



Strengthening Benefit Sharing: Discussing a Few Models

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Abstract

Enough academics is available and happening around the globe in the context of 'Benefit Sharing'. Undoubtedly, it is also an established academic that relevant models shall be there for a robust benefit sharing regime.

There will always be demand from industry that the procedure and regulatory framework should be made easy, and without complexities. Biological diversity-rich nations and like-minded nations should contribute for the same.

The paper discusses certain models which may be of help to have a user-friendly framework for appropriate commercial exploitation of biological diversity and associated traditional knowledge.

The successful benefit-sharing regime is significant from economics point of view.

Keywords: Benefit Sharing, Consortium of Industries, Panel of Lawyers, Dispute Resolution Mechanism

Introduction

Not wrong to say that debate around benefit sharing and biological diversity is at least half a century old. Happening of benefit sharing is very much visible. The gradual rate of going for a stronger regime for benefit sharing is also visible. Things would take time to get matured as required or as relevant.

Today's world has economic cooperation over one subject matter whilst having different stances over another subject matter. It was there earlier also but technology has given it a new exposure in today's complex knowledge society. Benefit sharing may be one the instance. Countries are trading with each other but they may not agree for strong benefit sharing regime.

Moreover, even like-minded nations¹ may have a different stance to pick. Many member parties are not complying with the mandate of the Convention on Biological Diversity. Many are not opening up their markets from benefit sharing point of view. Few are deploying both defensive and positive² mechanisms like India.

However, the essence is that benefit sharing framework is facing challenges³ and requires many reforms⁴, mainly because of the stakeholders involved. Its continuous assessment is very much required. If witnessed from different stakeholders' points of view, without any doubt, there must be requirements for easy access, easy framework, less complex stages, and a helping hand⁵ from the side of the user.

Similarly, the provider country would look for good and most favorable benefit-sharing terms. Provider nation may require user to follow the regulations diligently. They may also require clear intention of the user. A robust benefit sharing regime is very much required for same.

Provider country means country providing biological resources. User country means any person using the biological resources for commercial purpose.

The paper argues, basically three models, which may be called an approach also. The first model talks about developing a 'Dispute Resolution Mechanism'. The second model debates for establishing a 'Benefit Sharing Enabling Panel' where lawyers, experts, industry professionals, and students would come in close proximity with National Biodiversity Authority (NBA), the state biodiversity board (SBB), and the biodiversity management committee (BMC). The bodies like NBA, SBB, and BMC are the mechanism followed in India⁶. The third model seeks a 'Consortium of Industries' for the effective exploitation of biological diversity. Commercialization of 'Traditional Knowledge Digital Library' (TKDL)⁷ may also be taken up for which the Indian government is also showing interest. This may be useful to attract industries.

During the discussion, it is also put forward that India can play a leadership role when it comes to the global south⁸.

Moreover, India has announced to set up a global south center of excellence⁹ which would incorporate science and technology initiatives. This initiative would provide required medical supplies and would provide global South scholarships to students in developing countries. Such moves may make India's stand strong to play a leadership role.

Nevertheless, the models are discussed not only keeping India in mind but keeping in mind other biological diverse countries also. These models may be incorporated independently, jointly or with variations, as per the need.

The discussion may be of value to the industry also since simplified and user-friendly procedures are the need of the day.

Sometimes benefit sharing may seem complex but many topics/concepts are complex in today's complex knowledge society. Above all, simplicity devoid of complexities, as much as possible, is required.

Understanding Benefit Sharing

Benefit sharing has its inception in the realms of economics of biological diversity. The existing economic value and potential economic value of biological resources raised the demand of benefit sharing. This demand was raised basically from developing countries like India, Brazil, Peru, Ethiopia and the like¹⁰.

Demand was realized through the Convention on Biological Diversity. This convention provides member parties sovereign rights over the biological resources in one's territory. It also provided for fair and equitable benefit sharing on terms which are most favorable to developing nations. Benefit sharing includes both monetary and non-monetary benefits¹¹.

