

Bio-resource certification – FairWild:

An effective method for
developing an ABS compliant value chain



Access and Benefit Sharing Partnership Project
Indo-German Biodiversity Programme

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Programme/project description
Indo-German Biodiversity Programme
Access and Benefit Sharing Partnership project

The ABS Partnership Project aims at strengthening the capacity of the National Biodiversity Authority, selected State Biodiversity Boards, Biodiversity Management Committees, as well as creating awareness amongst commercial users of biological resources and associated traditional knowledge for the effective implementation of ABS mechanisms under the Biological Diversity Act, 2002 in keeping with India's commitments under the Nagoya Protocol for ABS.

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Introduction

Western Ghats, a mountain chain running parallel to the west coast of India, is one of the 34 global biodiversity hotspots where a large number of endemic and rare species are often exposed to human interference and widespread ecosystem degradation. The northern parts of the Western Ghats covering the coastal districts of Ratnagiri, Sindhudurg and Raigad in the state of Maharashtra lack of legal protection and absence of protected areas, with an exception of a few small wildlife sanctuaries is a cause of concern. In the other districts of the North Western Ghats like Pune, the traditional livelihoods that are dependent on the surrounding forests of a wildlife sanctuary are under threat due to increased tourism and development projects. With such a scenario it is often difficult to build a case for conservation where species will be protected and community benefits dependent on the species are ensued.

India enacted the Biodiversity Act in 2004 and the states later prepared and adopted the rules to implement the act in due course of time. Maharashtra adopted the rules in 2008. Since then the implementation of the act has been initiated at panchayat level through the Maharashtra State Biodiversity Board which is the institutional mechanism at state level. Exploitation and commercial use of natural resources and communities by external profit-making entities is common in the absence of a legal space to promote or ensure equitable benefit sharing. Building the capacity of the local communities and gram panchayats for implementing the provisions of Biodiversity Act for the benefit of local knowledge holders and forest stewards has been an immense task .



Under the scope of ABS Partnership Project, the Applied Environmental Research Foundation (AERF) has been involved in supporting village communities in the establishment of Biodiversity

Management Committees (BMC) and facilitated the process of BMC formation in 15 villages in Sangameshwar block of Ratnagiri district. The BMC is an institutional instrument mandatory to implement the provisions of Biodiversity Act at Village and Panchayat level. AERF has been engaged in community-based conservation in the Northern Western Ghats since the last 24 years and successfully developed and used various approaches including building green enterprises and sustainable value chains.

The case study provided here is a detailed process document, demonstrating implementation of two forest tree-based value chains (*Terminalia bellirica* and *Terminalia chebula*) from Northern Western Ghats that have been developed and transformed successfully into Access and Benefit Sharing mechanism (Nagoya Protocol) under the Biological Diversity Act of India, 2002. Fruits of *Terminalia bellirica* and *Terminalia chebula* trees, are two of three ingredients that comprise a key Ayurvedic preparation - Triphala. Triphala is an old ayurvedic drug known for its digestive and immunological properties in India. This led to the selection of two areas in the Northern Western Ghats to explore the possibility of implementing FairWild certification and developing sound ABS mechanism.

Background

The Northern Western Ghats are rich in endemic and endangered species of flora and fauna. Due to the charismatic nature and interest in animals and birds, some of them have been researched in the region. But the plants have neither received the same kind of attention nor has their real value been reported. However, the local communities have been traditionally using plants at household level for various purposes like food and medicines. For example, *Garcinia indica*, *Tinospora cordifolia* have found place in the commercial medicinal plants trade.

However, there is a huge potential to tap other natural resources for their potential in commercial trade, of both medicinal and edible plants. It is also important to note that if there is a use and value attributed to the plant or its part, there are greater chances of their conservation and protection by local people.

In Ratnagiri district, particularly, Sangameshwar block, the destruction of privately-owned forests for small timber and firewood has continued since 1980s. Charcoal-making from species like *Terminalia chebula* was very common until the ban on charcoal production by the Maharashtra Government in 1986-87.

