IMPLEMENTATION OF ACCESS AND BENEFIT SHARING

Emerging issues, practical challenges and lessons learned in the Indian context

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Abstract

In a serious attempt to demystify several issues that had emerged in the implementation of Biological Diversity Act, 2002 (BDA) and Rules, 2004, the National Biodiversity Authority (NBA) in consultation with the Ministry of Environment, Forest and Climate Change (MoEF & CC) geared up to develop the unprecedented piece of legislation viz, the Guidelines on Access and Benefit Sharing ("ABS Guidelines"). This legislation serves as a fundamental tool for regulating access and usage of biological resources** by the implementation bodies. It intends to provide clarity on the obligations involved in using the biological resources for different purposes. Further, it provides the modes of benefit sharing, stages in application processing and benefit sharing options, thereby bringing more transparency into the benefit sharing mechanism. However, several administrative and legal difficulties have emerged post enactment of this legislation. This paper shares the personal experience of the author in understanding the practical challenges and overwhelming complications in the implementation of ABS. The article stresses the importance of having an unambiguous legislation in place, which is fundamental to having a robust access and benefit sharing mechanism. It concludes by giving possible solutions to avoid administrative hiccups and litigations from the lessons learned. It is with optimism that the experiences shared will help, in whatever limited way it can, in foreseeing the challenges involved in developing a robust legislation on ABS and adequately gear up to overcome them.

Keywords: Biological Diversity Act, National Biodiversity Act, ABS Guidelines

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^{**} Any reference to protection of biological resources in this paper may be read to include protection of knowledge associated with the biological resources as well.

Introduction

The Convention on Biological Diversity ("CBD") is one of the most overarching global agreement that addresses all aspects of biodiversity. Until CBD, all natural resources were free to use and exchange, which resulted in inequality between the ones using the genetic/biological resources for some gain ("users") and the ones who either own or conserve such resources ("providers").

Particularly, the developed nations who happened to be major users of these resources were reluctant to share any benefits gained from its usage. This asymmetry intensified into an international outcry that culminated into enactment of CBD. Its main objectives are:

- Conservation of biological diversity
- Sustainable use of its components and
- Fair and equitable sharing of the benefits arising out of utilisation of genetic resources.

Among the three objectives, the third objective popularly known as ABS is crucial, as it ensures the fulfilment of the other two objectives. In essence, the concept of ABS means sharing of benefits, either monetary or non-monetary by the users with the providers. Benefits that are shared incentivises the providers to further conserve and protect the resources for the future generations. It is a creative and a dynamic concept to ensure conservation and sustainable use of biological resources and to

restore justice to the providers whose contribution is often neglected.

Article 1 and 15 of CBD contain the fundamental concepts of ABS. However, this concept actually was bolstered in the supplementary agreement to the CBD i.e., Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (Nagoya Protocol). This Protocol aims at fulfilment of the third objective of CBD.

Internationally, both CBD and Nagoya Protocol recognise sovereign rights of states over its natural resources. They have entrusted the member states to come up with national legislations to regulate and establish the ABS mechanism. In addition, Bonn Guidelines gives guidance in developing an overall ABS regime. However, there is no internationally recognised model regulation/guideline on criteria involved in determining benefit sharing for every kind of usage of biological/genetic resources.

India's ABS framework

India is one of the recognised mega-diverse countries in the world and is a proenvironmental nation in the international platform. The MoEF & CC reports that there are about 500 active multilateral environmental

agreements to which India is a signatory¹. Every member country of CBD has a discretion to come up with its own ABS model based on its experience and local needs. India's commitment to CBD resulted in the enactment of BDA. BDA imbibes the objectives of the CBD with modifications catering to its national needs. It is noteworthy that India proactively included within its scope a wider term "biological resources" instead of 'genetic resources'2 and also the phrase "knowledge and matters connected with biological resources". Protection of biological resources is paramount to India, which encompasses nearly 7-8% of recorded species of the world and has a rich source of knowledge associated with biological resources passed on from generation to generation.

