

**RESEARCH IN ALTERNATIVE LIVELIHOODS FUND (RALF)
RESEARCH PROJECT PROPOSAL**

RALF Project Number	RALF02-02
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SECTION A: ADMINISTRATIVE INFORMATION

1. Project Title	Research in production and marketing of saffron as an alternative to opium poppy cultivation
2. Start and Finish Dates	Start: 15.01.2005 Finish: 31.12.2006
3. Target areas in Afghanistan	Pashtun Zarghun District, Herat.

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SECTION B: PROJECT PROFILE

8. Project Summary (600 words)

The proposed project aims to contribute to the identification of alternatives to opium poppy cultivation. Work will be focussed on Herat since this is a province to which opium poppy cultivation has recently spread.

Rural livelihoods in Herat based on agriculture, have been seriously affected by the prolonged drought in particularly for farmers. Irrigation water is scarce, and the market price for wheat fell drastically in 2003 and only partially recovered in 2004. Poppy cultivation is an attractive livelihood source not only for large farmers who can make significant profits, but also for smaller farmers and even landless sharecroppers.

This project proposal is based around the development of saffron as a cash crop. It includes the training of local producers and field staff in best agronomic practices, introduction of improved processing and packaging practices, and the establishment of proper mechanisms for efficient and profitable marketing of saffron products. Whereas the agronomic suitability of saffron production can be tested and ensured at the local level, and optimised through training of producers, the sustainability of the project depends on the establishment of lasting procedures and structures for processing and marketing. The project will investigate the comparative advantages of saffron as a crop particularly for small farmers and sharecroppers/landless.

The establishment of farmers' associations is a central element of DACAAR's work with local farmers. Producers' associations contribute to the empowerment of farmers, enabling them to deal more efficiently and effectively with outside agencies and thus to improve the terms of trade within which they engage in the market.

Local demand for the saffron product is limited, so the success of the project depends on the identification of markets abroad and on the establishment of mechanisms to ensure that the final product meets the requirements of these markets. Here the involvement of the Ministry of Agriculture, Animal Husbandry, and Food Stuff (MAAHF) is central. It is planned to motivate MAAHF to be responsible for setting standards and establishing regulatory procedures for the certification of imported saffron bulbs and for quality control of processed saffron.

The project will be organised into four general activities:

1. Survey of farm economics in relation to saffron production, carried out with male and female community organisations in the target area in order to establish an understanding of risks and opportunities.
2. Analysis of the national and international potential for marketing of saffron.
3. Training of DACAAR staff and potential producers in methods of saffron production
4. Establishment of producers' associations and mechanisms for quality control and marketing

9. Keywords

Herat, saffron, processing, marketing, associations, capacity building

10. Budget Summary (in US\$)

	Year 1	Year 2	Total
Lead institution <i>Danish Committee for Aid to Afghan Refugees</i>	180,103	157,527	337,630
Collaborating institutions:			
<i>Washington State University</i>	40,320	0	40,320
<i>Ministry of Agriculture and Animal Husbandry</i>	21,568	0	21,568
TOTAL	241,991	157,527	399,518

SECTION C: BACKGROUND/PURPOSE

11. Background and Rationale

(a) *Problem Analysis*

In 2004, there was a 64 per cent increase in area under poppy cultivation¹ in Afghanistan with an especially dramatic increase in northern and western provinces, including Herat. Some of this expansion can be attributed to the fact that rural Herat, according to recent data from the NRVA survey, is one of the poorest parts of the country and, in addition was disproportionately impacted by the recent drought because of dependence on rainfed agriculture.

Although poverty is certainly one driving factor in this expansion, in fact, poppy cultivation is undertaken by the asset rich as well as the poor. However, whereas for the rich, poppy cultivation is a means of gaining huge profits and for the poor it is a matter of survival. On average Afghan rural families cannot produce sufficient from their land to meet the minimum required income and purchasing power. Poppy cultivation, as long as there is no risk of eradication, is the ideal solution since it allows them to set aside a piece of less fertile land on which to cultivate a very high value, low risk crop with which to supplement the low production from the remainder of their land. Since poppy occupies the land for only the first half of the year, farmers can even devote all of their irrigated land to poppy and follow this with fodder or legumes according to the local tradition.

The attractiveness of poppy cultivation for both rich and poor lies to a large extent in its comparative advantages compared with other crops. Poppy, for example, is resistant to natural diseases, requires less irrigation, the residue provides fuel for the winter, poppy seeds have medicinal value, the oil is used for cooking and oil cake for winter fodder and finally the opium resin is high value, has a long shelf life and is easily transportable².

In addition, to these advantages, poppy cultivation has, for the resource poor, become a means of accessing land and credit. Since poppy has been a relatively risk free crop, it appears that landowners may be more willing to rent out land to farmers to grow poppy than to grow other crops such as wheat. Those who can afford to provide the inputs usually lease in land, those without assets enter sharecropping agreements with landowners. In Herat sharecroppers generally receive one third of the crop if they have provided no inputs. An added advantage for poppy cultivators is that even sharecroppers are usually able to access credit from traders and shopkeepers against a poppy crop.

