Enterprise, Growth and Inequality in the Rural Economy of Assam
A Study of Seven Villages in Udalguri Subdivision

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1. Introduction: The primary sector, agriculture in particular, is the main source of livelihood in the rural India and Assam is no exception to that. Mostly, agriculture is traditional, using primitive methods of cultivation and basic minimum inputs. Additionally, the purpose of raising crops is home consumption or sustenance. If a part of agricultural produce is sold in the market, the proceeds are spent on purchasing those goods from the market that cannot be produced at home. The productivity of land is low. Furthermore, too many workers work on the land and their marginal productivity is very little. As a result, the per capita income from agriculture is meager which leads to poverty of the rural population. Farmers often save very little to invest in agriculture. Supply of capital is scant and rates of interest are exorbitant. Indebtedness is wide spread. Very few farmers are enterprising and muster enough courage to produce for the market.

Unlike some well-known regions of India where farmers have gone in for producing high yielding crops like wheat, maize and rice or cash crops like sugarcane, potatoes, tobacco, etc., the farmers in the villages of Assam have largely stuck to traditional agriculture. Nevertheless, some farmers have ventured into the enterprise of producing for the market. They raise green vegetables, onions, chilies, etc. From this venture they have been able to earn significantly more than their counterparts who are engaged in the traditional agriculture for sustenance. Additionally, in the villages located in the lowland areas, people have gone in for producing jute, raising fish in the ponds, rearing animals, growing orchards and plantation to earn.

The objective of this paper is to report our findings on how the rural people in Udalguri Subdivision of the District Darang, Assam, earn their livelihood while some of them are engaged in traditional farming and alternatively, some others have gone in for market-oriented production. Thus we aim at a comparative study of the two types of situation - when farmers have largely abandoned subsistence farming and when they have stuck to it. Viewed differently, we aim at studying the structure of two different rural communities, the one of them has been enterprising and the other has limited itself to the traditional way to livelihood.

Market-oriented farming does raise the income level of those who practise it. But it leads to inequalities in income distribution. Increased income in the hands of a few often ensnare the productive resources (land and labour) of the underprivileged neighbours and in due course, land ownership concentrates into fewer privileged hands. Market-oriented farming also needs more labour. The underprivileged neighbours who may be marginal farmers in the beginning, turn into agricultural labourers in due course of time. Thus, growth of income in the hands of a few gradually leads to inequality in resource ownership and thereby establishes itself structurally.

2. The Sample Study : The present study is based on a sample of 182 households drawn from the select seven villages of Udalguri Subdivision. First, we have selected seven villages by design - five of them inhabited by the traditional farmers and two of them inhabited by the market-oriented farmers. Furthermore, these sample villages have been chosen in a manner such that they exhibit three characteristics, variability in location distance from the nearest urban area and availability of infrastructure, variability in community type of habitants and variability in sources of livelihood. Accordingly, some village is as near as 3 kilometers away, while some other is located at a distance of 45 kilometers away from the subdivisional Head Quarters. Similarly, the households of a particular community exclusively inhabit some villages while the households belonging to different communities inhabit some others. Further, households in some villages earn a substantial part of their income from service, while those in some other villages heavily depend on agriculture. These variations are relevant for determining the level of living of the households. In particular the households that are immigrants from Bangladesh exclusively inhabit two villages. Farmers in these two villages have gone in for the market-oriented agriculture.

From the sample villages we have chosen households randomly. In choosing the number of households from different villages we have been guided by the consideration that their representation in the total sample should be pretty close to the overall structure exhibited at the subdivisional level. Since the villages are of different sizes (as per the total number of inhabitant households) a proportional representation at the village level would grossly distort the said representation at the subdivisional level. Therefore, we have parted with the proportional representation at the village level, but maintained their representation at the subdivisional level. The details of the sample villages and the number of sample households are given in table 1.

