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AFRANE

Amitie Franco-Afghane

RURAL REHABILITATION IN LOGAR

Grant # 76

Final Narrative Report

Target region : Logar province
Districts of Baraki-Barak, Charkh, Khoshi &
Pul-i-Alam

Reporting period : 01-07-92 to 15-08-93

Submitting persons : Yves FAIVRE Director
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INTRODUCTION:

This final report is consequent to a first version partly uncompleted because some figures and datas were still awaited from field .A monitoring mission was carried out from 15th October to 20th November and permits now to produce this final report .

1 -Summary of project**Karez repair**

The project objectives and activities planned:

- To irrigate 4,518 additional jeribs by repairing 48 Karezes.
 - To construct reinforcement structures on canals irrigating more than 10,000 jeribs.
 - To set up a farm traction system so that 4,800 jeribs can be ploughed and 8,000 seers of wheat threshed by increasing the available farm power.
 - To sow 700 jeribs with 25MT improved seeds multiplied in Logar or brought from Pakistan.
 - To distribute 3,000 apple saplings produced in Afghanistan and launch 2 nurseries.
 - To distribute 1,000 vegetable seeds packages.
 - To provide 500 farmers with supplemental food for cattle.
- The project was completed on August, 15, 93, after 2 no cost time extension grants due to some technical and practical reasons.
- According to a change in the karezes rehabilitation program, (shifting 31 karezes to Pul-i-Alam district), 61 karezes have been rehabilitated amongst which 31 uncompletely due to the ban on Pul-i -Alam .Flow measurements and estimation of the additional irrigated area have still to be made.
 - All the reinforcement structures on canals have been completed except Juy e Shalaw .The dakas in Juy e Kalan Shala required an important community participation for the construction of two bridges to cross two canals, this work was unanticipated and we had to shift \$ 5,237 (approx. 140 000Rs) from karezes (ban in Pul-i-Alam) to hydraulic works for the extra cost represented by the transportation of materials.
 - The farm traction system is fully operating.
 - The total wheat seed production is widely overtaken when compared to the target.
 - Afrane purchased 2,400 apple and apricots saplings from ARA nursery in Logar for a cost of 3,500 US \$, after noting that it was impossible for security reasons to purchase the seeds in Maidan, therefore impossible to launch the two nurseries devoted to produce 20,000 saplings.Only small nurseries have been started from rootstocks provided by FAO but the quantities were very limited.On the other

hand, Afrane purchased on its own funds 150,000 apple seeds from France to start nurseries in November.

- The vegetable program is very successful: The results are being analyzed and a publication will be issued in the frame of AAEC.
- The distribution of proteic additional food and vitamins, after some hesitation from the farmers, proved also very successful.

To sum up, not many problems occurred during the accomplishment of the project, except that the ban in Pul-i-Alam stopped the Karezes work and that the fruit trees nurseries could not be started. We consider it to be successful at 90%, and in linkage with the other activities that Afrane is carrying out in Logar, (education with Secours Catholique, hydraulic works with UNDP, general rural development with proper funds), the total is very positive.

2- Restatement of project objectives/activities and actual achievement

a) location

- * karezes: see tables I and II and map I, II, III, IV in annexes.
- * Hydraulic works: see also map I and IV in annexes.

Type of work	Location/district
Aqueducts	Gul Alam Ghan Kareze/Baraki Juy e Baho/Baraki Juy e Durani/Baraki
Dakas	Juy e Kalan Shala/Baraki
Wall+Dakas	Juy e Chalaw/Baraki (1)
Weir, slope and dissipator	Juy e Chelozai/Baraki Juy e Pandeh/Baraki
Divider	Juy e Garmaba/Charkh

(1) This work could not be completed properly because the river became in spate and now the damages are so considerable that we intend to submit another project to UNDP for this site.

- * Tractors and other mechanization: based in Afrane's Baraki Center, these equipments are working in Baraki, Charkh and Khoshi districts. They are mainly used for: agricultural purposes: preparation of land and harvest. Logistic for other activities: road repairs, reinforcement structures on rivers and canals...
- * seed multiplication: this operation was conducted in Charkh, Khoshi and Baraki districts, and coordinated from Baraki Center.