Most poppy cultivation in Herat takes place on fertile, irrigated land, which might otherwise be used for wheat production. As a result, at the same time as area under poppy cultivation expanded in 2004, area under cereal production decreased 21 per cent³. The higher risks associated with wheat cultivation as compared to poppy cultivation (price fluctuation, sensitivity to natural pests and greater sensitivity to climatic conditions) play a large role in this shift from wheat to poppy, together with the significantly higher value of poppy as compared with wheat. Thus 'valuable and scarce irrigated agricultural land is increasingly being allocated to drug production purposes ... at a time when, according to the National Risk and Vulnerability Assessment (NRVA 2003, updated 2004), the food insecure population has increased from 3.8 million in 2003 to 6.4 million in 2004⁴.

¹ Poppy cultivation's impact on food security, FEWS Network, 29.12.04

² Goodhand, J., *Frontiers and wars: a study of the opium economy in Afghanistan*, SOAS, London, January 2003.

³ *Ibid*

⁴ *Ibid*

(b) Project development and partnerships

Increasing the risk to poppy growers

Undermining poppy cultivation can be seen as primarily a matter of increasing the risks of poppy cultivation and opium trading and processing, whilst at the same time increasing the profitability and decreasing the risks of cultivating alternative crops. In terms of increasing risks for poppy cultivation, to a large extent this depends on the government's ability to carry out its planned eradication campaigns and to prevent opium trading and processing. The government has already had some success in this, since by the end of 2004, many farmers in Herat were already planning to cultivate more wheat in 2005 because of the expected government eradication programme⁵. In a recent assessment, the province of Herat was included among a total of eight 'priority 2' provinces, to be targeted in 2004/5 as part of the nationwide eradication process. This project proposal is therefore based on the assumption that the risks related to the production of opium poppy in Herat are increasing.

SAFFRON

In terms of identifying profitable and otherwise attractive alternative crops, saffron has been selected as having an excellent potential as a high profit, low risk crop suitable to the climatic conditions in the West of Afghanistan.

Land selection

Saffron has a number of comparative advantages over crops such as wheat. For example, the saffron plant is relatively resistant to disease⁶ and requires fewer irrigations than wheat. The saffron product is high value, has a long shelf life and is light and easy to transport.

It is expected that both wealthy and smaller farmers as well as less resource rich and tenant farmers and share croppers will be able to cultivate saffron. Landowners like to rent out land under tenancy or share cropping agreements in Herat for up to five years since this provides some stability for both tenant and landowner. Saffron bulbs have generally doubled in number after four to five years and old bulbs are usually lifted after that time as their useful life is over. Landowners are therefore likely to be very willing to allow tenant farmers and share croppers to cultivate saffron on rented or share cropped land even though planting saffron means the lessee keeps the land for an extended period.

Although requiring fewer irrigations than wheat, good quality saffron requires irrigated land. The farmer's irrigated land is now therefore suitable for wheat, poppy and saffron. However, since saffron is a perennial crop it is not possible to grow poppies on land which is planted with saffron corms. Saffron therefore has value as being a direct competitor to poppy. In fact it is planned that farmers should give up poppy as being too risky (as a result of eradication campaigns) and instead will divide their land between wheat and saffron with saffron occupying the land that is poorly irrigated.

Production costs

So far in Herat, farmers are getting approximately 10 kg of saffron stamen per hectare (see Annexe A), saffron stamen sells at \$20-\$27 per kg.

Since saffron is a relatively risk free cultivation process, saffron cultivators should be able to access credit from shopkeepers and, in future, traders against a saffron crop as easily or even more easily, than against a wheat crop.

⁵ Ibid

⁶ Saffron is nevertheless prone to fungus attack if irrigation water is not drained sufficiently

Breakdown of costs and profit – saffron production, Herat 2004

	Item	1 <i>jerib</i> /0.2 hectare		Profit	
		Afs	\$	Gross	Net
Year 1	Bulbs + labour for planting	16,109			
	Other inputs	9,061			
	Total	25,170	503.40	480.00	(23.40)
Year 2	Labour ¹	(7,970)			
	Other inputs	2,800			
	Total	2,800	56.00	480.00	424.00

¹Family labour will usually be sufficient for small farmers/share croppers without having to resort to using outside labour.

Processing

The improvement of processing practices is a central element to the process of adding value to the saffron product. At present little processing takes place at farm level which reduces the price paid to the farmer.

The quality of the final product is related to the strength of its colour which is determined in a laboratory. The market price of the product, and the access to external markets, depends on these tests.

Marketing

At present all saffron produced in Herat is traded locally, in the city of Herat. The price given to farmers is approximately 16 times lower than the final retail price for saffron in markets in Europe and USA. There is, according to the analyses carried out so far, only one trader in Herat, and he makes a profit of 30-45%, when selling the saffron on to Iran or Kabul. Most of the profit from the saffron trade therefore is still gained outside Afghanistan.

It is estimated that Iran produces more than 80 per cent of the world's saffron. However Spain is the principal supplier to all major markets, so most of the saffron that is exported from Iran is repackaged in Spain before reaching its final destination.

IMPLEMENTATION

Farm economics analysed and disseminated

DACAAR has experience gained from saffron pilot projects over the past 3/4 years in Herat Province. Since farmers are therefore already cultivating saffron and there is much interest amongst other farmers. This project will provide information, firstly, on who is likely to take up saffron cultivation and why. Secondly, how are they likely to benefit in economic terms based on a detailed analysis of the economics of saffron production for various types of cultivators and combinations of crops.

