

# Options and Approaches for Realizing Target 16 of the Aichi Biodiversity Targets

Balakrishna Pisupati





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bap@fni.no

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**Authors**

Balakrishna Pisupati

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**Abstract**

The tenth meeting of Conference of Parties to the Convention on Biological Diversity (CBD COP 10) adopted the Strategic Plan for 2011-2020 including a set of global biodiversity targets called the Aichi Biodiversity Targets. COP 10 also decided that by 2015, Parties to the CBD develop, review, update and revise the National Biodiversity Strategies and Action Plans (NBSAPs) that include relevant national and/or regional targets. Target 16 of the Aichi Target deals with the issue of entry into force of the Nagoya Protocol on Access and Benefit Sharing (ABS) and subsequent national implementation. Review of the post 2010 NBSAPs undertaken by FNI (Balakrishna Pisupati and Christian Prip) indicate that weak focus on Target 16 in the NBSAPs. This Report provides options for countries to strength the focus on Target 16 related to ABS and also further implementation of the Nagoya Protocol on ABS at national level.

**Key Words**

Aichi Biodiversity Targets, Access and Benefit Sharing, Target 16, CBD, National implementation

## Contents

1	Introduction	1
2	NBSAPs and ABS	1
3	Issues and Challenges for including ABS related targets and indicators in the NBSAPs	3
4	Dealing with ABS issues within the revised NBSAPs	6
	4.1 Developing Target(s) on ABS at national level	6
5	Setting National Target(s) on ABS	8
6	Costing for Achieving Target 16	10
7	Effective Implementation of Nagoya Protocol at National Level in a Manner that Contributes to Achieving Aichi Target 16	10
	Legal Processes	10
	Administrative and Policy Processes	11
	Economics and Social Conditions	12
	Trade and Markets	12
	Incentive Mechanisms	13
8	Answering Guiding Questions	13
	What are the opportunities and constraints in ratifying the Protocol?	14
	Who are the stakeholders that may be affected by ratifying the Protocol?	16
	What administrative and institutional structures need to be established for the implementation of the Protocol?	17
	What additional resources (financial, human and technical) will be required to make the Protocol operational?	17
9	Conclusions	18
	Annex 1 - Country Targets related to Aichi Biodiversity Target 16	19
	Annex 2 - Costing for Achieving Target 16- Ecuador	22



## 1 Introduction

One of the most significant outcomes of the tenth meeting of Conference of Parties to the Convention on Biological Diversity (CBD COP 10) is the adoption of the Nagoya Protocol on Access and Benefit Sharing. This international legally binding agreement was adopted after many years of negotiations and heralded an era of optimism in ensuring sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge is premised on the key principles of prior informed consent and mutually agreed terms.

Additionally, CBD COP 10 also adopted a revised and updated Strategic Plan for Biodiversity, including the twenty Aichi Biodiversity Targets, for the 2011-2020 period that need to be achieved at national levels in a time bound fashion.

Review of progress made during the previous decade in achieving the 2010 biodiversity targets indicate that progress has been limited and inconsistent on several biodiversity targets agreed to by the Contracting Parties in 2002. Some of the weak achievements are those related to cross cutting issues such as technology transfer and access and benefit sharing<sup>1</sup>. It is pertinent to mention that between 2002 and 2010 no specific target or indicator was developed and used on issues related to access and benefit sharing (ABS).

Recognizing the need to focus on establishing a specific target on ABS and develop suitable indicators to monitor progress made at country level on achieving the target, in 2009, UNEP and UNU-IAS jointly organized an expert meeting focusing on the need to develop a global target on ABS and related indicators<sup>2</sup>. The results of this consultation and related global discussions gave rise to Target 16 on ABS under the Aichi Biodiversity Targets adopted during CBD COP 10.

This paper attempts to provide options for countries to meet the objectives set out in the Strategic Plan on Biodiversity 2011-2020 with specific reference to Target 16 of the Aichi Biodiversity Targets, in particular the second part of the Target that calls for operationalization of the Nagoya Protocol that is consistent with the Protocol provisions at national level.

## 2 NBSAPs and ABS

Article 6 (a) of the CBD requires all Parties to develop a National Biodiversity Strategy and Action Plan (NBSAP). The national strategy is meant to be a roadmap to assess and plan for how the country intends to

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<sup>1</sup>Prip, C; Gross, T; Johnston, S; Vierros, M (2010). Biodiversity Planning: an assessment of national biodiversity strategies and action plans. United Nations University Institute of Advanced Studies, Yokohama, Japan.

<sup>2</sup>UNEP, UNU-IAS (2009) Report of the Expert consultation on developing a target for ABS under the new Global Biodiversity Targets for 2011-2020, UNEP.

fulfill the objectives of the Convention in light of its specific national circumstances and capacities considering fully the decisions of COP meetings. The related action plan will constitute the sequence of steps to be taken to meet the goals of the strategy. The development of the NBSAP in accordance with Article 6(a) is the cornerstone for fulfilling the requirement of Article 6(b) to mainstream biodiversity and the three objectives of the CBD. Article 6 (b) focuses on linking biodiversity issues across all sectors that have either a role to play in achieving the objectives of the CBD or would impact such achievements.

As of 2010, 171 countries or 89 per cent of the Contracting Parties have submitted their NBSAPs. This is an impressive number. However, an assessment of these NBSAPs, undertaken by UNU-IAS during 2010 indicates that the NBSAPs have not been effective in dealing with the main drivers of biodiversity loss. The Third Global Biodiversity Outlook presented in 2010 also confirms the continuing decline of biodiversity in all three of its main components – genes, species and ecosystems<sup>3, 4</sup>.