In Ratnagiri district the percentage of government owned forests is as little as less than 500 ha. However, the area is rich in sacred groves- a traditional practice of protecting old growth forests for deities. Ratnagiri district has recorded over 1000 sacred groves (Godbole and Sarnaik 2005). Many of these sacred groves are under threat and have been degraded and can only be protected with concerted efforts of community-based conservation and revival of tradition.

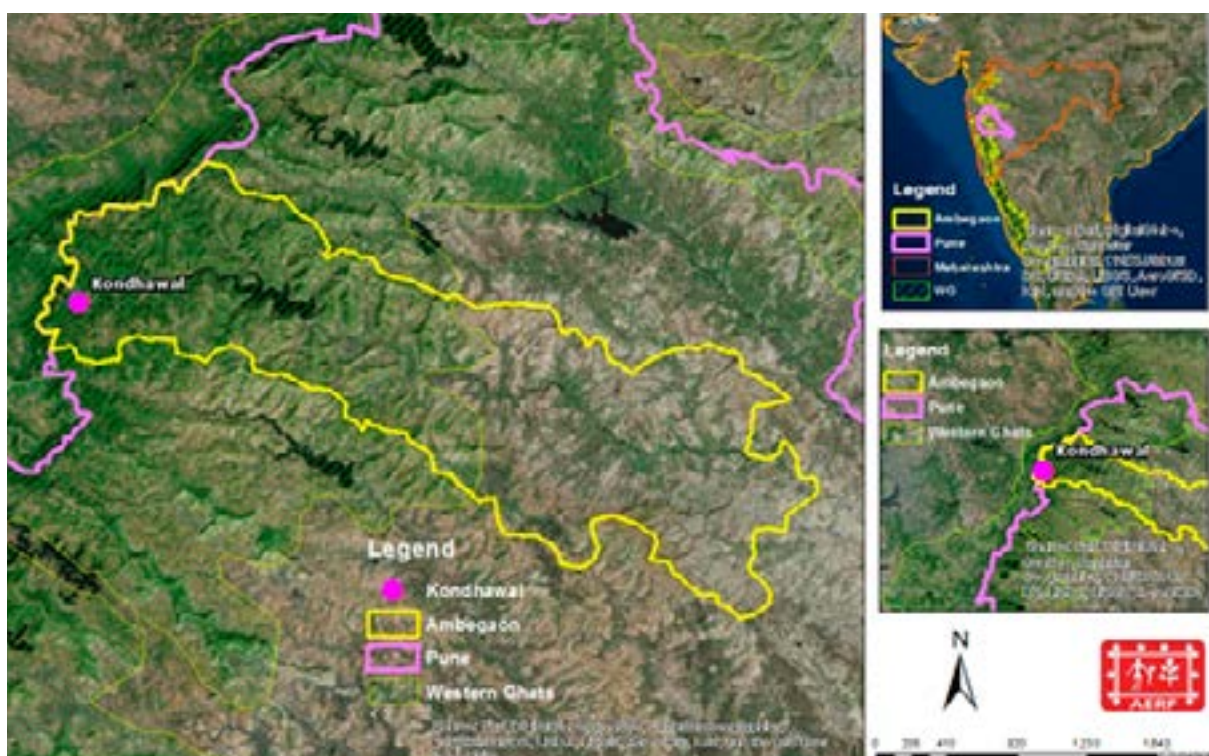
AERF has been engaged in the documentation and participatory conservation of these cultural spaces since 1998 in more than 40 villages from Sangameshwar block alone. There was a strict

regime of protection that forbade the use of any resources from sacred groves in the past. However, non-commercial use of fallen fruits and twigs, collection of honey and leaf litter has been allowed in some sacred groves. Every village sacred grove is generally managed by rules and regulation formed by the village ancestors, with modifications over the period of time by the community institutions managing these groves. It is important to note that the cultural understanding and value system associated with these small patches has also degraded over time and exploitation in the name of development has become a norm in last few decades as an impact of globalisation. Just faith may not be enough to maintain and protect these spaces for posterity as local people do expect direct benefits over the intrinsic benefits of sacred groves. Therefore, the response of local people to build the value chain-based on species from sacred groves was positive and due to long term presence of AERF in the region, cooperation for upscaling the approach in Sangameshwar block successful.

