



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Vol XXIV
No. 4

ISSN 0019-5014

CONFERENCE
NUMBER

OCTOBER-
DECEMBER
1969

INDIAN JOURNAL OF AGRICULTURAL ECONOMICS



INDIAN SOCIETY OF
AGRICULTURAL ECONOMICS,
BOMBAY

FACTORS INFLUENCING CAPITAL FORMATION IN AGRICULTURE

BAIDYANATH MISRA

Professor of Agricultural Economics and Dean, Faculty of Agriculture

AND

SURESH CHANDRA MALICK

Utkal Krushi Mahavidyalaya, Bhubaneswar

It is now recognized that without adequate investment of capital, agriculture cannot make substantial contribution to the economic development of the country. We have not only to make agriculture a business proposition to meet the growing demands of the people, effort has also to be made to derive a surplus from agriculture for industrial development of the country. In view of the importance of capital formation in agriculture three studies were conducted, two in Andhra Pradesh and one in Orissa, to examine the possibilities of capital formation.¹ Since the three studies refer to three regions, an attempt has been made in this paper to find out the common factors influencing capital formation in agriculture.

Economic Background

The three regions chosen for the purpose of the study have distinct characteristics. The Chittoor taluk of Andhra Pradesh comes under 'low lands' in the southern most strip of Andhra Pradesh. Two rivers, Niva and Ponnai flow through the taluk, but they have little importance as major sources of irrigation since water flows in them only during monsoon season. The taluk consists of 214 villages of which two villages, Anupalle at a distance of 5 miles from Chittoor towards the south and Kothavenkatapuram, at a distance of 15 miles towards the south-eastern side have been chosen for the purpose of the study. The area has a rainfall of about 28.80" per annum. The minimum temperature varies from 64°F to 74°F and maximum temperature varies from 92.4°F to 106.3°F. This region comes under red soil zone. The soil texture of the urban village (Anupalli) ranges from gravelly to loamy, whereas the soil texture of the rural village (Kothavenkatapuram) varies from loamy to sandy. These soils are deficient in organic matter and poor in plant nutrients. The main sources of irrigation in the taluk and the sample villages are wells and tanks and therefore each village has irrigated and unirrigated holdings. Lack of perennial source of irrigation makes agriculture a gamble on the monsoon since the wells and tanks

1. The three studies referred to are : (1) B. Sridharan : Possibilities of Capital Formation in Chittoor Taluk, Chittoor District, Andhra Pradesh, 1965. (2) Bidhubhusan Samal : Possibilities of Capital Formation in Salipur Police Station, Cuttack District, Orissa, 1966. (3) K. Rama Krishna: Possibilities of Capital Formation in Agriculture in Bapatala Taluk, Guntur District, Andhra Pradesh, 1967.

All the three studies were dissertations submitted in partial fulfilment of the requirements for the degree of M.Sc.(Ag.) in Agricultural Economics of the Orissa University of Agriculture and Technology. They were conducted under the guidance of Dr. B. Misra, Orissa University of Agriculture and Technology, Bhubaneswar.

are dried up during the summer. The crop pattern of the villages indicates that in the urban village, mostly paddy (26.50 per cent of the area), groundnut (39.10 per cent), sugarcane (16.80 per cent) and mango (10.20 per cent) are grown while in the rural village mostly groundnut (38.20 per cent), paddy (28.05 per cent), *ragi* (11.40 per cent), sugarcane (9.79 per cent) and mango (9.21 per cent) are grown.

Salipur in Orissa is situated to the south of Cuttack and comprises an area of 186 sq. miles. Two canals, Kendrapara and Pattamundeï run through the Salipur Police Station. Besides two rivers, Luni and Chitroptala also wash the land of the Salipur Police Station. Since the entire Salipur Block I has irrigational facility, two villages have been selected from this block to represent irrigated conditions of urban and rural area and two other villages have been selected from Block II to represent unirrigated conditions of rural and urban area. The minimum temperature in the area varies from 69.6°F to 74.5°F and the maximum temperature varies from 88.7°F to 103.6°F. The annual rainfall in the year 1964-65 was 1429.92 millimetres of which 79.70 per cent was distributed from June to September. For the most part of the region soil ranges from stiff clay to sandy loam. The most important crop in this area is paddy and it occupies more than 75 per cent of the total cropped area. Besides this, jute, groundnut, pulses like *mung* and horsegram, and vegetables like cabbage, cauliflower, colocasia, potato are also grown. In the irrigated area, more cash crops are grown than in the unirrigated area.