Measures to implement the third objective of the Convention – the fair and equitable sharing of the benefits arising out of the utilization of genetic resources– are visibly weaker in NBSAPs than measures to implement the first two objectives of the CBD. According to the NBSAP assessment study of UNU-IAS, in most NBSAPs the focus on ABS is either absent or appears in only very broad terms with no further elaboration and often as an issue to be taken up at a later stage.

According to Young<sup>5</sup>, only 12 per cent of Parties have adopted legal, regulatory or other ABS measures. Such measures pertain to countries who are providers of genetic resources. Only to a minimal extent have countries taken measures directed at users under their jurisdiction who are utilizing genetic resources originating in other countries, as called for in Article 15.7. These measures are relevant to developed countries in particular. In addition, very few Parties have identified ABS issues as a priority in their proposals to the GEF. The current challenge is for countries to expedite national ratification /accession processes to ensure the timely entry into force of the Nagoya Protocol on access and benefit sharing (first part of Target 16) and also ensure its effective implementation of provisions of the Nagoya Protocol (the second part of Target 16).

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<sup>3</sup>Prip, C; Gross, T; Johnston, S; Vierros, M (2010). Biodiversity Planning: an assessment of national biodiversity strategies and action plans. United Nations University Institute of Advanced Studies, Yokohama, Japan.

<sup>4</sup>Secretariat of the Convention on Biological Diversity, 2010 Global Biodiversity Outlook 3, Montreal.

<sup>5</sup> Young, T. (ed) (2009), Covering ABS: Addressing the Need for Sectoral, Geographical, Legal and International Integration in the ABS Regime, Papers and Studies of the ABS Project, IUCN, Gland, Switzerland. Young notes that some countries have required disclosure of origin in patent application of genetic resources, but argues that, since such a measure does not include any requirement or recommendation for benefit sharing, it is not a “user measure” covered by Article 15.7

### 3 Issues and Challenges for including ABS related targets and indicators in the NBSAPs

The key challenges faced by countries to deal with ABS issues within the NBSAP process include the following<sup>6, 7, 8</sup>.

- There is a general perception, at national level, that the ABS related issues are independent of CBD and distinct from other CBD issues. ABS is viewed in a broader, political North-South equity context rather than as an issue related to the conservation and sustainable use of biodiversity. This is evidenced by the fact that many countries at CBD meetings are represented by special ABS negotiators who do not participate in the negotiation of other matters on the CBD agenda. Much of the action which has taken place nationally on ABS appears therefore to occur outside the NBSAP context<sup>9</sup>.
- ABS is an extremely complex issue. Implementation experiences using the Bonn Guidelines have been very limited and there are still unanswered questions on what countries should do to meet their ABS commitments.
- In general, countries have postponed their national implementation processes in anticipation of, first, the Bonn Guidelines, and then the international regime on ABS. This has significantly delayed the implementation of ABS related actions at national level as well as global level.
- Differential understanding of provider and user country obligations, issues of compliance to a regime that could be legally binding, limitations of capacities and understanding of applying ABS principles of prior informed consent, mutually agreed terms and material transfer agreements have all largely stifled the option for dealing with ABS implementation at national level.
- Lack of specific and tangible benefits, especially monetary benefits, have been elusive and as a result general and political interest in the issue has slowed down focus on ABS.
- For some countries the issue may not be of such high relevance or priority. In the third and fourth national reports to the CBD, countries generally ranked ABS low in their prioritization of CBD provisions and markedly lower than provisions concerning conservation and sustainable use of biodiversity<sup>10</sup>.

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<sup>6</sup>Prip, C; Gross, T; Johnston, S; Vierros, M (2010). Biodiversity Planning: an assessment of national biodiversity strategies and action plans. United Nations University Institute of Advanced Studies, Yokohama, Japan.

<sup>7</sup>Subramanian M Subramanian and Balakrishna Pisupati, 2009 Benefit sharing in ABS: Options and elaborations, UNU-IAS, Yokohama.

<sup>8</sup>Balakrishna Pisupati (2007), Effective implementation of NBSAPs: Using a decentralized approach, UNU-IAS, Yokohama.

<sup>9</sup>Balakrishna Pisupati and Christian Prip (2014) Interim assessment of the post 2010 National Biodiversity Strategies and Action Plans (NBSAPs), Fridtjof Nansen Institute, Norway draft

<sup>10</sup> UNEP/CBD/WGRI3/INF/1/Add.1

Although the GEF set ABS as a stand-alone Strategic Objective (SO4) in GEF-4, there were very few national ABS specific proposals during this cycle. During the GEF 5 replenishment, though specific allocations were envisaged for ABS related projects, the number of countries accessing funding for ABS issues remained limited.

Thus, there is an immediate need to mainstream and internalize the ABS related issues, including the need for developing country specific targets related to ABS, using the NBSAPs as the overarching framework. While such inclusion may seem a simple objective, realizing the second part of the Aichi Biodiversity Target on ABS requires more understanding of the obligations and opportunities ABS mechanisms provide for countries. Review of post 2010 NBSAPs submitted by Parties to the CBD<sup>11</sup> indicate that though only 13 of the 25 post 2010 NBSAPs included ABS related target at national level, a few have attached importance to the goal of sharing the benefits derived from using the components of biodiversity. This goes beyond the third objective, but is consistent with the guidance developed under the convention for the ecosystem approach<sup>12</sup> (see Box).

