

Saffron as a Livelihood in Herat Province

DACAAR/ICARDA/MAI National
Workshop on Saffron

Herat, Afghanistan. November 14-16, 2006



Income from crops is crucial to many families.

- 28 of the 31 families reported growing some area of saffron.
- 16 of 31 families said their only livelihood was from growing crops.
- 5 were also laborers
- 10 had other professions, e.g. teachers

Saffron farmers are found among those who farm large amounts of land and those who farm little.

Total		Saffron	
(jeribs)	farmers	(m ²)	farmers
0	9	0	9
1-5	2	1-250	2
6-10	8	251-500	8
11-20	4	501-1,000	4
21-50	1	1,001-1,999	1
51-100	2	2000	2
>100	2	4000	2
Other	3	Other	3
Total	31		31

What income can they make?

- Data on revenues and costs of saffron production collected from farmer groups in Pashtun Zarghun (Hashim Aslami and Peter Wyeth).
- Resulting figures are an approximation - will be revised over time.

Method for calculating net returns to saffron

- Saffron being perennial, estimate revenues and costs over full life cycle (5 to 7 years).
- People value any benefit received soon more than the same benefit received later. (They prefer Afs 10,000 now to Afs 10,000 received in a year)
- Similarly current costs are weighed more heavily than future costs of the same amount.

Method for calculating net returns to saffron(continued)

- This tendency to reduce the value of future amounts is called “discounting”. In economics we take account of it by reducing future amounts using a discount rate.

Years	Discount rate	
	15%	20%
	Discount factors	
1	0.870	0.833
2	0.756	0.694
3	0.658	0.579
4	0.572	0.482
5	0.497	0.402
6	0.432	0.335
7	0.376	0.279
20	0.061	0.026

Method for calculating net returns to saffron (continued)

- Add up the discounted revenues for all years in the saffron production cycle (say 5)
- Do the same for costs.
- Net Present Value (NPV) is
Total Discounted Revenue
minus
Total Discounted Cost

Method for calculating net returns to saffron (continued)

- Because investment costs are immediate and revenues commonly build up in later years, revenues are more heavily discounted than costs.
- Consequently, most projects look better at low discount rates than high ones.

Method for calculating net returns to saffron (continued)

- No firm rule for picking a discount rate exists. Common to use several. If a project is viable at a range of discount rates, it is promising.
- When comparing net returns for saffron and other crops, treat other crops in the same way, even if they are annuals.
- If saffron replaces two crops per year, compare with the sum of their net returns.

Net Present Values: Saffron and other crops

	Total NPVs (afghanis)			
	10%	15%	20%	25%
Saffron	156,613	123,662	98,122	78,118
Wheat	31,445	27,806	24,807	22,308
Chick peas	10,614	9,386	8,374	7,530
Onions	33,454	29,583	26,392	23,733
Poppy	179,153	158,423	141,336	127,095
Wheat + clover	70,397	62,409	55,816	50,314
Chick peas + clover	49,567	43,989	39,383	35,536
Onions + clover	72,406	64,186	57,401	51,739
Poppy + clover	218,105	193,026	172,345	155,101

Figures from group interviews, Pashtun Zarghun, collected by Hashim Aslami (DACAAR) and Peter Wyeth (Washington State University)

Conclusions

- Saffron is more profitable than other crops in the table (besides poppy), at all rates of discount (assuming good markets can be found).
- Farmers of all sizes will benefit.