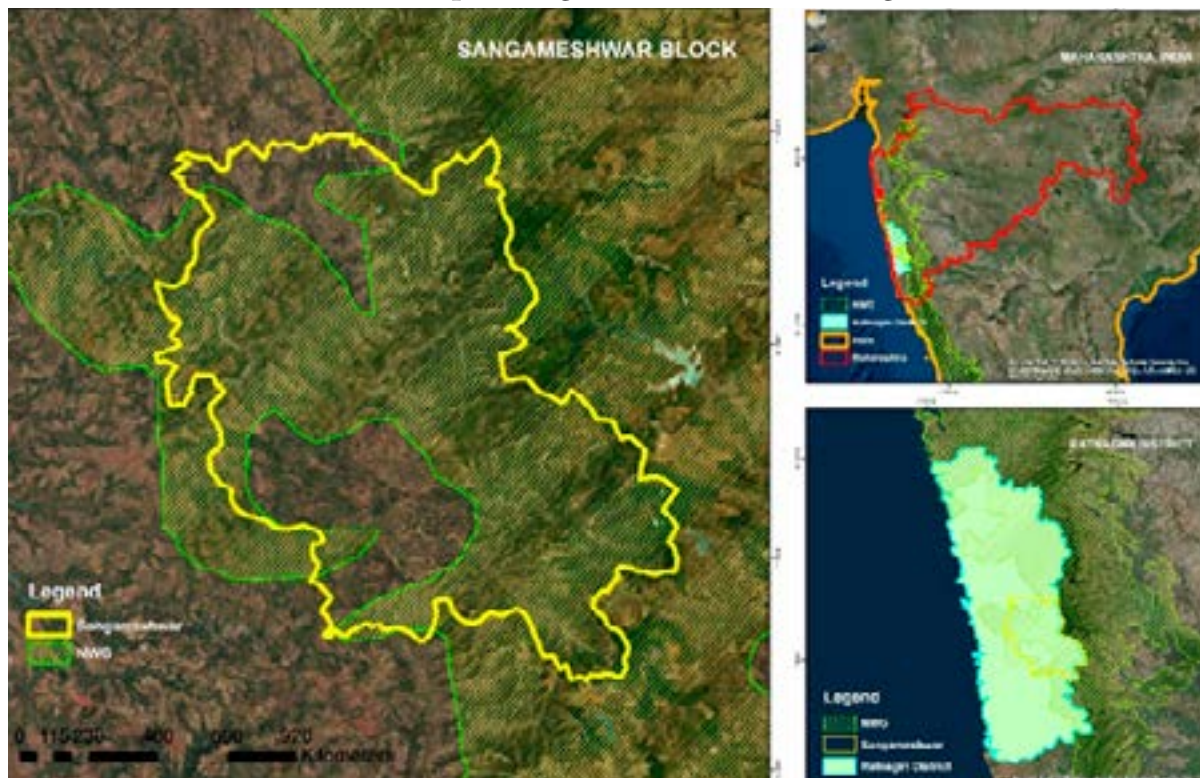
In Bhimashankar Wild Life Sanctuary (BWLS) surroundings from the Pune district traditional livelihood is still dependent on the collection of fruits of Hirda (*Terminalia chebula*), with a limitation of reaching real benefits to local indigenous collectors. AERF has been working in the area for strengthening natural resource management, engaging with local people and finding solutions for sustainable use of resources since 2006. Bringing value to the natural resources and capacity building for green enterprise are key pointers for success of these fruit-based value chains.

Sites of Supply Chain development and ABS in Northern Western Ghats

Location Map of Kondhawal Village in Ambegaon, Pune District



Location Map of Sangameshwar Block, Ratnagiri



Building value chains through certification

The Western Ghats of India is a recognised global biodiversity hotspot, yet the northern part of the hotspot has a rather sparsely protected area network, largely because a majority of the forested landscapes that comprise it are privately owned. According to the study carried out by Pune-based NGO WRCS in 2013, in the five districts of the Northern Western Ghats including Sattara, Sangli, Kolhapur, Ratnagiri and Sindhudurg, of the total forest area of 17,699 km², 12,043 km² are owned and managed privately, while 5,656 km² of forest area (less than 50% of privately managed land area) is owned and managed by the government (Kulkarni and Mehta 2013). In the absence of a comprehensive policy for the sustainable management of biodiversity on these private lands, subsidy-driven monoculture plantations, coupled with a lack of knowledge on economically viable sustainable management alternatives is resulting in large scale deforestation and degradation. Therefore, most of privately-owned forests are degraded where sacred groves -which are relic forests with old growth- were a ray of hope for biodiversity.

