

# People-oriented activities in expansion of forest plantations for the local benefits

## Case study: A pilot project in eastern part of Iran

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### ABSTRACT

One of the key issues for rural people living in dryland and remote areas is to provide sustainable livelihood. In recent years, many attempts have been made to reclaim natural resources in dryland areas and provide the ground for sustainable livelihoods of local people In Iran.

In this case, in 2003, a project was defined in one of the degraded areas to promote livelihoods of people through empowering them and expansion of small forest plantations.

The project activities are carefully designed to develop social, human, financial, physical and environmental capitals at the local level necessary for the sustainable resource management and human development of the target area. The empowerment of women, poor and the other marginalized groups will enhance their capacity and the confidence to influence policies and programmes for their benefits. At this time, local people have been satisfied to involve in all project activities. In this case, they are participating in all activities including forest seedlings preparation and plantation, seeding, etc. At the end of project, it is expected the conditions of rural people to be improved through final formation of village organizations, establishment of local fund and enhancement of villagers' skills.

The lessons drawn in the participatory rehabilitation and management of natural resources could be applied in similar places in Iran and even in other countries with similar conditions.

Key words: Iran, rural people, livelihood, forest plantations, local benefits

### INTRODUCTION

One of the key issues for rural people living in dryland and remote areas is to provide sustainable livelihood. The basic materials for a good life for most dryland people have their origin in biological productivity. More people in drylands than any other ecosystem depend on ecosystem services for their basic needs. It is dryland climate that constrains viable livelihood opportunities (Millennium Ecosystem Assessment, 2005).

Drylands have covered the most parts of the Iran area. However, many attempts have been made to reclaim natural resources in these areas and provide the ground for sustainable livelihoods of local people in the country.

Totally, Islamic Republic of Iran has a land area of 1.64 million km<sup>2</sup> and population over 65 million. It is bordered by Turkmenistan, the Caspian Sea, Azerbaijan and Armenia in north. Afghanistan and Pakistan are on Iran's eastern border with Persian Gulf and Sea of Oman in the south and Iraq and Turkey in the west. Alborz and Zagros Mountain chains and internal and coastal plateaus are the most important features of the country. In general, three geomorphologic units can be distinguished as mountain, pediment plain and playa. At present agricultural lands, forests, rangelands and deserts cover 11.2, 8.4, 52.1 and 19.7 percent of the Country's area, respectively and the rest (8.6%) has been allocated to the industrial and the residential areas (Figure 1).

According to the climatic indicators, Iran is divided into eight major climatic regions; however, the humid climatic region may be further divided into 6 sub-regions, creating 13 climatic regions in

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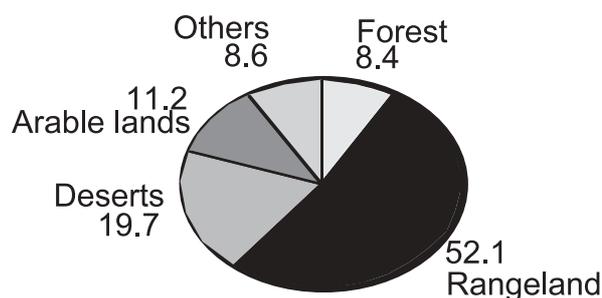


FIGURE 1: Land types of Iran.

total. The diversity and conditions of climates have provided the ground for a variety of agricultural, horticultural and aquatics activities in the country (National Action Programme, 2005).

Five forest regions can be seen in the country with over 13 million hectares area. Despite the limitations of the forest sector in Iran such as limited forest cover, forest conversion and over-exploitation, it enjoys enormous capabilities. Paying due attention into these potentials will have direct bearing on the prevention of deforestation and promoting rational exploitation of forest resources. They can be mentioned as follows (National Action Programme, 2005):

- Unique Species: unique flora species like yews, hornbeams, have created specific added value in Iran's forests.
- Possibility for Eco-tourism: As mentioned before, the diversity of fauna and flora in Iran's forests constitutes a tremendous potential to not only secure domestic consumption of the wood products but also create an enabling environment for Eco-tourism.
- Human Habitats in the Forestlands: Human settlements can play negative or positive roles in forests preservation. Rational exploitation of the forest resources by the inhabitants can play a positive role in the preservation and rehabilitation of the forests. This is, obviously, the case if these inhabitants are involved in the forests-related decision- makings.
- Holistic Approach to Protection of the Environment: In the last decade, important steps have been taken towards preservation and better exploitation of the forest resources, which hopefully leads to further achievements.

