

## **Sources and Uses of Agricultural Credit by Farmers In Dera Ismail Khan (District) Khyber Pakhtonkhawa Pakistan**

Muhammad Amjad Saleem  
Govt college of Management Sciences D.I.Khan

### **Abstract**

The role of credit in agricultural economy is vital and its restraints which can affect farmer's investment actions necessitate the analysis of sources of agricultural credit and its uses in Dera Ismail Khan. Data was collected from three hundred and twenty respondents through structured questionnaire who were selected randomly. The study found that most of the respondents obtained loans through formal sources. Commercial banks were found the most popular source and credit was mostly used for production purposes. The results also showed that larger percentage of the credit obtained by most of the respondents was used for seeds, fertilizers and pesticides. However, to ensure effective utilization of sources of credit, establishment of agricultural and commercial banks in the rural areas with simple procedures of securing loans, mobilization of farmers into formidable groups in order to enjoy the benefit of collective investment of group savings and demonstration regarding use of new farm technology by extension agents with in reach of farmers is recommended.

**Key Words** Agriculture credit, Sources of credit, Uses of credit

### **Introduction**

Agriculture is the main stay of peoples of Dera Ismail Khan. Seventy five percent of populations derive its earning directly or indirectly from agriculture. Till recently farmers were a poor segment of population of this district with meager income, barren land and limited technical know how. They were not aware of the new varieties and modern techniques of agriculture. Farming was run on primitive lines and crop yields per acre were very low. This state of affairs was a challenge to the farmers, policy makers and the organizations connected with the uplift of the farming. Farmers were compelled to change their mode of thinking and it was the extension workers and credit providing institution that provided them guidance and necessary finance on every step toward their destiny.

Agriculture is the main fountain of food, raw material, labor, capital, foreign exchange, and a market for other sectors. It is the life force of all steps of economic development. So it comes prior to industrial development (Meller et al, 1961; Wichmann, 1997). Agriculture is an important sector in Pakistan's economy, accounting for a quarter of gross domestic product (GDP) and roughly two-thirds of exports value (Gustavo et al, 2006). Agricultural credit is the route of obtaining command over the use of money, goods and services in the present in exchange for a promise to repay at future date. It increases productivity and promotes living standard by alleviating poverty of small scale farmers (Adegeye and Ditto, 1985). The credit facilities enable poor farmers to employ higher resource and capacity utilization. Output is increased

and hence income. In this way poverty in rural areas is reduced (Olagunju, 2007). In Pakistan there are two chief sources of agricultural credit, non-institutional and institutional sources. The non-institutional credit suppliers include friends; neighbors and professional moneylenders are the main source of credit in the country. Institutional sources comprise of cooperative banks, Zarai Taraqiati Bank Ltd. (ZTBL), nationalized and privatized commercial banks and Taccavi credits (ADBP, 1996). Zarai Taraqiati Bank Ltd. (ZTBL) consolidated and intensified its function to play an effective role in financing of farm investments to renovate agriculture, increase farm production and lift farm returns. The bank continued to push forward the on-going programmes and projects relating to provision of credit and technology to targets groups covering landless, subsistence, small farmers and rural women through its credit programme (Government of Pakistan, 2002).

### **Literature Review**

Credit sources may be formal and informal. Formal sources are also called as institutional sources such as co-operative banks, commercial banks, and government loans. Informal sources are also called as non-institutional sources such as. Professional and agricultural moneylenders, co-operative societies, traders and Commission agents, relatives and friends etc

Informal sources are neither time consuming nor procedural. They are at high interest rates (Hussein, 2007). Most of informal sources cannot meet all cash requirements of a farmer for agriculture production purposes. Formal sources are big lending sources and can meet all farming requirements of a farmer (Gustavo et al, 2006). But require specific conditions to advance loan including geographic, climate, price etc (Bettina et al, 2006) and tied collateral (Gustavo et al, 2006) with cumbersome procedure (Kabir et al, 2006).

Iqbal et al, (2003) Said, “The agricultural credit system of Pakistan consists of informal and formal sources of credit supply. The informal sources include friends, relatives, commission agents, traders and private moneylenders etc. Presently, the formal credit sources are comprised of financial institutions like Zarai Taraqiati Bank Limited (ZTBL)—formerly known as Agricultural Development Bank of Pakistan (ADBP), Commercial Banks, and Federal Bank for Cooperatives. Recently some non-government organizations (NGOs) are also advancing agricultural credit to the rural communities”.