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<sup>11</sup>Balakrishna Pisupati and Christian Prior (2014) Interim assessment of post 2010 National Biodiversity Strategies and Action Plans, Fridtjof Nansen Institute, DRAFT

<sup>12</sup> The second point of operational guidance adopted under decision V/6 is: "Enhance benefit-sharing. Benefits that flow from the array of functions provided by biological diversity at the ecosystem level provide the basis of human environmental security and sustainability. The ecosystem approach seeks that the benefits derived from these functions are maintained or restored. In particular, these functions should benefit the stakeholders responsible for their production and management. This requires, inter alia: capacity-building, especially at the level of local communities managing biological diversity in ecosystems; the proper valuation of ecosystem goods and services; the removal of perverse incentives that devalue ecosystem goods and services; and, consistent with the provisions of the Convention on Biological Diversity, where appropriate, their replacement with local incentives for good management practices".

**BOX 1: Dealing with Benefit Sharing**

Benefit sharing in NBSAPs with a different expression than the benefit sharing objective of the CBD. Some countries have included the issue of benefit sharing in their NBSAPs, but have given this in a different and sometimes broader treatment than the provisions of the CBD which address the utilization of genetic resources alone and in a transboundary context.

Burundi in its NBSAP of 2000 includes as one of its five strategic objectives, “the equitable sharing of responsibilities and benefits from the management of biodiversity”. The actions outlined to put this objective into practice primarily relate to the involvement of local communities in the management of nature, including protected areas and ecotourism activities ([www.cbd.int/doc/world/bi/bi-nbsap-01-fr.pdf](http://www.cbd.int/doc/world/bi/bi-nbsap-01-fr.pdf)).

This broader notion of sharing both benefits and costs, including not only genetic resources but also other components of biodiversity, and covering not only the international, but also the national and local level, appears as one of seven guiding principles for biodiversity and development

in a report issued in 2001 by the European Commission, IUCN and the UK Department for International Development (DFID). The guiding principles build on lessons from eleven case studies.

*Source: Biodiversity in Development Project (2001). Guiding principles for Biodiversity in Development: Lessons from field projects. European Commission, Brussels, Belgium/IUCN, Gland, Switzerland and Cambridge. Adopted from UNU- IAS Assessment of NBSAPs Report, 2010. [http://www.ias.unu.edu/resource\\_centre/UNU-IAS\\_Biodiversity\\_Planning\\_NBSAPs\\_Assessment\\_final\\_web\\_Oct\\_2010.pdf](http://www.ias.unu.edu/resource_centre/UNU-IAS_Biodiversity_Planning_NBSAPs_Assessment_final_web_Oct_2010.pdf)*

## 4 Dealing with ABS issues within the revised NBSAPs

Decision XI/2 of the CBD calls for Contracting Parties to revise the National Biodiversity Strategies and Action Plans (NBSAPs) in a manner that consider implementation experiences and ensure the revisions also takes into account the new Strategic Plan of the CBD and the Aichi Biodiversity Targets. Several countries are currently revising their NBSAPs besides developing a set of national biodiversity targets that relate to the Aichi Targets. As of 01 May 2014, 25 countries have revised the NBSAPs and submitted the same to CBD Secretariat. Several countries are currently finalizing the revisions process and fine tuning the national biodiversity targets.

However, review of the national biodiversity targets submitted by countries to the CBD Secretariat<sup>13</sup> as of May 2014 in response to CBD COP Decision XI/2 indicate that only 13 of the 25 countries that have submitted their revised NBSAPs including specific target related to ABS. Details of these national level targets are presented in Annex 1 to this paper.

The concern therefore is not only the limited responses from countries in dealing with the Aichi Target 16 but also the need for providing with those countries that have developed a national target on ABS to identify suitable set of indicators to monitor implementation progress on ABS issues under the Target 16 as well as contribute to better implementation of the Nagoya Protocol.

Thus, the response by Contracting Parties to ABS related issues seem to be rather weak/slow in that only 13 of the 25 post 201 NBSAPs have included a specific target on ABS. This means either the Parties are not considering the ABS related issues seriously to have a specific target on ABS issues or are considering mainstreaming ABS across other targets and actions. But experience thus far indicates that the latter option may be not a serious one.

In this section, the paper focuses on available guidance on how to deal with ABS issues within the NBSAP process and also reflect on a few reasons why ABS related issues are still not considered seriously by countries.

### 4.1 Developing Target(s) on ABS at national level

The following set of generic national actions is needed at the minimum for countries to deal with ABS issues within the context of revising the NBSAPs, developing ABS regimes and setting national targets (Table 1).

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<sup>13</sup><http://www.cbd.int/nbsap/targets/default.shtml> (Accessed on 28 March 2014)

**TABLE 1: Putting in place a national ABS Framework**

<b>Administrative Issues</b>	<b>Legal Issues</b>	<b>Capacity and Awareness related Issues</b>
Establishment of a national focal point	Development of ABS measures that including obligations for PIC, MAT, MTA	Training and capacity building for focal point, competent authority(ies), check point(s), using and updating clearing house
Designation of National Competent Authority(ies)	Development of methodologies for determination of benefits	Legal training for dealing with compliance and monitoring, tracking and reporting, interpretation of the Protocol and related national obligations
Designation of Check Point(s)	Development of model(s), method(s) for benefit sharing	Training and capacity building for enforcement agencies including check points
Establish a Clearing House Mechanism	Establishment of systems to deal with compliance (both as users and providers)	Training and capacity building for academic, research and development agencies, donors, private sector and industry, NGOs and local communities on issues related to national obligations under the Nagoya Protocol
Establishment of a process that is simple, predictable, quick and transparent for decision making on ABS applications that clarifies issues of ownerships, determination of access and benefit sharing rights and delineating procedures for compliance, redress and liability	Setting up procedures to deal with commercial, non-commercial, academic and related ABS measures	Training and capacity building on economic valuation, negotiation skills, development partnerships and bioprospecting scoping, assessment of resource use and management skill development and the related
	Development of systems and procedures for filing complaints, issues of jurisdiction and the related	Awareness raising on issues related to ABS, including ABS as an innovative financing mechanism for conservation and related action