Analysis of the national and international potential for marketing of saffron.

Since reliance on one trader in Herat is risky, this project will investigate additional marketing outlets. The direct export of saffron from Afghanistan to major consumer markets in Western Europe and the US will also be explored.

Training of DACAAR staff and potential producers in methods of saffron production

At village level, processing of saffron will require the introduction of improved sorting and drying practices. Over the past year MAAHF has imported a total of 28 metric tons of saffron from Iran and distributed to a total of 400 farmers in 10 districts of Herat. Likewise, the Provincial Reconstruction Team in Herat has funded the distribution of 8 metric tons of

saffron bulbs in Injil and Guzera districts⁷. However, these initiatives have not been followed by a strengthening of processing and marketing capacity, and there is thus a serious need to invest resources in the marketing and sale of saffron. Since there is already an expanding saffron production sector this project should be able to analyse current processing and marketing capacity, identify opportunities for improvement and provide some information and training.

Establishment of producers' associations and mechanisms for quality control and marketing

The establishment of farmers' associations is an increasingly central element of DACAAR's work with local farmers. DACAAR emphasises the development of producers' associations since these contribute to the empowerment of farmers, enabling them to deal more efficiently and effectively with outside agencies, be it government authorities, traders or others and, thus, in general, to improve the terms within which they engage in the market. So far two saffron associations have been established by DACAAR, but it is planned to increase this number significantly, once better marketing linkages have been established.

DACAAR's support for producers' associations constitutes capacity- and institution-building at producer level. In addition, regulatory mechanisms are needed to ensure a minimum quality both of the products that are marketed and the bulbs that are imported. The project intends to move towards the establishment of such standards, and it is planned to motivate and support MAAHF in Herat and Kabul to manage these regulatory mechanisms.

PARTNERS:

DANISH COMMITTEE FOR AID TO AFGHAN REFUGEES (DACAAR)

The Danish Committee for Aid to Afghan Refugees, DACAAR, is a humanitarian non-governmental organisation which supports sustainable economic and social recovery in selected project areas in Afghanistan as well as the lasting return of refugees and internally displaced people. Established in 1984 specifically to provide support to Afghan refugees. DACAAR initially provided relief to refugees in Pakistan but since 1989, it has increasingly concentrated on rehabilitation and development work inside Afghanistan. The two main sectors of DACAAR programmes are Water and Sanitation Programme – where DACAAR remains the biggest supplier of improved water points in rural Afghanistan – and the Rural Development Programme (RDP)⁸.

Rural Development Programme (RDP)

DACAAR's Rural Development Programme (RDP) is a community-based development programme where project activities are based on participatory, livelihoods based analyses of the needs of the target population. With a field staff of approximately 350, RDP is working in six provinces (Paktia, Laghman, Ghazni, Wardak, Herat and Badghis). By mid 2004, RDP was working in 414 villages, with a total coverage of an estimated 81,600 villagers^{xx}.

Community based project activities with a strong emphasis on agriculture were initiated in Herat in 1997, and by mid-2004 the RDP was working with 175 villages in two districts of the province – Pashtun Zarghun and Robat-e-Sangi. Based on community organisations – male village organisations (VO) and female Majlis-e-Zanha (MZ) – in order to maximize participation and transparency, and operating with a comprehensive agricultural extension service, RDP is addressing a broad range of livelihood constraints, based on but not limited to, agricultural production. In order to improve programming and achieve a more flexible and broad-based approach, RDP has during the past couple of years been increasingly involved in applied research (see annexe 2).

⁷ Approximately 400 kg are required per hectare, the distributed quantities are thus equivalent to 94 hectares.

⁸ See annexe 1 for a summary sheet describing DACAAR's development.

Micro Enterprise Development Unit

DACAAR's Micro Enterprise Development Unit (MEDU) is a recently started section under RDP, which aims at developing the processing and marketing aspects of local production systems. By actively exploring market conditions through discussions with traders and middle men, MEDU serves to supplement RDP's well established agricultural extension service and directly provide both male and female rural producers with relevant advice on processing and marketing. In the proposed project MEDU will, together with short-term consultants, be actively involved in examining the market linkages and subsequently establishing structures for processing and marketing saffron products.

WASHINGTON STATE UNIVERSITY (WSU)

The Social and Economics Sciences Research Centre (SESRC) under WSU is world renowned for its high quality survey research services to individuals, organisations, and policy makers and to educate and develop the survey capabilities of others for the design and implementation of surveys and the analysis of information and data. In the present project, a team from WSU will be carrying out the initial survey to identify factors such as key attractions of poppy cultivation for the different livelihoods groups in Pushtun Zarghun and how these attractions compare with those of saffron production.

MINISTRY OF AGRICULTURE AND ANIMAL HUSBANDRY (MAAHF)

In order to ensure durable institutions for the expansion of saffron production, it is the ambition of the project to work together with the MAAHF in Herat. This intended involvement builds on and expands already established linkages and cooperation. In 2003, when MAAHF distributed saffron bulbs to farmers in Herat, these farmers were trained by RDP field staff. By involving MAAHF both at producer level – through workshops, farmer field days and other participatory methodologies – and in the establishment of procedures for bulb certification, the intent is build ministerial capacity to deal with all aspects of saffron production and marketing.