The Bapatala taluk in Andhra is in Guntur district which is situated to the south of Guntur town. It has 40 miles of sea coast. The Buckingham canal and its tributaries run through the taluk which are the sources of irrigation. The minimum temperature of the region ranges from 62°F to 72°F and maximum temperature ranges from 92.4°F to 107.4°F. The annual rainfall is about 945.2 millimetres, 61.47 per cent of the rainfall is concentrated from June to September. The entire land of the region has, in general, light clay loamy soil and the coastal area has sandy soils. With regard to cropping pattern, it is found that more than 75 per cent of the total cropped area in the irrigated villages is occupied by paddy, whereas in the case of unirrigated villages, cash crops like tobacco, chillies, coriander and vegetables are extensively grown. The peculiar feature of the area is that more cash crops are grown in unirrigated area than in the irrigated area.

Objectives of the Studies and Methodology

All the three studies have the same objectives, *i.e.*, to examine the effect of irrigation, urbanisation and size of holdings on capital formation. Data have been collected by survey method and two stage random sampling techniques have been adopted in all these studies. The villages which are near about a town have been classified as urban and the villages which are far from a town as rural. All the studies have taken four types of land, *i.e.*, urban irrigated, urban unirrigated, rural irrigated and rural unirrigated. The holdings of each such type have been classified into three size-groups of acres, 0—5, 5—10 and 10 and above. Further, from each such type and from each size-group, three holdings have been selected at random for the purpose of the present study. Thus the total number of holdings in each study comes to 36.

Scope of Analysis

The present paper makes an attempt to compare the similarities and dissimilarities between different regions in regard to different components of capital formation such as farm business income (agriculture), farm business income (supplementary enterprises), non-agricultural income, total income per family, total expenditure, net amount available for capital formation and capital formation per family. And while making comparison, analysis of variance has, wherever possible, been made to test the significance. In some cases also, coefficient of correlation has been estimated and their significance tested to determine the existence of correlation.

II

Income is the major source of capital formation. It is derived from different sources. Table I presents a picture of total income which constitutes farm business income from agriculture, farm business income from supplementary enterprises and non-agricultural income.

TABLE I—VARIATION IN TOTAL INCOME PER FARM IN ALL CATEGORIES OF VILLAGES WITH VARYING SIZES OF HOLDINGS

Area	Size-group (acres)	<i>(in Rs.)</i>			
		Urban		Rural	
		Irrigated	Unirrigated	Irrigated	Unirrigated
Chittoor	0 — 5	2,448·39	2,333·62	2,051·55	1,287·00
	5 — 10	4,028·38	2,862·75	2,949·98	1,708·01
	10 and above	6,649·25	13,025·33	6,912·55	5,005·09
	All farms (Average)	4,375·33	6,073·91	3,971·36	2,666·70
Salipur	0 — 5	2,125·26	1,451·86	2,365·28	1,534·13
	5 — 10	3,052·95	1,706·74	4,559·35	3,074·81
	10 and above	7,718·07	9,177·77	10,181·61	7,601·88
	All farms (Average)	4,298·76	4,112·12	5,702·08	4,070·27
Baptala	0 — 5	2,624·07	2,371·72	2,273·43	2,070·48
	5 — 10	4,649·95	4,667·78	4,087·62	3,680·83
	10 and above	7,983·05	6,880·33	6,098·36	6,357·92
	All farms (Average)	5,085·69	4,639·94	4,153·14	4,036·41

Both the Chittoor and Bapatala studies reveal that the total income of urban villages is significantly higher than that of rural villages. On the other hand, Salipur study indicates that the total income of rural villages is higher than that of urban villages. This only implies that unless the villages are sufficiently urbanised, urbanisation cannot increase income.