The Rules, 2004 were framed for clearly defining the roles and responsibilities of the statutory bodies under BDA and for giving effect to its various provisions. In 2014, India also became a signatory to the Nagoya Protocol. India emerged as a forerunner in having a full-fledged ABS mechanism in place. India was in fact the first among the megadiverse countries to come up with a law

on ABS and very few among the parties to CBD to take the initiative. To arrive at mechanisms for ABS, India boldly took up the task of developing the ABS Guidelines, which till date remains one of the important achievements for India in the ABS regime.

Regulators and regulated activities

NBA³ is the central authority in India for the implementation of BDA. It is a statutory body functioning under the MoEF & CC. NBA performs facilitative, regulatory and advisory role to the Government of India on issues of conservation, sustainable use of biological resources and fair and equitable sharing of benefits arising out of the use of biological resources. At the state and local levels, State Biodiversity Boards (SBBs)⁴ and Biodiversity Management Committees (BMCs)⁵ are on role for implementation of BDA. The activities that require approvals under BDA are;

¹Full list of multilateral environmental agreements, (July 13, 2017, 11.30 AM), http://www.moef.nic.In/downloads/public-information/2010-08-28-

Note%20on%20India%20and%20MEAs.pdf.

² Article 1 of CBD – The objectives of this Convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources, including by appropriate access to genetic resources and by appropriate transfer

of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.

³ See http:// nbaindia. org/.

⁴ Establishment, functions and powers of state biodiversity boards are provided in Chapter-VI, Section 22-25 of BDA.

⁵ Establishment, functions and powers of state biodiversity boards are provided in Chapter-X, Section 41 of BDA and Rule 22 of Rules, 2004.

- research⁶ and/or commercial utilisation⁷ and/or bio-survey and bioutilisation⁸
- transfer of results of any research based on biological resources
- intellectual property rights based on research or information on a biological resource and
- third party transfer of biological resources

The users are required to obtain the approvals before the activity is commenced using the biological resource in the respective application forms⁹. Requirement of seeking this prior approval depends firstly on the type of person/entity i.e. whether Indian or non-Indian individual/entity and secondly the place from where the biological resources are procured i.e. whether the biological resource occurs and/or is obtained from India.

After processing the application¹⁰, a model agreement on ABS containing terms and conditions for carrying out the regulated activities is shared with the concerned

ABS Guidelines - What is it all about?

Even after having a defined system and procedure for regulating usage of biological resources in place, there were significant issues hovering on the implementation front. Since benefit sharing formula requires to be determined on a case-by-case basis¹¹, every case requires different considerations before arriving at a benefit-sharing component. Conducting negotiations and mutually arriving at a benefit-sharing component within the flexibility provided in the BDA is a big practical challenge. Issues required a understanding. Therefore, it was time to take a solid approach to differentiate various steps involved in ABS, right from the collection of biological resources to its commercial usage. There was a need for a clear, non-

applicant user by NBA. Upon negotiation and mutual agreement of the terms and conditions, the approving body determines benefit sharing and agreement is to be executed. The approval is granted to the applicant user only after executing the agreement.

⁶ Research as per section 2(m) of BDA means 'study or systematic investigation of any biological resource or technological application, that uses biological systems, living organisms or derivatives thereof to make or modify products or processes for any use.

⁷ Commercial utilisation as per section 2(f) of BDA means end uses of biological resources for commercial utilisation such as drugs, industrial enzymes, food flavours, fragrance, cosmetics, emulsifiers, oleoresins, colours, extracts and genes used for improving crops and livestock through genetic intervention, but does not include conventional breeding or traditional practices in use in any agriculture, horticulture, poultry, dairy farming, animal husbandry or bee keeping.

⁸ Bio-survey and bio-utilisation as per section 2(d) of BDA means survey or collection of species, subspecies, genes, components and extracts of biological resource for any purpose and includes characterisation, inventorisation and bioassay.

⁹ See http:// nbaindia. Org /content /26 /59 /1 / forms.html & http:// absefiling. nic. in/ NBA/ login/auth.