12. Project Goal

To contribute to the identification of alternatives to opium poppy cultivation

13. Project Purpose

Increased understanding and interest by farmers regarding opportunities related to the production of saffron in Pashtun Zarghun district, Herat

In the current situation there is a local demand for interventions, which can ensure a more profitable, yet sustainable, utilisation of the resource base. By focusing on a crop that is not demanding in terms of water resources and is usually grown on small acreages, the project will target smaller landholders. As saffron is a labour intensive crop, it also offers local employment opportunities, which is important for the poorest sector of rural society.

Whereas the agronomic suitability of saffron production can be tested and ensured at the local level, and optimised through training of producers, the sustainability of the project depends on the establishment of procedures and structures for the processing and marketing of the products. Local demand for saffron is very limited, so the success of the project depends on the identification of markets abroad and on the establishment of mechanisms to ensure that the final product can meet the requirements of these markets.

SECTION D: OUTPUTS/UPTAKE PATHWAYS

14. Outputs

- Farm economics of saffron production analysed and findings disseminated
- National and international market structures for saffron export from Afghanistan analysed
- Knowledge about saffron production and marketing shared with and verified by producers, traders and MAAHF
- Producers' associations formed and mechanisms for quality control and marketing identified

15. Target Institutions

Saffron associations

As mentioned above, saffron producers' association will be formed. In order for the project to be efficient and target as many producers as possible, the existing associations need to be developed, and new associations should be established wherever possible.

MAAHF

The intention is that quality control procedures and certification of saffron bulbs in the long term should be handled by the MAAHF in Herat, so it is essential that the project includes capacity building at this level through field visits, workshops, and seminars and training courses.

RDP

The project constitutes an expansion of the saffron-related pilot activities, which RDP has been carrying out over the past 3-4 years in Pashtun Zarghun. The project also provides an opportunity to expand ongoing efforts to broker linkages between village communities and the wider society. Rather than continuing itself to broker bilateral partnerships between DACAAR and target villages by establishing community organisations at village level, RDP is increasingly involved in the facilitation of linkages between village society and other external agencies as part of a nation-building process⁹.

16. Target Areas and Stakeholders

Target area

The district of Pashtun Zarghun is situated in Herat province, to the east of Herat city. The Hari Rud river divides the district, and the majority of the population depends on irrigated lands adjacent to the river. Most households therefore own or have access to irrigated farmland – almost all cultivated land in Pashtun Zarghun is irrigated. RDP works in 125 villages in the district, or approximately 80% of the total, thereby covering a total of 13,660 households. Project activities have until 2002 only targeted men, but during the last couple of years women-related activities have increasingly been initiated, and project activities now include women.

Stakeholders

Rural communities

By developing structures that serve to strengthen the ability of rural producers to engage in markets, individually or collectively through associations, the project contributes to a process of empowerment, whereby the rural community – often seen as apart and isolated from

⁹ This approach is also demonstrated through DACAAR's role as a facilitating partner in the National Solidarity Programme in approximately 500 villages.

government authorities and urban markets – develops its ability to interact with outside agents.

Farmers

The local landowners, tenant farmers and sharecroppers constitute the largest group of potential stakeholders in the project. 2 groups of farmers can be identified. One consists of the approximately 50 farmers who have taken part in saffron pilot activities over the past 3-4 years. The other group consists of potential new producers. It is expected that it will be easier to interest potential new producers when the product has been tested by fellow villagers.

Women

It is anticipated that the processing of the harvested saffron flowers at household level, a very labour intensive task, will be handled by women. Apart from generally involving women more directly in income-generating activities, this could provide wage labour opportunities for groups of women that are often marginalized in village society – eg. female-headed households and widows. It is expected that the analysis of farm economics will shed more light on this.

In order to efficiently target women, the project operates with male and female staff and consultants in all aspects of the project that directly involves the village society.

Local labourers

The segment of the rural population depending on local labour for their income and survival has been recognised as one of the poorest in village society. As saffron is harvested in November/December, this means that there will be additional local employment opportunities during a part of the year where there are few, if any, local jobs to be found. Accordingly the period of scarcity, where resources are consumed rather than accumulated, can be shortened.

Other saffron producers

The development of better processing practices and marketing facilities will, in the long term, benefit not only the producers, which the project will involve directly, but also producers in other districts of Herat. By investing in the development of quality control and packaging facilities at the central level, in Herat, it is planned that this will, in the long term, benefit saffron producers in other parts of the province.

17. Uptake Pathways

Where the integration of production, processing and marketing of saffron within the same project is central to the possible success of the project, the involvement of MAAHF in every stage of the process is essential to ensure that the project activities will result in established practices and policies at ministerial level.

Scaling up the findings

The methodology, by which DACAAR works with its beneficiary villages, makes it relatively simple to scale up findings from the target villages to the entire project area. Monthly meetings with male and female village organisations constitute the basis for a working relationship that includes inter-village conferences, on farm trials, and farmer field days as integrated parts of the well-established extension service. This makes it relatively straightforward to disperse the findings from the target villages in an efficient manner.

Furthermore, the Public Information Unit of DACAAR intends to make a film about the development of saffron production in Herat, thereby increasing public awareness of this opportunity.