All the studies show that irrigation has considerable effect on total income, both in rural and urban areas except in the highest size-groups of holdings in Chittoor and Salipur. In the case of Chittoor, the deviation is due to the existence of orchards in non-irrigated holdings. In Salipur the cause is not known.

The inter-holding differences between different size-groups are highly significant. All the studies show that total income increases along with increase in the size of holdings.

Table II presents data on farm business income from agriculture. This includes profit from agriculture, family labour wage and interest on owned capital.

TABLE II—VARIATION IN THE FARM BUSINESS INCOME PER FARM IN VARIOUS SUB-CLASSES OF HOLDINGS IN ALL CATEGORIES OF VILLAGES

(in Rs.)

Area	Size-group (acres)	Urban		Rural	
		Irrigated	Unirrigated	Irrigated	Unirrigated
Chittoor	0 — 5	2,113·21	1,166·52	1,723·01	826·24
	5 — 10	3,564·72	2,173·49	2,608·68	1,249·55
	10 and above	6,046·40	5,368·16	6,492·44	3,086·66
	All farms (Average)	3,908·10	2,902·72	3,608·04	1,720·82
Salipur	0 — 5	1,070·51	333·99	1,523·08	273·24
	5 — 10	2,071·12	1,034·88	2,407·59	213·17
	10 and above	3,857·39	1,458·95	7,974·34	1,736·57
	All farms (Average)	2,333·01	942·61	3,968·34	740·99
Bapatala	0 — 5	1,299·47	1,243·04	1,373·63	1,170·53
	5 — 10	3,448·82	3,920·23	1,997·92	1,572·20
	10 and above	5,158·97	2,692·58	4,506·50	3,934·27
	All farms (Average)	3,302·42	2,618·61	3,112·82	2,225·67

All the three studies confirm that irrigation increases farm business income irrespective of location and size of holdings. Both the Bapatala and Salipur studies reveal that the effect of irrigation is significant at one per cent level of probability ('F' value in both the cases being 8.89 and 34.06 respectively) while for Chittoor, it is significant at 5 per cent level of probability ('F' value being 5.40).

There is no perceptible trend with regard to the effects of urbanisation. However, it can be said that except in Salipur area where urbanisation is not yet a powerful factor to influence income, in other areas urbanisation influences farm business income from agriculture, though not significantly.

All the three studies show that with the increase in the size of holdings, there is increase in farm business income from agriculture. There is only one exception as in the case of Bapatala.

Table III shows farm business income from supplementary enterprises which includes income from activities like dairying, fishery, poultry, horticulture and bee-keeping.

TABLE III—DISTRIBUTION OF FARM BUSINESS INCOME FROM SUPPLEMENTARY ENTERPRISES IN ALL CATEGORIES OF VILLAGES WITH VARYING SIZES OF HOLDINGS

(in Rs. per farm)

Area	Size-group (acres)	Urban		Rural	
		Irrigated	Unirrigated	Irrigated	Unirrigated
Chittoor	0 — 5	335.18	501.10	268.54	343.76
	5 — 10	463.66	689.26	161.30	245.46
	10 and above	512.85	7,567.17	420.11	1,918.43
	All farms (Average)	437.23	2,919.17	283.32	835.88
Salipur	0 — 5	345.42	564.54	373.87	594.23
	5 — 10	473.17	671.86	485.10	741.64
	10 and above	561.70	1,558.82	618.41	1,666.59
	All farms (Average)	460.09	931.74	492.46	1,000.82
Bapatala	0 — 5	278.65	287.43	209.15	186.00
	5 — 10	338.73	311.65	237.20	218.18
	10 and above	422.08	387.25	320.66	273.50
	All farms (Average)	346.49	328.78	255.67	225.89

Both the Chittoor and Bapatala studies show that farm business income from supplementary enterprises is more in urban villages than in rural villages due to greater market facility and greater demand for eggs and milk among the people of urban areas. In the case of Salipur, urbanisation does not seem to have any effect on farm business income from supplementary enterprises.

