



GRACE  
ASSOCIATION  
PAKISTAN

July 2011

# Conservation and Sustainable Use of Medicinal Plants in Baltistan

A Survey in Himalayan Mountain Watershed Villages

SURVEYORS

MUHAMMAD RAZA  
(M.Sc. Environmental studies)

SYED MUHAMMAD ALI SHAH  
(M. Sc Biology)



ONE UN Joint Program on Environment  
Grassroots Initiative Program (GRIP)



## Contents

1. Overview .....	1
2. Introduction .....	2
3. Main objectives and survey villages .....	3
4. Methodology .....	4
5. Results .....	5
6. Conclusion .....	10
7. References .....	11



## Overview:

Medicinal plants have been used throughout the world for thousands of years. Men have been dependent on plants from time immemorial. His primary needs including food; clothing and shelter have been long supplied by nature, and subsequently improved upon through the application of science and technology. In fact, global explorations were all aimed primarily at botanical exploration. The intimate relationship between man and plants now forms the core of the inter-disciplinary science known as ethno botany. The plants recognized to be valuable as food, medicine, shelter, etc., form the link between communities and their surrounding vegetation.

Gilgit-Baltistan is located between the biggest three mountain range of Hindokush, Karakorum and Himalaya in Northern part of Pakistan. Glaciers, spread over miles in the laps of these mountains, ever-green villages, cold and sweet water fountains, dense forests are rich with abundant valuable medicinal herbs which can be used for medicine. Most of these plants are very significant and beneficial. Treasure of information about these medicinal herbs has been obtained from local "hakeems" (Healers). Due to its local availability, even in the recent past most of the region inhabitants were fully aware of its use.

Herbal medicine has a long history. It has been in practice for centuries. Rational revolution together with time pass has influenced awareness, information and knowledge about these herbals. Also, our culture and civilization have also highlighted the importance of these medicinal herbals. Today medicinal plants have the same significance as it had centuries back. But the new generation is now totally unaware about the use and benefits of these plants. This treasure of information pertaining to herbs must be passed down from generation to generation as oral histories and written record and this was one of the objectives behind this survey.

## Introduction:

The main aims of the project, introducing a sustainable model of climate change mitigation through community participation in Skardu funded by ONE UN Joint Program on Environment under the Grassroots Initiative Program (GRIP) included a survey of cultivated and uncultivated medicinal plants as well as practices in relation to their conservation and sustainable use for promoting and revival of traditional use of medicinal herbs with no side effects. In order to achieve the project objectives a two member team of surveyors were hired to conduct the survey in the selected three villages in the Indus River Watershed in Skardu. The survey conducted aimed at conservation of the available natural resources opening new windows for economic development of the communities in the project villages.

It was an interesting and good opportunity for us to learn and explore indigenous knowledge and natural resources that God gifted to the people in this mountainous region of Gilgit-Baltistan. We conducted the survey in collaboration with local communities in different mountainous villages including Kwardu, Tormik and Churkah Shigar district Skardu. The survey team collected further data for socio-economic profiling of the villages where people are living in extreme poverty situations but they are rich in resources especially in the medicinal plants. But they are not mobilizing them in their benefits. We found the village community very cooperative and interested in learning and sharing their knowledge. We met with some local Healers. They use medicinal herbs/homeopathic healing and the villagers report their treatment are very effective and no cost. We signed a term of references (ToR) with GRACE Association for this assignment and we completed our work with the help of local village communities with keen interest. We are sure the organization may achieve the objectives of sustainable harvesting, collection, processing, and value addition, packing and marketing of medical herbs through an intensive sensitization, awareness and capacity building program for the target communities.

We avail this opportunity to thank the GRACE Association staff, the communities in Kwardu, Tormik and Shigar for giving us this great opportunity to learn and explore new knowledge.



## Aims and objectives

The survey was done to find out how many and what kinds of medicinal herbs are available and under used in the project villages in Skardu and based on the survey findings train the local communities in alternative earning through sustainable use and marketing of these medicinal herbs in local, national as well as international market.

