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Effects of Zarai Taraqiati Bank Limited Finance Program on Poplar Plantations in Rural areas of District Mardan-Pakistan

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Abstract
Poplar plants play important role in the development of farming community while due to financial problems it is difficult for the community to invest more in the plantation of poplar. The farming communities get loan from the Banks in their area. The study was carried out in rural area of District Mardan , to analyze the effects of Zarai Tarqiati Bank limited Finance Program on poplar plantations on various size of farms, problems and constraints faced by farmer in financing procedure.The Universe was District Mardan which consists of three tehsils, namely Mardan, Takhth Bahi and Katlang. Purposively from each tehsil two villages were selected. In the study area the total beneficiaries were 260. From all, data were collected with the help of questionair. Wilcoxon Sign test and correlation were used for data analysis. The total amount disbursed to sampled farmers was Rs.57420000 and the share of the Short term 17%, Medium term 80% while the long term share was only 3%.The total plants number before credit on all farms of the sampled respondents were 47451. After credit the number was estimated 109407. However the total differences of plants were 61956. Wilcoxon Sign Rank test result was also found highly significant at 0.01 levels while the coefficient of correlation between size of land and poplar plants were .383 and found highly significant at 0.01 levels however the. Shortage of finance, high costs, high interest rate , complicated procedure of the bank, non availability of loan in time etc were found the problems for taking loan in the study area. Few recommendations, finance provision according to requirements, in time availability of finance; low interest rate ; one window operation policy; Special poplar plantation program were suggested for enhancing poplar plantation in the study area etc.
Keywords: Effects, Zari Tarqiati Bank Limited, Finance Program, Poplar Plantation, Rural Area District Mardan

INTRODUCTION

The poplar scientific name is populous and family Salicaceae. Its plant is very popular and famous in Mardan district. It can only be planted in spring season in the month of January and February and cannot be planted in barren, termite ridden, dry and stone land. The distance between the plants is 4 by 5 meters on farm however on borders, hedges, in central dividing lanes or in straight line the distance is different. The plants mature in 8th years and total cost estimated Rs.116000 on (5000 plants) one hectare while per plant cost (8th years) is Rs.23.20.(Tarahaat.com). The total area of Pakistan is 79.6 million hectares. The cultivable area is 22 million hectares. Eighteen million hectares occupy irrigated and 4 million hectares are rainfed. Forest covers about 4.5% of the total land of Pakistan. Forest has many type such as Alpine, Coniferous, Sub-Tropical, Tropical Thorn, Riverain, Mangrove and Irrigated forests. The irrigated forest was first established in Changa Manga Kausur District Punjab in 1866. The well known trees are Shisham (Dalbergia Sisso), Mulberry (Morus alba), Baul (Acacia nilotica), Eucalyptus and Poplar spp etc (Pakistan ! Introduction).The stated tree is also very popular in the study area. Poplar is on the top and followed by Eucalyptus. Now a day white ants have damaged the shisham and poplar and still the problem is existed in the district and researchers have no solution in the study area (Field Survey, 2012).

The poplar wood is used in match factory. Pakistan has total 24 match factory units. Among these 20 are working in Khyber Pukhtunkhwa and four in other part of the country. The poplar supply wood to those factories. .In Mardan district many trader have made wood stalls on the road sides which export poplar wood to different region of the country and particular to Afghanistan while due to export the availability of wood to match industry in Pakistan day by day are facing the problems of wood shortage. In 2005 the price of the wood per kg was Rs.2 while due to export its price went up to Rs.6.25 per kg. This is all the grab of shuttering material export to Afghanistan for construction of building and bridges. Daily 25 to 30 trucks loaded to Afghanistan, per truck weight is estimated 30000 kilograms and value is Rs.187500 while total value of the thirty truck is equal to Rs.5625000. From match industry the foreign exchange is 15 million dollars while the share of Khyber

Pukhthunkhwa is 3 million. The match industry has generated7000 jobs in Khyber Pukhthunkhwa and 10000 in the whole country. The industry consumes almost 80 percent raw material including paperboard, paper, chemical and glues etc.(News, 2005).