It is pertinent to mention that there are successful benefit sharing projects which pre dates the Convention on Biological Diversity¹². However, those projects were based on agreement between the parties¹³ but developing countries were looking for platform at international level supporting benefit sharing¹⁴.

The term 'fair and equitable' and 'terms most favorable to developing countries' have not been defined in the CBD. It seems from the jurisprudence of benefit sharing so far¹⁵ that these terms can be understood under the horizon of 'bargaining power'. The more bargaining power means much robust benefit sharing terms.

Benefit sharing means sharing of benefits from commercial exploitation of biological resources. Suppose 'A' entity want to access 'Arogyapacha' from India. The 'A' would take permission from Indian authorities and would sign the benefit sharing agreement. After getting consent from Indian authorities, 'A' would get access to the biological resource. Now, if 'A' secures commercial benefits including Intellectual Property Rights, then 'A' has to share the benefits as per the benefit sharing agreement.

Benefit sharing is bundle of topic. It consists traditional knowledge to the extent traditional knowledge reveals the benefits and usages of the respective biological resources.

However, for the purpose of this paper we would focus on models for a robust benefit sharing regime.

Significance of Biological Diversity: Perceiving Holistically

The benefit sharing regime is, in context of this paper, thrives upon biological diversity. Certain associated terms like traditional knowledge are also significant. The models as discussed in the paper are also relevant in terms of these associated terms.

Traditional Knowledge is significant, not only from a benefit-sharing point of view but otherwise also. The significance of traditional knowledge is well established¹⁶. However, we are concerned with its relevance as per benefit sharing.

The traditional knowledge is depleting with the removal of indigenous communities. They relinquish the lands because landmasses have not remained the same due to deforestation, pollution, development activities, unplanned development, and many more. The less or insufficient economic outcome, for local people, from the biological diversity is also resulting in evacuation. However, this is resulting in the depletion of traditional knowledge as the concerned people are forgoing the practices¹⁷.

Certain researchers went for some surveys and scientific studies. Local people assisted them since they were not aware of the terrain. The researchers/surveyors were getting tired but the local people did not. They realized that local people are chewing something. Later they got to know that local people know a tree fruit that gives energy. This is the case of

the ‘miracle plant’ *Trichopus zeylanicus* i.e., Arogyapacha. There are many such matters. Traditional knowledge is required to be protected.

With the protection of traditional knowledge, biological diversity is also protected because these resources are available in the laboratory of mother nature; synthetic biology has a very long way to come.

This protection also results in benefits to the local people and benefit to the provider state also, from a benefit-sharing point of view. This leads to the point that a framework or policy-level task may be done where local people and indigenous industries are allowed to reap the benefits.

A viable and organic economic or growth model is very much required for traditional knowledge because there are innovations in traditional knowledge. Such innovations may be cashed by intellectual property model.

The second and third model can be effectively used to protect traditional knowledge especially for the purpose of benefit sharing.

By the time patent expires, the business gets enough publicity and visibility which creates brand value. This brand value does matters. A pharmaceutical company or cosmetic company or like, may earn a patent. In the case of a patent, by the time patent is expired, there is enough scope for the company to cash that into creating brand value. This brand value may be seen as trademark value. If the national industrial sector develops itself and expands itself, then such benefit may be reaped by indigenous industries which is beneficial for economy of the country. It would add to the economy of the nation.

Suppose an indigenous industry seeks access to biological resources. As per Biological Diversity Act, 2002 the said industry has to share the benefits. If this industry through trademarks gains reputation, then its profit would increase. Increased profits mean increased benefit sharing.

Moreover, benefit-sharing terms and conditions would not go that far while fixing the royalties or percentage in profit. Many benefits like brand value and other ventures may not be covered by the benefit-sharing terms and conditions. Such benefits may be called as indirect or secondary benefits when it comes of benefit sharing.

Certain arguments in this paper may be there in practice in one or the other way but the paper is not focused only on the jurisdiction with a vibrant or good benefit-sharing system. The models. In that case may be taken as add-on.