At this juncture it is pertinent to highlight that our sample villages (and the households therein) represent two different social, attitudinal and cultural settings. The inhabitants of the first five villages (call them Group-1 villages) are indigenous, settled in their environs for generations. On the other hand, the inhabitants of the last two villages (Group-2) are immigrants displaced from Bangladesh. Thus the two populations are not only religion wise different, they are also different from the viewpoints of culture, feelings of social security, drive to survive in the midst of socio-economic uncertainties, etc. Religious beliefs and the consequent attitude to life impinge on economic performance. Coats (1971, p. 9) summarizes Adam Smith (1759) : Men "could safely be trusted to pursue their self-interest without undue harm to the community not only because of the restrictions imposed by the law, but also because they were subject to built-in restraint derived from morals, religion, custom, and education." The classic studies by Weber (1904), Tawney (1926), Mishra (1962), Hofstede (2001) and Noland (2003) suggest the impact of values and religious beliefs on economic achievements. Hirsch (1978, pp. 137-151) also highlights the relationship between values and economic performance. That the religion and culture based social customs and attitudes do make difference to the economic performance, especially in the rural setting, has been amply demonstrated by Howbora (1988).

On the contrary, Schultz (1964) asserts : "The niggardliness of agriculture to poor communities is frequently attributed to particular cultural values ... As a rule, however, it is not necessary to appeal to

differences in such cultural values, because a simple economic explanation will suffice." p. 26. "Differences in work, thrift and industry related to economic activities can be handled as economic variables. It is not necessary to appeal to cultural differences to explain particular work and thrift behaviour because economic factors provide a satisfactory explanation. Incentives to work more than those people do are weak because the marginal productivity of labour is very low, and incentives to save more than they do are weak because the marginal productivity of capital is also very low." p. 28. Also, "The community is poor because the factors on which the economy is dependent are not capable of producing more under existing circumstances. Conversely, ... the observed poverty is not a consequence of any significant inefficiencies in factor allocation." p. 48.

However, as Howbora has aptly stated : "Two communities working under identical political, economic, geographical and meta-social situations, endowed with same resources produce significantly different amounts per bigha of land they cultivate, is our puzzle. Our puzzle is more intriguing because Schultz's economic explanation proves of no avail to help us solve the puzzle. Naturally, ... what Schultz has emphatically denied to be of any relevance ...are the real explanations, and the observed differences in productivity are explainable only in terms of cultural differences." p. 6.

In the midst of such divergent views of the doyens of economics such as Adam Smith, Max Weber, Fred Hirsch and Theodore Schultz, and empirical findings in the local setting such as Howbora, it is interesting to investigate as to what comes up in our case. This is one of the important objectives of the present study.

Table 1: **Sample Villages from Udalguri Subdivision**

Sample Villages	No. of Households	Communities living in the Village	Distance from Subdivisional Head Quarters	Electrification	No. of Sample Households
Barigaon Gerua	49	Boros	15 Kms	No	30
Bhagdal Gaon	163	Assamese, Bengalis, Boros, Nepalese, Tea Gardners	35 Kms	Yes	30
Kalabari	89	Boros, Assamese	15 Kms	No	30
Sapkhaiti (ii)	46	Boros	3 Kms	Yes	30
Nizdal Gaon	236	Assamese	35 Kms	Yes	22
Baruajhar	349	Muslims	30 Kms	No	20
Sialmari	96	Muslims	45 Kms	No	20
Total	1028	------	------	------	182

3. Various Sources of Income to the Sample Households : Our sample households in the selected villages derive income from various sources. The primary sector contributes to some 51 percent of the total income, in which about 32 percent is due to agriculture. Service is another source of income, contributing some 34 percent of the total. Hiring out of labour, orchard and trade & commerce contribute to the total income by some 5 to 6 percent each. Other sources of income, though individually contributing some 1 to 3 percent each, together make up about 16 percent of the total income. The details of income accruing from different sources are given in table 2.

Table 2: **Income of Sample Households from Various Sources**

Sources of Income	Income (in Rs)	Average Household Income (in Rs)	Percent to the Total
A. **Primary Sector**	6138707.00	33729.15	50.71
1. Agriculture	3897050.00	21412.36	32.19
2. Labour	638808.00	3509.93	5.28
3. Animal Husbandry	247740.00	1361.21	2.05
4. Fishery	327390.00	1798.85	2.70
5. Orchard	762719.00	4190.76	6.30
6. Plantation	265000.00	1456.04	2.19
B. **Secondary Sector**	691290.00	3798.3	5.71
7. Cottage Industry	225490.00	1238.96	1.86
8. Mill/Factory	130800.00	718.68	1.08
9. Construction	335000.00	1840.66	2.77
C. **Tertiary Sector**	4850364.00	26650.35	40.06
10. Trade & Commerce	663740.00	3646.92	5.48
11. Services	4186624.00	23003.43	34.58
D. **Property**	425440.00	2337.58	3.51
Total	12105801.00	66515.39	100.00