Through the documentation of biodiversity of sacred groves and later continuing the efforts of promoting conservation of few last remaining giant trees from Ratnagiri district, AERF found

large number of *Terminalia bellirica* trees in the sacred groves of Sangameshwar block. In the past the locals, with the consent of sacred grove management committee (traditional institution) used to collect the fruits of *Terminalia bellirica* for direct benefits. However, the amount of effort required to collect the fruits and its value in returns was inversely proportional. Therefore, local people have stopped collecting these fruits from groves and other areas over the period. Similarly demand for the fruits of *Terminalia bellirica* by the pharmaceutical industry has fallen from the area due to availability of fruits from central India. Due to fall in demand of fruits and increase in demand of timber of *Terminalia bellirica* there was rampant exploitation of these trees from the region, including many giant trees from sacred groves, resulting in its destruction.

Therefore, it was necessary to create a revenue model based on sustainable use of this vast resource in order to create the financial self-sufficiency necessary to sustain this conservation initiative in the long term. In pursuing this objective, AERF identified the FairWild certification programme as a potentially valuable tool for addressing sustainability issues of biodiversity conservation, and in 2012 conducted a feasibility study, short-listing two districts for possible implementation of FairWild certification. Crucial motivation for this feasibility study was provided by active involvement of Pukka Herbs Ltd. - Europe's leading manufacturer of Ayurvedic products. Pukka Herbs expressed interest in purchasing FairWild certified primary processed fruits of *Terminalia bellirica* and *Terminalia chebula* trees.

The Bhimashankar Wildlife Sanctuary in the Northern Western Ghats is traditionally known for collection and sale of *Terminalia chebula* fruits by the tribal community, the Mahadev Koli. The second area, the forest landscapes from Sangameshwar block in Ratnagiri district, is rich in populations of *Terminalia bellirica* trees, many of which are located in sacred groves.

By July 2012, AERF had taken steps towards making a stronger business case for biodiversity conservation through setting up some demonstration projects, and established a private limited company, Nature Connect India Pvt., Ltd. (NCIPL). NCIPL came in very handy as vehicle for implementing FairWild certification in years to come.

Following a preliminary assessment of the potential impacts for conservation and rural livelihoods, in partnership with academics from the Durrell Institute for Conservation and Ecology (DICE) in the School of Anthropology and Conservation at the University of Kent, in June 2013 AERF secured three years of financial support through the UK Government's Darwin Initiative programme. This was supplemented by a small support grant from the Keidanran Nature Conservation Fund (KNCF), Japan to specifically promote the FairWild approach. This funding enabled AERF to conduct situation analyses, run capacity building -training sessions with the local communities, carry out trial collection exercises, and purchase and install equipment for primary processing (drying and pulverising) of the collected fruits. The painstaking process of 6 years reiterated the value and importance of partnerships and collaborations.

Certification

The importance of certification schemes in addressing environmental and development issues is now widely accepted, although just how successful they are in achieving their objectives and meeting their aims has long been an issue of contention. AERF identified specific collection sites in the two districts selected for FairWild implementation activities. Additionally, organic certification has also been undertaken at both the locations for all the resource areas. The organic certification guarantees that the collected material is not contaminated by pesticides or other harmful chemicals, qualifying the produce as acceptable for human consumption in the UK as Pukka Herbs from UK wanted to ensure quality standards.

Certification has brought clear benefits to local communities engaged in the collection of fruits both in Bhimashankar WLS area for haritaki and for Bibitaki or beheda in Sangameshwar block as they get more price for raw fruits collected.

