Experience Scale
FY	Fiscal Year
HH	Household
IAF	Institutional Agriculture Farm
NFI	Net Farm Income
NOC	Network Operations Centre
NSO	National Statistics Office
PHC	Population and Housing Census
PSAS	Productive and Sustainable Agriculture Survey
PSU	Primary Sampling Unit
SAS	Sustainable Agriculture Statistics
SID	Statistics and Informatics Division
SDG	Sustainable Development Goal
TOT	Trainers of Trainee

Productive and Sustainable Agriculture Survey (PSAS) 2025

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EXECUTIVE SUMMARY

This report presents the crucial findings from the Productive and Sustainable Agriculture Survey 2025, first of its kind, conducted under the Sustainable Agriculture Statistics (SAS) Project by Bangladesh Bureau of Statistics (BBS). The fundamental objective of this nationwide survey was to generate and provide updated official statistics on the progress towards Sustainable Development Goal (SDG) Indicator 2.4.1 within the agricultural sector of Bangladesh.

SDG Indicator 2.4.1, defined as the 'Proportion of agricultural area under productive and sustainable agriculture', is a key component of SDG 2: Zero Hunger, specifically addressing Target 2.4 which aims to promote sustainable food production systems and implement resilient agricultural practices. This indicator comprehensively assesses the sustainability of agricultural land management across three core dimensions: **Economic Sustainability, Environmental Sustainability and Social Sustainability**. To operationalize this assessment, the indicator utilizes 11 distinct sub-indicators. These sub-indicators cover various aspects of agricultural sustainability, including farm economic, resource management, environmental impact, social well-being, and land rights. Field-level data collection for this survey was conducted from January 20 to March 5, 2025, covering both agricultural households and institutional farms for most of the 11 sub-indicators.

The overall national sustainability rate for SDG Indicator 2.4.1 is determined based on the minimum performance across all 11 sub-indicators to classify land as ‘sustainable’ (desirable + acceptable), and the maximum unsustainable rate across all sub-indicators to classify land as ‘unsustainable’. According to the survey results, 44.37% of agricultural land in Bangladesh is classified as productive and sustainable; accordingly 55.63% of agricultural land is classified as unsustainable in terms of ‘Farm output value per hectare’. This suggests that over half of the agricultural land in the country is not yielding optimal economic returns. Under sustainable category as low as 1.20% agriculture land has achieved the ‘desirable’ and 43.17% has attained ‘acceptable’ level of sustainability of land productivity across all 11 assessed themes. Key findings for individual sub-indicators at the national level provide further insights into the sustainability performance across dimensions:

Economic Sustainability:

Farm output value per hectare: It serves as an economic measure reflecting land productivity. The national sustainability rate of 44.37% indicates that this proportion of the country’s agricultural land is considered both productive and sustainable.

Net farm income: Measures the profitability of agricultural operations measured by net farm income. The national sustainability rate is 78.79%, indicating that this proportion of agricultural land was profitable for at least one year during the three-year period from 2022 to 2024.

Risk mitigation mechanisms: Assesses access to mechanisms like credit, insurance, or on-farm diversification, falling under the theme of resilience. The national sustainability rate is 69.16%.

Environmental Sustainability:

Prevalence of soil degradation: Derived from the proportion of land affected by soil degradation. The national sustainability rate is 72.75% that agricultural land is currently being managed by households whose at least 50% of agricultural land is degradated.

Variation in water availability: Assesses sustainability based on categorized levels of water availability. The national sustainability rate is 81.66%.

Management of fertilizers: It relates to the management of fertilizer use to maintain chemical levels within acceptable thresholds. The national sustainability rate is 56.95%, indicating that this proportion of agricultural land belongs to households implementing two or more out of eight recommended measures.

Management of pesticides: Based on data regarding pesticide usage, types, and risk mitigation measures. The national sustainability rate is 51.37%.

Use of Agro-biodiversity-supportive practices: Measures the adoption of practices contributing to biodiversity at ecosystem, species, and genetic levels. The national sustainability rate is 71.05%.

Social Sustainability:

Wage rate in agriculture: Compares the unskilled labor daily wage rate to the national/sector wage rate. The national sustainability rate is 60.12%, indicating this proportion of agricultural area where unskilled labor receives wages higher than the national agricultural wage rate.

Food Insecurity Experience Scale (FIES): Measures the severity of food insecurity based on self-reported experiences and behaviors related to accessing adequate food. The national sustainability rate is 98.82%.

Secure tenure rights to land: Assesses sustainability in terms of rights over the use of agricultural land areas, a key input for production. The national sustainability rate is 89.35%.

Notably, the Food Insecurity Experience Scale (FIES) sub-indicator achieved the highest sustainability rate among all sub-indicators at the national level, with an impressive 98.82%. This high level of sustainability in food access indicates strong performance in addressing hunger and food availability.

The findings presented in this report, derived from this first-time survey on sustainable agriculture in Bangladesh, are anticipated to provide critical inputs for evidence-based policy formulation and planning for the agriculture sector and rural development. The results are expected to meaningfully contribute to the ongoing national efforts to promote sustainable agriculture and food security in Bangladesh. The methodology, which relies on detailed local-level data collection and aggregation, allows for a comprehensive overview of sustainability across dimensions, identifying areas of strength and those requiring targeted interventions.

Highlights

Highlights: Productive and Sustainable Agriculture Survey 2025

SDG Indicator 2.4.1

SDG Indicator 2.4.1 refers to proportion of agricultural area under productive and sustainable agriculture. This indicator assesses the sustainability of agricultural land management across three key dimensions along with 11 sub-indicators.

Economic Sustainability

- Farm output value per hectare
- Net farm income
- Risk mitigation mechanisms

Environmental Sustainability

- Prevalence of soil degradation
- Variation in water availability
- Management of fertilizers
- Management of pesticides
- Use of agro-biodiversity-supportive-practices

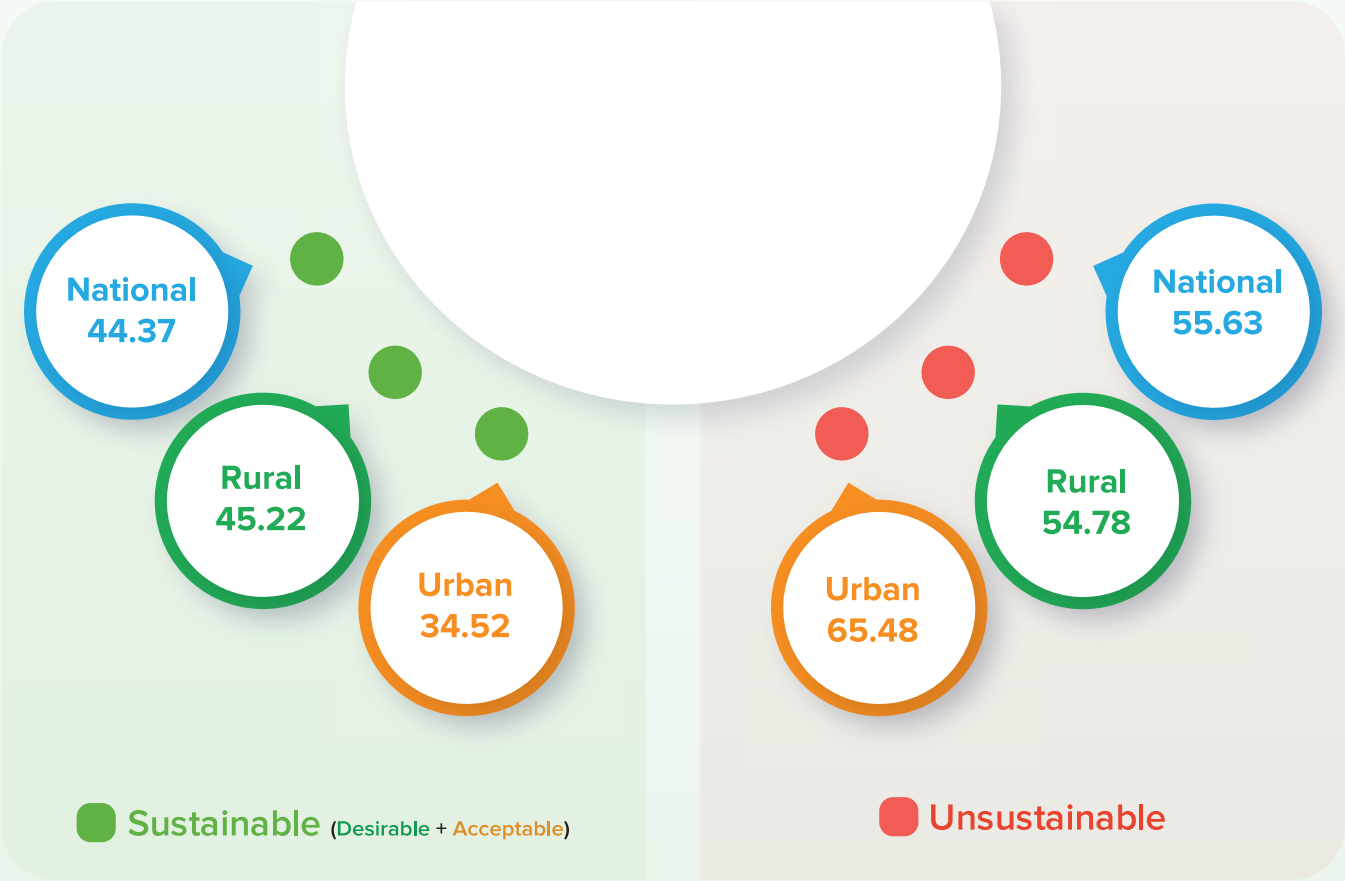
Social Sustainability

- Wage rate in agriculture
- Food Insecurity Experience Scale (FIES)
- Secure tenure rights to land

Sub-indicator 1: Farm Output Value per Hectare

Proportion* of sustainability for the sub-indicator 'Farm Output Value per Hectare' by locality

Locality	Desirable	Acceptable	Unsustainable	Total
National	1.20	43.17	55.63	100
Rural	1.04	44.18	54.78	100
Urban	3.20	31.32	65.48	100

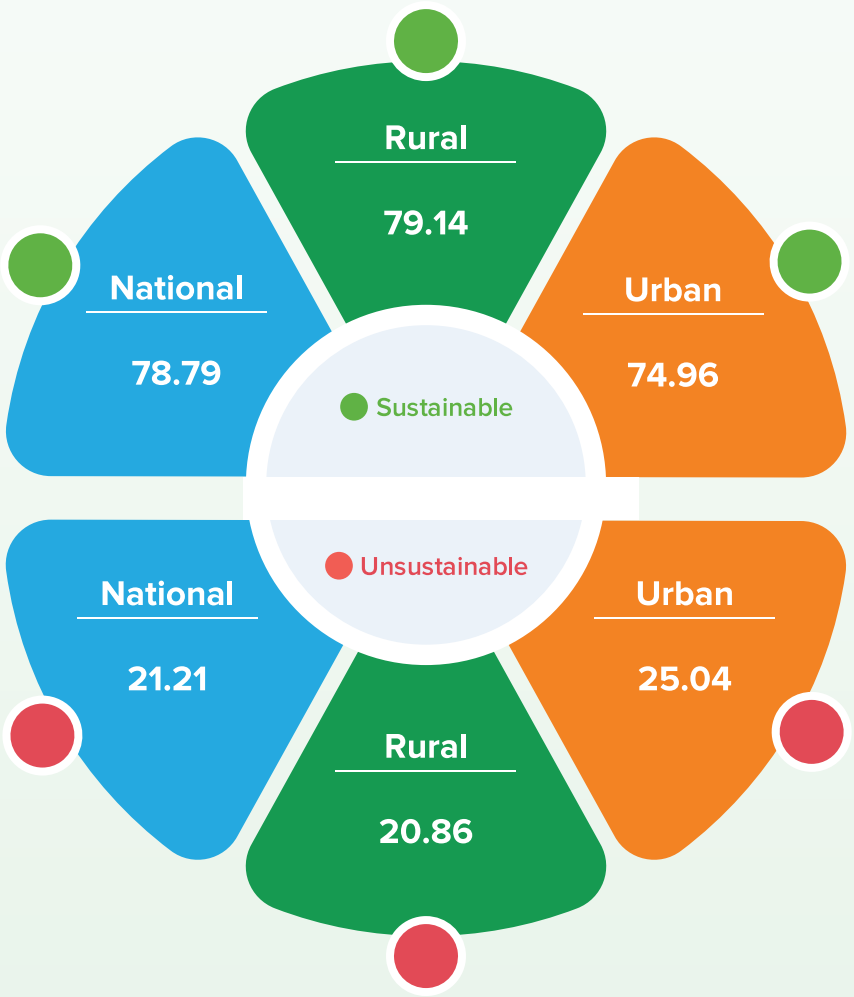


*Proportion of agricultural land area under productive and sustainable agriculture

Sub-indicator 2: Net Farm Income

Proportion of sustainability for the sub-indicator 'Net Farm Income' by locality

Locality	Desirable	Acceptable	Unsustainable	Total
National	42.76	36.03	21.21	100
Rural	42.60	36.54	20.86	100
Urban	43.98	30.98	25.04	100

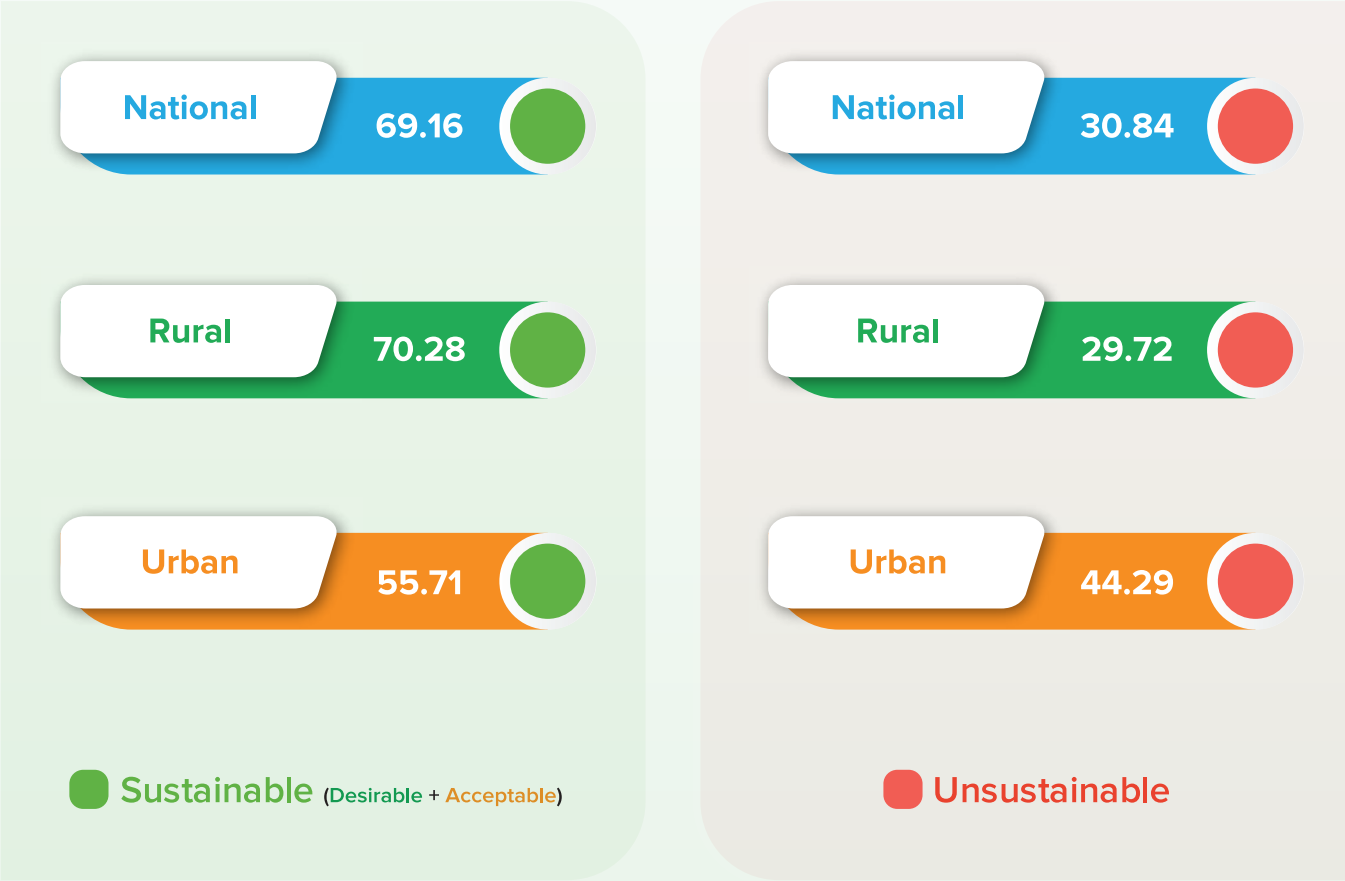


Sustainable (Desirable + Acceptable)

Sub-indicator 3: Risk Mitigation Mechanisms

Proportion of sustainability for the sub-indicator 'Risk Mitigation Mechanisms' by locality

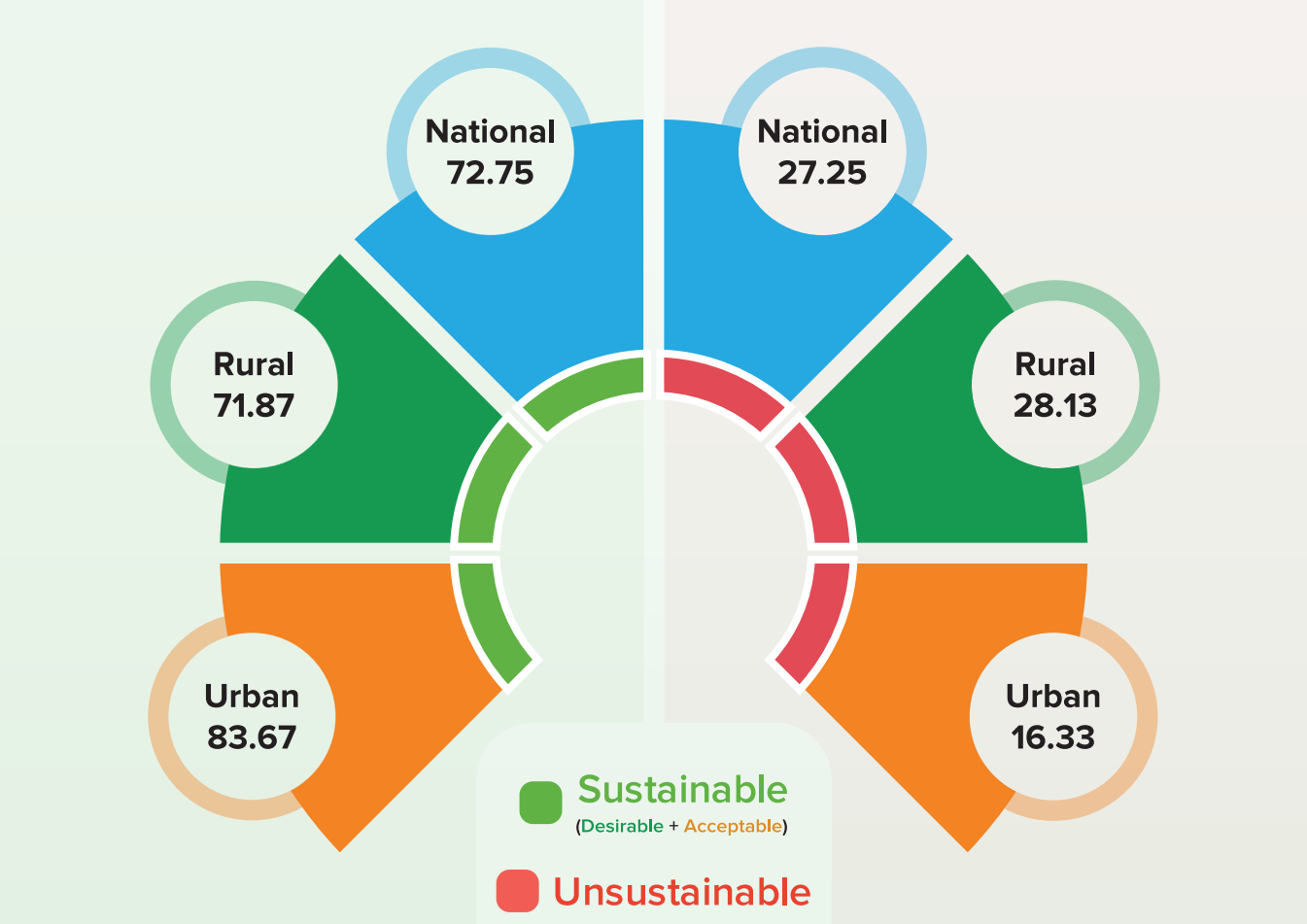
Locality	Desirable	Acceptable	Unsustainable	Total
National	5.58	63.58	30.84	100
Rural	5.29	64.99	29.72	100
Urban	9.30	46.41	44.29	100



Sub-indicator 4: Prevalence of Soil Degradation

Proportion of sustainability for the sub-indicator 'Prevalence of Soil Degradation' by locality

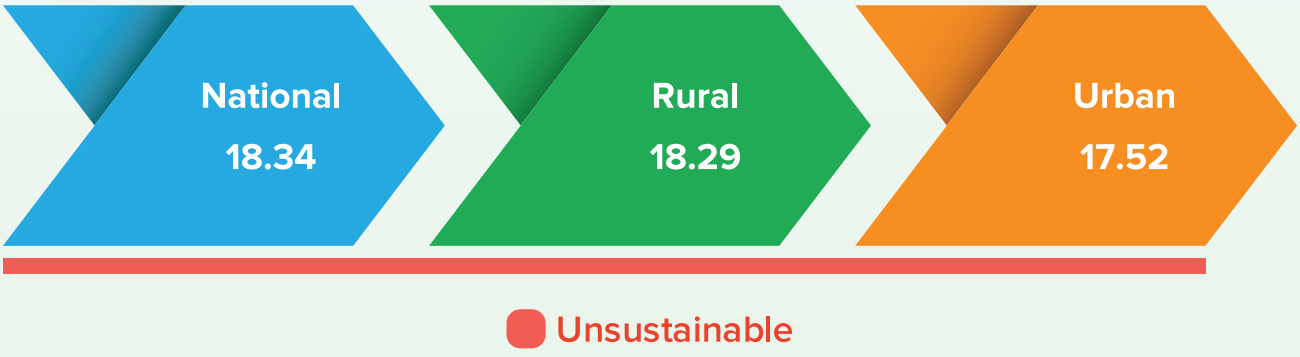
Locality	Desirable	Acceptable	Unsustainable	Total
National	60.22	12.53	27.25	100
Rural	59.29	12.58	28.13	100
Urban	72.34	11.33	16.33	100



Sub-indicator 5: Variation in Water Availability

Proportion of sustainability for the sub-indicator 'Variation in Water Availability' by locality

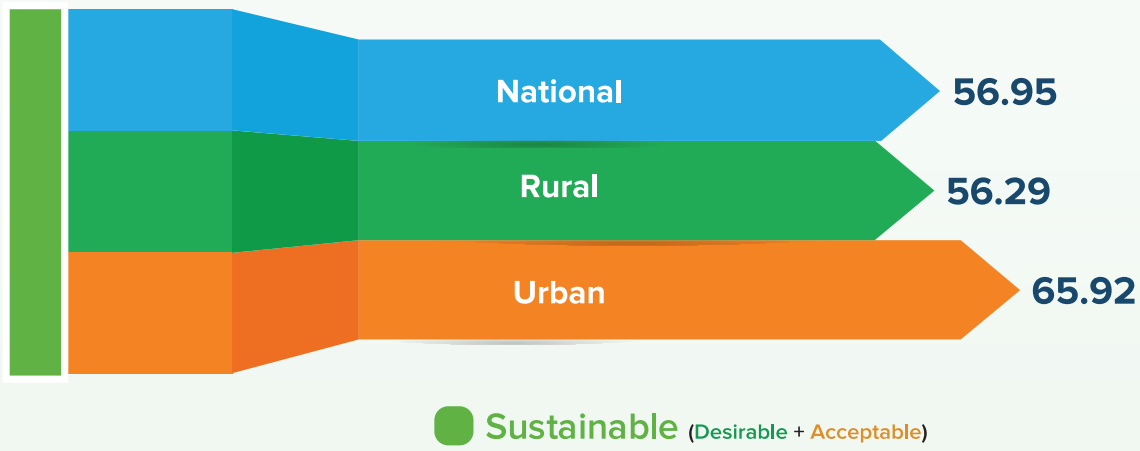
Locality	Desirable	Acceptable	Unsustainable	Total
National	46.38	35.28	18.34	100
Rural	46.40	35.31	18.29	100
Urban	47.62	34.86	17.52	100

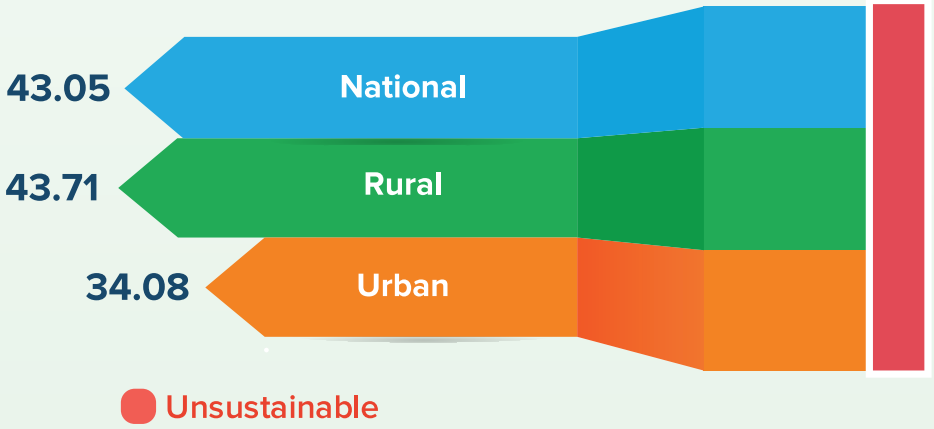


Sub-indicator 6: Management of Fertilizers

Proportion of sustainability for the sub-indicator 'Management of Fertilizers' by locality

Locality	Desirable	Acceptable	Unsustainable	Total
National	11.99	44.96	43.05	100
Rural	11.65	44.64	43.71	100
Urban	15.91	50.01	34.08	100

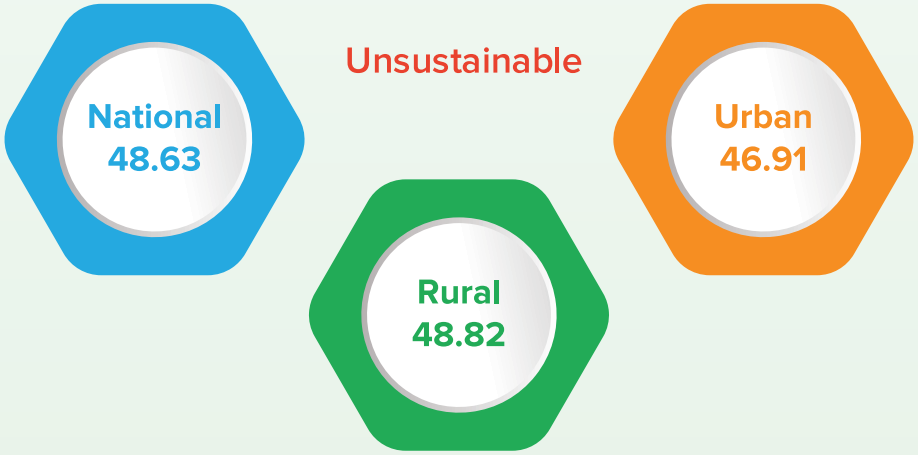




Sub-indicator 7: Management of Pesticides

Proportion of sustainability for the sub-indicator 'Management of Pesticides' by locality

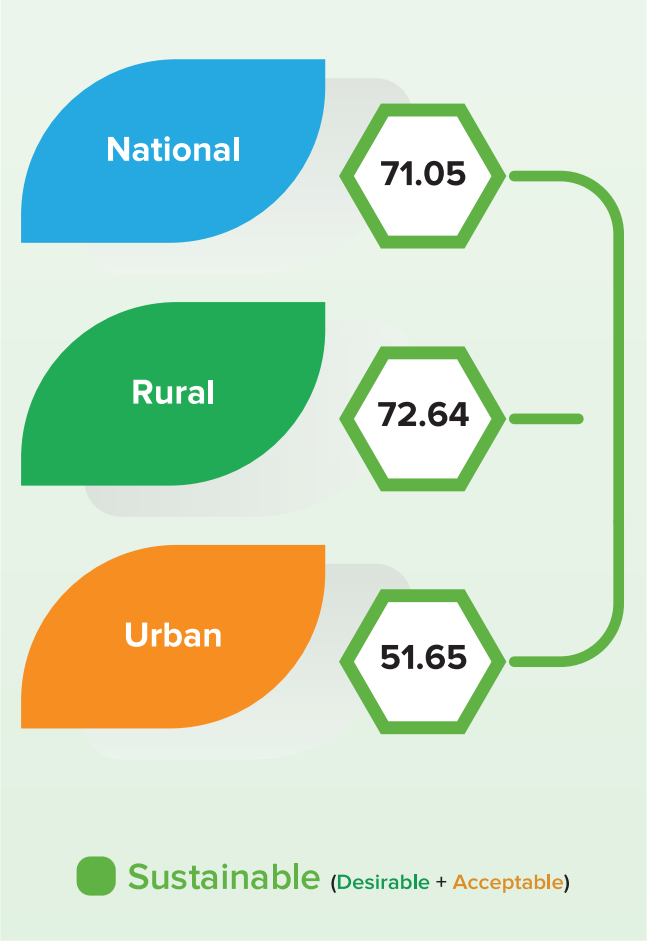
Locality	Desirable	Acceptable	Unsustainable	Total
National	14.79	36.58	48.63	100
Rural	14.45	36.73	48.82	100
Urban	18.47	34.62	46.91	100

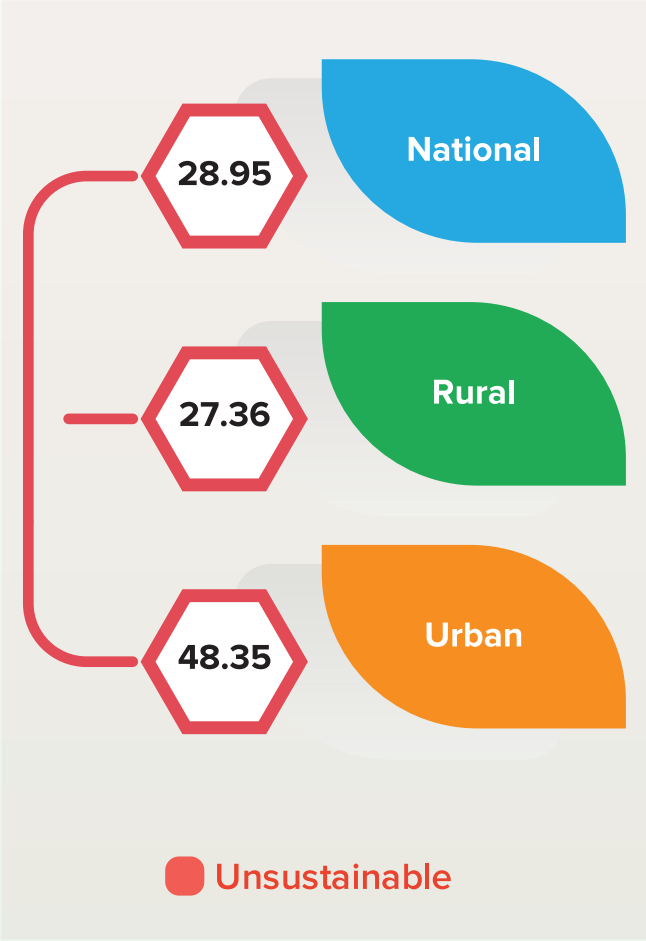


Sub-indicator 8: Use of Agro-biodiversity-supportive Practices

Proportion of sustainability for the sub-Indicator 'Use of Agro-biodiversity-supportive Practices' by locality

Locality	Desirable	Acceptable	Unsustainable	Total
National	25.29	45.76	28.95	100
Rural	26.70	45.94	27.36	100
Urban	10.51	41.14	48.35	100

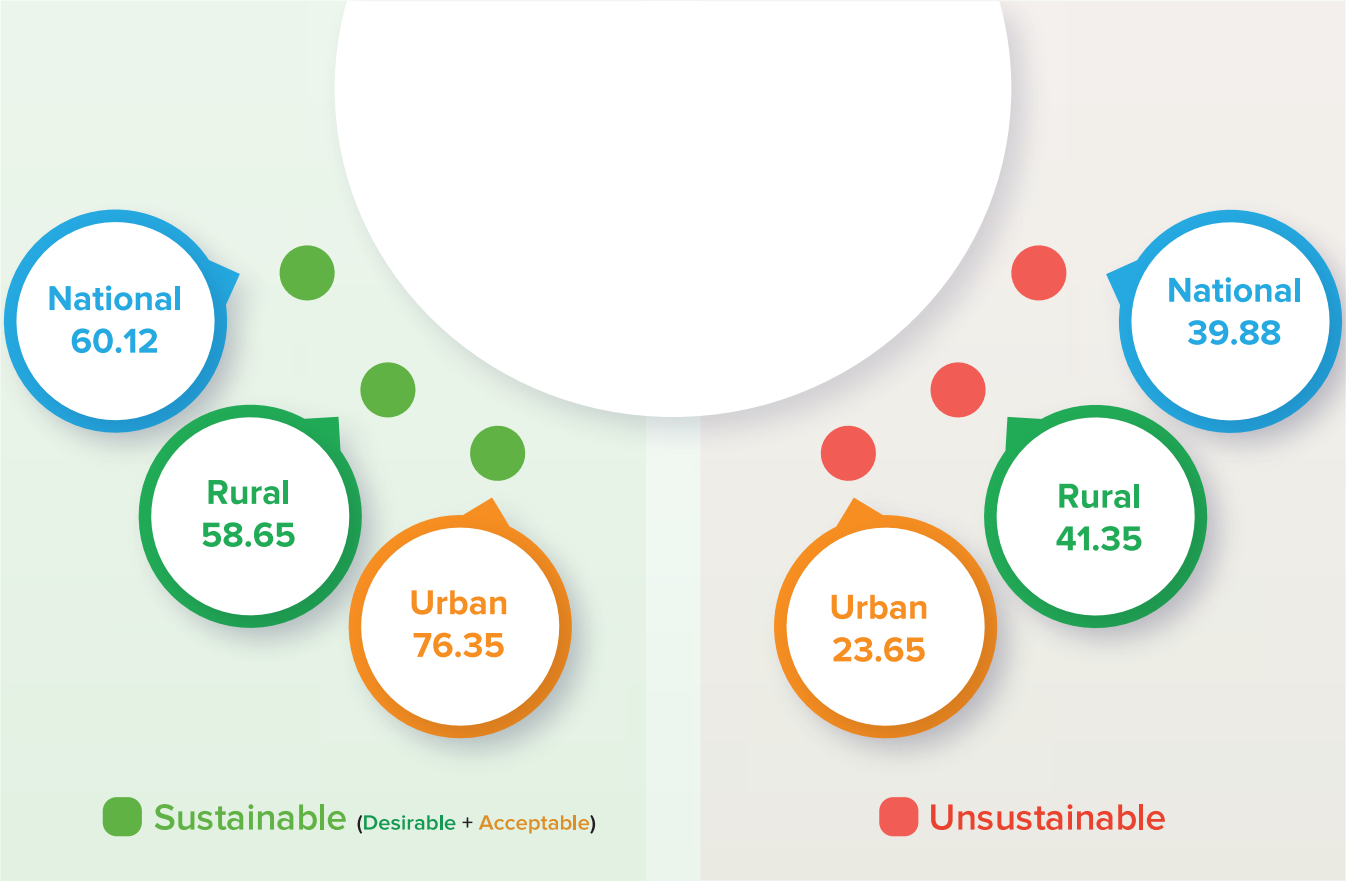




Sub-indicator 9: Wage Rate in Agriculture

Proportion of sustainability for the sub-indicator 'Wage Rate in Agriculture' by locality

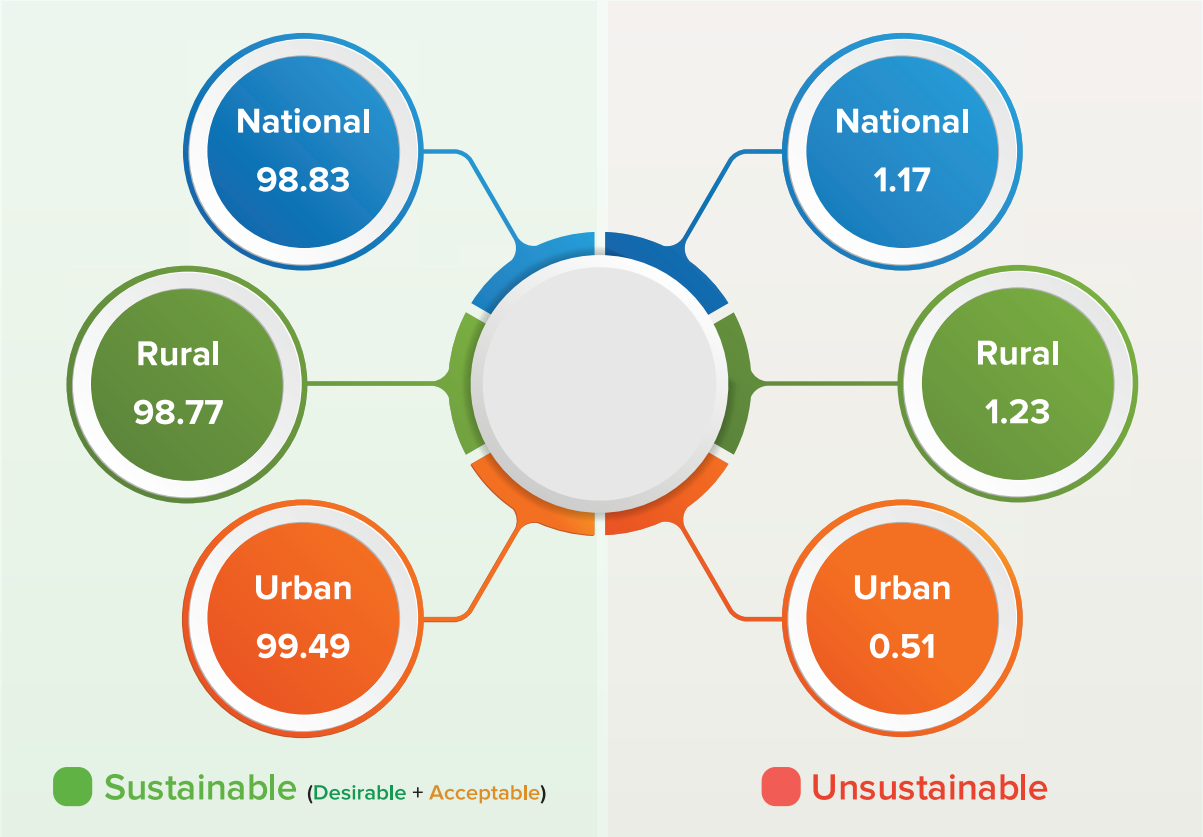
Locality	Desirable	Acceptable	Unsustainable	Total
National	39.85	20.27	39.88	100
Rural	38.72	19.93	41.35	100
Urban	54.17	22.18	23.65	100



Sub-indicator 10: Food Insecurity Experience Scale (FIES)

Proportion of sustainability for the sub-indicator 'Food Insecurity Experience Scale' by locality

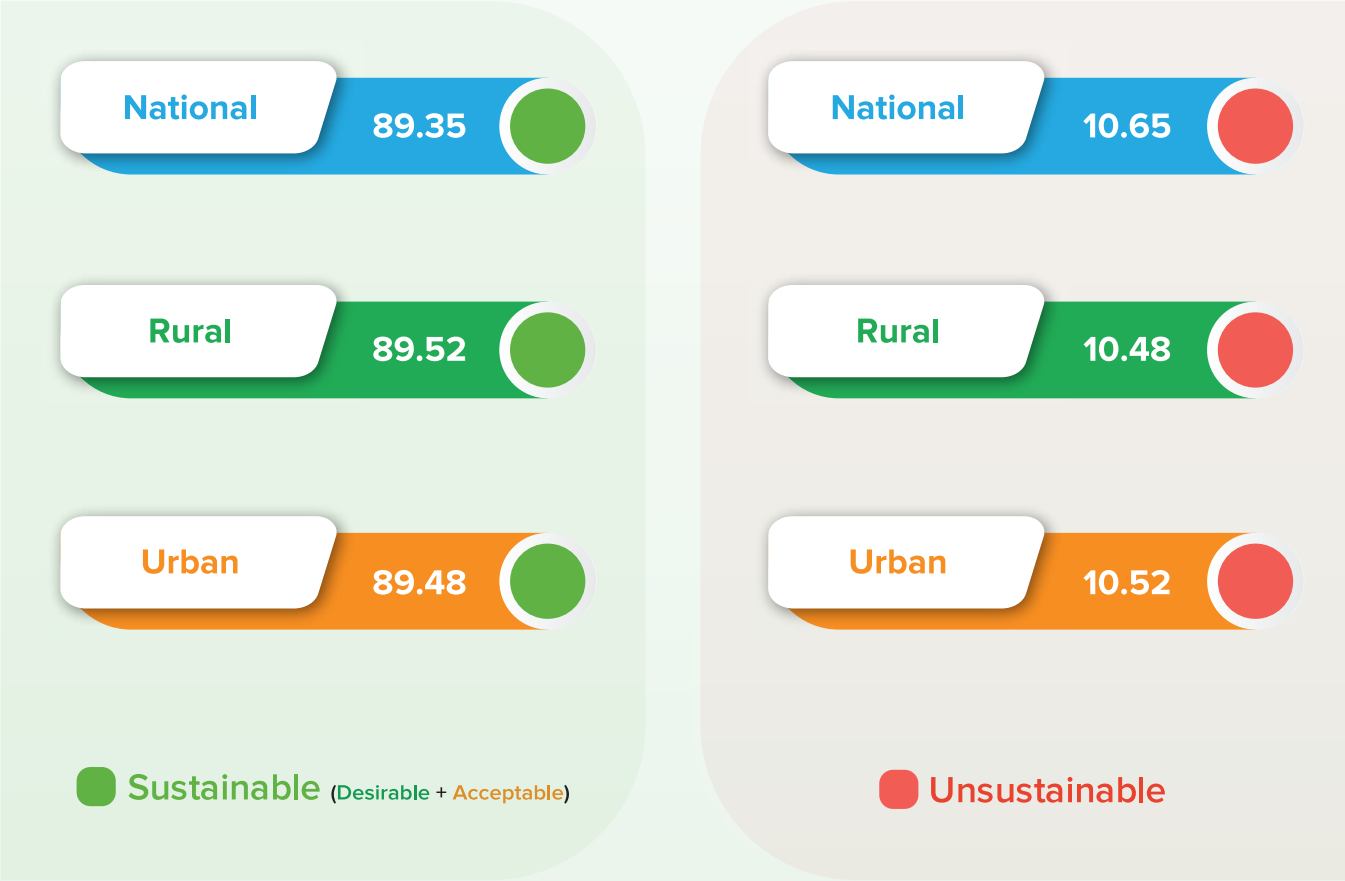
Locality	Desirable	Acceptable	Unsustainable	Total
National	81.11	17.72	1.17	100
Rural	80.60	18.17	1.23	100
Urban	88.47	11.02	0.51	100



Sub-Indicator 11: Secure Tenure Rights to Land

Proportion of sustainability for the sub-indicator 'Secure Tenure Rights to Land' by locality

Locality	Desirable	Acceptable	Unsustainable	Total
National	88.90	0.45	10.65	100
Rural	89.05	0.47	10.48	100
Urban	89.17	0.31	10.52	100



Chapter 1

CHAPTER 1: INTRODUCTION

The agricultural economy of Bangladesh plays a vital role in the country's development. As a result, the agriculture sector is one of the driving forces of the economy of Bangladesh. A little less than half (45%) of the country's total working population is engaged in the agriculture sector. The size of agricultural economy in Bangladesh is approximately 50 billion USD with almost 12 percent share of the country's total GDP[1] .