Informal credit was used for production purposes (Shehla et al, 2007). Formal credit was used for both purposes i.e for productive purposes and development purposes. Mostly for production purposes (Kabir et al, 2006; Hussien, 2007). Ninety percent of borrowers obtained credit to pay labor dues (Adebayo et al, 2008). Loan was used for adopting new production technology like fertilizer, pesticides etc (Nunung et al, 2005). Farmers who obtained credit were utilizing labor input, fertilizers, capitals and planting materials efficiently. Formal credit influenced on fertilizers demand and private fixed investment in India (Shahidur et al, 1989). Fifty percent farmers who had access to credit used tractor for farming and 20% farmers because of having small piece of land had no access to formal credit and therefore could not use tractor (Olagunju, 2007).

### Methodology

Primary data was collected from 320 farmers who participated in farm credit using stratified sampling technique with the help structured questionnaire and interview as used by many researchers such as (Nunung et al, 2005, Oladosu, 2006; Faturoti et al, 2006). Secondary data penetrating from 1990-2008 on status and purpose of agricultural credit was collected from Statistical office for crops services D.I.Khan during 2009. Hundred respondents from tehsil D.I.Khan and 110 from each Paharpur and Daraban tehsils were chosen. Data collected were analyzed using descriptive statistics with the help of SPSS as worked by (Adebayo and Adeola, 2008).

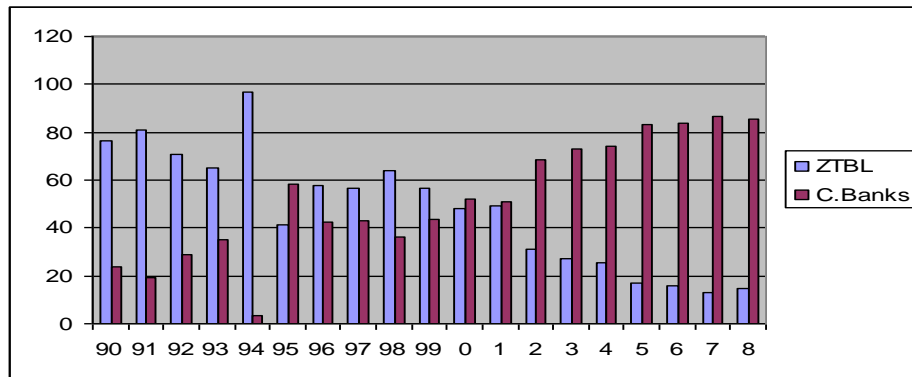
### Analysis and Interpretation

Table-1 indicates that out of two institutionalized sources Zari Taraqiatq Bank and commercial Banks in D.I.Khan commercial Banks were proved main sources for meeting financial requirements of farmers for their agriculture growth since 2000.

Table1 Analysis of sources of formal agricultural loans disbursed

Year	Credit disbursed by ZTBL	Credit disbursed by other Commercial. banks	% of ZTBL w.r.t to total credit	% of other banks w.r.t to total credit
1990	68	21.232	76.205845	23.7942
1991	48.245	11.442	80.829996	19.17
1992	32.9	13.439	70.998511	29.0015
1993	23.687	12.819	64.885224	35.1148
1994	40.304	1.364	96.726505	3.2735
1995	37.597	52.867	41.560179	58.4398
1996	31.168	23.061	57.474783	42.5252
1997	39.837	30.259	56.832059	43.1679
1998	51.61	29.091	63.95212	36.0479
1999	93.648	71.715	56.631774	43.3682
2000	84.306	91.852	47.858173	52.1418
2001	82.013	84.846	49.15108	50.8489
2002	63.15	137.997	31.39495	68.6051
2003	73.732	197.288	27.205372	72.7946
2004	99.538	288.695	25.638727	74.3613
2005	177.967	869.551	16.989398	83.0106
2006	193.81	1009.25	16.11	83.89
2007	208.717	1365.361	13.259635	86.7404
2008	193.049	1118.12	14.723426	85.2766