Developing monitoring and reporting systems	Consideration of national obligations under other legal instruments that are national, regional and global in nature	Empowerment of communities to make right choices and follow up actions on the full chain of issues related to ABS ranging from knowing the diversity, valuing the diversity, finding users and markets, negotiating access and then benefit sharing agreements, establishment of simple to use monitoring and tracking systems for use by local people and establishment of a mechanism to use the benefits accrued in a manner that contributes to achieving the objectives of CBD and sustainable development.
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## 5 Setting National Target(s) on ABS

Based on the review of 13 countries that have reported on establishing national biodiversity targets related to ABS, it can be concluded that some countries have gone beyond merely responding to ratification /accession to the Nagoya Protocol. Countries have specifically put in place a set of operational targets that address need for implementation of ABS measures at national level. While no attempt is made here to suggest the language for a specific set of target(s) on ABS for those countries currently developing their national targets on ABS and revising the NBSAPs, attempt is made here to provide a set of indicators that can guide the process of designing the targets and achieving them subsequently at national level.

### *Suggestions for Headline Indicators*

Criteria to be followed in developing headline indicators include measureability, scalability (at different levels-local, national), relevance to country and availability of data to measure progress/implementation

- A. **Countries acceding to the Protocol having in place administrative, legal and policy measures for implementation of ABS provisions, including through designated competent national authorities (Global)**

*Suggestions for Measurable sub-indicators/ activities:*

- Number of countries acceding to the Protocol
- Number of countries implementing administrative, legislative and policy measures on ABS
- Number of designated competent national authorities on ABS with clear terms of reference.

**B. Capacity building and awareness raising initiatives aimed at enhancing the understanding of all relevant stakeholders on issues of ABS, with concomitant funding for implementation of ABS provisions at national levels (Regional and National)**

*Suggestions for Measurable sub-indicators/ activities:*

- Number and proportion of relevant stakeholders (scientists, industry, government, civil society, indigenous and local communities (ILCs), etc) aware of ABS provisions
- Number of awareness programs through media and other avenues on ABS.
- Number of publications on policy and scientific issues related to genetic resources and associated traditional knowledge, in the context of ABS.
- Number of university/ tertiary courses related to ABS.
- Capacity building measures (eg.number of seminars/ workshops, training programmes Technical assistance projects)
- Amount of funding made available for ABS specific programmes
- Valuation of genetic resources (GR) and their utilization better understood (viz., economic value, number of scientific collaboration activities, inventories incl. Taxonomic, traditional knowledge (TK) inventories, digital libraries)

**C. Measures related to access to genetic resources/ associated traditional knowledge and benefit sharing (Regional and National)**

*Suggestions for Measurable sub-indicators/ activities:*

- Number of approvals related to access to genetic resources/ associated TK
- Value of benefits accrued and shared
- Number and proportion (to total ABS agreements) of agreements with ILCs.
- Number of benefit sharing agreements
- Number of patents related to GRs and associated TK
- Proportion of patents with disclosure of origin of GRs/ associated TK
- Number of certificates of compliance issued

## **6 Costing for Achieving Target 16**

The High Level Panel on Resource Mobilization (HLP) report presented during the CBD COP 11 meeting in 2012 estimates that it will cost around USD 7 to 33 Million per year to achieve Target 16 of the Aichi Biodiversity Targets. This estimate focuses on issues of ratification and entry into force of the Nagoya Protocol on ABS by 2015.

Considering the estimates and fine tuning of the estimates currently are being carried out by the HLP 2 process, it can be assumed that since the Target focuses on entry into force of the Protocol, the focus will entail costing for this process only. However, given the nature of national preparations for accession to the Protocol, it is pertinent to mention that it is highly unlikely that USD 7-33 Millions will be available for countries to spend on the ratification/accession process alone. This needs to be highlighted to the HLP on resource mobilization in time before the finalization of their report which is expected to be presented during CBD COP 12 in October 2014.

Country level assessments of costs for achieving target 16 and beyond, such as the one undertaken in Ecuador by Conservation International<sup>14</sup> indicate that achieving this target can be considered as the 'lower hanging fruit' within the overall framework of Aichi Biodiversity Targets.

As elaborated in an accompanying paper on making ABS work at national level by framing the ABS as an innovative financing mechanism<sup>15</sup>, it is possible for countries to achieve target 16 and beyond much more elaborately than envisaged before.

## **7 Effective Implementation of Nagoya Protocol at National Level in a Manner that Contributes to Achieving Aichi Target 16**

Many factors contribute to successful implementation of actions to realize Aichi Target 16 on ABS. These can be categorized as those related to legal processes, policy and planning environment, economic and social conditions, trade and market forces, incentives for use of bioresources, suitable awareness and capacities to translate the policies and legal frameworks into action on the ground<sup>16</sup>.

### **Legal Processes**

Setting and achieving targets(s) related to ABS needs a combination administrative, legislative and policy measures to be put in place at

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<sup>14</sup>National Level Assessment of Funding Needs to Implement the Aichi Biodiversity Targets in Ecuador, January 21, 2013, Conservation International'

<sup>15</sup> Balakrishna Pisupati (2014) ABS as an innovative financing mechanism, FNI (Draft)

<sup>16</sup> UNDP (2013) Transforming Biodiversity Finance: The BIOFIN Workbook, UNDP

country level. The legal systems and processes needed include, an ABS framework that clarifies issues of ownership of GR resources, methods and types of community and/or stakeholder based consent mechanisms, clarity on issues of access, use, value addition and subsequent benefit sharing, processes and timelines for decision making, roles and responsibilities of decision making bodies/authorities, types and nature of permissions granted for ABS purposes, procedures for jurisprudence, mechanisms and details of process for dealing with non-compliance, punitive actions, redress and liability measure and the related.