The table further shows that in unirrigated holdings of Chittoor and Salipur, farm business income from supplementary enterprises is more than that in irrigated holdings. This is obviously due to the fact that since intensive cultivation is not possible due to lack of irrigation facility, people in unirrigated villages take to supplementary enterprises to increase their income. In Bapatala, however, no such trend is visible. Irrigated and non-irrigated villages have more or less the same farm business income from supplementary enterprises.

All the studies indicate that with the higher size-group, there is increase in farm business income from supplementary enterprises due to the availability of more funds for investment and greater supply of labour for employment.

In addition to farm business income, the farmers also derive income from non-agricultural occupations like service, carpentry, contractory, pottery, etc. (Table IV).

TABLE IV—DISTRIBUTION OF EARNINGS FROM NON-AGRICULTURAL OCCUPATIONS IN ALL CATEGORIES OF VILLAGES WITH VARYING SIZES OF HOLDINGS

(in Rs. per farm)

Area	Size-group (acres)	Urban		Rural	
		Irrigated	Unirrigated	Irrigated	Unirrigated
Chittoor	0 — 5	—	666·00	60·00	117·00
	5 — 10	—	—	180·00	213·00
	10 and above	90·00	90·00	—	—
	All farms (Average)	30·00	252·00	80·00	110·00
Salipur	0 — 5	709·33	553·33	468·33	666·66
	5 — 10	508·66	—	1,666·66	2,120·00
	10 and above	3,298·98	6,160·00	1,588·86	4,198·72
	All farms (Average)	1,505·66	2,237·77	1,241·28	2,328·46
Bapatala	0 — 5	1,045·95	841·25	690·65	713·95
	5 — 10	862·40	435·90	1,852·50	1,890·45
	10 and above	2,402·00	3,800·50	1,271·20	2,150·15
	All farms (Average)	1,436·78	1,692·55	1,271·45	1,584·85

The table does not give any definite trend due to the fact that non-agricultural occupations have not yet sufficiently developed. Yet it is found that wherever there is less of irrigation, there is generally more of non-agricultural occupation. In urban areas, there is also scope for more non-agricultural occupations even though there is no definite trend.

III

An analysis of income and expenditure has to be made in order to assess the surplus available for capital formation. Tables V, VI and VII analyse family living expenses.

Table V shows the distribution of total living expenses per family. All kinds of living expenses like food, clothing, housing, fuel, education, stimulants, etc., have been taken into account in calculating family living expenses.

TABLE V—DISTRIBUTION OF TOTAL LIVING EXPENSES PER FAMILY IN ALL CATEGORIES OF VILLAGES WITH VARYING SIZES OF HOLDINGS

(in Rs.)

Area	Size-group (acres)	Urban		Rural	
		Irrigated	Unirrigated	Irrigated	Unirrigated
Chittoor	0 — 5	2,133·00	2,037·00	1,826·00	1,415·00
	5 — 10	2,746·00	2,251·00	2,268·00	1,586·00
	10 and above	4,425·00	8,164·00	4,902·00	3,080·00
	All farms (Average)	3,101·33	4,150·67	2,998·66	2,027·00
Salipur	0 — 5	1,789·66	1,270·66	2,051·33	1,392·33
	5 — 10	2,481·66	1,124·21	3,176·16	2,684·00
	10 and above	3,301·83	7,794·66	8,223·96	6,708·50
	All farms (Average)	2,524·38	3,396·51	4,483·81	3,594·94
Baptala	0 — 5	2,213·39	2,124·22	2,013·17	1,926·17
	5 — 10	3,375·79	3,635·66	3,073·35	3,026·09
	10 and above	5,303·94	4,958·69	4,340·93	4,608·49
	All farms (Average)	3,631·04	3,572·86	3,142·48	3,186·92

The studies reveal two things. One is wherever there is more income, the level of consumption is found to be greater. For example, the higher size-group of holdings have more income and as such, the level of consumption is greater there. Secondly, except in the case of Salipur where the effect of urbanisation is not yet strong, urbanisation is found to increase the level of consumption. However, it is interesting to study the relationship between income and level of consumption (Table VI).