Moreover, countries with weak or nascent benefit sharing regime may also consider such models in one or the other way. A vibrant and good benefit-sharing system would generate economics from biological diversity.

First Model – ‘Dispute Settlement Mechanism’

India, or India and other like-minded nations may establish a dispute resolution mechanism specifically dedicated to benefit sharing. It could be at the national level or at the regional level. It may be developed with the understanding

that it should be compatible with dispute settlement mechanism currently debated in Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklores¹⁸.

Many times, there are issues about the distribution of benefits, issues with stakeholders and entities¹⁹, and the like. Such models may be of use in such situations.

The said dispute settlement mechanism may be a hybrid version where experts well versed in benefit sharing may get the benefit sharing terms and conditions agreed upon.

In this hybrid version, individuals having expertise in negotiating benefit sharing terms should be put on panel.

Along with the given expertise, a dedicated panel of lawyers assisting all the stakeholders may also be kept.

Here, local people, industry, NBA, and all the stakeholders may sit under one roof and get things done. Moreover, there may be two wings of the first model or as the case may be.

Undoubtedly, expert for dispute settlement would be the neutral party. Experts connected with respective benefit sharing project would not be presiding over dispute resolution pertaining to the said benefit sharing project.

Moreover, with the discussion of the second and third models, the relevancy of the first model would become much more visible. In practice, these models may be blended or altered for convenience.

Cases like teff agreement or hoodia may be old, but the probability of such conduct²⁰ cannot be ignored. This probability applies to both national and international entities. Uttarakhand State Biodiversity Board had sent notice to approximately three-hundred industries to follow benefit sharing²¹. These companies are not following benefit sharing. Tribunals have said in other cases that following benefit sharing is legal obligation and authorities can take appropriate actions as section 24 of the Biological Diversity Act²².

Such players may be called on negotiation table. During such negotiation benefit sharing terms may be developed on case-by-case basis.

The model may be used to secure compensation from persons (legal/artificial) who violates the benefit sharing agreement or who bypass benefit sharing agreements. Such activities are termed as illegal access or biopiracy. The example of Monsanto melon²³ matter²⁴ could be an example.

All the member parties of dispute resolution settlement mechanism may oblige such entities to pay compensation. Member parties may resolve to boycott such entities from accessing the resources. The argument of tiered approach for industries as put forward under third model may be read with the said argument.

The paper is not focused on biopiracy, in fact, the concept of access and benefit sharing should now be further processed with commercial aspects while focus should also be remained on conservation and preservation of biological diversity.

Second Model – ‘Benefit Sharing Enabling Panel’

The user entities, even if national, requires to undergo regulatory framework of the provider country. For that, legal assistance is very much required. When user entities are international the requirement becomes greater.

The notion is that NBA may establish a ‘Benefit Sharing Enabling Panel’. People having expertise in the laws and inherent aspects related to access and benefit sharing may be placed on the panel. Some instance of such laws and inherent aspects are, the Biological Diversity Act 2002 (India), the text of the Convention of Biological Diversity, Protection of plant variety and Protection of Farmers Rights Act 2001 (India), food and agricultural organization, benefit sharing, terms and conditions, instances of monetary and non-monetary benefits or other relevant topics.

Apart from such experts, trainees from educational institutes and, professionals or trainee from industry may also be placed on the panel. These people may be developed into experts with passage of time.

The access and benefit-sharing mechanism involve multiple stakeholders²⁵. It involves the user entity, relevant authority from provider country and local people also. Local people are required for many purposes like they know the forest route, they are the holders of traditional knowledge or they are the holders and users of traditional knowledge like local healers. In such a scenario issues like language barrier, different thought process and the like may arise. Such instances are clear from benefit sharing projects, not only in India, but around the world also.

In such a scenario students or professionals from industries, well versed with local language or ways, may also be kept on the panel as intern/trainee. This would stimulate benefit sharing effectively whilst generating much output.

