RURAL CREDIT IN TEN RURAL COMMUNITIES IN THREE DISTRICTS OF THE REGION OF PUNO

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Abstract

The Puno region has two different zones in the native language, the northern zone is Quechua and the southern zone is Aymara. This research was carried out in the southern zone, in three districts and ten rural communities organized in an Association of Agricultural Producers and Fishermen of the Lake (APAPEL), where two credit institutions, CEDER and EDYFICAR through CARE PERU, have promoted rural credit in order to contribute to the improvement of the income of rural families. The objectives of the research are: a) identify the orientation of rural credit according to the type of activity, b) analyze the effect of rural credit on family income, and c) determine the delinquency rate of rural credit granted by two credit institutions. The method used is descriptive of evaluative type of inductive-deductive nature, under the microeconomic approach taking into account the CAUSE-EFFECT relationship. The population under study is made up of 453 peasant families associated with APAPEL, the sample size 164 borrowers representing 36% of the total, which was determined by the simple random sampling method. The observation techniques used were: the survey, documentary analysis, personal and group interviews structured with open and directed questions, finally direct observation to each user of rural credit and also to non-users. The results show that, of the 453 APAPEL associates and members of the credit institutions, only 164 families were borrowers, which means 36% of the demand for credit, for an average maximum amount of S/. 1,000.00 per family of free availability, interest rate 4.5% monthly at rebate and short term of 18 months with a grace period of 6 months. a). The investments according to the line of business were: 70% of the borrowers oriented their credit to cattle fattening and marketing, for an amount of S/. 99,500.00, which represents 68.2%; artisanal fishing of native fish species (Karachi, Ispi) and silverside with an amount of S/. 35,500.00, which represents 24.3%, in trout

breeding 3%, with an amount of S/. 4,500.00; in pig and chicken breeding 1.4% for an amount of S/. 2,000.00, welding in general 2.4% for an amount of S/. 3,500.00 and transport 0.7% for an amount of S/. 1,000.00 respectively. b). The effect of the rural credit has been positive in the income level of the rural credit user families by an average of 27% depending on the activity and the capital rotation; in cattle fattening increased by 42.64%; cattle trade with an increase of 16.55%; sheep trade increased by 26.85%, in pig trade by 32.48% and finally in artisanal and commercial fishing by 18.03%, and c). The non-payment of the debt is because they were: subjects of rural credit without experience in the administration of the credit in 14%, inadequate credit orientation in 24%, loss in production in 7% due to adverse climatic factors; fall in prices of agricultural and livestock products in 38%, inopportune credit in 21% and finally by the scarce technical assistance in 3%.

Keywords: rural credit, rural community, family income, delinquency, delinquent payments

INTRODUCTION

The department of Puno has two zones differentiated in the native language, north zone speaks Quechua and south zone speaks Aymara, all conformed by the peasant communities, in their majority they are conformed by families with low levels of income, due to low yields in the agricultural activities like the potato crop are estimated between 5 a7 ton/ha, compared to 15 a20 ton/ha, at national level, in a similar way the average yields of other cultivations (Ccama, 1991). This is due to the presence of negative climatological factors (Erickson 1981). In addition to the breakdown of traditional management practices and scarce access to credit, which limits the financing of their activities (Alvarado and Ccama, 1989). For his part, Suarez (1988) indicates that, when investing in agriculture, one has to assume both climatic and technological risks. On the other hand, Escalante *et al.* (2012) mention that credit is one of the main factors influencing investment, which leads to greater growth and increased productivity in the agricultural sector. Chávez (2012) points out that in most countries in the world, financial institutions evaluate and classify agricultural loans as if they were commercial loans (arrears), which is detrimental to the management of rural agricultural loans, since their real situation is not taken into account.