To monitor the progress of SDGs by 2030 and development plans for the agriculture sector in Bangladesh, it is important to prepare and provide updated official statistics. Bangladesh Bureau of Statistics (BBS) Produces agricultural statistics regularly and publishes yearbook of Agricultural Statistics annually and conducts Agriculture Census in every ten years.

BBS is providing information on 115 indicators out of 232 SDG indicators. Consequently, there is a necessity to collect data for various indicators as there is an obligation to provide information for specifying, monitoring and evaluating SDG targets and indicators. To report the SDG indicator 2.4.1, this survey was specially conducted all over the country.

The SDG indicator 2.4.1 refers to the Sustainable Agriculture Statistics which provides 11 sub-indicators of sustainable agriculture under three dimensions. They are: (i) Economic Sustainability (ii) Environmental Sustainability and (iii) Social Sustainability.

1.1 Scope and Coverage of the Survey

The scope of indicator 2.4.1 is the agricultural farm holding, and more precisely the agricultural land area of the farm holding, i.e. land used primarily to grow crops and raise livestock. This choice of scope is fully consistent with the intended use of a country's agricultural land area as the denominator of the aggregate indicator. In order to estimate the sustainability of agriculture, the scope of the survey was enclosed in the household particularly, farm households owning at least 1 decimal (1/100 of an acre) of cultivable land and institutional agriculture farm. Considering all agriculture commodity coverage, the temporary crops, permanent crops, livestock, mix farm with crops included as mix farming with their agriculture land areas were accounted in the survey scope. As per metadata the inclusion and exclusion are as follows:

Included within scope

- Intensive and extensive crops and livestock production systems
- Subsistence agriculture
- State and common land when used managed and exclusively by the farm holdings
- Food and non-food crops and livestock products
- Crops grown for fodder or energy purposes
- Agroforestry (trees in the agricultural areas of the farm)
- Aquaculture, to the extent that it takes place within the agricultural land area. For example, rice-fish farming and similar systems.

[1] Final estimates of GDP 2023-24, National Accounting Wing, Bangladesh Bureau of Statistics

Excluded from scope

- State and common land not used exclusively by the farm holding
- Nomadic pastoralism
- Production from gardens and backyards i.e. production from hobby farms
- Holdings focusing exclusively on aquaculture
- Holdings focusing exclusively on forestry
- Food harvested from the wild.

1.2 Method of Computation

The indicator is defined by the formula:

$$\text{SDG2.4.1} = \frac{\text{Area under productive and sustainable agriculture}}{\text{Agricultural land area}}$$

This implies the need to measure both the extent of land under productive and sustainable agriculture (the numerator), as well as the extent of agriculture land area (the denominator).

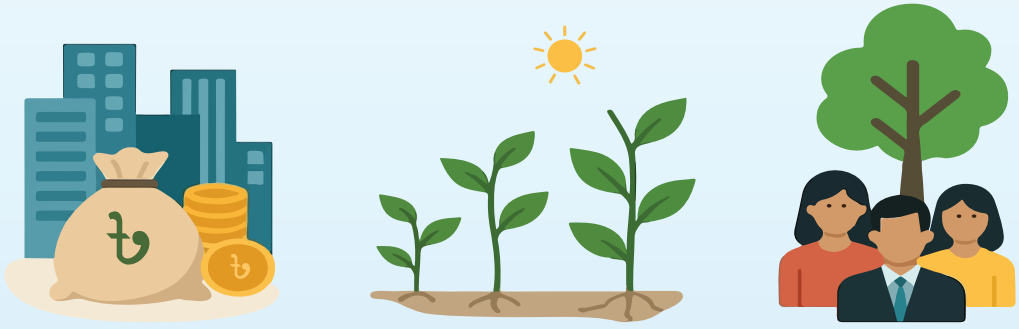
- The numerator captures the three dimensions of sustainable production: environmental, economic and social. It corresponds to agricultural land area of the farms that satisfy the sustainability criteria of the 11 sub-indicators selected across all three dimensions.

- The denominator in turn the sum of agricultural land area (as defined by FAO) utilized by agricultural holdings that are owned (excluding rented-out), rented-in, leased, sharecropped or borrowed. State or communal land not used by farm holdings is excluded.

1.3 Dimensions of the Survey

There are three dimensions covered in the survey according to the metadata guidelines of the SDG indicator 2.4.1 . The dimensions are: Economic, Environmental and Social Sustainability. To assess all three dimensions, the survey questionnaire was developed adding different modules (annex-4).

Dimensions of SDG indicator 2.4.1 measurement



Economic Sustainability | Environmental Sustainability | Social Sustainability

1.4 Thematic Area of Sustainable Agriculture

According to metadata, there are 11 thematic areas under the 3 dimensions of sustainable agriculture. Out of 11 thematic areas, 3 for Economic Sustainability, 5 for Environmental Sustainability and 3 for Social Sustainability.

Distribution of the thematic area under three dimensions of sustainable agriculture

Economic Sustainability

- Land Productivity
- Profitability
- Resilience

Environmental Sustainability

- Soil Health
- Water Use
- Fertilizer Pollution Risk
- Pesticide Risk
- Biodiversity

Social Sustainability

- Decent Employment
- Food Security
- Land Tenure

1.5 Sub-indicators Based on Thematic Areas

SDG 2.4.1 is a composite indicator compiling 11 sub-indicators that altogether.

List of the sub-Indicators under the thematic areas on sustainable agriculture

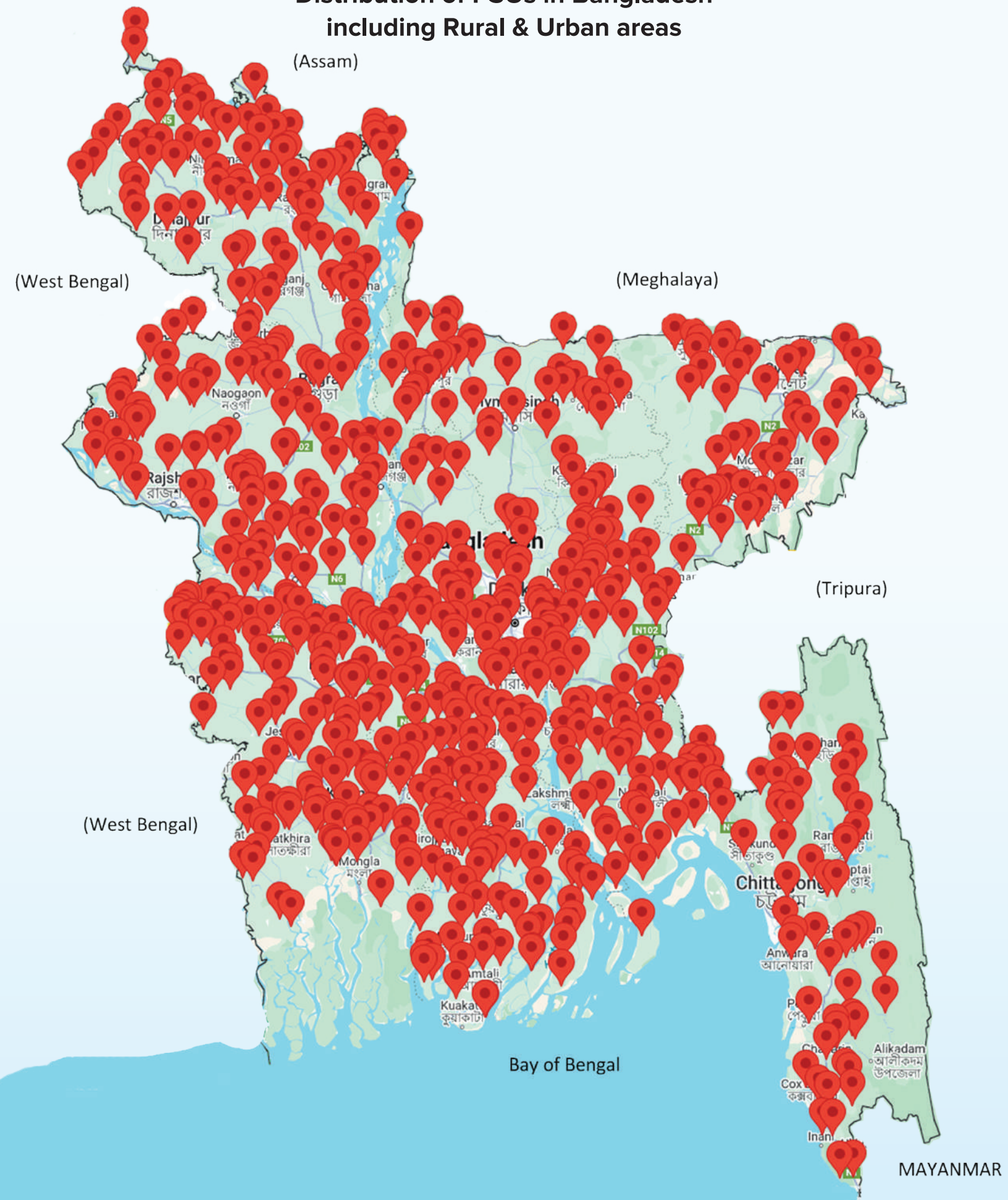
Sl. No.	Thematic Area	Sub-indicators
1	Land productivity	Farm output value per hectare
2	Profitability	Net farm income
3	Resilience	Risk mitigation mechanisms
4	Soil health	Prevalence of soil degradation
5	Water use	Variation in water availability
6	Fertilizer pollution risk	Management of fertilizers
7	Pesticide risk	Management of pesticides
8	Biodiversity	Use of agro-biodiversity-supportive practices
9	Decent employment	Wage rate in agriculture
10	Food security	Food Insecurity Experience Scale (FIES)
11	Land tenure	Secure tenure rights to land

1.6 Assessment of Sustainability

For each sub-indicator, it has separate criteria to assess sustainability levels. The concept of sustainability implies an idea of continuous progress and improvement towards improved performance across all the themes. To capture progress towards sustainability, a separate colour was used. Green Colour refers to the desirable criteria, Yellow Colour refers to the acceptable criteria and Red Colour refers to the unsustainable criteria (Traffic lighting system). Each of the sub-indicator has separate criteria in a certain time reference period and the sub-indicator has to fulfill the criteria to be a part of desirable, acceptable, unsustainable category. The sustainable category is the sum of desirable and acceptable categories.

Chapter 2

Distribution of PSUs in Bangladesh including Rural & Urban areas



CHAPTER 2: SURVEY METHODOLOGY

2.1 Sampling Frame

Firstly, in order to capture the agricultural activity at household in Bangladesh, Agriculture Census 2019 is only source that covers crops, livestock and fisheries activities. The Agriculture Census 2019 was conducted during the period of 9th June to 20th June 2019 all over the country. This Census aims to clarify the actual situation of the basic structure and its changes in the crops, fisheries and livestock production over time. The agricultural households from this census database were considered as sampling frame to the Productive and Sustainable Agriculture Survey 2025. According to the Agriculture Census 2019, there were 16.88 million households in agricultural activity farming household which is 47.40% of the total households.

Secondly, with a view to ensure the coverage of the Institutional Agriculture Farm (IAF), the latest Economic Census 2024 was considered as sampling frame. Around 1.69 lac agriculture based institutional farms were taken under consideration for choosing sample on institutional agriculture farms for the survey.

2.2 Sampling Design

Productive and Sustainable Agriculture Survey 2025 is designed to capture sustainable food production systems and implement resilient agricultural practices that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality. For this purpose a nationally representative and well-designed survey that offers official statistics on sustainable agriculture is undertaken.

2.2.1 Design Stages

For Productive and Sustainable Agriculture Survey 2025, a two-stage stratified cluster sampling design was followed under the sampling frame developed from the Agriculture Census 2019 and Economic Census 2024. The primary sampling unit (PSU) was the Enumeration Area (EA) of the Agriculture Census 2019 and institutions from the Economic Census 2024. Each EA is a cluster of around 200 households.

In the first stage, the required number of PSUs was selected and a complete household listing was done for the selected PSUs. Then, in the second stage, 20 households were selected randomly from each selected PSU for data collection.

Two sampling frames were used for PSUs selections as stated before. For Agriculture Census 2019, the household having minimum 0.01 acre cultivated land was considered as sampling frame. It was actually taken to meet the requirement of SDGs metadata. The frame after filtered from the main dataset is presented in the given below:

Table 2.1: Household sampling frame from the Agriculture Census 2019 for 'Productive and Sustainable Agriculture Survey 2025'

Domain	Division	Total HH
1	Barishal	1,891,168
2	Chattogram	4,669,233
3	Dhaka	7,539,256
4	Khulna	3,772,475
5	Mymensingh	2,575,720
6	Rajshahi	4,514,444
7	Rangpur	3,949,131
8	Sylhet	1,788,808
	Total	**30,700,235**

For Economic Census 2024, those Institutional Agriculture Farms have minimum total manpower (two persons) was considered as sampling frame. It was also actually taken to meet the requirement of SDGs metadata. The frame after filtered from the main dataset is presented in the given below:

Table 2.2: Institutional agriculture farm sampling frame from the Economic Census 2024 for 'Productive and Sustainable Agriculture Survey 2025'

Domain	Locality	Total IAF
1	Rural	151,490
2	Urban	17,620
	Total	**169,110**

2.2.2 Stratification

Stratification for this design was done in the following way:

First, the eight administrative divisions and urban/rural areas were treated as a domain or leading stratum. Therefore, primarily the survey has 16 domains or main strata. Since Agriculture Economy is diverged and widely varied by district therefore the samples were allocated in each district to make district representation in the sample.

2.2.3 Sample Size

Before estimating the sample size, the first step is to identify the key target variables on which the sample size is estimated and assess the sample's accuracy in achieving a certain level of precision for estimating selected statistics on these key target variables. Two separate sample designs were introduced. For household survey, the target variable was (i) minimum land 0.01-acre HH, (ii) Prevalence rate of households having cultivated land which is 0.53 as the key determinant of household samples. On the other hand, for

the institutional agricultural farm, greater than zero member of the total manpower was considered after filtering out the main Economic Census database. Using both indicators, a calculation showed that about 15600 households or 780 PSUs (as 20 households were selected in each PSU) and 722 institutional farms were taken according to the census proportion of urban and rural percentage.

2.2.4 Formula Used for the Estimation of Sample Size

For household survey, the sample size is usually determined at the domain level from which a separate estimate is derived. From general theory, the minimum required sample size is determined by the usual sample size determination formula for estimating the mean, which is given by

$$n = \frac{z_{\alpha/2}^2 p(1-p)}{d^2} \times deff$$

where n is the minimum sample size required for allocation to each division in order to achieve a certain level accuracy of computed statistic, p is pre-assumed proportion associated with the targeted variable; deff is the design effect of the target variable; and $z_{\alpha/2}$ is the critical value of a standard normal distribution with $\alpha\%$ level of significance and r is the relative margin of error

The prevalence rate of having minimum 0.01 acre cultivated land (p=0.53311) was used from the Agriculture Census findings and an absolute margin of error was taken to be 5% (d=0.05). Also using a factor for the design effect 2.3 at 95% level of confidence (z=1.96), the minimum required sample size for a single domain would be 880 households. With allowing 10% non-response for each domain, the household would be 968≈975 for each domain. Considering 16 domain, the total number of households became 15600.

For an Institutional Agriculture Farm, the minimum total manpower was the key indicator to lead the selection procedure. The 50% prevalence rate with design effect 1.7 and allowing 10% non-response the sample size using the same formula it was 718≈722. Keeping rural and urban census proportion, probability proportional to size systematic method was used to select the farms directly. It could be noted that the indicators for sustainable agriculture statistics, the households and the institutional farms are combined to generate the results.

2.2.5 Sample Allocation

Household Level

The ultimate sample size was estimated at 15600 households spreading through 780 Primary Sampling Units (PSUs) all over the country. Samples were allocated equally (12 PSUs) in each district to make district representation in the sample. Thus, the division allocation was done based on the number of districts for that division. For example, Mymensingh division got 48 PSUs, since Mymensingh has 4 districts 12×4=48 PSUs. Accordingly, Barishal Division got 72 PSUs i.e., (12×6) =72.

Allowing 12 PSUs, each district, the number of PSUs became 12×64=768. In addition, one more PSU was distributed to

each city corporation for ensuring urban representation in the samples. For example, Mymensingh division has one city corporation and Barishal Division has one city corporation, so finally Mymensingh division and Barishal division got 48+1=49 PSUs and 72+1=73 PSUs respectively. Thus, the total number of PSUs became 768+12=780. As such, divisional and national rural-urban level estimation will be generated. Following table shows the ultimate sample sizes in each of the domains.

Table 2.3 Distribution of household sample PSUs by locality and division (in number)

Locality/Division	Number of Sample PSUs	Number of Sample Household
National	780	15600
Rural	677	13540
Urban	103	2060
Division		
Barishal	73	1460
Chattogram	135	2700
Dhaka	157	3140
Khulna	122	2440
Mymensingh	49	980
Rajshahi	98	1960
Rangpur	97	1940
Sylhet	49	980

Institutional Agriculture Farm Level

Considering rural and urban representation proportionately in the agriculture farm, the samples were allocated in whole Bangladesh. The samples were also distributed for each district following household sample distribution. Each district represents minimum 11 institutional agriculture farms from the sampling frame. Thus, the number of samples here became (11×64) =704 farms. In addition, there is also taken some sample in the urban areas. Finally, the number of farms became 722.

Sustainable Agriculture

Table 2.4 Distribution of sample institutional agriculture farm by locality (in number)

Locality/Division	Number of IAF
National	722
Rural	633
Urban	89
Division	
Barishal	66
Chattogram	122
Dhaka	144
Khulna	118
Mymensingh	44
Rajshahi	92
Rangpur	90
Sylhet	46

For generating SDGs indicators both the household and farms were combined in the data set and estimated the sustainable agriculture indicators. In the survey, the combined total number of samples are described in following table:

Table 2.5 Distribution of sample household and farm by locality and division (in number)

Locality/Division	Number of HH	Number of IAF	Total
National	15600	722	1502
Rural	13540	633	1310
Urban	2060	89	192
Division			
Barishal	1460	66	1526
Chattogram	2700	122	2822
Dhaka	3140	144	3284
Khulna	2440	118	2558
Mymensingh	980	44	1024
Rajshahi	1960	92	2052
Rangpur	1940	90	2030
Sylhet	980	46	1026

2.2.6 Sample Selection

For the household survey, in the first stage, the PSUs (EAs) were selected from 64 districts equally reflecting urban and rural representation using census urban and rural proportion within district, considering minimum 0.01-acre operated land for each household applying the PPS systematic sampling technique. From each district 12 PSUs were selected equally and 12 more PSUs were allocated for the 12 city corporations. In the second stage, 20 HHs were selected using systematic sampling technique from each PSUs for the household survey.

2.3 Training and Field Operation

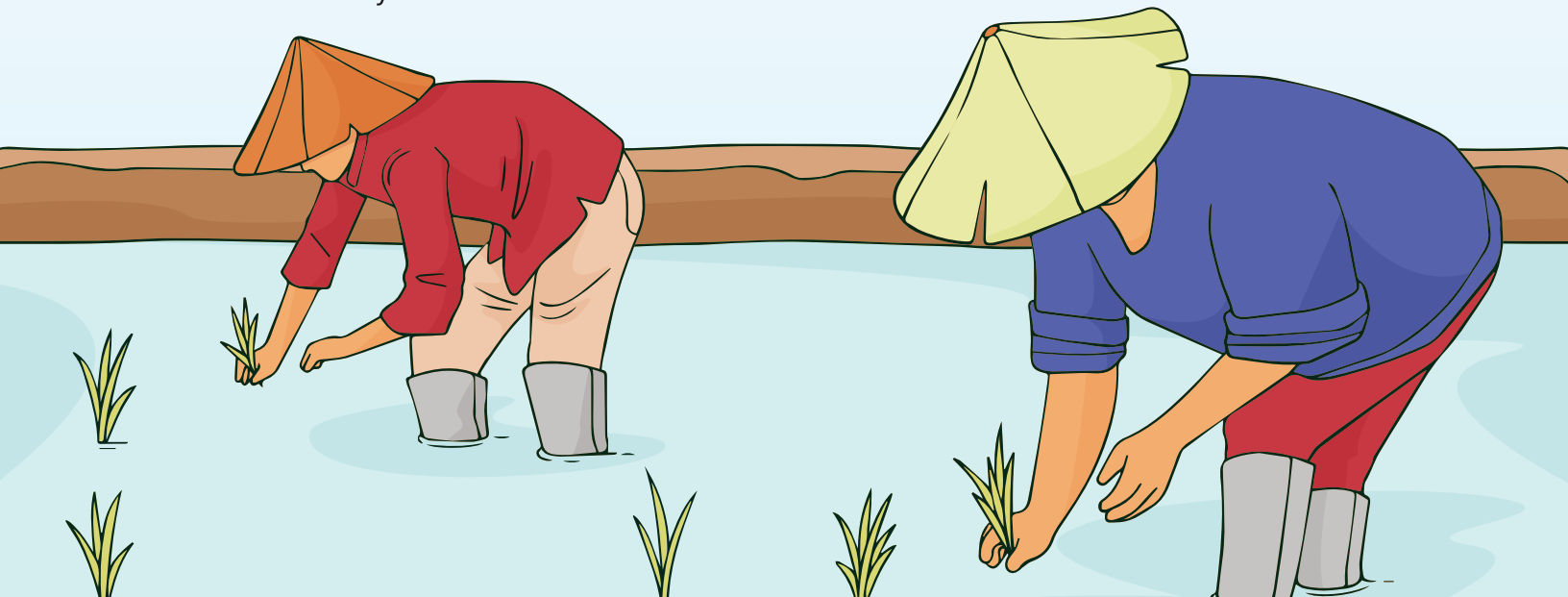
2.3.1 Training

The training was conducted into two phases. Three days training was held Agriculture Wing Conference Room, Bangladesh Bureau of Statistics Headquarters for the Trainer of the Trainees (TOT) from 12-14 January 2025. In the second step, the enumerators, supervisors and supervising officers from 64 districts was taken in-person training at Bangladesh Bureau of Statistics Headquarters auditorium, Dhaka for four days from January 15 to January 18, 2025.

The training format fully immersed participants in the learning experience, providing a focused and intensive training environment. The program likely included theoretical sessions, practical exercises, case studies and interactive discussions to equip the coordinators with the necessary tools and techniques to carry out their roles effectively.

The training fostered collaboration, networking and the exchange of best practices among participants by bringing together participants from different divisions and districts. The knowledge and skills gained during the training would have better prepared the participants to perform their responsibilities and contribute to successfully implementing their respective duties.

After completion of the 4 days training every enumerator was given test for the fitness for the field operation, all concept definition and numerical calculation of the survey questionnaire. Those who did not pass the exam had to continue additional 2 more days of each. After then, they were got tested again and sensitized for the smooth field operation.



2.3.2 Field Operation

There were 200 enumerators for the survey. 4 enumerators comprised one supervisor; one supervising officer was apportioned for the field level supervision. One enumerator was assigned to 4 PSUs to work for 45 days for both listing operation and main survey operation.

Sustainable and Agriculture Statistics (SAS) Project has conducted a pilot survey to determine the time duration of listing operation and main survey operation. The detailed data collection schedule is as follows:

Operation Type	Section	PSUs/HHs	Duration of data collection
Listing Operation	Listing all households based on their assigned PSU areas.	4 PSUs per Enumerator	20 January-03 February 2025 (15 days)
Main Survey Operation	A survey operation was conducted on all selected household and institutionals farms based on the sample design	80 Households per Enumerator	4 February-05 March 2025 (30 days)

2.4 Supervision and Quality Control

Intense supervision and quality control measures were adopted in Productive and Sustainable Agriculture Survey 2025. As mentioned earlier, there were 200 enumerators, each four enumerators comprising one supervisor. To ensure smooth data collection and quality, 50 supervisors were appointed to lead the teamwork during data collection in respective districts. There were 64 Deputy Directors of District Statistical Office and 8 Joint Directors from Divisional Statistical Office were also engaged as supervising officers. In addition, five enumerators were also kept as reserve in case of any urgency arising out of the non-availability of any enumerators. Senior officials from SID and BBS frequently visited the sample areas randomly to ensure the quality of the survey data. The supervising officers were required to examine all the questionnaires that the field staff completed and verify that each interview had been carried out on time and that the questionnaires were completed correctly. In turn, the supervising officers helped the enumerators solve their problems.

Soon after data collection was completed, the enumerators sent the data to supervising officer in the server through the Internet. These data sets were promptly verified in the Headquarters. There were eight monitoring supervisors for eight administrative divisions at Headquarters NOC Room to check the data sent by supervisor and enumerators from the field. If the Headquarters team found any error or inconsistency, it was immediately communicated to the concerned enumerator and the supervising officer. As mentioned above, these control and supervision measures enhanced the quality of enumeration and the data collection system to a great extent.

2.5 Data Collection, Validation and Data Processing

2.5.1 Data Collection and Validation

The data collection for the Productive and Sustainable Agriculture Survey 2025 has done through Computer Assisted Personal Interviewing (CAPI). With this method, the interviewers regularly collected all the information during the interview using tablet device. Most of the question has logical validation which ensured the qualities of the data. After collection of the data, the enumerator sent to the respective supervisors for check and approval of the collected data. If supervisor found any inconsistencies in the data, they sent back to the enumerator and the enumerator went back to the relevant households of the PSU. After, made the required changes or corrections to remove the discrepancies while still in that locality have been done. Once they had completed and checked the information, it was sent to the supervisors. Since, then the supervisor sends the data to the data center after rechecking the data. Thus, the data were substantially cleaned and validated at the field level. The data collection program was developed in CAPI. It contained a web-based data transferring system, which allowed enumerators to transfer data from the field in real-time using a mobile internet connection. After the data was transferred to BBS headquarters, it was compiled and exported to a readable version by standard statistical software. There was a web based monitoring Dashboard that gives a live update of every moment of the progress in the dashboard. There was a parameter dashboard where the basic formula was set to understand the basic frequency tables of the live data. The data were then promptly examined and verified with the questionnaires if necessary to ensure that the errors and inconsistencies required to be sending back to the enumerators for correction.

A dedicated supervisor was observed the dashboard progress and data consistency from the network operation center at the headquarters of Bangladesh Bureau of Statistics. The project team and senior officials also examined the live data sets. The software for the data collection was developed in such a manner as to detect most of the errors, omissions or inconsistencies right at the data collected from field. However, more editing, especially inter-record consistency was required by the senior officials at BBS headquarters.

From the data sets thus produced, dbf files were created through specially designed software. Finally, tables were generated from the cleaned data sets using statistical software like STATA and SPSS.

2.5.2 Data Analysis

In the context of data analysis for the Productive and Sustainable Agriculture Survey 2025, several teams and consultant were involved. The SAS team consists of professionals and experts responsible for designing and conducting the survey, collecting the data, and overseeing the data validation.

Chapter 3

CHAPTER 3: ECONOMIC DIMENSION

Sustainable Development Goal (SDG) Indicator 2.4.1 focuses on the proportion of agricultural areas under productive and sustainable agriculture. It is a key metric under SDG 2: Zero Hunger, which seeks to end hunger, achieve food security, improve nutrition, and promote sustainable agriculture by 2030. This indicator provides a holistic framework for assessing how well agricultural systems are functioning in terms of sustainability across three key dimensions. They are:

- **Economic dimension**
- **Environmental dimension**
- **Social dimension**

This chapter focuses on the Economic dimension among the three described dimensions.

3.1 Economic Dimension of SDG Indicator 2.4.1

The Economic dimensions assess whether farmers' agricultural practices are financially viable, profitable and economically sustainable over the long term. The economic aspect of Indicator 2.4.1 is essential for understanding the long-term viability of agricultural systems. It includes three sub-indicators: Farm output value per hectare, Net farm income and Risk mitigation mechanism. Together, these sub-indicators assess the economic sustainability of farming operations and provide insight into how effective agricultural practices contribute to livelihoods and development. The three sub-indicators of economic dimension have three themes: the theme of 'Farm output value per hectare' is land productivity; the theme of 'Net farm income' is profitability; the theme of 'Risk mitigation mechanism' is resilience.

3.1.1 Land Productivity

Land productivity measures the output value per hectare of agricultural land. It reflects how efficiently land is used to produce crops or livestock or mix farming and is a critical indicator of sustainable intensification. Higher productivity indicates that farmers are able to generate more value from a given land.

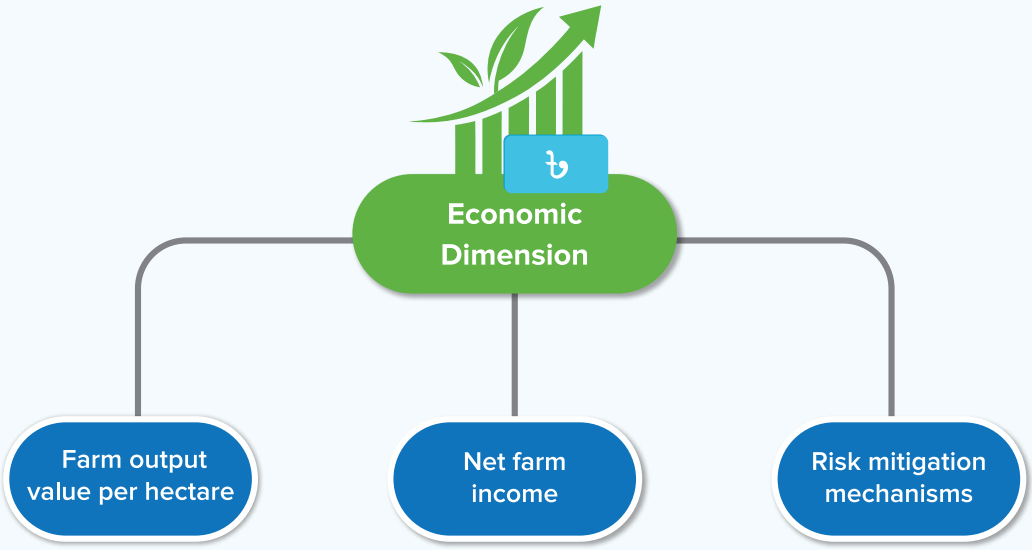
3.1.2 Profitability

Profitability refers to the net income generated from agricultural activities, calculated as the difference between the total value of output and the cost of inputs (such as seeds, fertilizer, water, machinery and labor). This theme highlights the economic returns to farmers and provides insight into the economic feasibility of continuing farming over time. A profitable agricultural system ensures that farmers can reinvest in their land, improve livelihoods, and contribute to local and national economies.

3.1.3 Resilience

Resilience captures the ability of farms to withstand and adapt to various shocks and stresses, including climate variability, pests and diseases, market fluctuations and socio-political instability.

The three sub-indicators of economic dimension are as follows:



3.2 Sub-indicator 1: Farm Output Value per Hectare

Farm output value per hectare or agricultural production per hectare is a measure of the level of agricultural productivity per hectare of land. Production per hectare comes from all agricultural outputs, such as crop production, livestock yields or a combination of both. Given that yields are quantified in different units, production per hectare is assessed in Local Currency Units (LCU). This involves multiplying the quantity of production by the average price in Taka. The multiplication generates the output value of agricultural production.

Sustainability Criteria

- **Desirable:** Sub-indicator value is desirable if the per hectare output value is greater than or equal to two-thirds of the corresponding 90th percentile value.
- **Acceptable:** Sub-indicator value is acceptable if the per hectare output value is greater than or equal to one-third and less than two-third of the corresponding 90th percentile value.
- **Unsustainable:** Sub-indicator value is unsustainable if the per hectare output value is less than one-third of the corresponding 90th percentile value.

Reference Period: 2024

The farm output value per hectare of land is a key indicator that reflects land productivity. In other words, how efficiently agricultural land produces output. This measure is fundamental in assessing the efficiency and performance of agricultural activities.

Results

According to the survey, 44.37% of the country's agricultural land is considered both productive and sustainable, as measured by the farm output value per hectare. The desirable, acceptable and unsustainable proportion of farm output value per hectare are as follows:

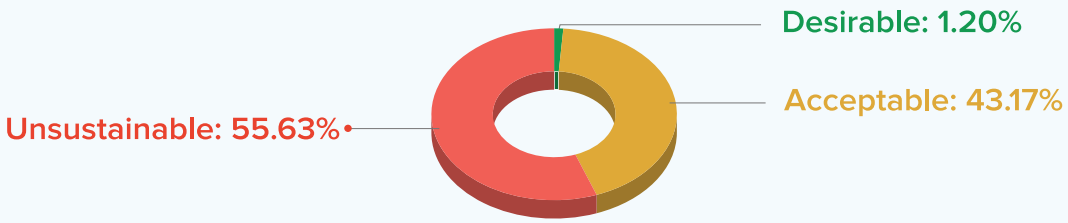


Table 3.1: Proportion of sustainability of sub-indicator 'Farm Output Value per Hectare' by locality

Locality	Desirable	Acceptable	Sustainable*	Unsustainable
National	1.20	43.17	44.37	55.63
Rural	1.04	44.18	45.22	54.78
Urban	3.20	31.32	34.52	65.48

*Sustainable= Desirable + Acceptable

The 'desirable' proportion refers specifically to agricultural land that demonstrates high productivity that is, land where the output value per hectare exceeds two-thirds of the 90th percentile value. Nationally, only 1.20% of agricultural land falls into this high-performing group. This indicates that a relatively small share of land achieves this level of output, highlighting the potential for improvement in productivity across the sector.

The 'acceptable' proportion represents land with moderate productivity where output value per hectare lies between one-third and two-thirds of the corresponding 90th percentile value. This group comprises 43.17% of agricultural land. While not reaching the high-performance threshold, these lands show potential for growth and development with the adoption of better farming practices or technologies. Table 3.1 shows that urban agricultural land has more desirable land than the national average and rural areas.

Urban areas show a relatively higher proportion of land in the 'desirable' category, that is, land where the output value per hectare exceeds two-thirds of the corresponding 90th percentile benchmark.

Here, considering the 'acceptable' category which includes land with output values between one-third and two-thirds of the 90th percentile urban areas actually record the lowest share in comparison to both the national and rural averages. This implies a sort of polarization in urban productivity: land is either highly productive or falls outside the acceptable range altogether.

In contrast, rural areas show a more similar distribution. The proportions of land falling into both the desirable and acceptable categories are relatively similar, indicating a more consistent but moderate level of productivity. While fewer rural plots may reach the high productivity threshold, sizeable portion still maintains an acceptable performance level.

Figure 3.1: Proportion of sustainable and unsustainable agricultural land of sub-indicator 'Farm Output Value per Hectare' by locality

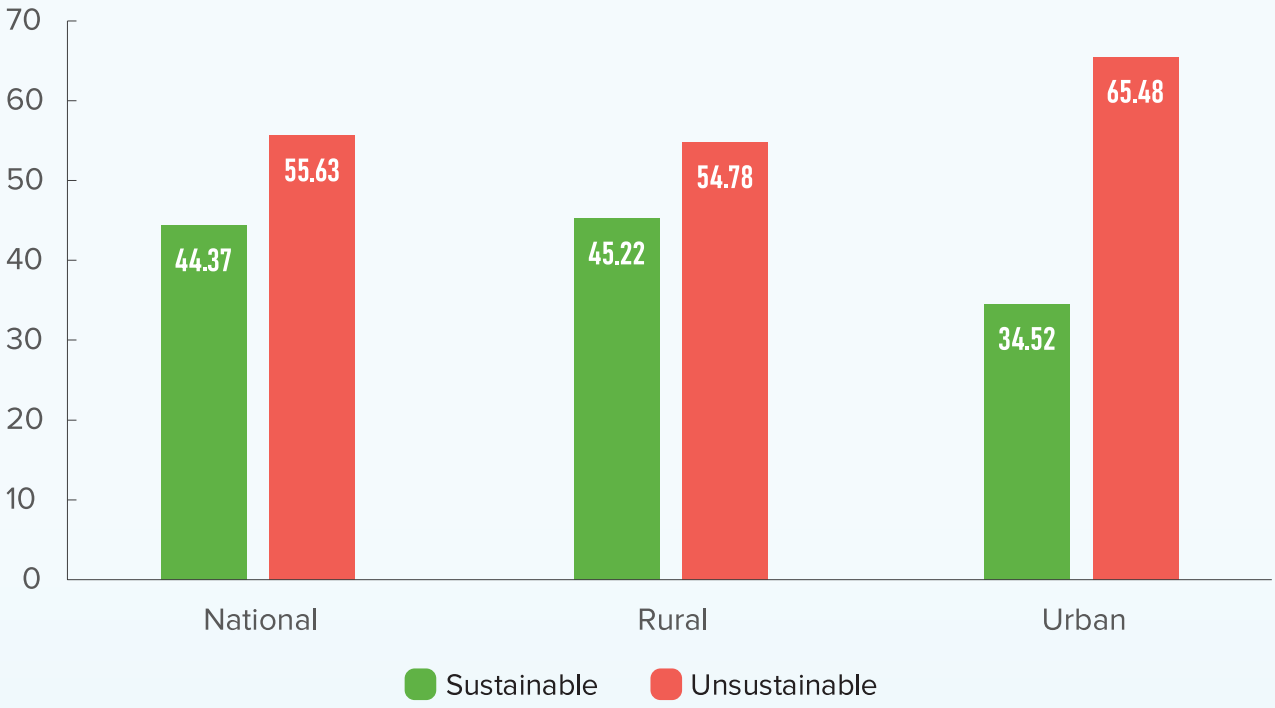


Figure 3.1 shows that 44.37% of agricultural land is managed by households with an output value per hectare at least one-third of the 90th percentile benchmark. This means that nearly 45% of our agricultural land is productive and sustainable.

In contrast, the unsustainability rate stands at 55.63%. This figure represents the share of agricultural land managed by households whose output per hectare falls short of two-thirds of the 90th percentile value.More than half of the agricultural land in the country is being utilized at levels that may not be sustainable in the long term.

Here, the distribution in rural areas is quite similar to the national averages. The sustainability and unsustainability rates in rural areas reflect those observed at the national level. This consistency highlights that rural productivity patterns are driving the overall national trend, and therefore, any effort to improve sustainability must pay particular attention to rural contexts.

