

The potential of biotrade and ABS: the case of Namibia

“The fair and equitable sharing of benefits arising out of the utilisation of genetic resources” is one of the three objectives of the Convention on Biological Diversity (CBD). This objective on access and benefit-sharing (ABS) is intended to place developing countries in a better position to profit from their genetic resources, and provide incentives for the conservation and sustainable use of their biodiversity.

Namibia has many unusual plants, animals, fungi and micro-organisms, a multi-cultural society with a high level of traditional knowledge about wild foods, medicinal plants and other resources, and a huge supply network embodied in its Community-based Natural Resources Management (CBNRM) movement (see Box 1). This makes it inherently interesting for Namibia

- to develop its competitive position in the sustainable supply and trade with indigenous natural products mainly for niche markets (biotrade), and
- to benefit from exploratory activities that aim to identify genetic resource components and information on associated traditional knowledge,

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with potential for commercial use in the biotechnology, pharmaceutical, agrochemical and cosmetic industries (bioprospecting).

Natural product development and biotrade: the pipeline approach

Since 2000 Namibian stakeholders have developed an innovative coordinated national “pipeline approach” to pro-actively creating sustainable economic opportunities based on harvesting, processing and trading indigenous plants and natural products (see Figure on page 24). The pipeline approach prioritises natural products with large and relatively quick market potential

Box 1: Namibia’s biodiversity treasures

Namibia offers a remarkable variety of habitats and ecosystems. These range from extremely arid desert areas (including the oldest desert in the World) with less than 10 millimetres rainfall per year, to subtropical savannahs with over 600 millimetres. It is one of the few dryland countries worldwide with internationally recognised biodiversity “hotspots”. The most significant of these is the Sperrgebiet, situated in the Succulent Karoo floral kingdom in southern Namibia. The second hotspot is the rugged Namib Escarpment which is part of Africa’s great western escarpment. Namibia’s biodiversity is not just the fundamental basis for the livelihood of rural people; the high level of species richness and endemism is also a national asset and a significant global treasure.

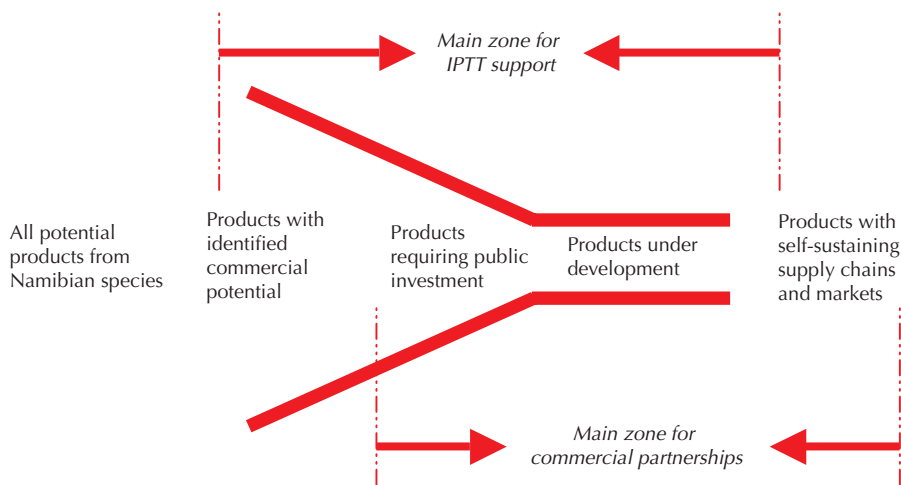
Namibia is renowned for its successes in terms of biodiversity conservation. It has an extensive protected area network which is expected to cover 17 percent of the country by 2007. The network of communal and freehold conservancies adds a further 19 percent which means that 3 percent of Namibia is under some form of conservation management. Adjustments in the policy and legal framework have devolved rights over wildlife and natural resources to organised Community-based Natural Resource Management (CBNRM) groups (Conservancies and Community Forests) in Namibia’s most marginalised rural areas. These have provided communities with unprecedented incentives to manage and conserve their wildlife and areas, and resulted, for instance, in mass recoveries of game populations outside national parks.