Paper industry used pulp while the pulp price increased year by year, so the industry owners want the alternative of pulp for their industry on low price. The poplar is a good substitute for pulp on low price. There is a positive relationship between pulp and poplar wood, if the price of pulp increases, the price of poplar also increasing due to its substitution and utilization in industry the price of poplar went upward more than the corn. The author planted hybrid poplars and corns each on 20 acres piece of land for 10 years and compared the returns of both crops. The revenue of the poplar was $ 12,400 and the corn $ 2400. Hence the poplar return was more than the corn. His experiment shows that if the pulp wood prices will be increased by 4 percent then, farmers should plant poplar now because your profits would be found 1, 138 percent more than the corn which are being currently grown in their farm by farmer. So final conclusion indicates that poplar ten years return is more than the corn and advised to farmer of the world to grow poplar instead of corn due to its high return.(Streed, 2002)

The Agricultural finance is an important financial support to farmers for fulfilling their financial requirements for farm activities which fill the gap between their income and expenditure in farming operation. Farming not only requires finance for quality seeds, fertilizer and modern equipments but also requires liquid capital for other activities of the farm (Iqbal et.al, 2003).

In Pakistan, there are two type of credit, formal and non formal. Formal credit is an institutional credit which provided to farmer by institution such as ZariTarkiati Bank Limited (ZTBL), commercial banks, cooperatives and domestic private banks while non formal credit is the non-institutional credit which links with friends, neighbors, and professional money lenders in the country (Idress and Ibrahim, 1993).

Government of Pakistan attaches high priority to ensure the timely availability of finance to the farmers for achieving higher production. Finance requirements of the farming community have shown an increasing trend over the years. Therefore, agricultural finance was increased by the government from Rs.42852. Millions to Rs.215965.34 millions during 1998-2011 while in 2011-2012 it declined 66% due to unavoidable situation in the country. Institutional finance to the farmers is being provided through ZTBL, Commercial Banks, Cooperatives and Domestic Private (Banks. Economic Survey (2012-13)..

Access of small and marginal farmers to micro finance can significantly help them to avoid sliding down the poverty ladder. Providers of the micro finance have not generally addressed the credit need of the small and marginal farmers because of their priority of funding to the poor and some other problems which include (a) risk of invest in agriculture; (b) Seasonality of agricultural production; (c) poor loan repayments, performance of agriculture lending; and (d) technical nature of an agriculture production system. As far the institutional finance is concerned, the small and landless farmers find it very difficult to avail it due to lack of availability of collateral and complex procedure to be followed. There is, therefore, a dire need to start a finance program to benefit the maximum number of poor communities without any complicated collateral system (Ahmad, 2007).

Khan and Jan , (2012) studied that the availability of finance by bank showed a significant increase in the production of crops such as wheat, maize, sugarcane, tobacco while such type activities also increased 16 percent income of the farmer and boost the production of livestock , form forestry sector indirectly. The less amount availability and high interest rate was found barrier to farmer in taking loan from the bank. The respondents considered the amounts Rs.12880 to each one by bank non sufficient for their field requirement. During survey it was also recorded that interest rate was higher for uplifting their economic conditions. The result also revealed that the outskirt farmer of the villages could not benefit more than the nearest.

Seeing to its importance the cited title topic was selected for the present study .The major objectives were:- i)to see the effects of ZTBL, Finance program on poplar plantation on various size of farms (ii) to identify problems and constraints faced by farmer in financing procedure (iii) Recommendations for improvement of ZTBL's finance program for poplar plantation in the study area.