This survey report contents required information on use and practices of medicinal plants in the selected three project villages in Skardu district. There were many local traditional practitioners or healers in the villages, however according to the villagers the number of local healers is now at the end because new generation is totally unaware about the use and benefits of the herbal resources and this small survey can only hope to present a snapshot of one small part of the great mass. However, as such,

it is valuable to have this survey to provide the project with some up-to-date data on the available plants and traditional medicinal practices in rural villages in Skardu today. Our survey team had been actively involved in

data collection on medicinal plant with the local communities in the selected three villages. Village meetings were held in which local traditional healers and persons known to be knowledgeable in this field were identified. The objective of the project has been to help these communities to develop a system to conserve medicinal plants by propagation and local cultivation and to provide opportunities for sustainable harvesting from the wild and market this valuable resource for their economic benefits as well as to contribute in the climate change mitigation and adaptation efforts.





## Methodology

This survey represents a collaborative effort between GRACE Association Pakistan supported by Grassroots Initiative Program (GRIP) and the partner communities in respective project villages in Skardu. Collected information is now using for awareness raising and capacity building of local communities in Skardu. The communities were selected to participate in this survey on the basis of their reputation for being adept

at medicinal plant, accessibility to the project villages and willingness to co-operate with the aims of the project. The approach of the team was to identify local healers who were considered knowledgeable by popular reputation. Village meetings were held in each of the target villages and the aims and objectives of the survey were explained. Both surveyors identified as possible candidates to participate in personal interviews for the survey.

Activities undertaken were as follows:

- a) Collect a thorough information on socio-economic condition and major problems of the villagers in particular the women communities
- b) Identify local healers in each village
- c) A member of the survey team interviewed each healer. The interview was based on a general questionnaire and included enquires into the types of plants in use available in the village pastures.

Subject area for questionnaire:

- Types of cultivated plants and their traditional use
- Types of uncultivated plants available in the village/high pastures
- Parts used
- Traditional/local name of the plants with their images
- d) Data were recorded on the questionnaires
- e) Completed questionnaires sent to the office for follow up.
- f) Data on completed questionnaires entered into the computer for further use of the information.



## Results

The medicinal plants survey was conducted during June and July 2011. In the three selected villages, only 15 people out of around 4500 populations as traditional healer were found. This reflects the reducing and ending trends of traditional use of medicinal plants. A total of 111 medicinal plant species were recorded available in the project villages.

Leaves of the plants were dominant among others. Other parts in use were roots, stems and bark. The ways to use of the parts of the plants were also noted and the images were inserted in a herbarium. About 90% of the plant parts in usage were common in all of the communities.

At the Tormik Rondu local medicinal herbalists/healers are very skilled and rich in the knowledge of use and benefits. Their knowledge should be recorded and share with the new generation for revival and cause promotion. There are female healers too and with good knowledge but in Kwardu and Tormik being backward rural area, women did not participate in the meetings. Only few women can be interviewed and share their knowledge. So, the majority of interviewed herbalists were male.

Only 5 plants were primarily used for treatment and common in each

village. Roots and bark dominated all of the other plant parts used.

On the one hand, no village or villager is working on medicinal plants conservation or just have this idea in mine. On the other hand, they showed their enthusiasm toward getting involved if some technical and financial resources are provided to step in.

Some other features of the project villages and medicinal plants are as follows:

### 1. Muntazarabad Kwardu Skardu:

Kwardu valley is located at forty five minutes drive from Skardu main town. The communities there posses 5-10 acres land but the major portion of the land is barren due to no water available for irrigation. Main earning source of community is agriculture. 80% population is link with farming and 20% have government jobs as well. There are different kinds of cultivated and uncultivated medicinal plants which can be mobilized for their economic development and improving health status. According to the communities 30% population in Kwardu use herbs and shrubs instead of antibiotic medicines. Major medicinal herbs found during the survey are as under:



## Cultivated herbs:

Shalmik	Broo	Natstran	Badiyan
Warfru	Stranjung	Muloe saon	Lumgani-saon
Osu	Buksook	Cha	Zhayzhay

## Uncultivated herbs available in the village:

Momeran	Tayalo	Shapor	Thangmarsi
Qurqum	Khasheer	Shanthah	Khashink
Seep	Mindaskor	Sikerbo	Makhotink
Tikta	Datora	Halo	Khampa
Chikerink	Charcho	Lo	Sutra
Siya	Soqphalo	Lilo	Tijum
Pur sutra	Gonaq sutra	Zema mendoq	Shokpa
Phialo	Shano	Ghungshu	

