

## KEY NOTE ADDRESS ON PROMOTION OF MEDICINAL PLANT IN PAKISTAN

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Honourable Governor, NWFP, Vice Chancellors, Peshawar University, Agriculture University and Engineering University, Chairman, Pakistan Tobacco Board, Director General, Pakistan Forest Institute, Learned delegates, Ladies and Gentlemen

Assalam-o-Alaikum!

I express my gratitude to the Honourable Chief Guest, Amir Gulistan Janjua, Governor N.W.F.P. for his keen interest in convening of this important workshop on the theme of "Promotion of Medicinal Plants" for the benefit of those who are concerned with production, processing and trade in medicinal herbs.

You are well aware, that medicinal plants are growing wild in Hazara, Malakand, Kurram Agency, Murree hills, Azad Kashmir, Northern Areas and Balochistan or cultivated on farmlands in Punjab, Sindh and Balochistan. According to a series of survey, carried out by the Pakistan Forest Institute, 500 tonnes of medicinal plants are produced in Hazara and Malakand, 16 tonnes in Murree hills, 38 tonnes in Azad Kashmir and 24 tonnes in Northern Areas. These plants are collected from wild in dried and semi processed form before these are sold in local markets and exported to other countries.

Approximately 5000 poor families, residing in remote hilly areas, are engaged in the collection of medicinal plants during summer months in NWFP. In addition to meeting local demands,

medicinal plants are also exported to foreign countries which is a source of earning for the people and the State.

The interest of our Chief Guest in this workshop and in the welfare of the people particularly those concerned with collection, processing and trade of medicinal plants is, therefore, understandable and praise-worthy.

The financial support of Rs 46000 from Government of NWFP, at the behest of our Chief Guest, is also highly appreciated. Except for this financial help, holding of this workshop would not have been possible.

We, in the Federal Ministry of Food & Agriculture, are happy to provide logistic support and secretariat services through Pakistan Forest Institute which have played a leading role in survey and research, of medicinal plants, occurring in the wild or raised on farmlands. Their reports can provide useful background material for the two days workshop on this important subject of social, economic and medical importance.

Whatever, I have stated thus far, was by way of an introduction to the subject and in acknowledgement of the interest and efforts of our Chief Guest in arranging this workshop. Now I revert to the subject matter of the Keynote address.

The Almighty Allah, in His

Absolute Wisdom and Unlimited Bounties, has created living and non-living in pairs like male and female, good and bad, life and death, cause and effect.

When, Hazrat Adam was created, a serpent was also created with him, to haunt and beguile him till they were thrown out of heaven to start worldly life on earth.

This is the first evidence of evil force pitched against noble cause. It is a matter of common knowledge that life is not possible without food and human health would be in serious jeopardy without medicine. This is true today, as it was true when life on earth was started. It is, therefore logical to conclude that history of medicine is as old as the man himself.

History is replete with evidence that human civilization and traditional system of medicine developed concurrently in different parts of the world at different times.

The Yellow River Valley civilization in China and the traditional system of Chinese medicine developed conjunctively between 2700 and 1600 B.C.

The same is true of the Indus Valley civilization and Ayurvedic system of medicine which developed between 2500 and 600 B.C.

Ancient civilization of Greece and classical Unani system of medicine touched the panicles of glory between 2500 and 1200 B.C. The Unani system was, subsequently, modified by the Muslim scholars into a new system known as Greco-Arab system of medicine.

The famous Greek philosopher, Socrates was forced to taste poison

prepared from a plant known as Hemlock. Alexander the Great, while pursuing the adventurous path of conquering the whole world, was wounded in battles several times but was treated and healed with pastes prepared from medicinal plants.

The advent of Islam, brought with it a renaissance and revival of learning. The stagnation, which had set in with the decline of Greek and Roman empires, was removed by the Arabs. Baghdad, Damascus and Qartiba became the centers of research and seat of learning.

The Muslim philosophers wrote a number of exhaustive and famous books on medicinal plants which contained reviews of existing knowledge, new discoveries and their analytical work.

Some important land marks in the knowledge of medicine are Havi-Kabir by Al-Razi (850 A.D.), Al-Qanum Tibb by Abu Ali Seinna, (980-1037 A.D.), Minhaj-ul-Bian, by Yahya Ibn Jazlah, (1015 A.D.), Mughni Al-Jamia and Kitab-al-Mughni by Abu Muhammad Abdullah Al-Maliki and Ibne Baitar (1248 A.D.). The authors made lasting contribution by writing the book 'Arabic Herbal' which contains the names and characteristics of more than 800 medicinal plants.