TABLE VI—TOTAL FAMILY LIVING EXPENSES AS PERCENTAGE OF INCOME IN VARIOUS SUB-CLASSES OF HOLDINGS

(in Rs.)

Area	Size-group (acres)	Urban		Rural	
		Irrigated	Unirrigated	Irrigated	Unirrigated
Chittoor	0 — 5	87·12	87·29	89·01	109·95
	5 — 10	68·17	78·63	76·89	92·86
	10 and above	66·55	62·68	70·91	61·54
	All farms (Average)	70·88	68·34	75·51	76·01
Salipur	0 — 5	84·21	87·52	86·73	90·76
	5 — 10	81·29	65·87	69·66	87·29
	10 and above	42·78	84·93	80·77	88·25
	All farms (Average)	58·72	82·59	78·63	88·32
Baptala	0 — 5	84·35	89·56	88·55	93·03
	5 — 10	72·60	77·89	75·19	82·21
	10 and above	66·44	72·07	71·18	72·48
	All farms (Average)	71·40	77·00	75·67	78·95

The table shows that along with the increase of income, the percentage of income spent on level of consumption becomes less. This is in conformity with the Engel's law. It is again found that the percentage of income spent on family living expenses is greater in rural areas than in urban areas. No satisfactory explanation can be attributed to this except the fact that rural areas do not have sufficient amenities for saving. It may also be due to the fact that at a low level of income, the percentage of income spent on family living expenses is greater than

at a higher level of income. This is confirmed by Table VII which shows the expenditure on food and non-food items as percentage of total family living expenses.

TABLE VII—EXPENDITURE ON FOOD AND NON-FOOD ITEMS AS PERCENTAGE OF TOTAL FAMILY LIVING EXPENSES IN ALL TYPES OF VILLAGES IN ALL THE REGIONS

Area	Size-group (acres)	Urban				Rural			
		Irrigated		Unirrigated		Irrigated		Unirrigated	
		Food	Non- food	Food	Non- food	Food	Non- food	Food	Non- food
Chittoor	0 — 5	73·78	26·22	78·09	21·91	80·64	19·36	84·53	15·47
	5 — 10	64·53	35·47	67·22	32·78	69·87	30·13	75·43	24·57
	10 and above	57·12	42·88	55·81	44·19	57·67	42·33	60·01	39·99
	All farms (Average)	65·14	34·85	67·04	32·96	69·39	30·60	73·32	26·67
Salipur	0 — 5	68·25	31·75	69·09	30·91	72·38	27·62	73·94	26·06
	5 — 10	62·35	37·65	65·38	34·62	68·47	31·53	70·38	29·62
	10 and above	58·12	41·88	63·46	36·54	63·48	36·52	65·86	34·14
	All farms (Average)	62·90	37·10	65·97	34·03	68·11	31·89	70·06	29·94
Baptala	0 — 5	68·79	31·21	71·78	28·22	72·49	27·51	74·31	25·69
	5 — 10	62·48	37·52	64·09	35·91	66·14	33·86	67·13	32·87
	10 and above	57·79	42·21	58·58	41·42	59·01	40·99	64·44	35·56
	All farms (Average)	63·02	36·98	64·82	35·18	65·88	34·12	68·63	31·37

The table shows that the lower income groups spend a higher percentage of their income on food and the higher income groups spend a higher percentage of their income on non-food items. That is why it is seen from the table that the rural areas spend more of their income on food items and urban areas spend more of their income on non-food items. Table VIII gives the correlation coefficient between income and percentage of expenditure.

The presence of negative sign in the case of correlation coefficients of income with the percentage of expenditure on food (Table VIII) indicates the presence of negative correlation even though some coefficients are significant. This means that with the increase in income, there is a proportionate decrease in the expenditure on food. On the other hand, the presence of positive sign of the correlation coefficient for non-food items indicates that there is increase in the percentage of expenditure on non-food items with increase in income.