- * fruit trees: distributed in Charkh, Khoshi and Baraki districts.
- * vegetables: 84 varieties of 17 species have been introduced in Charkh and Baraki districts. Rather than distributing them to farmers, they have been sown according to a strict configuration in regular demonstration plots, which will permit the comparison with the local varieties and to choose the best ones for multiplication.
- * supplemental food for cattle: sold in Baraki Center to the farmers from Baraki, Charkh and Khoshi districts.

b) Unit cost information of project inputs

* Karezes repair

District	Length repaired (m)		Total Cost(\$)	Unit cost \$/km
	Appraisal	Actual		
Khoshi	1,970	1,970	45,132.82	2,688
Pul i Alam	8,030	5,870		
Charkh	1,450	1,450		
Baraki	7,500	7,500		
Total	18,950	16,790		

* reinforcement structures: in Rs

Type of structure		Appraisal	Revised	Actual
Aqueducts	Gul Alam	23,361		29,244.16
	Juy e Baho	7,284		21,838.7
	Juy e Durani	7,880		21,479.5
Dakas	Juy e Kalan	59,524		44,176.25
Wall+ Dakas	Juy e Chalaw	130,283		91,427.2
Weir, slope, dissip. Divider	Juy e Cheloz.	136,867		142,977.79
	Juy e Pandeh	129,854		108,524.9
	Juy e Garma.	112,314		166,283.52
Total		607,367	728,833.29	765,208.02

*gabions for dakas and wall included for:139256Rs

* mechanization :in Rs

Item	Total costs		Unit Costs	
	Appraisal	Actual	Appraisal	Actual
tractor MF 240	820000		205000	225000
trailer front weight	124000 34800		31000 8700	35000 2500
Maize Sheller.	14000		14000	11400
Plough	13000		6500	10200
total	1005800	1083600		
Thres. Cult.	90000 34800		45000 8700	46000 7500
total	124800	124440		
Spare parts	111440	126876		
Transp.	60000	103306		
TOTAL	1305840	1438222		

* wheat seeds and fertilizers :in Rs

	appraisal	actual	Unit cost
Seeds	125000		
transport	55000		
training extension	6000		
Total	186000	193438,73	9.5/Kg

* Horticulture

	appraisal(Rs)	actual (\$)
fruit trees	75000	3,800
nurseries	48805	0
vegetables	25000	1,082
total	148805	4,882

* Animal feeding

	appraisal(Rs)	actual (Rs)	Unit cost
cotton seed meal	27500	36000	3.24/kg
powder and		45000	30Rs/Kg
mineral blocks	55000	9936	36Rs/Kg
transport	27500	27659	
training	900		
total	110900	118595	

c) Beneficiary information

* skilled and unskilled paid laborers

	appraisal	revised	actual
KAREZES			
skilled	4224(55)	3633 (47)	(118)
unskill.	12672(165)	10898(142)	21937(466.6)
total	(220)	(189)	(584.6)
H.W.			
skilled	300(26)	360 (31)	(29)
unskill.	758(92)	910 (110)	(117)
training	210	210	
TRACTORS			
drivers	(2)	(2)	(4)
WHEAT SEED			
training	70	70	70
HORTICULTURE			
unskilled	175(4)	175	0
gardener	360(10)	360	0
training	168	168	0
unskilled	40	40	40
gardener	60	60	60
ANIMAL FEED.			
training	14	14	14

See also detailed tables at the end.

* number of families using project unit

	appraisal	revised	actual
karezes	4576	4576	4576
h.w.	6398	6398	6398
farm power	2500	2500	2500
seed and fert.	700	700	700
fruit trees	300	300	240
vegetables	1000	1000	1000
anim. feeding	500	500	199

See also detailed tables at the end.

* indirect beneficiaries

appraisal	actual
25000	25000

d) verification status of each activity:in Afghanistan

	PLANNED	ACTUAL
Monitoring missions Afrane	July 92 2 Afg.mon. Nov 92 1 expat. 2 afg. Feb 93 2 afg.	OK OK 1 mission in August 93 1 Afg. Oct.93 1 expat. 2 afg.
IRC		1 mon. mission in Nov. 92

Sources of verification and other methods:reports from field, data collection, pictures.

3- Uncompleted or unsuccessful activities

a) karezes in Pul i Alam: only two instalments because of the ban in Pul i Alam. b)fruit trees nurseries: because of the insecurity conditions, itwas impossible to get the seeds from Maidan.

4- Unanticipated activities

Only the construction of two bridges for Juy e Kalan Shala was an unanticipated activity, but the commitment of the population and of our staff permitted to complete the work.

5- Problems identified and action taken

The main problem was to find fruit trees seeds and in spite of different attempts to get them, all failed.Our field officer was retained prisoner when he tried to get to Maidan for the second time.So we simply decided to cancel this operation and to buy apple saplings from ARA nursery in Logar. We have now purchased 150,000 apple seeds from France and are going to implement the nurseries with our own funds.

6- Lessons learned

This project is on the whole very successful because it is integrated in the general activities of Afrane Rural Development Center in Baraki. Thanks to the human and logistical means of our Center, most of the operations could be carried out in the proper way. Because of the long term policy of our programs, the staff commitment is very high and they understand their interest in the correct achievement of the projects. Only one fault: if we had taken into account the security conditions in the surroundings of Maidan, we would have ordered them from France early enough to implement our nurseries.