For their part, Trivelli *et al.* (2004) point out that productive units require the availability and access to working capital that allows them to have the necessary inputs and goods for the production and commercialization of products. Chávez (2012) and Ccama (1991) indicate that agrarian producers in rural areas are discriminated to access credit, due to several causes and they are: limited availability of collateral, producers to access credit only have informal property titles, land tenure that are areas that are in constant land parceling, as well as little knowledge of legal regulations and poor credit culture by the population. Gonzales (1987) also adds the idiosyncrasy of population, welfarism by development entities and scarce deposition and training in administration and credit management. For its part, Almeraya *et al.* (2011)

indicate that the lack of guarantees when applying for credit, the lack of information on where to apply for it and the different forms of exclusion from financial services, make people belonging to the rural sector the most vulnerable to access these services.

In this context, in order to finance their productive activities, the agricultural units under study resort to rural credit from CEDER and EDYFICAR through CARE PERU, which are credit institutions (Canahua 1994), CARE PERU being the institution that provides technical assistance and training for the adoption of Waru Waru technology (Canahua, Churata and Quispe, 1992). Erickson (1981) points out that the Waru Waru or camellones is a technology developed by the first inhabitants of the altiplano, this technology has allowed the development of agriculture in the face of the adverse climatic conditions of the altiplano. Meanwhile Diaz (1992) points out that the development of agricultural infrastructure in the Andes dates back to pre-Inca cultures. Canahua (1992), Cano (1992) and Cari (1992) point out that the Waru waru infrastructure is important in the management and conservation of agrobiodiversity in the Andes. Chura (1997) indicates that the Waru waru system allows to gain 2 degrees of environmental temperature. Therefore, with the purpose of assuring the increase of agricultural production and productivity in this agricultural infrastructure, the peasant families adopted this technology with positive results (Aguilar 1989). For the exposed considerations the present work had as objectives: a) Identify the orientation of rural credit according to the type of activity, b) analyze the effect of rural credit on family income, and c) Determine the delinquency of rural credit granted by two credit institutions.

MATERIALS AND RESEARCH METHODS

The study was carried out in three districts and ten rural communities in the department of Puno: three communities in the Juli district of Chucuito Juli province: Cutini Capilla, Santiago de Thiri and Suancata Kani, five communities in the Pilcuyo district of El Collao province: Pucara, Quety, Accaso, Asquicha and Yasin Ramirez and two Ilave districts of El Collao province: Santa Rosa de Huayllata and Aricollo. These families are located on the shores of Lake Titicaca and are mainly engaged in agriculture, livestock and artisanal fishing. To finance their productive activities, they resort to rural credit from the credit institutions CEDER and EDYFICAR through CARE PERU, because they do not have the necessary resources to increase their production, agricultural and livestock productivity to which they are dedicated.

This research aims to determine the objectives under study such as the orientation of rural credit according to the type of activity, the effect of rural credit on family income and determine the delinquency of rural credit granted by credit institutions. The descriptive method of evaluative type Inductive – Deductive is applied, under the microeconomic approach taking into account the CAUSE-EFFECT relationship, and the following variables have been analyzed: Family income from the sale of their products and net income from the use of credit.

To determine the family income, the estimation method has been used according to Gonzales (1987), the economic income is constituted by the following concepts: sale of their labor force or salaried work, sale of agricultural products and livestock products. The following techniques were used: auxiliary observation instruments, the survey, documentary analysis, field work, as well as personal and group structured interviews, using a format with open and directed questions; also, direct observation of each rural credit user and non-users. Once the survey was applied to the rural credit beneficiaries, the information was classified by type of communities and districts, taking into account the following process: Tabulation of the information obtained in the nominal value matrix at the district, population center and/or beneficiary community level, tabulation of the scores obtained for each line of investment, and estimation of the parameters of the linear econometric model to determine the welfare index, and finally the analysis and interpretation of the results.