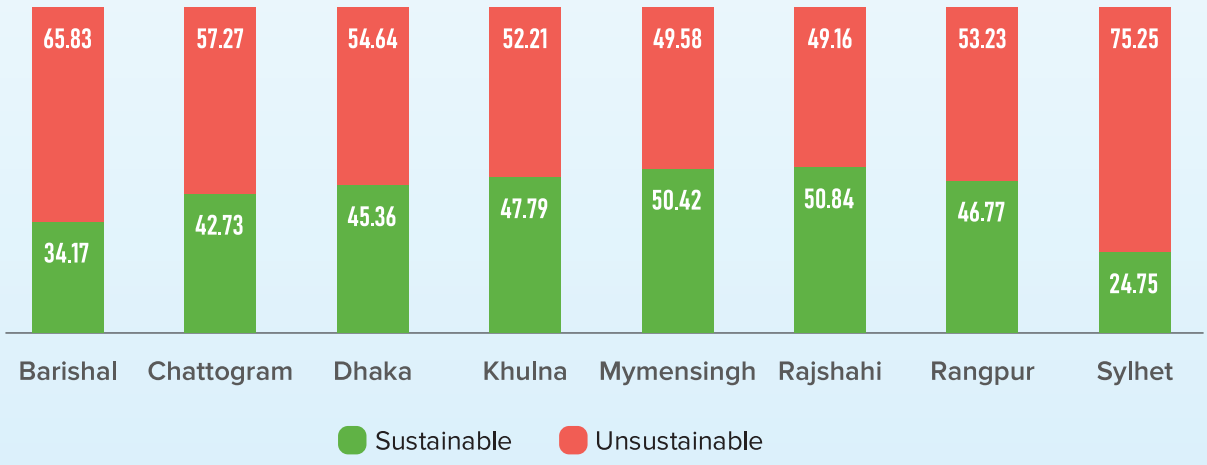
Table 3.2: Proportion of sustainability of sub-indicator 'farm Output Value Per Hectare' by division

Division	Desirable	Acceptable	Sustainable*	Unsustainable
Barishal	0.87	33.30	34.17	65.83
Chattogram	1.39	41.34	42.73	57.27
Dhaka	1.59	43.77	45.36	54.64
Khulna	1.05	46.74	47.79	52.21
Mymensingh	0.64	49.78	50.42	49.58
Rajshahi	1.48	49.36	50.84	49.16
Rangpur	1.39	45.38	46.77	53.23
Sylhet	0.31	24.44	24.75	75.25

*Sustainable= Desirable + Acceptable

For the group with a per hectare output value is higher than the two-third of the corresponding 90th percentile (desirable): Dhaka division stands out with the highest proportion of agricultural land in this desirable category, at 1.59%. At the lower end of the range, the Sylhet division shows the lowest proportion of desirable agricultural land, with only 0.31% falling into this high-performing group. For the group that has per hectare output value within the two-third to one-third of the 90th percentile value (acceptable): The Rajshahi and Mymensingh division have achieved the highest proportion of agriculture land at 49.36% and 49.78% respectively. Sylhet and Barishal division are the two regions experiencing the lowest proportion of agriculture land with 24.44% and 33.30% respectively.

Figure 3.2: Proportion of sustainable and unsustainable agricultural land of sub-indicator 'farm Output Value Per Hectare' by division



The survey results presented in figure 3.2 shows that Barishal, Chattogram, and Sylhet have proportions of sustainable agricultural land that fall below the national average. Specifically, Barishal has a sustainability rate of 34.17%, Chattogram stands at 42.73%, and Sylhet has the lowest among all, at just 24.75%.

In contrast, the remaining divisions demonstrate a more positive pattern. They all report higher proportions of sustainable agricultural land when compared to the national average. Notably, Mymensingh and Rajshahi divisions emerge as the top performers in this regard. Mymensingh records a sustainability rate of 50.42%, while Rajshahi slightly surpasses it at 50.58%. More than half of the agricultural land in these divisions is used productively and sustainably.

3.3 Sub-indicator 2: Net Farm Income

This sub-indicator plays a vital role in evaluating the economic sustainability of farms, as it reflects whether a household's farming operations are profitable in real terms beyond just production volume.

The profitability of the farm is an important content in sustainable agriculture development. Stability and profitability will promote or inhibit the process of sustainable development. Profitability affects the attitudes, behavior and production decisions of households and at the same time has effect on the trend of labor movement and investment capital of farmers in particular and the whole society in general. In short, Net Farm Income (NFI) is a measure of the profitability of a farm operation. It represents the total income earned by a farm after accounting for all production costs, both cash and non-cash. NFI is important for evaluating the financial health and sustainability of a farm.

The profit is the net profit from agricultural activities, excluding activities outside the agricultural sector conducted by agricultural households (e.g. business activities in the tourism sector, etc.). This survey examined the profitability of both households and institutional farms. Over the past three consecutive years (2022, 2023, 2024) their profitability described in thus subsection. It represents the total income earned by a farm after accounting for all production costs, both cash and non-cash.

Sustainability Criteria

- **Desirable:** Net Farm Income (NFI) is above zero for the past three consecutive years;
- **Acceptable:** Net Farm Income (NFI) is above zero for at least one of the past three consecutive years;
- **Unsustainable:** Net Farm Income (NFI) below zero for all of the past three consecutive years.

Reference Period: 2022, 2023, 2024

The measurement scope of this sub-indicator is net farm income from farming operations as distinct from the total income of the farming household (which may include other sources of income such as other employment, agritourist activity, etc). The profitability of the farm is measured through the net farm income, which is the difference between the total revenue and the production costs of the farm.

Results

At the national level, the data reveals that an impressive 78.79% of agricultural land falls under the 'productive and sustainable' category when considering both the green and yellow levels of sustainability. This combined figure indicates that the vast majority of farmland in the country is managed by households that are either maintaining desirable

levels of profitability or are within an acceptable range of net income per hectare. The national level results are as follows:

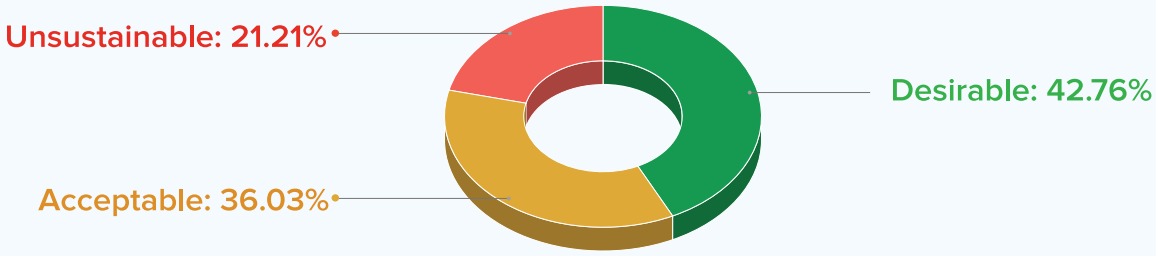


Table 3.3: Proportion of sustainability of the sub-indicator 'Net Farm Income' by locality

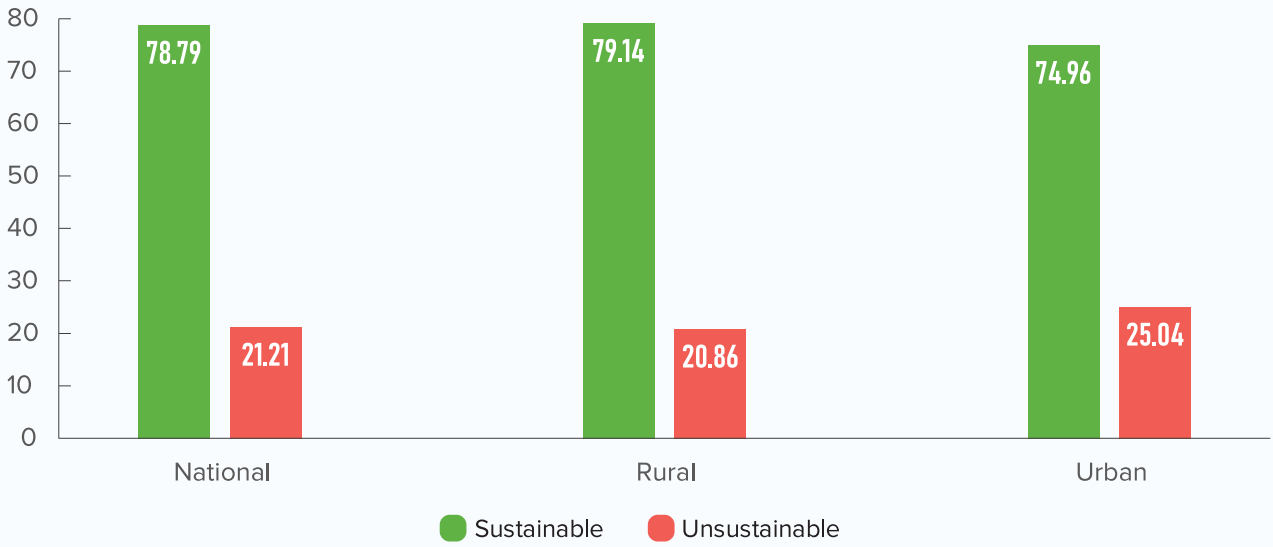
Locality	Desirable	Acceptable	Sustainable*	Unsustainable
National	42.76	36.03	78.79	21.21
Rural	42.60	36.54	79.14	20.86
Urban	43.98	30.98	74.96	25.04

*Sustainable= Desirable + Acceptable

Table 3.3 presents the sustainability of net farm income at the national, rural and urban level. The data classifies cultivable agricultural land into three categories: Desirable, Acceptable, and Unsustainable. At the national level, the distribution is relatively balanced, with 42.76% of agriculture land was profitable for all of the three years (2022, 2023, 2024), 36.03% of agriculture land was profitable for two or one year within 2022, 2023, 2024, and 21.21% of agriculture land was non-profitable for the three years. Rural areas demonstrate a sustainability performance that closely mirrors the national trend. Specifically, 42.60% of rural agricultural land falls under the desirable category, meaning it consistently generated profit across all the three years (2022, 2023 and 2024). Additionally, 36.54% of the land is classified as acceptable, having been profitable in one or two of those years. As low as 20.86% of rural agricultural land is considered unsustainable, which is the lowest proportion of unsustainable land.

In contrast, urban areas show a weaker performance in terms of sustainability. 43.98% of urban agricultural land is desirable, while one-fourth (25.04%) is unsustainable, the highest rate of unprofitable land in three years. Urban agricultural activities may face greater challenges in achieving consistent profitability, possibly due to land constraints, higher input costs or limited access to agricultural support services.

Figure 3.3: Proportion of agriculture area under productive and sustainable of the sub-indicator 'Net Farm Income' by locality



Here, the sustainable rate of 78.79% indicates that this proportion of agricultural production land was profitable for at least one year during the three-year period from 2022 to 2024. At the rural level, the sustainable rate is slightly higher at 79.14%, while in urban areas, it is the lowest at 74.96%. The sustainable rate is calculated by combining the 'desirable' and 'acceptable' land classifications. In contrast, the unsustainable rate of 21.21% represents the share of agricultural land that remained unprofitable for all three consecutive years 2022, 2023, and 2024.

Table 3.4: Proportion of sustainability of the sub-indicator 'Net Farm Income' by division

Division	Desirable	Acceptable	Sustainable*	Unsustainable
Barishal	49.38	33.46	82.84	17.16
Chattogram	30.20	44.48	74.68	25.32
Dhaka	43.35	35.84	79.19	20.81
Khulna	56.36	25.27	81.63	18.37
Mymensingh	31.88	41.38	73.26	26.74
Rajshahi	46.06	32.57	78.63	21.37
Rangpur	47.60	32.93	80.53	19.47
Sylhet	21.89	56.96	78.85	21.15

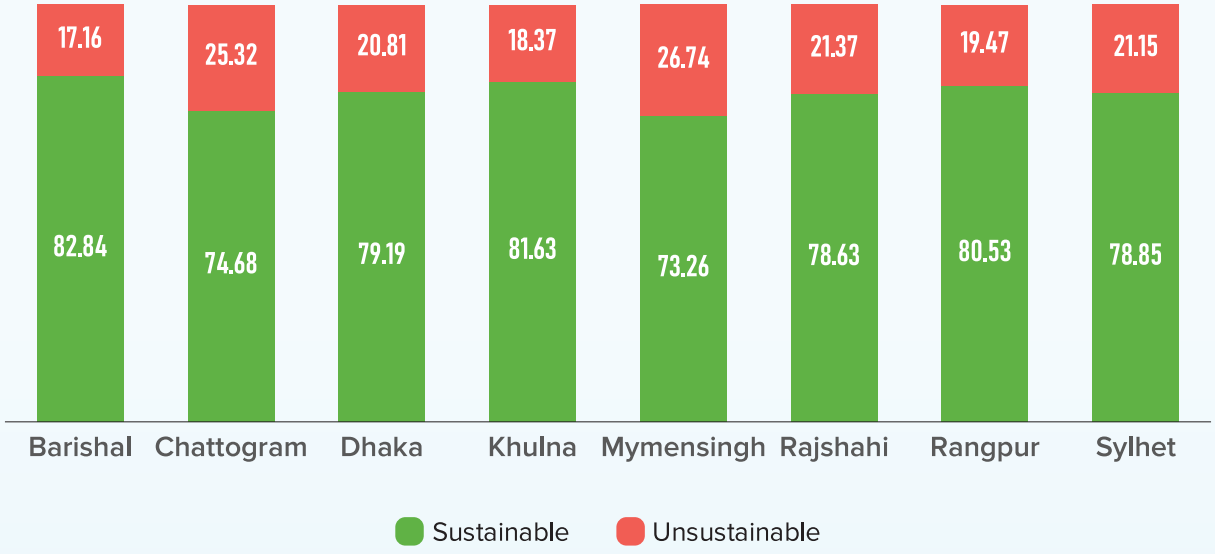
*Sustainable= Desirable + Acceptable

It is found that the Khulna division emerges as the top performer, with 56.36% of its agricultural land managed by households that reported profit in each of the three consecutive years. This impressive figure indicates a relatively elevated level of resilience, efficiency and economic viability among Khulna's farming communities.

On the other hand, the Sylhet division is at the opposite end of the range, with only 21.89% of its agricultural land falling into this consistently profitable category. This lower proportion of the table is shown that majority of farming households in Sylhet faced challenges in maintaining profitability across the three-year span.

For throughout 'acceptable' category Sylhet division has achieved the highest proportion of agriculture land with 56.96%, Khulna and Rajshahi division are the two regions experienced the lowest proportion of agriculture land with 25.27% and 32.57% respectively.

Figure 3.4: Proportion of agriculture area under productive and sustainable of the sub-indicator 'Net Farm Income' by division



The proportion of agricultural area under productive and sustainable of the net farm income sub-indicator by division is relatively even, ranging division around 70% to 80%. Thus, around 20% to 30% of agricultural land of all the divisions falls under 'unsustainable' category i.e., non-profitable for the three consecutive years.

3.4 Sub-indicator 3: Risk Mitigation Mechanisms

The third sub-indicator of economic dimension is 'Risk Mitigation Mechanisms'. It reflects how well agricultural systems can withstand the pressures of uncertainty and still continue to function effectively. Extreme weather and pest attacks usually pose a threat to agricultural households in managing their agricultural land. It is not uncommon for farmers to experience crop failure due to floods, droughts or severe pest attacks. If this condition occurs, then the agricultural households must have a way to cover the losses experienced. In this case, risk mitigation in the agricultural business is essential. Based on the risk mitigation mechanisms implemented by agricultural households, most of them are classified as sustainable agriculture. The risk mitigation mechanisms is based on handling agricultural production risks, seen from access to credit and insurance and agricultural diversification (the share of single agricultural commodities is not greater than 66 percent of the total production value owned by agricultural production holdings). The main theme of the 'Risk Mitigation Mechanisms' is resilience which encompasses absorptive and adaptive capacities and refers to the properties of a system that allows farms to deal with shocks and stresses.

In essence, resilience refers to the qualities within a farming system that allow it to remain robust, productive, and well-functioning, even in the face of adversity. It is about persistence through stress and transformation through learning.

This sub-indicator measures the incidence of the following mitigation mechanisms:

- Access to or availed credit
- Access to or availed insurance
- On farm diversification (share of a single agricultural commodity not greater than 66% in the total value of production of the holding)

A farm holding is considered resilient if it has availed or has the means to access the risk mitigation mechanisms as follows:

- **Desirable:** Access to or availed at least two out of the three listed mitigation mechanisms
- **Acceptable:** Access to or availed at least one out of the three listed mitigation mechanisms
- **Unsustainable:** No access to any of the listed mitigation mechanisms

Reference Period: 2024

Results

The survey results show that the proportion of agricultural area under productive and sustainable agriculture of the 'risk mitigation mechanisms' sub-indicator at the national level is 69.16%. that is the sum of desirable and acceptable. The specific results are as follows:

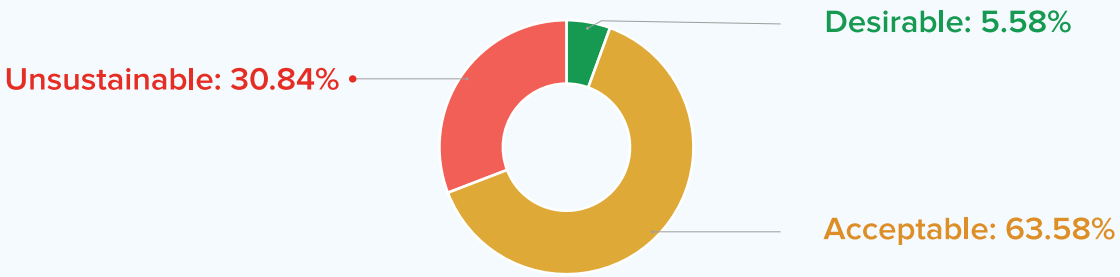


Table 3.5: Proportion of Sustainability of sub-indicator 'Risk Mitigation Mechanisms' by locality

Locality	Desirable	Acceptable	Sustainable*	Unsustainable
National	5.58	63.58	69.16	30.84
Rural	5.29	64.99	70.28	29.72
Urban	9.30	46.41	55.71	44.29

*Sustainable= Desirable + Acceptable

At national level 5.58% of agricultural production land belongs to the group of households that have access to two or more risk mitigation mechanisms. The proportion of desirable in urban areas is higher than that rural areas. 63.58% of agricultural production land at the national level belongs to the group of households that have access to only one risk mitigation mechanism. The proportion of acceptable in urban areas is 46.41%, which is lower than the rural acceptable at 64.99%.

Figure 3.5: Proportion of agriculture area under productive and sustainable of the sub-indicator 'Risk Mitigation Mechanisms' by locality

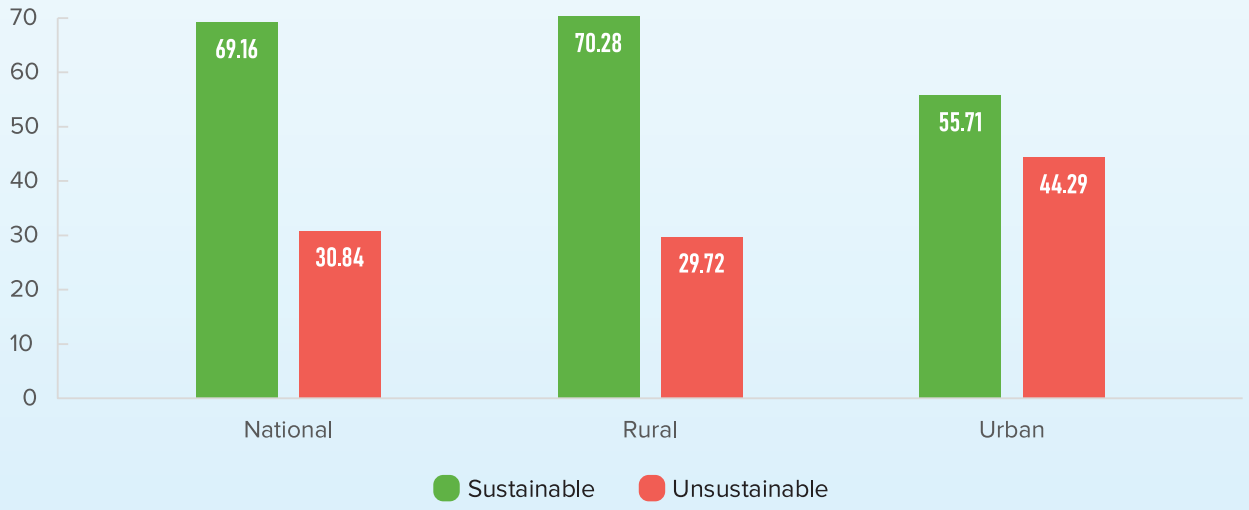


Figure 3.5 shows that the proportion of agricultural areas under productive and sustainable agriculture of the 'risk mitigation mechanism' sub-indicator at the national level is 69.16%. At rural and urban level, the proportion is 70.28% and 55.71% respectively. The proportion of agricultural areas under productive and sustainable agriculture in rural areas is higher than the proportion of urban level.

The proportion of unsustainable agriculture land 30.84% means that 30.84% of agricultural production land belongs to the group of households that have not access to any of the risk mitigation mechanisms at national level. At rural and urban areas, the proportions are 29.72% and 44.29% respectively that depicts urban unsustainable land is much higher than that of rural areas.

Table 3.6: Proportion of sustainability of sub-indicator 'Risk Mitigation Mechanisms' by division

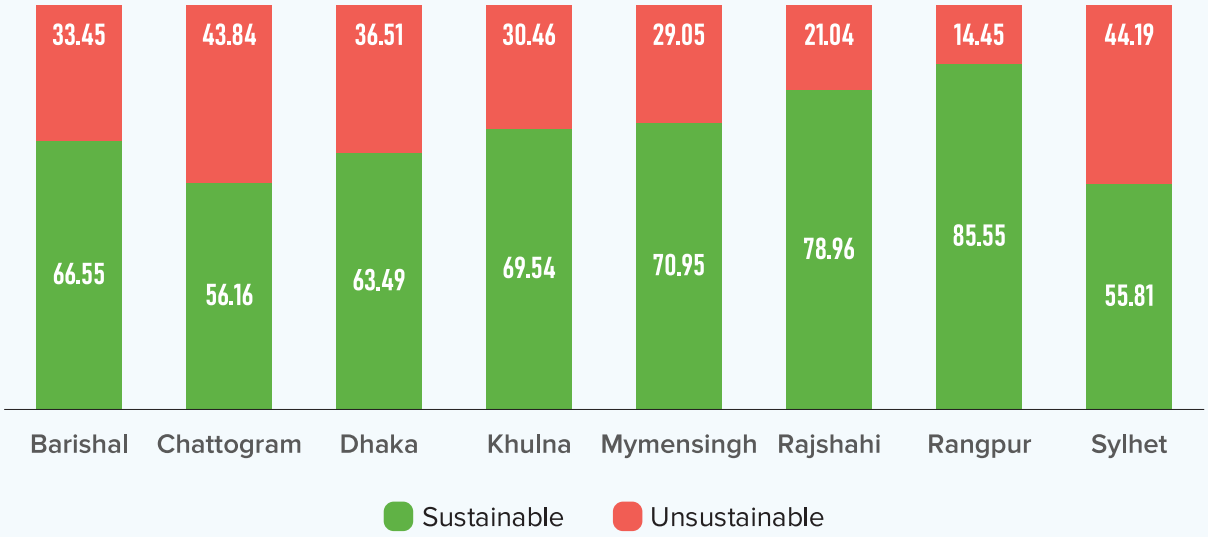
Division	Desirable	Acceptable	Sustainable*	Unsustainable
Barishal	5.76	60.79	66.55	33.45
Chattogram	5.92	50.24	56.16	43.84
Dhaka	2.50	60.99	63.49	36.51
Khulna	2.76	66.78	69.54	30.46
Mymensingh	4.09	66.86	70.95	29.05
Rajshahi	3.56	75.40	78.96	21.04
Rangpur	15.78	69.77	85.55	14.45
Sylhet	3.70	52.11	55.81	44.19

*Sustainable= Desirable + Acceptable

For the group that has access to at least two mitigation mechanisms (desirable): Rangpur division has the highest agriculture land proportion with 15.78%, Dhaka division has the lowest agriculture land proportion rate with 2.50%.

For the group that has access to only one mechanism (acceptable): Rajshahi division has achieved the highest proportion of agriculture land with 75.40%, Sylhet and Chattogram division are the two regions experiencing the lowest proportion of agriculture land with 52.11% and 50.24% respectively.

Figure 3.6: Proportion of sustainable and unsustainable agricultural land of sub-indicator 'Risk Mitigation Mechanisms' by division

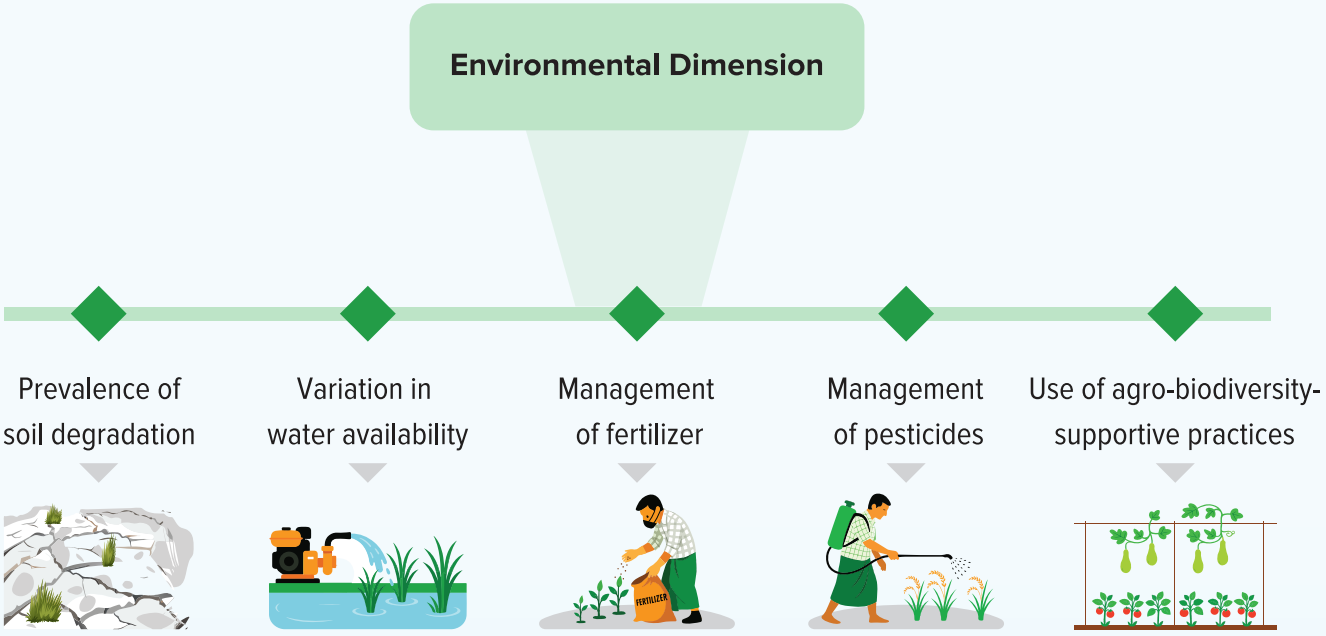


Khulna, Mymensingh, Rajshahi and Rangpur are four divisions where the proportion of agricultural land under productive and sustainable relative to risk mitigation mechanism is higher than the national rate (69.16%). Their respective rates are 69.54% for Khulna, 70.95% for Mymensingh, 78.96% for Rajshahi and 85.55% for Rangpur. In contrast, the remaining four divisions (Barishal 66.55%, Dhaka 63.49%, Chattogram 56.16% and Sylhet-the lowest rate of 55.81%) fall below the national average in terms of sustainable agricultural land.

Chapter 4

CHAPTER 4: ENVIRONMENTAL DIMENSION

Environmental dimensions refer to whether agricultural practices are environmentally responsible and whether they preserve natural resources, reduce environmental harm and support long-term ecosystem health. The dimension has some key theme such as: soil health, water use, fertilizer pollution risk, pesticide risk, biodiversity. There are five sub-indicators under the five different themes. The sub-indicators assess the environmental dimension of sustainable agriculture:

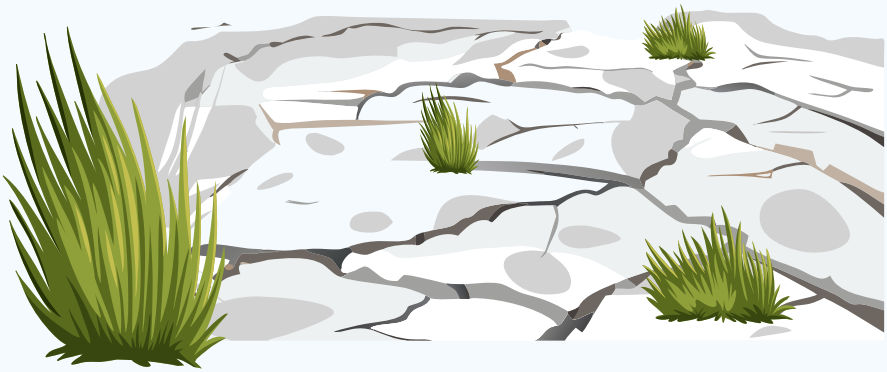


- The thematic focus of the Prevalence of Soil Degradation sub-indicator is soil health.
- The thematic focus of the Variation in Water Availability sub-indicator is water use.
- The thematic focus of the Fertilizer Management sub-indicator is the risk of fertilizer-induced pollution.
- The thematic focus of the Pesticide Management sub-indicator is pesticide-related risk.
- The thematic focus of the Use of Agro-Biodiversity-Supportive Practices sub-indicator is biodiversity conservation.

4.1 Sub-indicator 4: Prevalence of Soil Degradation

Soil degradation is the deterioration of land quality caused by human's improper use, usually for agricultural, industrial or urban purposes. Land degradation can be exacerbated by climate change and includes physical, chemical and biological degradation. Many of the processes affecting soil health are driven by agricultural practices. FAO and the Intergovernmental Technical Panel on Soils (ITPS) have identified main threats to soil functions:

- Soil erosion
- Compaction
- Soil sealing
- Contamination
- Salinization
- Acidification
- Waterlogging
- Nutrient imbalance
- Soil organic carbon losses
- Loss of soil biodiversity



In 2020, the Soil Resource Development Institute (SRDI) of Bangladesh conducted a comprehensive survey on land degradation, revealing that approximately 76.2% of the country's land area equivalent to 11.24 million hectares has experienced moderate to very severe soil degradation. This marks a significant increase from the 10.7 million hectares reported in 2000. The primary factors contributing to this degradation include excessive use of chemical fertilizers, rising salinity, industrial pollution, deforestation, and improper waste disposal. In response to these challenges, Bangladesh has committed to achieving Land Degradation Neutrality (LDN) by 2030, aligning with the United Nations Convention to Combat Desertification (UNCCD) goals.

This sub-indicator takes a close look at how our soil is holding up. It measures the rate at which soil is being degraded due to a number of serious challenges-things like soil erosion, reduction of soil fertility, salinization of irrigated land, waterlogging and others. All of these factors are assessed directly through the farm's own assessment, helping us understand the extent of the damage and what we need to do to restore and protect this critical resource. This sub-indicator is described by the following formula:

$$\text{Prevalence of agriculture land degradation} = \frac{\text{Total area of degraded agriculture land}}{\text{Total area of agricultural land}} \times 100$$

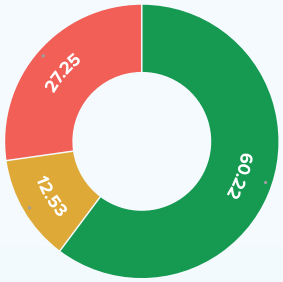
Sustainability Criteria

- **Desirable:** The combined area affected by any of the four selected threats to soil health is negligible (less than 10 percent of the total agriculture area of the farm);
- **Acceptable:** The combined area affected by any of the four selected threats to soil health is between 10 percent and 50 percent of the total agriculture area of the farm;
- **Unsustainable:** The combined area affected by any of the four selected threats to soil health is above 50 percent of the total agriculture area of the farm

Reference Period: 2022, 2023, 2024

Results

The survey results show that the proportion of agricultural area under productive and sustainable agriculture at the national level of the sub-indicator 'Prevalence of Soil Degradation' is 72.75%. In terms of each level of sustainability at the national level, the specific results are as follows:



- Desirable: 60.22%
- Acceptable: 12.53%
- Unsustainable: 27.25%

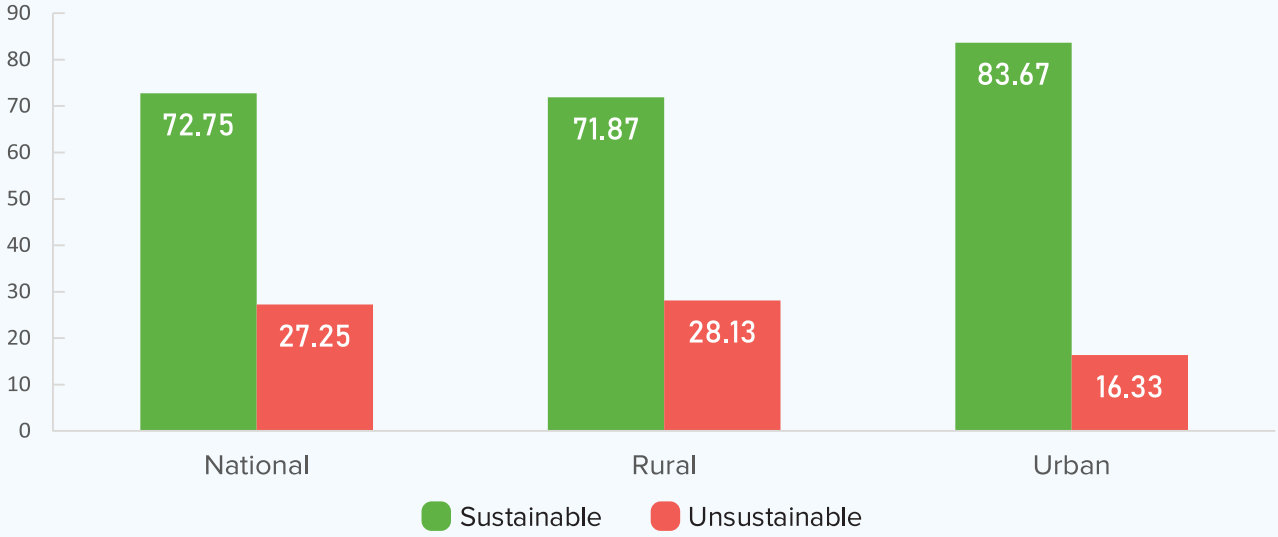
Table 4.1: Proportion of sustainability of sub-indicator 'Prevalence of Soil Degradation' by locality

Locality	Desirable	Acceptable	Sustainable*	Unsustainable
National	60.22	12.53	72.75	27.25
Rural	59.29	12.58	71.87	28.13
Urban	72.34	11.33	83.67	16.33

*Sustainable= Desirable + Acceptable

- 60.22% of agricultural land belongs to the group of households with soil degradation rate of less than 10%;
- 12.53% of agricultural land belongs to the group of households with soil degradation rate from 10% to 50%;
- 27.25% of agricultural land belongs to the group of households with soil degradation rate of over 50%.

Figure 4.1: Proportion of sustainability of sub-indicator 'Prevalence of Soil Degradation' by locality



According to the above figure, 72.75% of agricultural land is currently being managed by households whose at least 50% of agricultural land is degradated. This means that a little less than three-fourth of our agricultural land is under productive and sustainable in this sub-indicator.

In contrast, the unsustainability rate stands at 27.25%. This figure represents the share of agricultural land managed by households whose degradated land is more than 50% of their total land. In other words, a little less than one-fourth of the agricultural land in the country is being used at levels that may be considered unsustainable over the time. Urban agricultural land shows a bit different nature with as low as 16% unsustainability and as high as 84% sustainability while rural areas almost reflect the similar nature aligning with the natural trend.

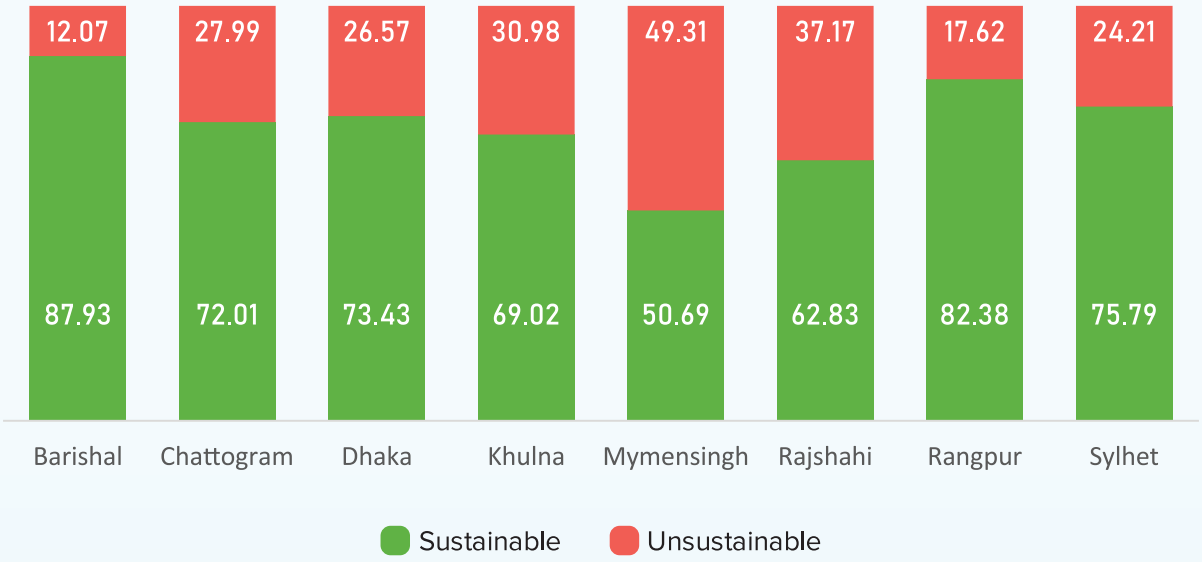
Table 4.2: Proportion of Sustainability of sub-indicator 'Prevalence of Soil Degradation' by division

Division	Desirable	Acceptable	Sustainable*	Unsustainable
Barishal	81.85	6.08	87.93	12.07
Chattogram	56.65	15.36	72.01	27.99
Dhaka	58.26	15.17	73.43	26.57
Khulna	63.55	5.47	69.02	30.98
Mymensingh	39.68	11.01	50.69	49.31
Rajshahi	50.26	12.57	62.83	37.17
Rangpur	69.41	12.97	82.38	17.62
Sylhet	55.23	20.56	75.79	24.21

*Sustainable= Desirable + Acceptable

The analysis of agricultural sustainability across divisions reveals significant regional variations. Barishal demonstrates the highest level of sustainability, with 87.93% of agricultural practices falling under the sustainable category, largely driven by a high proportion (81.85%) of desirable practices. Rangpur also performs well, with 82.38% sustainable practices, followed by Sylhet (75.79%) and Dhaka (73.43%). In contrast, Mymensingh shows the lowest sustainability, with only 50.69% categorized as sustainable and nearly half (49.31%) considered unsustainable. Rajshahi and Khulna also reflect notable sustainability challenges, with 37.17% and 30.98% of their agricultural areas, respectively, classified as unsustainable.

Figure 4.2: Proportion of sustainability of sub-indicator 'Prevalence of Soil Degradation' by division



The results by divisions show that Barishal Division has the lowest rate of soil degradation in the country, which means that the soil health in this region is the most sustainable: 87.93% agricultural land area in the region belongs to the group of households with rate of soil degradation less than 10%, 12.07% agricultural land area belongs to the group of households with rate of soil degradation of over 50%. On the other hand, Mymensingh Division has the highest rate of soil degradation in the country, which means that the soil health in this region has the lowest sustainability: 50.69% agricultural land area belongs to the group of households with rate of soil degradation of less than 10%, 49.31% of agricultural land area of the region belongs to the group of households with rate of soil degradation of over 50%.

4.2 Sub-indicator 5: Variation in Water Availability

The sub-indicator captures the extent to which agriculture contributes to unsustainable patterns of water use. Ideally, the level of sustainability in water use is measured at the scale of the river basin or groundwater aquifer, as it is the combined effect of all users sharing the same resource that impact water sustainability. The farm survey captures farmers' awareness and behaviour in relation with water scarcity. This sub-indicator evaluates the variation in water availability with assessment criteria:

- Percentage of irrigated agricultural production land;
- A reduction in ground water aquifer, river basin and springs;
- Whether there are organizations in charge of allocating water among users and the extent to which these organizations are working effectively through farmers' assessment.