Source; Statistical office for crop reporting services DIK



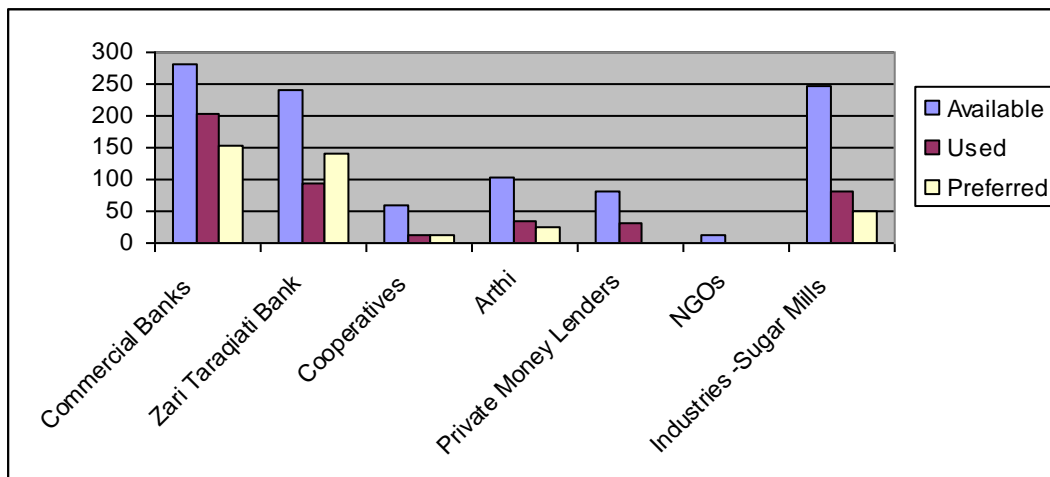
Credit disbursed by commercial Banks was more and with an increasing trend in coming years with respect to Zari Taraqiati Bank. During 2008 credit disbursed by commercial Banks was Rs 1118.12 million, which was 85.28% of the total credit disbursed during the year. Credit disbursed by ZTBI during 2008 was Rs 193.049 million 14.72%. Before 2000 share of credit out flow of Zari Taraqiat Bank was more than commercial banks with fluctuating trend. During 1990 credit disbursed by commercial banks was Rs21.232 million and by ZTBL was Rs 68 million, which were 23.79% and 76.21% respectively of the total credit, disbursed during the year.

Table 2 indicates credit sources mostly available to farmers in study area included commercial banks, industries (sugar mills) and Zari Taraqiati Bank.

Table 2 Frequency table for sources of credit with preference in use by farmers

Source	Available		Source Used by Farmers				Preferred		
			1 to 2 times	3 to 5 times	6 & above times	Total			
	Yes	No				Yes	No	Yes	No
Commercial Banks	280	40	46	104	52	202	118	154	166
Zari Taraqiati Bank	242	78	22	42	30	94	226	142	178
Cooperatives	60	260	4	8	2	14	216	14	306
Arthi	102	218	2	18	14	34	286	24	296
Private MoneyLenders	80	240	4	16	12	32	288	0	320
NGOs	12	308	0	0	0	0	320	0	320
Industries -Sugar Mills	248	72	16	42	24	82	238	50	270

Source Field survey



Among 320 sampled farmers 280 told that commercial banks were available to them. Two hundred and forty two told that Zari Taraqiati Bank was available and 248 told Sugar mills were available credit sources. Sixty, one hundred and two and eighty cooperatives, arthi and private money lenders respectively the informal credit sources were available to farmers. This means that in study area formal credit sources were more than non-formal credit sources. It can be seen from table 4 that farmers used and preferred formal credit sources more than in formal sources. Out of 320 farmers 202 used commercial banks, 94 used Zari Taraqiati Bank leading to 82 farmers who used non-formal credit source of sugar mills. One hundred and fifty four farmers preferred to use commercial banks as credit source leading to 142 farmers who preferred to use Zari Taraqiati Bank as credit source. Main cause behind this was availability and easy access to formal sources in study area with respect to easily understandable lending procedure of formal credit sources. Farmers avoided them from higher mark up as well as short duration loans of informal credit sources. There was much more difference in use of commercial banks and Zari Taraqiati Bank. Main cause behind this was easy access to commercial banks as commercial banks have network through out the district while Zari Taraqiati Bank exist at district head quarter. Preference of Zari Taraqiati Bank was more due to its comparatively easy loan disbursing procedure and leniency in collateral requirements.