 $^{^{10}}$ See also http:// nbaindia. org/ content/ 684/ 62/ 1/ application process.html

¹¹ As per Rule 20 of Rules, 2004, the formula for benefit sharing shall be determined on a case-by case basis.

discriminatory framework for determination of ABS in conformity with the CBD and Nagoya Protocol. This led to the enactment of the ABS guidelines.

Under the BDA, NBA is mandated to issue guidelines for access to biological resources, fair and equitable benefit sharing¹² and for determination of benefit sharing¹³. The ABS Guidelines focus on the possible benefit sharing options for each of the activities that are regulated under BDA. Overall, the ABS Guidelines aims to promote appropriate access to biological resources and establish modes/options for benefit sharing for usage of biological resources.

The ABS Guidelines also lay down the considerations for determining benefits¹⁴. For

instance, if a user accesses biological resources for research, then the benefits to be paid will be based on considerations like the potential market for the outcome of research, nature of technology applied, amount of investment already made in the research and development, nature of technology applied for research amongst others.

The ABS Guidelines also enumerate on how benefits once received by the implementation bodies are shared with the providers¹⁵ and how an application is processed¹⁶. Exemptions from the applicability of various provisions of the Act is provided¹⁷ and the indicative list of monetary and non-monetary benefit sharing options are provided as annexure¹⁸.

The table below gives a quick reference to the users regarding ABS approvals under the BDA and the applicable benefit sharing component for different activities.

In case of commercial utilisation/bio-survey and bio-utilisation for commercial utilisation							
SI. No	Type of users who procure biological resources	Whether entered into a prior benefit sharing negotiation with providers	Pre-Conditions to be fulfilled by user	Applicable benefit sharing percentage			
1.	Trader	No	• Submit Form I application of the Rules, 2004/concerned State Rules	1.0 – 3.0% of purchase price of the biological resources			

¹² As per Section 18 (1) of BDA, it shall be the duty of the National Biodiversity Authority to regulate activities referred to in sections 3, 4 and 6 and by regulations issue guidelines for access to biological resources and fair and equitable benefit sharing.

¹³ As per Section 21(4) of BDA, the National Biodiversity Authority shall, in consultation with the Central Government, by regulations, frame guidelines.

¹⁴ See Regulation 14 of ABS Guidelines.

¹⁵ See Regulation 15 of ABS Guidelines.

¹⁶ See Regulation 16 of ABS Guidelines.

¹⁷ See Regulation 17 of ABS Guidelines.

¹⁸ See also Annexure 1 to ABS Guidelines.

<u> </u>	T	T		
2.	Manufacturer	No	 Submit Form A (under Regulation 2) of the ABS Guidelines Purchase resources directly from providers Agree to sign an ABS agreement with NBA/SBB Same as above 	3.0 - 5.0 % of purchase price of the biological resources
		Yes	Same as above	Not less than 5.0 % of the purchase price of the biological resources
3.	Trader	Yes	Same as above	Not less than 3.0% of purchase price resource
6.	Successful bidder or purchaser Any other applicant	No	 Submit Form I application of the Rules, 2004/concerned State Rules Submit Form A (under Regulation 2) of the ABS Guidelines Purchase high value biological resource from auction or sale amount Agree to sign an ABS agreement with NBA/SBB who act on behalf of providers/benefit claimers Submit Form I application of the Rules, 2004/concerned State Rules Submit Form A (under Regulation 2) of the ABS Guidelines Opt for benefit sharing on sale price rather purchase price 	Not less than 5.0 % of the proceeds of the auction/sale amount of the biological resources 0.1 – 0.5% depending on annual ex-factory sale of the product made out of biological resources minus government taxes
		In case of other	activities using biological resources	
S.n o	Activity for which approval is sought		Pre-Conditions to be fulfilled by user	Applicable benefit sharing percentage
1.	For transfer of results of research relating to biological resources occurring in or obtained from India for any purpose		Submit Form II application of Rules, 2004 Provide evidence of approval obtained for access to biological resources and/or	3.0 – 5.0% of the monetary consideration received from transferee