A critical element often not considered in the legal preparedness process at national level on ABS is the need to orient the judiciary at various levels on the issues related to bioresource management and intricacies of ABS related issues since at local and national levels, legal interpretation and procedural issues for compliance are relatively new. Experience from countries like India, with close to a decade of implementation of ABS systems, indicate capacity building for legal professionals and policy is critical and lack of focus on this could lead to protracted legal battles on interpretation of legal basis for ABS mechanisms to be implemented at local and national levels.

Also, experiences from countries implementing ABS measures indicate the need for an independent authority with multi-stakeholder support system to deal with ABS application process will benefit speedy, transparent and objective results. It is important that the National Focal Point for ABS and National Competent Authorities are independent but function in harmony.

### **Administrative and Policy Processes**

Establishment of the national competent authority for ABS needs to consider the following issues. The authority should be provided with clear mandate to deal with ABS issues with independence and autonomy supported by adequate technical and legal staff. Creation of a multi-stakeholder support group to evaluate and suggest actions on issues of ABS, including benefit sharing could help in speedy processing of ABS applications. The links between national policies, including the details presented in the NBSAPs, national ABS related targets, and the administrative process envisaged for implementation should be linked. The minimum requirements for establishing a sound national administrative process/system include a secretariat with adequate knowledge and capacities on issues of biodiversity, ecosystem functioning, economics, law, IPR issues, traditional knowledge and social anthropology. The multi-stakeholder group supporting the administrative and policy delivery processes shall include representatives of government, communities, NGOs, private sector, resource economists, financial experts, social scientists and academicians. The details of how interaction between the national competent authority and other sectors, including the Ministries and agencies should be spelt out clearly with appropriate powers delegated for review of ABS applications, as needed.

## Economics and Social Conditions

One of the key areas related to efficient and appropriate ways to secure benefits in an ABS process is to assess the economic potential of the resources under question. Strategies to encourage bioprospecting and value addition to bioresources can be good source of not only operationalize the ABS principles but also to secure revenues to pay for cost for administering ABS regimes at national level<sup>17</sup>. Review of available economic valuation methods and models indicate that the means of assessing the economic potential of resources for ABS purposes is still not readily available<sup>18</sup>. The standard methods of economic valuation seem to be of minimal use for an ABS process where the primary focus is on securing the market potential and related value of the resource in question and putting a 'price' on the material that is based on the nature and kind of resource (such as rare, endemic, threatened species, species in trade etc.).

This situation warrants research and application of ABS specific economic valuation models such as the one developed recently by Nelliyaat and Pisupati<sup>19</sup> which is being put to local use in India. Countries need to review and evaluate the usefulness of such a simple and easy to use methodology for ABS purposes to ensure the economic value related issues in fixing the monetary and non-monetary benefits could be appropriately fixed in deciding on an ABS application. Experiences have shown that in the absence of a suitable economic valuation methodology, the negotiations on benefits and subsequent sharing of benefits will be seriously undermined resulting in inefficient ABS systems that will not repose faith in securing a win-win situation for the providers and users of resources.

Similarly, it is important to undertake a rapid social assessment on the ways and means of delivering the benefits to local communities for conservation and sustainable management of local biodiversity. Experiences from countries such as India indicate that setting up local and regional biodiversity funds could fulfill the obligations related to administering the benefits. In the absence of suitable guidelines on who will secure the benefits, when, how and the terms and conditions of their use could potential create social and communal conflicts and confusion once benefit sharing flows begin at local level.

## Trade and Markets

One of the key areas that need careful understanding at the level of policy makers and national implementing agencies with regard to ABS systems is the difference between principles and practices of biotrade *versus* ABS processes. Lack of this understanding and differentiation is creating

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<sup>17</sup> Prakash Nelliyaat and Balakrishna Pisupati (2014) Economic valuation of bioresources for access and benefit sharing, National Biodiversity Authority, Chennai

<sup>18</sup> *ibid.*

<sup>19</sup> Prakash Nelliyaat and Balakrishna Pisupati (2013) Biodiversity economics from access and benefit sharing perspective. National Biodiversity Authority, Chennai.

enormous confusion at national level and will result in back-tracking of critical ABS systems. Recent experiences in India where trade in bioresources and related processes are being differentially interpreted as warranting application of ABS processes is an example for this<sup>20, 21</sup>. Examples for such extended and differential interpretation of applying ABS provisions include seeking benefit sharing from traditional and conventional agricultural, animal husbandry and related processes and markets.

Care should be taken in designing the policy and legal frameworks for ABS in a manner that does not confront and/or contradict traditional trade practices in areas such as commodity trade.

### **Incentive Mechanisms**

If the consideration for establishing a national target on ABS is to incentivize enhanced use of bioresources to support accrual and sharing of benefits, then national processes should identify and develop suitable incentive mechanism for ABS purposes including for compliance to national ABS regimes. Identification of appropriate incentive mechanisms, preferably sector-wise mechanisms, will go a long way in ensuring better national compliance for ABS frameworks besides ensuring administering an ABS regime is cost effective and delivers local results for inclusive conservation and development agenda. Incentive mechanisms could include identification of produce/products and entities that are ABS compliant, provision of tax rebates for such entities, simplified and accelerated process for ABS application process based on voluntary mechanisms for benefit sharing and access related incentives provided by the sectors to local communities and the like. The author of this report has negotiated such an incentive system to bring on board the Ayurvedic Drug Manufacturers in India who use bulk of medicinal plant resources to develop products.