18. Expected Impact: Livelihoods and poverty of current poppy growers

Current poppy producers, if they can establish themselves as saffron producers should be able to make a small but relatively secure income with access to some credit. Membership of an association should assist them further by securing better prices and access to needed inputs, expertise and advice.

19. Monitoring and Evaluation

Baseline information will be provided by an initial survey, carried out jointly with WSU and also from livelihood surveys previously carried out by Afghanistan Research and Evaluation Unit and DACAAR in 2003 and in 2004. (see annexe 2).

Monitoring will be built into the project through a series of reports to the RALF program, based on data collected by the surveyors employed as part of the project. The reports include

Quarterly Status Reports

Such reports shall be submitted to the RALF program, and the RALF Project Manager as identified. These reports are concise status reporting mechanisms that summarize results/progress and identify developing issues and problems, according to an agreed upon format that can easily be updated and include the following:

- Identification of all professionals involved in rendering assistance and their respective roles and responsibilities, including who will be responsible for providing the information referred to below;
- Summary of progress on major implementation steps;
- Identification and description of implementation problems, proposed actions to address such problems;
- Impacts achieved as a result of a DFID intervention or advocacy. An impact can be considered a change in policy or a change in behavior as a result of the assistance;
- Coordination with other RALF implementers
- Central indicators include:
 - Number of farmers involved in saffron production
 - Number of women trained and actively involved
 - acreage under cultivation
 - the development of linkages between associations and central authorities

Annual Project Results Report

Delivered at annual workshops.

20. Appraisal Issues

The proposed project is not expected to have any negative consequences on the natural resource base. It is expected that the project in the long term (>4 years) will result in an economically stronger local environment, due to higher returns from agricultural production as well as improved opportunities for local employment, which is highly beneficial for the most vulnerable groups, which do not have the assets to pursue employment outside the local community.

SECTION E: ACTIVITIES

20. Activities

Output 1: Farm economics of saffron producers analysed and findings disseminated

DACAAR, WSU and MAAHF develop household based survey on farm economics of saffron production:

The development of the survey will take place in a workshop setting in the DACAAR premises in Herat within two months of the start of the programme. WSU would direct the workshop, with DACAAR and MAAHF as participants. The workshop would aim to develop a village based survey designed to understand the farm economics of saffron production.

WSU train DACAAR staff on survey technique and analysis:

Immediately after the workshop, the WSU team will work with the DACAAR field staff involved in the project and train them in basic techniques of survey and analysis.

DACAAR staff and WSU conduct survey and process results

A number of villages will be selected for the survey, characterised by diverse agro-ecological regimes and socio-economic conditions in order to capture as broad an understanding of local livelihoods as possible. The actual survey will be initiated with transect walks and discussions with the male and female community organisations. This will be followed by more detailed discussions with focus groups and at household level. After the survey, the results will be discussed in another workshop, held in Herat, and finally a report will be produced.

Discuss and disseminate survey findings

A seminar will be held to discuss the survey findings. This will involve all stakeholders in the process, including villagers, DACAAR staff, and MAAHF employees.

Output 2: National and international market structures for saffron export from Afghanistan analysed

RDP's MEDU carries out market analyses in Herat and Kabul

In order to establish a full understanding of the saffron market in Afghanistan. RDP's Micro Enterprise Development Unit (MEDU) will, advised by a saffron marketing expert, analyse the existing domestic trade linkages. This will mainly include discussions with traders in Herat and Kabul, and will result in a preliminary report.

Analysis of international potential for marketing of saffron

An international saffron marketing expert will, over two one month-periods, carry out an analysis of the international market linkages, which the saffron production is meant to feed into. Besides consultations with MEDU, it is envisaged that this will include extensive travels to the most prominent markets in Europe and the US in order to establish direct linkages to companies trading saffron. The anticipated outcome will be linkages, if not contracts, which can secure Afghan saffron direct access to foreign markets.

Facilitation of linkages to international saffron outlets

Based on the domestic and international market analyses carried out, the establishment of linkages to international outlets is facilitated

Output 3: Knowledge about saffron production and marketing shared with and verified by producers, traders and MAAHF

Analyse specific production and processing needs in target area

An expert of saffron production and processing will survey the specific conditions under which saffron production and processing is taking place. Based on this, specific training practices will be recommended, and pilot activities can be initiated.

Train DACAAR and MAAHF staff in methods of saffron production and processing.

Based on the recommendations of the initial analysis (3.1), DACAAR and MAAHF staff will be trained by trainers with experience in saffron production and processing.

Train male and female villages involved in saffron production

Based on the experiences of the first year, the expert (3.1) will return and make further recommendations.

Implement exchange visits involving farmers and MAAHF staff

Based on the experiences of the first year, and the more recent recommendations of the saffron expert, training of DACAAR and MAAHF staff will be continued, eventually resulting in the development of a training module for both staff and producers.

Output 4: Producers' associations formed and mechanisms for quality control and marketing identified

Discuss with farmers interested in the establishment of associations

Based on the introduction of saffron and the training in cultivation and processing practices, and modelled on the associations so far established under the auspices of RDP, steps will be taken to encourage the establishment of saffron associations constituted by a number of producers within a geographical area.