		associated knowledge involved in the research	
2.	For obtaining IPR based on research/information on any biological resources	Submit Form III Application of the Rules, 2004 Commercialises the process/product/license by himself	0.2-1.0% on the annual gross exfactory sale minus government taxes
		 Submit Form III Application of the Rules, 2004 Assigns/licenses the process/product/innovati on to a third party for commercialisation 	3.0-5.0% of the fee received and 2.0-5.0% of the royalty amount received annually from the assignee/licensee
3.	For third party transfer of accessed biological resources and/or associated knowledge for research/commercial utilisation	• Submit Form IV Application of the Rules, 2004	2.0-5.0% of any amount and/or royalty received from the transferee In case of high economic value biological resource(s) an upfront payment shall be made
4.	For research	Submit Form I Application of Rules 2004	NIL
5.	For non-commercial research/research for emergency purposes outside India	Submit Form B Application (under regulation 13) of the ABS Guidelines, 2014	NIL

Developing a ABS mechanism - Practical challenges

Quite clearly, under BDA, NBA is required to gauge the method for determining benefits and the whole mechanism is now available in the form of Guidelines on ABS. Although the final Guidelines looks like an outcome of a routine legislative process, the complexity involved in developing the ABS Guidelines were overwhelming. Some of the concerns that raised during the stages of its development are shared with an aim to provide a foresight of the issues to be addressed while developing or considering developing a Guideline on ABS.

At the beginning of the process, very little attention was paid to the fact that there was no data available about the different kinds of users of biological resources and their expectations from the ABS process. Neither time nor experience was ripe enough to come up with a legislation to accommodate different methods of benefit sharing. Ideally, a survey to gather information from the major users of biological resources regarding benefit-sharing mechanisms at a practical level was required to assess different scenarios. To add to the

difficulty, no internationally accepted model or sample guidelines on ABS was available on the criteria for determination of benefits. To sum up, with limited national data and experiences, drafting a legislation without a precedent was challenging.

During the developing stage, ABS mechanism was still an emerging techno-legal complex field that lacked technical and legal expertise. Therefore, drafting a legislation using the available expertise was not easy. Further, there was no guidance available in the Act as to what Guidelines on ABS should cover. In other words, there was no clarity regarding either the scope or the objectives of the Guidelines. In addition, certain gray areas in the Act added to the ambiguity of arriving at different modes of benefit sharing.

Technical complexity prevailed in determining the stage of value chain at which benefit sharing should be applicable on users. For instance, a company X accesses neem occurring in India and commercially exploits it to produce neem extract, which is a raw material for another cosmetic company Y that arrives at an organic neem face pack, a product that is marketable. As per the Act, commercial utilisation targets the "end use" rather than "end user". In this scenario, to produce neem

extract is an end use for company X and whereas using the neem extract is the end use for company Y. At the end, both X and Y become end users in different stages of the process. Therefore, to have a benefit sharing component that will include all those users making an end use with biological resources to share benefits was a difficult area to deal with.

Towards the final stages of drafting the Guidelines, the draft went public for seeking comments. However, the general level of awareness on the concept of ABS and its importance was quite low among all major stakeholders including Government bodies, industries and universities. This made it a formidable task to gather substantive technical and legal inputs to improve the existing form of the draft.

Finally, the most herculean of all challenges was that there was no settled interpretation as to the application of different provisions of the Act. The understanding of the various provisions in the Act is different for different stakeholders. The language of the Act is vague in certain areas such as meaning of value added products¹⁹, commercial utilisation, bio-survey and bio-utilisation, that invited different viewpoints from different stakeholders. Ultimately, when the draft versions were

¹⁹ As per Section 2(p) of BDA, value added products are products which may contain portions or extracts of plants and animals in unrecognisable and physically inseparable form. This definition is vague and throws open debate for multiple interpretations. Since value

added products are exempted from the provisions of ABS, every stakeholder sharing his views had their own interests of why a particular product should be considered a value added product.

available for public comments, diverse opinions on the draft had accumulated to such a level that it made very difficult for NBA and consumed lot of time. To summarize, it was a mindboggling task to strategize on how to accommodate different concerns of the stakeholders with completely contrasting interpretations of BDA.