In recent years, many projects related to creation of small-scale forest plantations have been carried out in the country to establish vegetation cover in degraded areas and provide job opportunities for the local communities. One of them, i.e. Carbon Sequestration Project, is mentioned and evaluated in this paper.

## MATERIALS AND METHODS

One of the most degraded provinces is Southern Khorasan Province located at the eastern part of the country. Since 2003, in this area, the Carbon Sequestration Project is implemented. It is a six-year joint project of Government of Islamic Republic of Iran and United Nations Development Programme/Global Environment Facility (UNDP/GEF). It has been designed to promote livelihoods of rural people and model carbon absorption by plants in dry land ecosystems through participatory approaches to land management.

### Characteristics of the project site

A heavily degraded area (Hossein Abad in mentioned Province) has been chosen. Some of the important data of this project site are illustrated in Table 1.

## RESULTS AND DISCUSSION

### a) The portfolio of the project

The project activities are carefully designed to develop social, human, financial, physical and environmental capitals at the local level necessary for the sustainable resource management and human development of the target area (Figure 2). The project activities are designed based on 'think globally act locally' principle so that rehabilitation of rangelands would help sequester atmospheric carbon for global benefits too.

The project has been adopted an integrated and holistic approach to programme implementation. It has been employed participatory approaches to mobilize and empower the stakeholders and local

TABLE 1: Some features of the project site

<b>1) Geographical information</b>
1.1. <b>Boundary:</b> East and southern east of Birjand
1.2. <b>Latitude/longitude/gradient:</b> 18,32 to 39,32 Northern/59,52 to 60,16/mild slope
1.3. <b>Area</b> (ha or sq km): 82688 ha
1.4. <b>Name and no of villages/settlements:</b> 27 villages(22 populated and 5 depopulated)
<b>2) Land use types and area</b>
2.1. <b>Arable lands:</b> Irrigated lands: Nazdasht(wheat,barley and sugar beet), Janatabad (wheat, barley, sugar beet and pistachio), Hosseinabad(wheat and barley) Abandoned dry farming lands: near eastern part of country boundary
2.2. <b>Rangelands:</b> They are the most widespread land uses in the area composed of mild and poor rangelands.
2.3. <b>Planted rangelands:</b> Central, east and north eastern parts of the area
2.4. <b>Barren lands:</b> Eastern and south eastern parts of the area
2.5. <b>Rocky formations:</b> West and south western parts of the area
2.6. <b>Residential areas:</b> Nazdasht (main area),Parang, Tajmir, Ghalesorkh and Gondakan villages
<b>3) Demographic and socio economic information</b>
3.1. <b>Population (total and village wise):</b> 1078 persons(year 2003)
3.2. <b>Farm land (ha):</b> 557 ha
3.3. <b>Livestock population (types and no):</b> 21300
<b>4) Bio - physical information</b>
4.1. <b>Important plant species of the area (natural as well as planted):</b> Artemisia sp., Pistacia khunjuk, Astragalus sp., Haloxylon etc.
4.2. <b>Major water/river system(flow pattern) – condition of important water catchments</b>
4.2.1. Siahoo river is originated from Gholeh Kooch and Momen Abad Mountains
4.2.2. Santoor river is originated from Kooch Bandar mountain, both are joined to form Shoor river.
4.3. <b>Water quality/pH</b>
EC: 2400 to 8200 micro mohs/lit
TDS: 1500 to 5500 mg/lit

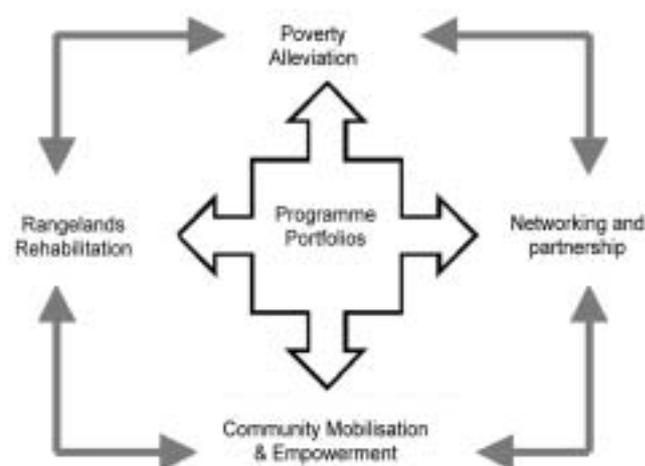


FIGURE 2: The portfolio of the project.