7- Monitoring

There was no independent monitoring during the implementation project. Report from November 92 mission has already been communicated to IRC/RAP/Coordinator and the report of monitoring mission October 93 will be also transmitted to IRC, together with the completion of this report. A financial external audit is planned before the end of this year.

8- Project impact and method for assessment.

a) Costs of project investments

	actual cost	target	depreciation	cost/jerib
Karezes	1,353,981.6	4,518j	10years	30Rs
Hyd. w.	765,208.0	10,000j	10years	8Rs
Mechan.	1,438,222			
Plough	1,348,222	4,800j	5years	56Rs
Thresh	90,000	80j	5years	225Rs
Seed m.	193,438.7	581j	5years	67Rs
Fruit t.	114,000	42j	10years	272Rs
Veget.	32,460	50j	5years	130Rs
Cattle f	117,039	995j	0	118Rs

b) impact at the level of farmer

Before the project, the farming system is traditional:
 Area: 5 jeribs including 2.5 jeribs of wheat, local variety without fertilizer, traditional threshing 2.5 jeribs of fodder (alfalfa, clover, Mais or barley), permitting to feed 2 milk cows, 2 calves 1 to 2 years old, 2 calves 0 to 1 year old. Every year 1 milk cow is sold, 1 calf 1 to 2 years old also.

Products:	2.5j x 50 seers x 30 Rs	=	3750 Rs
	1 milk cow 200Kg x 0.4 x 30 Rs	=	2400 Rs
	1 calf 150 Kg x 0.4 x 30 Rs	=	1800 Rs
	Total product	=	7950 Rs

and charges are nul because all is made by the farmer or his family. After the completion of the project, the process of intensification will bring the following changes in the farming system:

Area 5 jeribs including 2.5 jeribs of improved wheat with fertilizers , so potentially able to produce 100 seers/jerib as demonstrated in our experiments, the fodder area will be reduced to 1.25 jeribs thanks to the complementation, and it will become possible for the farmer to grow 1 jerib of fruit trees and 0.25 jeribs of vegetables. For 75 trees/jerib, the product is 12 757.5 Rs and 500Kg of beans on 0.25 jerib can be expected.

Products of the new system:	2.5 jeribs of wheat	
	2.5j x 100 seers x 30 Rs	= 7500Rs
	1.25 j of fodder same cattle as trad. syst.	= 4200Rs
	1 j of fruit trees	= 12757Rs
	0.25 jeribs of vegetables 500Kg beans x 12 Rs	= 6000Rs
	Total product	= 30457Rs

But this increase of products is accompanied with charges:

Karezes	5j	150Rs
Hyd. W.	5j	39Rs
Ploughing	5j	280Rs
Threshing	2.5j	563Rs
Seeds + Fert.	2.5j	168Rs
Fruit trees	1j	272Rs
Vegetables	0.25j	33Rs
Cattle feed.	1.25j	148Rs
Total		1653Rs

Product of the new system:	30457
Charges	1653
Difference	28804

Conclusion: The project in its totality is economical at the level of the farmer, every input could be charged at its actual price, which allow us to think that a credit system can be imagined for the future.

BENEFICIARIES (DETAIL)

1- HYDRAULIC WORKS

	Skilled	Unskilled
Charkh	4	20
Pandeh	3	21
Chelozai	4	22
Juy e Bahoo	4	8
Durani	4	8
Gul Alam	3	7
Shala Daka	3	11
Juy e Chalaw	5	20
TOTAL	29	117

2- KAREZES

	Paid labour		Com. participation
	Skilled	Unskilled	Unskilled
Charkh	4	17.7	7.5
Baraki	32	158.9	43.6
Pul i Alam	62	231.3	37.7
Khoshi	20	58.7	34.9
TOTAL	118	466.6	123.7

3- SEED MULTIPLICATION

	Baraki	Charkh	Md Agha	Kolangar	Pul i Alam	TOTAL
Attay	658	100	50	21		829
PS 85	8170	100	500		5000	13770
Pak 81	228		600		4250	5078
D1	300					300
D3	350					350
DAP	9076	200	1000	7	9500	19783
Villages	63	2	6	1	50	122
Farmers	179	4	10	1	200	394

total wheat seeds distributed 20.327 MT
total DAP 19.783 MT

4- ANIMAL FEEDING

	villages	Quantities	No farmers
Baraki	43	201.5	184
Wardak	3	7.0	7
Charkh	1	1.0	1
Pul i Alam	1	5.0	5
Khoshi	1	2.0	2
TOTAL	49	216.5	199

The quantities are expressed in units, one unit including 1 bag of cotton seed meal (50 kg), 1 block of mineral (about 1.5 kg), 2 bags of mineral powder (3.5 kg each).