Table 3. Mean Consumption, Income and Family Size under Different Household Income Classes (in Rs 000)

Class	N	C	NDE	DE	OCE	Y	F	Own	Purch
0-5	66	37664.86	30100.32	3222.65	4341.89	20807.77	6.44	11308.92	26355.94
5-10	47	42832.34	31865.00	5313.51	5653.83	39692.66	5.70	13038.45	29793.89
10-15	23	48317.09	35717.96	4031.52	8567.61	69809.35	5.87	12873.17	35443.91
15-20	16	70603.38	45574.88	8317.25	16711.25	100954.25	5.88	17018.25	53585.13
20-25	9	80526.44	49352.00	15880.00	15294.44	119236.00	5.56	17741.56	62784.89
25-30	6	110580.56	68127.33	15670.56	26782.67	208380.11	7.44	24678.67	85901.89
30-40	7	72683.86	45741.43	15599.57	11342.86	169505.57	4.86	18815.14	53868.71
40 & above	5	106013.20	58933.20	24720.00	22360.00	299633.40	5.20	23836.00	82177.20
All	182	52191.01	36852.51	6620.786	8717.714	66445.07	6.04	14067.25	38123.76

N= No. of Households, C = Annual Consumption expenditure, NDE = Expenditure on Non-durable goods, DE = consumption on Durable goods, OCE = Consumption on Other items, Y = Annual Income, F = household (family) size, Own = Expenditure (imputed) on home-grown stuff, Purch = Expenditure on purchased goods.

4. Family Size and Consumption Pattern : The mean family size of the household is 6 persons. On an average a household earns Rs. 66.45 thousand and spends Rs. 52.19 thousand per year. The average propensity to consume is 78.55 percent of the total income. However, over the different income ranges, the average propensity to consume differs significantly. On an average, some 25 percent of consumption expenditure (imputed) is on the stuff produced at home. Expenditure on non-durables (NDE) increases only sluggishly with an increase in income while the amounts of expenditure on durables (DE) and other consumptions items (OCE) including education, festivities, etc. increase more rapidly with an increase in income. Nevertheless, the proportionate increase in expenditure of all types is less than the proportionate increase in income. The details of consumption expenditure for different income classes are given in table 3 and their index values (using the poorest households as base) are given in table 4.

Table 4. Index of Mean Consumption, Income and Family Size under Different Household Income Classes (in Rs 000)

Class	N	C	NDE	DE	OCE	Y	F	Own	Purch
0-5	66	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
5-10	47	113.72	105.86	164.88	130.22	190.76	88.51	115.29	113.04
10-15	23	128.28	118.66	125.10	197.32	335.50	91.15	113.83	134.48
15-20	16	187.45	151.41	258.09	384.88	485.18	91.30	150.49	203.31
20-25	9	213.80	163.96	492.76	352.25	573.04	86.34	156.88	238.22
25-30	6	293.59	226.33	486.26	616.84	1001.45	115.53	218.22	325.93
30-40	7	192.98	151.96	484.06	261.24	814.63	75.47	166.37	204.39
40 & above	5	281.46	195.79	767.07	514.98	1440.01	80.75	210.77	311.80
All	182	138.57	122.43	205.45	200.78	319.33	93.76	124.39	144.65

5. Are the Households of Group-1 Villages Different from the Households of Group-2 Villages? : An overview of the sample households in the two groups of villages suggests that there are structural differences in how they produce, how much they earn from farming and other sources and how they consume. As table 5(a) suggests, there is a remarkable difference in the distribution of income accruing from agriculture to the households of the two groups of villages. In Group-1 villages the range of income is narrow and inequality in income distribution is relatively mild. On the other hand, income from agriculture accruing to the households of Group-2 villages is more dispersed. Similarly, household incomes (from all sources) also have inter-group difference in their scatter (table 5(b)). But these statistics provide us only a hypothesis that the two groups of villages are structurally different. We have to statistically ascertain if this conjecture is tenable. With this in mind we conduct discriminant analysis.