RESULTS

Loans granted by CEDER and EDYFICAR through CARE PERU

At the level of the Asociación de Productores Agropecuarios y Pescadores del Lago (APAPEL), 13 credit committees and/or operating units have been granted Table 1, for a total amount of S/. 146,000.00, which means 20.5% of the total amount placed at the level of the department of Puno, benefiting 164 heads of families of the 10 rural communities settled on the shores of Lake Titicaca in the districts of Juli, Pilcuyo and Ilave.

	SEDER		EDY	FICAR	TOTAL		
DISTRICT/COMMUN	US. C.	AMOUNT	US. C.	AMOUN	US. C.	AMOUNT	
ITY		(S/.)		Т		(S/.)	
				(S/.)			
Juli District	50	42,000.00	15	15,000.00	65	57,000.00	
C.C. Cutini Chapel	23	15,000.00			23	15,000.00	
C.C. Suancata Kani	13	13,000.00			13	13,000.00	
Santiago Thiri C.C.	14	14,000.00	15	15,000.00	29	29,000.00	
Pilcuyo District	25	19,500.00	41	39,000.00	66	58,500.00	

Table 1 Rural credit granted by CEDER and EDYFICAR at the APAPEL level through CARE PERU

Pucara C.C.	9	12,500.00	8	8,000.00	17	20,500.00
Quety C.C.	16	7,000.00			16	7,000.00
Accaso C.C.			11	11,000.00	11	11,000.00
C.C. Asquicha			12	12,000.00	12	12,000.00
C.C. Yasi Ramirez			10	8,000.00	10	8,000.00
District of Ilave	17	15,000.00	16	15,500.00	33	30,500.00
C. C.C.StaRosa	17	15,000.00	8	7,500.00	25	22,500.00
Huayllata			8	8,000.00	8	8,000.00
Ariccollo C.C.						
TOTALS	92	76,500.00	72	69,500.00	164	146,000.00

Source: Prepared by the executor based on report documents and field visit.

Orientation of Rural Credit according to line of business

During the last agricultural campaigns, in accordance with the credit policy of free availability of credit and the importance of the economic activity, the rural families participating in and using rural credit oriented their credit as follows: In the first place for the agricultural sector, basically for the livestock activity, which translates into 72% of the families (118 borrowers) destined the credit for fattening and commercialization of livestock: cattle, sheep, raising pigs and chickens; together the amount of credit amounts to S/. 101,500.00, which means 69.5% of the total amount granted by the credit institutions. In second place, the sector to which most credit was directed was fishing, which includes artisanal fishing and trout farming; in the sense that 25% of the beneficiary families (41 borrowers) of the credit were directed to this activity, together the amount of credit amounted to S/. 40,000.00, which represents 27.3% of the total amount granted. Only 3% of the families used the loan for services and 72% for agricultural activities.

According to the type of activity (see Table 2), the activities that generated the greatest expectations and best options for obtaining income and creating a permanent source of work were cattle fattening and marketing (cattle, sheep and pigs) and artisanal fishing, because they are less risky than agriculture in the face of the adverse climatic factors of the altiplano. For this reason, 70% of the borrowers directed their loans to cattle fattening and marketing, for an amount of S/. 99,500.00, which represents 68.2% of the total amount of loans granted, followed by artisanal fishing of native fish species (Karachi, Ispi) and silversides with an amount of S/. 35,500.00, which represents 24.3%. The remaining activities were allocated in smaller proportions: 3% for trout breeding, with an amount of S/. 4,500.00, 1.4% for raising pigs and chickens for an amount of S/. 2,000.00, 2.4% for welding in general for an amount of S/. 3,500.00 and finally 0.7% for transportation for an amount of S/. 1,000.00.