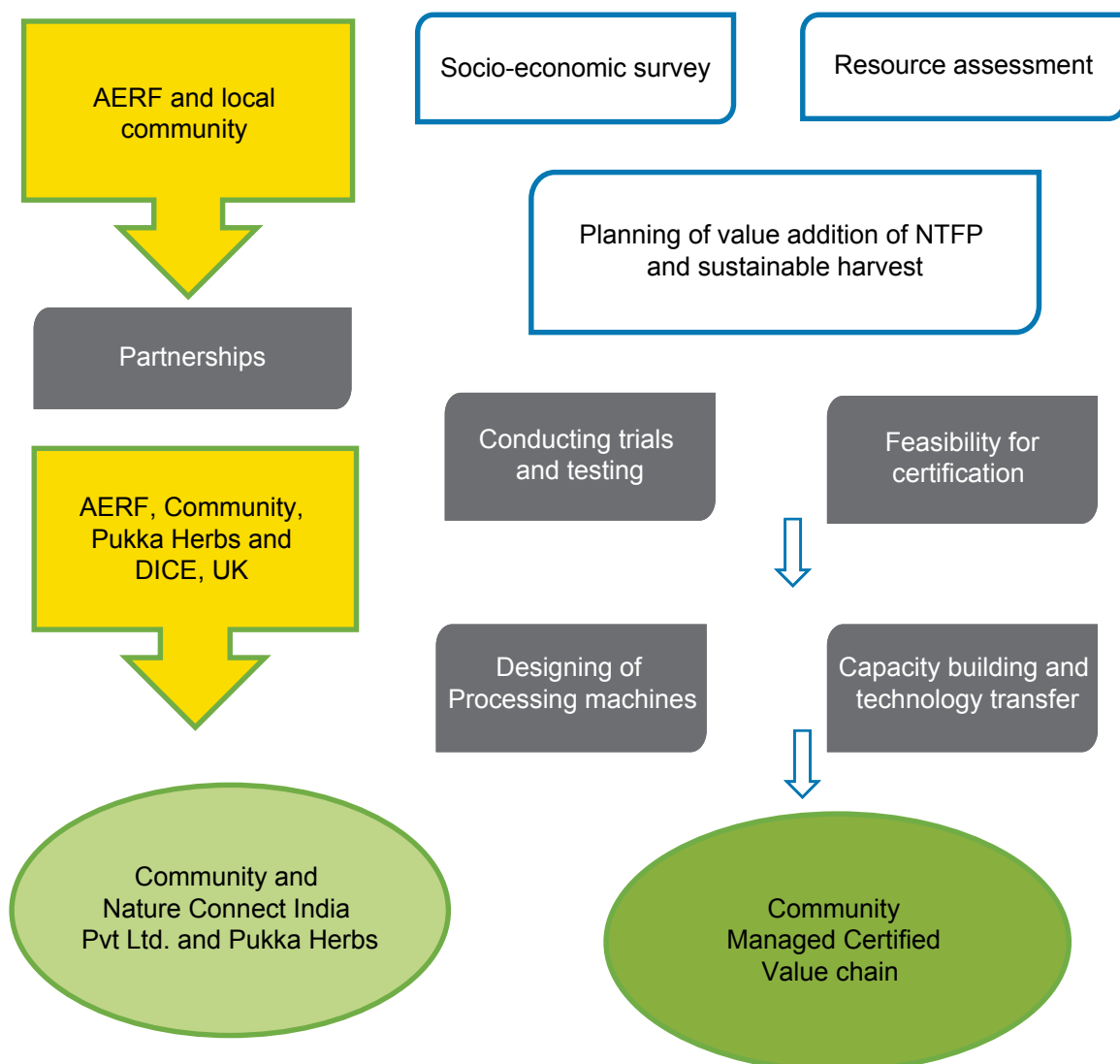
I. Sacred groves conservation and benefit sharing

Sacred groves are traditionally managed old growth forest fragments. They exist in good numbers in Sangameshwar block and offer some hope for the conservation of threatened plants and animals. However, these areas are facing the consequences of the loss of faith in tradition among the local community. There is a growing threat to the ecological integrity of landscape, with a need to develop a strategy that fulfils monetary expectations of local communities whilst also ensuring conservation of key biodiversity areas. AERF implemented the international FairWild certification scheme for the sustainable collection of non-timber forest products from community managed forests in the Northern Western Ghats. FairWild articulates stringent protocols and requirements with respect to biodiversity conservation, sustainable harvesting methods, monetary benefits to resource owners, ownership of and access to target resources, and the equitable sharing of benefits (Sarnaik, Bride, Godbole et.al .2017).