Among informal sources sugar mills were mostly available sources in study area after commercial banks (formal sources) and were at second with respect to availability but were at third in use and preference of farmers. In study area there were three sugar mills that facilitated cash requirements of farmers for sugarcane production.

Table 2 also indicates that farmers mostly took loan 3 to 5 times. This shows that farmers were careful and restrained themselves in taking loan frequently. It was because of difficult access to credit due to collateral and high interest rate, though was low than informal sources. Also farmers were not ready to bear more risk capacity.

It can be seen from table 3 that during 1990 to 1995 mostly farmers needed credit for development purposes but from 1996 to 2008 they stressed on agricultural output and demanded credit for production purpose. During 1994 credit for development purpose was much more than for production purpose. During this year Rs2.57 (6%) of the total credit disbursed was for production purpose and Rs39.09 (97%) were for development purpose. However disbursements of credit for production purpose increased from 1990 to 2008 as compared to development purpose with a fluctuating trend except during 1994 and 1995. During 2006 to 2008 much more credit was disbursed for production purpose as compared to development purpose.

Table 3 Credit disbursement for production and development purposes in D.I.Khan

Year	Total	Credit for production purpose	Credit for development purpose	%age of	%age of
				of production	development
1990	89.232	27.43	61.802	30.7401	69.25991
1991	59.687	18.417	41.27	30.856	69.14403
1992	46.339	17.902	28.437	38.6327	61.36731
1993	36.506	16.772	19.734	45.9431	54.05687
1994	41.668	2.574	39.094	6.1774	93.8226
1995	90.464	33.018	57.446	36.4985	63.5015
1996	54.229	30.061	24.168	55.4334	44.56656
1997	70.096	37.505	32.591	53.5052	46.49481
1998	80.701	47.216	33.485	58.5073	41.49267
1999	165.363	87.715	77.648	53.0439	46.95609
2000	176.158	111.16	64.998	63.1024	36.89756
2001	166.859	102.655	64.204	61.522	38.478
2002	201.147	156.083	45.064	77.5965	22.40352
2003	271.02	233.491	37.529	86.1527	13.84732
2004	388.233	323.947	64.286	83.4414	16.55861
2005	1047.518	664.675	382.843	63.4524	36.54763
2006	1203.06	982.98	220.08	81.7066	18.29335
2007	1574.078	1462.852	111.226	92.9339	7.066105
2008	1311.169	1251.317	59.852	95.4352	4.564782

Source; Statistical office for crop reporting services DIK

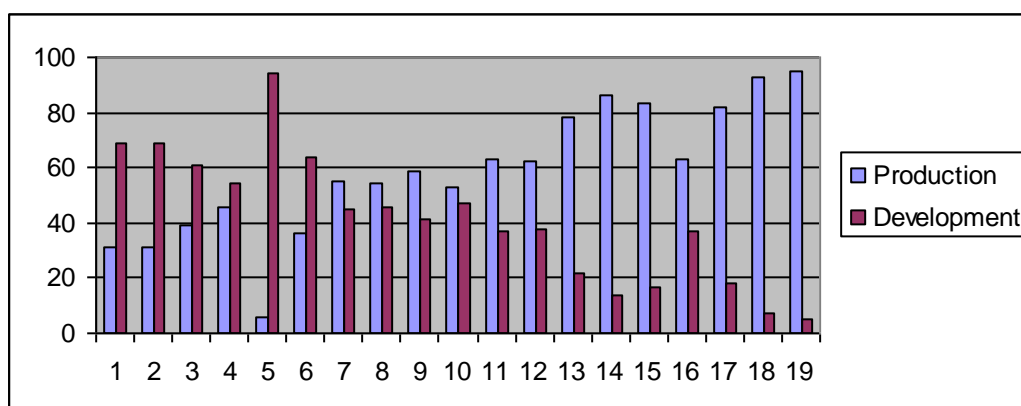


Table-4 and Table-5 indicates that mostly credit was disbursed for seeds, fertilizers and pesticides with a fluctuating trend with respect to total credit disbursed during the same year for different purposes and with an increasing trend since 2001.