Emerging issues

Implementing ABS mechanism is highly complex due to unending scenarios, combinations and permutations of usage of biological resources. The next set of challenges that emerged post enactment of the ABS Guidelines are in the implementation front. Several legal and technical issues are emerging in both interpretation of law as well as its workability.

A major concern that has emerged in interpreting the law in recent years is the issue of powers and jurisdiction of SBB. Under BDA, in case an Indian or an Indian entity wants to obtain biological resources for commercial usage, prior 'intimation' of the concerned SBB, under whose jurisdiction the resources occur, is mandatory²⁰. The term "permission" as opposed to "approval" (used for non-Indian entities) takes place in the BDA for Indians/Indian entities. The significance is that for 'intimation', no requirement of signing an ABS agreement is mandatory since only

"approvals" need to be in the form of a written agreement under the Act²¹. In short, the presumption is that the BDA requires Indians/Indian entities to give only an 'intimation' prior to accessing biological resources to the concerned SBBs and not sign ABS agreements for sharing benefits.

However, in the ABS Guidelines, considering the fact that large amount of biological resources procured by Indian entities could lead to indirect exchange of biological resources with foreign entities, the difference between "intimation" and "approval" was diluted. In other words, in the ABS Guidelines, the term "approvals" holds good for both NBA and SBBs. This has changed the legal position of Indians/Indian entities. The ABS Guidelines confers powers on SBBs to require Indian/Indian entities to sign agreements for benefit sharing for commercial utilisation of biological resources. This created a huge uproar amongst Indians entities that were slapped with legal notices by various SBBs for non-compliance of BDA i.e. non-signing of ABS Agreements and refusal to share benefits for usage of biological resources. Whether this subtle yet significant change brought out in the ABS Guidelines is a welcome step in the effort to implement the Act or is an overstepping of the powers intended for SBBs under BDA is

²⁰ Section 7 of BDA.

²¹ Rule 14(5) of Rules, 2004.

now is a major bone of contention before various judicial forums.²²

Another issue is that of the inclusion of trade within the purview of ABS. As such, trade is excluded from the purview of the BDA for the purpose of regulation whereas access of biological resources made by the trader is within the purview of ABS Guidelines²³. This has created problems in interpretation of whether trade in biological resources is an activity requiring sharing of benefits under the BDA which is yet unresolved. The next issue in interpretation is that of categorisation of certain biological resources as having 'high economic value'24. This was done with an intention to get maximum benefits from certain resources that have a high market value. A high percentage of benefit sharing is applicable on those resources since they are lucrative in commercially the However, in the context of biodiversity, the actual economic value of a biological resource depends on its property to enhance a particular product in which it is used. Hence a generic use the term has posed problems in implementation. Questions such as a) who decides whether a resource is "high economic value"? b) Should a biological resource be economically valued based on the commercial value or its value to the humanity such as its

ability to cure diseases etc.? have arisen. Further, the non-inclusion of periodicity of review of the Guidelines has made it difficult to amend it based on the experiences and for filling the gaps found in BDA.

Apart from problems of interpretation standing in the way of implementation, there are certain practical difficulties that have come to the fore. One of such upcoming issues is that of "considerations" that precede the determination of benefit sharing component. Several considerations described in the ABS Guidelines²⁵ are with an aim to arrive at a benefit-sharing reasonable component. However, these considerations have not practically proved very effective in some cases. This can be explained by giving an example. As per the ABS Guidelines, if an entity commercially utilises a biological resource and the annual ex-factory sale price exceeds three crores, then 0.5% is the benefit-sharing component. Several considerations that may be relevant for determination of benefits are stages of research and development, potential market for the outcome of research amongst others. Once the applicant opts for benefit sharing based on sale price, these considerations may not be of much use since percentage is already fixed. considerations therefore remains obsolete

 ²² Central India AYUSH Drugs Manufacturers
 Association v the State of Maharashtra & others (2015),
 W.P., High Court of Bombay, Nagpur Bench; Writ
 Petition 3437 of 2016, Divya Pharmacy v Union of India

[&]amp; others (2016), High Court of Uttarakhand, Nainital Bench.

