Meditinal and Aromatic Plants as Alternative Livelihood Sources for Rural Communities in Afghanistan

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Introduction

Afghanistan’s diverse topography and microclimates favor an abundance of medicinal and aromatic plants including saffron crocus (Crocus sativus), which is now grown as an illicit crop on over 160,000 ha in 28% of the country’s 34 provinces (UNODC, 2006). Saffron’s saffron is found as a wild plant in the eastern provinces but also cultivated as an illicit crop in Paktia Province. A fast IDL of the medicinal and aromatic plant species that grow in Afghanistan could be exploited commercially as alternative livelihood sources for rural communities in Afghanistan. These projects are therefore the focus of four of the 31 projects managed by ICARDA under the Research in Alternative Livelihoods Fund (RALF), which is financially supported by the UK Department for International Development (DFID). These projects aim to raise incomes and create jobs by helping collectors, farmers and traders make greater use of the country’s rich plant resources.

Saffron Sustainable Production, Processing and Marketing

Saffron (Crocus sativus) is a high value crop that is mainly harvested and processed by trained farmers and women who benefit from the income-earning opportunities offered to them through sustainable production, processing, and marketing of saffron. The aim of the RALF project, led by ICARDA’s partner, DACUM, is to promote sustainable production and marketing of saffron in the province of Paktia in Afghanistan. Since its introduction in 1989, saffron cultivation has spread rapidly in Afghanistan to 21 districts in seven provinces in Paktia, Zabul, and Paktika provinces, where more than 2,000 hectares are now being cultivated. The project has established three saffron associations and two cooperatives (three farms), which are importing saffron bulbs (corns) to new saffron growers. Around 50 kg of saffron are now being cultivated each year in Herat Province. Many farmers want to grow saffron and have lost the great demand for it. Established saffron farmers are expanding their corns by hastening and selling the corms saffron corns they produce. The project is focusing on improving production and identifying new market opportunities. A key step is to obtaining higher grades in international marketing agreements and research is being done to increase the size and quality of the product. This is being done by increasing the size of the corms and the size of the bulbs. The project is also working on improving the quality of the product by increasing the size of the corms and the size of the bulbs.

The use of proper packaging to maintain moisture levels and attract consumers.

Another RALF project, led by CRS in Herat, is studying agronomic issues using mulivar on-farm trials in Herat and Ghor. Results have shown that larger saffron corms produce significantly more flowers and corns, and that saffron grows best when corms are planted at a depth of 15 cm at a spacing of 10 cm. In some areas, such as Paktia, Zabul, it is best to plant saffron in raised beds to ensure good drainage. The project has also shown that saffron crocuses that regularly dig up and replanting corms to improve the yield by pests and diseases. This also ensures that the best new corms are planted at the optimum depth — without regular replanting, corms eventually end up too close to the surface because the new corms form above the older one. Replanting also allows producers to gather surplus corms and sell them for additional income.

Meet the Commercial Production and Value Addition

Commercial production of saffron (Crocus sativus) is a viable alternative for growing opium poppies. The focus is on the project implemented by ICARDA and Nangarhar University in Herat, Kunduz and Nangarhar provinces. The project has set up a research and production unit, trained farmers on organ donation, field days, and organized farmers’ associations. The project staff have also helped farmers to set up plastic houses so that they can produce massing protected agriculture technology. This enables them to sell the crop at a higher price than saffron. The team has also introduced water-saving techniques, such as the use of drip irrigation, and use of drip irrigation. The project is working to produce saffron flowers and corms and has set up a new saffron production unit to help farmers. The project has established three saffron associations and two cooperatives (three farms), which are importing saffron bulbs (corns) to new saffron growers. Around 50 kg of saffron are now being cultivated each year in Herat Province. Many farmers want to grow saffron and have lost the great demand for it. Established saffron farmers are expanding their corns by hastening and selling the corms saffron corns they produce. The project is focusing on improving production and identifying new market opportunities. A key step is to obtaining higher grades in international marketing agreements and research is being done to increase the size and quality of the product. This is being done by increasing the size of the corms and the size of the bulbs. The project is also working on improving the quality of the product by increasing the size of the corms and the size of the bulbs.

Natural Active Ingredients as Sources of Food, Pharmaceuticals and Cosmetics

Liquorice (Glycyrrhiza glabra), amin (Cuminum cyminum), Devil’s dung or yam (Ferula assa foata), caraway (Carum carvi), wormwood (Artemisia absinthus), and Indian saffron (Zingiber officinale). These are the main ingredients of the RALF project, led by ICARDA’s partner, DACUM, and the project is being implemented by the Ministry of Agriculture and Rural Development. The project aims to develop a market for these products and to increase the income of rural communities. The project is also working on improving the quality of the product by increasing the size of the corms and the size of the bulbs. The project is also working on improving the quality of the product by increasing the size of the corms and the size of the bulbs.

Frequency of occurrence of the 6 largest plant species in nine provinces of Afghanistan

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