Any value chain, to be eligible for FairWild, needs to consider the ecological , economic and social sustainability of operations with transparency of sharing benefits and effective documentation and monitoring. It is not only the product that needs to be certified but the collators, product and processing as well as resource areas required to be assessed and certified in every collection year/ season. This includes collectors, collector associations/cooperatives, manufacturers, NGOs, contracting collectors, processors from the country of origin, traders and exporters in the country of origin, importers, processors and even marketing companies in the consumer countries (who can become certified on a voluntary basis). The certification award is based upon a detailed resource assessment, a viable management plan, sustainable collecting practices, cost calculations along the full supply chain, the traceability of goods and finances, and documented fair trading practices. In addition, no producer organisation can become certified without an on-site inspection.

II. Bhimashankar Hirda supply chain

Kondhwal village in Bhimashankar Wildlife Sanctuary is comprised of four separated settlements (“wadis”) made up of varying numbers of households: namely Gavandewadi, Kondhwal, Dhagewadi and Shindewadi. The villagers’ livelihoods are predominantly focused on rice cultivation to ensure their survival. However, they depend on income generated from other sources, of which haritaki, primarily in the form of the young fruits (*hirda*), accounted for nearly 50%, wage labour about a third, milk from cattle (10%), and rice and honey sales (8% and 3% respectively). It is also true that some young people are employed in small towns or cities. However, they repatriate little of their income. Since 2016 the other villages Nigdale and Terungan that are part of Kondhwal group Gram panchayat, were also engaged in certification and better benefits from *hirda* collection.



Certification Process

Capacity building

Green enterprises based on wild fruit collection has been promoted as a new idea for traditionally collected fruits that are used in ayurvedic medicinal preparation. The main objectives behind development of this intervention was to achieve conservation for these trees on the ground and to demonstrate the conservation of trees from sacred groves. It could create a win-win situation both for communities as well as conservation.

However, it was utmost important to build the capacity of community and other stakeholders to bring idea into reality. AERF, through an elaborate process, created awareness about the value of these species and provided knowledge on possible role community can play in generating benefits. These processes over the period of 5 years resulted in successful enterprise that brings benefits to individuals as well as to the community. A process chart of capacity building is provided here.

It is important to note here that the opportunities provided through the implementation of BD Act could be used to strengthen the capacity building process. As a part of implementation an institutional mechanism of Biodiversity Management Committees at village /Gram panchayat level were engaged in the preparation of People's Biodiversity Registers. These registers have documented the local knowledge and available biodiversity within the limits of BMCs. The process also helped bringing the ownership of village resources with collective responsibility for their use and protection formally on board. The use of tools like village resource mapping and transect walks with knowledge holders proved very effective both for collecting and documenting the information as well as for enhancing understanding of community members towards the supply chain and green enterprises both in selected villages in Sangameshwar Block and BWLS area.

Employment generation and benefits

The steady rise in income from collecting and selling of certified fruits of *Terminalia chebula* has started attracting local youth to this initiative for potential employment. While the project engaged about five young members of the community in collecting and processing in 2015, there are a total of 15 young men and women who participate in the project activities at different levels of the supply chain in the Bhimashankar Wildlife Sanctuary. Since then the number of certified collectors and employees at processing centre has increased steadily and more than 90 % of the households in Kondhwal village could reap the benefits of the certified supply chain.



Development of a good practice case on Access and benefit sharing

Under the scope of ABS Partnership Project, AERF initiated the process of transforming this certification-based value chain established for *Terminalia Chebula* and *Terminalia bellirica* into a good practice for access and benefit sharing. The developed supply chain and established green enterprise was a strong foundation for this intervention. Following the checklist of ABS good practice developed under the project, this foundation was transformed into a potential good practice case on Access and Benefit Sharing.