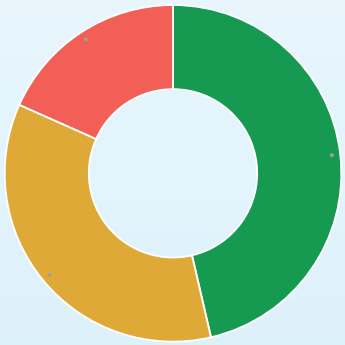
Sustainability Criteria:

- **Desirable:** Water availability remains stable over the years, for farms irrigating crops on more than 10 percent of the agriculture area of the farm. Default result for farms irrigating less than 10 percent of their agricultural area;
- **Acceptable:** uses water to irrigate crops on at least 10 percent of the agriculture area of the farm, does not know whether water availability remains stable over the years, or experiences reduction on water availability over the years, but there is an organization that effectively allocates water among users;
- **Unsustainable:** in all other cases;

Reference Period: 2022, 2023, 2024

Results

The survey results reveal a promising picture for our agricultural sector. Nationally, 81.66% of agricultural land now falls under the category of productive and sustainable agriculture, according to this sub-indicator. In terms of each level of sustainability at the national level, the specific results are as follows:



- Desirable: 46.38%
- Acceptable: 35.28%
- Unsustainable: 18.34%

Table 4.3: Proportion of sustainability of sub-indicator 'Variation in Water Availability' by locality

Locality	Desirable	Acceptable	Sustainable*	Unsustainable
National	46.38	35.28	81.66	18.34
Rural	46.40	35.31	81.71	18.29
Urban	47.62	34.86	82.48	17.52

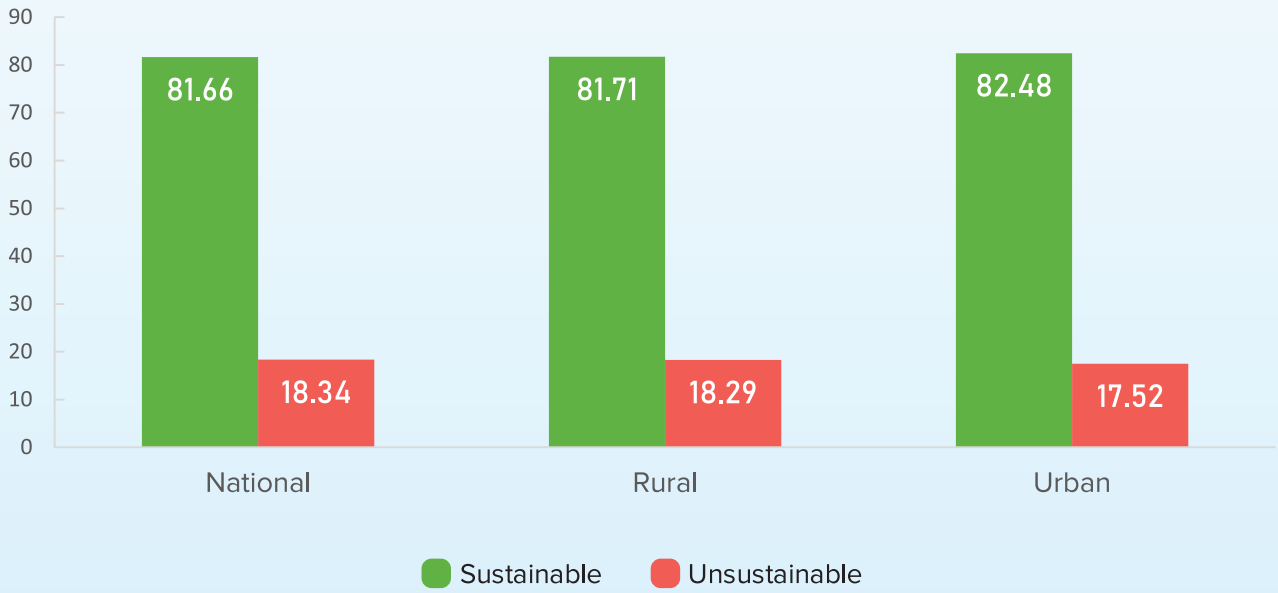
*Sustainable= Desirable + Acceptable

46.38% of the area is always watered when needed. In this group, the households did not find a decrease in the groundwater aquifer, rivers, springs and lakes in the period 2022-2024 and the water allocation was assessed to be efficient;

35.28% of the agricultural land area can be supplied with water source for irrigation. In this group, the households did not know or notice a decrease in the groundwater aquifer, rivers, springs and lakes in the three years 2022-2024, but the water source for irrigation was still ensured thanks to the efficient operation of irrigation system;

18.34% of agricultural land area is not supplied with water source for irrigation. In this group, the households do not have water for irrigation or have insufficient irrigation water; they do not know or notice a decrease in groundwater aquifer, rivers, springs and lakes in the three years 2022-2024 but the water allocation is assessed to be inefficient.

Figure 4.3: Proportion of sustainability of sub-indicator 'Variation in Water Availability' by locality



Here, the sustainable rate of 81.66% indicates that this proportion of agricultural production land where water availability remains stable or experiences reduction on water availability but organization efficiently allocates water, among farmers during the said period from 2022 to 2024. At the rural areas, the sustainable rate is at 81.71%, while in urban areas, it is slightly higher at 82.48%. In contrast, the unsustainable rate of 18.34% represents the share of agricultural land that experiences in water scarcity or organization not allocate water properly for all the three consecutive years 2022, 2023, and 2024. At the rural areas the rate is 18.29% while it is 17.52% in urban areas.

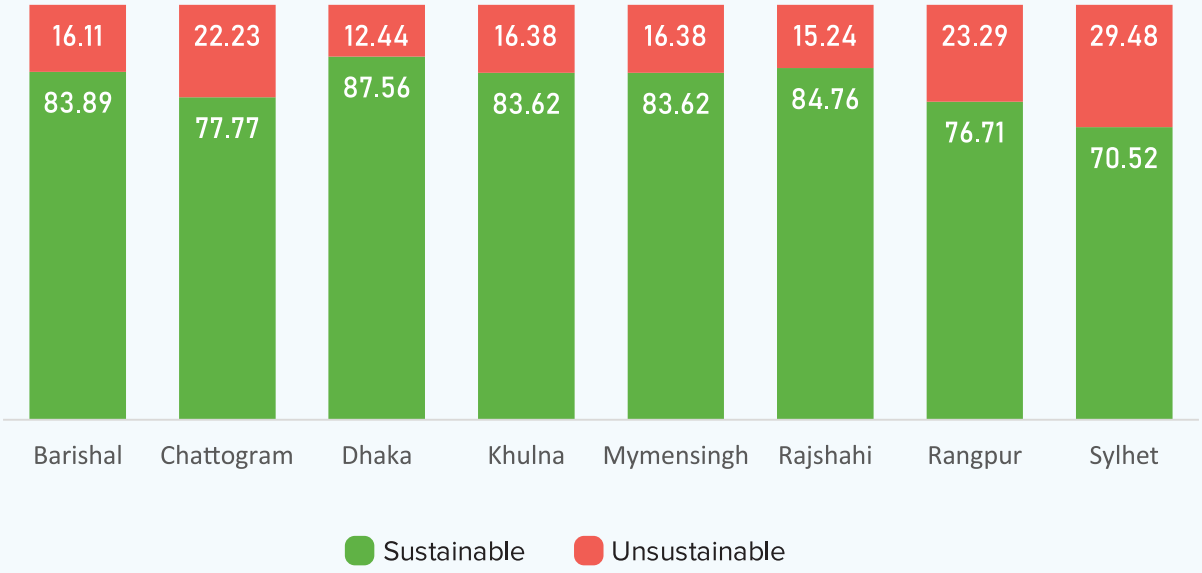
Table 4.4: Proportion of sustainability of sub-indicator 'Variation in Water Availability' by division

Division	Desirable	Acceptable	Sustainable*	Unsustainable
Barishal	81.43	2.46	83.89	16.11
Chattogram	55.53	22.24	77.77	22.23
Dhaka	45.28	42.28	87.56	12.44
Khulna	52.98	30.64	83.62	16.38
Mymensingh	20.32	63.30	83.62	16.38
Rajshahi	42.86	41.90	84.76	15.24
Rangpur	31.16	45.55	76.71	23.29
Sylhet	36.09	34.43	70.52	29.48

*Sustainable= Desirable + Acceptable

The data shows that all the divisions in Bangladesh have a sustainable agriculture rate above 75% except Sylhet (70.52%). Dhaka reports the highest sustainable rate (87.56%), while Barishal has the highest share of desirable practices (81.43%). On the other hand, Sylhet has the lowest sustainable rate (70.52%) and accordingly the highest unsustainable rate (29.48%), indicating the need for targeted improvement. Rangpur and Chattogram also show relatively higher unsustainable rates, regional challenges. Overall, the findings highlight the progress in sustainable practices with scope for further improvement in certain regions.

Figure 4.4: Proportion of sustainability of sub-indicator 'Variation in Water Availability' by division



The survey results presented in figure 4.4 show that Dhaka and Rajshahi divisions demonstrate the highest sustainability rates, standing at 87.56% and 84.76%, respectively. These figures indicate that a significant portion of agricultural land in these regions falls under either the green or yellow sustainability categories, reflecting both strong adherence to sustainable practices and promising progress toward full sustainability. The performance of Dhaka and Rajshahi highlights the positive impact of effective agricultural management, awareness among farming communities, and potentially better access to resources and support services. These regions can serve as models for replication in other regions where sustainability levels remain comparatively low.

4.3 Sub-indicator 6: Management of Fertilizers

Agriculture can affect the quality of the environment through excessive use or inadequate management of fertilizers. Sustainable agriculture implies that the level of chemicals in soil and water bodies remains within acceptable thresholds. Integrated plant nutrient management considers all sources of nutrients (mineral and organic) and their management in order to obtain best nutrient balance. This sub-indicator looks closely at a critical environmental concern of fertilizer pollution. It assesses the risk by examining how households manage their use of fertilizers in everyday farming practices. Through a set of carefully designed indicators, it evaluates whether farmers are taking proper measures to minimize the harmful impacts of fertilizers on the environment.

Ultimately, this sub-indicator helps us understand not only the level of risk, but also the awareness and action being taken at the grassroots level to reduce pollution and safeguard the ecosystem. Basically, this sub-indicator assesses the fertilizer pollution risk through a set of indicators on 'Measures to minimize the harmful effects of fertilizers on the environment' based on the households' assessment from production practice.

The proposed approach is based on questions to farmers about their use of fertilizer, in particular mineral or synthetic fertilizers and animal manure, their awareness about the environmental risks associated with fertilizer and manure applications, and their behaviour in terms of plant nutrient management. The focus of the performance and sustainability assessment of fertilizer use is the implementation of measures to reduce the fertilizer pollution risk, including:

- Follow protocols as per extension service or retail outlet directions or local regulations, not exceeding recommended doses;
- Use organic source of nutrients (including manure or composting residues) alone, or in combination with synthetic or mineral fertilizers;
- Use legumes as a cover crop, or component of a multi/crop or pasture system to reduce fertilizer inputs;
- Distribute synthetic or mineral fertilizer application over the growing period;
- Consider soil type and climate in deciding fertilizer application doses and frequencies;
- Use soil sampling at least every five years to perform nutrient budget calculations;
- Perform site-specific nutrient management or precision farming;
- Use buffer strips along water courses.

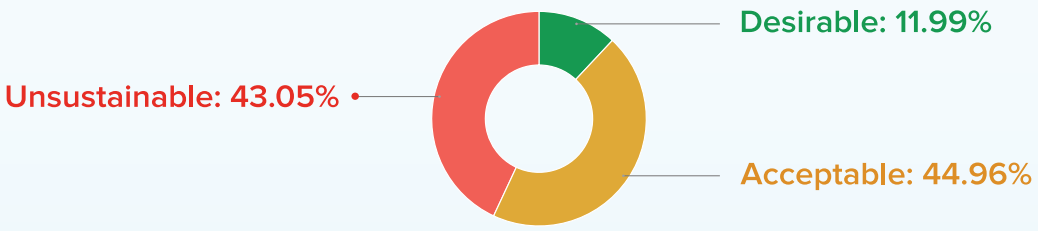
Sustainability Criteria:

- **Desirable:** The farm takes specific measures to mitigate environmental risks (at least four measures). Default result for farms not using fertilizers;

- **Acceptable:** the farm uses fertilizers and takes at least two measures to mitigate environmental risks;
- **Unsustainable:** farmer uses fertilizer and takes only one measure or no measures to mitigate environmental risks associated with their use.

Results

According to the survey findings, as shown in Table 5.5, the national proportion of agricultural land under productive and sustainable agriculture specifically in terms of fertilizer management stands at 56.95%. This figure offers both progress and perspective. It tells us that just over half of our agricultural land is being managed with practices that aim to use fertilizers responsibly, minimizing harm to the environment while supporting crop productivity. Farmers on this land are applying techniques that help balance nutrient input with crop needs, reducing waste and the risk of pollution. However, it also highlights that nearly 43% of our agricultural land still falls outside this standard. That's a substantial area where fertilizer use may be inefficient, excessive, or environmentally harmful. Sustainable fertilizer management is not just good for yields it's essential for the long-term health of our soil, water, and ecosystems. In terms of each level of sustainability at the national level, the specific results are as follows:



That is 56.95% of agricultural land belongs to the group of households implementing two and more measures out of a total of eight measures. Of which: 11.99% of agricultural land belongs to the group of households implementing four and more measures; 44.96% of agricultural land belongs to the group of households implementing two to three measures; 43.05% of agricultural land belongs to the group of households implementing one measure or no measures at all.

Table 4.5: Proportion of sustainability of sub-indicator 'Management of Fertilizers' by locality

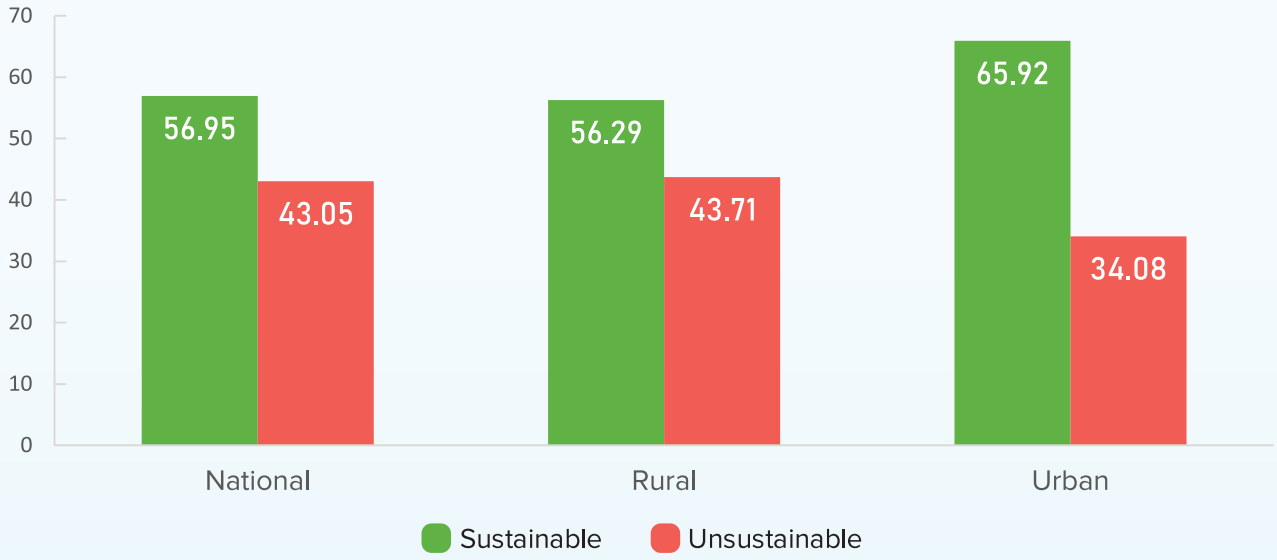
Locality	Desirable	Acceptable	Sustainable*	Unsustainable
National	11.99	44.96	56.95	43.05
Rural	11.65	44.64	56.29	43.71
Urban	15.91	50.01	65.92	34.08

*Sustainable= Desirable + Acceptable

In rural areas, the share of the land in the desirable and acceptable categories is 11.65% and 44.64% respectively, resulting in a total sustainable proportion of 56.29%. The unsustainable share in rural areas stands at 43.71%. Conversely, urban areas exhibit relatively better performance in terms of sustainability. Here, 15.91% falls under the desirable category and 50.01% under acceptable, adding up to 65.92% being classified as sustainable. Only 34.08% of the urban land is considered unsustainable, which is significantly lower than the national and rural averages.

Overall, urban areas show higher sustainability outcomes compared to rural and national averages, with a larger proportion of the population achieving desirable and acceptable levels.

Figure 4.5: Proportion of sustainability of sub-indicator 'Management of Fertilizers' by locality



The sustainability rate of this sub-indicator is quite high and even across regions and is concentrated at an acceptable level. It shows that the households have taken measures to mitigate fertilizer pollution risk, but the number of measures to reduce fertilizer pollution risk is still limited, ranging from 2 to 3 measures.

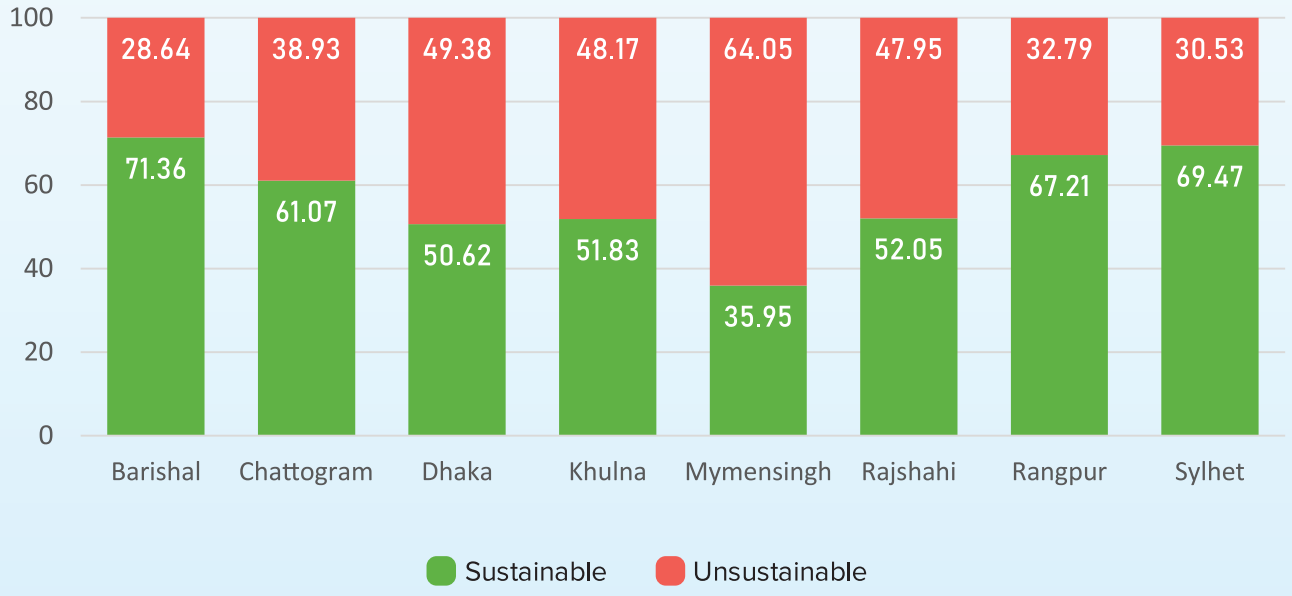
Table 4.6: Proportion of sustainability of sub-indicator 'Management of Fertilizers' by division

Division	Desirable	Acceptable	Sustainable*	Unsustainable
Barishal	9.36	62.00	71.36	28.64
Chattogram	18.25	42.82	61.07	38.93
Dhaka	6.35	44.27	50.62	49.38
Khulna	9.73	42.10	51.83	48.17
Mymensingh	7.05	28.90	35.95	64.05
Rajshahi	16.19	35.86	52.05	47.95
Rangpur	9.44	57.77	67.21	32.79
Sylhet	21.34	48.13	69.47	30.53

*Sustainable= Desirable + Acceptable

The table 4.6 shows a huge variation in sustainability across divisions. Barishal (71.36%), Sylhet (69.47%) and Rangpur (67.21%) have the highest proportion of sustainable land. Mymensingh (35.95%) has the lowest, followed by Dhaka (50.62%) and Khulna (51.83%). While Sylhet leads in the desirable category, Barishal and Rangpur show strong performance in acceptability. Overall, significant regional disparities are observed in sustainability outcomes.

Figure 4.6 Proportion of sustainability of sub-indicator 'Management of Fertilizers' by division



The Bar diagram (4.6) depicts that Barishal leads the country in the sustainable management of fertilizers, with 71.36% of its agricultural land being managed both productively and sustainably. This marks the highest sustainability rate under the fertilizer management sub-indicator. Close behind is Sylhet, with an impressive 69.47%, further highlighting its strong commitment to responsible and environmentally conscious fertilizer practices. Mymensingh Division demonstrates the lowest rate (35.95%) of fertilizer management in the country, indicating the least sustainable practices in this regard. The survey results reveal a significant variation in unsustainability levels across divisions, with Mymensingh recording the highest value at 64.05%, while Barishal reports the lowest at 28.64%.

4.4 Sub-indicator 7: Management of Pesticides

Pesticides are important inputs in modern agriculture (crop and livestock), but if not well managed they can cause harm to people's health or to the environment. Practices associated with integrated pest management exist that contribute to minimise risks associated with the use of pesticides and limit their impact on human health and on the environment. The International Code of Conduct on Pesticide Management defines best practice in pesticide management.

The proposed sub-indicator is based on information on the use of pesticides on the farms, the type of pesticide used and the type of measure(s) taken to mitigate the associated risks. It considers the possibility that the holding uses pesticides in the framework of an Integrated Pest Management (IPM) program, or adopts specific measures to help reducing risks associated with pesticide use.

This sub-indicator focuses on a growing concern in modern agriculture: pesticide pollution. It assesses the level of risk not by remote observation, but by going directly to the source the farms themselves. Through a carefully designed set of indicators, the survey looks at two key areas: measures to mitigate harmful effects of pesticides to health and measures to mitigate harmful effects of pesticides to environment through the farm's assessment.

By gathering this information from the ground up, this sub-indicator gives us a clear picture of how pesticide use is managed across our agricultural lands. It helps us understand not only where the risks lie, but also where farmers are taking meaningful action. This kind of assessment is crucial, because the path to safe and sustainable agriculture depends on informed, responsible pesticide use not just for better harvests, but for the well-being of our people and the protection of our ecosystems.

SDG indicator 2.4.1 measures the effectiveness and sustainability of the sub-indicator 'Management of Pesticides' through assessing the implementation of measures to mitigate environmental pollution risks in terms of health and the environment. Specifically, as follows:

Measures of Health Protection:

- Adherence to label directions for pesticide use, including use of personal protection equipment;
- Maintenance and cleaning of protective equipment after use;
- Safe disposal of waste (cartons, bottles and bags);

Measures Taken To Control Diseases On Plants And Animals:

- Adherence to label directions for pesticide application

- Adopt any of these good practices: adjust planting time, apply crop spacing, crop rotation, mixed cropping or inter-cropping
- Perform biological pest control or use biopesticides
- Adopt pasture rotation to suppress pests affecting livestock
- Systematic removal of plant parts attacked by pests
- Maintenance and cleansing of spray equipment after use
- Use one pesticide no more than two times or in mixture in a season to avoid pesticide resistance

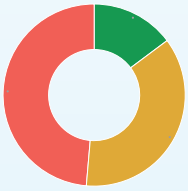
Sustainability Criteria:

- **Desirable:** Household uses only moderately or slightly hazardous, pesticides. In this case, it adheres to all three health-related measures and at least four of the environment-related measures. Default result for farms not using pesticides.
- **Acceptable:** Household uses only moderately or slightly hazardous pesticides and takes some measures to mitigate environmental and health risks (at least two from each of the lists above).
- **Unsustainable:** Household uses highly or extremely hazardous pesticides, illegal pesticides, or uses moderately or slightly hazardous pesticides without taking specific measures to mitigate environmental or health risks associated with their use (fewer than two from any of the two lists above)

Reference Period: 2024

Results

The survey results show that the national proportion of agricultural land under productive and sustainable agriculture of the sub-indicator 'Management of Pesticides' is 51.37% (total green and yellow levels). In terms of each level of sustainability at the national level, the specific results are as follows:



- Desirable: 14.79%;
- Acceptable: 36.58%;
- Unsustainable: 48.63%.

Table 4.7: Proportion of sustainability of sub-indicator 'Management of Pesticides' by locality

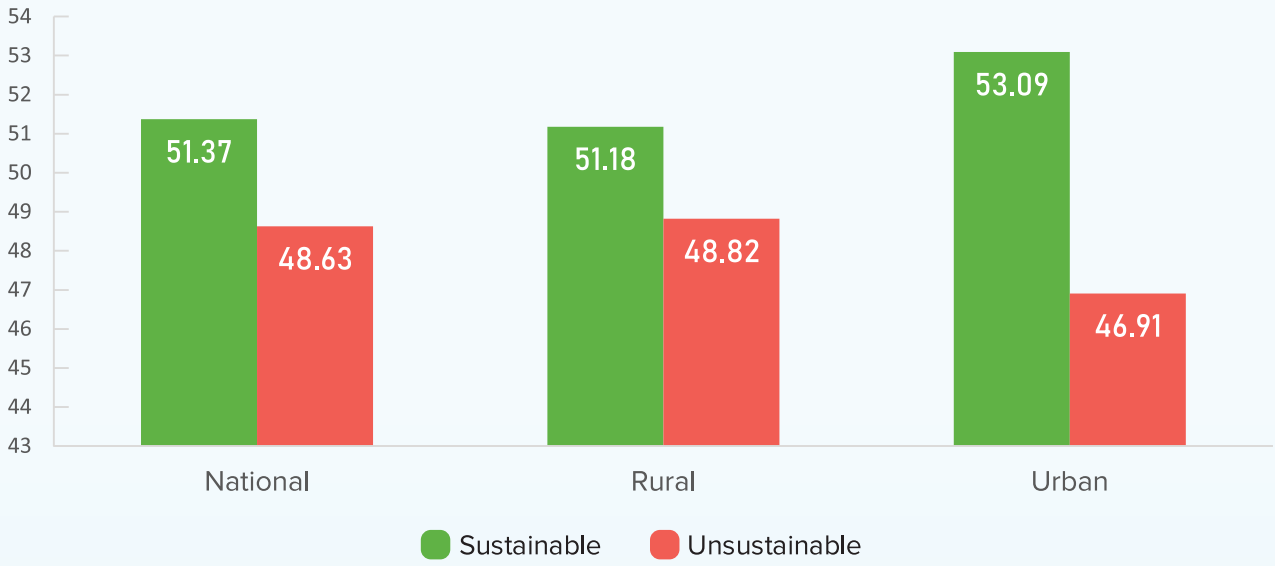
Locality	Desirable	Acceptable	Sustainable*	Unsustainable
National	14.79	36.58	51.37	48.63
Rural	14.45	36.73	51.18	48.82
Urban	18.47	34.62	53.09	46.91

*Sustainable= Desirable + Acceptable

This means that 51.37% of agricultural land belongs to the group of households that adheres to at least two out of the three measures of health protection and at least two out of the twelve aforementioned environmental protection measures. Of which, 14.79% of agricultural land belongs to the group of households that comply with all three health protection measures and at least four out of twelve environmental protection measures.

Nearly 49% of agricultural land area is unsustainable, belonging to the group of households that only take one out of three or no measures to protect their health, and at the same time only take one measure or no measures to protect the environment

Figure 4.7: Proportion of sustainability of sub-indicator 'Management of Pesticides' by locality



It is found that, Urban areas show a slightly higher percentage of farms under the 'Sustainable' category (53.09%) compared to rural areas (51.18%). Thus, rural areas show a slightly higher percentage of farmers under the 'unsustainable' rate (48.82%) compared to urban areas (46.91%). Thus, rural areas show a slightly higher percentage of farmers under the 'unsustainable' category (48.82%) compared to urban areas (46.91%).

Table 4.8: Proportion of sustainability of sub-indicator 'Management of Pesticides' by division

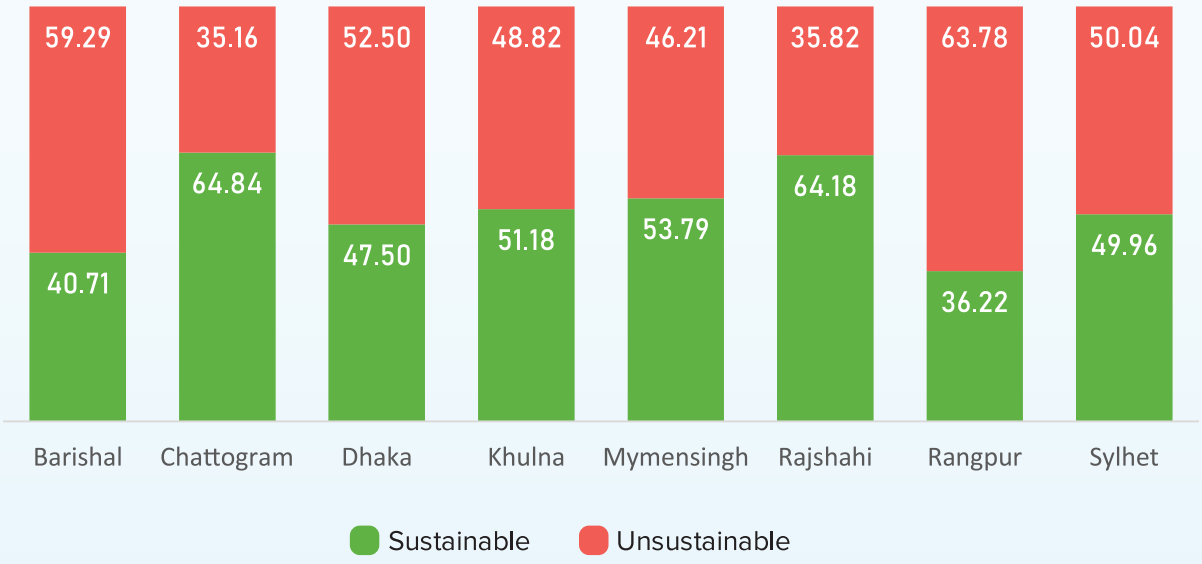
Division	Desirable	Acceptable	Sustainable*	Unsustainable
Barishal	13.22	27.49	40.71	59.29
Chattogram	22.54	42.30	64.84	35.16
Dhaka	12.13	35.37	47.50	52.50
Khulna	12.70	38.48	51.18	48.82

Division	Desirable	Acceptable	Sustainable*	Unsustainable
Mymensingh	5.17	48.62	53.79	46.21
Rajshahi	21.72	42.46	64.18	35.82
Rangpur	10.22	26.00	36.22	63.78
Sylhet	14.79	35.17	49.96	50.04

*Sustainable= Desirable + Acceptable

It is observed that, Chattogram and Rajshahi show the highest proportions of sustainable farms (64.84% and 64.18% respectively), while Rangpur and Barishal report the lowest sustainability levels, with over 59% and 63% of farms falling into the unsustainable category.

Figure 4.8: Proportion of sustainability of sub-indicator 'Management of Pesticides' by division



The proportion of agricultural area under productive and sustainable of the Management of pesticides sub-indicator in the region Chattogram leads the way, with the highest sustainability rate, where 64.84% of the agricultural area is managed both productively and sustainably in terms of pesticide use. Close behind is Rajshahi, with a rate of 64.18% showing strong adherence to responsible pesticide practices. In fact, the picture becomes concerning for other regions. Barishal, Dhaka, Khulna, Mymensingh, Rangpur, and Sylhet all show visible levels of unsustainable pesticide management.

4.5 Sub-indicator 8: Use of Agro-biodiversity-supportive Practices

The Convention on Biological Diversity (CBD) stresses the close relationship between agriculture activities and biodiversity. This sub-indicator measures the level of adoption of more sustainable agricultural practices that better contribute to biodiversity by the farm at ecosystem, species and genetic levels. This indicator addresses both crops and livestock. This sub-indicator measures the level of the performance and sustainability of agro-biodiversity with 6 criteria. The detailed formulation of the criteria for the scoring systems is described below:

- Leaves at least 10% of the holding area for natural or diverse vegetation. This can include natural pasture/grassland, maintaining wildflower strips, stone and wood heaps, trees or hedgerows, natural ponds or wetlands.
- Farm produces agricultural products that are organically certified, or its products are undergoing the certification process.
- Farm does not use medically important antimicrobials as growth promoters.
- At least two of the following contribute to farm production: 1) temporary crops, 2) pasture, 3) permanent crops, 4) trees on farm, 5) livestock or animal products, and 6) aquaculture.
- Livestock includes locally adapted breeds.

Sustainability Criteria:

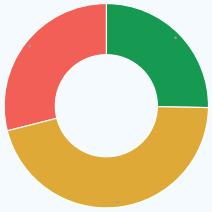
- **Desirable:** The agricultural holding meets at least three of the above criteria;
- **Acceptable:** The agricultural holding meets two of the above criteria;
- **Unsustainable:** The agricultural holding meets one or none of the above criteria

Reference Period: 2022, 2023, 2024

Use of agro-biodiversity supportive practices in agriculture is a nature-based production method, also known as natural production, based on respecting nature, understanding the working mechanism of nature, the interactive and symbiotic relationship among components to design an optimal agro - ecosystem, thereby developing production, increasing economic benefits without affecting the environment and resources. In this assessment report, the result of the sub-indicator "Use of agro-biodiversity-supportive practices" is measured by 5 aforementioned criteria.

Results

The survey result shows that the proportion of agricultural area under productive and sustainable agriculture of the sub-indicator 'Use of agro-biodiversity-supportive practices' is 71.05% (total green and yellow levels). In terms of each level of sustainability at the national level, the specific results are as follows:



- Desirable: 25.29%;
- Acceptable: 45.76%;
- Unsustainable: 28.95%.

Table 4.9: Proportion of sustainability of sub-indicator 'Use of Agro-biodiversity-supportive Practices' by locality

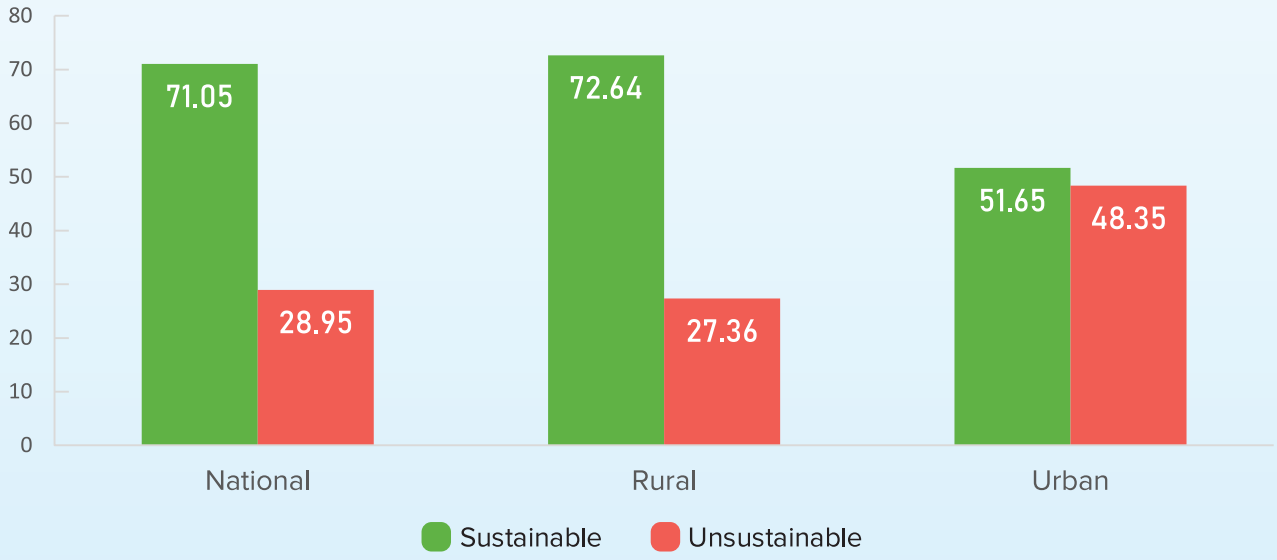
Locality	Desirable	Acceptable	Sustainable*	Unsustainable
National	25.29	45.76	71.05	28.95
Rural	26.70	45.94	72.64	27.36
Urban	10.51	41.14	51.65	48.35

*Sustainable= Desirable + Acceptable

At national level 25.29% of agricultural production land belongs to the group of households that have access to three or more sustainable criteria. The proportion of desirable in urban areas is lower than that of rural areas.

45.76% of agricultural production land belongs to the group of households that have access to two sustainable criteria. The proportion of acceptable in urban areas is 41.14% that is lower than the rural acceptable rate of 45.94%.

Figure 4.9: Proportion of sustainability of sub-indicator 'Use of Agro-biodiversity-Supportive Practices' by locality



It is seen from the graph that, 71.05% of our agricultural land is managed by households that meet at least one sustainability criterion under this particular sub-indicator. In which, 25.29% agricultural land area belongs to households that meet at least 2 criteria and 45.76% agricultural land area belongs to households that meet 1 criterion. The proportion of unsustainable level is 28.95%, belonging to the group of households that meet none of the criteria of this sub-indicator.

Table 4.10: Proportion of sustainability of sub-indicator 'Use of Agro-biodiversity-Supportive Practices' by division

Division	Desirable	Acceptable	Sustainable*	Unsustainable
Barishal	36.65	37.00	73.65	26.35
Chattogram	20.97	52.88	73.85	26.15
Dhaka	18.80	46.50	65.30	34.70
Khulna	25.99	53.29	79.28	20.72
Mymensingh	25.60	39.64	65.24	34.76
Rajshahi	27.75	41.67	69.42	30.58
Rangpur	27.10	40.65	67.75	32.25
Sylhet	28.50	45.11	73.61	26.39

*Sustainable= Desirable + Acceptable

For the group that has access to at least three sustainable criteria (desirable): Barishal division has the highest agriculture land proportion with 36.65%, Dhaka division has the agriculture land proportion lowest rate with 18.80%. For the group that has access to only two mechanisms (acceptable): Khulna division has achieved the highest proportion of agriculture land with 53.29%, Barishal and Mymenshing division are the two regions experiencing the lowest proportion of agriculture land with 37.00% and 39.64% respectively.

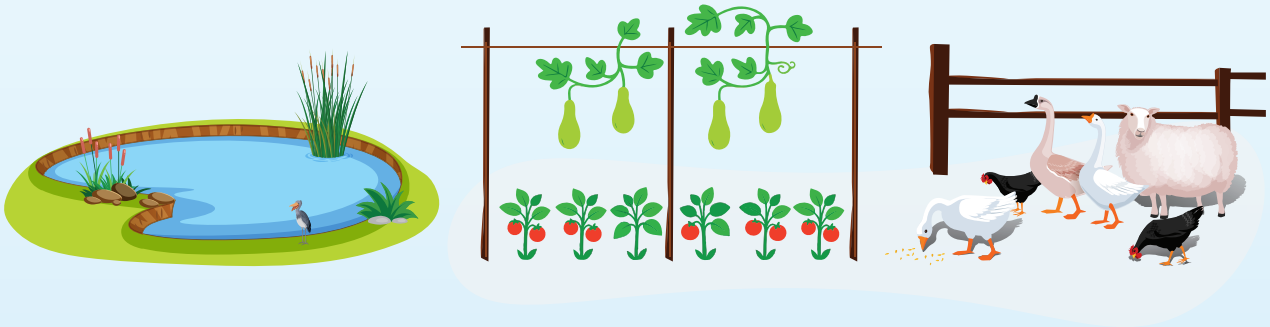
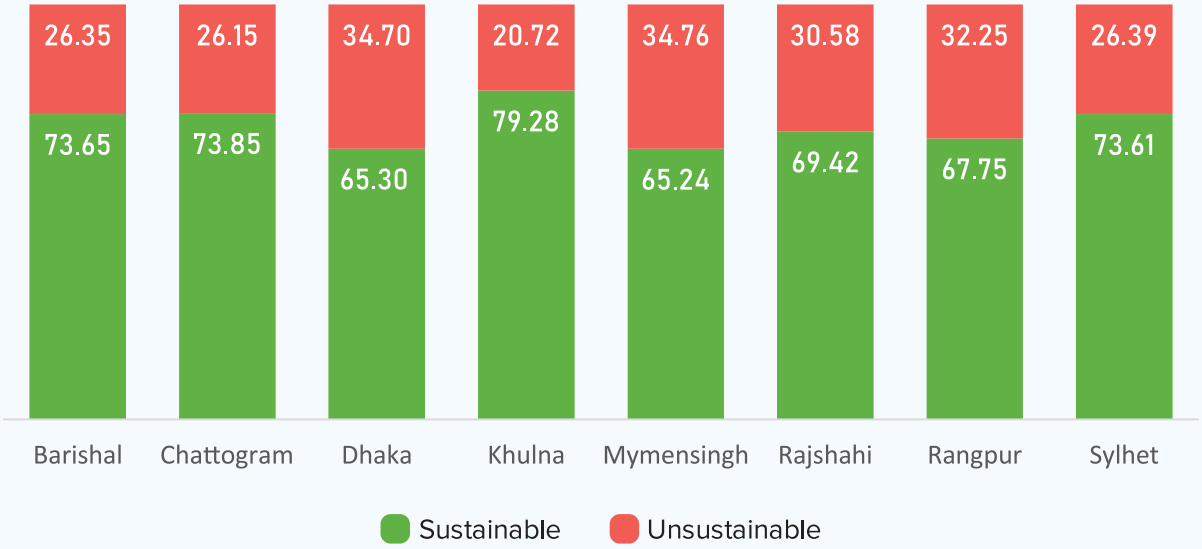


Figure 4.10: Proportion of sustainability of sub-indicator 'Use of Agro-biodiversity-Supportive Practices' by division



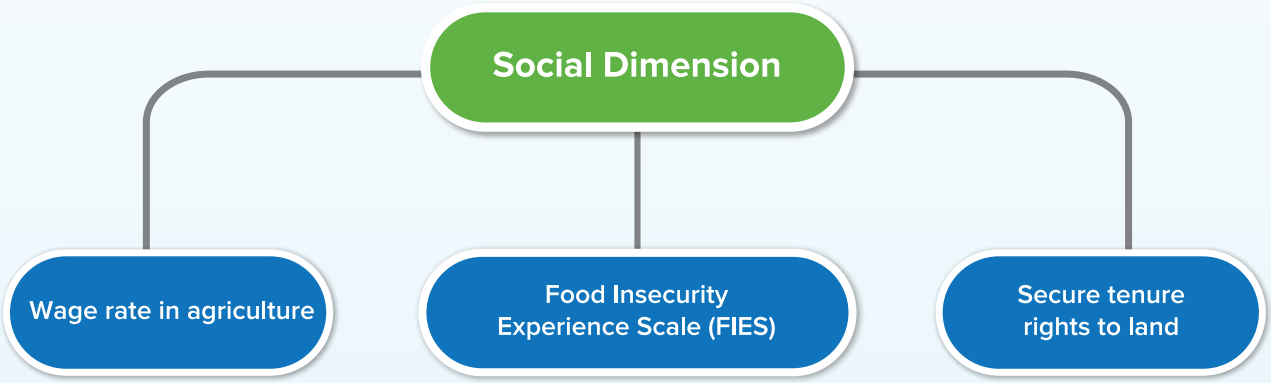
Here we see that Mymensingh has the lowest sustainability rate, with 65.24% of agricultural practices land using 'Use of Agro-biodiversity-supportive Practices' while Dhaka (65.30%), Rangpur (67.75%) and Rajshahi (69.42%) being deemed sustainable. These points to a significant need for improvement in that area. Moving forward, we have Dhaka, with a sustainability rate of 65.30%, followed closely by Rangpur at 67.75% and Rajshahi at 69.42%. However, Khulna stands out with the highest sustainability rate at 79.28%, reflecting a more significant commitment to sustainable farming practices followed by Chattogram (73.85%) and Barishal (73.65%).