Table 4 Purpose of formal agricultural loans disbursed

Year	Disbursement of credit in Rs in million for				
	Seeds /Fertilizer /Pesticides	Tube wells	Implement tractor	Others	Total Credit
1990	24.03	3.4	33	28.802	89.232
1991	14.301	4.116	18.812	22.458	59.687
1992	16.402	1.5	14.2	14.237	46.339
1993	16.003	0.769	19.734	0	36.506
1994	2.518	0.056	26.801	12.293	41.668
1995	32.482	0.536	11.098	46.348	90.464
1996	29.981	0.08	0.26	23.908	54.229
1997	36.862	0.643	14.55	18.041	70.096
1998	45.85	1.366	20.644	12.841	80.701
1999	78.656	9.059	59.997	17.651	165.363
2000	106.215	4.945	39.582	25.416	176.158
2001	97.122	5.533	26.004	38.2	166.859
2002	153.813	2.27	19.854	25.21	201.15
2003	230.91	2.581	20.594	16.935	271.02
2004	305.564	18.383	40.882	23.404	388.23
2005	642.012	22.663	85.688	297.155	1047.5
2006	966.43	16.55	73.41	146.67	1203.06
2007	1461.148	1.704	63.619	47.607	1574.1
2008	1248.241	3.076	25.164	34.688	1311.2

Source: - Statistical office crops reporting services D.I.Khan

Before 2001 there was fluctuating trend. During 2008 Rs 1248.241 millions credits was disbursed for seeds and fertilizers and pesticides, which was 95.20% of the total credit disbursed during 2008.

During 2001 credit of Rs 97.122 million was disbursed for fertilizer pesticides and seeds, which was 58.20% of the total credit disbursed during the same year. Next credit purpose was others (bullocks, livestock, land leveling, weeding etc). During 2008 credit for Rs34.69 million was disbursed for tractors, which is 1.92% of the total credit disbursed during the year. Table 6 in which data regarding willingness of farm credit use by farmers is summarized indicates that farmers capital requirements for production purpose was more, but they were also willing to develop their agriculture by employing mechanized farming provided they were given as much loan as they require.

Table 5 Percentages of purposes of formal agricultural loans disbursed

Year	Percentage of seeds/fertilizers/pesticides wrt total credit in the year	Percentage of tube wells wrt total credit in the year	Percentage of Implementation of tractors wrt total credit in the year	Percentage of others wrt total credit in the year
1990	26.929801	3.8102923	36.982249	32.2777
1991	23.9599913	6.895974	31.517751	37.6263
1992	35.395671	3.2370142	30.643734	30.7236
1993	43.8366296	2.106503	54.056867	0
1994	6.04300662	0.1343957	64.320342	29.5023
1995	35.9059958	0.5925009	12.267863	51.2336
1996	55.2859171	0.1475225	0.4794483	44.0871
1997	52.5878795	0.9173134	20.757247	25.7376
1998	56.8146615	1.692668	25.580848	15.9118
1999	47.5656586	5.4782509	36.281998	10.6741
2000	60.2953031	2.807139	22.469601	14.428
2001	58.2060302	3.3159734	15.584416	22.8936
2002	76.4679563	1.1285279	9.8703933	12.5331
2003	85.2003542	0.9523282	7.5987012	6.24862
2004	78.7063439	4.7350431	10.530274	6.02834
2005	61.2888752	2.163495	8.1800981	28.3675
2006	80.3309893	1.3756587	6.1019401	12.1914
2007	92.8256414	0.1082538	4.0416676	3.02444
2008	95.2006187	0.2345998	1.9192034	2.64558