## Medicinal herbs in common use by the communities presently:

Thalay	Podena	Tumburook	Naqposhoto
Serfoshoto	Ismnad	Hiltialo	Sursur

Following are the list of local healers in Kwardu:

1. Haji Hussein
2. Ghulam Mehdi
3. Ghulam Rasool
4. Haji Musa
5. Hajino Roqiyya (the only female healer)





## 10 main informants in Kwardu

Nisar Ali	Ghulam Hussain	Ghulam Rasool	Fida
Ismail	Muhammad Ali	Nazir Tufail	Haji Fida Hussain
Shukoor Ali	Haji Musa		

## 2. Churkah Shigar:

Churkah Shigar is located at one and half hour drive from Skardu city. This valley is lush green with sufficient water for irrigation and rich in many natural resources such as land, mountains and forests. The communities are highly interested in contributing to communal development with some external support to mobilize their available natural resources to ensure sustainable use and provide livelihoods. 35% population use herbs and shrubs as medicine. Main herbs details given by the villagers and found in the high pastures are given below:

### Cultivated herbs:

Shalmik	Broo	Natstran	Karfo shoto
Nakpo shoto	Stranjung	Muloe saon	Lumgani-saon
Osu	Buksook	Cha	Zhayzhay
Molo	Osu	Badiyan	Booksook

### Uncultivated herbs available in the village:

Siya	Sogphalo	Lilo	Tijum
Tikta	Datora	Halo	Khampa
Chikerink	Charcho	Lo	Sutra
Pur sutra	Gonaq sutra	Zema mendoq	Shokpa
Phialo	Shano	Ghungshu	Shano
Momeran	Tayalo	Shapor	Thangmarsi
Qurqum	Khasheer	Shanthah	Khashink
Seep	Mindaskor	Sikerbo	Makhotink



Medicinal herbs in common use by the communities presently:

Thalay	Podena	Tumburook	Surur
Kuhneude Saon			

Following are the list of local healers in Churka Shigar:

1. Haji Hassan
2. Muhammad Ali
3. Tormik Rondu

10 main informants in Shigar

Aziz Malik	Inayat Ali	Ghulam Nabi	Muhammad Ibrahim
Fida Hussain	Ghulam Mehdi	Ghulam Muhammad	Siddiqa
Ayesha	Haji Muhammad	Muhammad Baqir	

Tormik Rondu

Tormik is very beautiful and very rich in medicinal plants. This village located at the Skardu Gilgit road at a high altitude passing through a zigzag road of 3 hours drive from Skardu city. Tormik high pastures are lavish in natural resources; particularly the mountains offer abundant medicinal plants. Moreover, use of traditional healing is common among people. We met several local Healers who are skillful at knowledge of processing, use and benefits of herbal medicines. Women community is facing a lot of problems in term of total dependency for their living and other necessities on their male family members including father, brothers and or husband. There is poor or no education facilities and the most important note taken from Tormik valley is that a traditional cooking stove made of iron called Bukhari is used by families for cooking in the kitchen throughout the year. This is somehow good in winter but they use it in summer too increasing the room temperature up to 45 degree always. The women are compel to be used to of this culture but the men folk are free from this teasing environment. However this situation can be replaced with the introduction of the GRACE-GRIP producing fuel efficient stove which will be help the women in Tormik to have a normal environment and work in a feasible environment during different seasons. Medicinal plant specific information from Tormik valley is given below.



## Cultivated herbs:

Nakpo shoto	Stranjung	Natstran	Karfo shoto
Osu	Buksook	Cha	Zhayzhay
Molo	Osu	Badiyan	Booksook
Shalmik	Broo(Buckwheat)	Muloe saon	Lumgani-saon

## Uncultivated herbs available in the village:

Chikerink	Charcho	Shano	Shokpi phalo
Sip	Mindaskor	Skirboo Tharen	Halo
Momeran	Tayalo	Shapor	Thangmarsi
Qurqum	Khasheer	Shanthah	Khashink
Seep	Mindaskor	Sikerbo	Makhotink
Siya	Soqphalo	Lilo	Tijum
Tikta	Datora	Halo	Khampa
Chikerink	Charcho	Lo	Sutra
Pur sutra	Gonaq sutra	Zema mendoq	Shokpa