Chapter 5

CHAPTER 5: SOCIAL SUSTAINABILITY

The social aspect of SDG indicator 2.4.1 is essential for understanding the long-term viability of agricultural systems. It includes three sub-indicators: Wage rate in agriculture, Food Insecurity Experience Scale (FIES) and Secure tenure rights to land. Together, these sub-indicators assess the social sustainability of farming operations.

The sub-indicators of social dimension are as follows:



Three sub-indicators of social dimension have three themes: the theme of 'Wage Rate in Agriculture' is decent employment; the theme of 'Food Insecurity Experience Scale (FIES)' is food security; the theme of 'Secure Tenure Rights to Land' is land tenure.

5.1 Decent Employment

Decent employment deals with a sub indicator on wage rate in agriculture which reflects the employment status of sustainable agriculture practices. The theme provides information on the remuneration of employees working for the farm and belonging to the elementary occupation group, as defined by the International Standard Classification of

Occupation (ISCO-08 - code 92). It informs about economic risks faced by unskilled workers (those performing simple and routine tasks) in terms of remuneration received, the later benchmarked against the minimum wage set at national level in the agricultural sector. This sub-indicator allows distinguishing between holdings that pay a fair remuneration to its employees under the elementary occupation group and agricultural holdings paying a remuneration to their employees belonging to the elementary occupation group that is below the minimum wage standard. These holdings are deemed unsustainable due to insufficient remuneration to ensure a decent standard of living.

5.2 Food Security

The Food Insecurity Experience Scale (FIES) produces a measure of the severity of food insecurity experienced by individuals or households, based on direct interviews. The FIES questions refer to the experiences of the individual respondent or of the respondent's household as a whole. The questions focus on self-reported food-related behaviors and experiences associated with increasing difficulties in accessing food due to resource constraints.

5.3 Land Tenure

The sub-indicator allows assessing sustainability in terms of rights over use of agricultural land areas. Since agricultural land is a key input for agricultural production, having secure rights over land ensures that the agricultural holding controls such a key asset and does not risk losing the land used by the holding for farming. Evidence shows that farmers tend to be less productive if they have limited access to and control of economic resources and services, particularly land. Long-lasting inequalities of economic and financial resources have positioned certain farmers at a disadvantage relative to others in their ability to participate in, contribute to and benefit from broader processes of development.

5.4 Sub-indicator 9: Wage Rate in Agriculture

The wage rate of unskilled labor is evaluated against the national minimum wage, or the minimum wage specifically set for the agriculture sector. If neither exists, an alternative benchmark, such as prevailing regional wage rates or negotiated local standards—may be used to assess fairness and compliance.

Sustainable Criteria:

Desirable: If the wage rate paid to unskilled labour is above the minimum national wage rate or minimum agricultural sector wage rate. A default result is recorded for farms that do not hire any labour.

Acceptable: If the wage rate paid to unskilled labour is equals to the minimum national wage rate or minimum agricultural sector wage rate.

Unsustainable: If the wage rate paid to unskilled labour is below the minimum national wage rate or minimum agricultural sector wage rate.

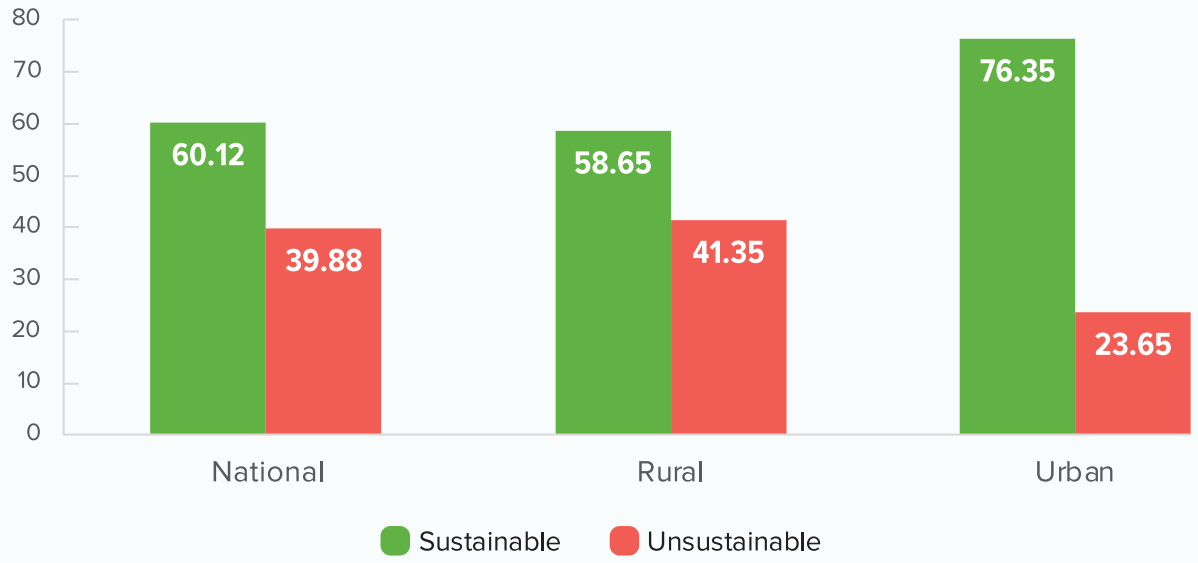
Table 5.1: Proportion of sustainability of sub-indicator 'Wage Rate in Agriculture' by locality

Locality	Desirable	Acceptable	Sustainable*	Unsustainable
National	39.85	20.27	60.12	39.88
Rural	38.72	19.93	58.65	41.35
Urban	54.17	22.18	76.35	23.65

*Sustainable= Desirable + Acceptable

The survey results show that the national proportion of agricultural area under productive and sustainable in associated with 'Wage Rate in Agriculture' sub indicator is 60.12% where as 39.85% is at desirable level and 20.27% is at acceptable level. While urban areas have higher proportion in the desirable category but in acceptable proportion urban areas have the lowest share compared to the rural areas.

Figure 5.1: Proportion of sustainable and unsustainable agricultural land of sub-indicator 'Wage Rate in Agriculture' by locality



The sustainability rate indicates that 60.12% agriculture land is managed by household whose labor get wage greater than or equal to national agriculture wage rate. In contrast, the unsustainable rate shows that 39.88% agriculture land under the group of household whose labour get wage is less than the national agriculture wage rate. In rural areas, the sustainable and unsustainable rates are approximately near about the corresponding national rates. More than three-fourth agricultural land in urban areas maintains the sustainable criteria while almost one-fouth falls under unsustainability.

Table 5.2: Proportion of sustainability of sub-indicator 'Wage Rate in Agriculture' by division

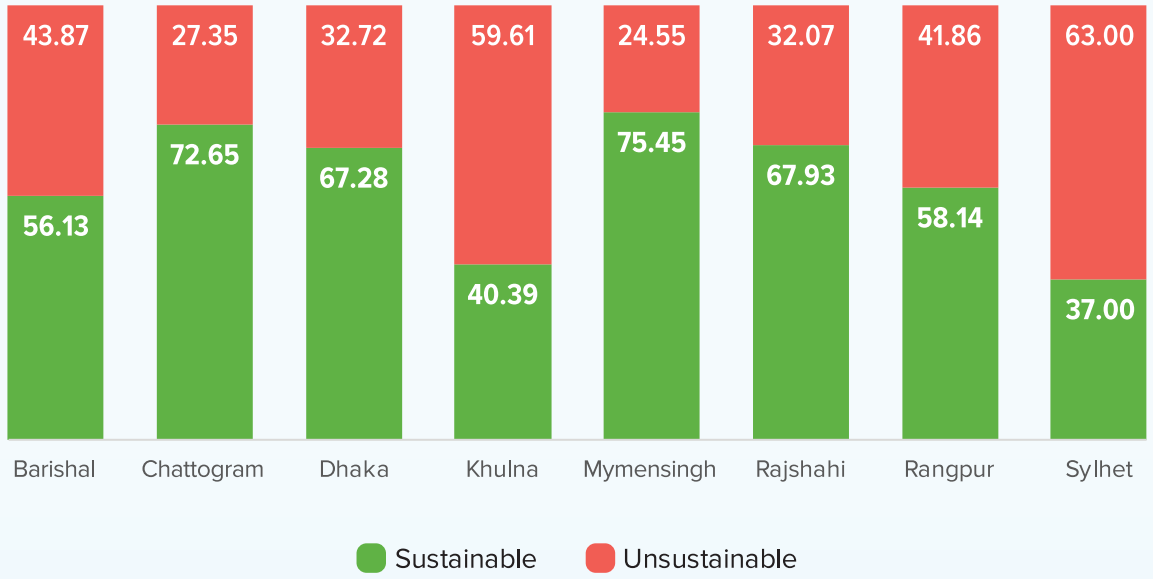
Division	Desirable	Acceptable	Sustainable*	Unsustainable
Barishal	48.22	7.91	56.13	43.87
Chattogram	54.45	18.20	72.65	27.35
Dhaka	50.68	16.60	67.28	32.72
Khulna	23.13	17.26	40.39	59.61
Mymensingh	55.46	19.99	75.45	24.55
Rajshahi	36.37	31.56	67.93	32.07
Rangpur	33.59	24.55	58.14	41.86
Sylhet	14.86	22.14	37.00	63.00

*Sustainable= Desirable + Acceptable

For the group with a wage rate is higher than national agriculture wage rate (desirable): Chattogram division has the highest proportion of agriculture land at 54.45%, while Sylhet division has the lowest proportion agriculture land at 14.86%.

For the group that has wage rate equal to the national agriculture wage rate (acceptable): Rajshahi and Rangpur divisions have achieved the highest proportion of agriculture land at 31.56% and 24.55%. Dhaka and Barishal divisions are the two regions experiencing the lowest proportion of agriculture land with 16.60% and 7.91% respectively.

Figure 5.2: Proportion of sustainable and unsustainable agricultural land of sub-indicator 'Wage Rate in Agriculture' by division



The graph illustrates the division-wise distribution of agricultural practices under SDG Indicator 2.4.1. Mymensingh shows the highest rate of sustainable practices (75.45%), followed by Chattogram (72.65%). Sylhet and Khulna record the lowest sustainable rates, at 37.00% and 40.39%, respectively, indicating a higher prevalence of unsustainable farming in those regions. Notably, Barishal and Rangpur also display relatively high unsustainable rates (43.87% and 41.86%). This data highlights the regional disparities in sustainable agriculture and need for targeted interventions in low-performing divisions.

5.5 Sub-indicator 10: Food Insecurity Experience Scale

Food security is also one of the most important theme of sustainable agriculture statistics. It is measured through Food Insecurity Experience Scale (FIES). The estimates derived from the sustainable agriculture survey on households only. The Institutional Agriculture Farms were excluded here. FIES is a metric of severity of food insecurity at the household level that relies on people's direct yes/no responses to eight simple questions regarding their access to adequate food. It is a statistical measurement scale similar to other widely-accepted statistical scales designed to measure unobservable traits such as aptitude/intelligence, personality, and a broad range of social, psychological and health-related conditions.

Sustainability Criteria: Level on FIES scale

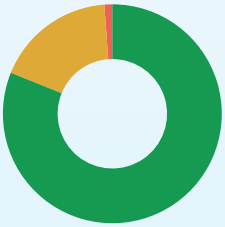
- **Desirable:** Mild food insecurity
- **Acceptable:** Moderate food insecurity
- **Unsustainable:** Severe food insecurity

Table 5.3: Proportion of sustainability of sub-indicator 'Food Insecurity Experience Scale' by locality

Locality	Desirable	Acceptable	Sustainable*	Unsustainable
National	81.11	17.72	98.83	1.17
Rural	80.60	18.17	98.77	1.23
Urban	88.47	11.02	99.49	0.51

*Sustainable= Desirable + Acceptable

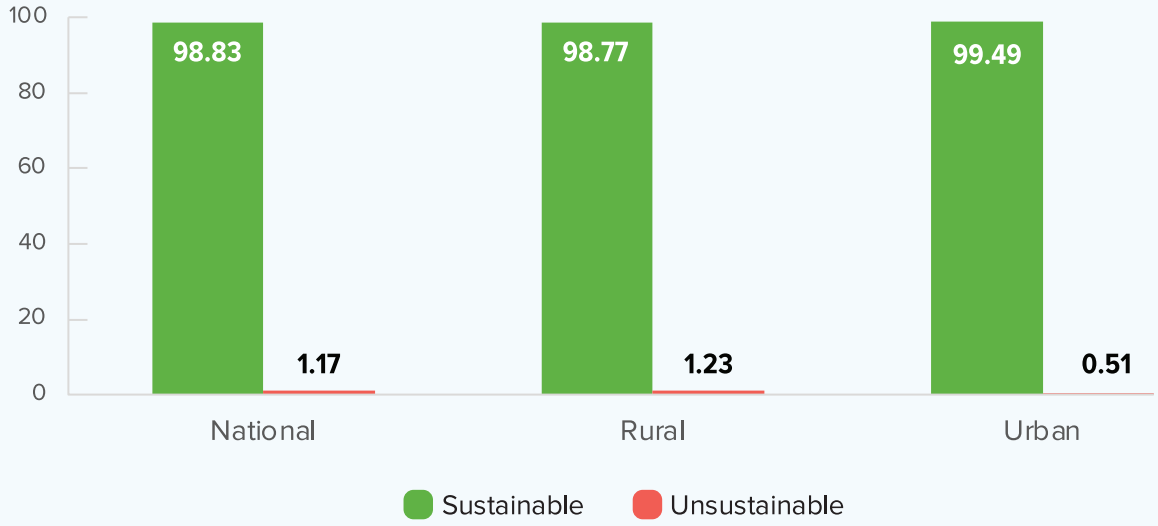
The survey results show that the proportion of agricultural area under productive and sustainable agriculture of the 'Food Security Experience Scale' sub indicator at the national level is 98.83%. In terms of each level of sustainability at the national, rural and urban level, the specific results are as follows:



- Desirable: 81.11%
- Acceptable: 17.72%
- Unsustainable: 1.17%

At national level 81.11% belongs to the desirable group that have mild food insecurity. The proportion of desirable in urban areas is higher than that of national and rural. The 17.72% belongs to the group that have moderate food insecurity. The proportion of acceptable in urban areas is 11.02% that is lower than the rural acceptable 18.17%.

Figure 5.3: Proportion of agriculture area under productive and sustainable of the sub-indicator 'Food insecurity Experience Scale' by locality



The figure shows that the proportion of agricultural area under productive and sustainable agriculture of the 'Food Insecurity Experience Scale' sub indicator at the national level is 98.83%. At rural and urban areas, the proportion is 98.77% and 99.49% respectively. The proportion unsustainable 1.17 means that 1.17% of agricultural production land belongs to the group of households that have severe food insecurity at national level. At rural and urban areas, the proportions are 1.23% and 0.51% respectively that depicts urban unsustainable land is much lower than that of rural areas.

Table 5.4: Proportion of sustainability of sub-indicator 'Food Insecurity Experience Scale' by division

Division	Desirable	Acceptable	Sustainable*	Unsustainable
Barishal	84.08	15.11	99.19	0.81
Chattogram	64.06	34.65	98.71	1.29
Dhaka	85.54	13.59	99.13	0.87
Khulna	89.42	10.13	99.55	0.45
Mymensingh	82.01	17.70	99.71	0.29
Rajshahi	76.59	20.32	96.91	3.09
Rangpur	88.90	10.05	98.95	1.05
Sylhet	75.39	24.12	99.51	0.49

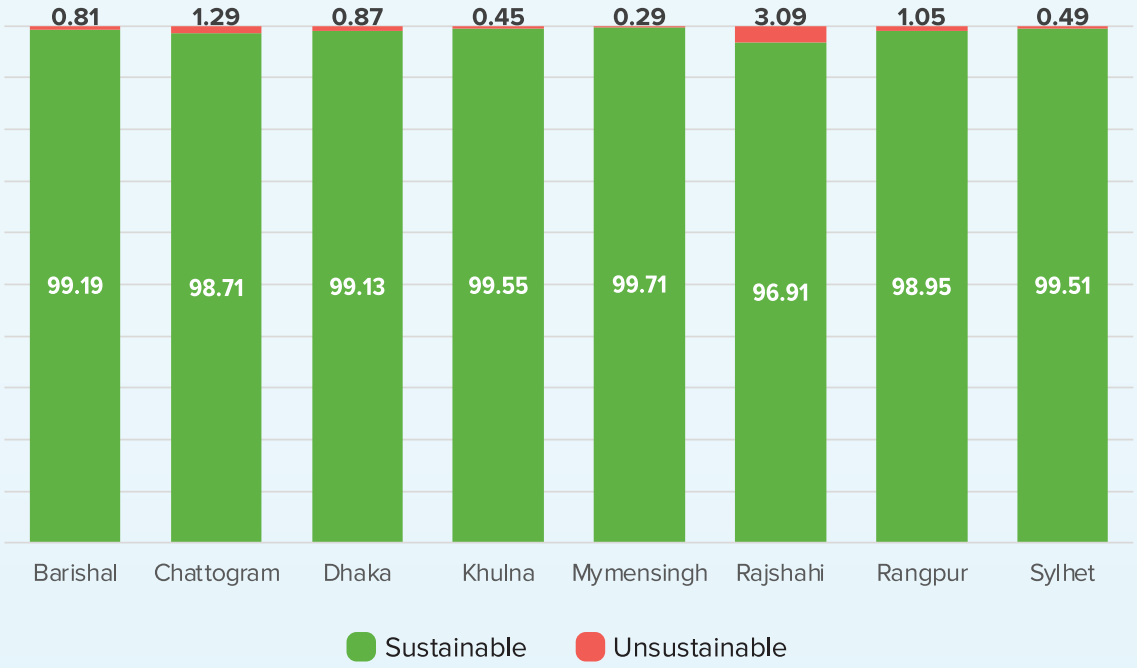
*Sustainable= Desirable + Acceptable

For the group that have mild food insecurity (desirable): Khulna division has the highest agriculture land proportion with 89.42%, Chattogram division has the lowest proportion with 64.06%.

For the group that have moderate food insecurity (acceptable): Chattogram division has achieved the highest with 34.65%, Rangpur and Khulna divisions are the two regions experiencing the lowest proportion with 10.05% and 10.13% respectively.

For the group that have severe food insecurity (unsustainable) Rajshahi division has the higher with 3.09% and Mymensingh division has the lowest at 0.29%.

Figure 5.4: Proportion of agriculture area under productive and sustainable of the sub-indicator 'Food Insecurity Experience Scale' by division



Sustainable agricultural practices exceed 96% in all the divisions, with Khulna leading at 99.55% and Rajshahi showing the highest share of unsustainable practices at only 3.09%.

5.6 Sub-indicator 11: Secure Tenure Rights to Land

The land tenure is a sub indicator on secure tenure rights to land. The estimates derived from the sustainable agriculture survey on households and institutional agriculture farms in Bangladesh. The sub-indicator allows assessing sustainability in terms of rights over use of agricultural land areas. Since agricultural land is a key input for agricultural production, having secure rights over land ensures that the agricultural holding controls such a key asset and does not have risk of losing the land used by the holding for farming. The sub-indicator measures the ownership or secure rights over use of agricultural land areas using the following criteria:

- Formal document issued by the Land Registry/Cadastral Agency
- Name of the holder listed as owner/use right holder on legally recognized documents
- Rights to sell any of the parcel of the holding
- Rights to bequeath any of the parcel of the holding

Sustainability Criteria:

Desirable: Has a formal document with the name of the holder/holding on it, or has the right to sell any of the parcel of the holding, or has the right to bequeath any of the parcel of the holding.

Acceptable: Has a formal document even if the name of the holder/holding is not on it.

Unsustainable: No positive responses to any of the 4 questions above.

Table 5.5: Proportion of sustainability of sub-indicator 'Secure Tenure Rights to Land' by locality

Locality	Desirable	Acceptable	Sustainable*	Unsustainable
National	88.90	0.45	89.35	10.65
Rural	89.05	0.47	89.52	10.48
Urban	89.17	0.31	89.48	10.52

*Sustainable= Desirable + Acceptable

At national level 88.90% of agricultural production land belongs to the group of households that have access to three security criteria. The proportion of desirable in urban areas is higher than that of rural areas.

0.45% of agricultural production land belongs to the group of households that have access to only one security criteria. The proportion of acceptable in urban areas is 0.31% that is lower than the rural acceptable 0.47%.

Figure 5.5: Proportion of agriculture area under productive and sustainable of the sub-indicator 'Secure Tenure Rights to Land' by locality

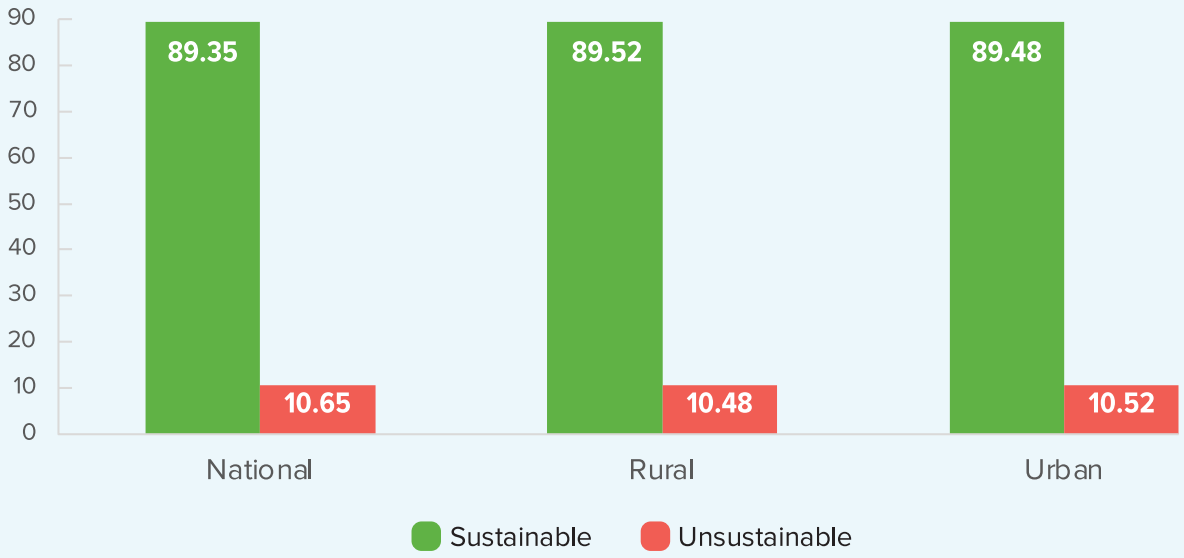


Figure 5.5 shows that the proportion of agricultural area under productive and sustainable agriculture of the 'Secure tenure rights to land' sub indicator at the national level is 89.35%. At rural and urban areas, the proportion is 89.52% and 89.48% respectively. The proportion of agricultural area under productive and sustainable agriculture at national, rural and urban level is almost similar. The proportion unsustainable agriculture land 10.65% means that 10.65% of agricultural production land belongs to the group of households that have not access to any of the security criteria at national level.

Table 5.6: Proportion of sustainability of sub-indicator 'Secure Land Tenure Rights to Land' by division

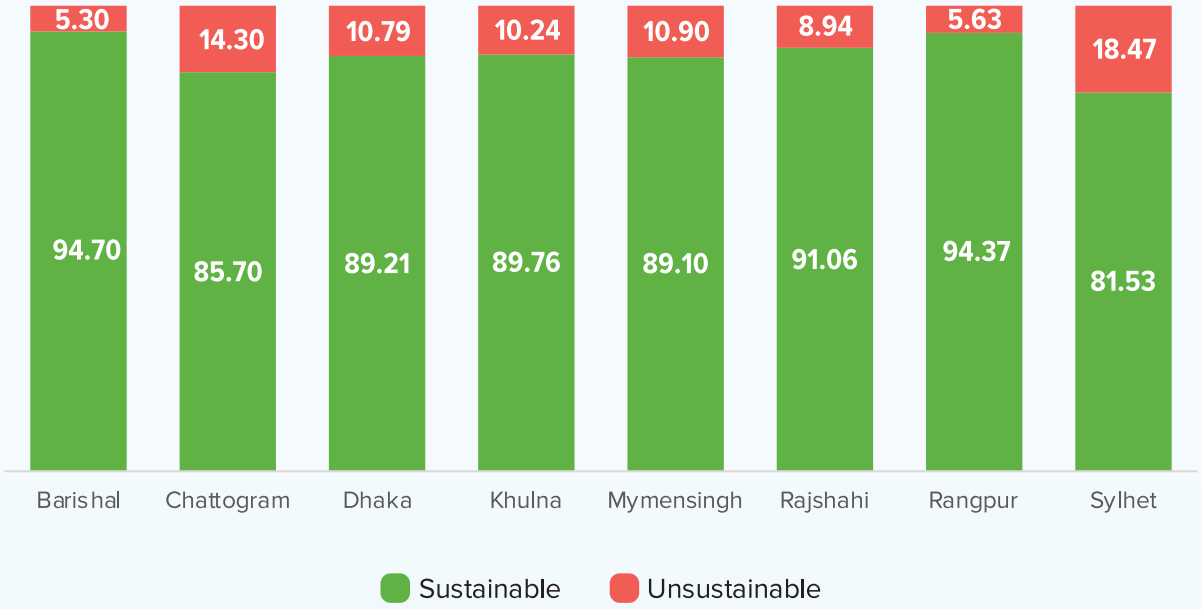
Division	Desirable	Acceptable	Sustainable*	Unsustainable
Barishal	94.70	0.00	94.70	5.30
Chattogram	85.22	0.48	85.70	14.30
Dhaka	88.66	0.55	89.21	10.79
Khulna	89.55	0.21	89.76	10.24
Mymensingh	88.82	0.28	89.10	10.90
Rajshahi	90.76	0.30	91.06	8.94
Rangpur	93.77	0.60	94.37	5.63
Sylhet	80.41	1.12	81.53	18.47

*Sustainable= Desirable + Acceptable

For the group that has access to at least three eriteria (desirable): The Barishal division has the highest agriculture land proportion with 94.70%, the Sylhet division has the agriculture land proportion lowest rate with 80.41%.

For the group that has access to only one mechanisms (acceptable): The Sylhet division has achieved the highest proportion of agriculture land with 1.12%.

Figure 5.6: Proportion of agriculture area under productive and sustainable of the sub-indicator 'secure Tenure Rights to Land' by division



The graph presents the division-wise status of sustainable agricultural practices. Barishal and Rangpur exhibit the highest levels of sustainability, with 94.70% and 94.37%, respectively, almost entirely composed of desirable practices. Several other divisions, such as Rajshahi (91.06%), Khulna (89.76%), Mymensingh (89.10%), and Dhaka (89.21%), also maintain high levels of sustainable practices. Sylhet, with a sustainable rate of 81.53%, has the highest share of unsustainable practices (18.47%) among all the divisions, indicating room for targeted improvement. Notably, acceptable practices are minimal across all divisions adove the graph.

Chapter 6

SDG INDICATOR 2.4.1

CHAPTER 6: SDG INDICATOR 2.4.1

The results of SDG Indicator 2.4.1, which are derived from a comprehensive set of sub-indicators, signify the culmination of the sustainability assessment process in the agricultural sector. This indicator serves as a vital tool for evaluating the overall sustainability of farming practices, reflecting environmental, economic, and social dimensions. However, to ensure that the synthesis of this indicator is accurate and meaningful at both the regional and national levels, the process must be firmly rooted in local-level assessments.

Localised data collection and context-specific analysis are essential, as they capture the unique challenges, practices, and progress of individual communities and farming systems. By starting from the grassroots level, we build a robust and realistic picture of sustainability, which, when aggregated, provides credible insights for policymaking, planning, and international reporting. Without this local grounding, higher-level analyses risk losing the nuance and diversity that define agricultural sustainability across different regions.

According to the FAO methodology, national reporting on SDG Indicator 2.4.1 is recommended to be conducted through country-level figures. These figures serve as an effective tool to present all sub-indicators in a single, cohesive format maintaining their independence while allowing for a comprehensive overview. The use of such These figures not only facilitates the integration of data across economic, social, and environmental dimensions but also enables a clear assessment of the sustainability level of each indicator.

The methodology provides a detailed description of the estimation of the indicator based on the survey.

The values for reporting indicator 2.4.1 can be calculated as follows:

$$SDG241_{d} = \min_{n:1-11} (SI_{d\,n})$$

where:
$SDG241_{d}$ is the proportion of agricultural land area that has measured the 'desirable' level
$SI_{d\,n}$ is the proportion of sub-indicator n that is classified as 'desirable'
min refers to the minimum level of $SI_{d\,n}$ at the national level across all 11 sub-indicators
$SDG241_{d}$ is the proportion of agricultural area for which all sub-indicators are green.

$$SDG241_{a+d} = \min_{n:1-11} (SI_{d} + SI_{a})_{n}$$

where:

$SDG241_{a+d}$ is the proportion of agricultural land area that has achieved at least the 'acceptable' level

$SI_{d\,n}$ is the proportion of sub-indicator n that is classified as 'desirable'

$SI_{a\,n}$ is the proportion of sub-indicator n that is classified as 'acceptable'

min refers to the minimum level of ($SI_{d\,n}$ + $SI_{a\,n}$) at the national level across all 11 sub-indicators

$SDG241_{a+d}$ is the proportion of agricultural area for which all indicators are either green or yellow, an acceptable situation, but that could be improved.

$$SDG241_{u} = 1 - SDG241_{a+d} = \max_{n:1-11} (SI_{u\,n})$$

where:

$SDG241_{u}$ is the proportion estimated by default of agricultural area that is 'unsustainable'

$SI_{u\,n}$ is the proportion of sub-indicator n that is classified as 'unsustainable'

max refers to the highest value of $SI_{u\,n}$ across all 11 sub-indicators at the national level

$SDG241_{u}$ is the proportion of agricultural area for which at least one sub-indicator is unsustainable and is therefore classified as unsustainable.

The performances of countries over time can be measured by the change in the value of $SDG241_{d}$ and $SDG241_{a+d}$. An increase over time indicates improvement, while a decrease indicates degradation.

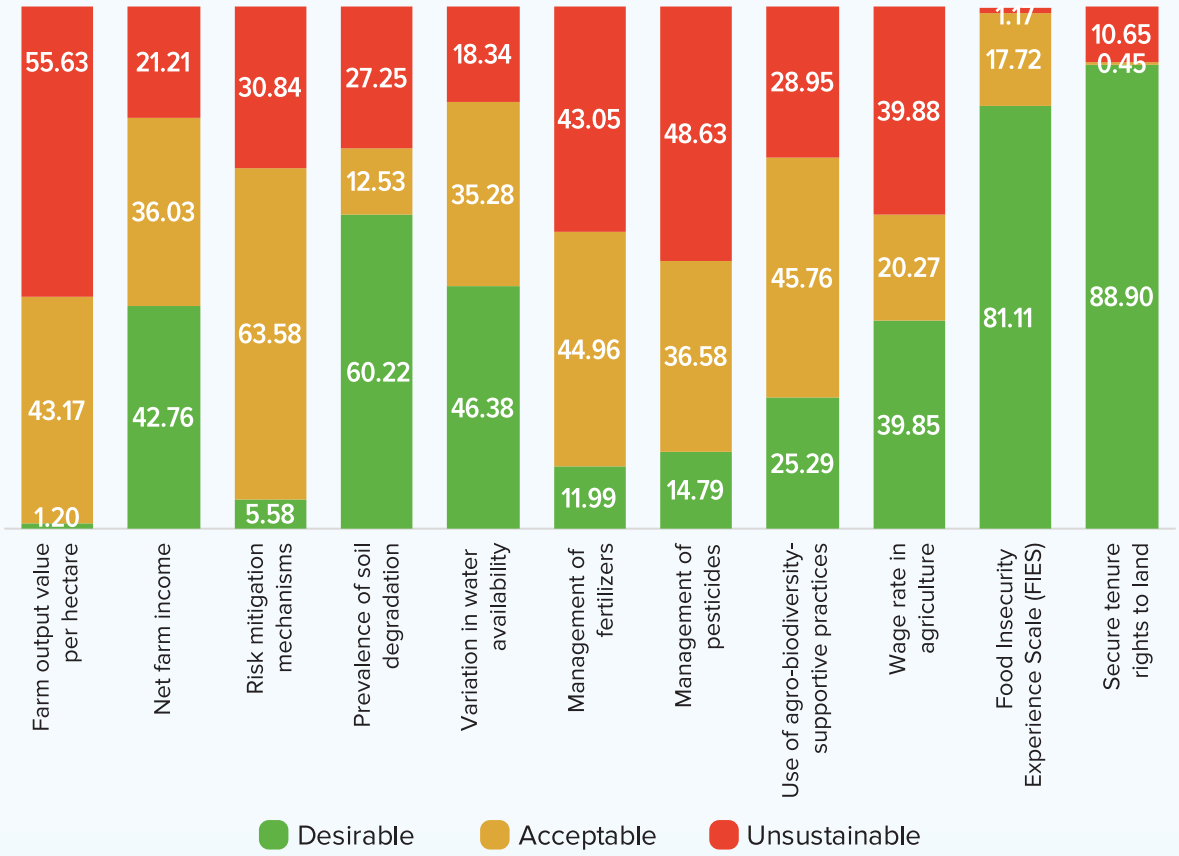
Table 6.1: The national value of SDG indicator 2.4.1

(in percent)

Sub-indicators	Desirable	Acceptable	Sustainable*	Unsustainable
Farm output value per hectare	1.20	43.17	44.37	55.63
Net farm income	42.76	36.03	78.79	21.21
Risk mitigation mechanisms	5.58	63.58	69.16	30.84
Prevalence of soil degradation	60.22	12.53	72.75	27.25
Variation in water availability	46.38	35.28	81.66	18.34
Management of fertilizers	11.99	44.96	56.95	43.05
Management of pesticides	14.79	36.58	51.37	48.63
Use of agro-biodiversity-supportive practices	25.29	45.76	71.05	28.95
Wage rate in agriculture	39.85	20.27	60.12	39.88
Food Insecurity Experience Scale (FIES)	81.11	17.72	98.83	1.17
Secure tenure rights to land	88.90	0.45	89.35	10.65
SDG 2.4.1			**44.37**	**55.63**

*Sustainable= Desirable + Acceptable

Figure 6.1: Proportion of agricultural area under productive and sustainable agriculture at the national level



Sustainable= Desirable + Acceptable

Figure 6.1 illustrates the 11 nationally assessed sub-indicators under SDG Indicator 2.4.1. This comprehensive figure enables us to determine the proportion of agricultural land in Bangladesh that falls under productive and sustainable practices as of the year 2025. According to the data, 44.37% of the country's agricultural land is classified as both productive and sustainable. Conversely, the 'Farm Output Value per Hectare' emerges as the sub-indicator with the highest level of unsustainability, accounting for 55.63% of the total agricultural land.

Even more striking is the fact that only a marginal 1.20% of agricultural land has achieved the desirable level of sustainability across all assessed dimensions economic, social, and environmental. This highlights a considerable gap and underscores the urgent need for targeted interventions and policy actions to promote sustainable agricultural practices nationwide. The figure not only provides a snapshot of the current status but also serves as a vital decision-making tool for identifying priorities and driving progress toward national and global sustainability goals (meet the criteria that the 'green' level in all 11 sub-indicators in the figure).

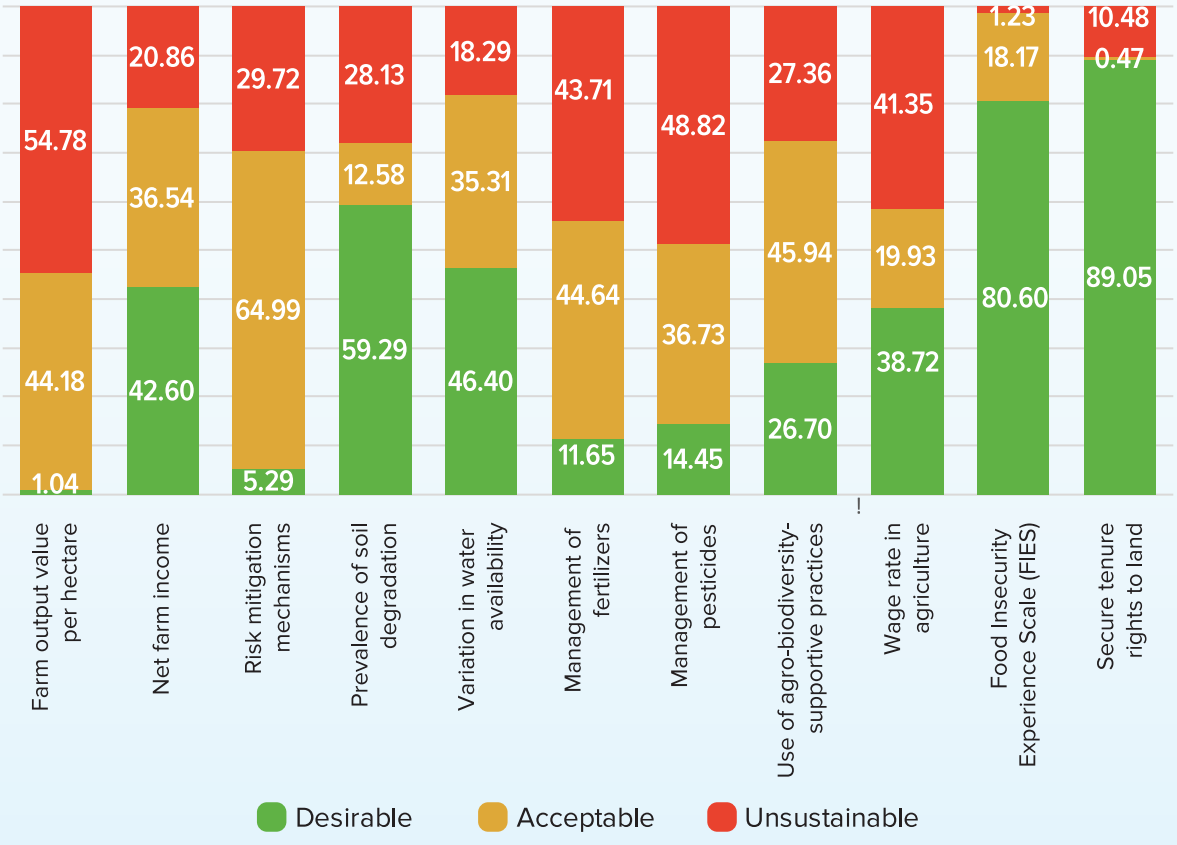
In contrast, the 'Food Insecurity Experience Scale (FIES) stands out as the most sustainable sub-indicator, with an impressive 98.83% of the population experiencing food security. This high level of sustainability in food access indicates strong performance in addressing hunger and food availability, reflecting positive outcomes in one of the most critical dimensions of sustainable development.

These contrasting figures highlight, the need for a balanced approach, while commendable progress has been made in ensuring food security, efforts must be intensified to enhance economic sustainability, particularly in improving farm productivity and income. The figure thus serves as a crucial tool in identifying priority areas for intervention and investment in the path toward sustainable agriculture.