Photo: Hans Probst

Devolution of rights over wildlife has created a strong economic incentive for land owners and managers to protect and carefully manage wildlife, and the country has seen a remarkable recovery and increase of game populations. Until now Namibia’s wildlife is an underutilised resource.

Namibia's pipeline approach for the commercialisation of biodiversity based products linking government based support and private sector engagement.



and promotes their commercial development through an integrated, holistic strategy that addresses the entire value chain from harvesting to retail sales, in commercial partnerships with the private sector.

The process is steered by the Indigenous Plant Task Team (IPTT), a multi-stakeholder coordinating body chaired by the Directorate of Agricultural Research. This approach has so far brought four new Namibian natural products (marula oil, Kalahari melon seed oil, ximenia oil, and manketti oil) to the international cosmetic markets, with several others (baobab oil and pulp, !nara oil, mopane essential oil, marula juice and fruit pulp, commiphora resin, devil's claw, hoodia, terminalia root bark, manketti fruit and makalani fruit)

at various stages of the pipeline. Many other indigenous resources have been identified as having commercial potential, or have been assessed for availability, but have not been investigated in more detail due to limited human and financial resources.

The main principles of the pipeline approach are:

- Research and development (R&D) are based on community demand for additional cash incomes derived from existing "resource endowments" of indigenous plants.
- Interventions are aimed at maximising primary producer benefits.
- Established and reputable community-based organisations (CBOs) are used as first-level collators of wild-harvested or semi-domesticated raw materials.
- Many potential products are investigated and promoted in parallel ("few eggs in many baskets").
- Public and donor money is used for essential technical and market R&D, and for developing the rural supply chain, required to demonstrate viable economic opportunities, which are then taken forward in collaboration with well-resourced commercial partners (e.g. commercialisation of marula oil and Kalahari melon seed oil through the Community Trade programme of The Body Shop International).

- Flexibility and responsiveness to market signals.

Strengths of this "Namibian model" are that it

- avoids total hang-up when the development of one product is delayed by circumstances,
- allows efforts and human/ and financial resources to be applied where they are most urgently needed,
- facilitates synergies among "generic overhead" inputs, e.g. project coordination, market liaison, public-private partnerships,
- diversifies the range of resources traded along supply chains which helps to reduce risks for producers and traders, and contributes to scale economies, and
- is open to public and private partnerships.

A challenge still remains to improve the primary producers' benefits from the successful marketing of biodiversity based products. Currently the formation of a Primary Producers Trust is being explored to create equity in commercial partnerships on behalf of the rural communities, who are the primary producers in the value chain (see Box 2).

Regulating ABS

Namibia has recognised that without a legal framework, it will be difficult to provide controlled, legally secure access to potential users of locally available biological and/or genetic resources, which is key to negotiating appropriate benefit-sharing deals. The Namibian Access to Genetic Resources and Associated Traditional Knowledge Bill (ABS Bill) has been under development since 1998. While the ABS bill is in the process of finalisation, a national interim measure in the form of an Interim Bioprospecting Committee (IBPC) was established by Cabinet decision in September 2007 to regulate and facilitate all bioprospecting activities in Namibia on an interim basis, while at the same time guarding against unlawful exploitation and biopiracy.



Photo: CRIAA, Phytotrade

Producing Marula oil for domestic consumption the traditional way.