	SE	DER	EDYFICAR		TOTAL		
LINE OF BUSINESS	CRED	AMOU	CRED	AMOU	CRED	AMOUN	%
	NUMB	NT	NUMB	NT	NUMB	Т	
	ER	(S/.)	ER	(S/.)	ER	(S/.)	
1. Cattle Fattening and	81	65,500.0	34	34,000.0	115	99,500.00	68.2
Cattle		0	38	0	38	35,500.00	24.3
2. Artisanal Fishing and Commerc.	3			35,500.0 0	3	4,500.00	3.0
3. Trout Farming	3	4,500.00			3	2,000.00	1.4
4. Raising Pigs and	4	2,000.00			4	3,500.00	2.4
Chickens	1	3,500.00			1	1,000.00	0.7
5. General Welding		1,000.00					
6. Transportation				•			
TOTALS	92	76,500. 00	72	69,500. 00	164	146,000.0 0	100

Table 2 Use of Rural Credit by line of business of the communities under study

Source: Semiannual report, semester II - CARE PERU Puno regional office.

Effect of Rural Credit on household income

The income obtained by the peasant does not constitute a continuous flow over time, but shows seasonality, which in turn affects the maintenance of certain forms of credit for sustenance, which accentuate the interrelationships and subordinations between families and individuals within the community (Alvarado and Ccama 1989). Peasant incomes depend basically on prices and wages, the quantities of products sold, the number of wages offered and others (Gonzales 1987). The composition of income varies from family to family, with the "rich" farmers obtaining most of their income from the sale of products, the "poor" from the sale of their labor force, and the "middle" from both sources. The quantity and quality of resources, (R) labor (L), determine the income structure, prices and wages only determine income levels, (Chavez 2012). In summary, the families settled on the shores of Lake Titicaca in the districts of Juli, Pilcuyo and Ilave, members of la APAPEL, obtain an average annual income of S/. 2,487.00 and monthly receive an average of S/.207.25. In the different activities developed, Table 3 shows the structure of average income received by each family in the APAPEL area.

Table 3 Structure of monthly and annual income of rural credit borrowers

	1		1	r		
				INCOME	INCOME	%
CONCEPT	U.M.	QTY.	P.U.	MONTHLY	ANNUAL	
Salaried Work	Jorn	5	10.00	50.00	600.00	24
2. Sale of Agricultural				38.50	462.00	19
Products	@	2	5.00	10.00	120.00	
- Pope	@	1	10.00	10.00	120.00	
- Quinoa	@	0.75	6.00	4.50	54.00	
- Barley	Kg.	4	3.50	14.00	168.00	
- Others (*)				118.74	1,425.00	57
3. Sale of Livestock Products	Cbza	1	650	54.16	650.00	
- Cattle	Cbza	5	60	25.00	300.00	
- Sheep	Cbza	2	50	8.33	100.00	
- Pig				31.25	375.00	
- Others (**)						
TOTALS				207.25	2,487.00	100

Source: Own elaboration, based on the survey

NOTE: (*): Agricultural products are considered as Izaño, beans and Cañihua.

(**) Income derived from livestock activities (wool, eggs and cheese) is

considered.

Net income from the use of credit. Farming families, when receiving credit, expect to obtain a higher average net income than they would obtain without credit. For this purpose, the model (1) of credit demand proposed by Alvarado (1997) has been developed. The average overall income in the cattle fattening activity, after 4 months of fattening, is S/. 361.32 per month. It should be noted that the minimum income obtained is S/. 136.00 (with 1 head), the average income is S/. 292.2 (with 2 heads) and the maximum income obtained is S/. 655.75 (with 4 heads). Meanwhile, at the level of credit committees and/or communities, the lowest income obtained is S/. 82.50 that corresponds to the community of Cutini Capilla in the district of Pilcuyo. According to Gonzales (1998), "the quantity and quality of resources (R), work (L), determine the structure of the income, prices and salaries only determine the levels of income, this affirmation is fulfilled since the users of credit of the rural community of Cutini Capilla have obtained a profit of S/ 82.50 per head of improved Creole breed cattle. However, the credit users in the community of Pucara have fattened quality

Brown Swiss breed cattle, which they sold at a better price, which allowed them to obtain a net monthly income of S/. 807.50 (4 heads).