One sub-indicator achieving the unsustainable level over 50% is

- Farm output value per hectare is 55.63%

Figure 6.2: Proportion of agricultural area under productive and sustainable agriculture in rural areas



Sustainable= Desirable + Acceptable

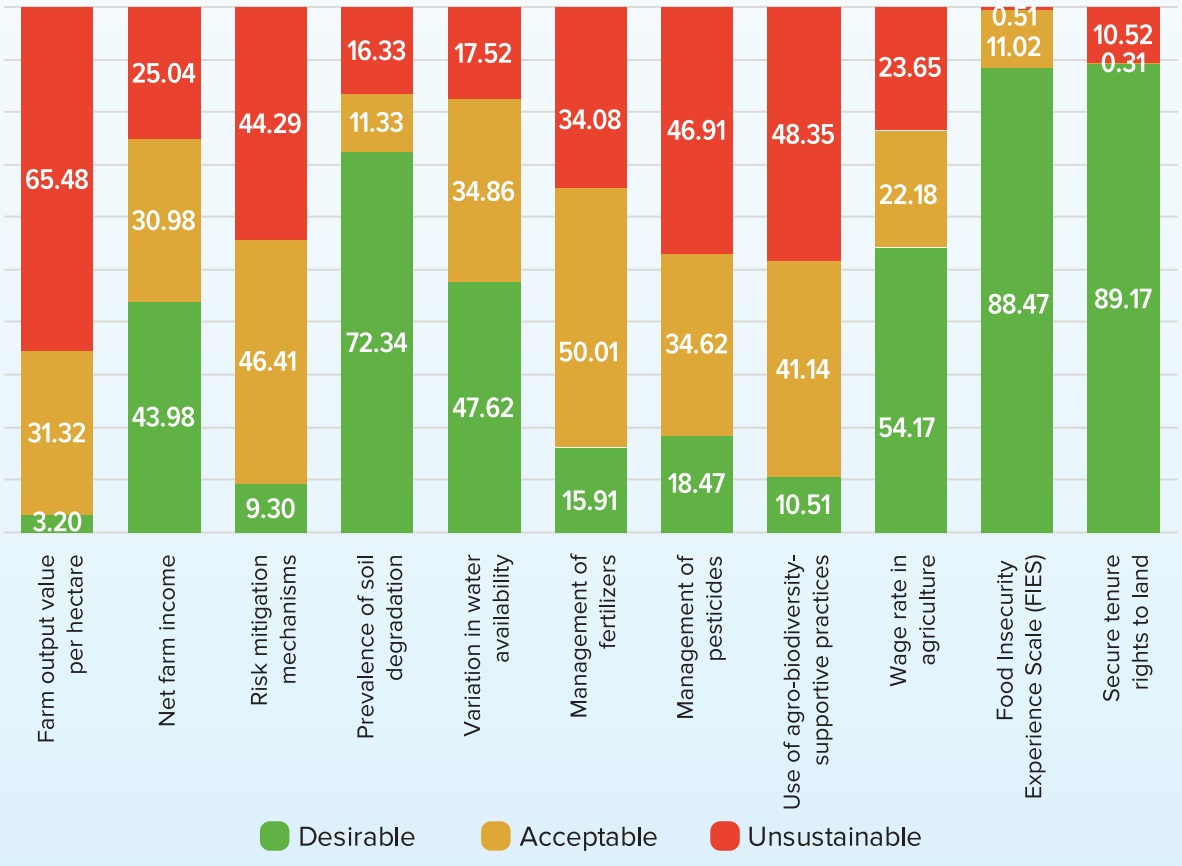
Figure 6.2 presents that visualizes data across 11 key sub-indicators at the rural level, offering a comprehensive snapshot of agricultural sustainability in Bangladesh for the year 2025. According to this figure, an estimated 45.22% (Farm output value per hectare) of

agricultural land is managed under productive and sustainable practices. While this represents a step forward, it also highlights a pressing concern a significant 54.78% of agricultural land still falls under unsustainable management, indicating that more than half of the rural agricultural landscape does not meet the minimum sustainability standards.

What is particularly striking is that only 1.04% of the total agricultural land has reached the desirable 'green' threshold across all 11 sub-indicators. This means that a very small fraction of agricultural land demonstrates high performance in economic viability, environmental responsibility, and social well-being simultaneously. These findings underscore a critical need for targeted and integrated policy interventions at the rural level. While progress has been made in certain areas, achieving truly sustainable agriculture on a broader scale will require increased investment, awareness, and support for farmers particularly in regions where unsustainable practices still dominate. The figure serves not only as a monitoring tool but also as a strategic guide for prioritizing action toward sustainable rural development.

At the rural level 'Farm output value per hectare has the highest unsustainable level of 54.78%; Food Insecurity Experience Scale (FIES) has the highest sustainable level of 98.77%. Most of the sub-indicators have achieved the sustainable level over 50%

Figure 6.3: Proportion of agricultural area under productive and sustainable agriculture in urban areas



Sustainable= Desirable + Acceptable

Figure 6.3 shows the results of all 11 sub-indicators assessed at the urban level, providing a comprehensive view of agricultural sustainability in urban areas for the year 2025. A key methodological point to note is that the overall proportion of unsustainable agricultural land under SDG Indicator 2.4.1 is determined by the highest unsustainable value among the sub-indicators. In this case, the sub-indicator 'Farm Output Value per Hectare' exhibits the highest level of unsustainability, recorded at 65.48%. Consequently, this value defines the overall unsustainable proportion for Indicator 2.4.1 in urban areas.

Based on this approach, the proportion of agricultural land classified as productive and sustainable in 2025 is estimated at only 34.52%. This reveals that 65.48% of urban agricultural land remains under unsustainable management practices posing significant challenges for long-term urban agricultural sustainability.

Furthermore, the data highlights that just 3.20% (farm output value per hectare) of urban agricultural land has achieved the 'desirable' level of sustainability, meeting the green threshold across all 11 sub-indicators. While this reflects a small area of excellence, it also underscores the urgent need for targeted efforts to scale up best practices and improve sustainability outcomes.

This figure not only provides critical insight into urban agricultural performance but also serves as a strategic tool for guiding interventions, investments, and policy frameworks aimed at promoting sustainable agriculture in urban contexts (ensure the "green" level in all 11 sub-indicators in the figure).

Notably,

- Farm output value per hectare in production is the sub-indicator with the highest unsustainable level of 65.48%
- Food Insecurity Experience Scale (FIES) is the sub-indicator with the highest sustainable level of 99.49%

Sub-indicators achieving the unsustainable level over 40% are:

- The risk mitigation mechanisms is 44.29%
- Management of fertilizer is 34.08%
- Management of pesticides is 46.91%
- Use of agro-biodiversity-supportive practices is 48.35%

Figure 6.4: Proportion of agricultural area under productive and sustainable agriculture in Barishal division

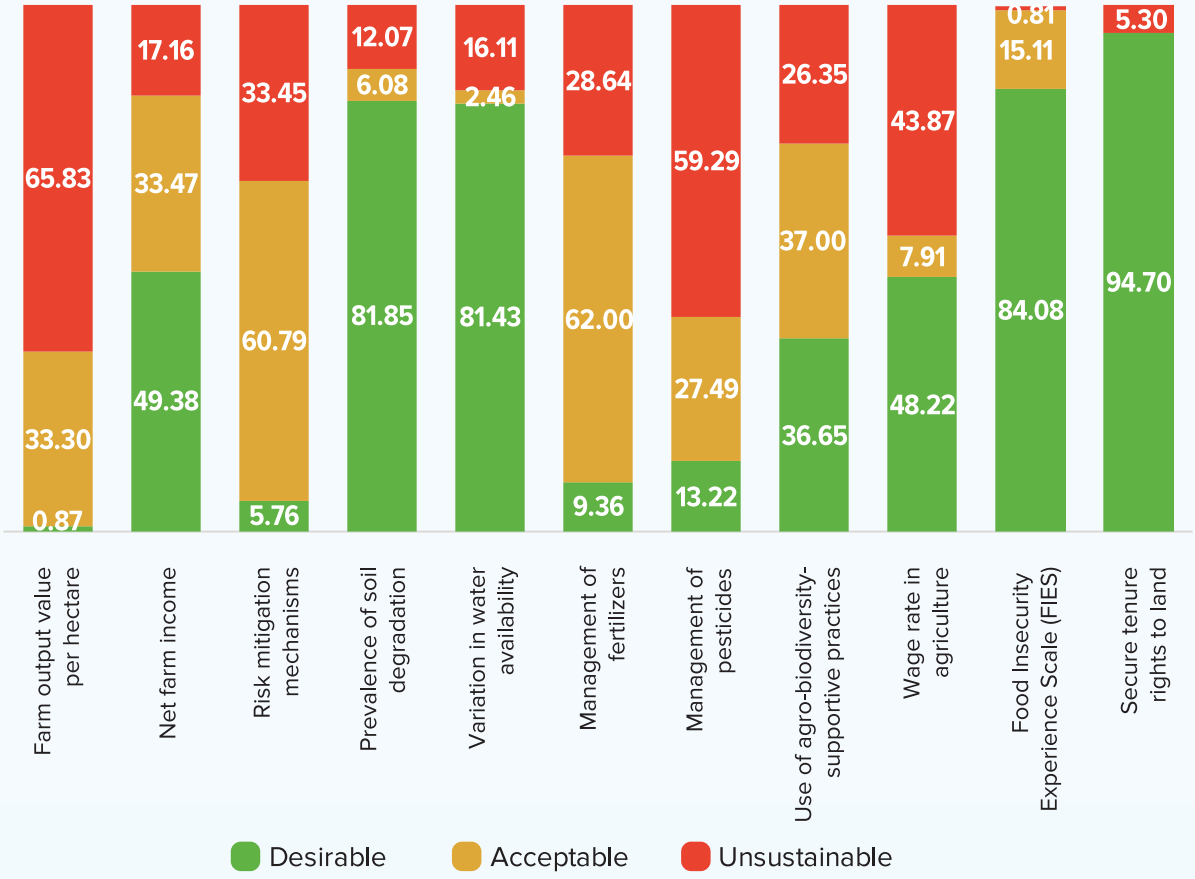


Figure 6.4 presented the performance of the Barishal division across 11 sub-indicators under SDG indicator 2.4.1, offering a detailed snapshot of agricultural sustainability in the region for the year 2025. An in-depth analysis of the data reveals that only 34.17% of agricultural land in Barishal can be classified as both productive and sustainable. This figure reflects land that meets minimum sustainability criteria across key dimensions: economic, environmental, and social.

On the other hand, the analysis shows that a significant 65.83% of agricultural land in the division remains under unsustainable practices. This means that the majority of farmland does not meet essential sustainability standards, raising concerns about long-term productivity, resource use, and environmental resilience.

Perhaps most alarming is the fact that only 0.87% of the total agricultural land in Barishal has reached the 'desirable' level of sustainability indicating that very few areas fully meet the highest performance thresholds across all 11 sub-indicators. This limited progress toward the green benchmark underscores the urgent need for focused policy actions, investments in sustainable technologies, and capacity-building initiatives to support farmers in adopting environmentally sound and economically viable practices.

The figure serves as a powerful tool, not only to assess current performance but also to guide future efforts toward sustainable agricultural transformation in Barishal and similar regions facing comparable challenges (defined as reaching the 'green' status across all 11 sub-indicators).

Since the maximum unsustainable value of 11 sub-indicator is the unsustainable proportion of SDG 2.4.1, the farm output value per hectare is the unsustainable value of SDG 2.4.1 at the Barishal division. Only three sub-indicator have the unsustainable rate greater than 40%. They are;

- Farm output value per hectare is 65.83%
- Management of pesticides is 59.29%
- Wage rate in agriculture is 43.87%

Figure 6.5: Proportion of agricultural area under productive and sustainable agriculture in Chattogram division

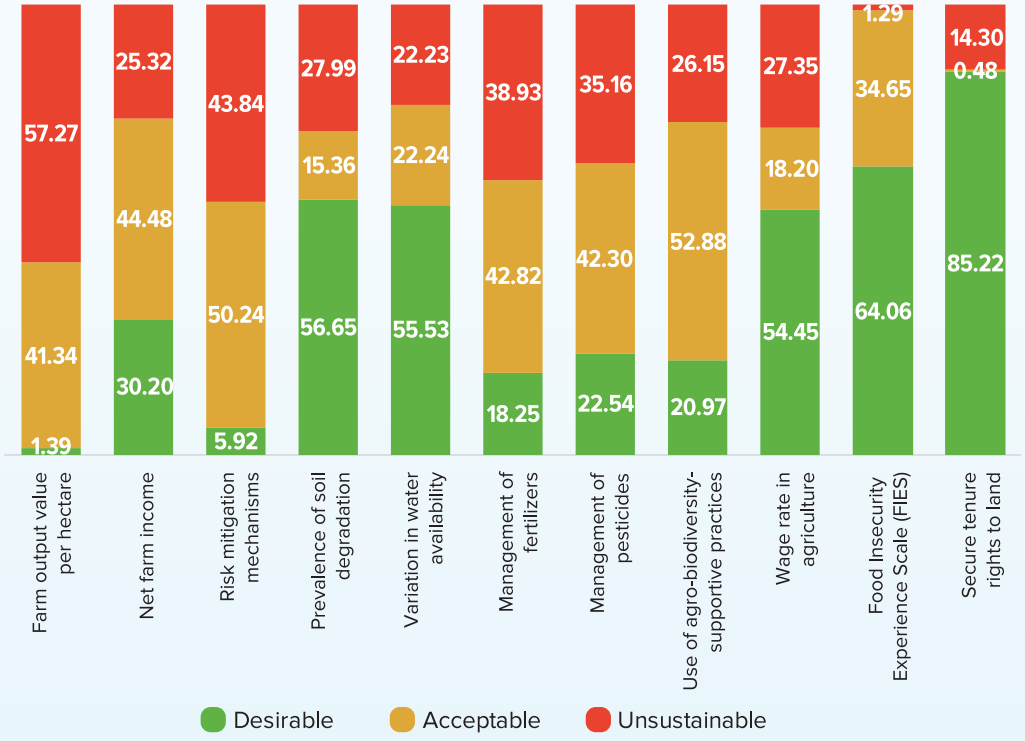


Figure 6.5 presents the performance of the Chattogram division across 11 sub-indicators under SDG Indicator 2.4.1, offering a comprehensive view of agricultural sustainability in the region as of 2025. Based on the data visualised in the figure, it is estimated that 42.73% of the agricultural land in Chattogram is being managed under productive and sustainable practices.

However, this also implies that 57.27% of the agricultural land in the division remains under unsustainable use. This majority reflects ongoing challenges related to inefficient resource use, environmental degradation, and limited resilience in agricultural systems.

Of particular concern is the fact that only 1.39% of agricultural land in Chattogram has reached the 'desirable' or 'green' threshold, meaning that a very small share of land meets high sustainability standards across all 11 sub-indicators.

The assessment of agricultural sustainability indicators reveals a mixed performance across economic, environmental and social dimensions. The vast majority of proportion of land (57.27%) falls within the unsustainable category with only 1.39% classified as desirable.

Figure 6.6: Proportion of agricultural area under productive and sustainable agriculture in Dhaka division

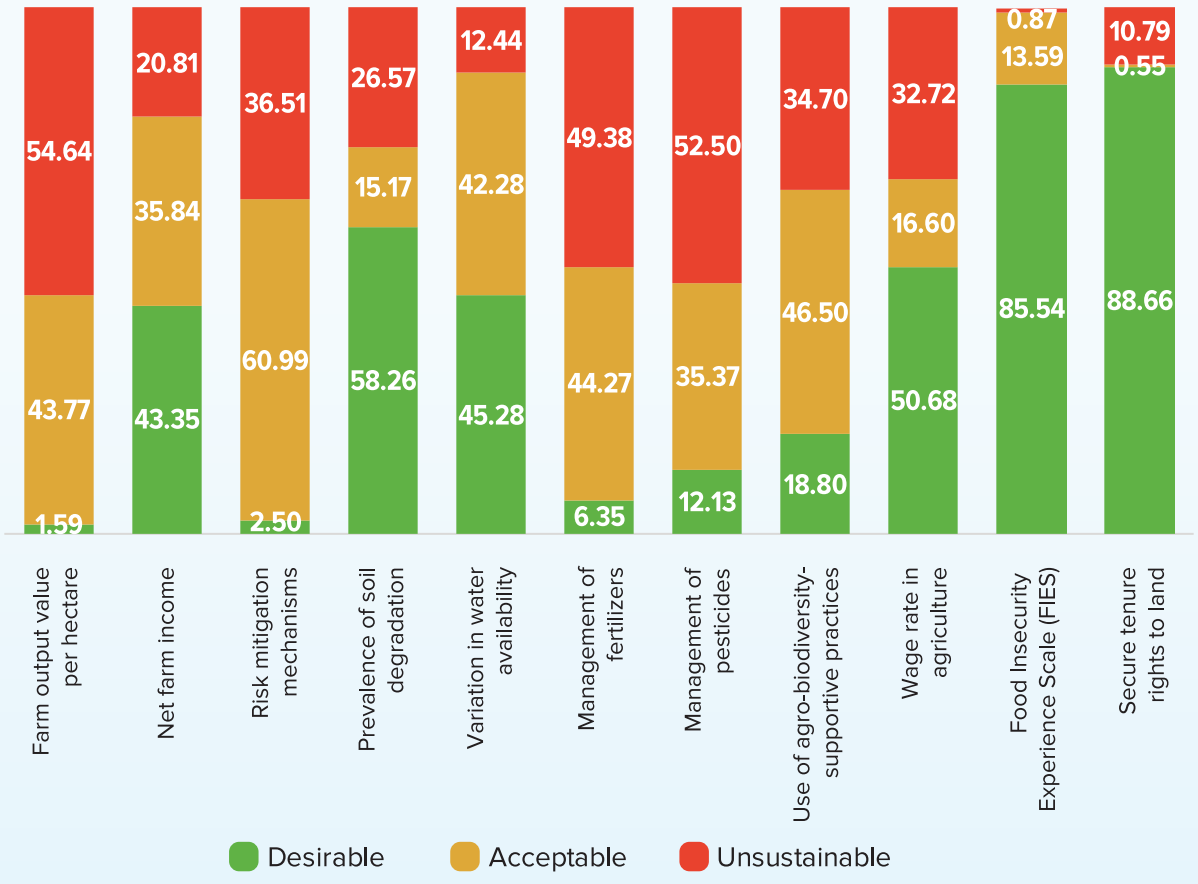


Figure 6.6 provides a detailed visualization of the sustainability status of agricultural practices in the Dhaka Division for the year 2025, as measured across 11 key sub-indicators under SDG Indicator 2.4.1. This dashboard presents a comprehensive assessment of agricultural performance through the lens of economic viability, environmental stewardship and social responsibility.

According to the analysis, 45.36% of the agricultural land in the Dhaka Division qualifies as both productive and sustainable. This portion reflects areas where farming practices meet essential standards that support long-term productivity while minimizing negative environmental and social impacts.

However, the data also reveals that a majority 54.64% of agricultural land remains under unsustainable management. This indicates that more than half of the region's farmland falls short in one or more dimensions of sustainability, posing risks to ecological balance, economic returns and social equity.

Perhaps most noteworthy is that only 1.59% of the total agricultural land in the Dhaka Division achieves the 'desirable' level of sustainability reaching the green threshold across all 11 sub-indicators. This small fraction of land demonstrates best practices and serves as a benchmark for what sustainable agriculture can look like when all dimensions are successfully addressed.

Key areas of concern include farm output value per hectare, management of fertilizers and pesticides, and use of agro-biodiversity supportive practices, where unsustainable practices dominate. In contrast, positive performance is observed in social indicators such as food security (85.54% desirable) and secure tenure rights to land (88.66% desirable). These findings underscore the need for comprehensive and targeted interventions to enhance economic viability and environmental resilience in agriculture, aiming to scale up the share of land under truly sustainable practices in the region.

Figure 6.7: Proportion of agricultural area under productive and sustainable agriculture in Khulna division

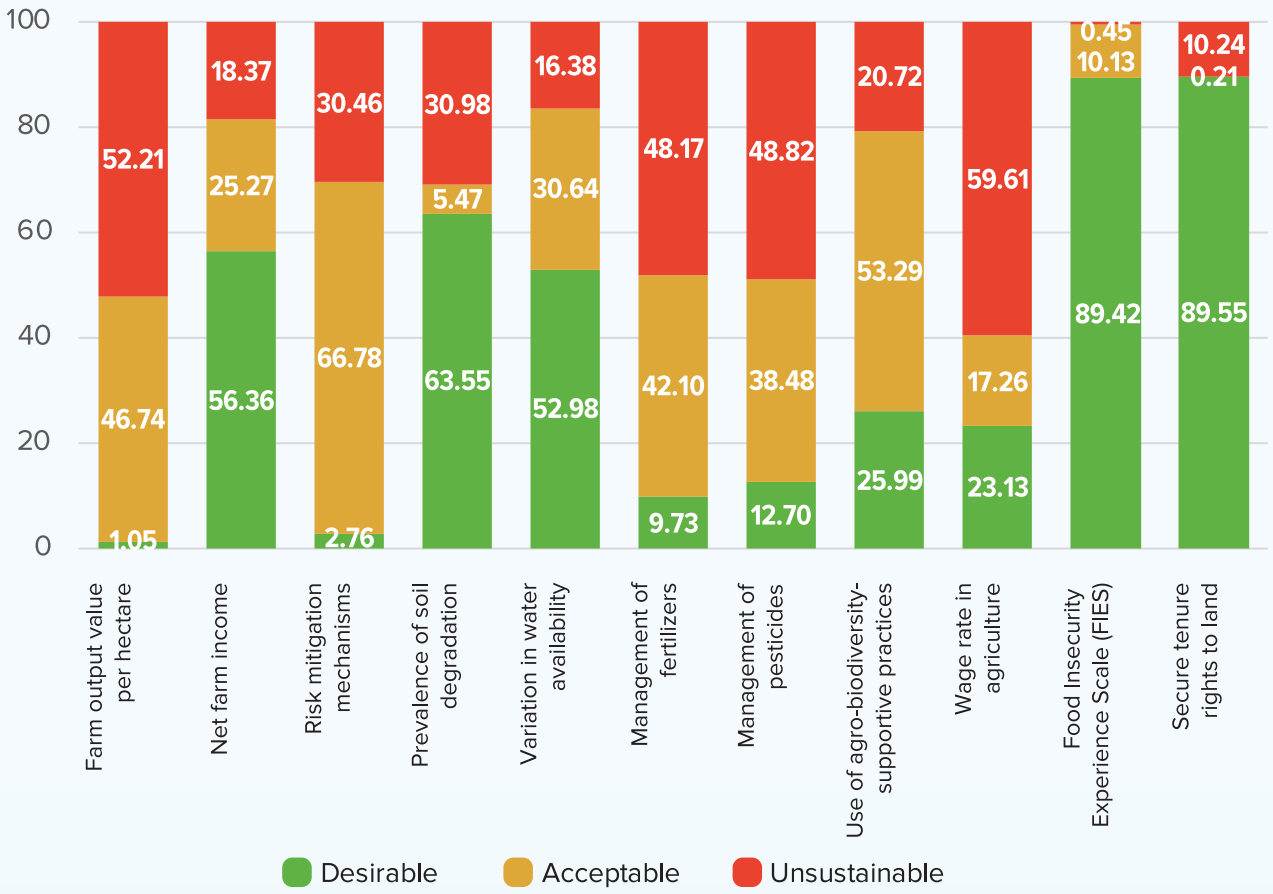


Figure 6.7 shows the sustainability performance of agricultural practices in the Khulna Division for the year 2025, based on 11 sub-indicators under SDG Indicator 2.4.1. This figure provides a comprehensive and data-driven overview of how agricultural land in the region aligns with the principles of productive and sustainable farming.

According to the assessment, 40.39% of agricultural land in Khulna is managed in a manner that qualifies as both productive and sustainable. This portion of land reflects practices that support long-term agricultural productivity while considering environmental preservation and social well-being.

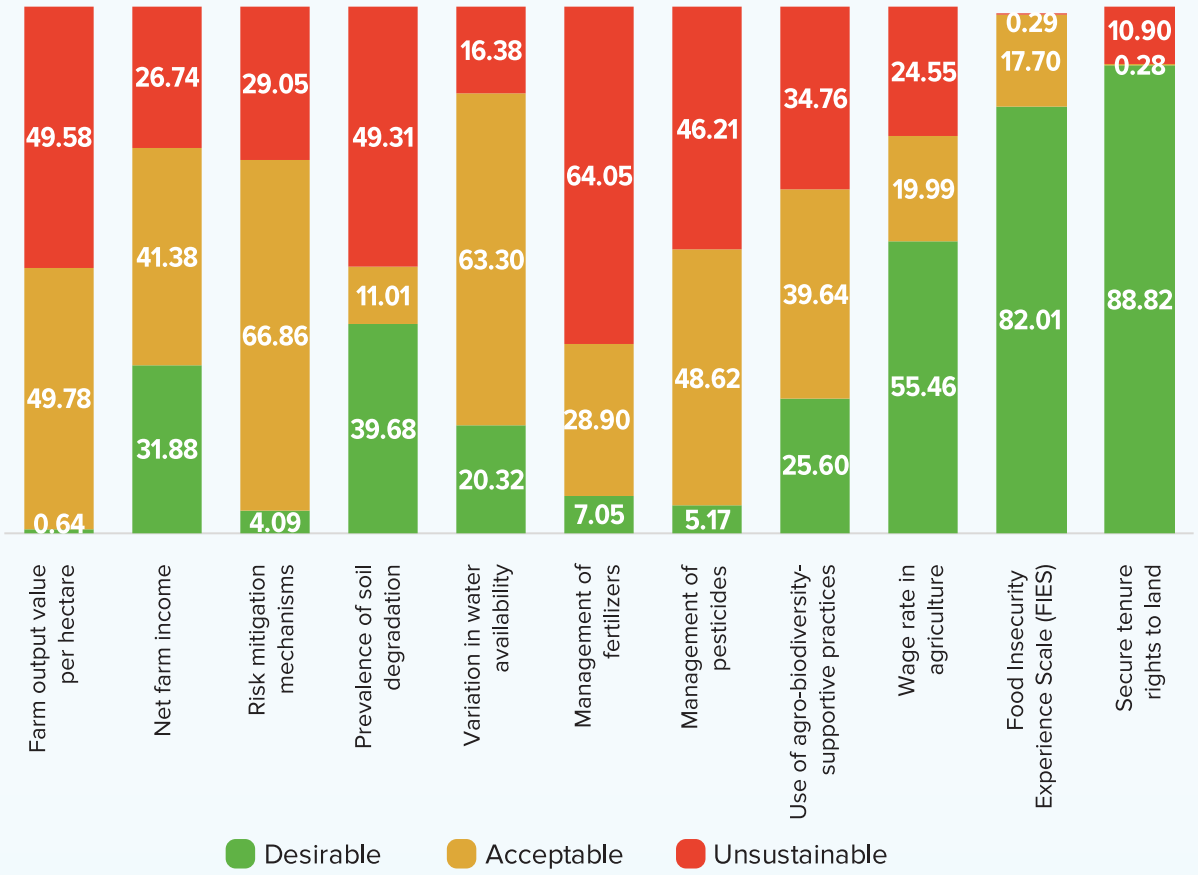
Conversely, a substantial 59.61% of agricultural land in the division is categorised as unsustainable, indicating that the majority of farmland fails to meet one or more sustainability criteria. These areas may be affected by issues such as overuse of chemical inputs, soil degradation, poor economic returns, or inadequate attention to social factors such as labor conditions and food security.

What is particularly striking is that only 1.05% of the agricultural land in Khulna has reached the 'desirable' or 'green' level of sustainability meeting the highest standards across all 11 sub-indicators. This small percentage underscores the urgent need to scale up best practices and build institutional and technical capacity among farmers to improve sustainability outcomes.

Since the maximum unsustainable value of 11 sub-indicators for Khulna division is the unsustainable proportion of SDG 2.4.1 of Khulna division, So the ‘Wage rate in agriculture’ sub-indicator’s unsustainable value of SDG 2.4.1 at the Khulna division. Only four sub-indicators have the unsustainable rate greater than 40%. They are;

- Wage rate in agriculture is 59.61%
- Farm output value per hectare is 52.21%
- Management of fertilizer is 48.17%
- Management of pesticides is 48.82%

Figure 6.8: Proportion of agricultural area under productive and sustainable agriculture in Mymensingh division



Mymensingh Division, the sustainability assessment under SDG Indicator 2.4.1 is derived based on the performance of its 11 sub-indicators. According to the methodology, the maximum unsustainable value among these sub-indicators is used to represent the overall unsustainable proportion for the division under SDG 2.4.1. So, the 'Management of fertilizer' sub indicator's unsustainable value is the unsustainable proportion is the SDG 2.4.1 at the Mymensingh division. Similarly, the minimum sustainable value among the sub-indicators reflects the overall sustainable proportion.

In the case of Mymensingh, the sub-indicator 'Management of Fertilizers' registers the highest level of unsustainability. As a result, this particular sub-indicator defines the overall unsustainable proportion for SDG 2.4.1 in the division. This means that fertilizer management practices in Mymensingh represent the most critical weakness in terms of agricultural sustainability, contributing significantly to the division's overall unsustainable land classification.

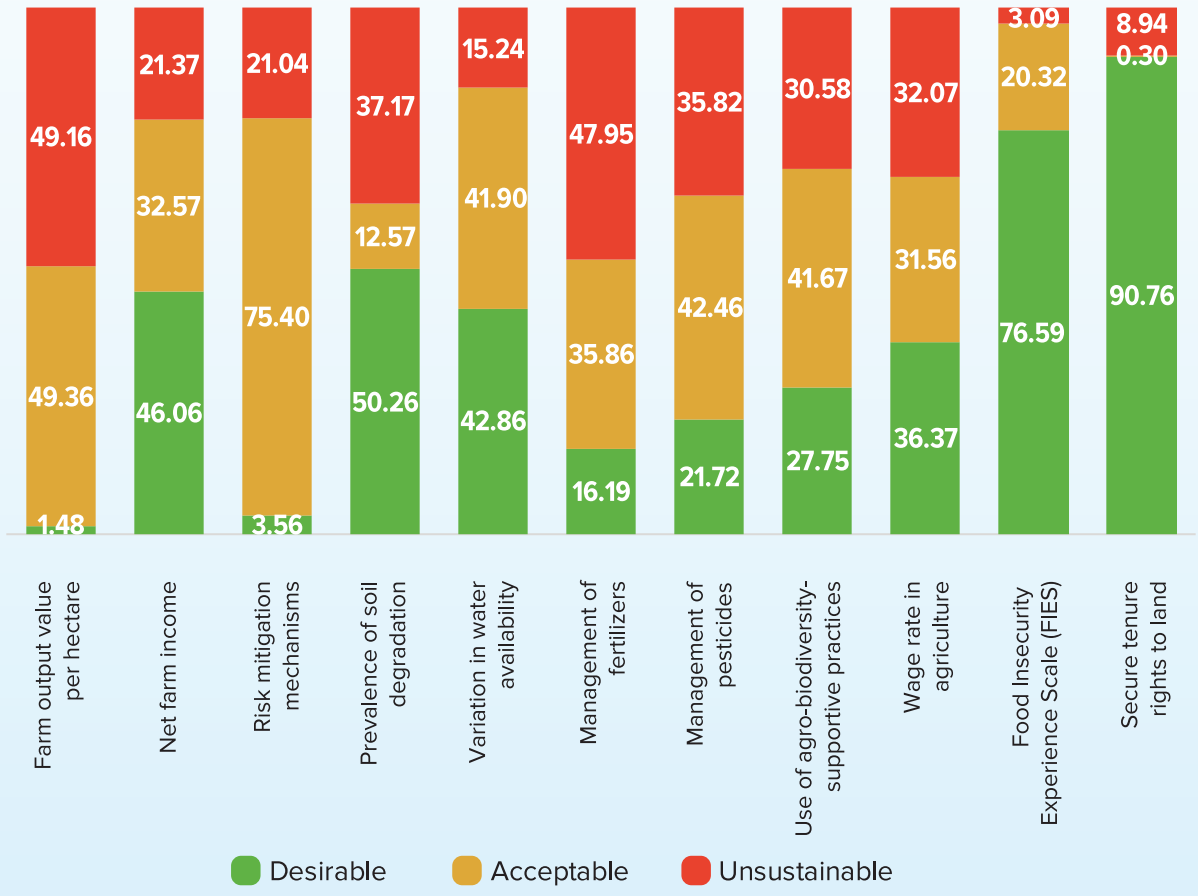
Based on this figure, it is possible to define the proportion of agricultural area under productive and sustainable agriculture in 2025 at 35.95%, equivalent to 64.05% of unsustainable agricultural land area. Of which, only 0.64% of agricultural land reached a desirable sustainable level (ensure the 'green' level in all 11 sub-indicators in the dashboard). So, the result of SDG indicator 2.4.1 is-

- **Sustainable: 35.95%**
- **Unsustainable: 64.05%**

Thus, the figure for Mymensingh not only reflects a snapshot of current conditions but also serves as a strategic tool, pointing clearly to fertilizer management as a priority area for policy attention, technical support, and farmer education.

This finding is important because it highlights the need for targeted interventions focused specifically on improving fertilizer management practices in the region. Addressing this challenge could significantly improve the overall sustainability status of agriculture in Mymensingh, particularly given its weight in determining the division's SDG 2.4.1 performance.

Figure 6.9: Proportion of agricultural area under productive and sustainable agriculture in Rajshahi division



The figure 6.9 presented the performance of the Rajshahi Division across 11 sub-indicators under SDG Indicator 2.4.1, offering a comprehensive assessment of agricultural sustainability in the year 2025. This visual tool captures a multi-dimensional picture of how agricultural land is being managed in terms of productivity, environmental responsibility, and socio-economic viability.

Based on the data reflected in the figure, it is estimated that 50.84% of the agricultural land in Rajshahi falls under the category of productive and sustainable agriculture. This suggests that just over half of the region's farmland meets the minimum sustainability standards outlined by the indicator, signaling a relatively balanced performance in comparison to many other regions.

Conversely, 49.16% of the agricultural land remains categorized as unsustainable. This indicates that nearly half of the division's farming areas are still grappling with practices that may lead to environmental degradation, low productivity, or socio-economic inefficiencies. This suggests low productivity across a large portion of agricultural land. Perhaps most revealing is that only 1.48% of the agricultural land in Rajshahi has achieved the 'desirable' or 'green' level of sustainability meaning that it meets the highest standards across all 11 sub-indicators. While this shows that some progress has been made, it also highlights the considerable room for improvement needed to scale up best practices and elevate broader performance.

The assessment of agricultural sustainability indicators at the Rajshahi division reveals a mixed performance across economic, environmental, and social dimensions. Since the unsustainable proportion of 11 sub-indicators is the value of unsustainable of SDG 2.4.1.

In this context, the Rajshahi Division figure serves not only as a snapshot of current agricultural sustainability but also as a strategic planning tool. It clearly identifies where gains have been made and where targeted interventions, investments, and policy support are most needed to accelerate the transition toward fully sustainable agricultural systems.

Figure 6.10: Proportion of agricultural area under productive and sustainable agriculture in Rangpur division

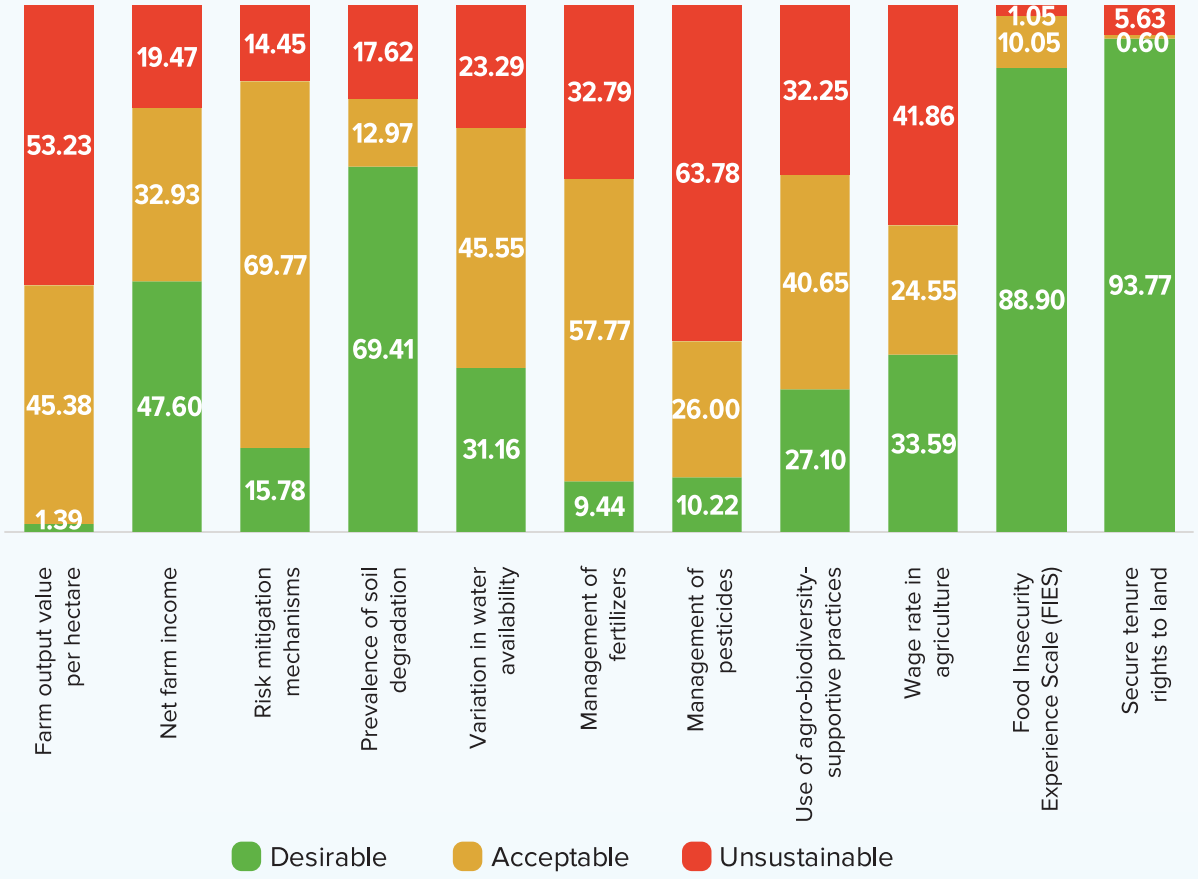


Figure 6.10 illustrates the performance of the Rangpur Division across 11 sub-indicators used to assess agricultural sustainability under SDG Indicator 2.4.1 . This comprehensive assessment framework evaluates agricultural practices from economic, environmental, and social perspectives, offering a holistic view of how far the region has progressed toward sustainable agriculture.

According to the data, only 36.22% of agricultural land in Rangpur can be classified as both productive and sustainable. This indicates that just over a third of the region's farmland meets the essential criteria required to support long-term productivity while ensuring ecological balance and socio-economic viability.

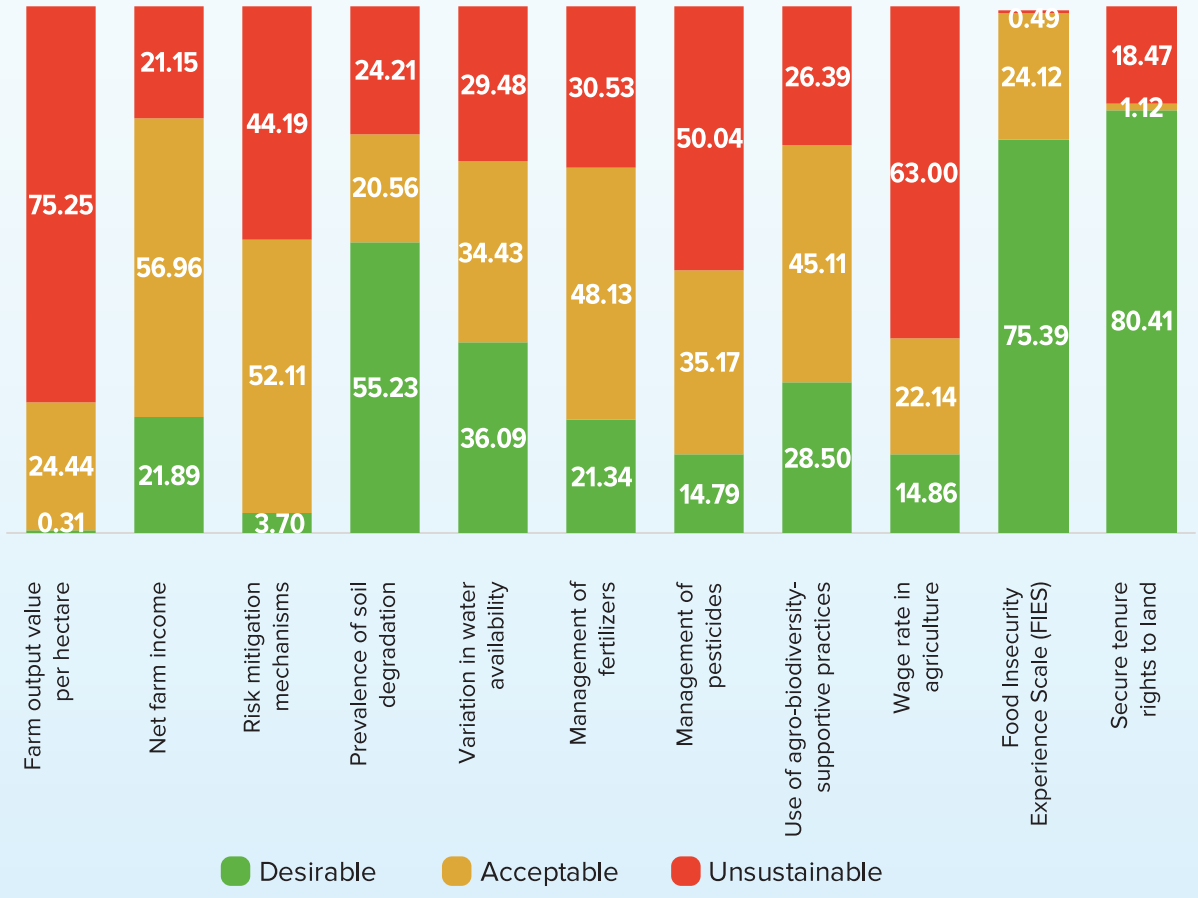
In contrast, a significant 63.78% of agricultural land falls under the unsustainable category. This figure highlights the substantial portion of land still managed in ways that may compromise soil health, biodiversity, water resources and farm profitability posing serious risks to both local livelihoods and long-term food security.