Zusammenfassung

Das „namibische Modell“ zeigt, dass Entwicklungsländer mit interessantem Biodiversitätspotenzial einen deutlichen und nachhaltigen Nutzen für ihre Entwicklung erzielen können, wenn sie die proaktive Verantwortung für ihre einheimischen biologischen Ressourcen übernehmen und aktiv deren gerechte Vermarktung fördern. Der koordinierte, marktorientierte Ansatz Namibias in Bezug auf den Biohandel hat beträchtliche Investitionen in die Produktentwicklung durch private Wirtschaftspartner bewirkt und zusätzliche Einkommensmöglichkeiten durch die Bewirtschaftung der natürlichen Ressourcen geschaffen, die wiederum ein Anreiz für deren Erhalt und Pflege sind. Namibia hat sich für ein ganz eigenes innovatives, flexibles

und entwicklungsorientiertes ABS-Konzept entschieden, das auf akzeptiertem Vertragsrecht beruht und Nutzern der einheimischen Ressourcen dadurch Rechtssicherheit gewährt, gleichzeitig aber durch die gerechte Gewinnverteilung zwischen Lieferanten und traditionellen Nutzern der Ressourcen allen Seiten Vorteile bringt.

Resumen

El “modelo de Namibia” demuestra que los países en desarrollo con un patrimonio de biodiversidad interesante pueden generar considerables beneficios de desarrollo sostenible al adquirir un sentido de responsabilidad o apropiación (*ownership*) pro-activo frente a los recursos biológicos indígenas y promover activamente su comercialización equitativa.

El enfoque coordinado y orientado al mercado de Namibia frente al bio-comercio ha logrado atraer significativas inversiones de empresas privadas para el desarrollo de productos, las cuales han dado lugar a ingresos adicionales basados en recursos naturales que sirven como incentivos para la conservación. Namibia ha adoptado un enfoque *sui generis* innovador, flexible y “pro-evolutivo” hacia el acceso y la distribución de beneficios (ABS), basado en reglas ampliamente conocidas del derecho contractual, para proveer seguridad jurídica a los usuarios de los recursos indígenas. De este modo se logra generar resultados positivos y a la vez facilitar una justa distribución de beneficios con los proveedores y usuarios tradicionales de estos recursos.

This interim mechanism utilises the law of contract to execute the role of Competent National Authority granting legitimate access to resources. It is expected that the availability of such a legitimising mechanism, when combined with business’s trust in private commercial law, will reduce uncertainties for the biotechnology industry and other users of biological and/or genetic resources. This in turn facilitates a pro-active, promotional approach to encouraging companies to resume and expand research in Namibia, especially into functional product groups such as micro-organisms, flavour and fragrance

Extracting high grade marula oil at the Eudafano women’s cooperative factory in northern Namibia.

ingredients, gums and resins, medicinal plants, venoms, local crop and livestock breeds, marine organisms, endemic species. An advantage of this interim measure is that the IBPC can serve as a learning platform for the approval and negotiation of bioprospecting packages and contracts. In addition, it provides time to align the legal and regulatory framework with discussions around an emerging international ABS regime



Photo: CRIAA, Phytotrade

under the CBD, which has to be finalised by 2010.

It will be important for the IBPC to distinguish between “pure” bioprospecting (e.g. for drug development or industrial use, usually with associated intellectual property issues) and the more commonplace market demand for natural products as ingredients, without restrictive intellectual property rights. With the scope of the international ABS regime not yet defined – meaning that the line between ABS or “pure” bioprospecting and biotrader is not only blurred but also legally undefined – such practical learning experiences are not only important for the development and implementation of national ABS regulations but also for the negotiation of the international regime as such.

Box 2: Efforts to maximise primary producer benefits

An equity ownership mechanism is currently being explored to optimise economic returns to primary producers by securing for them a share in the downstream value of their resource. The latest development in this regard is the proposed formation of a Primary Producers Trust (PPT) to own “generic equity” in various public-private partnership (PPP) ventures on behalf of primary producers.

A potential venture under discussion is the formation of a new company (“NewCo”) involved in the valorisation and commercialisation of indigenous cosmetic oils which currently lead the Namibian product development pipeline. An important aim is to secure private sector investment for continuing, at a higher level of technology, the development of pipeline products started by the IPTT. The PPT would be a “sleeping partner” in NewCo, leaving commercial decision-making to its more experienced private sector collaborators. The majority of the PPT’s earnings from its equity holdings would be disbursed directly to primary producers. While commercial partners have expressed interest in investing in NewCo, the details of this innovative benefit-sharing mechanism are still under negotiation.