Table 5(a) . Distribution of Per Capita Per Month Income from Agriculture

Per Capita Income Class (in Rs./Month)	No. of Households Group-1 Villages	Percentage to Total	No. of Households Group-2 Villages	Percentage to Total	No. of Households All Villages	Percentage to Total
Nil	23	16.20	9	22.50	32	17.58
Up to 200	64	45.07	10	25.00	74	40.66
200 - 400	35	24.65	7	17.50	42	23.08
400 - 600	10	7.04	4	10.00	14	7.69
600 - 800	7	4.93	0	0.00	7	3.85
800 - 1000	3	2.11	2	5.00	5	2.75
1000 - 1200	0	0.00	2	5.00	2	1.10
1200 - 1400	0	0.00	2	5.00	2	1.10
1400 - 2000	0	0.00	0	0.00	0	0.00
2000 - 2500	0	0.00	3	7.50	3	1.65
2500 - 3000	0	0.00	0	0.00	0	0.00
3000+	0	0.00	1	2.50	1	0.55
Total	142	100.00	40	100.00	182	100.00

Table 5(b). Inequality in Income Distribution

Income Class Per Capita/Month	No. of Households Group-1 Villages	Per cent to Total	No. of Households Group-2 Villages	Per cent to Total	No. of Households All 7 Villages	Per cent to Total
Rs. 0-425	53	37.32	15	37.50	68	37.36
Rs. 425-1000	46	32.39	12	30.00	58	31.87
Rs. 1000-2000	28	19.72	7	17.50	35	19.23
Rs. 2000-4000	13	9.15	5	12.50	18	9.89
Rs. 4000-6000	2	1.41	0	0.00	2	1.10
Rs. 6000 & above	0	0.00	1	2.50	1	0.55
Total	142	100.00	40	100.00	182	100.00

Discriminant analysis is a multivariate statistical method that helps us to discriminate between two (or more) samples drawn from two (or more) different populations with different means but identical standard deviations (see Kendall and Stuart, 1968, Ch. 54, pp. 314-341). In a sense, although not exactly, it may also be viewed as a multivariate parallel to "t" test used for testing the hypothesis regarding difference in two means. We propose to conduct discriminant analysis using three sets of variables, first relating to the

inputs to and the output of the agriculture sector, the second pertaining to income of the households derived from various sources and the third regarding consumption expenditure of the households on various items.

6. Discrimination on the Criteria of Agricultural Inputs and Output: We have seen that in the sample villages some households are farmers while others derive the major part of their income from hiring out their labour or they are employed in some service. Some farmer households produce mainly for consumption. They do sale their produce in the market, but the objective is not to earn the profit but to finance their consumption of other items that they have to purchase from the market. On an average, a three fourth of the consumption basket makes the goods and services thus purchased from the market. On the other hand, a number of farmers, especially in Baruajhar and Sialmari villages, produce mainly for the market. They cultivate vegetables, use modern inputs to farming and work hard to grow crops that are remunerative.

In agriculture production land, family labour (full time as well as part time), hired labour and other expenses (on inputs like seeds, irrigation, fertilizers, pesticides, etc) are the main inputs. A differential application of these inputs leads to differential yields. The results of discriminant analysis suggest that on the criterion of application of inputs and the resultant output, we may discriminate the last two villages (Baruajhar and Siamari) from other five villages. The value of Wilk's lambda is 0.641, significantly far away from unity. Among the factors of production, contributions of land and full time family labour are relatively insignificant; of the two, the discriminatory power of land (operational holding) is the weakest. The contributions of part time family labour, hired labour and other inputs are significant discriminants. This is not to say that land and full time family labour put into production are unproductive; it simply means that the first five and the last two villages do not show any significant difference in matters of applying these two types of input to the production activities. More particularly, in the Group-2 villages where farming is mostly meant for market, full time family labour is not quite prevalent. Family labour is used only partly. In most cases, family members look after marketing, management and supervision. Hired labour is used on the farms. Finally, the agricultural output is a significant discriminant between the two groups of villages. As a matter of fact, the income accruing from agriculture introduces significant inequality in income distribution, particularly in the last two villages (Group-2). In Group-1 villages no household derives from agriculture an income more than Rs. 1000 per capita per month and only about 16 percent of households are landless. On the other hand, among the Group-2 households 22.5 percent are landless and several households derive income from agriculture in the range of Rs. 1000-3000 per capita per month. Therefore, the criteria of agricultural inputs and production are able to correctly classify cent percent households from the first group of 5 villages. However, according to these criteria only 18 of the 40 households in group-2 villages are correctly classified; the rest 22 characterise as if they belong to the first group. These misclassified households are mostly either labourers or very small farmers who have not gone in for market-oriented production on their farms (see tables 6(a) and 6(b)).