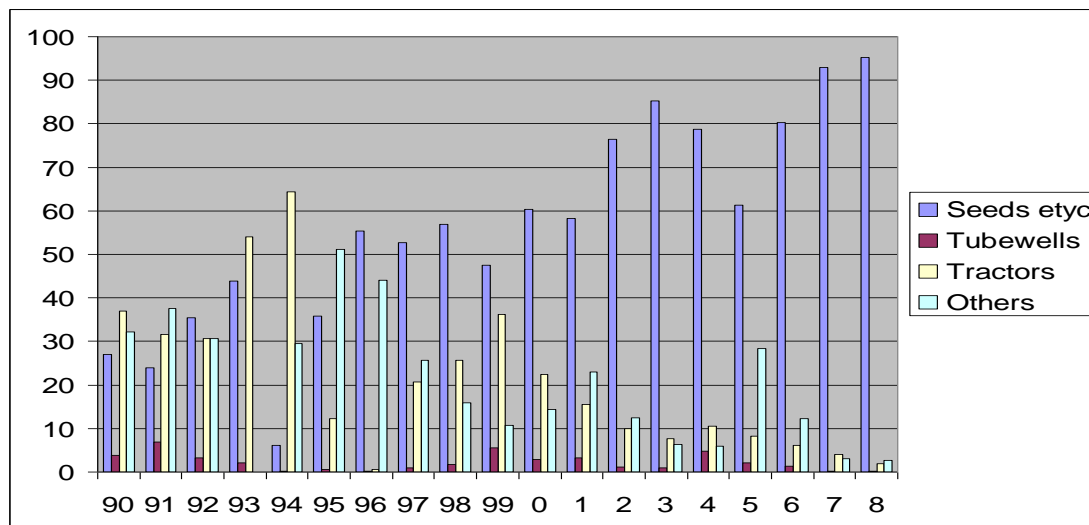
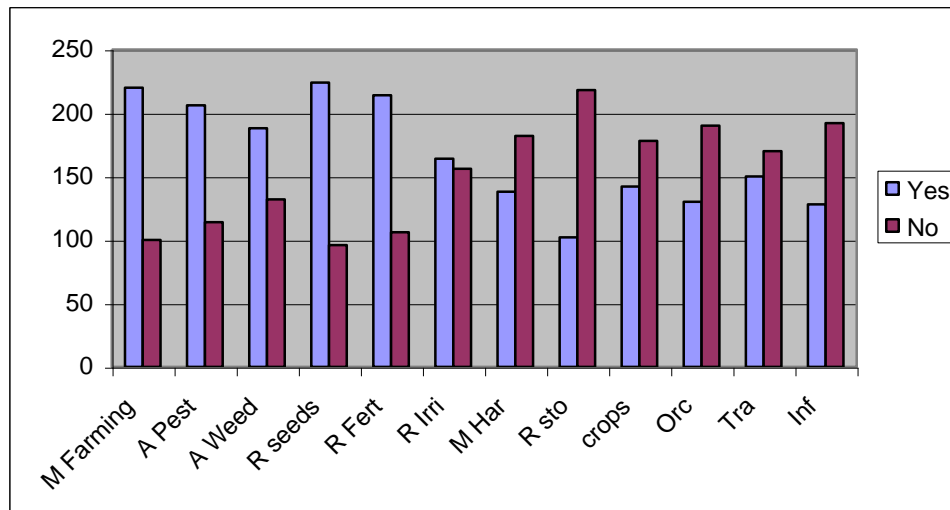




Table 6 Land use and productivity

Attributes	f (Adoption) If get credit		f (Adoption) If can not get credit	
	Yes	No	Yes	No
Mechanized farming	220	100	120	200
Application of pesticides	206	114	192	128
Application of weedicides	188	132	200	120
Use of approved seeds	224	96	134	186
Use of recommended fertilizer	214	106	148	172
Application of irrigation as recommended	164	156	170	150
Mechanized harvesting	138	182	84	236
Storage measures	102	218	62	258
Growing two/ Many crops same year	142	178	84	236
Orchard grains/ Management	130	190	94	226
Using tractor/ trolley for marketing	150	170	64	256
Visiting agric. stations for info on agricultural operations	128	192	130	190

Source: - Field survey



It can be seen from table 6 that 220 farmers out of 320 farmers were willing to adopt mechanized farming provided they were given loan. Only 120 farmers told that they would use mechanized farming even if they were not given loan. It means that out of 320 farmers 200 farmers would not adopt mechanized farming if they were not given loan. This shows that farmer's capital need was for both purposes i.e for production purposes as well as for development purposes. But they were not provided as much loan as they required meeting both the purposes. Hence they had been paying attention upon their current position.

Two hundred and six farmers showed their consent to apply pesticides in case they obtain loan and 192 farmers showed their willingness to apply pesticides even they did not get loan. This reflects that 128 farmers would not apply pesticides if they were unable to obtain loan. Two hundred and twenty four

farmers would make use of approved seeds in case they get loan and 134 would also use approved seeds even if they did not get loan. Here out of 320 sampled farmers 186 farmers were also showing their unwillingness to use approved seeds if they were not provided loan. Two hundred and fourteen farmers said that they would use recommended fertilizer in case they get loan and 148 farmers answered that they would make use of recommended fertilizer even if they were failed to get loan. Hence from above results it became clear to researcher that in study area use of inputs was essential for farmers to enhance their agricultural productivity.