Net income obtained in livestock trade; this activity considers the commercialization of cattle, sheep and pigs as shown in Table 4. The main characteristic of this activity is the most dynamic (buying and selling), in the sense that it has a higher capital rotation, where a very important role is played by the convincing gift of the rescuers and/or cattle trader, they go to the communities or production centers to buy cattle at a lower price and then they are taken to the fairs and sold at a higher price, they also buy in the same fairs in the morning and then they are sold at a higher price, they also buy cattle that giving a good feeding in a week can give better results and they are sold at a better price. According to the results obtained in the survey, it can be affirmed that the best profits are obtained in the trade of sheep and pigs, due to the ease of calculating the weight of the animal and estimating the price, in order to ensure profits. The net income obtained in the swine trade amounts to S/. 977.50 per month, selling 15 heads/week, which gives an average profit of S/. 16.30/head; while in the sheep trade the income obtained is S/. 787.50 per month, which gives a profit of S/. 16.40/head.

ACTIVITY	SELLIN G PRICE (P)	QUAN TITY (Q)	AMOUN T CREDIT (L)	RATE INTERES T (r)	OPERATIN G EXPENSES (C)	NET MONTHLY INCOME (Y)
Commerc. Cattle G. Trade. G. Sheep Trade. G. Swine Fishing Art & Commerc.	450.00 45.00 50.00 4.00	6 48 60 400	1000.00 500.00 500.00 1,000.00	0.045 0.045 0.045 0.045	900.00 960.00 1,500.00 250.00	755.00 787.50 977.50 305.00

Table 4 Net income from the use of Rural Credit according to activities

Source. - Prepared by the executor based on the documents in the report.

Effect of credit on the level of family income. From the results obtained in Table 5, it is assumed that rural credit has had a positive effect on the level of income of rural credit user families, in the sense that the increase in the level of family income is an average of 27% depending on the activity and the rotation of capital. Thus, families who oriented credit in cattle fattening increased by 42.64%, followed by the cattle trade with an increase of 16.55%,

being the lowest compared to other activities, in the sheep trade increased by 26.85%, in the pig trade increased by 32.48% and finally in artisanal and commercial fishing increased by 18.03% respectively.

Table 5 Effect of credit on the level of household income in the study communities

	INCOME	CREDIT		
	WITHOUT	ENTRY	INCDE	ACE
ACTIVITY	CREDIT		INCRE	ASE
			INCOME	%
Cattle Fattening	207.25	361.32	154.07	42.64
Beef Cattle Trade	630.00	755.00	125.00	16.55
Sheep Trade	576.00	787.50	211.50	26.85
Swine Trade	660.00	977.50	317.50	32.48
Artisanal and Commercial	250.00	305.00	55.00	18.03
Fishing.				
TOTAL AVERAGE	464.65	637.26	172.61	27.31

Source: Own elaboration, according to survey, personal and group interviews.

Delinquency of rural credit granted by CEDER and EDYFICAR lending institutions

This refers to the gradual repayment of loans by the credit user, most of the time through periodic payments according to the debt repayment schedule. These payments include interest for the use of the financing, commissions, costs of operating the loan, plus the principal, which together are called payments or installments. It is necessary to point out that the recoveries of the loans granted by the SEDER and EDYFICAR programs were not paid in full, with irregularities in their monthly installments, as well as in the amortization of the principal.

In the SEDER credit line, loans were granted to a total of 18 committees for a total amount of S/. 230,000.00; of which 8 committees paid off their loans in full and 10 others have outstanding debt for S/. 47,654.00 declared in arrears, which means 20.7% of arrears with respect to the capital placed. The loans granted by EDYFICAR were to a

total of 47 committees for a total amount of S/. 480,700.00. The overall recoveries amounted to a total amount of S/. 241,130.80, of which 47.1% corresponds to interest and 52.9% to capital repayments. Table 6 shows the recoveries of capital plus interest according to financing sources.