MATERIAL AND METHODS

The study was conducted in rural area of District Mardan which consists of three Tehsils namely Mardan, Thakhth Bahi and Katlang. Purposively two villages from each tehsil namely Gujar Garhi, Rustam, Lund Khwar, Sheregarh, Katlang and Jamal Garhi respectively were selected. All beneficiaries of the ZTBL 260 respondents (in Gujar Garhi 40, Rustam 28, Lundkhwar 40, Shergarh 30, Katlung 70 and Jamal Garhi 52) were chosen for the study. Through interview schedule data were collected from the respondents. Descriptive statistic, correlation, and wilcoxon signed rank test were used for data analysis.

RESULT AND DISCUSSION

Table 1 **Literacy Status of the sampled respondent in the study area**

Particular Item	No	%
Illiterate	60	23
Literate	200	77
Total	260	100

Source:-Field Survey, 2012

Table 1 indicates the Literacy status of the sampled respondent in the study area. According to table33% is illiterate while 77% literate. So the Literacy rate is better than Pakistan Literacy rate which is 58%. Sind and Punjab 60% followed by Khyber Pukhthunkhwa 52% while Baluchistan 46%.(Economic Survey of Pakistan 2012-2013). Hence it is a good sign for the farming community because literacy play crucial role in the development of a country. Literate farmers more easily adopt the modern technology for enhancement of their field productivity than illiterate farmers. They read the research publication and pamphlets with no trouble. Through this way they improve their farming knowledge's and increase their farm productivity, however improve their standard of living and boost the GDP of the Nation.

Table 2 **Educational Status of the sampled respondents in the Study area**

Educational Status	No	%
Primary	21	11
Middle	33	16
Matric	66	33
F.A/F.Sc	32	16
B.A	36	18
M.A	12	06
Total	200	100

Source:- Field Survey,2012

Table 2 shows the educational status of the sampled respondents in the study area. According to table primary exposure is 11%, middle 16%, Matric 33% , F.A/F.Sc 16%, B.A 18% and M.A 6%. The data indicate that very few farmers have M.A education even as, majorities are matriculates. The high level struggle for other jobs in the country, they do not take keen interest in farming due to low income in the study area. Educated farmer very easily gain the knowledge of agriculture from the demonstration plot in the study area. So education play crucial role in modern technology adoptability in the study area.

Table 3 **Tenancy Status of the sampled Farmers in the Study area**

Particular Item	No	%
Owner	249	96
Owner-Cum-Tenant	011	04
Tenant	000	00
Total	260	100

Source:-Field Survey, 2012

Table 3 reveals the Tenancy Status of the sampled farmers in the study area. According to table 96% is owner, 4% owner Cum Tenant while tenant exposure is zero percent. So the table data explains that the loan has given to only owner and owner cum tenant farmer while did not provide loan to tenant community due to lack of land by banks.

Table 4 **Distribution of Various Size of land in Hectares of sampled Farmers in and Correlation between land size and Poplar plants number in the Study area**

Various Size of Land	No	%	r=.383 P=.000
Below 5	233	90	
5-10	16	06	
10-15	05	02	
15-20	03	01	
Above-20	02	01	
Total	260	100	

Source:-Field Survey,2012

Table 4 reveals the distribution of Various Size of land in Hectares of sampled farmers in the study area. . According to table the coverage of below 5 category is 90%, 5-10 category, 6% in 10-15 category is 2%, while 15-20 and above 20 hectares land is only 1% in each category. The result shows that majority farmers have below 5 hectares land. It also shows that economic holding farmer percentage is less than the non-economic holding farmer. Through heredity division the land divided into small pieces generations after generation which later on affect the productivity of the study area. Table also reflects the Correlation between various size of land

and poplar plants number of the sampled farmer in the project area, after credit. The correlation value is .383 and p value is .000, so Correlation is highly significant at 0.05 levels. The relation shows that if one unit of one factor increases then 38.3% positive change will be occurred in another. So the results shows positives relationship between various size of land and poplar plants number after credit in the project area.

