

COLLECTIVE ACTION MAKES A DIFFERENCE (A success story of self-replicating forestry program in Wakhan Valley)

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Wakhan is one of the remotest districts of Badakhshan, Afghanistan. Inhabited with around 14900 people Wakhan is strategically located in the extreme north eastern Afghanistan, bordering Tajikistan to the north and Pakistan to the south and China towards east. The pastoralist Wakhi people by and large depend on subsistence agriculture mainly through livestock rearing. The rugged mountain terrains and harsh climatic conditions provide for a short agricultural season and leave limited options to farmers to optimally utilize the natural resources encompassing forest and rangelands for their sustenance.

The mountains of Badakhshan are devoid of vegetation mainly because of over exploitation by the local communities over the years. The current scenario in Wakhan shows the mountain slopes are in advance stage of degradation due to the extensive cutting of trees, shrubs and uprooting bushes for fuel purpose. Fuelwood is the main source of energy for cooking, room and water heating in prolonged winters in the valley. There is no alternative source of energy to meet the requirement of the communities. Thus the people mainly dependent on natural environment to fulfill their energy needs.



With the increasing population there has been continuous pressure on natural resources including rangelands and sporadic trees in the valley floor for fuelwood energy. Field observation reveals that trees particularly, mulberry and willows have been intensively pollarded and poplars are lopped almost up to the top, which is harmful for the smooth growth of the trees. In order to meet shortage of fuelwood almost every household burns cow dung whole year particularly in prolong and harsh winter months. This much needed animal manure instead of going to the agriculture field to increase soil fertility and to enhance per unit area crop production is going to hearth for fuel purpose.

Under the Wakhan Area Development Initiative (WADI) a Biomass Energy Use Survey in Lower Wakhan was conducted by an international consultant Mr. Geoff Hathaway in the Wakhan valley. The consultancy revealed that fuelwood makes up 81% and cow dung 19% of total energy consumed by household sector. An average 32 metric tons of fuelwood and 11.3 metric tons of cow dung (Topak) per household are used per year. Total 221 working days are required for a single household to collect fuelwood and dung to meet the annual fuel needs. The average fuelwood cost 70 Afs per Ser (Ser is equivalent to 7kg) with additional 30 Afs per Ser as local transportation cost to reach rural household. So with transportation fuelwood costs around 100 Afs per Ser. Thus around 457,143 Afs (9,938 USD) per household per year is being spent on just fuelwood energy purpose, which is a big dent in the household economy and one of the major causes of the abject poverty in the valley.

To address this dilemma Aga Khan Foundation (AKF) Badakhshan through the financial support from the donor agencies has designed a forestry and rangeland rehabilitation program with Shuras in Wakhan valley. Over the last 3 years around 32 ha area has been brought under tree cover by Wakhan Shuras with limited financial support from AKF NRM department. AKF provide technical support and small amount of money (700 USD per Shura) for purchase of tools and equipments to bring barren and marginal land under irrigation and tree cover. Because of the existing robust Shuras and better management of the sites overall survival of trees remains over 80% which is quite encouraging in this

harsh climatic condition of Wakhan. In some areas, Shuras are receiving additional benefits of fodder crops as a result of tree intercropping with Alfalfa. In an environment like Wakhan where there is short growing season of maximum 5 months in a year, it takes 15 to 20 years for plant of willow to reach exploitable diameter in good quality site and it may take further 20-25 years for a poplar tree. So the communities are adopting this tree intercropping technique for getting early harvest from the chunk of land they allocate for forestry program. This Alfalfa intercropping with trees has multiple effects, at one side it meets the immediate need of fodder for farmers and other side being a leguminous crop it enhances soil fertility which contributes to plant growth. Thirdly it has a deep rooting system and considered to be a good soil binder particularly in sloppy land where there is chance of soil loss due to erosion.

Community self-replicated Forestry Sites in Wakhan

With limited available funds and few field staff, we have been able to meet the high demand for forestry program of the communities in every Shura and every village in Wakhan valley. The widespread forestry and rangeland rehabilitation demonstrations in the valley have shown positive effect on communities. Many Shuras are adopting and replicating the same model of forestry and rangeland rehabilitation program without any

Name of Shuras	Year	Forest established	# of plants planted	Area (ha)
Ishmorgh, Izuk, Wozad, Puk, Archa, Potogh	2008	16	120,951	5.8
Sast, Archa, Kipkoth, Qala Host, Peokoi, Boroghil	2009	6	21,300	1.9
Sast, Sargaz, Ishmorgh, Pegish	2010	4	10,200	0.6
Total		26	152,451	8.3

support from AKF and or other agencies. Over the last three years i.e. from 2008 -2010 the Wakhan Shuras have established 26 forestry sites encompassing 152,451 trees in 8.3 ha area of land by themselves without any support from AKF or other agencies.

This initiative of self-replication of AKF forestry program by Wakhan communities can be seen as a positive step towards self-reliance and a good model to be referred to other communities and Shuras in AKF program area.

Being cognizant that forestry itself is long term enterprise and that it takes a long time to get benefits out of this investment, the initiative of self-replication of forestry program by the Wakhan communities is praiseworthy and a step taken in the right direction. The present investment in afforestation and rangeland rehabilitation will not only address the ever increasing demand for fuelwood energy, fodder and small timber needs of the community but at the same time it will contribute more to enrich biodiversity, ameliorate local environment and to make greener Wakhan for future generations.