SOURCE	CRED. PLACED			RECO	BALAN	ICE		
	NO.	AMOU	C.C.	C.C. INTERES CAPITAL TOTAL				%
		NT	NO.	Т			NT	
SEDER	18	230,000.	8	105,498.0	182,346.0	287,844.	47,654.0	20.7
EDYFICAR	47	00	VIG.	0	0	00	0	73.5
		480,700.		113,572.6	127,558.2	241,130.	353,141.	
		00		0	0	80	80	
TOTALS	65	710,700. 00	8	219,070.6 0	309,904.2 0	528,974. 80	400,795. 80	56.4

Table 6 Recoveries of loans granted according to lending institutions

SOURCE: Semiannual Report, CARE PERU: Puno Regional Office.

Factors and/or Causes of Non-Payment of Rural Loans

Table 7 shows the number of delinquent borrowers who expressed their opinion on the causes of non-payment of the debt. The results obtained in the survey show that the factors that have caused them to default on payment of their scheduled installments is the desire to only access credit by imitating the rest of the group without having experience in any economic activity, i.e., lack of knowledge of credit administration (14%). Some borrowers were new with no credit history, so they have had losses and do not have the resources to pay off their debt. Another group indicated inadequate credit orientation (24%), while some indicated the loss of production (7%), due to adverse climatic factors that occurred during the agricultural campaign. Another large majority indicated the fall in prices of agricultural and livestock products (38%) in the local and regional market. This was followed by untimely credit (21%) and finally by poor technical assistance (3%), because some borrowers used it for trout breeding, purchase

of materials (nets and other assets) and others for fattening, but this activity lasted more than 5 months.

In addition, according to the results of the survey, borrowers did not cancel their debts, on the one hand, after speculating about a possible cancellation of the Banco Continental loan guaranteed by the former FEAS Project, and on the other hand, the economic recession has affected the small businesses of the borrowers, so the credit committees have agreed on the possibility of proposing the cancellation and/or requesting the rescheduling of payments for six more months. In view of this situation, it is necessary to point out that the most important qualitative factors to be taken into account in rural areas when granting credit are willingness to pay, age, family burden, educational level, technical capacity and skill in the activity, labor capacity and credit history.

			ULI	C. C.	RED.	TOTAL	
FACTORS		CREDIT		PILCUYO			
		CUTIN	S.	PUCA	ACCE	PREST	%
			THIRI	RA.	SS		
1.	Inadequate credit	3		3	1	7	24
	orientation	2	2	2		6	21
2.	Inopportune credit	2	1	1		4	14
3.	Lack of knowledge Credit Administration	1	1			2	7
4.	Loss in la Producción	4	2	2	1	9	38
5.	Product Price Decline	1				1	3
6.	Scarce Technical Assistance						
	TOTALS	13	6	8	2	29	100

SOURCE: Prepared by the executor based on the survey.

According to Stearns (1999), "delinquency is contagious; as delinquent loans age, the risk of them becoming uncollectible increases", this statement is true since, according to the results obtained from the survey of delinquent borrowers in the Credit Committees that are members of the la Association of Agricultural Producers and Fishermen of the Lake - APAPEL, located in the three districts of Juli, Pilcuyo and Ilave.

Faced with the problem of delinquency, it is considered to take some strategies to avoid these risks with appropriate measures and timely actions such as: the credit analyst has to visit you in the next 24 hours, remind the message of timely payment, from the initial moment and require some incentive, such as SEDER and EDYFICAR lower interest rates to 1.5% monthly and that the delays are punished, in addition, analysis of the causes, pass it quickly to judicial collection and demonstrative effect to about two of the group, then when they learn the rest begin to pay their debts, likewise these customers have to be treated with patience, attacking emotions, such as commitment, relationships, trajectory in their village as the most outstanding person, raise the emotion of the client; seek ways to comply with the payment such as renegotiating the debt: refinancing the debt and/or rescheduling their monthly installments, incentives for timely payment, immediately approve a next credit, offer training scholarships include in their advertising campaigns to customers with outstanding behavior in the fulfillment of their credits and issue a certificate of timely compliance in the payment of their credit.