After the independence in 1947, a number of publications were brought out on various aspects of medicinal plants by the officers of Pakistan Forest Institute.

A historical review was contributed by Dr.A.H.Khan in 1955; describing association of man with medicinal plants and latter's usefulness in curing human diseases; and reviewing development of herbal knowledge and contribution of ancient philosophers in general and Muslims scholars in

particular. Dr.Khan also published lists of medicinal plants with their distribution, characteristics and uses in 1951 and 1956.

Efforts continued ever since to collect additional information. Medicinal plant surveys were carried out and their results have been published by the scientists of PFI and others. Noteworthy among them are Qazalbash (1948-49), I.I.Chaudhry (1950-51) and M.I. Sheikh (1951), Hundred drug plants of West-Pakistan (1970), pharmacognostic studies of selected indigenous plants of Pakistan (1979), cultivation and propagation techniques of important drug plants of Pakistan (1984), and regeneration technology of pharmacopoeial medicinal plants of temperate region of NWFP were published by the PFI.

Many scientific articles and annotated accounts were also published by other organizations including PCSIR and Hamdard Foundation. Dr.Salimuzzaman Siddiqui a renowned scientist earned a great name for separating and isolating principal alkaloids "Ajmalin" from Rauwolfia serpentina a famous anti-hypertensive drug. The work done by PCSIR on Peganum harmala is also worth mentioning. These unique successes have added to our knowledge but a lot still remains to be done and accomplished.

Notwithstanding what has been stated thus far, Pakistan's pharmaceutical industry, is still in the stage of infancy. This is mainly attributed to tendency of large multinational companies to use the imported extracts to benefit their principals abroad. There is only one concern in public sector, namely, Kurram Chemical Company which is preparing ephedrine, santonin and diosgenin from indigenous raw material.

In addition, fourteen major 'dawakhanas' are manufacturing a number of medicines under the Greeco-Arab system. The raw material is, generally, procured by them from the drug dealers of Peshawar, Lahore, Rawalpindi, Sukkar and Karachi. Dawakhanas are using a large number of plants but the drugs used in quantities over 5 tonnes are a few.

Despite occurrence of medicinal plants in plenty difficulties are being faced in their collection, storage, marketing and processing for intermediate and finished products.

Policy measures are necessary to i) increase production, ii) improve trade and utilization, iii) enhance self employment opportunities and iv) generate income for the poor of hilly regions.

Following suggestions are made to improve the situation:

- i. Some drug plants have become scarce in forest areas due to excessive exploitation. Therefore, the forest departments should regulate their harvesting and invest money in their renewal for conserving and revival. A post of Divisional Forest Officer for medicinal plants may be created in all provinces, Azad Kashmir and Northern Areas for conservation and promotion of efficient utilization of medicinal plant resources.
- ii. Several important medicinal plants are cultivated and raised on farm lands. Presently, farmers are facing genuine difficulties in disposing of their produce because of unreliable markets and great fluctuation in prices. Policy on

acceptance of produce and support price is necessary.

- iii. Establishment of gene banks of medicinal plants at PFI, PCSIR and in major Dawakhana is necessary to supply good quality seeds to the interested growers and pharmaceutical units for their large scale cultivation.
- iv The foreign pharmaceutical units in Pakistan may be forced and compelled by enacting law to establish research and development facilities in Pakistan for self reliance and earning foreign exchange.
- v. Although the information about occurrence, availability, cultivation techniques, processing technology and use of drug plants is available in the country, but has not reached farmers

Streamlining of marketing, processing, involvement of end-users and industrial manufacturers is still lagging far behind. Greater attention in these areas is necessary and should be given top priority.

I hope that the workshop participants will examine all these issues and consider my suggestions in their deliberations and find out ways and means for sustained utilization of naturally occurring medicinal plants and promotion of farming of drug plants in Pakistan in general and in NWFP, in particular.

I sincerely hope that this get together of learned people in the field of herbal drugs would come forward with sound recommendations for developing an integrated programme for production, trade and utilization of medicinal plants.

I wish you good luck and God speed in your deliberations.