



# Bio-Resources Market Chain Linkages and an Opinion for its Sustainable Utilization in India



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## Opinion

Throughout the world, there is large demand of the bio-resources and many people are still dependant on it. Medicinal plants are one of the parts of these bio-resources. More than 7,000 species from India are considered as medicinal plants. However, all these species do not have high market demands. Many of them are used by local people and tribal by traditional ways. Few people are well practicing commercial use of medicinal plants for various purposes. As per the reports of Planning Commission in 2000, it has been estimates that, there are over 7,800 manufacturing units in India related to the bio-resources, indicating consistently increasing demand since last decade.

As per the projection report of EXIM Bank of India, Herbal Product Market is about 80 million US\$ and its annual growth rate is 7%. By 2050, it is expected to reach at 7 trillion. The export demand of medicinal plants estimated about 1, 34,500 MT with export value of Rs. 3,211 crore during 2014-15. In present scenario, Indian market is estimated of Rs.4, 205 crores of which export of Ayurvedic drugs and allied herbal products is estimated as Rs.4, 440 crores. By 2020, it is expected to reach this market up to Rs.7, 000 crores. Domestic demand of medicinal plants has been estimated 1, 95,000 MT for the year of 2014-15 (Ministry of AYUSH). Out of 7,000 medicinal plant species, 1,178 species used in trade of which 242 species traded in excess of 100 MT/year.

Growing demand is putting heavy strain on existing bio-resources. In India, at the national level up to 40% of the state forest-based revenues and 70% of forest export revenues come from medicinal and aromatic plants and Non-Timber Forest Products (NTFPs), mostly in unprocessed and raw forms. The demand for medicinal plants in India to meet both domestic and export markets which was projected to increase at about 15-16 percent annually.

At present, about 22% of the medicinal plant production sourced through cultivation as these resources depletes from the natural habitats. Due to high demand and less supply increasing cost as well as collection pressure on such bio-resources. Considering

the different climatic conditions, bio-resources available are also different. The bio-resources are the part of alternative livelihood mechanism for the local community. However, the degree of dependency of local people on various bio-resources varies region to region. According to EXIM study, there are 880 medicinal plants species involved in all India trade. Of these, 48 species are exported. Another survey conducted by the Ministry of Environment and Forests, Government of India, reveals that there are over 8000 species of medicinal plants grown in the country. About 70 percent of these plants are found in the tropical forests; spread across the Western and Eastern Ghats. The overall natural bio-resources being collected have limited role in economy of their respective regions. Still local people are not getting proper return out of them.

Overall, bio-resource collection business is highly in scattered form but there is large potential to increase economy from it. At present, there is no proper market and linkages with the demand from the industrial sector which unable to give them proper benefits. Buy-back mechanism is present only in exceptional case to case basis. All the bio-resources are being collected by forest dwellers, tribal and other associated communities reaches to main market through hidden traditional network of traders and their agents. Hence, traders and manufacturers are reluctant to enter in to legal agreement with village committee for purchasing of these bio-resources. At present, hardly anyone knows about the interlinkages among demand and supply chain of bio-resources at local level. It is preventing local communities from getting the share in benefits arising out of commercial utilization of bio-resources from their areas (Access & Benefit Sharing Mechanism). There is provision under the Biological Diversity Act 2002 (BD Act henceforth) but the Manufacturers, Traders, Local Communities, Panchayat representatives, Administrative and Forest officers are not aware about processes under this Act. Hence, it is necessary to understand these processes and needs to proposed a suitable model based on some case studies of good practises. Considering these facts and some of the cases established by local NGOs, it is well possible to make bio-resource traditional business as sustainable

way of their livelihood by inducing suitable changes in method of the business within legal framework of the BD Act and other related Acts like Panchayat Extension to Scheduled Area (PESA), Forest Rights Acts (FRA) and Forest Conservation Act (FCA), 1980.

In case of bio-resources, detection of existing market chain of supply of bio-resources is extremely difficult. Hence, it is recommended to establish a Company, under Indian Company Act, at village level comprises of 7 to 10 people mainly associated with bio-resource collection business. The Company can tie up to local Biodiversity Management Committee (BMC) and will take care of bio-resources from their own areas. Commercial venture will initiate collection on large scale with quality maintenance of the raw material however at the same time it will force people to think about regeneration of their bio-resources from their own areas or from the surrounding areas of their villages. As a provision under BD act it is necessary to link up such enterprises with the BMCs under BD Act. At present, such linkages of commercial companies with BMCs are not present.

Such linkages in between commercial companies and local BMC will force the BMC to complete necessary documentation process and maintenance of bio-resources in their jurisdiction. Formation of Access and Benefit Share (ABS) agreements with the BMCs has not been observed till now but establishment of commercial company for utilization of natural resources at local level will certainly put a step ahead in this direction. This is an advantage to form a company at local level as it will give boost to overall economy in local areas. It has been observed that, wherever people are directly or indirectly dependent upon the bio-resources, they always take care of those resources as far as their livelihood issue is concerned. Even one or two companies formed at village level will attract to bio-resources based manufacturing industries, which will remove many unwanted agents in between. No doubt to establish

such process extensive capacity building is required for every issue at community level and also at Government level, which can be done through the NGOs working for conservation purposes. This process will also address the issues like collection and selling of bio-resources without acquiring permission from the local BMC or without registering their quantity with BMC. The training for semi-processing of bio-resources can also be possible if company could collect quality bio-resources in large quantity. It works as value addition process.

The buy-back component can be attached to the professional companies through Department of Industry and Department of Commerce. This will help to set up a top to bottom simultaneously with bottom to top approach. The overall proposed opinion can address all the loopholes noted in other existing models. However, it needs to ensure the involvement of the Government through proper channel if ABS agreements are required to be done. Government Departments can facilitate formation of company, training of their officers, involvement of Forest Department officials for preparing biodiversity (or specific bio-resource) management plan, documentation process for buy-back mechanism, integration among different associated government departments associated with utilization of bio-resources and speedy delivery of the necessary technical processes. The overall framework of this model needs to be created at once at State level and after that same process can be replicated at village level. It will show its effect within period of next 5 years, that how many types of bio-resources are being collected from various parts of the State, in how much quantity, methods of its collection, dependency on local communities on these bio-resources, its role in economic development of that area etc. To impart this model on ground, it is immensely important to bridge the gap between scientist working in labs and local communities working on ground for collection and processing of various types of bio-resources.



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