Establish association management committees

The first step after the establishment of the association will be the (s)election of management committees. Committee members will then be given training in leadership and bookkeeping. It is considered very important for the long-term sustainability of the association that it has got a governing, decision making body.

Establish saffron banks managed by saffron associations

After the establishment of saffron associations and proper management procedures, the distribution of saffron bulbs to farmers is to be handled by the associations. Contractual arrangements with individual producers are to be made, involving the 'return' of the original amount of saffron bulbs after multiplication.

Establish saffron bulb certification and quality control procedures in collaboration with MAAHF

Its mandate will be to control both inputs and outputs, as it will certify imported saffron bulbs and also carry out quality control with harvested saffron, thereby ensuring that the locally produced saffron can meet internationally applied ISO standards.

21. Implementation and Management

DACAAR will be the prime contractor in partnership with WSU and MAAHF. Dr. Ali Gohar, DACAAR, will be the principal investigator, Dr. Chris Pannkuk will be representing WSU, and Dr. Ghulam Nabi Ghani will be the liaison person for MAAHF in Herat. A project administrative and management committee composed of these three professionals as well as Hashim Aslami, DACAAR's saffron coordinator in Herat, will work closely together with each individual having responsibility for liaison with his home organization, and with Mr. Aslami as responsible for field level coordination and implementation. Furthermore, two employees of MAAHF in Herat will be paid as part of the project, thus ascertaining that the government authority is involved in.

The implementation of the project will be carried out as summarized in the following. Because of the circumstances existing in Afghanistan and the study area, "structured flexibility" will be the general operational mode. Implementation will be planned and structured, but the team and the approaches will be sufficiently flexible to address unexpected constraints, issues and/or opportunities based upon circumstances and situations in the field.

The project builds on and expands the experience in the field, which DACAAR's RDP programme has accumulated in the area since 1999. In terms of both agricultural extension and community organisation, the activities of RDP are held in high esteem locally. With two field management offices in Pashtun Zarghun (respectively north and south of the Hari Rud river) and a total of eight smaller field project offices, DACAAR has a well-established structure to handle activities at field level. The presence of DACAAR in 130 villages of the district also makes it easy to replicate activities fast in other locations.

WSU is presently working with DACAAR in the implementation of RALF 1 in the Alingar district of Laghman. Accordingly, the survey team is building an experience of both the complexity of the opium problem and the Afghan context which – combined with the survey methodology and analytical skills that the team possess – will make the WSU a highly competent partner in the actual project.

The long-term sustainability of the project is closely linked to the involvement of MAAHF, and to capacity-building within MAAHF, both in terms of staff capacity and the technical ability to carry out quality controls. MAAHF staff will be involved in the project from the very start, both at field level and in Herat, and they will take part in training activities and be involved in the establishment of associations. Thereby lines of communication between village level producers and the governmental authorities will be 'brokered' as early in the process as possible.

SECTION F: FINANCIAL INFORMATION

22a. Financial Summary (Total Budget in US\$)

ITEMS		Year 1	Year 2	Total
Personnel	WSU survey team (2x30 days)	30,000	0	30,000
	Consultant – saffron production (2x30)	15,000	15,000	30,000
	Consultant – marketing (2x30)	18,000	18,000	36,000
	Male trainer – production, processing (2x30)	4,500	4,500	9,000
	Female trainer – production, processing (2x30)	4,500	4,500	9,000
	RDP saffron coordinator (A4)	11,938	12,730	24,668
	RDP surveyors, male and female (E2)	7,200	7,604	14,804
	RDP trainers, male and female (B0)	10,800	11,232	22,032
	RDP extension workers, male and female (E2)	7,200	7,604	14,804
	RDP agronomist (B0)	5,400	5,616	11,016
	RDP muharrams (2) (H1)	3,686	3,859	7,545
Travel	WSU team	6,000	0	6,000
	Consultant – saffron production	2,000	2,000	4,000
	Consultant – saffron marketing	7,500	7,500	15,000
	Male and female trainers	1,216	1,216	2,432
	Mashhad-Herat	2,000	2,000	4,000
	Domestic travel	2,000	2,000	4,000
	Visas and fees	600	600	1,200
	DSA	3,174	2,346	5,520
	Accommodation costs	4,250	3,500	7,750
Operational expenses	Saffron bulbs	9,000	9,000	18,000
	Admin. costs	2,400	2,400	4,800
	Fuel/maintenance costs	1,800	1,800	3,600
	Rent of car	1,600	1,600	3,200
	Comm. costs	2,400	2,400	4,800
Equipment	Equipment – processing and sorting	15,000	0	15,000
	Equipment - packaging	5,000	5,000	10,000
	Equipment – quality control	19,000	0	19,000
Workshops	Holding of workshops	1,000	1,000	2,000
	Participation in annual Ralf workshop	500	500	1,000
Training	Holding of training	1,000	1,000	2,000
	Exchange visits	2,400	2,400	4,800
	Translation costs	500	500	1,000
Publications	Reports	1,000	1,000	2,000
	Film and CD-rom production on saffron in Herat	6,000	0	6,000
	Translation costs	500	500	1,000
Overheads (7%)		15,124	9,863	24,988
Contingency (5%)		10,803	7,045	17,849
TOTAL		241,991	157,527	399,518

22b. Budget for Lead (Applicant) Institution DACAAR (US\$)