Table 5 **Type of Credit Availed by sampled Farmers in the study area**

Type of Credit	No	%
Short Term	116	45
Medium Term	139	53
Long Term	05	02
Total	260	100

Source:-Survey Field, 2012

Table 5 Indicates type of credit availed by sampled farmer in the study area. According to table the share of Short term by sampled farmers is 45%, medium term 53% and long term 2%. The table explains that the medium term exposure is higher than the other followed by Short term while long term counted only 2% It also shows that the economic holding farmer is less than the other farmer..

Table 6 **Total Amount (Rs) of Credit Dispersed by ZTBL among sampled Farmers in the study area**

Type of Credit	Amount	%
Short term	9589000	17
Medium term	46101000	80
Long term	1730000	03
Total	57420000	100

Source:- Field Survey, 2012

Table 6 indicates the total amount of credit dispersed by ZTBL among sampled farmers in the study area. According to table the short term allocate 17% amount to sampled farmers, medium term 80% and long term 3%. The medium term amount is more than the other terms followed by short term. The Long term credit share is very little in the project area. It shows that the bank do not focus highly on long term credit and link extremely with medium term credit followed by short term. The data explains that the capability of long term credit investment in the project area is slow while the farmers take high interest in the other two types of credit due to their economic holding and capability in the study area. All sampled farmer claimed that they have utilized the loan in purchasing of Poplar plants. Through this way increased the plants number in their field and obtained a high returned from the plants and utilized the money in different activities of other economic sector of the economy. The other crops returns are received in parts while the amount of poplar received in one shift after 7 to 10 years, therefore the power of the money is more than the other crops for investment. The farmers take keen interest in planting of poplar plants due to high return in the study area. They called it the solver of financial problems while still no particular program has been arranged for poplar plantation by ZTBL, hence due to high return some portion credit of the other crops used for poplar plantation in the study area.

Table 7 **Effects of ZTBL finance program on poplar plantation in the Study area**

Credit Effects	No	%
Positive	194	75
Negative	49	19
Don't Know	17	06
Total	260	100

Source:-Field Survey

Table 7 indicates the credit effects on poplar plantation in the study area. According to table 75% tells that the effect on the plants is positive, 19% claims that the effect is negative while 6% report that they do not know about the situation. The negative response farmers told that the roots of the plants spread in-depth in the fields which affect the growth of the other crops. Leafs of plants are very large and flatly, so the shade on the fields are more which affect the photosynthesis process negatively and reduce the growth of other crops in the field. The leaf of the plants are the best food of the termite hence they attract the termite to that field which eat the stem and leaf of the poplar plants which later on destroyed the other crops particular sugarcane. Majority farmers claimed that due to termite attack no grower take keen interest in sugarcane crop cultivation in the study area.

Table 8 Continuation Status of the ZTBL finance program by sampled farmers in the study area

Continuation Status	No	%
Yes	184	71
No	076	29
Total	260	100

Source:- Field Survey, 2012

Table 8 reveals the continuation status of ZTBL finance program by sampled farmers in the study area. According to table 71% still obtained the loan from the bank while 29% has paid the loan to the bank and now they are free and do not try for obtaining loan again. They told that the interest rate is high and the return from the loan is low because of this they cannot return the loan to bank in time, hence they do not take interest in the bank credit due to low profit. They also told that the loan religiously has bad impression on the community people and affect the dignity in the community while increase the tension which indirectly affect the other developmental activities of the respondents.

Table 9 **Poplar plants Differences after and before credit on the sampled farmer farms in the study area.**

Name of Plants	Number of plants after	Number of plants before	Differences	% Change
Poplar	109407	47451	61956	131

Source:- Field Survey, 2012

Table 9 Shows the poplar plant differences after and before credit on the sampled farmer farms, in the study area. According to table the total number of plants before is 47451 while after credit number of plant is 109407 and difference is 61956 which estimated 131% changes. So the changes, clearly indicates, that ZTBL finance program has played crucial role in plantation of poplar plants increasing. Gevelt, (2013) studied that non timber trees played crucial part in livelihood development in South Korean mountain area while poplar also plays such type role in district Mardan and provide huge amount to farmer in time of problem. The farmer consider this plant the solver of the problem.