²³ Regulation 3 of ABS Guidelines

²⁴ Regulation 3(3) of ABS Guidelines.

²⁵ Regulation 14(2) of ABS Guidelines

when it comes to actual application in some cases. Further, it is provided under the ABS Guidelines that special consideration be given to cases where technologies/products are developed for controlling epidemics/diseases and for mitigating environmental pollution affecting human/animal/plant health. Whether in practice the fixed benefit-sharing component is weighed against the actual usage of the technology/product is questionable.

One more difficult situation is that of monitoring the usage of biological resources. Once the ABS Agreement is concluded, without the adequate data and technology in place, monitoring the compliance of the agreed upon benefit sharing component is a tedious process. The benefit sharing arrived at is based on the understanding that the user will share "benefits" arising from the profits derived from the usage of the biological resources. Tracking the activities done by every user in a country of 1.3 billion (and counting) is a daunting task. Moreover, there is no available mechanism to track the origin or occurrence of the biological resources due to lack of data. Since the trigger point for benefit sharing is 'access' of biological resources 'occurring' in India, users often raise the argument that the biological resources used commercially were not procured from India and so technically the

BDA and the Guidelines do not apply to them. This is a major ongoing problem.

Apart from these issues when it comes to sharing of benefits, it is shared either directly with the benefit claimers or in case there are no identified benefit claimers, it is deposited in the funds of NBA/SBB. Now in the cases where they are identified, strategy as to how benefits will be shared between or among the communities or individuals is still hazy. Theoretically, the benefits may be apportioned between different providers but practically it is difficult to monitor whether fair and equitable distribution of benefits was done among the identified benefit claimers.

Finally, the issue of applicability of benefit sharing in proportion to the quantity of biological resources used is emerging as a serious and a complicated issue. Under the modes of benefit sharing provided under the ABS Guidelines²⁶, it is clear that depending upon the activity done using biological resources, a user requires to share benefits. However, the benefit sharing percentage applicable is strictly not categorised as per the quantity of biological resources Essentially, under the BDA and the ABS Guidelines, a user who makes use of multiple biological resources in small concentrations to manufacture a product is at par with a company that uses large amounts of a single biological

²⁶ Regulation 3, 4, 7, 9 and 12 of ABS Guidelines.

resource.²⁷ Also, a product that is made out of several biological resources that are from different parts of the globe including India will also be subject to the benefit-sharing component as long as the company is regulated under the BDA and the Guidelines. Generally, calculating benefit sharing based on the net profit gained by the user after commercial use of the biological resource is more logical than annual ex-factory gross sale. However, a blanket percentage on the purchase price or the graded percentages of the annual ex-factory sale of the product are calculated to arrive at the benefit-sharing component. Although this is the wisdom of the legislation, practically it is not workable.

Lessons learned and way forward

The fundamental lesson learned in the whole process is that the language of the legislation needs to be unambiguous. Every word that is included has to be carefully analysed during the drafting stage in order to make sure that it stands the test of time. It is paramount that every drafting process is undertaken only after sufficient groundwork has been conducted. Following is a basic checklist required before the beginning of the drafting process on ABS:

✓ Whether there is a need for a new legislation exclusively on ABS or can it

- be accommodated within the existing legislation(s)?
- ✓ What are the areas of linkages between
 the existing legislations on biodiversity
 and the one that is about to be drafted?
- ✓ Once an exclusive legislation on ABS is decided to be brought out, what will be its scope and objectives
- ✓ What are the prevailing legislations on ABS in other countries? What are the areas in which the upcoming legislation can benefit from them?
- ✓ What are the current legal and technical complications to handle?
- ✓ Is there adequate data available on the types of usage of biological resources, users and providers?
- ✓ Who are the subject experts in and outside the country to consult on ABS and related fields? Can they be involved in drafting process or any discussions?
- ✓ What are the complexities involved in determining benefit sharing for different uses of biological/genetic resources?
- ✓ What are the views of stakeholders on ABS?
- ✓ Is there adequate awareness on ABS issues in the country?