Perhaps most concerning is that only 1.39% of Rangpur's agricultural land has reached the 'desirable' level of sustainability meeting the 'green' standard across all 11 sub-indicators. This low figure reflects a serious gap between current practices and the ideal benchmarks of sustainable agriculture.

An in-depth review of the figure for Rangpur Division reveals that, among the 11 sub-indicators assessed under SDG Indicator 2.4.1, two sub-indicators exhibit particularly high levels of unsustainability, each exceeding the 50% threshold. Specifically, the sub-indicator 'Farm Output Value per Hectare' shows an unsustainable proportion of 53.23%, indicating economic challenges in achieving optimal productivity per unit of land. Even more concerning is the sub-indicator 'Management of Pesticides,' which records the highest unsustainable value at 63.78%. This points to widespread issues related to the overuse or improper application of chemical pesticides, which can have severe implications for environmental health, food safety, and farmer well-being.

According to the FAO methodology for assessing SDG 2.4.1, the overall unsustainable proportion for the indicator is determined by the maximum unsustainable value among all sub-indicators. Therefore, for Rangpur Division, the unsustainable proportion of SDG Indicator 2.4.1 is established at 63.78%, corresponding to the performance of 'Management of Pesticides'.

Figure 6.11: Proportion of agricultural area under productive and sustainable agriculture in Sylhet division



The figure 6.11 presents the sustainability status of agricultural practices in the Sylhet Division, based on performance across 11 sub-indicators under SDG Indicator 2.4.1. This detailed assessment provides a multi-dimensional view of agricultural sustainability, incorporating environmental integrity, economic viability, and social well-being.

According to the figure analysis, only 24.75% of Sylhet's agricultural land qualifies as both productive and sustainable. This means that less than one-quarter of the region's farmland meets the baseline criteria for sustainable agriculture indicating significant challenges in adopting practices that are environmentally sound, economically profitable, and socially responsible.

Conversely, a striking 75.25% of agricultural land in the division remains under unsustainable management. This large proportion highlights widespread deficiencies in key areas such as soil health, input use efficiency, farm productivity, and resilience to environmental and market shocks. The extent of unsustainability poses serious concerns for the long-term viability of agriculture in the region and its contribution to national food security goals.

Perhaps most concerning is that only 0.31% of the agricultural land in Sylhet has reached the 'desirable' or 'green' level of sustainability meaning it meets the highest standards across all 11 sub-indicators. This extremely low figure reflects a major gap between current practices and the ideal model of sustainable agriculture (ensure the 'green' level in all 11 sub-indicators in the dashboard below).

Notably,

- Farm output value per hectare in production is the sub-indicator with the highest unsustainable level of 75.25%
- Food Insecurity Experience Scale (FIES) is the sub-indicator with the highest sustainable level of 99.51%

Sub-indicators achieving the unsustainable level of over 50% are:

- Farm output value per hectare is 75.25%
- Wage rate in agriculture is 63.00%
- Management of pesticides is 50.04%

References

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- Survey Result of SDG 2.4.1 Indicator in Vietnam (2021).
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Annexes

CONCEPTS AND DEFINITIONS

Household

Household is a dwelling unit where one or more persons live and eat together under a common cooking arrangement. Household is considered to consist of all the people who live in a single housing unit, regardless of their relationship with each other. This includes family members, roommates, or other individuals who share a living space.

Household Head

Head of household means a member of the household who is the decision-maker regarding the different activities of the household. This household is also being run under his command. In case of the Sustainable Agriculture Statistics Survey, a member is regarded as the head of a household whom the other members consider him so. Generally, the eldest male or female earner of the household or the main decision- maker is considered to be the head of the household.

Household Member

Household members are permanent family members, as well as, boarders and lodgers, servants and other employees who often live in the household and take food together. These also included persons temporarily away from the household, persons whose usual place of residence was elsewhere but found staying with the household at the time of enumeration have not deemed a member of the household.

Household Size

Household size refers to the average number of household members.

Sex Ratio

It is the number of males per hundred females. Sex ratio = (number of male / number of female)*100

Supply/Piped Water

Water supplied by local government or any other entity to the dwelling household, compound, yard or plot, to neighboring household through pipe or public tap/standpipe are considered as supply water.

Reference Period

The last one year or twelve months means January to December, 2024 and the last three years refers to the year 2022 to 2024.

Fallow Land (cultivated last year but not cultivated this year)

The fallow land refers to the land or part of the land which was not cultivated in 2024, but cultivated in 2023 for crops or any others agriculture production purposes.

Triple-cropped Land

The land which is cultivated three times in a year is considered as triple-cropped land. The area of the triple cropped land is counted in decimal unit in the year 2022, 2023 and 2024 individually.

Organic Production

Organic crops or livestock production are those grown using farming methods that exclude synthetic fertilizers, pesticides, and genetically modified organisms (GMOs), relying instead on natural processes.

Environmental Risk

Environmental risk refers to loss of soil fertility due to use of pesticides/herbicide, water pollution by mixing with river water, destroying the balance of the environment by destroying beneficial organisms, air pollution etc.

Health Risk

Health risk refers to the respiratory problems, skin problems, eye problems, vomiting and stomach problems in the long term which is causes for cancer etc. due to the use of pesticides/herbicide in crops or livestock.

Less Hazardous Pesticides

The pesticides/herbicide are less harmful to the environment and human health are considered as less hazardous pesticides. For example: Nogos, Sumithion, Dimecron, Malathion, Aromal etc.

Hazardous Pesticides

The hazardous pesticides/herbicide refers to those pesticides that are deadly harmful to the environment, causes various human diseases and have the risk of death. For example: Basudin, Furadan, Thiodin, DDT, Aldin, Carbaryl etc.

ANNEX 2

Details Tables

Table 1A: Proportion of agricultural area under productive and sustainable agriculture by division (in percent)

Sustainable									
SDG2.4.1: Sub-indicators	Barishal	Chattogram	Dhaka	Khulna	Mymensingh	Rajshahi	Rangpur	Sylhet	National
Farm Output Value Per Hectare	34.17	42.73	45.36	47.79	50.42	50.84	46.77	24.75	44.37
Net Farm Income	82.84	74.68	79.19	81.63	73.26	78.63	80.53	78.85	78.79
Risk Mitigation Mechanisms	66.55	56.16	63.49	69.54	70.95	78.96	85.55	55.81	69.16
Prevenance of Soil Degradation	87.93	72.01	73.43	69.02	50.69	62.83	82.38	75.79	72.75
Variation in Water Availability	83.89	77.77	87.56	83.62	83.62	84.76	76.71	70.52	81.66
Management of Fertilizers	71.36	61.07	50.62	51.83	35.95	52.05	67.21	69.47	56.95
Management of Pesticides	40.71	64.84	47.50	51.18	53.79	64.18	36.22	49.96	51.37
Use of Agro-biodiversity-supportive Practices	73.65	73.85	65.30	79.28	65.24	69.42	67.75	73.61	71.05
Wage Rate in Agriculture	56.13	72.65	67.28	40.39	75.45	67.93	58.14	37.00	60.12
FIES	99.19	98.71	99.13	99.55	99.71	96.91	98.96	99.51	98.83
Secure Tenure Rights to Land	94.70	85.70	89.21	89.76	89.10	91.06	94.37	81.53	89.35
SDG 2.4.1	34.17	42.73	45.36	40.39	35.95	50.84	36.22	24.75	44.37

Table 1B: Proportion of agricultural area under unsustainable agriculture by division (in percent)

Unsustainable									
SDG2.4.1: Sub-indicators	Barishal	Chattogram	Dhaka	Khulna	Mymensingh	Rajshahi	Rangpur	Sylhet	National
Farm Output Value Per Hectare	65.83	57.27	54.64	52.21	49.58	49.16	53.23	75.25	55.63
Net Farm Income	17.16	25.32	20.81	18.37	26.74	21.37	19.47	21.15	21.21
Risk Mitigation Mechanisms	33.45	43.84	36.51	30.46	29.05	21.04	14.45	44.19	30.84
Prevenance of Soil Degradation	12.07	27.99	26.57	30.98	49.31	37.17	17.62	24.21	27.25
Variation in Water Availability	16.11	22.23	12.44	16.38	16.38	15.24	23.29	29.48	18.34
Management of Fertilizers	28.64	38.93	49.38	48.17	64.05	47.95	32.79	30.53	43.05
Management of Pesticides	59.29	35.16	52.50	48.82	46.21	35.82	63.78	50.04	48.63
Use of Agro-biodiversity-supportive Practices	26.35	26.15	34.70	20.72	34.76	30.58	32.25	26.39	28.95
Wage Rate in Agriculture	43.87	27.35	32.72	59.61	24.55	32.07	41.86	63.00	39.88
FIES	0.81	1.29	0.87	0.45	0.29	3.09	1.04	0.49	1.17
Secure Tenure Rights to Land	5.30	14.30	10.79	10.24	10.90	8.94	5.63	18.47	10.65
SDG 2.4.1	65.83	57.27	54.64	59.61	64.05	49.16	63.78	75.25	55.63

Table 2: Distribution of Arable Land Area by locality and division (in percent)

Locality/Division	Temporary Cropland	Permanent Cropland	Arable land
Rural	91.28	8.72	100
Urban	85.72	14.28	100
Division			
Barishal	87.62	12.38	100
Chattogram	71.78	28.22	100
Dhaka	95.22	4.78	100
Khulna	92.79	7.21	100
Mymensingh	97.49	2.51	100
Rajshahi	92.79	7.21	100
Rangpur	94.99	5.01	100
Sylhet	95.38	4.62	100
National	90.76	9.24	100

Table 3: Distribution of Land Area by locality and division (in percent)

Locality/Division	Own Land Land	given to others	Land taken from others	Others	Operated Land
Rural	88.06	84.59	93.90	90.54	90.66
Urban	11.94	15.41	6.10	9.46	9.34
Division					
Barishal	9.98	7.71	9.64	9.74	10.15
Chattogram	17.82	10.34	15.03	22.54	18.04
Dhaka	16.75	18.48	18.54	6.89	16.73
Khulna	15.47	18.87	16.42	25.13	14.99
Mymensingh	6.58	4.31	6.92	4.11	6.98
Rajshahi	11.34	11.81	10.30	7.86	10.77
Rangpur	13.79	20.59	7.76	7.54	11.89
Sylhet	8.27	7.89	15.39	16.19	10.45
Total	100	100	100	100	100

Table 4: Distribution of permanent Cropland Area by locality and division (in percent)

Locality/Division	Land under Fruit tree	Land under Timber tree	Land under Nursery	Permanent Cropland
Rural	85.01	86.05	94.61	85.64
Urban	14.99	13.95	5.39	14.36
Division				
Barishal	13.90	11.44	11.73	12.67
Chattogram	36.79	58.92	23.33	47.37
Dhaka	6.99	7.82	42.20	7.86
Khulna	14.49	7.80	1.60	11.07
Mymensingh	1.86	1.65	5.80	1.81
Rajshahi	13.85	1.99	6.67	7.99
Rangpur	7.38	4.68	7.80	6.07
Sylhet	4.74	5.70	0.87	5.16
Total	100	100	100	100

Table 5: Distribution of cultivated land Area by Locality and Division (in percent)

Locality/Division	Land under Temporary Crops	Land under Fish Farming	Land under Livestock	Land under Mixed Farm	Land under Adrift
Rural	91.42	92.91	88.15	83.06	85.15
Urban	8.58	7.09	11.85	16.94	14.85
Division					
Barishal	10.00	9.90	15.81	5.93	3.96
Chattogram	13.14	10.54	15.16	3.94	52.50
Dhaka	17.76	10.28	20.79	3.25	14.04
Khulna	13.85	38.66	15.92	85.50	7.93
Mymensingh	7.97	5.99	11.74	0.09	4.55
Rajshahi	11.79	6.44	9.06	0.00	9.31
Rangpur	13.19	10.84	8.35	0.34	3.74
Sylhet	12.30	7.35	3.17	0.95	3.97
Total	100	100	100	100	100

Table 6: Distribution of Household according to having legal document of agricultural land by Locality and Division (in percent)

Locality/Division	Have Legal Document	Not Have Legal Document	Total
Rural	81.35	18.65	100
Urban	76.46	23.54	100
Division			
Barishal	87.99	12.01	100
Chattogram	73.71	26.29	100
Dhaka	84.06	15.94	100
Khulna	75.05	24.95	100
Mymensingh	86.15	13.85	100
Rajshahi	81.19	18.81	100
Rangpur	84.27	15.73	100
Sylhet	74.15	25.85	100
National	80.70	19.30	100

Table 7: Status of Using Hormones/Steroids/Anti-Microbials/Parasiticides for Fattening Cattle in the Last 12 Months by Type

Types	Used (%)	Not Used (%)	Total
Household	18.07	81.93	100
Institutional Agriculture Farms	48.08	51.92	100
Total	18.19	81.81	100

Table 8: Percentage of Households Using Pesticides (Unit: %) by Division

Division	Pesticides Use (Unit %)		
	Yes	No	Total
Barishal	53.49	46.51	100
Chattogram	57.97	42.03	100
Dhaka	63.03	36.97	100
Khulna	62.52	37.48	100
Mymensingh	77.58	22.42	100
Rajshahi	64.16	35.84	100
Rangpur	74.92	25.08	100
Sylhet	77.73	22.27	100
National	65.54	34.46	100

Table 9: Distribution of Average Manpower by Sex in the Institutional Agricultural Farms

Manpower Category	Male	Female	Total
Owner/Partner	1.08	0.14	1.22
Unpaid family worker	1.00	0.83	1.83
Full-time employee (paid monthly)	2.79	0.38	3.17
Irregular worker	3.45	0.41	3.86
National	1.72	0.38	2.10

Table 10: Distribution of Institutional Agricultural Farm by Type of Farm and Locality

Type of Farm	Rural	Urban	Total
Government Farm	0.32	1.12	0.42
Private Farm	84.36	86.52	84.62
Non-Profitable Farm	3.79	1.12	3.46
Others	11.53	11.24	11.50
Total	100	100	100

Table 11: Percentage of rice-growing households in the total number of households in 2025 by Division and National

Division	Rural	Urban	Total
Barishal	96.86	3.14	100
Chattogram	93.41	6.59	100
Dhaka	81.29	18.71	100
Khulna	96.75	3.25	100
Mymensingh	95.69	4.31	100
Rajshahi	96.42	3.58	100
Rangpur	94.37	5.63	100
Sylhet	96.42	3.58	100
National	92.69	7.31	100

Table 12: Distribution of the Ownership of the Institutional Agricultural Farms

Manpower Size	Rural	Urban	Total
Personal/Single Owner	95.73	94.38	95.56
Shared	3.95	2.25	3.74
Private Ltd Co.	0.16	2.25	0.42
Government	0.16	1.12	0.28
Total	100	100	100

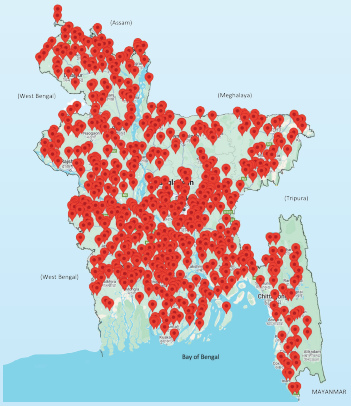
Table 13: Distribution of Household Percentage of the Agricultural Production by Top Twenty Commodity (Unit: %) by Division

Agricultural Commodity	Agriculture Land Area (%)
Aman	32.60
Boro	29.84
Aus	5.99
Maize (Bhutta)	4.66
Jute	2.88
Mustard (Sarisha)	2.77
Potato (Aloo)	2.22
Onion (Peyaj)	1.90
Mango	1.15
Green Gram (Mug)	1.00
Wheat	0.98
Tobacco	0.90
Chikling Vetch (Khesari)	0.82
Napier grass	0.79
Tomato	0.56
Brinjal (Begun)	0.56
Chilies (Marich)	0.53
Banana	0.52
Rubber	0.50
Watermelon	0.50
Others	8.33
Total	100

Digital Architecture and Features

Network Operations Center (NOC) Room, BBS

Data visualization and live monitoring from NOC Room, BBS



ANNEX 4

Questionnaire

QUESTIONNAIRE

Confidential
All information collected by this questionnaire will be kept confidential and will be used only for research and planning purposes and no individual data will be disclosed anywhere.

Productive and Sustainable Agriculture Survey 2025

Sustainable Agricultural Statistics Project

Bangladesh Bureau of Statistics

1. Select the data collection option:

1. Agricultural Household	2. Farm (Commercial Farm/Institution)

Module 1: Enumeration Area Information

PSU Number- (All numbers must be written in English)

Area	Area Introduction (Applicable for All)	Code		
Division				
District				
Upazila/Thana				
Municipality/City				
Union/Ward				
Mouza				
Village/Mahalla				
Enumeration Area				
RMO (Rural-1, Municipality-2, Other Urban-3 and City Corporation-4)				
Household Serial Number				
Sample Household Number				
Respondent's Name				
Respondent's Mobile Number				

Module 2: General Household Introduction

2. General Household Information **2.1 What is the flooring material of the main dwelling room in your household?** 1. Cast (Cement/Concrete/Brick) 2. Tiles/Mosaic 3. Earth 4. Wood 5. Bamboo/Mat 96. Other materials (Please specify…)	**2.2 Wall/fencing material of the main dwelling room in your household:** 1. Cement/Concrete/Brick/Burnt Clay/Block 2. Tiles/Ceramic Tiles 3. Corrugated Tin/Metal Sheet/CI Sheet 4. Wood 5. Earth 6. Bamboo/Mat/Straw/Thatch/Golpata/Palmyra Leaf/Hay/Polythene 7. No wall **96.** Other materials (Please specify…)
2.3 Roofing/ceiling material of the main dwelling	**2.4 Condition of your kitchen/cooking area:**

room in your household: 1. Cement/Concrete/Brick/Burnt Clay 2. Corrugated Tin/Metal Sheet/CI Sheet 3. Wood 4. Bamboo/Mat/Straw/Thatch/Golpata/Palmyra Leaf/Hay/Polythene 5. Handmade Tiles 6. No roof/ceiling 96. Other materials (Please specify…)	1. Inside the house (same room) 2. Inside the house (separate room) 3. Separate kitchen room 96. Others (Please specify…)
2.5 Main source of drinking water: 1. Supplied water 2. Tube well (Deep/Shallow/Submersible) 3. Bottled water/Water jar 4. Well/Hand-dug well/Draw-well/Ring well 5. Pond/River/Canal/Lake 6. Spring/Stream/Thin Stream (Jhiri) 7. Rainwater 96. Others (Please specify…)	**2.6 Main source of electricity in your the household:** 1. National grid 2. Solar power 3. No electricity 96. Others (Please specify…)
2.7 Main fuel used for cooking: 1. Straw/Leaves/Husks/Bran 2. Wood/Bamboo/Jute Stick/Firewood 3. Supplied gas 4. Biogas/LP Gas 5. Electricity 96. Others (Please specify…)	**2.8 Type of toilet facility is available in your household:** 1. Flush to sewer system 2. Flush to safe tank 3. Flush to safe pit (pit latrine) 4. Flush to open drain 5. Flush disposal location unknown 6. Ventilated Improved Pit Latrine 7. Pit latrine with slab 8. Pit latrine without slab/Open pit latrine 9. Unhygienic/Open/Hanging latrine (permanent/temporary) 10. No toilet facility 96. Others (Please specify…)

2.9 Household Characteristics (For All Household Members)

2.9.1 Line No.	2.9.2 Name of Household Members	2.9.3 Relationship to Head of Household: Head of household – 1 Spouse – 2 Son/Daughter – 3 Father/Mother – 4 Brother/Sister – 5 Daughter-in-law/Son-in-law-6 Other relative – 7 Domestic worker – 8 Other non-relative – 9 Grandson/Granddaughter – 10	2.9.4 Gender: Male – 1 Female – 2 Hijra – 3	2.9.5 Age: (In completed years)	2.9.6 Marital Status: (For age 10 years and above) Unmarried – 1 Currently Married – 2 Widowed/Widower – 3 Divorced – 4 Other – 96	2.9.7 Educational Qualification: (Code of highest class passed) (For age 3 years and above)	2.9.8 Work Status: Employed – 1 Seeking work – 2 Housewife – 3 Student – 4 Does not work – 5 Other – 96 (For age 10 years and above)
1	2	3	4	5	6	7	8
01							

02							
03							
04							
05							
06							

*** **Education Code:** 25-Play/Nursery/KG/Pre-primary student, 26-1st grade student, 1-Completed 1st grade, 2-Completed 2nd grade, 3-Completed 3rd grade, 4-Completed 4th grade, 5-Completed 5th grade/PEC/Ibtidaiya/Equivalent, 6-Completed 6th grade, 7-Completed 7th grade, 8-Completed 8th grade/JSC/JDC/Equivalent, 9-Completed 9th grade, 10-Completed SSC/Dakhil/O-Level/Equivalent, 12-Completed HSC/Alim/A-Level/Equivalent, 15-Completed BA/BSc/BCom/BBA/Fazil (Pass course), 16-Completed BA/BSc/BCom/BBA (Honors), 17-Completed MA/MSc/MCom/MBA/Kamil/Equivalent, 18-Completed PhD, 19-Completed MBBS/BDS, 20-Completed Nursing/Midwifery, 21-Completed Engineering (BSc and above), 22-Completed Diploma, 23-**Non-formal**/Informal Education, 24-No education, 96-Other (Specify...).

2.10 Household Labor Force (Applicable for members aged 10 years or older)

2.10.1 Line No.	2.10.2 In the last 7 days, have you worked for at least 1 hour in exchange for wages/salary or profit? Yes-1 No-2 (Proceed to the next member)	2.10.3 If the answer to question 2.10.2 is Yes, what type of goods or services are mainly produced or sold where you work? Agriculture-1 Industry-2 (Proceed to the next member) Service-3 (Proceed to the next member)	2.10.4 In the last 7 days, were you absent from agricultural work and will you return to agricultural work? Yes-1 No-2	2.10.5 If the answer to question 2.10.3 is Agriculture, what is your employment status? Self-employed-1 Family help worker-2 Agricultural laborer-3 Other-96 (If 1, 2, or 96, proceed to the next member)	2.10.6 If you are an agricultural laborer, how many days have you worked in the last 7 days? (Applicable for Agricultural laborer-3)	2.10.7 If you are an agricultural laborer, how many hours do you typically work per day?	Daily Wage Information			2.10.11 How many days have you worked in the last month?
							2.10.8 Wages excluding food (In Taka)	Wage including food		
								2.10.9 Received wages (In Taka)	2.10.10 Average cost of food (In Taka)	
1	2	3	4	5	6	7	8	9	10	11

2.11 In the last 12 months, did you hire any agricultural laborers in this household or under the household's jurisdiction?

1. Yes
2. No → (If the answer is 'No' proceed to Module 3)

2.11.1 If yes, please select the skill level: (Multiple answers may be selected)

1. Skilled laborer (Received institutional training) (If skilled, proceed to Question 2.12)
2. Unskilled laborer (If unskilled, proceed to Question 2.13)

2.12 In the past 12 months, how much daily wage (for 8 hours) was paid on average to the skilled agricultural laborers who worked in this household or under the household's jurisdiction? (Multiple answers may apply)

		Number/Person	Taka
1	Daily Average Wage (In Taka)		
2	Wages paid in terms of goods (such as rice, wheat, etc.) in Taka.		

2.13 In the last 12 months, how much daily (8 hours) wage was paid on average to the unskilled agricultural workers working in this household or under the household's jurisdiction? (multiple answers may apply)?

		Number/Person	Taka
1	Daily Average Wage		
2	Wages paid in terms of goods (such as rice/wheat etc.) in Taka.		

Module 3: Social Status of the Household

3.0 Household Food Security:

3.1 In the last 12 months, did you (or any member of your household) have any concerns about not having enough food to eat due to a lack of money or other resources?

3.1.a			3.1.b If 'Yes' how often did this concern occur?
1	Yes		1- Almost every month it happened
2	No	If you selected 2, 77 or 88, please proceed to question 3.2	2- Not every month, but it happened occasionally
77	Unknown		3- It happened for 1 or 2 months
88	Non-		77-Unknown
			88- Non-response

3.2 In the last 12 months, have you (or any member of your household) ever been unable to eat healthy and nutritious food due to a lack of money or other resources?

3.2.a			3.2.b If you answered 'Yes', how many times were you unable to eat nutritious food?
1	Yes		1- Almost every month it happened
2	No	If you selected 2, 77 or 88, please proceed to question 3.3	2- Not every month, but it happened occasionally
77	Unknown		3- It happened for 1 or 2 months
88	Non-		77-Unknown
			88- Non-response

3.3 In the last 12 months, has there ever been a time when you (or any member of your household) could only eat a limited variety of foods due to a lack of money or other resources?

3.3.a			3.3.b If the answer is 'Yes', how many times did you eat limited food variety?
1	Yes		1- Almost every month it happened
2	No	If you selected 2, 77 or 88, please proceed to question 3.4	2- Not every month, but it happened occasionally
77	Unknown		3- It happened for 1 or 2 months
88	Non-		77-Unknown
			88- Non-response

3.4 In the last 12 months, has there ever been a time when you (or any member of your household) had to skip a meal due to a lack of money or other resources?

3.4.a			3.4.b If 'Yes' how many times did you have to skip a meal?
1	Yes		1- Almost every month it happened
2	No	If you selected 2, 77 or 88, please proceed to question 3.5	2- Not every month, but it happened occasionally
77	Unknown		3- It happened for 1 or 2 months
88	Non-		77-Unknown
			88- Non-response

3.5 In the last 12 months, has there ever been a time when you (or any member of your household) had to eat less than you felt necessary due to a lack of money or other resources?

3.5.a			3.5.b If 'Yes' how many times you had to eat less than necessary food?
1	Yes		1- Almost every month it happened
2	No	If you selected 2, 77 or 88, please proceed to question 3.6	2- Not every month, but it happened occasionally
77	Unknown		3- It happened for 1 or 2 months
88	Non-		77-Unknown
			88- Non-response

3.6 In the last 12 months, has there ever been a time when your household ran out of food due to lack of money or other resources?

3.6.a			3.6.b: If 'Yes' how many times did your household run out of food?
1	Yes		1- Almost every month it happened
2	No	If you selected 2, 77 or 88, please proceed to question 3.7	2- Not every month, but it happened occasionally
77	Unknown		3- It happened for 1 or 2 months
88	Non-		77-Unknown
			88- Non-response

3.7 Again, in the last 12 months, has there ever been a time when you (or a member of your household) had to go without food due to lack of money or other resources, even though you were hungry?

3.7.a			**3.7.b If 'Yes' how many times did you have to stay hungry even after feeling hungry?**
1	Yes		1- Almost every month it happened
2	No	If you selected 2, 77 or 88, please proceed to question 3.8	2- Not every month, but it happened occasionally
77	Unknown		3- It happened for 1 or 2 months
88	Non-		77-Unknown
			88- Non-response

3.8 Finally, in the last 12 months, has there ever been a day when you (or a member of your household) had to go without food for the entire day due to lack of money or other resources?

3.8.a			3.8.b If 'Yes' how many times did you have to go without eating the whole day due to lack of resources?
1	Yes		1- Almost every month it happened
2	No	If you selected 2, 77 or 88, please proceed to next module	2- Not every month, but it happened occasionally
77	Unknown		3- It happened for 1 or 2 months
88	Non-		77-Unknown
			88- Non-response

Module 4: Household Land and Property

Question No.	Description	Decimal
1	2	3
4.1	Amount of own land in the household (for all members of the household)	
4.2	Amount of land given to others (leased out)	
4.3	Amount of land taken from others (leased in)	
4.4	Other land (acquired or received free of charge such as khas land or Riverine/Char land)	
4.5	**Total operational land area (4.1-4.2+4.3+4.4=4.5)**	**4.5=4.12+4.23+4.24**
4.6	Land under the homestead	
4.7	Land under ponds/ditches/natural water bodies	
4.8	Land under business establishments	
4.9	Permanent fallow land (graveyards/playgrounds/cremation grounds/roads etc.)	
4.10	Land under natural grazing fields/wildflowers/shrubs	
4.11	Land under rocks or mountains (where cultivation does not occur)	
4.12	**Total unused land (4.6+4.7+4.8+4.9+4.10+4.11=4.12)**	
4.13	Temporary crop land (rice/jute/wheat/lentils etc.)	
4.14	Land Under Fish Farming (Pond/Dighi/Gher)	
4.11	Land under livestock (cows/goats/ducks/chickens etc.)	
4.16	Land under mixed farming (rice/vegetables grown together with fish)	
4.17	Land temporarily fallows (land cultivated last year but not this year)	
4.18	**Total temporary crop land (4.13+4.14+4.15+4.16+4.17=4.18)**	
4.19	Permanent crop land (fruit-bearing)	
4.20	Permanent crop land (timber/bamboo and forest products, etc.)	
4.21	Land under nurseries	
4.22	**Total permanent crop land (4.19+4.20+4.21=4.22)**	
4.23	**Total cultivated land (4.18+4.22=4.23)**	
4.24	Land under shifting (Jum) cultivation (applicable for hilly areas and will appear automatically in the CAPI)	

4.25 Land Ownership Information

4.25.1 Does the household have legal documents for agricultural land under its possession?

1. Yes
2. No → If the answer is 'No' proceed to question 4.25.3

4.25.2 What legal documents does the household possess for agricultural land (multiple answers possible)?

1. Ownership deed
2. Registration certificate
3. Survey/record of rights
4. Possession with owner's consent
5. Gifted deed (Hiba) or will
6. Rental agreement/receipt
7. Cooperative agreement/certificate

77. Unknown
96. Other (please specify)
97. Unwilling to answer/Refuse

4.25.3 **Is the member of the household, who owns the land under the household, the owner by inheritance or possession?**

1. Yes
2. No
77. Unknown
88. Non-response

4.25.4 **Does the member of the household, who owns the land under the household, have the right to will it?**

1. Yes
2. No
77. Unknown
88. Non-response

4.25.5 **Does the member of the household, who owns the land under the household, have the right to sell/transfer it?**

1. Yes
2. No
77. Unknown
88. Non-response

4.25.6 **Does the member of the household, who owns the land under the household, have the right to delegate authority (Power of Attorney) to someone else?**

1. Yes
2. No
77. Unknown
88. Non-response

Module 5: Household Productivity (Last 12 months)

5.1 In the last 12 months, what was the main type of agricultural production (Crops, Livestock, Fish Farming) in the household in terms of financial consideration?

1. Mainly crop production (more than two-thirds or 67% of total production)
2. Mainly livestock production (more than two-thirds or 67% of total production)
3. Mainly fish production (more than two-thirds or 67% of total production)
4. A combination of crops, livestock, fish, and other productions (all equal or collectively less than two-thirds or 67% of total production)

5.2 In the last 12 months, type(s) of production in this household: *(Multiple answers may apply)*

1. Conventional crop cultivation (excluding organic/bio methods) → Applicable for Questions 5.3 to 5.7

2. Organic crop cultivation → Proceed to Question 5.8
3. Organic livestock rearing → Proceed to Question 5.9
4. Livestock rearing → Proceed to Questions 5.10–5.14
5. Mixed farming (e.g., fish with rice/vegetables/ducks) → Proceed to Question 5.15

General (excluding organic/bio methods) Crop Production's Quantity, Expenditure and Income

5.3 In the last 12 months, Crop Production's Quantity, Cost, and Income:

Production quantity, cost, and income from up to 5 major crops and by-products (last 12 months):

5.3.1 Cultivated Crop code and name	5.3.2 Land ownership	5.3.3 Cultivated land area (in decimal)	Production Cost					Market value of the harvested crop including by-					
			5.3.4 Seed/seedling purchase (In Tak	5.3.5 Fertilizer/Irrigation/Pesticides (In Taka)	5.3.6 Labor cost: planting/sowing/weeding/harvesting/threshing (In	5.3.7 Other costs (if any, In Tak a)	5.3.8 Total cost (In Taka) 4 + 5 + 6	5.3.9 Quantity of production (kg) (including sold/self-used/saved for seed/donated/given to	5.3.10 Selling price per kg (In Taka)	5.3.11 Total crop price (In Taka) 9 × 10 =	5.3.12 Total price of by-products (e.g., straw, husk, bran, chaff	5.3.13 Total price /income (In Taka)11	5.3.14 Net income (Income-expenditure) 13 – 8=14
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1													
2													
3													
4													
5													

(5.3.2) Land Ownership and Code:1– Own land 2–Lease (Borga) land

5.4 In the last 12 months, have you stored any crop seeds from household's production?

1. Yes
2. No (If the answer is 'No' proceed to question 5.7)

5.5 In the last 12 months, how much of the crop produced in your household was stored as seed?

1. For personal use……..(kg)
2. For sale ……..(kg)

5.6 In the past 12 months, how much of the crop produced in your household was stored as food grains?

1. For personal use…...…….(kg)
2. For sale ……(kg)

5.7 In the last 3 years, how much land has been used for triple-cropping? (If no triple-cropping land, enter 00)

		Decimal
1	Land Area in 2024	.
2	Land Area in 2023	.
3	Land Area in 2022	.

Organic/Bio Method Crop Production Quantity, Expenditure, and Income

5.8 In the last 12 months, record the production quantity, expenditure, and income for up to 3 main crops produced using organic/bio methods in this household:

5.8.1 Code and Name of Cultivated Crop	5.8.2 Land Ownership	5.8.3 Area of Cultivated Land (Decimal)	Production Cost					Price of produced crops					
			5.8.4 Seed/Seedling Purchase (In Taka)	5.8.5 Fertilizer/Irrigation/Pesticide (In Taka)	5.8.6 Labor Cost: Planting/Sowing/Weeding/Harvesting/Threshing (In Taka)	5.8.7 Other expenses (In Taka)	5.8.8 Total Expenses (In Taka) 4+5+6+7=8	5.8.9 Production quantity (kg) (including selling/own use/keeping seeds/donating/g	5.8.10 Selling Price per kg (In Taka)	5.8.11 Total price (In Taka) 9*10=11	5.8.12 Total price of by-products (crop by-products: straw, chaff, husk, husks,	5.8.13 Total price/income (In Taka) 11+12=13	5.8.14 Net Income 13–8=14
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1													
2													
3													

(5.8.2) Ownership and Code: 1 - Owned Land 2 - Leased Land

Organic/Bio Method Livestock Quantity, Expenditure, and Income

5.9 Over the last 12 months, record the production quantity, expenditure and income for top 3 major livestock species (cattle/goats/ducks/chickens) raised using organic/bio methods in this household:

5.9.1 Serial No.	5.9.2 Livestock Code and Name	5.9.3 Land under Shed (Decimal)	5.9.4 Total Number of Animals (as of 31/12/2024)	5.9.5 Production Cost: Care/Food/Medicine etc. (In Taka)	5.9.6 Current Total price of Livestock (In Taka)	5.9.7 Total Value of Livestock Sold (last 12 months) ((In Taka)	5.9.8 Last 12 months, price of By-products (In Taka)	5.9.9 Last 12 months, price of milk (In Taka)	5.9.10 Last 12 months, price of Eggs (In Taka) (Duck-Chicken)	5.9.11 Last 12 months, total Income last 12 months 6+7+8+9+10=11	5.9.12 Last 12 months, Net Income (In Taka) 1 – 5=12
1	2	3	4	5	6	7	8	9	10	11	12
1											
2											
3											

Livestock Quantity, Expenditure, and Income (Excluding Organic/Bio Methods)

5.10 Over the last 12 months, record the top 3 livestock species (cow/goat/buffalo/duck/chicken/pigeon etc.) reared in the household, along with their associated costs.

5.10.1 Serial No.	5.10.2 Livestock Code and Name	5.10.3 Land under Shed (Decimal)	5.10.4 Number of Livestock at Beginning of Year (01/01/2	5.10.5 Number of Livestock Purchased in the last 1 Year	5.10.6 Number of Offspring Born in the last 1 Year	5.10.7 Number of Deaths in the last 1 Year	5.10.8 Number of Livestock Sold (Last 1 Year)	5.10.9 Current Total Livestock4+5+6−7−8=9	5.10.10 Current price per Animal (In Taka)	5.10.11 Current Total price (In Taka) 9×10=11	5.10.12 In Last 12 Months, price of By-products (In Taka) (e.g., dung, wool, hide, horn, hooves, etc.)	5.10.13 In Last 12 Months, price of Milk/Eggs (In	5.10.14 In Last 12 Months, Total Income11+1	5.10.15 Production Cost: Care/Food/Medicine etc. (In Taka)	5.10.16 In Last 12 Months, Net Income 14−15
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1															
2															
3															
4															
5															

5.11 Over the last 12 months, record the number of cubs born from each species reared in this household (maximum 5 species).

(This question applies only if births were reported in question 5.10.6 and if the number was zero, skip this section.)

5.11.1 Name of Livestock Species	5.11.2 Breed/Crossbreed Code and Name	5.11.3 Number of Animal

5.11.1 Name of Livestock Species		5.11.2 Breed/Crossbreed Code and Name		5.11.3 Number of Animal
1		1		
		2		
		3		
2		1		
		2		
		3		
3		1		
		2		
		3		

(5.10.2 If only birds like ducks or chickens are present, skip 5.12, 5.13, and 5.14)

5.12 In the last 12 months, what were the sources of livestock feed used in your household?
(Multiple answers possible) (The sum of 1 and 2 must be 100% and hidden if the household has no livestock.)

		Percentage (%)
1	Produced within the household	
2	Purchased from outside/market	

5.13 In the last 12 months, were there any livestock fattening (hormones/steroids/antimicrobials/antibiotics) substances used in your household?

1. Yes
2. No

5.14 Has your household used any grazing land not owned by you?

(Government/khas land or land not owned by any individual or institution, such as river chars; excludes school/college/institutional premises but includes shared grazing lands)

1. Yes
2. No

Mixed Farming: (fish with crops/vegetables, fish with ducks/chickens or other production)

5.15 In the last 12 months, household's mixed fish farming: (fish with crops/vegetables, fish with poultry, or other production) the production quantity, expenditure, and income (Report up to 3 types)

5.15.1 Serial No.	5.15.2 Fish Name & Code	5.15.3 Land Used (Decimal)	5.15.4 Production Quantity (kg) (Sold/Own Use/Donated/Gifted to Relatives)	5.15.5 Price per kg (In Taka)	5.15.6 Total Income (In Taka) 4 × 5 = 6	5.15.7 Total Expense (In Taka)	5.15.8 Net Income (In Taka) 6 - 7 = 8
1	2	3	4	5	6	7	8
1							
2							
3							

5.16 Over the last 12 months, what was the household's income and expenditure by category? (Total family income/all earning members)

5.16.1 Serial No.	5.16.2 Sectors	5.16.3 Income	5.16.4 Expenditure	5.16.5 Net Income (Income - Expenses) (In Taka)
1	2	3	4	5

5.16.1 Serial No.	5.16.2 Sectors	5.16.3 Income	5.16.4 Expenditure	5.16.5 Net Income (Income - Expenses) (In Taka)
1	2	3	4	5
1	Temporary Crops (as per temporary crop list)	Imported in the software from previous calculations		
2	Permanent Crops (as per crop list)	Imported in the software from previous calculations		
3	Livestock (as per list 1-7)	Imported in the software from previous calculations		
4	Poultry (as per list 8-14)	Imported in the software from previous calculations		
5	Fish (as per fish list)	Imported in the software from previous calculations		
6	Income from Permanent Crops (Nursery/Forest/Wood Bamboo) which was not mentioned in question 2)	If applicable, enter income		
7	Income from Agricultural Wages	If applicable, enter income		
8	Income from Non-Agricultural Wages	If applicable, enter income		
9	Income from Business	If applicable, enter income		
10	Income from Job	If applicable, enter income		
11	Remittance	If applicable, enter income		
12	Other Income	If applicable, enter income		
Total				

5.17 Household Risk Mitigation Strategies:

5.17 How many of the last 3 years has agriculture been financially profitable?

1. All three years were profitable
2. Profitable in one of the three years
3. Profitable in two of the three years
4. All three years were unprofitable
5. Profitable in both seasons (if cultivated twice a year)
6. Profitable in one season out of two (if cultivated twice a year)
7. Not applicable if cultivated for only one year

5.18 In the last 12 months, if your household faced external shocks (such as drought/ floods/ pest attacks/ heavy rainfall/ low market prices/ others), which of the following benefits did you receive? (Multiple answers possible)

1. Government/Private loan benefits
2. Other benefits excluding government/private loans (seeds, fertilizers, etc.)
3. Crop insurance/Livestock insurance/Cattle insurance benefits
4. No benefits received (If options 4, 5, or 99 are selected, no other option can be selected)
5. No need for benefits

99. Not applicable

Module 6: Environmental Condition of the Household

6.1 Soil Quality:

6.1.1 In the last 3 years (2022, 2023, 2024), has the soil quality/fertility of the land under your household decreased?

1. Yes
2. No → If 'No' proceed to question 6.2.1

99. Not applicable → If 'Not applicable' proceed to question 6.2.1

6.1.2 In the last 3 years (2022, 2023, 2024), what type of degradation in soil quality/fertility has occurred on the land under your household? (Multiple answers possible)

1. Soil erosion
2. Decrease in soil fertility
3. Waterlogging (including flooding)
4. Salinity
5. Surface soil removal: Soil removal for roads/brick kilns

96. Other (Please specify)

6.1.3 Due to the risks mentioned above, what is the extent of the land that has been damaged in the last 3 years (2022, 2023, 2024)?