TABLE VIII—CORRELATION COEFFICIENT BETWEEN INCOME AND PERCENTAGE OF EXPENDITURE IN ALL TYPES OF VILLAGES IN ALL THE REGIONS

Area	Variables	Urban		Rural	
		Irrigated	Unirrigated	Irrigated	Unirrigated
Chittoor	A	—·68*	—·40	—·70*	—·50
	B	+·74*	+·50	+·71*	+·50
Salipur	A	—·75**	—·55	—·82**	—·83**
	B	+·70*	+·47	+·85**	+·83**
Baptala	A	—·71*	—·39	—·74*	—·47
	B	+·75*	+·50	+·72*	+·50
Where	A = Income with percentage expenditure on food. B = Income with percentage expenditure on non-food. * = Significant at 5 per cent level of probability. ** = Significant at 1 per cent level of probability.				

IV

Capital formation depends on the availability of savings. Once income and expenditure are known, it is easy to estimate the net fund available for investment. Table IX throws light on net fund available for capital formation.

TABLE IX—EXTENT OF FUND AVAILABLE FOR CAPITAL FORMATION IN ALL CATEGORIES OF VILLAGES WITH VARYING SIZES OF HOLDINGS IN ALL THE THREE REGIONS

(in Rs.)

Area	Size-group (acres)	Urban		Rural	
		Irrigated	Unirrigated	Irrigated	Unirrigated
Chittoor	0 — 5	315·39	296·62	225·55	—128·00
	5 — 10	1,282·38	611·75	681·98	122·01
	10 and above	2,224·25	4,861·33	2,010·55	1,925·09
	All farms (Average)	1,274·00	1,923·24	972·70	639·70
Salipur	0 — 5	335·60	181·20	313·95	141·80
	5 — 10	571·29	582·53	1,383·19	390·81
	10 and above	4,416·24	1,383·11	1,957·65	893·38
	All farms (Average)	1,774·38	715·61	1,218·27	475·33
Baptala	0 — 5	410·68	247·50	260·26	144·31
	5 — 10	1,274·16	1,032·12	1,014·27	654·74
	10 and above	2,679·11	1,921·64	1,757·43	1,749·43
	All farms (Average)	1,454·65	1,067·08	1,010·65	849·49

Except with some minor exceptions, the table shows that irrigation, urbanisation and higher size of holdings increase the net fund available for investment. Of the three, the most important factor seems to be the size of holdings. The higher the size, the greater is the investible surplus.

But the entire amount of investible surplus cannot be used for capital formation. To determine the size of capital formation, it is necessary to deduct the outstanding loan, if any. Table X shows the extent of outstanding current loan per family.

TABLE X—OUTSTANDING CURRENT LOANS PER FAMILY IN ALL CATEGORIES OF VILLAGES WITH VARYING SIZES OF HOLDINGS

(in Rs.)

Area	Size-group (acres)	Urban		Rural	
		Irrigated	Unirrigated	Irrigated	Unirrigated
Chittoor	0 — 5	150·00	200·00	166·00	333·00
	5 — 10	298·00	350·00	—	133·00
	10 and above	1,500·00	2,000·00	800·00	1,000·00
	All farms (Average)	649·33	850·00	322·00	488·00
Salipur	0 — 5	120·00	175·00	—	120·00
	5 — 10	—	200·00	—	190·00
	10 and above	1,100·00	1,145·00	1,314·00	680·00
	All farms (Average)	406·67	506·67	438·00	330·00
Baptala	0 — 5	150·00	190·00	125·00	140·00
	5 — 10	325·00	400·00	275·00	325·00
	10 and above	1,500·00	1,200·00	800·00	1,200·00
	All farms (Average)	658·33	596·67	400·00	555·00

It may be noted that generally the non-irrigated holdings in both the urban and rural villages have more outstanding current loan than the irrigated holdings. This seems to be due to the low farm business income from crop husbandry in unirrigated holdings. The table also shows that the urban villages have more outstanding current loan than the rural holdings. This may be due to the fact that there are greater opportunities for incurring loan in urban areas. There is no indication to show that these loans are incurred for the purpose of making investment in agriculture. In the case of size of holdings, it is found that the

higher the size, the greater is the outstanding current loan. These loans are mainly for increasing productive investment.