Table 6 (a). Weight Vectors on the Criteria of Agricultural Inputs and Output

Variables	P (Agricultural Production.)	A (Area of Land under Operation)	FLF (Full Time Family Labour mandays)	FLP (Part Time Family Labour mandays)	HL (Hired Labour mandays)	OE (Other Expenses)	Constant
Households from Group-1	-8.81	54386.13	2.35	71.99	2651.46	5.39	-636353.55
Households from Group-2	12.85	83304.56	53.63	480.56	-4363.94	-165.96	-3581886.29

Table 6 (b). Discriminant Function Analysis : Criteria - Agricultural Inputs and Output

Variables	Wilks' Lambda	Partial Lambda	F-Remove (1,175)	Probability Level	Tolerance	(1-Toler)=(R Square)
P	0.7069	0.9075	17.8468	0.0000	0.3742	0.6258
A	0.6470	0.9915	1.5068	0.2213	0.2987	0.7013
FLF	0.6487	0.9888	1.9888	0.1602	0.2766	0.7234
FLP	0.6667	0.9621	6.8981	0.0094	0.4301	0.5699
HL	0.6685	0.9595	7.3869	0.0072	0.4565	0.5435
OE	0.6559	0.9780	3.9436	0.0486	0.3407	0.6593

Wilks' Lambda: 0.641 approx. F (6,175)=16.303 p< 0.0000

7. Discrimination on the Criteria of Income Derived from Various Sources: As it has been mentioned earlier, about 51% of the total income in the sample villages accrues from the primary sector while some 40% of the total income accrues from the tertiary sector. In the last two villages (Group-2) only a few households derive income from the tertiary sector activities, service in particular. In these villages agricultural labourers and enterprising farmers producing for the market abound. Many households are engaged in raising fish for the market. On the other hand, orchards, service, trade and commerce etc. make a substantial source of income in the first group of villages.

For the purpose of discriminant analysis we have used the amount of income accruing from different sources to the households. Agriculture, hiring out of labour, animal husbandry, fishery, orchards & plantation, trade & commerce and service are the main sources of income to the households. We have not included income from the manufacturing sector and construction in the discriminant analysis partly because this source of income fetches only a small percentage of total income and partly because these are not the source of income to the households in the villages belonging to Group-2. The results of discriminant analysis suggest that on the criteria of sources of income, the two groups of villages can be discriminated from each other. Except animal husbandry, trade & commerce and property, all the other sources of income are statistically significant discriminators. Of them, the discriminatory power of fishery and service is relatively weaker. On the other hand, farming, hiring out of labour and orchards & plantation are very powerful discriminants. Overall, the discriminatory power of the income criteria is statistically significant as indicated by the value of Wilks' lambda = 0.652, far from unity. As many as 139 of 142 households in the first group of villages are correctly classified on the basis of the sources from which they derive their income. In the second group of villages only 18 households (out of 40 households) are correctly classified while the rest

(22 households) exhibit the characteristics that misclassify them into the first group. Once again, these households are poorer households, mostly producing for self-sustenance or hiring out their labour (see tables 7(a) and 7(b)).

Nevertheless, the membership of correctly classified households in the Group-2 villages according to agricultural production (P) criteria and source of income criteria (Y) do not completely overlap. Of the 18 correctly classified genuinely belonging to Group-2 according to P criteria only 11 conform to the Y criteria (see table 9). In particular, such an overlapping is more prevalent in village 7 (Sialmari). In this village farming is much more commercialized.