Extent of damaged land (In Decimal) | | | |

6.2 Water Availability Variability:

6.2.1 In the last 3 years (2022, 2023, 2024), was irrigation water used on your agricultural land?

Decimal

1. Yes (Specify the amount of land in decimals or percentage that was irrigated) | |
2. Irrigation was not needed → Proceed to question 6.3.1
3. Unable to irrigate → Proceed to question 6.3.1
4. Irrigation opportunities were not available → Proceed to question 6.3.1

6.2.2 In the last 3 years on average (2022, 2023, 2024), has the availability of water in wells or other water sources (such as canals, ponds, rivers, etc.) decreased?

1. 'Yes' The water in the canals, ponds, and rivers is decreasing, and adequate water is not available when needed
2. 'Yes' The water level in the tube wells/wells is gradually decreasing
3. There has been adequate water as per the requirement

77. Unknown

96. Other (please specify) ……

6.2.3 In the last 3 years on average (2022, 2023, 2024), was there any individual/organization/institution involved in providing water for agricultural land in your area?

1. Yes, and they worked well
2. Yes, but they did not work well
3. No individual/organization was involved in irrigation
4. Due to financial constraints, water was either not supplied or less irrigation was provided

6.3 Fertilizer and Pesticide Management:

6.3.1 In the last 12 months, was any inorganic fertilizer (chemical fertilizers like urea, potash, DAP, etc.) used on this agricultural land?

1. Yes
2. No → If 'No' proceed to question 6.3.5

99. Not applicable → If 'Not applicable' proceed to question 6.3.5

6.3.2 Are you aware of the environmental risks of overuse of inorganic fertilizers (chemical fertilizers like urea, potash, DAP, etc.)?

1. Yes
2. No → If 'No' proceed to question 6.3.5

6.3.3 In the last 12 months, did you take any specific measures to reduce or mitigate the environmental risks of using inorganic fertilizers (chemical fertilizers like urea, potash, DAP, etc.)?

1. Yes
2. No → If 'No' proceed to question 6.3.5

6.3.4 In the last 12 months if you took any measures, which of the following actions did you take? (Multiple answers may be selected)

1. Used fertilizers as per the instructions from the Department of Agricultural Extension or local authorities/retailers.
2. Used organic fertilizers (compost).
3. Planted leguminous/green manure crops like lentil/sesbania (dhaincha) to reduce fertilizer use and used them as fertilizer in the soil;
4. Recycled nutrients from the crops (e.g., using produced crops).
5. Applied fertilizers during the growth period of crops.
6. Determined fertilizer application and dosage based on soil type and weather conditions.
7. Regularly tested the soil quality.
8. Chose crops based on soil type.

96. Other (please specify) …….

6.3.5 In the last 12 months, were any pesticides/insecticides used on your agricultural land?

1. Yes
2. No → If 'No' survey ends here

6.3.6 In the last 12 months, which types of pesticides/insecticides were used on your agricultural land?

1. Low-risk (physical harm)
2. High-risk (death risk)

77. Do not know

6.3.7 Are you aware of the environmental and health risks associated with the use of pesticides/insecticides?

1. Yes
2. No

6.3.8 Have any measures been taken on your farm to protect people from health risks related to agriculture?

1. Yes
2. No → If 'No' proceed to question 6.3.10

6.3.9 In the last 12 months, what measures were taken on your farm to address health risks? (Multiple answers may apply)

1. Use of personal protective equipment
2. Ensuring safe waste management (burying cartons, bottles, bags in the soil)
3. Proper adherence to pesticide label instructions

96. Other (Please specify) .....

6.3.10 Have you taken specific measures on your agricultural land to avoid/reduce environmental risks?

1. Yes
2. No → If 'No' survey ends here

6.3.11 In the last 12 months, what steps were taken to manage environmental risks in your household/farm? (Multiple answers may apply)

1. Pest control during planting
2. Pest control by rotating crops between two harvests
3. Rotational planting of various crops to control pests
4. Mixed crop planting to control pests
5. Use of organic pest control and biological insecticides
6. Proper adherence to pesticide label instructions
7. Rotating grazing fields for livestock to control pests affecting them
8. Use of pest-resistant varieties or species for insect infestations
9. Use of pest-resistant animals and species in pest cycles
10. Cutting off infected parts of crops
11. Regular cleaning of agricultural equipment to prevent pest transmission

96.Other (Please specify) .....

End of Servey

GPS Status: **(The GPS section will not be accessible if any of the four sections in Module 5 remain incomplete.)**

1	Longitude	
2	Latitude	

Survey Time: ☐☐ Hour ☐☐ Minute Date: ☐☐ Day ☐☐ Month ☐☐☐☐ Year

Supervisor's Name: …….

Data Collector's Name: …….. Data Collector's Serial Number ☐☐☐

Mobile Number: …….

Module 2: Farm Identification and Ownership

2.1: Farm Identification

2.1.1 Farm Name	:	
2.1.2 Owner's Name	:	
2.1.3 Respondent's Name (if the respondent is not the owner)	:	
2.1.4 Educational Qualification (Owner/Respondent)	:	
2.1.5 Respondent's Age:	:	Years
2.1.6 Work Experience:	:	Years
2.1.7 Owner's Gender	:	1 Male 2 Female 3 Hijra
2.1.8 Respondent/Owner's Mobile	:	
2.1.9 Relationship of respondent with the Owner (if respondent is not the	:	1- Organization Head *(Hidden if respondent is the owner)* 2- Spouse of the Organization Head 3- Child of the Organization Head 4- Employee 5- Other Member

*** **Education Code:** 25-Play/Nursery/KG/Pre-primary students, 26-1st grade students, 1-1st grade completed, 2-2nd grade completed, 3-3rd grade completed, 4-4th grade completed, 5-5th grade/PEC/Ibtidai/equivalent completed, 6-6th grade completed, 7-7th grade completed, 8-8th grade/JSC/JDC/Samman completed, 9-9th grade completed, 10-SSC/Dakhil/O-Level/Samman completed, 12-HSC/Alim/A-Level/Samman completed, 15-BA/BSc/BCom/BBA/Fazil (pass course) completed, 16-BA/BSc/BCom/BBA (honors) completed, 17-MA/MSc/MCom/MBA/Kamil/Samman completed, 18-PhD completed, 19-MBBS/BDS completed, 20-Nursing/Midwifery completed, 21-Engineering (BSc and above) completed, 22-Diploma completed, 23-Non-Formal/Informal Education, 24-No education, 96-Other (please specify...)

2.2. Farm Labor Information

Labor Type	Male	Female	Hijra
2.2.1 Owner/Partner working			
2.2.2 Unpaid family worker			
2.2.3 Full-time worker (monthly salaried)			
2.2.4 Irregular laborer			
Total			

2.3 Respondent's Position:

1. Owner themselves
2. Manager/Officer
3. Employee

96. Other (Please specify)

2.4 Type of Farm:

1. Government institution
2. Private institution
3. Non-profit institution

96. Other (Please specify)

2.5 Type of Ownership of the Farm:

1. Individual/Single ownership
2. Partnership

3. Private Limited Company
4. Public Limited Company
5. Government-owned
6. Autonomous

2.6 In the last 12 months, were any agricultural workers hired for this farm or under the farm's jurisdiction?

1. Yes
2. No → (If the answer is 'No' proceed to Module 3)

2.6 (a) If Yes, select the skill level: (Multiple answers can be selected)

1. Skilled worker (Institutionally trained) (If skilled worker, proceed to question 2.7)
2. Unskilled worker (If Unskilled worker, proceed to question 2.8)

2.7 In the last 12 months, what was the average daily wage (for 8 hours) paid to the skilled agricultural workers working on this farm? (Multiple answers possible

		Number/Person	Taka
1	Average daily wage (In Taka)		
2	Wages paid in terms of goods (such as rice/wheat etc.) in Taka.		

2.8 In the last 12 months, what was the average daily wage (for 8 hours) paid to the unskilled agricultural workers working on this farm or under the farm's scope? (Multiple answers possible)

		Number/Person	Taka
1	Average daily wage (In Taka)		
2	Wages paid in terms of goods (such as rice/wheat etc.) in Taka.		

Module 3: Land and Property Related to the Farm

Q. No.	Description	Desimal
1	2	3
3.1	Amount of land owned by the farm	
3.2	Amount of land given to others (leased out)	
3.3	Amount of land taken from others (leased in)	
3.4	Other land (acquired or received free of charge such as khas land or Riverine/Char land)	
3.5	**Total operated land area (3.1-3.2+ 3.3+3.4 =3.5)**	**3.5=3.12+3.23+3.24**
3.6	Land under office/structures	
3.7	Land under ponds/ditches/natural water bodies	
3.8	Land under business establishments	
3.9	Permanently fallow land (graveyard/playground/cremation ground/road, etc.)	
3.10	Natural pastureland/land with wildflowers or shrubs	
3.11	Land under rocks or hills (uncultivable)	
3.12	**Total uncultivable land (3.6 + 3.7+3.8+3.9+3.10+3.11 = 3.12)**	
3.13	Land under temporary crops (paddy/jute/wheat/lentils)	
3.14	Land under fish cultivation (ponds/lakes)	

3.15	Land under livestock (cattle/goats/ducks/chickens)	
3.16	Land under mixed farming (fish with paddy/vegetables)	
3.17	Currently fallow (cultivated last year but not this year)	
3.18	**Total land under temporary crops (3.13+3.14+3.15+3.16+3.17 = 3.18)**	
3.19	Land under permanent crops (fruits)	
3.20	Land under permanent crops (forestry including bamboo)	
3.21	Land under nurseries	
3.22	**Total land under permanent crops (3.19 + 3.20 + 3.21 = 3.22)**	
3.23	**Total cultivated land (3.18 + 3.22 = 3.23)**	
3.24	Land under shifting (Jum) cultivation (Applicable for hilly areas and will automatically appear in the CAPI)	

3.25 Information related to farm land ownership

3.25.1 Does the agricultural land under your farm have valid legal documents?

1. Yes
2. No → If the answer is 'No' proceed to question 3.25.3.

3.25.2 What legal documents are available for the agricultural land under your farm? (Multiple answers may apply)

1. Ownership deed
2. Registration certificate
3. Parcha/Survey record
4. Possession with the owner's consent
5. Gift deed (Hiba) or will
6. Rental agreement/receipt
7. Cooperative agreement/certificate

77. Unknown
96. Others (Please specify)
97. Unwilling to answer/Refuse

3.25.3 Is the land ownership of your managed farm obtained through inheritance or possession?

1. Yes
2. No

77. Unknow
88. Non-response

3.25.4 Do you have the right to bequeath the agricultural land of your managed farm to someone else?

1. Yes
2. No

77. Unknow

88. Non-response

3.25.5 Do you have the right to sell/transfer the agricultural land of your managed farm?

1. Yes
2. No
77. Unknow
88. Non-response

3.25.6 Do you have the right to delegate the responsibility of ownership (Power of Attorney) of the agricultural land of your managed farm?

1. Yes
2. No
77. Unknow
88. Non-response

Module 4: Farm Productivity (in the Last 12 Months)

4.1 In the last 12 months, what was the main type of agricultural production on the farm in terms of financial considerations (Crops, Livestock, or Fisheries)?

1 - Mainly Crop Production (More than two-thirds or 67% of total production)
2 - Mainly Livestock Production (More than two-thirds or 67% of total production)
3 - Mainly Fisheries Production (More than two-thirds or 67% of total production)
4 - A Combination of Crops, Livestock, Fisheries, and Other Productions (All equal or combined total production is less than two-thirds or 67%)

4.2 In the last 12 months, types of production on this farm: (Multiple answers may apply)

1 - Conventional Crop Farming (excluding Organic/Bio Method) → Applicable for questions 4.3 to 4.7
2 - Organic/Bio Method Crop Cultivating → Proceed to question 4.8
3 - Organic/Bio Method Livestock Rearing → Proceed to question 4.9
4 - Livestock Rearing → Proceed to question 4.14
5 - Mixed Farming (e.g., fish and rice/vegetables/ducks together) → Proceed to question 4.15

4.3 Crop Production, Expenses, and Income in the Last 12 Months

Production and by-product quantity and income of up to 5 major crops (in the last 12 months)

4.3.1 Cultivated Crop Code and Name	4.3.2 Land Ownership	4.3.3 Cultivated Land Area (Decimal)	Production Cost					Value of produced crops including by-products					
			4.3.4 Purchase of Seed/Sapling (In Taka)	4.3.5 Fertilizer/Irrigation/Pesticide (In Taka)	4.3.6 Labor Cost: Planting/Sowing/Weeding/Harvesting/Threshing	4.3.7 Other Costs (if any, In Taka)	4.3.8 Total Cost (In Taka) 4+5+6+7 =8	4.3.9 Production Quantity (in kg) (sold/self-used/saved for seed/donated/given to	4.3.10 Sold Price per kg (In Taka)	4.3.11 Total Value (In Taka) 9×10	4.3.12 Total By-product Value (In Taka) (straw, husk, bran, jute	4.3.13 Total Income (In Taka) 11+12	4.3.14 Net Income (Income - Expenditure) (In Taka)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1													
2													
3													
4													
5													

(4.3.2) Ownership and Code: 1 - Own Land, 2 - Leased Land

4.4 In the last 12 months, have you stored any crop produced on your farm as seed?

1. Yes
2. No → If the answer is "No," go to question 4.7

4.5 In the last 12 months, how much crop produced on your farm was stored as seed?

1. For own use ..... (kg)
2. For sale ..... (kg)

4.6 In the last 12 months, how much crop produced on your farm was stored as food grain?

1. For own use ..... (kg)
2. For sale ..... (kg)

4.7 What is the area of triple-cropped land on your farm in the last 3 years? (If there is no triple-cropped land, enter 00)

		Decimal
1	Land Area in 2024	.
2	Land Area in 2023	.
3	Land Area in 2022	.

4.8 In the Last 12 Months, Quantity, Expenses, and Income of the Top 3 Major Crops Produced Using Organic/Bio Methods on this Farm:

4.8.1 Cultivated Crop Code and Name	4.8.2 Land Ownership	4.8.3 Cultivated Land Area (Decimal)	Production Cost					Value of Produced Crops					
			4.8.4 Purchase of Seed/ Seedling (In Taka)	4.8.5 Fertilizer/Irrigation/Pesticide (In Taka)	4.8.6 Labor Costs: Planting/ Sowing/ Weeding/ Cutting/ Threshing (In Taka)	4.8.7 Other Costs (if any Quantify (In Taka)	4.8.8 Total Cost (In Taka) 4+5+6+7=8	4.8.9 Quantity Produced (in kg) (Sold/Own Used/Seed Keeping/Donated/Given to	4.8.10 Sale Price per kg (In Taka)	4.8.11 Total Price (In Taka) 9*10=11	4.8.12 Total Price Value of By-products (In Taka) (Crop By-products: Straw, Husk, Bran, Chaff, Jute Stick, etc.)	4.8.13 Total Price /Income (In Taka) 11+12=13	4.8.14 Net Income (Income-Expenditure)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1													
2													
3													

(4.8.2) Ownership and Code: 1 - Own Land, 2 - Leasehold Land

4.9 In the last 12 months, the production quantity, expenditure, and income from up to 3 major livestock species (cattle/goats/ducks/chickens) raised using organic/bio methods on this farm:

4.9.1 Serial No.	4.9.2 Livestock Code and Name	4.9.3 Land Area under Shed/House (Decimal)	4.9.4 Current Total Number of Animals as of 31/12/2024	4.9.5 Production Costs: All Expenses including Maintenance/ Feed/Treatment (In Taka)	4.9.6 Current Total Price of Animals (In Taka)	4.9.7 In the last 12 months, Total Price of Animals Sold (In Taka)	4.9.8 In the last year 12 months, Price of Breed (In	4.9.9 In the last 12 months, year Price of Milk (In Taka) (for Livestock)	4.9.10 In the Last 12 Months, Price of Eggs (In Taka) (for Poultry)	4.9.11 In the Last 12 Months, Total Income (In Taka) 6 + 7 + 8 + 9 + 10	4.9.12 In the Last 12 Months, Net Income in (Income - Expenses) (In Taka) 11 - 5 = 12
1	2	3	4	5	6	7	8	9	10	11	12
1											
2											
3											

Livestock Quantity, Costs, and Earnings

4.10 In the last 12 months, the cost of rearing the top five major livestock (cattle/goats/buffaloes/ ducks/chickens/pigeons etc.) on the farm:

4.10.1 Serial No.	4.10.2 Livestock Code and Name	4.10.3 Land under shed/house (Decimal)	4.10.4 Number of livestock at the beginning of 2024	4.10.5 In the last year, Number of animals purchased	4.10.6 In the last year, Number of off springs born (calves)	4.10.7 In the last year, Number of animal deaths	4.10.8 In the last year, Number of animals sold	4.10.9 Current total number of animals 4+5+6-7-8 = 9	4.10.10 Current price per animal (In Taka)	4.10.11 Current total price of animals (9×10= 11) (In Taka)	4.10.12 price of milk/eggs in the past 12 months (In	4.10.13 In the last year, price of by-products (In Taka) (e.g., dung, wool, hide, horn, hoof, bone	4.10.14 In the last year, Total income 11+12 +13=1	4.10.15 Production cost: care/feed/medicine and others (In Taka)	4.10.16 In the last year, Net income (Income-Expenditure)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1															
2															
3															
4															
5															

4.11 Record the number of cubs born in the last 12 months for each species raised on this farm (up to three species). (If births are recorded in question 4.10.6, include them; if the count is zero, skip this section.)

4.11.1 Name of Livestock Species		4.11.2 Breed/Crossbreed Code and Name		4.11.3 Number of Animal
1		1		
		2		
		3		
2		1		
		2		
		3		
3		1		
		2		
		3		

(4.10.2) If only birds, such as ducks and chickens, are present, skip sections 4.12, 4.13, and 4.14

4.12 In the last 12 months, what were the sources of livestock feed used on this farm?
(Multiple answers are possible) (The sum of responses for options 1 and 2 must equal 100% and if there is no livestock, this section will be hidden.)

Percentage (%)

1 Produced in this area
2 Purchased from elsewhere/market

4.13. In the last 12 months, has any livestock fattening (hormone/steroid/antimicrobial/antibiotic) substances been used in the farm?

1. **Yes**
2. **No**

4.14. Is any grazing land used as farm's property?

(For example, government or khas land, land not owned by any individual or institution, or shared land excluding land used by schools/colleges/other institutions)

1. Yes
2. No

Mixed Farming: (Fish with crops/vegetables, fish with ducks/chickens, or other farming)

4.15 In the last 12 months, farm's mixed fish cultivation: (Fish with crops/vegetables, fish with ducks/chickens, or other farming) what was the production quantity, expenditure and income of your farm? (up to 3)

4.15.1 Serial No	4.15.2 Fish Name & Code	4.15.3 Area of Land Used (Decimal)	4.15.4 Quantity of Production (kg) (Sold/Self-use/Donated/Given to	4.15.5 Price per kg of Fish Produced (In Taka)	4.15.6 Total Income (Taka) 4*5=6	4.15.7 Total Expenses (In Taka)	4.15.8 Net Income (Income-Expenses) (In Taka) 6-7=8
1	2	3	4	5	6	7	8
1							
2							
3							

4.16 In the last 12 months, what was the categorical income and expenses on the farm? (Family income/Income of all members)

4.16.1 Serial No.	4.16.2 Categories	4.16.3 Income	4.16.4 Expenditure	4.16.5 Net Income (Income - Expenditure) (In Taka)
1	2	3	4	5
1	Temporary Crops (as per the list of temporary crops)	Imported in the software from previous calculations		
2	Income from Permanent Crops (as per crop list)	Imported in the software from previous calculations		
3	Livestock (as per list 1-7)	Imported in the software from previous		
4	Poultry (as per list 8-14)	Imported in the software from previous		
5	Fish (as per fish list)	Imported in the software from previous		
6	Income from Permanent Crops (Nursery/Forest/Wood/Bamboo) which is not mentioned in question 2	If applicable, enter income		
7	Income from Other Businesses	If applicable, enter income		
8	Income from Other Agricultural Sources	If applicable, enter income		
Total				

4.17 Farm Risk Mitigation Process:

4.17 How many years in the last 3 years have been financially profitable in agriculture?

1. All three years were profitable
2. Profitable once in three years
3. Profitable twice in three years
4. All three years were unprofitable
5. Profitable in two years (farming done twice)
6. Profitable once in two years (farming done twice)
7. Not applicable for one-year production

4.18 In the last 12 months, if the farm faced external shocks (such as drought, flooding/pest attacks/over-rainfall/low market prices/other), which of the following benefits have you received? (Multiple answers may apply)

1. Government/private loan facilities
2. Other benefits excluding government/private loans (such as seeds, fertilizers etc.)
3. Crop insurance/Livestock insurance/Cattle insurance
4. No benefits received (If 4, 5, or 6 are selected, other options cannot be selected)
5. No need for benefits

99. Not Applicable

Module 5: Environmental Condition

5.1 Soil Quality:

5.1.1 In the last three years (2022, 2023, 2024), has the soil quality/fertility of the agricultural land under the farm decreased?

1. Yes
2. No → If the answer is no, go to question 6.2.1

99. Not Applicable → If not applicable, go to question 5.2.1

5.1.2 In the last three years (2022, 2023, 2024), in what ways has the soil quality/fertility of the land under the farm decreased? (Multiple answers may apply)

1. Soil erosion
2. Decreased soil fertility
3. Waterlogging (including flooding)
4. Salinity
5. Surface soil removal: Soil removal for roads/bricks kilns

96. Other (Please specify)

5.1.3 Due to the mentioned risks, how much land has been damaged in the last three years (2022, 2023, 2024)?

Total damaged land (In Decimal)			

5.2 Water Availability Variations:

5.2.1 In the past three years on average (2022, 2023, 2024), was there any use of water in the agricultural land through irrigation?

Decimal

1. Yes (Please specify the amount of land/percentage of land that was irrigated) [ ]
2. Irrigation was not needed → Proceed to question 6.3.1
3. There was no capacity for irrigation → Proceed Go to question 6.3.1
4. There was no opportunity for irrigation → Proceed to question 6.3.1

5.2.2 In the last three years on average (2022, 2023, 2024), has the availability of water from wells or other sources (such as canals, ponds, rivers, etc.) decreased?

1. Yes, the water in canals, ponds, and rivers is decreasing, and sufficient water is not available when needed
2. Yes, the water level in wells/tube wells/water sources is gradually decreasing
3. Sufficient water has been available as per need → Proceed to question 6.3.1
4. Unknown

96. Other (Please specify) .....

5.2.3 In the past three years on average (2022, 2023, 2024), was there any individual/organization/institution involved in supply of water for agriculture in your area?

1. Yes, there was and they worked well
2. Yes, there was but they did not work well
3. No individual/organization was involved in irrigation
4. Due to financial constraints, water was not supplied or there was less irrigation

5.3 Fertilizer and Pesticide Management:

5.3.1 In the last 12 months, was any inorganic fertilizers (chemical fertilizers such as urea, potash, DAP, etc.) used in the agricultural land on this farm?

1. Yes
2. No → If the answer is No, skip to question 5.3.5
3. Not applicable → If not applicable, skip to question 5.3.5

5.3.2 Are you aware of the environmental risks of excessive application of inorganic fertilizers (chemical fertilizers such as urea, potash, DAP, etc.)?

1. Yes
2. No → If the answer is No, skip to question 5.3.5

5.3.3 In the last 12 months, did you take any specific steps on your farm to reduce/mitigate the environmental risks of using inorganic fertilizers (chemical fertilizers such as urea, potash, DAP, etc.)?

1. Yes
2. No → If the answer is No, skip to question 5.3.5

5.3.4 In the last 12 months if any measures are taken, which of the following steps did you take? (Multiple answers possible)

1. Used fertilizer in prescribed amounts according to the instructions of the Department of Agricultural Extension, local authorities, or retail sellers;
2. Used organic fertilizer (compost);
3. Planted leguminous/green manure crops like lentil/sesbania (dhaincha) to reduce fertilizer use and used them as fertilizer in the soil;
4. Reused soil nutrients (e.g., from harvested crops);
5. Applied fertilizer during the crop growth stage;
6. Applied and determined the amount of fertilizer based on soil type and weather conditions;
7. Regularly tested soil quality;

8. Cultivated crops according to the soil type;
96. Others (please specify) …….

5.3.5 **In the last 12 months, was there any use of pesticides/insecticides on agricultural land on your farm?**

1. Yes
2. No → If the answer is no, end the survey

5.3.6 **What type of pesticides/insecticides were used on agricultural land on your farm in the past 12 months?**

1. Less hazardous (physical harm)
2. Highly hazardous (risk of death)
77. Do not know

5.3.7 **Are you aware of the environmental and health risks of using pesticides/insecticides?**

1. Yes
2. No

5.3.8 **Have any measures been taken on your farm to protect people from health risks in agricultural land?**

1. Yes
2. No → If the answer is no, skip to question 5.3.10

5.3.9 **In the last 12 months, what measures have been taken on your farm to address health risks? (Multiple answers possible)**

1. Use of personal protective equipment (PPE)
2. Ensuring safe waste management (burying cartons, bottles, bags in the soil)
3. Properly following the instructions on pesticide labels
96. Others (please specify) ……

5.3.10 Have you taken any specific measures on this farm to avoid/reduce environmental risks in agricultural land?

1. Yes
2. No → If the answer is no, end the survey.

5.3.11 **In the past 12 months, what measures were taken on your farm to address environmental risks? (Multiple answers possible)**

1. Controlling pest cycles during planting time
2. Controlling pest cycles by allowing a break between two crop seasons
3. Controlling pest cycles by rotating different crops sequentially
4. Controlling pest cycles by cultivating mixed crops
5. Using organic pest control methods and organic pesticides
6. Strictly following label instructions on pesticide use

7. Controlling livestock-related pest cycles by rotating grass cultivation in grazing lands
8. Using pest-resistant crop varieties/species
9. Using pest-tolerant animal breeds or species
10. Removing infected parts of the crop
11. Regularly cleaning agricultural tools to prevent pest infestation
96. Others (please specify): .....

End of Survey

GPS Status: **(The GPS section will not be accessible if any of the four sections in Module 4 remain incomplete.)**

1	Longitude	☐☐☐☐☐☐☐☐☐
2	Latitude	☐☐☐☐☐☐☐☐☐

Survey ☐☐ Hour ☐☐ Minute Date: ☐☐ Day ☐☐ Month ☐☐☐☐ Year

Supervisor's Name: ……

Data Collector's Name: …….. Data Collector's Serial ☐☐☐

Mobile Number: ……

01-Cereal Crops		03.13	Ash Gourd	06.07	Castor Bean
01.01	Local Broadcast Aus	03.14	Cauliflower	06.08	Other Oil Seed
01.02	Local Transplanted Aus	03.15	Cabbage	07-Fruit	
01.03	High Yielding Aus	03.16	Broccoli	07.01	Banana
01.04	Hybrid Aus	03.17	Spine Gourd	07.02	Papaya
01.05	Local Broadcast Aman	03.18	Sweet Potato	07.03	Watermelon
01.06	Local Transplanted Aman	03.19	Amaranth Stem	07.04	Muskmelon
01.07	High Yielding Aman	03.20	Taro	07.05	Pineapple
01.08	Hybrid Aman	03.21	Yard long Bean	07.06	Strawberry
01.09	Local Boro	03.22	Ridge Gourd	07.07	Dragon Fruit
01.10	High Yielding Boro	03.23	Carrot	07.96	Other Fruits
01.11	Hybrid Boro	03.24	Kohlrabi	08-Fiber Crops	
01.12	Wheat	03.25	Turnip	08.01	Jute
01.13	Maize	03.26	Cucumber	08.02	Cotton
01.14	Kaon (a type of millet)	03.27	Capsicum	08.96	Other Fiber Crops
01.15	Barley	03.28	Snake Gourd	09-Sugar Crops	
01.16	Chena (Chinese millet)	03.29	Beetroot	09.01	Sugarcane
01.17	Bajra (Pearl millet)	03.96	Other Vegetables	09.96	Other Sugar Crops
01.18	Jowar (Sorghum)	04-Leafy Greens		10- Stimulant Crops	
01.96	Other Cereal Crops	04.01	Red Spinach	10.01	Tobacco
02-Pulses		04.02	Malabar Spinach	10.96	Other Stimulant Crops
02.01	Lentil	04.03	Spinach	11- Medicinal Plants	
02.02	Grass Pea	04.04	Mint Leaf	11.01	Aloe Vera
02.03	Mung Bean	04.05	Lettuce Leaf	11.96	Other Medicinal Plants
02.04	Black Gram	04.96	Other Leafy Greens	12-Flowring Plants	
02.05	Pea	05-Spice Crops		12.01	Tuberose
02.06	Chickpea	05.01	Onion	12.02	Marigold
02.07	Pigeon Pea	05.02	Garlic	12.03	Chrysanthemum
02.08	Fallow Bean	05.03	Ginger	12.04	Dahlia
02.96	Other Pulses	05.04	Turmeric	12.05	Gladiolus
03-Vegetables		05.05	Chili	12.06	জারবেরা (Jarbara)
03.01	Potato	05.06	Coriander	12.96	Other Flowers
03.02	Eggplant / Brinjal	05.07	Black Cumin	13-Seedbed, Fodder, and Fuel	
03.03	Radish	05.08	Fennel	13.01	Kans Grass
03.04	Bean	05.09	Cumin	13.02	Sesbania
03.05	Tomato	05.96	Other Spice Crops	13.03	Other Fuel Plants
03.06	Snake Gourd	06-Oilseed Crops		13.04	Napier Grass
03.07	Pointed Gourd	06.01	Mustard	13.05	Other Fodder Crops
03.08	Okra / Lady's Finger	06.02	Soybean	13.06	Seedbed
03.09	Cucumber	06.03	Peanut		
03.10	Bitter Gourd	06.04	Sesame		
03.11	Bottle Gourd	06.05	Flaxseed		
03.12	Sweet Gourd / Pumpkin	06.06	Sunflower		

B- Permanent Crops					
Code	Plant Name	Code	Plant Name	Code	Plant Name
14-Fruit Name		14.32	Ebony Fruit	17.18	Babla
14.01	Mango	14.33	Fig	17.19	Chambul
14.02	Black Plum	14.34	Dragon Fruit	17.20	Golden Shower Tree
14.03	Jackfruit	14.35	Rambutan	17.21	Rubber
14.04	Lychee	14.96	Other Fruits	17.22	Agarwood
14.05	Guava	15-Stimulant Plants		17.23	Shal Tree
14.06	Coconut	15.01	Betel Leaf	17.24	Chapalish
14.07	Jujube/Boroi	15.02	Areca Nut	17.25	Albizia (Siris)
14.08	Hog Plum	15.03	Tea	17.96	Other Timber and Forestry Products
14.09	Olive	15.96	Other Stimulant Crops	18-Medicinal Plants	
14.10	Date Palm	16-Spices		18.01	Neem
14.36	Palm Fruit	16.01	Bay Leaf	18.02	Arjuna
14.11	Wood Apple	16.02	Cinnamon	18.03	Bahera
14.12	Monkey Jack	16.03	Cardamom	18.04	Haritaki
14.13	Rose Apple	16.96	Other Spice Crops	18.96	Other Medicinal Plants
14.14	Carissa	17- Timber and Forestry Products		19-Vegetables	
14.15	Custard Apple	17.01	Bamboo	19.01	Drumstick (Moringa)
14.16	Sweetsop	17.02	Cane	19.96	Other Vegetables
14.17	Pomegranate	17.03	Acacia	20-Flowring Plants	
14.18	Sapodilla	17.04	Rain Tree	20.01	Rose
14.19	Elephant Apple	17.05	Mahogany	20.02	Indian Medlar
14.20	Star Fruit	17.06	Teak	20.03	Kadam Flower
14.21	Tamarind	17.07	Akashmoni	20.04	Flame of the Forest
14.22	Lemon	17.08	Eucalyptus	20.96	Other Flowering Plants
14.23	Pomelo	17.09	Shishu	21-Fiber Crops	
14.24	Indian Gooseberry	17.10	Gamari	21.01	Kapok Cotton
14.25	Burmese Grape	17.11	Gurjan	21.02	Mulberry
14.26	Otaheite Gooseberry	17.12	Banyan Tree	21.96	Other Fiber Crops
14.27	Elephant Foot Yam	17.13	Mostak	22-Nursery	
14.28	Orange	17.14	Hogla	22.01	Nursery
14.29	Satkara	17.15	Devdaru		
14.30	Malta (Sweet Orange)	17.16	Satim		
14.31	Bilimbi	17.17	Jarul		

C-Fish Name and Code					
Code	Fish Name	Code	Fish Name	Code	Fish Name
101	**Carp Fish:** Rui (Rohu)/Katla (Catla)/Mrigal/Kalbaush/Silver Carp/Grass Carp	119	Sarputi	137	Chala
102	Gonia	120	Puti	138	Horina
103	Bata-Tatkini	121	Spiny Eel (Baim)	139	Chaka
104	Magur	122	Goby (Bele)	140	Foli
105	Singhi	123	Barramundi (Vetki)	141	Bagaire
106	Koi	124	Batasi	142	Tilapia
107	Shol	125	Indian River Shad (Chapila)	143	Nile Tilapia
108	Gojar	126	Parse	144	Selon
109	Taki	127	Kajli	145	Khalisha
110	Tengra	128	Piali	146	Ceuwa
111	Pangash	129	Khaṛaki	147	Rani
112	Boal	130	Mud Eel (Kuchia)	148	Gotum/Puiya
113	Air	131	Meni/Royna/Veda	149	Kakila
114	Chitol	132	Tapsha	150	Bacha
115	Galda Chingri	133	Darkina	151	Gulsha
116	Bagda Chingri	134	Freshwater Shrimp (Echa)	152	Faisya
117	Pabda	135	Mola	153	Chandana
118	Gucci	136	Dala	196	Other (Specify)

D-Livestock List and Code			
Code	Livestock Name	Code	Livestock Name
1-Cow		8-Duck	
1.01	Indigenous Cattle	8.01	Indigenous Duck
1.02	Crossbred Cattle	8.02	Campbell Duck
1.03	Sahiwal Cattle	8.03	Beijing Duck
1.04	Jersey/Brahman Cattle	8.04	Chinese Duck
1.96	Other Cattle Breeds	8.05	Swan
2-Buffalo		8.06	রুয়েন হাঁস (Ruan Haas)
2.01	Indigenous Buffalo	8.07	Jingding Duck
2.02	Murrah Buffalo	8.96	Other Duck Breeds
2.03	Jaffrabadi Buffalo	9-Chicken	
2.96	Other Buffalo Breeds	9.01	Indigenous Chicken
3-Goat		9.02	সোনালী মুরগি (Sonali Murgi)
3.01	Indigenous Goat	9.03	Layer Chicken
3.02	Ram Goat	9.04	Broiler Chicken
3.03	Totapuri Goat	9.05	Cock Chicken
3.04	Black Bengal Goat	9.06	Tiger Chicken
3.96	Other Goat Breeds	9.96	Other Chicken Breeds
4-Sheep		10-Pigeon	
4.01	Indigenous Sheep	10.01	Indigenous Pigeon
4.02	Dorset Sheep	10.02	Giribaz Pigeon
4.03	Turkana Sheep	10.03	Jalali Pigeon
4.04	Dorper Sheep	10.04	Lakka Pigeon
4.05	Sigai Sheep	10.96	
4.96	Other Sheep Breeds	11-Quail Bird	
5-Pig		11.01	Indigenous Quail Bird
5.01	Casertana Pig	11.02	Pharaoh Quail Bird
5.02	Cinta Senese Pig	11.03	Kari Uttam Quail Bird
5.03	Landrace Pig	11.04	Kari Uccaoyal Quail Bird
5.04	Duroc Italiana Pig	11.05	Kari Suyeta Quail Bird
5.05	White Italiana Pig	11.96	Other Quail Bird Breeds
5.06	Mora Romagnola Pig	12-Turkey	
5.07	Sarda Pig	12.01	Beltsville Small White Turkey
5.96	Other Pig Breeds	12.02	Royal Palm Turkey
6-Horse		12.03	আদর্শ ব্রোন্জ টার্কি (Adarsa Bronja Tarki)
6.01	Indigenous Horse	12.96	Other Turkey Breeds
6.02	Belgian Draft Horse	13-Francolin	
6.03	Thoroughbred Pony	13.01	Black Francolin
6.04	Arabian Pony	13.02	water Francolin
6.05	Pony Horse	13.03	Chinese Francolin
6.96	Other Horse Breeds	13.04	Grey Francolin
7. Specify Other Animals		13.96	Other Francolin Breeds
7.96	Specify Other Animals	14 - Specify Other Bird Species	
		14.96	Specify Other Bird Species

Project Steering Committee (Not basis on the seniority)		
1.	Secretary, Statistics and Informatics Division	Chairperson
2.	Director General, Bangladesh Bureau of Statistics	Member
3.	Additional Secretary (Development), Statistics and Informatics Division	Member
4.	Joint Secretary (Planning/Development), Statistics and Informatics Division	Member
5.	Representative, Agriculture, Water Resources and Rural Institutions Division	Member
6.	Representative, Implementation, Monitoring and Evaluation Division (IMED)	Member
7.	Representative, General Economics Division (GED), Planning Commission	Member
8.	Representative, NEC-ECNEC & Coordination Wing, Planning Division	Member
9.	Representative, Finance Division, Ministry of Finance	Member
10.	Representative, Programming Division, Planning Commission	Member
11.	Representative, Ministry of Food	Member
12.	Representative, Ministry of Agriculture	Member
13.	Representative, Ministry of Fisheries and Livestock	Member
14.	Director, Agriculture Wing, BBS	Member
15.	Deputy Secretary (Planning), Statistics and Informatics Division	Member
16.	Project Director, Sustainable Agriculture Statistics Project, BBS	Member
17.	Deputy Secretary (Dev-1), Statistics and Informatics Division	Member-Secretary

Project Implementation Committee (Not basis on the seniority)		
1.	Director General, Bangladesh Bureau of Statistics	Chairperson
2.	Deputy Director General, Bangladesh Bureau of Statistics	Member
3.	Representative, Agriculture, Water Resources and Rural Institutions Division, Planning Commission	Member
4.	Representative, Programming Division, Planning Commission	Member
5.	Representative, Planning Division, Ministry of Planning	Member
6.	Representative, Finance Division, Ministry of Finance	Member
7.	Representative, Implementation, Monitoring and Evaluation Division (IMED), Ministry of Planning	Member
8.	Representative, General Economics Division (GED), Planning Commission	Member
9.	Representative, Food Planning and Monitoring Unit (FPMU)	Member
10.	Representative, Department of Agriculture Extension, Khamarbari, Dhaka	Member
11.	Representative, Department of Livestock Services (DLS), Khamarbari, Dhaka	Member
12.	Representative, Department of Fisheries, Dhaka	Member
13.	Director (all), Bangladesh Bureau of Statistics (BBS)	Member
14.	Deputy Secretary (Planning/Development-1), Statistics and Informatics Division	Member
15.	Project Director, Sustainable Agriculture Statistics Project, BBS	Member-Secretary

Report Scrutiny Committee of Statistics and Informatics Division (SID) (Not basis on the seniority)		
1.	Additional Secretary (Informatics), Statistics and Informatics Division	Chairperson
2.	Joint Secretary (Budget, Financial Management and Audit), Statistics and Informatics Division	Member
3.	Joint Secretary (Development), Statistics and Informatics Division	Member
4.	Joint Secretary (Informatics), Statistics and Informatics Division	Member
5.	Joint Secretary (Development-2), Statistics and Informatics Division	Member
6.	Joint Secretary (Admin-2), Statistics and Informatics Division	Member
7.	Deputy Secretary (Development-1), Statistics and Informatics Division	Member
8.	Deputy Secretary (Informatics wing-1), Statistics and Informatics Division	Member
9.	Deputy Secretary (Info-3), Statistics and Informatics Division	Member
10.	Project Director, ECDS Project, Bangladesh Bureau of Statistics	Membe
11.	Accounts Officer, Account Section, Statistics and Informatics Division	Member
12.	Deputy Secretary (Info-2), Statistics and Informatics Division	Member-Secretary

Editors Forum, Bangladesh Bureau of Statistics (Not basis on the seniority)		
1.	Deputy Director General, Bangladesh Bureau of Statistics	Chairperson
2.	Director, Agriculture Wing, Bangladesh Bureau of Statistics	Member
3.	Director, Census Wing, Bangladesh Bureau of Statistics	Member
4.	Director, Computer Wing, Bangladesh Bureau of Statistics	Member
5.	Director, Demography and Health Wing, Bangladesh Bureau of Statistics	Member
6.	Director, Industry and Labour Wing, Bangladesh Bureau of Statistics	Member
7.	Director, National Accounting Wing, Bangladesh Bureau of Statistics	Member
8.	Director, FA and MIS Wing, Bangladesh Bureau of Statistics	Member
9.	Director, Planning and Development Cell, Bangladesh Bureau of Statistics	Member
10.	Focal Point, SVRS in Digital Platform Project, Bangladesh Bureau of Statistics	Member
11.	Project Director, PHC Project, Bangladesh Bureau of Statistics	Member
12.	Project Director, SAS Project, Bangladesh Bureau of Statistics	Member
13.	Director, SSTI, Bangladesh Bureau of Statistics	Member-Secretary

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