CONSERVATION OF MEDICINAL PLANTS IN THE EXPERIMENTAL GARDEN OF BOTANICAL SURVEY OF INDIA, CENTRAL CIRCLE, ALLAHABAD

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ABSTRACT

The paper deals the ex-situ conservation of five important medicinal plants i.e. Aloe barbadensis (Ghee- kunwar), Asparagus recemosus (Satavari), Costus speciosus (Keu), Rauwolfia serpentina (Sarpagandha) and Withania somnifera (Ashwagandha) which have already been declared in the category of threatened / rare species in Madhya Pradesh and Uttar Pradesh. A brief description of these plants with medicinal importance, conservation strategies, mode of multiplication etc. in experimental garden of Botanical Survey of India, Allahabad have been provided to encourage their conservation / multiplication.

INTRODUCTION

Plants have been the most important source of medicine for human health since old age. Many modern medicines are derived from the plants. Thus, medicinal plants form an important part of the world’s economy and millions are used for medicine each year. The various parts of the plants such as roots, stem, bark, leaves, flowers, fruits and seeds, etc. are used for the purpose.

It is true that many important medicinal plants are threatened in occurrence as a result of loss of natural habitat and over harvesting from the wild source. Keeping in view of these facts, it has been observed that experimental gardens can play vital role in conservation of medicinal plants. New strategies for the conservation of medicinal plants are to be developed, as follows:

a. Cultivating medicinal plants as crops to take the pressure off remaining wild stocks.

b. Conserving back-up collections in Botanic Gardens and seed banks.

c. Developing local programs for the sustainable use and conservation of important medicinal plants.

d. Regulating damaging trade in medicinal plants by means of internationally agreed legislation.

e. Forming new government policies to
recognise the vital importance of medicinal plants for health care in many countries.

g. Breeding and developing improved strains of medicinal plants to reduce the need for wild collecting.

Tens of thousands of plant species are endangered worldwide. Human societies are in danger of losing plants on which they rely for health care of critical importance is that many plants are likely to be lost before their medicinal value is recognised.

Botanical gardens worldwide are active in the conservation of medicinal plants as an urgent and vital task in which the Botanical Survey of India can play a key role. Recently, the Botanic Gardens Conservation International (BGCI) was hosted in 1967 at how in U.K. to link Botanic Garden as cooperating global network for effective plant conservation. It now covers 460 member institutions in 90 countries working together to implement a worldwide Botanic Gardens Conservation strategy for plant conservation.

Botanical Survey of India, Central Circle, Allahabad experimental garden has taken up conservation of five important medicinal plants which have already been declared in the category of threatened/rare species in Madhya Pradesh and Uttar Pradesh. These are <i>Rauwolfia serpentina</i> (Sarpagandha), <i>Withania somnifera</i> (Ashwagandha), <i>Costus speciosus</i> (Keu), <i>Asparagus racemosus</i> (Saw and Jute) and <i>Aloe barbadensis</i> (Ghritkumari). A brief description of these plants with medicinal importance, conservation strategies, mode of multiplication, etc., in the garden have been provided to encourage their conservation/multiplication by others (in line of gardens) to reduce the pressure of collection, over harvesting from the wild source. Conservationists are also advised to select such important plant species for conservation/multiplication in future.

The current nomenclature, family name in the bracket, local/Hindi name, if any, brief description, distribution, medicinal importance and mode of conservation/multiplication adopted have been provided with the hope that others would follow the conservation/multiplication practice in the field instead of garden.


Local name: Hindi – Ghee Kunnar, Sanskrit – Ohrit Kumari; English – Indian Aloe (Liliaceae).

Stoloniferous plants. Leaves rosette arising from the ground, erect, numerous, thick, glaucous-green, lanceolate, long acuminate, thorn edged. Flowers greenish white, cream, perianth spurred.


Local name: Hindi – Keu, Sanskrit – Kemuka (Costaceae).

Erect plant, rootstock tuberous; stem semi woody at the base. Leaves subsessile, spirally arranged, oblong or oblong-oblong, acuminate or acuminate. Flowers white numerous in very dense spires. Capsule globe red. Seeds black with a white aril.


Local name: Hindi – Chandrhabaga, Sanskrit – Sarpagandha, English – Rauwolfia (Rauwolfia).