In the light of foregoing analysis, it is now possible to estimate the net fund available for capital formation which has been done in Table XI.

TABLE XI—EXTENT OF NET FUND AVAILABLE FOR CAPITAL FORMATION

(in Rs. per farm)

Area	Size-group (acres)	Urban		Rural	
		Irrigated	Unirrigated	Irrigated	Unirrigated
Chittoor	0 — 5	165.39	96.62	59.55	—461.00
	5 — 10	984.38	261.75	681.98	—10.99
	10 and above	724.25	2,861.33	1,210.55	925.09
	All farms (Average)	624.67	1,073.24	650.70	521.70
Salipur	0 — 5	215.60	6.20	313.95	21.80
	5 — 10	571.29	382.53	1,383.19	200.81
	10 and above	3,316.24	238.11	643.65	213.38
	All farms (Average)	1,367.71	208.94	780.27	145.33
Baptala	0 — 5	260.68	57.50	135.26	4.31
	5 — 10	949.16	632.12	739.27	329.74
	10 and above	1,179.11	721.64	957.43	549.43
	All farms (Average)	796.32	470.41	610.65	294.49

The table confirms the general statement that irrigation and urbanisation have positive effect on capital formation. The table also proves that with the increase in size of farms, there is increase in capital formation. The exceptions in the case of the highest size-group of holdings in Chittoor (urban irrigated) and the highest size-groups of holdings in Salipur (both urban irrigated and rural irrigated) are due to high outstanding current loans incurred in the year under study for some permanent improvements on the farms.

Table XII which measures capital formation per family also confirms the above hypothesis.

TABLE XII—CAPITAL FORMATION PER FAMILY IN RUPEES AND AS PERCENTAGE OF INCOME PER FAMILY

Area	Size-group (acres)	Urban		Rural	
		Irrigated	Unirrigated	Irrigated	Unirrigated
Chittoor	0 — 5	743.30 (30.36)	383.33 (16.43)	425.00 (20.72)	—
	5 — 10	1,490.40 (37.00)	613.33 (21.42)	902.72 (30.60)	341.60 (20.00)
	10 and above	3,058.00 (45.99)	4,490.00 (34.47)	2,169.16 (31.38)	1,550.00 (30.97)
	All farms (Average)	1,763.90 (40.31)	1,828.89 (30.11)	1,165.62 (29.35)	630.53 (23.64)
Salipur	0 — 5	234.52 (11.03)	131.32 (9.04)	251.02 (10.61)	82.00 (5.34)
	5 — 10	408.43 (13.38)	193.98 (11.36)	426.20 (9.35)	254.13 (8.26)
	10 and above	516.12 (6.69)	410.32 (4.47)	580.20 (5.70)	133.99 (1.76)
	All farms (Average)	386.36 (8.99)	245.20 (5.96)	419.14 (7.35)	156.70 (3.85)
Baptala	0 — 5	375.52 (14.31)	178.95 (7.55)	220.30 (9.69)	128.43 (6.20)
	5 — 10	983.63 (21.15)	742.52 (15.91)	850.48 (20.81)	448.00 (12.17)
	10 and above	1,912.86 (23.95)	1,865.65 (27.13)	1,290.20 (21.16)	850.43 (13.38)
	All farms (Average)	1,090.67 (21.44)	929.04 (20.02)	783.99 (18.95)	475.62 (11.78)

Note: Figures in brackets indicate percentage.

The study therefore reveals two important things. First irrigation, urbanisation and size of holdings have positive effect on capital formation. Second, with higher income, the greater is the percentage of income devoted to capital formation. The difference in regions do not contradict this hypothesis. It follows therefore that the size of holdings, irrigational facilities and urbanisation should be increased so as to increase the net fund available for capital formation.