communities to rehabilitate designated areas on their own. A bottom-up planning approach has been adopted to make the project for and by the people. Devolving local planning and management responsibilities to grass-root levels will enable the target communities to have a greater formal say and responsibility over their livelihoods in line with better management of resources (Annual Report of CSP, 2005).

However, the paramount feature of the project is that it will be run by and for the local stakeholders. The local community has been considered as the main participants in the planning and execution of the project activities.

## b) The objectives of the project

The project is expected to realize the various objectives at different levels (Figure 3). Locally, the objective of the project is to rehabilitate the land resources and improve the socio-economic status of the local communities in line with eradicating poverty and enhancing the project site's Human Development Index (HDI). With the active participation of local communities, at least 9,000 ha of degraded lands will be rehabilitated through planting various woody tree and shrub species (Amiraslani, 2005).

At the national level, the project helps to improve the productivity of semi-arid areas and globally, it follows some of the objectives and principles of Climate Change Convention.

Animal herding is the main occupation of the people living in this area. Sustainable management of natural resources is fundamental to maintain these livelihood activities. However, lands have been degrading and farmers have forced to take their livestock long away from their home. Continuous drought has also contributed to the degradation of lands and added hardship to the people.

Totally, the project will help local communities:

- To rehabilitate the degraded lands and establish small-forest plantations
- To increase animal herding
- To improve their socio-economic conditions
- To conserve water to minimize effects of drought.

## c) The principles of the project

The implementation strategy is based on collaborative rehabilitation and management of natural resources which promotes both community-based and community-run initiatives. Social mobilisation principles have been adopted to mobilize and empower stakeholder communities.

The Carbon Sequestration Project emphasizes community mobilisation as an essential initiative for self-governance and empowerment in resource management. The community mobilisation



FIGURE 3. The objectives of the project at different levels.

principles encompass issues of decentralized decision-making and control and ownership of financial, natural and material assets necessary for sustainable rural livelihoods. To promote sustainable resource management, the project considers that local community involvement is inevitable in all stages of planning, designing, implementation and benefit sharing. The project implementation approach will also promote "gender equality" to ensure the interests, needs and the priorities of both women and men at all levels of programme implementation. The empowerment of women, poor and the other marginalized groups will enhance their capacity and the confidence to influence policies and programmes for their benefits.

As a strategy of equal participation of women and equity in benefit sharing, local women have been encouraged and motivated to form separate Village Development Groups (VDGs).

A local fund is also going to be established using local community and project credits which aims at encouraging local self-employment initiatives to improve livelihood of people.

## CONCLUSION

At this time, local people have been satisfied to involve in all project activities. In this case, they are participating in all activities including forest seedlings preparation and plantation, seeding, etc.

The first results of monitoring phase which was done by GEF stressed the success of this project in realizing the first years' goals. At the end of project, it is expected the conditions of rural people to be improved through final formation of village organizations, establishment of local fund and enhancement of villagers' skills.

Some of the lessons learnt up to this time are as follows:

1. It has been observed that proper and regular interactions are necessary to develop confidence among local communities to implement collaborative rangeland resource management activities.
2. All small-scale projects must be designed and implemented by local people themselves to be respected and preserved by them (Amiraslani, 2004)
3. A good communication skill among staff is essential to mobilise local people for the sustainable resource management and community development
4. For a successful programme implementation, base line data and M&E (monitoring and evaluation) plans are necessary from the beginning of the implementation
5. The local NGOs would be better and more cost-effective options to implement relevant activities at the grass roots level
6. Holding preliminary training and participatory workshops for the local people is fruitful to introduce the framework of projects (Amiraslani, 2004)
7. Regular visits of central level authorities and interaction between them and field level management staff would develop clear and common understanding in project implementation

The lessons drawn in true collaborative rehabilitation and management of natural resources could be applied in similar places in Iran and even in other countries with the similar conditions.

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