In methodology section of the research proposal Paired t-test was recommended for statistical analysis while after outlier deletion and transforming data it was cleared that the data difference is not normal. Due to violation of assumption Non parametric Wilcoxon Signed Rank test was applied. The result is given below.

H^o. Popular plants number before credit = Popular plants number after credit

H^1 . Popular plants number before credit < Popular plants number after credit

Level of Significance=.05

Table 10 **Wilcoxon Signed Ranks Test Statistics**

Particular Items		N	Mean Rank	Sum of Ranks	Z	P. Value
Plants Before Plants After	Negative Ranks Positive Ranks Ties Total	252a 8b 0c 260	131.22 107.81	33067.50 862.50	-3.278b	.000

Source:- Field Survey 2012

2a. Wilcoxon Signed Ranks Test

Based on positive ranks.

Table 10 shows the Wilcoxon Rank test statistics. According to table the P. Value is .000 and is highly significant at .05 Level, so we reject the Null hypothesis and accept the alternative hypothesis that the poplar plants number before is less than the after. The result shows that ZTBL Finance program has increased the number of poplar plants significantly in the project.

Table 11**Problems and Constrained Faced to sampled Farmers by Bank in taking credit in the study area**

Problem	Yes	%	N0	%	Total	%
Non availability of credit in time	201	77	59	23	260	100
Complication of Passbook preparation by Patwari Halqa	202	78	58	22	260	100
Non Availability of collateral	130	50	130	50	260	100
Non-Co operation of Bank Staff	100	38	160	62	260	100
Amount less than requirement	260	100	00	00	260	100
Bank away	50	19	210	81	260	100

Source:- Field Survey, 2012

Table 12 reveals the problems and constrained faced to sampled farmers by ZTBL in taking credit in the study area. According to table 77% told that the credit was not available in time, 78% claimed that the passbook preparation was very complicated and patwari Halqa did not prepare the passbook in time. They demand for money and used delay tactics in preparation of the passbook. Influential farmers very easily prepare the passbook while poor farmer faced problems in passbook preparation. However 50% also reported that the collateral

availability in the study area is a great problem. Ahmad, (2007) also found collateral complicated system a great obstacle for loan taking from the bank. No one was ready for signing the credit form, due to police arrestment in failure of payment. Thirty eight percent told that the bank staff did not cooperate with us and met with rude behavior in time of case processing. Hundred percent claimed that the bank provided credit on the basis of their land, if the land is more then they pay more amount, when less then pay to us less amount and not according to their requirement while 19% reported that the bank is away from them and due to engagement in farming activities, they faced problem in loan processing case..

CONCLUSIONS AND RECOMENDATIONS

The study finally concluded that ZTBL Finance program has positive effects on the plantation of poplars plants in the study area. The plants number before was 47451 while now the number is 109407, so the difference is 61956 and change is 131%. The correlation with various farm of size was found positive if one unit of any variable increases then 38.3 percent changes will be occurred in another variable. The wilcoxon Sign Rank test result was also found highly significant at .05 levels. Some problems were identified. Among these ZTBL still has not arranged any program for improvement of poplar plantation in the study area and recommendations for future policy formulation are; interest rate should be decreased; one window operation policy should be applied by ZTBL; special program for poplar plantation should be launched; loan amount should be given according to farmers requirements; Islamic principles should be applied by ZTBL, to reduce the religious tension of farmers in the study area; bank staff cooperation with farmers is requested; monitoring cell should be developed for check and balance purpose in the study area.

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