Table 7 (a). Weight Vectors on the Criteria of Components of Income

Income from	Agri-culture	Hiring Labour	Animal Husbandry	Fishery	Orchards	Trade & Commerce	Service	Property	Constant
Households Group-1 Villages	9.30	98.73	109.40	-13.58	277.82	30.79	14.71	-29.58	-1388757.47
Households Group-2 Villages	61.64	294.24	162.58	28.30	19.63	17.19	5.07	-33.66	-4379341.60

Table 7 (b). Discriminant Function Analysis : On Criteria of Components of Income

Variables	Wilks' Lambda	Partial Lambda	F-Remove (1,173)	Probability Level	Tolerance	(1-Toler)= (R^2)
AGRI-CULTURE	0.6991	0.8411	32.6864	0.0000	0.4425	0.5575
HIRE LABOUR	0.7041	0.8351	34.1647	0.0000	0.8110	0.1890
ANIMAL HUSB	0.5894	0.9977	0.3955	0.5303	0.9241	0.0759
FISHERY	0.5955	0.9875	2.1939	0.1404	0.7712	0.2288
ORCHARD	0.6484	0.9068	17.7713	0.0000	0.8183	0.1817
TRADE & COMMERCE	0.5890	0.9983	0.2958	0.5872	0.8162	0.1838
SERVICE	0.6007	0.9789	3.7342	0.0549	0.9582	0.0418
PROPERTY	0.5882	0.9997	0.0449	0.8324	0.6868	0.3132

Wilks' Lambda: 0.65154 approx. F (6,173)=15.152 $p < 0.0000$

8. Discrimination on the Criteria of Consumption Expenditure: The third possible set of criteria on which the sample households in the two groups of villages may be discriminated constitutes the pattern in consumption expenditure. We have classified consumption expenditure into three major heads - expenditure on non-durables (NDE) which claims for some 71 percent of the consumption expenditure, durables (DE) which claims for some 13 percent of the total consumption expenditure and consumption expenditure on other items (OCE) which claims for the rest 17 percent of the total expenditure on consumption. This third category (OCE) includes expenditure on education, festivities, and the miscellany.

Discriminant analysis indicates that the criteria of consumption expenditure fail to discriminate between the households of the two groups of villages (see tables 8(a) and 8(b)). The Wilks' lambda is = 0.983, not statistically different from unity. Of course, there is some discriminatory strength in consumption expenditure on the durables (DE), but it is significance is at only 20% of the probability level. This finding corroborates the observation as to the marginal propensity of the sample household to consume being quite small (0.34) in C= 29396.19 + 0.34Y (see Daimari & Mishra, 2005). Not only the poorer but relatively better off households too are thrifty. Consumption is primarily determined by the necessities and the family size, only secondarily and less importantly by the level of income of the households. The thrifty habits of the households (especially in the Group-2 villages) contribute to the savings for investment and the security against the possible harsh eventualities. In turn, accumulation of wealth in a fewer hands leads to inequality. We find that especially in the Group-2 villages inequality in income distribution is quite acute; the Gini index is = 48.69.

Table 8(a). Weight Vectors on the Criteria of Components of Consumption

Expenditure on	Non-Durable Items (NDE)	Durable Items (DE)	Other Consumable Items (OCE)	Constant
Households Group-1 Village	948.51	-140.27	-4.73	-3166941.64
Households Group-2 Villages	990.72	-299.39	-46.93	-4481038.57

Table 8(b). Discriminant Function Analysis : On Criteria of Components of Consumption

Variables	Wilks' Lambda	Partial Lambda	F-Remove (1,178)	Probability Level	Tolerance	(1-Toler) (R^2)
NDE	0.9847	0.9982	0.3135	0.5763	0.8296	0.1704
DE	0.9928	0.9901	1.7853	0.1832	0.7264	0.2736
OCE	0.9845	0.9985	0.2761	0.5999	0.7794	0.2206

Wilks' Lambda: 0.98294 approx. F (6,178)=1.0296 p < 0.3808

9. The Efficiency of Discriminant Analysis on the three sets of Criteria : Table 10 summarizes the findings of discriminant analysis carried out on three sets of criteria laid down earlier. While the criteria of agricultural inputs and output correctly classify all 142 households of the Group-1 villages, they misclassify as many as 22 households of the Group-2 villages. Thus, according to these criteria only 18 households from Group-2 villages are correctly classified. As it has been mentioned earlier, the misclassified households of Group-2 villages are labourers or small farmers who do not partake of the characteristics of Group-2 (market-oriented farmers). Similarly, the criteria of income from different sources correctly classify 139 (out of 142) households from Group-1 villages and 18 (out of 40) households from Group-2 villages. As in the case of the first set of criteria, the misclassified households from Group-2 villages are poorer farmers and three misclassified households from Group-1 villages are rich households. There is an overlapping between the two sets of criteria (see table 9) in which 11 households from Group-2 villages are common. Lastly, the criteria of consumption expenditure cannot discriminate between the households of the two groups of villages. All households exhibit the characteristics of the Group-1 type.