CONCLUSIONS

- The modalities and conditions of rural credit (high interest rate and short term) granted by CEDER and EDYFICAR through CARE-PERU do not provide total coverage to rural families in need of credit, which implies that the farmer takes a loan and cannot pay it back, which is one of the main reasons why farmers do not demand loans and are discriminated from accessing credit, which means that of the 453 members of APAPEL, only 164 families accessed credit, which means 36% of the demand for credit.
- According to the type of investment, the activities that generated the greatest expectations and best options for obtaining income and creating a permanent source of work were cattle fattening and marketing (cattle, sheep and pigs) and artisanal fishing, which are less risky than agriculture in the face of adverse weather conditions in the highlands. For this reason, 70% of the borrowers oriented their credit to cattle fattening and commercialization, for an amount of S/. 99,500.00, which represents 68.2% of the total amount of credit granted; followed by artisanal fishing of native fish species (Karachi, Ispi) and silversides with an amount of S/. 35,500.00, which represents 24.3%. In the rest of the activities, a smaller proportion was allocated: 3% for trout breeding, with an amount of S/. 4,500.00, 1.4% for raising pigs and chickens for an amount of S/. 2,000.00, 2.4% for welding in general for an amount of S/. 3,500.00 and finally 0.7% for transportation for an amount of S/. 1,000.00
- The effect of rural credit has been positive in the level of income of the families using rural credit, in the sense that the increase in the level of family income is an average of 27% depending on the activity and the rotation of the capital. Thus, the families that oriented the credit in cattle fattening increased by 42.64%, followed by cattle trade with an increase of 16.55%, this being the lowest compared to other activities, in sheep trade they increased by 26.85%, in pig trade they increased by 26.85%, in pig trade they increased by 16.55%.64%,

followed by the cattle trade with an increase of 16.55%, being the lowest compared to other activities, in the sheep trade increased by 26.85%, in the pig trade increased by 32.48% and finally in artisanal and commercial fishing increased by 18.03% respectively.

- The non-payment of the debt is because they were subject to credit without having experience in any economic activity, i.e., lack of knowledge of credit management 14%. Some borrowers were new without credit history so they have had losses, another indicated by inadequate credit orientation 24%, while some indicated by the loss in production 7%, due to adverse climatic factors that occurred in the agricultural campaign, another large majority indicated by the fall in prices of agricultural and livestock products 38% in the local and regional market. This was followed by untimely credit (21%) and finally by poor technical assistance (3%), because some borrowers used it for trout breeding, purchase of materials (nets and other assets) and others for fattening, but this activity lasted more than 5 months.

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References

- Aguilar P.C. (1989); Agricultura andina en waru waru. Instituto de Investigaciones para el desarrollo Social del Altiplano. IIDSA-USA-PUNO. Perú.
- Almeraya Quintero, Silvia, Figueroa Sandoval Benjamín, Díaz Puente José María, Figueroa Rodríguez Katia y Pérez Hernández, (2011). Uso del crédito: implicaciones para el desarrollo rural. Departamento de Planificación y Gestión de Proyectos de Desarrollo Rural. Universidad Politécnica de Madrid. Madrid, España.
- Ávila, R. (2002); Enseñanza de Cooperativismo de la economía social, CIRIEC-España, 2004 237 páginas.

Alvarado, Javier (1987); "En los límites de la economía de mercado: el crédito Campesino en

la lenta modernización de la economía Campesina. Lima 1ra. Edición IEP Ediciones.

Alvarado y Ccama Faustino (1989); Crédito y producción agraria en Debate Agrario Nº 3 Lima CEPES.