These interns/trainees with relevant training may be kept on penal on contractual basis. To attract students and professionals from industries, courses which cover relevant subjects/laws may be taken up. This course may be made available to students in education institutes. Alternatively, the course may be conducted by respective SBB, BMC, or at NBA. For instance, the Federation of Indian Chambers of Commerce and Industries (FICCI) started online courses on Intellectual Property Rights. They conducted exams at the end of the course. The top scorers were given chance to pursue internship with FICCI’s Intellectual Property Division. The instance may be used as analogy.

The legal experts and trainee/intern should be exposed to benefit sharing projects. They should be exposed to the projects happening in other jurisdictions also, if possible. This pertains to the third model. Suppose India establishes a consortium of five countries. The legal expert or trainees from India would be going to all four countries to share expertise, to observe and learn their benefit-sharing framework. The learning would allow them to be well versed with access and benefit sharing framework. It would also allow them to render their services to other parties of the consortium. This would facilitate capacity building.

Suppose a foreign entity or national entity wishes to access the resources in India. As part of benefit sharing agreement or policy, these legal experts or trainee may be allowed to work with the foreign entity. This may be made a requirement in the access and benefit-sharing framework. These legal experts or trainee would help the user at all stages of the project, on paid basis.

Industry professionals and interns may also be given access to technology or relevant training aboard at the expense of user entity. The user entity may be asked to pay full or in part. As industry professionals, they would be allowed at the research and development stage. This would allow them to get exposure of different technologies.

The trainee may be allowed to be there at the stage of negotiation, legal permissions, and the like. This would allow them to learn about the benefit sharing. They may become legal experts in the future.

As part of benefit sharing agreement or policy the user entity may be asked to employ people in their foreign offices or in their Indian offices. This may be done on contractual basis.

Third Model – ‘Consortium of Like-Minded Countries’

A consortium of like-minded countries may be established. The purpose of this consortium is to develop technological so that commercial appropriation of biological diversity may be done by them and fruits may be reaped by their industries, ultimately furthering benefit sharing regime.

Such a consortium would increase the bargaining power in terms of both monetary and non-monetary benefit sharing.

These countries should develop market among themselves. Developing countries understand concerns of each other much more than other countries. They should come together. It is need of time for global south to come together. India being potential leader of global south adds to the argument. The market may be based on economic patterns suitable for global south.

Moreover, world has also witnessed India's role during the pandemic COVID-19 in helping developing and least developed countries. India's stand for drug patents and India's generic drug manufacturing facilities are a few of instances.

These nations, if forms the consortium may agree to:

- i) Share the required details of benefit sharing project with the patent offices of other members of consortium. It would alert the other members when they would receive patent application where biological resources are used.
- ii) Share the relevant details of patent application, when biological resources are used in the patent, with patent offices of other members of consortium. This would alert the patent offices of other members.

The above-said two points may check the cases where benefit sharing laws are by-passed by any industry.

In light of the matter, as discussed, legal entities like industries may be given the tags like tier 1, tier 2, tier 3, and so on. Such tag or classification may be done by a provider nation or consortium of nations. The entities that are acting diligently and in coherence with the provider countries' framework, may be tagged as tier 1. Those who are not, then according to their activities, may be put under tier 2, 3, and so on.

This tier/tag approach may also be equipped with incentives to users like free legal counsellors throughout the project. The interns, experts, and industry professionals may not be paid or may be paid less. This may be done for tier/tag 1 or 2 companies.

However, as to other tags/tier entities, interns, experts, and industry professionals may be deployed with the projects on paid basis, as part of benefit sharing. This activity would be useful in many ways. These interns and professionals may be helpful to develop indigenous capacity, in other words, they may assist in developing capacity building.

Even if a consortium of different countries is not there, the particular nation may develop a federation of industries that mainly relies on biological diversity to pump a certain amount into the research and development in the field of biotechnology.

Such industries may be asked to share certain portion of profit in the manner of corporate social responsibility. This amount may be diverted towards research and development in the field of biotechnology. This money may be used for developing expertise.