ITEMS	Year 1	Year 2	Total
Personnel	88,224	90,645	178,869
Travel	22,740	21,162	43,902
Operational expenses	17,200	17,200	34,400
Equipment	20,000	5,000	25,000
Consumables	0	0	0
Workshops	1,500	1,500	3,000
Training	3,900	3,900	7,800
Publications	7,500	1,500	9,000
Overheads	11,106	9,695	20,802
Contingency	7,933	6,925	14,859
TOTAL	177,703	155,127	332,832

22c. Budget for Collaborator 1 WSU (US\$)

ITEMS	Year 1	Year 2	Total
Personnel	30,000	0	30,000
Travel	6,000	0	6,000
Operational expenses	0	0	0
Equipment	0	0	0
Consumables	0	0	0
Workshops	0	0	0
Training	0	0	0
Publications	0	0	0
Overheads	2,520	0	2,520
Contingency	1,800	0	1,800
TOTAL	40,320	0	40,320

22d. Budget for Collaborator 2 MAAHF (US\$)

ITEMS	Year 1	Year 2	Total
Personnel	0	0	0
Travel	0	0	0
Operational expenses	0	0	0
Equipment	19,000	0	19,000
Consumables	0	0	0
Workshops	0	0	0
Training	0	0	0
Publications	0	0	0
Overheads	1,438	0	1,438
Contingency	1,130	0	1,130
TOTAL	21,568	0	21,280

23. Budget Notes, by line item and by Collaborator

Note: The level of detail demanded remained unclear, but further details can be readily provided.

Budget line	Item	unit	Unit number	Unit cost (\$)	Comments
Personnel	WSU team	day	60	500	
	Consultant (prod.)	day	60	500	
	Consultant (mark.)	day	60	600	
	Trainers	day	120	150	
	RDP staff	year	2		All RDP staff mentioned are funded for the duration of the project
Travel	Consultant (mark.)	lump sum			Extensive travelling expected to different markets
Equipment	Equipment				Expenses for equipment are estimates, based on information from Iran

1. SECTION C: LOGICAL FRAMEWORK

RALF Project Number	RALF02-02
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Project title	Research in production and marketing of saffron as an alternative to opium poppy cultivation
Lead implementing institution	Danish Committee for Aid to Afghan Refugees (DACAAR)

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Assumptions and Risks
Goal To contribute to the identification of alternatives to opium poppy cultivation	Increase in area under cultivation to cash crops other than poppy Increase in number of cash crop varieties under cultivation	UNODC reports FAO reports	
Purpose Increased understanding and interest by farmers regarding opportunities related to the production of saffron in Pashtun Zarghun district, Heart	<ul style="list-style-type: none"> No. of farmers changed intention regarding saffron production by end 2006 	<ul style="list-style-type: none"> Farmers intention surveys 	<ul style="list-style-type: none"> Improved law enforcement contributing to higher risks for opium poppy producers
Outputs			
1. Farm economics of saffron producers analysed and findings disseminated	<ul style="list-style-type: none"> Survey and research reports on farm economics produced by mid 2005 Seminars held including MAAHF, research institutions, and other stakeholders 	<ul style="list-style-type: none"> Survey reports RALF reports 	<ul style="list-style-type: none"> Farm economics of saffron producers are favorable for Afghan farmers
2. National and international market structures for saffron export from Afghanistan analysed	<ul style="list-style-type: none"> Potential markets identified by end 2005 	<ul style="list-style-type: none"> Market survey reports RALF reports 	<ul style="list-style-type: none"> International market conditions favourable to introduction of Afghan saffron
3. Knowledge about saffron production and marketing shared with and verified by producers, traders and MAAHF	<ul style="list-style-type: none"> Workshops held with stake holders involved in saffron production and marketing 	<ul style="list-style-type: none"> Quarterly and annual field reports 	<ul style="list-style-type: none"> Local and national government authorities cooperative to saffron market development
4. Producers' associations formed and mechanisms for quality control and marketing identified	<ul style="list-style-type: none"> No. of saffron producers organised in associations Quality of product and price gained by association members improved 	<ul style="list-style-type: none"> Minutes from association meetings Quarterly and annual field reports 	<ul style="list-style-type: none"> Sufficient government capacity exists to support and enforce quality control and corm certification mechanisms

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Assumptions and Risks
Activities			
<p>Output 1:</p> <p>1.1 DACAAR, WSU and MAAHF develop household based survey on farm economics</p> <p>1.2 WSU train DACAAR and MAAHF on survey techniques and analysis</p> <p>1.3 DACAAR and WSU conduct survey and process results</p> <p>1.4 Discuss and disseminate survey findings</p>	<ul style="list-style-type: none"> • Survey format finalized by mid 2005 • No. of staff trained in survey techniques • Survey carried out by end 2005 • Seminar held for stakeholders 	<ul style="list-style-type: none"> • Survey report • Field reports • Project progress reports 	
<p>Output 2:</p> <p>2.1 RDP's MEDU carries out domestic market analyses in Herat and Kabul.</p> <p>2.2 Analysis of international potential for marketing of saffron.</p> <p>2.3 Facilitation of linkages to international saffron outlets</p>	<ul style="list-style-type: none"> • Saffron traders and market dynamics identified by end 2005 • Quality constraints and solutions identified by end 2005 • Linkages for international sale of saffron established by end 2006 	<ul style="list-style-type: none"> • Survey report • Field reports • Project progress reports 	
<p>Output 3:</p> <p>3.1 Analyse specific production and processing needs in target area</p> <p>3.2 Train DACAAR and MAAHF staff in methods of saffron production and processing</p> <p>3.3 Train male and female villagers involved in saffron production</p> <p>3.4 Implement exchange visits involving farmers and MAAHF staff</p>	<ul style="list-style-type: none"> • Catalogue of local production and processing needs prepared by end 2005 • No. of DACAAR and MAAHF staff trained in methods of production and processing • No. of villagers trained, by gender • No. of farmers and MAAHF staff taking part in exchange visits 	<ul style="list-style-type: none"> • Survey report • Field reports • Project progress reports 	