Table 9. Discriminant Score Diagram of Group-1 and Group-2 Sample Households

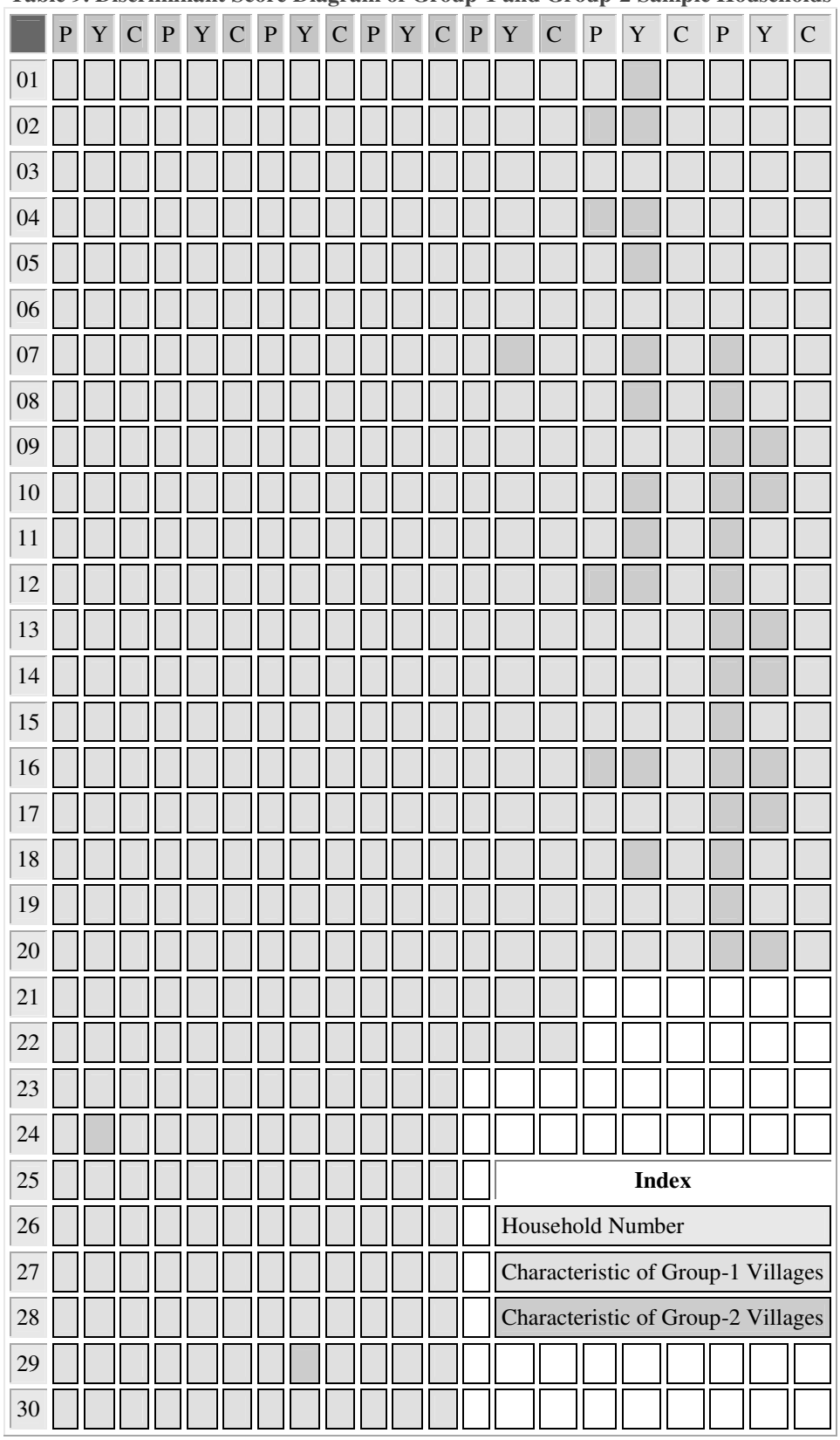

Table 10. Efficiency of Discrimination by the three sets of Criteria

Group	% Correct Class (P)	Group-1 (P)	Group-2 (P)	% Correct Class (Y)	Group-1 (Y)	Group-2 (Y)	% Correct Class (C)	Group-1 (C)	Group-2 (C)	**Total**
Group-1 (First 5 Villages)	100.00	142	0	97.89	139	3	100.00	142	0	142
Group-2 (Last 2 Villages)	45.00	22	18	42.00	22	18	0.00	40	0	40
Total	87.91	164	18	86.26	161	21	78.02	182	0	182