The process began with strengthening the village level authority i.e. the Biodiversity Management Committee for the 5 pilot villages. Series of training and capacity building measure were undertaken for pilot BMCs, majorly focusing on educating them on their role and responsibilities as BMCs and undertaking negotiation with the user groups. Supporting these BMCs for development of People's Biodiversity Register's was the most critical activity undertaken. Further support was sought from the Maharashtra State Biodiversity Authority in operationalising these BMCs.



The pilot BMCs played a crucial role in spreading awareness among hundreds of gram panchayat in Sangameshwar block, about the importance of having a strengthened BMC at village level and key role it can play toward conservation. AERF played a crucial role in empowering pilot BMCs in undertaking the negotiation with companies procuring from these villages, resulting into increased monetary benefits to the collectors, employment in the village through processing units and benefits to the village. The transparency in the operations and many mid-course corrections through continuous dialogue with the community strengthened the case for effective benefit sharing.

In Sangameshwar, the benefits provided by Pukka Herbs above the price given per kilogram to collectors for conservation has been now channelled through BMCs for conservation activities like cultivating plot with indigenous plant varieties. The BMCs have also proven very effective in management of sacred groves which are common land in villages. Pilot BMCs haven taken a decision for conservation and improvement in the management of sacred groves. In BWLS area the BMC formed has supported in establishment of hirda collector's cooperative society is sharing the benefits with local hirda collector's co-operative society for smooth sharing of benefits with member collectors and exploring further business opportunities.

Through AERF's facilitation, as a final stepping stone of successful implementation of ABS mechanism, Nature Connect India Private Ltd. a company managing business on behalf of community has recently initiated a benefit sharing agreement by submitted 'Form 1' to the Maharashtra State Biodiversity Board. Thus, demonstrating one of the good practice cases on ABS developed under ABS Partnership Project. Additionally, it is also in process of consultation with Pukka Herb International to initiate their registration process and submission of 'Form 1' to National Biodiversity Authority (NBA), India.

Conservation benefits

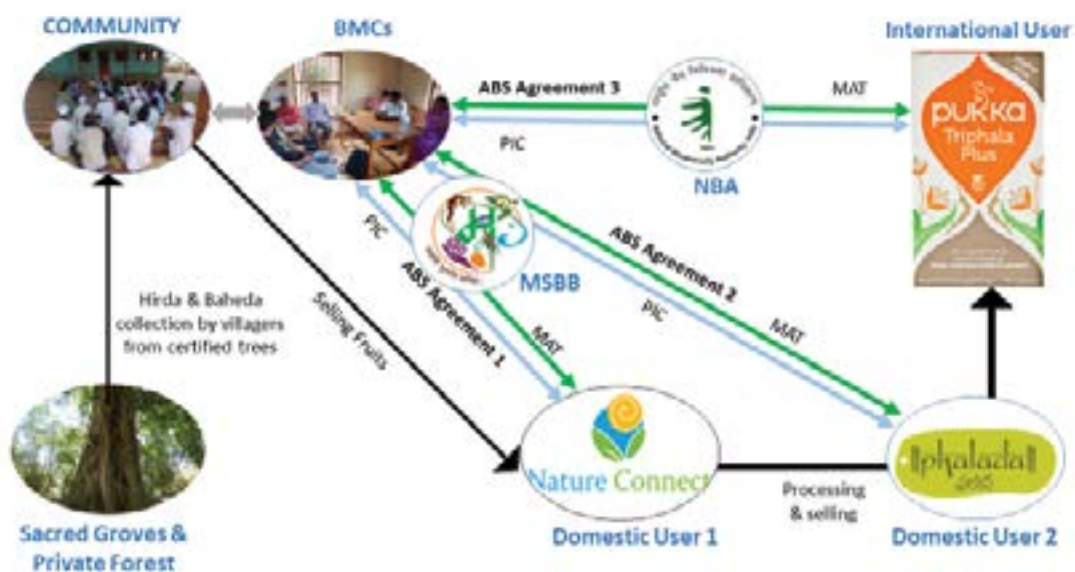
In terms of biodiversity benefits, the establishment of sustainable collection practices under the FairWild protocol has contributed to the conservation of 27 groves of *Terminalia chebula* spread over 26 hectares. Meanwhile up to 750 large *Terminalia bellirica* trees and their habitats, spread over 32 hectares across 11 villages, have been conserved in the Sangameshwar block, of which up to 400 have achieved FairWild certification. The ecological importance of *Terminalia bellirica* is particularly noteworthy because many of the individual trees in question are large mature specimens that provide nesting sites for important seed dispersers. Thus, this project ensured the protection of 28 nesting sites of the Malabar pied hornbill (*Anthracoceros coronatus*) and five nesting sites of the great pied hornbill (*Buceros bicornis*).