The Indian government is also taking the move to allow paid access/subscription to TKDL. This is to be done in a phased manner. It is being done to inculcate the leadership envisaged through 'Bharatiya Jñāna Paramparā'²⁶.

Moreover, the number of patent applications rejected because of TKDL is an example of bad patenting. Non-documentation of traditional knowledge is also a reason for bad patenting. Members of consortium may share capacity building or expertise for codification of knowledge and information about biological resources and associated traditional knowledge.

India is already gaining momentum in benefit sharing. The maximum number of internationally recognized certificates of compliance has been put at access and benefit sharing clearing house mechanism by India. Traditional Knowledge Digital Library is another milestone achieved by India.

Many programs and projects are underway like the Indo-German initiative and the ASEAN-India initiative. All these looks towards capacity building, among other key parameters.

These models are put forward for any relevant audience. Third-world countries may do so. Developing countries may do so. India may take a leadership stroke or may incorporate some of the said models.

Benefit Sharing: Opportunity to Business

This section of the paper would be connected with the models so stated. All the models and other sections of the paper are interconnected and interrelated in one or the other way.

Undoubtedly, intellectual property rights are an asset to the organization²⁷. It generates a brand value²⁸ which also gives benefits. All the benefits typically do not fall into the intellectual property domain. But intellectual property generates a massive amount of economics.

Portals like TKDL incorporates immense literature which is increasing day by day. India is claiming that TKDL would allow new start-ups, new businesses, and new innovators to gain and build businesses/enterprises based on the immense traditional knowledge incorporated under TKDL. It can also cater to the needs of the stakeholder like pharmaceuticals, phytopharmaceuticals, herbal healthcare, research and development, educational institutes, students, the legal fraternity, and so on. The Indian traditional knowledge and rich knowledge heritage will pave the way for further strong foundations of social and economic development.

The other biological diverse countries may come in bilateral or multilateral arrangements with India to take benefit of India's expertise in the respective field. The expertise and capacity building developed by India may be appropriated by other countries having required biological resources.

India is among the countable nations who drafted the Biological Diversity Act 2002 to realize the benefit sharing objective of the Convention on Biological Diversity. India faced the issues of lack of awareness and capacity related to benefit sharing agreements²⁹ but the situation seems to be improving on a sound pace³⁰ taking India to be a forerunner in a benefit sharing regime.

The models and discussion in the paper may be deployed, if feasible, to strengthen the benefit-sharing mechanism. It is a well-established fact that the economic potential of biological diversity is very immense.

By-passing benefit sharing regulations may also be termed as biopiracy. Illegal access and black marketing may also be branded as piracy. In cases of piracy of biological resources, compensation may be claimed from such an entity. For instance, the Monsanto melon³¹ case. In such cases, where biopiracy is established, compensation should be inflicted.

The aforesaid may be termed as compensatory jurisprudence in benefit sharing.

With such knowledge, activities like commercial exploitation of culinary dishes³² and photography competition for Indigenous people³³, as undertaken by World Intellectual property Organization, may be started. This would help in checking migration also. It would allow an economic pattern to flourish where biological resources can be commercially exploited by indigenous people at a greater rate.

The Indo-German program which is having benefit sharing as one of its key parameters, by case studies in a real-time environment, has found certain actors and parameters which remain common in almost all cases³⁴. Such learnings may be of use to other megadiverse countries. Every benefit-sharing project comes with its challenges but relevant expertise may handle such cases. There would be limitations as to the availability of biological resources, ecosystem challenges, logistics challenges. However, this is the basic nature of benefit sharing that one instance may not apply to other projects but every project may generate a unique solution of its own.

A dedicated core team of interns, industry professionals, legal professionals, and a consortium of industries primarily depending on biological diversity and related stakeholders, seems to be the demand of the day.

In India, the Federation of Indian industry awards has made biological diversity-related activities by the companies a separate component. Businesses are doing fine with the preservation and conservation of biological diversity. One instance is that of TATA Power in Maharashtra where activities have been taken to save a particular variety of fish that was on the verge of extinction.