10. Conclusion : Our analysis may be concluded in a few lines. First, the households of two groups of villages (the Group-1 consisting indigenous population and the Group-2 consisting the immigrants from Bangladesh) can be discriminated among themselves on the criteria of farming efforts (the inputs they apply to agriculture and the output they raise on the land) as well as the sources of income harnessed by them. The inhabitants of Group-2 villages, once they have enough land to cultivate, practise commercial agriculture for the market to earn higher income, but the inhabitants of the Group-1 villages still continue with the traditional agriculture, chiefly with an objective to sustenance, in spite of having enough land to cultivate. The land resources make little difference to economic achievements across the two groups of villages. In short, the farmers of Group-2 villages, whenever feasible, are enterprising. Secondly, most of the farmers in Group-2 villages apply family labour for supervision, management and marketing of the produce. To work on farms they hire labourers abundantly available in the village itself and in other villages around.Thirdly, many households in the Group-1 villages derive income from service and orchards (which characterizes an extensive use of land). On the other hand, most of the households of the Group-2 villages (who own land) use land intensively. Fourthly, many inhabitants of Group-2 villages, in spite of being economically well off, are thrifty. They save to invest or to tide over the adversities and eventualities. Inhabitants of Group-1 villages spend less owing to the paucity of resources. But whenever the resources permit, they do spend lavishly. As a matter of fact, their expenses on festivities are significant. On the other hand, the inhabitants of the Group-2 villages are frugal. Lastly, there is a more acute inequality in income distribution in the Group-2 villages than in the Group-1 villages. This inequality is the result of agricultural growth that has come to a few resourceful and enterprising farmers in the Group-2 villages. Agricultural development often results into enhancement of inequality. It is not scale neutral, nor does it preserve the original distribution of productive resources in its wake (see Rudra, 1982, pp. 223-234). By altering the original distribution of productive resources in favour of the more enterprising and the more rich, growth accentuates inequality. This tendency has been observed in the Group-2 villages.

References

1. **Coats, AW** (1971) *The Classical Economists and Economic Policy*, Methuen, London
2. **Daimari, P and SK Mishra** (2005) Poverty and Inequality in Rural Assam : An Indicative Study of Seven Villages in Udalguri Subdivision, at http://www.nereco.owns1.com
3. **Hirsch, Fred** (1978) *Social Limits to Growth*, Harvard Univ. Press, Cambridge, Mass.
4. **Hofstede, Geert** (2001) *Culture's Consequences : Comparing Values, Behaviors, Institutions, and Organizations Across Nations* , (2nd ed) Sage Publications, Thousand Oaks, CA
5. **Howbora, B Gogoi** (1988) *A Comparative Study of Tribal and Non-tribal Agricultural practices and itseffects on Agricultural Development*, Unpub. MPhil Dissertation, Dept. of Economics, NEHU, Shillong.
6. **Kendall, MG and A Stuart** (1968) *The Advanced Theory of Statistics* (Vol 3), Charles Griffin & Co. London.
7. **Mishra, Vikas** (1962) *Hinduism and Economic Growth*, Oxford Univ. Press, Bombay.
8. **Noland, Marcus** (2003) *Religion, Culture and Economic Performance*, Working Paper 03-8 Institute for International Economics, Massachusetts Avenue, NW. Washington, DC.
9. **Rudra, Ashok** (1982) *Indian Agricultural Economics : Myths and Realities*, Allied Publishers, New Delhi.
10. **Schultz, TW** (1964) *Transforming Traditional Agriculture*, Lyall Book Depot, Ludhiana.
11. **Smith, Adam** (1759) *The Theory of the Moral Sentiments*, Bell, London (reprint 1907).
12. **Tawney, Richard H** (1926) *Religion and the Rise of Capitalism*, John Murray, London. (reprint 1964).
13. **Weber, Max** (1904) *The Protestant Ethic and the Spirit of Capitalism*, Scribner's Sons, New York (Reprint 1958).