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Assumptions and Risks
<p>Output 4</p> <p>4.1 Discuss with farmers interested in the establishment of associations</p> <p>4.2 Establish association management committees</p> <p>4.3 Establish saffron corm banks managed by saffron associations</p> <p>4.4 Establish saffron corm certification and quality control procedures in collaboration with MAAHF</p>	<ul style="list-style-type: none"> • No. of associations established by end 2006 • No. of management committees established • No of saffron farmers accessing corms through saffron corm banks • Corm certification and quality control procedures established 	<ul style="list-style-type: none"> • Survey report • Field reports • Project progress reports 	

Attachment 2: Work plan: Activities and Milestones

RALF Project Number

RALF02-02

Project Title	Research in production and marketing of saffron as an alternative to opium poppy cultivation
Lead implementing institution	Danish Committee for Aid to Afghan Refugees

Project Year / Calendar Year	Year 1 / 2005												Year 2 / 2006											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Calendar Month	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Project Month	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Activities & Milestones:																								
Activity 1: DACAAR, WSU and MAAHF develop survey for villages						x	x																	
<u>Milestones:</u> • Survey format produced							X																	
Activity 2: WSU train DACAAR and MAAHF on survey technique and analysis							X																	
<u>Milestones:</u> • Workshop on survey technique and analysis conducted							X																	
Activity 3: DACAAR and WSU conduct survey and process results								X	x															
<u>Milestones:</u> • Seminar on survey findings • Survey report										x	X													
Activity 4: RDP's MEDU carries out domestic market analysis in Herat and Kabul									x	X														
<u>Milestones:</u> • Report of domestic market for saffron											X													
Activity 5: Analysis of international potential for marketing of saffron									x	x														
<u>Milestones:</u> • Reports on international market potential											X													
Activity 6: Facilitation of linkages to international saffron outlets												x	x	x	x	x	x	x	x	X	x	x	X	
<u>Milestones:</u> • Linkages for international sale of saffron established by end 2006																						x	X	

Project Year / Calendar Year	Year 1 / 2005												Year 2 / 2006											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Calendar Month	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Project Month	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Activity 7: Analyse specific production and processing needs in target area								X	x	x	X													
<u>Milestones</u> • Catalogue of local production and processing needs prepared													x											
Activity 8: Train DACAAR and MAAHF staff in methods of saffron production and training								X												x				
<u>Milestones</u> • Staff trained								x												x				
Activity 9: Train male and female villagers involved in saffron production and processing									x	x											x	X		
<u>Milestones</u> • No. of villagers trained										x												X		
Activity 10: Implement exchange visits involving farmers and MAAH staff										x	x										X	X		
<u>Milestones</u> • No. of villagers farmers and staff taking part in exchange visits											x											X		
Activity 11: Discussion with farmers interested in the establishment of associations										x	x	X	x	x	x	x	x	x	x	x	X	x	X	X
<u>Milestones</u> • No. of associations established by the end of 2006																								x
Activity 12: Establish associations management committees										x	x	X	x	x	x	x	x	x	x	x	x	x	X	
<u>Milestones</u> • No. of management established by the end of 2006																								X
Activity 13: Establish saffron bulb banks managed by saffron associations										x	x	X	x	x	x	x	x	x	x	x	x	x	X	
<u>Milestones</u> • No. of saffron farmers accessing bulbs through saffron bulb banks in each planting season										x											x			
Activity 14: Establish saffron bulb certification and quality control procedures in collaboration with MAAHF															x	x	x	x	x	x	x	x	X	
<u>Milestones</u> • Bulb certification and quality control procedures established at end 2006																								X

Attachment 3

In Herat, saffron corms have been smuggled in from Iran over the past four or five years. Corms are planted in later autumn. Harvesting of saffron begins with picking blossoms, the harvest period lasts from late September up to late December. The process begins early in the morning before sunrise. The stigmas collected are placed in the shade in a warm and dried room for five to seven days to dry. Once the stigmas are dry they are packed and stored away from light and humidity. Harvesting and separating stigmas is very time consuming. It takes approximately 370 to 470 hours of work to produce 1 kg of dried saffron threads.

The size of individual stigmas and the amount of style collected from each flower influences total yield and quality of saffron. Between 70,000 and 200,000 flowers are needed to produce 1 kg of dried saffron threads.

The testing standards are written by the International Organisation for Standardisation (ISO). Saffron contains several chemical compounds. The general range of saffron colouring strength is calculated by measuring the level of the provincial chemical *crocin* in a laboratory.