Few set up may be installed, which pertains to the models discussed in the paper, which may be effective and useful for benefit sharing regime, like:

i) A particular setup where the cultivation of depleting biological resources and the like may be done. For instance, setting up projects for organic farming. Such activity should remain continue. This would allow earnings to the locals. Such activities are happening, but the point is that something may be done to carry on such activities or to generate employment in the local area at a large scale. A network of cost-effective logistics may assist in making such activities a reality.

The various benefit sharing activities gives the clear notion that local and indigenous people require logistics and capacity support to appropriate the biological resources commercially³⁵.

This can be done by working with indigenous people. Such activities may be learnt by interns, industry professionals who can use these learning for capacity building.

ii) Companies hires scientist for product development, product generation, drug development, and drug generation. Suppose some vaid or hakim (local healers) know particular uses of biological resources. They may be employed by the respective company, as part of benefit sharing.

In one of the projects in Gadchiroli in the state of Maharashtra, India, v aids and hakims were given licenses to carry on their practices. These v aids and hakims contributed to the project by sharing their knowledge regarding the medicinal properties of the plants. Such v aids and hakims may be put on panel by industries and they can use their knowledge.

The traditional knowledge is a knowledge system and is keeps on evolving and generates innovations³⁶. Benefit sharing is not restricted to innovations leading to intellectual property rights. It is related to innovations sufficient to attract market generating benefits.

iii) Specific courses should be introduced regarding benefit sharing with an employment-oriented approach. This would add to benefit sharing regime:

a) Allowing the country to cash its biological resources and associated traditional knowledge.

Traditional Knowledge is only introduced because it is relevant for the purpose of benefit sharing. Debating Traditional Knowledge is not the scope of this paper.

b) Allowing the nation to develop its industries.

c) Allowing the country to develop and boost its research and development.

d) Allows developing business models connecting conservation, preservation of biological diversity, and benefit sharing.

e) It may allow private entities having expertise in the fields related to benefit sharing to offer their expertise on a paid basis.

Obviously, due to the nature of activities, employment can only be provided for a certain duration. For instance, fish culture during the conservation program of golden Mahaseer fish in Maharashtra, India. But sometimes people may get lifelong benefits like certificates to carry on the activities provided to vaidis and hakims during the survey to identify and, preserve and conserve medicinal biological resources.

Sometimes, as already argued, it seems that the benefit after attaining biological resources is higher as compared to benefits shared during access and benefit sharing. The payment of INR 20,000/- awarded to local communities for the collection of 1000 Kilogram neem leaves in Bio India Biologics Pvt Ltd., access and benefit sharing agreement was found to be questionable³⁷. The relevant expertise may allow for vibrant benefit-sharing terms.

Conclusion

Access and benefit sharing should be seen as generating revenue for the conservation and preservation of biological diversity and associated traditional knowledge. The convention on biological diversity also resolves that benefit sharing would generate the cost for conservation, preservation, and sustainable use of biological diversity.

Traditional knowledge allows us to know about the utility, potential and even sustainable use of biological diversity. Hence, it should also be protected and conserved. Just documenting traditional knowledge is not enough. Traditional knowledge evolves, and the people using traditional knowledge continuously evolve it. This evolution also fosters biological resources, for say, developing hybrid medicinal plants or crops which may be grown with less water consumption.

The points of economic potential, capacity building potential or benefits to industries comes inherent with access and benefit sharing concept. Hence, it is required to establish the concept on very user-friendly terms by providing relevant expertise for ease whilst providing simplicity, as far as possible, devoid of complexities.

India may play a leadership role in the global south. Like-minded may come together or with bilateral agreements and the mechanism may be strengthened. Such collaborative arrangements often provide a way out of internal national regulatory issues.

The models and/or intricacies as debated in the paper may be of value to harness an effective benefit-sharing mechanism. The models are illustrative and inclusive and not exclusive.

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