- Alvarado, Javier. (1997); En los límites de economía del mercado; el crédito campesino. En Gonzales, 1ra edic. E. Et al. Edi IEP Lima Perú.
- Canahua A., Churata J. y Quispe M. (1992); Aspectos climáticos de camellones. En avances de investigaciones sobre la tecnología de waru waru e infraestructura. CONVENIO PELT/INADE-IC/COTESU, Puno-Perú.
- Canhua A. (1994); Waru waru, una tecnología ancestral en el altiplano peruano; CONVENIO PELT/INADE-IC/COTESU, Puno-Perú.
- Canahua, M. Alipio, Cano V. Juan y Cari, Ch. Ángel, (1992), Avances de Investigaciones sobre la tecnología de Waru waru (Infraestructura), CONVENIO PELT/INADE-IC/COTESU, Puno-Perú.
- Ccama, F. (1991); Desarrollo rural; Posibilidades y limitaciones en Puno 1ra edic. Puno Perú.

CEDEP AYLLU/ CILCA/ACCFOR/CEDECUN CEPIA/ CESA/PRODERM. (1987); "Crédito

Campesino y Desarrollo Rural", Edit. ()

- CEPIA y otros (1989); "Crédito Campesino, Experiencias y Evaluación, Puno II Seminario Taller 1ra Edición, Editorial Horizonte.
- Chávez Fernando, (2012) Créditos agrarios vs. criterio mora: calificación de cartera agropecuaria. Este artículo fue publicado en la Revista ALIDE, edición octubrediciembre

2012.

- Chura, Ernesto (1997), Variación de la temperatura mínima en agroecosistema de camellones (Waru waru), pampa y su efecto en el cultivo de papa amarga, Maestría en
 - Cultivos Andinos, Universidad Nacional del Altiplano, Puno Perú.
- Diaz z. Cesar (1992), Avances de investigaciones sobre la tecnología de Waru waru (Infraestructura), PELT/INADE-IC/COTESU, ediciones introducción a la semiótica del

diseño andino, Lima Perú. 239 p.

Escalante, R. Catalán, H, y Basurto, S. (2013); Determinantes del crédito en el sector

agropecuario mexicano: un análisis mediante un modelo Probit. Cuadernos de Desarrollo Rural. Sistema de Información Científica Redalyc Red de Revistas Científicas de América Latina y el Caribe, España y Portugal Universidad Autónoma del Estado de México Versión 3.0 beta | 2016 redalyc@redalyc.org

- Erickson C. (1981); Agricultura en camellones en la cuenca del altiplano, aspectos técnicos y de su futuro. En los Andenes y camellones en el Perú andino. CONCYTEC. LIMA-PERU.
- Gonzales O.E. (1987); La Economía campesina: crisis, reactivación y desarrollo; Centro de Investigación Científica, 1ra edición, México, D.F.
- Gonzales O.E. (1987); La Economía campesina: crisis, reactivación y desarrollo; Centro de Investigación Científica, 2da edición, México, D.F.
- Kervin, Bruno (1985); "Crédito en comunidades una experiencia en el Cusco "CERA Bartolomé de las Casas y CEDEP Ayllu.

Salaverry Llosa, José. (); "El Crédito Agrario en el Perú" BCR-Lima Perú.

- Stearns, K. (1999); Morosidad en Programas de Microcreditos, Edicions Alfons el Magnanim, ... (1999): Understanding Impact: Experiences and Lessons from the Small ... STEARNS, K (1991): El enemigo oculto: Morosidad en programas de créditos. España.
- Trivelli, et al (2004), La oferta financiera rural en el Perú, Instituto de Estudios Peruanos, IEP ediciones, Serie análisis económico, Lima Perú, 189 p
- Vélez, Jaime (1984); "Crédito Rural", III Edición actualizada, IICA, CIDIA. Horizonte Lima-Perú 1ra Edición