²⁷ Regulation 14(3) of ABS Guidelines - "The amount of benefit sharing shall remain the same whether the end product contains one or more biological resources".

- ✓ What are the possible implementing mechanisms available to make the legislation successful?
- ✓ Are there adequate resources (human and financial) to implement the legislation?
- ✓ What are the future concerns that might arise, are there enough mechanisms to cope up with the concerns?

Another major lesson learned is not to bring out a legislation under tremendous pressure. there Practically are pressures from stakeholders and sometimes in the existing letter of law related to biodiversity, which mandates to come up with a specific legislation. In addition, the international commitment of a country to ABS may create an atmosphere of tension to immediately have an ABS legislation in place. However, a pragmatic way to approach the situation is not to succumb to the pressure of drafting a legislation but to bring in an effective legislation. This is even more important in a technically complex subject area such as ABS. Definitions of terms need to be in line with the national goals and the objectives of the legislation as per the national context. Since India has come a long way in the area of ABS, it is time to redefine certain important terms such "commercial as

utilisation", "value added products", "biosurvey and bio-utilisation" etc. Additionally terms such as "associated knowledge", "research results" need to be included.

It is learnt that assessing the capacities and resources that are required to effectively implement the provisions of the legislations after enacting the legislation makes it practically unworkable for stakeholders to take compliance seriously. Essentially more time and energy is expended on developing the regimes rather than building the necessary environment to implement them. From experience, it is also learnt that one of the paramount issues that has to be focussed on is to formulate various ways to use the shared benefits. Although a general clue on how to use the benefits accumulated in the biodiversity funds is provided for ²⁸, there is no methodology developed as to how the funds are to be distributed. The purpose of designing benefit sharing mechanism and the effort to bring in clarity is to make sure that the benefits are ploughed back to the providers and is used for conservation and sustainable use of biodiversity. A significant lesson learned is to shift focus from collecting benefit sharing to distributing benefits and using it for conservation and sustainable use of biological resources.

biological resources or knowledge associated thereto has been accessed; c) socio-economic development of areas referred to in clause (b) in consultation with the local bodies concerned.

²⁸ Section 27(2) of BDA states that the fund shall be applied for a) channelling benefits to the benefit claimers; b) conservation and promotion of biological resources and development of areas from where such

Further, it is realised that during implementation, large amounts of resources are wasted because of lack of coordination among various environmental agencies. There is a dire need to find linkages in the working of various agencies and incentivise them to achieve common objectives such as sustainable development goals. Also, monitoring compliance of ABS Agreements, which is being done by way of annual status reports, need to be strengthened by establishing special agencies for inspection and follow up to ensure strict compliances as provided for in ABS regulations such as that of Ethiopia²⁹. There is a need to have provisions for overseas monitoring as well. Further, to make sure that the ABS agreement is concluded in a fair and equitable manner, certain indicators and checklist of processes need to be developed, an example being the Bioprospecting Guidelines of Philippines.³⁰

Concluding Remarks

A criticism levelled against ABS Guidelines in its implementation phase has thrown open possibilities for a future legislation that can accommodate and provide solution to all the emerging concerns. It is upon every member country wanting to establish ABS regime in their jurisdictions to put in place a robust legislation so that the implementation process becomes smooth. In every existing ABS legislation, there is a wide scope for improvement and it is time to gear up for positive change. There should be constant and continuous effort to revise and bring in new changes in a suitable manner in order to reap the benefits of ABS. Until now, only few of countries have taken up ABS seriously. It is vital for countries and its stakeholders to realise the potential of ABS to transform the lives of millions of people by improving conservation and sustainability of biological resources.

²⁹ A proclamation to provide for access to genetic resources and community knowledge and community right, proclamation no.482/2006, (Aug.17, 2017 11.30 AM), http://www.wipo.Int/edocs/lexdocs/laws/en/et/et006en.pdf (last accessed on 07.08.2017).

³⁰ Guidelines for Bioprospecting Activities in the Philippines, Jan 1 2005, (Aug.7, 2017, 2.00 PM), http://www.wipo. Int / edocs / lexdocs / laws / en / ph /ph191en.pdf.