### **Conclusion**

To ensure effective utilization of available sources of credit, establishment of agricultural and community banks in the rural areas with simple procedures of securing loans and leniency in collateral is recommended. Farmers should also be informed by formal lending sources at the time of extension of loan. For effective utilization of credit where farmers be given sufficient amount of credit so that they may adopt new technology there demonstrative extension services with in reach of farmers regarding use of new technology be arranged. Also mobilization of farmers into formidable groups in order to enjoy the benefit of collective investment of group savings is also recommended.

### **References**

- Adegeye A J and Dittoh J S** (1985), "Essentials of agricultural economics' impact." Publishers Economics Nigeria, Limited, Ibadan
- Agricultural Development Bank of Pakistan** (1999), "An overview of strategy for meeting credit needs of small farmers." Economic Research Department, ADBP, Islamabad.Pp.2-19
- Government of Pakistan.** 2002. Economic Survey of Pakistan, 2001-02. Economic AdvisoryWing,FinanceDivision,Islamabad.p.35
- Adebayo O O and Adeola R G** (2008), "Sources and uses of agricultural credit by small scale farmers in Surulere Local Government Area of Oyo State." Anthropologist, 10(4): Pp313-314
- Mellor J W** (1966), "The Economics of Agricultural Development." Cornell University of credit Press Ithaca
- Wichmann Thorsten** (1997), "Agricultural technological progress and the development of a dual Economy" Physica -verlag , Heidelberg
- Gustavo Anríquez and Alberto Valdés** (2006), "Determinants of farm revenue in Pakistan" The Pakistan development review 45: 2 Pp. 281–301
- Olagunju F I** (2007), "Impact of credit use on resource productivity of sweet potatoes farmers in Osun-state Nigeria," j. Soc. Sci., 14(2): Pp175-178
- Oladosu I O** (2006), "Implications of farmers' attitude towards extension agents on future extension programme planning in Oyo state of Nigeria." J. Soc. Sci., 12(2): Pp115-118
- Hussein Hamda Komicha** (2007), "Farm household economic behavior in imperfect financial markets." Faculty of Natural Resources and Agricultural Sciences. Department of Economics Uppsala

**Bettina Wittlinger and Tiodita Mori Tuesta** (2006). "Providing cost-effective credit to small-scale single-crop farmers." The case of Financiera el Comercio: Insight Accion number 19 August, 2006

**Kabir M A Miah, A K M Ashrafal Alam and A H M A Rahman** (2006), "Impact of agricultural credit on MV Boro rice cultivation in Bangladesh." Agric rural dev 4(1&2), Pp161-168

**Iqbal M., Munir A and K Abbas** (2003), "The impact of institutional credit on agricultural production in Pakistan," The Pakistan Development Review, 42(4): Pp469–485

**Shehla Amjad and SAF Hasnu** (2007), "Smallholders access to rural credit" Evidence from Pakistan. The Lahore Journal of Economics 12: 2 Pp 1- 25

**Nunung Nuryartono, Manfred Zeller and Stefan Schwarze**(2005), "Credit rationing of farm households and agricultural production." Empirical evidence in the rural areas of central Sulawesi, Indonesia Tropentag Stuttgart-Hohenheim, Conference on International Agricultural Research for Development

**Shahidur R, Khandker and Hans P Binswanger**(1989), " The effect of formal credit on output and employment in rural India." Policy, Planning and Research working paper series Population and Human Resources Department. The World Bank

**Faturoti B O, G N Emah, B I Isife, A Tenkouano1 and J Lemchi** (2006), "Prospects and determinants of adoption of IITA plantain and banana based technologies in three Niger Delta States of Nigeria." African Journal of Biotechnology Vol. 5 (14), Pp. 1319-1323

This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE's homepage:

<http://www.iiste.org>

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. **Prospective authors of IISTE journals can find the submission instruction on the following page:**

<http://www.iiste.org/Journals/>

The IISTE editorial team promises to review and publish all the qualified submissions in a fast manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

### **IISTE Knowledge Sharing Partners**

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