Thus, it is of paramount importance that BMCs are capacitated to become proactive in managing these resources more efficiently and in this process generate benefits and invest it substantially in conservation.

Assessment against Good Practice Criteria

Criteria	Indicators	Explanation
Technical	Effectiveness	With increased profitability in selling certified fruits from the trees, it is highly effective in reducing the destruction of trees for firewood.
	Relevance	Fair Wild certification has in-built element of sustainable harvest and complement to the conservation measure
	Innovative	Certification is a unique approach containing holistic checklist of practices that should be followed. Ensuring a good balance of social, economic and environment parameters
	Economical	FairWild certification helps in getting price (approx. 6 times) and makes the procurement transparent. Cost of certification is high, but it is funded by the company procuring the certified produce. Thus, it could be undertaken with user support
Operational	Efficiency	The market for certified produce is already identified, required procedures are in place
	Sustainability	In this practice there is high level of community involvement, cost of certification is compensated by the company and involves sustainable harvest practice. But, financial support is additionally required for community mobilisation and organising training for effectively carrying out the complete procedure
	Replicable and Scalable	Demand of organic and FairWild certified bio-resource is high in domestic and international market. The quantity requirement is much higher than what is supplied from the intervention area. Moreover, other than two bio-resources mentioned in this case, certification could be adopted for several other bio-resource and has a ready market available.
	Inherently Participatory	This practice has a thorough involvement of the community, not just in terms of collection of bio-resources but together following the certification protocols, collective selling of bio-resources and shared benefit are owned by the community. BMC plays a steering role and whole community follows it
Institutional	Equitable	The benefit shared with the BMCs are equally distributed among the community involved in the certification and collection process. The complete process is transparent and has joint ownership of the community
	Compliance adherence	ABS compliances starting from negotiation with users, followed by the agreed terms with the community and equitable sharing of benefits are thoroughly followed in this practice. Moreover, a portion of benefit sharing is also utilised for the conservation measures as per the BD Act

ABS Good Practice Implementation Flow



Analysis Core Process	Critical Factor	Good Practice Criteria		
Access, Benefit Sharing, Compliance, Conservation of Biodiversity	Sustainable harvesting practices, Market linkages	Technical	Operational	Institutional
		Efficient [4]	Replicable and Scalable [3]	Equitable [5]
		Effective [4]	Sustainability [3]	Compliance Adherence [5]
		Viable [3]	Participatory [5]	Transparent [5]
			Gender Sensitive [3]	
		TOTAL [11]	TOTAL [14]	TOTAL [15]
		WEIGHTED AVERAGE SCORE = 4.0/5.0		

Key Learnings

- ❌ Biodiversity Management Committee is an effective institution in undertaking conservation measures
- ❌ Community capacity building on Biodiversity Act and execution of ABS mechanism is a continuous process
- ❌ ABS could be used to share the benefits to all the stakeholders managing common resources, but the support for capacity building and building enterprise through grants is imperative
- ❌ Convincing businesses for investment and building capacity towards long term green enterprises is a huge task

- ✎ Successful implementation of ABS mechanism demonstrates the possibility to develop new ways of conservation and enhanced income,
- ✎ Transparency and accountability could be ensured through innovative mechanisms like certification
- ✎ Implementation of Biodiversity Act opens up enormous possibilities of participatory conservation of biodiversity especially in the open access areas of NWG.
- ✎ Through formation and capacity building of BMCs for implementation of ABS, local community ownership towards biodiversity and natural resources is enhanced. It could then pave way for other non-exploitative bio-resources based businesses.



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