## Medicinal herbs in common use by the communities presently:

Thalay	Podena	Tumburook	Surur
Kuhneude Saon			

## Following are the list of local healers in Churka Shigar:

1. Haji Muhammad Ali.
2. Syed Najaf Shah.
3. Almost all families in Tormik use medicinal herbs at their home level.

## 10 main informants in Tormil

Haji Muhammad Ali	Haji Hassan	Ghulam Muhammad	Nisar Ali
Muhammad Suleman	Hussain	Haji Rehman	Manzoor
Ibrahim	Ahamad	Jafar	





## Conclusions

There was a remarkable uniformity in the identification and use of the plants recorded in this survey (90%). Majority of healers and community informants interviewed were male except few in shigar valley. This does not however, reflect all of the health activities and the consequent collecting activities that occur in the survey villages. There are significant areas of health practice in which only women work such as birthing attendants. The prevalence of male healers interviewed may also be a reflection of the fact that all of the interviewers were male. Women herbalists may well have been put-off by this and held back from offering themselves for interview. Leaves and roots were most commonly the plant part used and this is of particular concern. The destructive harvesting of plants from the wild has the greatest impact and options for ameliorating this impact such as removing part of the root or replanting root buds into the hole need to be explored.

Changing values and beliefs may also have an impact on plant conservation, use and marketing. Plants used to be grown in most villages for its medicinal value is now very difficult to find. This used to be commonly planted at the front of the house as it had a spiritual significance to the well being of the people. Furthermore, the increasing trend of using antibiotic readymade medicines have changed the traditional beliefs and trends of using herbal medicines. In response of the questions, the community people suggest use of medicinal plants instead the expensive antibiotic medicines having side affects but they need push back for revival of their traditional trend of using herbal medicines made at domestic or local level. To set this trend organizations like GRACE Association needs to provide technical support and incentives for the communities. Once they are involved in the sustainable use and marketing of the medicinal plants it would become a custom and tradition for next generation.

We have prepared a herbarium of 111 medicinal plants, collected from the respective project villages. The name of plants in local, scientific and Urdu, parts that is used and season and the ways to use with images has given in the herbarium at the end of this report. We hope this will contribute in raising awareness among communities to provide them a new trend of conservation as well as improving their livelihoods by mobilizing this valuable able natural resource available within their villages. We are sure, like the villages we conducted this survey all other villages in Baltistan are rich with these natural resources and they can also mobilize replicating the successful experience from these project villages.

## References:

[www.backyardgardener.com](http://www.backyardgardener.com)

[www.motherherbs.com](http://www.motherherbs.com)

[www.anniesremedy.com](http://www.anniesremedy.com)

[www.naturalark.com](http://www.naturalark.com)

Baquar, S.R. (1995). Trees of Pakistan. Their natural history characteristics and utilization. Royal Book Company Karachi. pp-634.

*Design by: Lalita Nakarmi/Kathmandu, Nepal*

**Registered Office Islamabad**

27 - E 3rd Floor, Office 5,  
Ali Plaza, Fazal-e-Haq Road,  
Blue Area  
Islamabad, Pakistan  
Phone +92-51-282-9970, 252-9683  
Fax +92-51-2829971  
Email [grace@grace.org.pk](mailto:grace@grace.org.pk)  
Web [www.grace.org.pk](http://www.grace.org.pk)

**Project Office Karachi,  
Sindh province**

House No. 566 Block "Q" (Balti Basti)  
North Nazimabad, Karachi  
Phone +92-21-6058821  
Email [grace@grace.org.pk](mailto:grace@grace.org.pk)  
Web [www.grace.org.pk](http://www.grace.org.pk)

**Programme Office Skardu,  
Gilgit-Baltistan**

Main Airport Road Astana Skardu  
GPO Skardu 16100, Pakistan  
Phone +92-5831-455067  
Fax +92-5831-455067  
Email [grace@grace.org.pk](mailto:grace@grace.org.pk)  
Web [www.grace.org.pk](http://www.grace.org.pk)

**Project Office Layyah,  
Punjab province**

Bhagal, Chak 279, TDA  
Layyah, Punjab, Pakistan  
Phone +92-606-450279  
Email [grace@grace.org.pk](mailto:grace@grace.org.pk)  
Web [www.grace.org.pk](http://www.grace.org.pk)