## **8 Answering Guiding Questions**

The Quick Guide to the Aichi Biodiversity Targets prepared by the Secretariat of the CBD on target 16 outlines a set of key questions as a prelude to development of national targets<sup>22</sup>. In this section, attempt is made to answer the questions to enable countries focus on the needs and requirements to deal with the target on ABS.

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<sup>20</sup> Jha, B K (2013): "Notices to Western Coalfields Limited, Coal India for Not Sharing Bioresources Benefits", The Times of India, 7 June.

<sup>21</sup> Kohli, K and S Bhutani (2013): "The Legal Meaning of Biodiversity", Economic & Political Weekly, Vol 48, No 33, pp 15-17

<sup>22</sup> <http://www.cbd.int/doc/strategic-plan/targets/T16-quick-guide-en.pdf>

## What are the opportunities and constraints in ratifying the Protocol?

Realizing the third objective of CBD on ABS is one of the long standing commitments contracting parties have made during various COP meetings since 1994. Several regions and countries attempted to put in place a functional ABS system guided by the discussions on development and adoption of the Bonn Guidelines on ABS in 2002. Subsequently, contracting parties negotiated and adopted the legally binding Nagoya Protocol during CBD COP 10 in 2010. All of these initiatives were aimed to ensure that the Article 15 of the CBD is implemented and ABS regime contributes to conservation and sustainable use as envisaged under the CBD.

Experiences of implementing specific ABS measures, as debated under the CBD within the negotiating framework of the international regime on ABS is scattered and there has been limited attempts to consolidate and compile the experiences. Available literature on implementation of national ABS measures<sup>23</sup> indicates that there are both opportunities and constraints to implement the ABS systems at local and national levels. Experience of such national and local implementation at country level indicates the following:

- a. The opportunity costs for setting up a functional ABS system outweighs the constraints. Such opportunities include provision of legal and administrative certainty to entities interested in using the country's biological resources. Absence of clear ABS frameworks could result in under-utilization of the potential of genetic resources contributing to less or no accrual of benefits to local communities.

If we accept the fact the bioresources offer enormous economic potential for development at national level, it is important that facilitative frameworks, based on options available within the Nagoya Protocol need to be established first. Mega-biodiverse countries could potentially stand to lose out significantly since there will reluctance from *bonafide* users of resources to access and utilize the resources. Results of this will have severe negative consequences on the ways to manage resources at local and national levels.

Experience from regions such as South and Southeast Asia indicate that the resource availability is contiguous and opportunities abound for potential users to respond to countries that provide clarity on ABS systems than to those countries who still contemplate to make ABS systems functional at national level. The experiences of International Centre for Insect Physiology and Ecology (ICIPE) in Kenya, the Japan Bioindustry Association

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<sup>23</sup> Tvedt M W, Young T (2007) Beyond access: Exploring implementation of the fair and equitable sharing commitments in the CBD. IUCN Environmental Policy and Law Paper No. 67/2, IUCN, Gland.

(JBA) in Japan and others indicate that already international collaborations and investments in biology based research and development has taken a serious negative trend due to unclear ABS systems in place at country level<sup>24, 25</sup>.

In addition, having operational national ABS frameworks contribute to enhanced clarity for domestic industry, research and development, collaborations and investments.

Also, having an ABS framework that responds to national, regional and international interests and obligations provide enhanced levels of confidence to engage with local communities in better local governance of genetic resources. Currently, several countries face enormous challenges in biodiversity governance systems due to lack of clarity on ownership and privileges over the resources, guidelines on engagement and negotiations and clarity on ways and means of channeling the benefits to local action and communities. Developing and implementing a functional ABS regime could address these challenges better.

With the adoption of Nagoya Protocol on ABS at COP 10 in 2010, countries need to also assess the investments they made in negotiating such a Protocol and the need to make it operational to instill confidence in continued implementation of the CBD. As a near-universal multilateral environmental agreement of modern times, CBD's interests will be seriously undermined if the ABS principles are not operationalized soon. The interests of biodiversity rich South and technology rich North need to meet on the ground of a functional ABS system. It will be futile to celebrate entry into force of the Nagoya Protocol with mere numbers of countries ratifying/acceding to the same. What is needed is a combination of resource rich countries – in terms of biodiversity, technology and finances – to come together to make ABS an effective mechanism for conservation action at local level based on clear principles of equity and justice<sup>26</sup>.

Lastly, the opportunities that a functional ABS system could provide for local livelihood and income securities need to be understood appropriately. Such attempts in India indicate that having a simple, functional and flexible ABS framework could immensely contribute to local development and supplement as a key source of additional and innovative financing for achieving the Aichi biodiversity targets.

- b. It is also pertinent to mention that there may be a few constraints to put in place a functional ABS system at national and/or regional

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<sup>24</sup> Personal observation of the Author on ICIPE experience

<sup>25</sup> Balakrishna Pisupati et.al. (2007), UNU-IAS and JBA ABS Case Studies. UNU-IAS, JBA, Tokyo.

<sup>26</sup> Doris Schroeder and Balakrishna Pisupati (2010) Ethics, justice and the Convention on Biological Diversity, UNEP and University of Central Lancashire, Nairobi.

levels. Such constraints include lack of capacities to develop the frameworks and operationalize the same, lack of clarity on needed functional legal frameworks, costs of administrative establishments and doubts about the 'break even' points for such investments and the related. Countries may also need to deal with compliance, monitoring systems for implementing the ABS frameworks as mentioned in the Nagoya Protocol. However, experience of implementing the Cartagena Protocol on Biosafety indicate that developing stronger national compliance systems take time<sup>27</sup> and such provisions are to be negotiated at the COP level.

