Plant Natives - for Nature Conservation

24th August 2017

Every monsson, drive for planting trees starts with a lot of enthusiasm. It is a very good activity as it spreads the message of greening, & nature conservation to a spectrum of people. Millions of trees are planted each year all over India. But, it is seldom thought what kinds of trees are being planted. If the list of saplings is scrutinized, it can be observed that only 10-15 species like Gulmohor, Eucalyptus, Australian Acacia, Gliricidia, Subabhul, Mangium are planted all over India. The species, which are easily available in market, giving fast and 'green' results, are just purchased from nurseries and planted on hills, slopes, and plateaus, in forests, on seashores or on riversides.

Exotic species are those plant species, which are not native to a particular area. These species have been introduced by human activities to a location where they do not naturally occur and so they are termed "exotic", "non-indigenous", "non-native" or simply "alien".

The exotics threaten to alter the natural composition of forest; they restrict, prey on or compete with native populations and disrupt the integrity of site. They are major ecological threat. Research suggests that these plants hamper the growth of other plants in its vicinity.

When these non-native species cause ecological problems, they are termed as "invasive" i.e. "harmful exotic species". Many times they turn out into a weed. Such species primarily invades disturbed habitats, degraded forests / thickets and left out or fallow fields crowding out native vegetation of upland forests, forming single species stands.

For Example: In India, once introduced, the species like Lantana camara (Tantani) has became invasive and it slowly suppresses the growth of original vegetation. Once it starts flowering and fruiting, the seeds spread over a large area and germinate very fast. Then it becomes very difficult to eradicate them. Some of them are prolific seed producers. One can observe many such examples like Australian Acacia, Gliricidia spp. and Leucaena leucophyla (Subabhul). They start growing easily from the cut stump.

As against this, Native plants are most suited for local environment, wildlife & have many uses including medicinal values. India is a country of diversity, diversity in humans, colours, climate, culture, soil and in plants…. Recorded species of plants from India are more than 17000 and still only few varieties are commonly used for plantations that too of foreign origin. Plant species vary as per various agro-climatic zones of India. Right from Himalayas, to deserts of Rajasthan, to semi-arid region of central Maharashtra to evergreen forests of Keral and mangroves of Sundarbans, the plant diversity keeps on varying. Native species of each region are co-evolved with changing environmental conditions and are base of food for local fauna. They are most suited for the area in terms of soil conditions, micro-climate, & topography.

oikos, 210, Siddharth Towers, Survey no 12/3B, Kothrud, Pune - 411029
Ph. No.: 020 25451875, E mail: oikos@oikos.in

To summerise, following table show the advantages & disadvantages of both Natives & Non-natives.

Natives	Non-natives
Advantages: = Part of Ecosystem = Climatically appropriate. = Provide habitat to local wildlife. = Aesthetic value. = Seasonal surprises. = Variety of colour, smell & taste. = Low external inputs.	= Fast growth. = Aesthetic value. = Fewer pests = Easily available. = Year round flowering.
Disadvantages: = Slow growth rates. = Low germination rates. = Less experimented. = Seasonal flowering. = Not easily available. = Neglected due to over acquaintance.	= Have corrosive effects on soil. = Fast & easy germination. = Spreads into natural areas forming mono-cultures. = Invasive, turn into weed. = Replaces existing vegetation. = Unattractive to wildlife.

Now, worldwide research has shown that introducing non-native species to an area has detrimental effects on environmental conditions & local ecosystems. Still, people are planting thousands of non-natives during monsoon. This needs to be changed urgently before it gets too late. But what is the solution ? Why local species are not used commonly in plantations ? Are they slow growing or hard to germinate or not available ?

oikos, 210, Siddharth Towers, Survey no 12/3B, Kothrud, Pune - 411029
Ph. No.: 020 25451875, E mail: oikos@oikos.in

Local or native species are always neglected for the want of something new. They are often overlooked as being 'Jungalee' and not worth planting or being too much used to. In the desire of planting flowering, colourful and fast growing 'Videshi' variety, our own plants have no standing. Secondly, nurseries always hunt for foreign seeds, plants which are easy to get, easy to maintain with a lots of fertilizers and pesticides and give beautiful flowers. Forest department chose non-natives to show fast results of their reforestation & afforestation plans.

As mentioned earlier, India has great diversity in plants. There are fast growing, sturdy plants suited for every plantation specification, they are pest resistant, need less water inputs or fertilizers, are drought proof, and provide good habitat for local wildlife, also have a lot of aesthetic qualities making them good candidates for landscaping or beautification too. The hitch is making people aware of their importance, uses and creating a demand for natives so that nurseries start making saplings. There is no easy database available that can assist the selection of proper plants for various uses.

To bridge this gap, oikos has worked for, making people aware of the fact that natives deserve to be preserved, providing the saplings best suited for different regions in Maharashtra & generating a database – a CD 'Grow Natives' that gives information of 300 native plants along with photos as first step. From field experience of last four years, constant documentation & research, a huge data base on plant information, propagation and use has been created which will be useful for nurseries, architects, planners to incorporate natives in their respective projects. Natives have application in all plant related activities like tree farming, wildlife needs, forest plantations, energy plantations, oil-seeds, general plantations, avenues, beautification, medicines, food etc.

Cities are going on a greener way these days. There is much awareness amongst common people and they are planting more and more trees along with other efforts like rain water harvesting. This calls for a nationwide movement to make them aware about natives and use them for betterment of ecology in respective areas.

So, the message to all nature lovers is 'Grow Natives, Every Monsoon' !

oikos, 210, Siddharth Towers, Survey no 12/3B, Kothrud, Pune - 411029
Ph. No.: 020 25451875, E mail: oikos@oikos.in