Countries may also feel unsure about the costs of operationalizing a functional national ABS system. Studies undertaken by the CBD High Level Panel<sup>28</sup>, conservational international<sup>29</sup> and experiences of countries like India indicate that comparative investments and costs on ABS are minimal with initial investments to put in place an institutional mechanism being more than the operational costs during subsequent years, provided such mechanisms are not designed to be 'top-heavy' with huge personnel and institutional costs and overheads. Decentralised implementation of such systems could be cost-effective option.

### **Who are the stakeholders that may be affected by ratifying the Protocol?**

This is an important question to review at national level if one needs to implement the Protocol effectively after ratification/accession. Review of functional ABS systems around the world indicates that sector specific stakeholder groups need to be engaged to answer this question<sup>30, 31</sup>.

The key stakeholder groups who will be affected by the Protocol include research and academic sector, NGOs, community based organizations, seed sector, pharmaceutical sector, biotechnology industry, traditional drug manufacturers, industry associations, government agencies and departments responsible for agriculture, science and technology, trade and commerce, foreign affairs, rural development, patent offices, ports and customs authorities, national research and development institutions and laboratories, judiciary, legal counsels and students.

Each of the above sector and group's interests and apprehensions are different from each other such as the following – the apprehension of Ministry of Foreign Affairs in the process will be to ascertain whether

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<sup>27</sup>Balakrishna Pisupati, Charlotte Boumal, Elizabeth Maruma Mrema and Alphonse Kambu (2009) Issues of compliance: Considerations for the international regime on access and benefit sharing, UNEP, Nairobi.

<sup>28</sup>[http://www.cbd.int/financial/hlp/doc/communications/HLP%20on%20Resourcing%20the%20CBD%20Strategic%20Plan%202011-2020%20\(summary\).pdf](http://www.cbd.int/financial/hlp/doc/communications/HLP%20on%20Resourcing%20the%20CBD%20Strategic%20Plan%202011-2020%20(summary).pdf)

<sup>29</sup> Anonymous, (2013), National Level Assessment of Funding Needs to Implement the Aichi Biodiversity Targets in Ecuador, Conservation International.

<sup>30</sup> Balakrishna Pisupati – personal observations and assessments

<sup>31</sup> Secretariat of the Convention on Biological Diversity, (2008) Access and benefit sharing in practice. CBD Technical Series No. 38, SCBD, Montreal.

stringent ABS measures could affect diplomatic and trade related ties between countries; the interest of ministry of agriculture is to ensure complementary implementation of its obligations under the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and their actions on utilization of agro biodiversity related resources including through CGIAR systems; the issues ministry of trade and commerce would be interested will be to ascertain if the ABS systems would hamper trade and commerce related issues since bioresources form a major source of trade component; the interest of research and development community will be to assess how the prior informed consent, mutually agreed terms and benefit sharing components could affect their ability to undertake research expeditiously and to seek recognition in the form of patents and publications in addition to collaborations.

Thus, it is important for countries to understand that the interests and requirements of each of the above group will be different and need to be addressed. It has to be mentioned, however, that complexities of such engagement should not be an excuse for inaction.

### **What administrative and institutional structures need to be established for the implementation of the Protocol?**

As detailed in section 4 of this paper, there is a minimal need to establish the following administrative and institutional structures and provide them with clear mandates for dealing with ABS issues that does not override and/or contradict the provisions provided for other institutions in the country.

- 1) Creating a national strategy and framework on bioprospecting and how it contributes to ABS
- 2) Establishment of a National Competent Authority
- 3) Creating an inter-ministerial, inter-institutional mechanism to deal with national ABS issues
- 4) Designation of Check Points
- 5) Development of a national clearing house mechanism for ABS
- 6) Establishment of rules and procedures on ABS application and review processes
- 7) Development of guidance on roles and responsibilities for each of the institutional mechanism established above
- 8) Development of procedures for monitoring and compliance
- 9) Creating a multi-stakeholder forum to develop methods for dealing with issues of benefit sharing
- 10) Development of suitable capacity building and awareness raising tools and mechanisms for dissemination

### **What additional resources (financial, human and technical) will be required to make the Protocol operational?**

Implementation of the Nagoya Protocol and achieving the Aichi Target 16 need additional financial resources apart from human and technical skills. As mentioned previously, assessment of financial needs to achieve

Target 16 is estimated to be around USD 7-33 million per year according to the HLP report presented at CBD COP 11. Going by this and related assessments, it can be assumed that donor contributions, including through GEF 6 replenishment could provide for the costs. It has to be mentioned, however, that the initial investments in operationalizing the Protocol and achieving Target 16 would be higher than subsequent years since the formative stages need more human and technical capacities including training and awareness programmes to implement the Protocol.

Countries could design the national ABS frameworks in a manner that attracts better compliance for access and subsequent benefit sharing where mechanisms for access fee, levies and charges for collecting genetic resources for commercial purposes could be established as an upfront payment that might provide long-term and consistent funding for ABS.

Recently, the author discussed with the Ayurvedic Drug Manufacturer's Association (ADMA) in India on supporting the national ABS process and conservation action wherein it was in principle agreed that the sector whose business depends on availability of medicinal plants would contribute up to Indian Rupees 150 million per year as access fee that will be provided for the National Biodiversity Fund supporting conservation and related actions. Such dialogues with other sectors such as biotechnology industry, seed sector and others could provide consistent revenue for countries to deal with ABS implementation.

Dealing with an issue like ABS need institutional and individual capacities. Experience from countries like India, Australia, Brazil, Namibia, South Africa indicate that a 'learning by doing' approach is best suited for countries developing national ABS systems than waiting for a perfect ABS framework.

## **9 Conclusions**

Support and guidance available on ABS issues should be consolidated. While it is a new and multi-faceted area for countries to implement ABS frameworks, complexity should not be an excuse for inaction. Countries need to use forthcoming opportunities such as the fifth meeting of Working Group on Implementation (WGRI 5), the High Level Panel on Financing (HLP), GEF 6 replenishment process as opportunities to consolidate the funding and come up with an action plan for ABS that is implementable, simple and flexible at national level so that the billions cited in environmental economic assessments as potential benefits that accrue from biodiversity could be realized for sustainable development using ABS as one of the potential opportunities.

## Annex 1

### Country Targets related to Aichi Biodiversity Target 16

Target 16 of Aichi Biodiversity Target “By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation”.

Country	Objective (under national target/NBSAP)	Target
Belgium	Obj. 6	Promote and contribute to an equitable access to and sharing of benefits arising from the use of genetic resources – ABS
	Op. Obj. 6.1	By 2014, raise awareness about the concept of ABS in the context of the CBD and the Nagoya Protocol, and widely disseminate information on ABS
	Op. Obj. 6.2	By 2014, ratify and implement the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization
	Op. Obj. 6.3	By 2020, have mechanisms in place to enhance national and global cooperation on ABS issues
	Op. Obj. 6.5	By 2015, have a functional Access and Benefit Sharing Clearing- House in place
Brazil	Meta Nacional 16	Até 2015, o Protocolo de Nagoya sobre Acesso a Recursos Genéticos e a Repartição Justa e Equitativa dos Benefícios Derivados de sua Utilização terá entrado em vigor e estará operacionalizado, em conformidade com a legislação nacional.
Democratic Peoples’ Republic of Korea	Action 15	Ensure the fair and equitable sharing of benefits among areas and communities
Dominican republic	Target 16	By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.

Finland	Target 16	By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization has been enforced and integrated into national legislation and administrative practices.
France	Target 13	Share equitably the benefits arising out of the utilization of biodiversity on all scales
Japan	Target D 3	Aim to ratify the Nagoya Protocol on ABS as early as possible and implement the domestic measures for this Protocol by 2015 at the latest.
	Key Action Goal D-3-1	Ratify the Nagoya Protocol as early as possible, and implement steadily the obligations under this Protocol such as designation of one or more checkpoints to monitor the use of genetic resources and awareness raising by 2015 at the latest (MOE, MOFA, MOF, MEXT, MHLW, MAFF, METI, MLIT).
	Key Action Goal D-3-2	Promote support for developing countries which aim to ratify the Protocol through the Global Environment Facility (GEF), the Nagoya Protocol Implementation Fund (NPIF), etc., in order to contribute to the global achievement of Target 16 (MOFA, MOF, MOE).
Malta	Target 15	By 2020, access to national genetic resources is regulated through a National Regime on Access and Benefit Sharing (ABS).
Serbia	Objective 3.2	Ensure that social and economic benefits of the use of genetic resources and other products and services originating from the Republic of Serbia's biological diversity are accrued by the Republic of Serbia.
Spain	Objective 2.7	Regulate access to genetic resources and benefit sharing arising from the use thereof.
Suriname	Objective 3	Regulated access to genetic material and associated traditional knowledge, with fair and equitable sharing of benefits
	Sub-objective 3.1	Regulated access to genetic material in the territories of Indigenous and Maroons, with fair and equitable sharing of derived benefits

	Sub-objective 3.2	Regulated access to genetic material in other areas, with fair and equitable sharing of derived benefits
	Sub-objective 3.3	Regulated access to traditional knowledge, with fair and equitable sharing of derived benefits
Timor Leste	Priority Strategy 4	Enhancing biodiversity and ecosystems services to ensure benefits for all.
	Target	By 2020, enhanced ecosystems services through promoting economic values of biodiversity and ecosystems and promoting benefits sharing

## Annex 2

### Costing for Achieving Target 16- Ecuador

Item	US\$
<b>Decision making process</b>	
Follow-up meetings for approval	1,000
Coordination meetings with related Ministries	2,500
Design of monitoring system	3,000
Monitoring Implementation of the Nagoya Protocol	14,000
Trips and workshops	10,500
Dissemination of results (Spanish and English)	28,000
<b>Implementation of the Protocol</b>	
Create legal certainty, clarity and transparency	
Develop domestic ABS legislation to implement the Nagoya Protocol	10,000
Provide fair and non-arbitrary rules and procedures	10,000
Establish clear rules and procedures for prior informed consent and mutually agreed terms	30,000
Conditions of transfer of accessed material to third parties	5,000
Promote participation of local people in research activities	300,000
<b>Develop in-country research capability and institutions</b>	
Transfer of environmentally-friendly technology and knowledge (including biotechnology); Supplying information about antecedents, state of the science about resources and products	480,000
Capacity-building measures based on a country's self-assessment of national needs and priorities	360,000
Country assessment	20,000
Raise awareness	1,200,000
<b>Total</b>	<b>2,504,000,00</b>

Source: Wilson Rojas, National Biodiversity Directorate, Cabrera et al. 2012.

*Table compiled based on 'National Level Assessment of Funding Needs to Implement the Aichi Biodiversity Targets in Ecuador, January 21, 2013, Conservation International'.*

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**FridtjofNansens vei 17, P.O. Box 326, NO-1326 Lysaker, Norway  
Phone: (47) 67 11 19 00 – Fax: (47) 67 11 19 10 – E-mail: [post@fni.no](mailto:post@fni.no)**



**Website: [www.fni.no](http://www.fni.no)**