Learning from the Practitioners:

Benefit Sharing Perspectives from Enterprising Communities

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Executive Summary

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The Convention on Biological Diversity (CBD) is the first international instrument to deal with issues of ethics and equity with regard to the sharing of benefits derived from genetic resources between those who have conserved them and those who exploit them. Bio-prospecting is usually viewed as a contractual relationship between the end-users of resources (e.g., academics, the pharmaceutical industry, mining firms, etc.) and the local communities or countries where the resources originate. This study focuses on inter- and intra-community equity in economic transactions by examining the management and use of biological resources for income generating activities at the local level by the providers of the resources. In this view the providers of biological resources are also the agents of value addition to the resources, as they are involved in the development and marketing of the final 'bio'-product for consumption. The study also focuses on how various communities in a range of ecosystems share the benefits derived from economic activities and how that affects their ability to meet their needs and ensure social and economic well-being.

Representatives of fourteen communities from various ecosystems were interviewed for the study, during the Ninth Conference of Parties of the Convention on Biological Diversity in May, 2008. The communities they represent were finalists in the biennial awards given by the Equator Initiative of the United Nations Development Programme to communities that have successfully addressed issues of biodiversity conservation and poverty alleviation. They provided information on their priorities for resource use and management, acquisition of benefits and mechanisms for the distribution of benefits among their members, including challenges they face in the process.

There is concern that national governments have insufficient experience in identifying the entry points to implement the access and benefit sharing provisions of the Convention at the local level. The results of this study clearly demonstrate that communities around the world are already working on access and benefit sharing, irrespective of whether the access and benefit sharing provisions of the CBD are being implemented at the national and local levels and in terms that are not typical of current international discussions on access and benefit sharing. The examples in the study show how some communities have used principles of governance, ethics, equity and resource sharing as key bases for securing livelihoods at the local and household levels. Community activities revolve around the development and use of biological resources for generating profit and mechanisms for sharing that profit. By analysing the implications of their actions on their well-being using Sen and Nussbaum's 'Capabilities Framework' and Maslow's 'Hierarchy of Human Needs', the results showed that community well-being improved in terms of various indicators such as basic needs (i.e., food security, shelter and health), safety needs (i.e., security from natural and economic risks), belonging needs (i.e., equity in governance, access to resources and benefit) and self-esteem (i.e., of degree of autonomy to determine use of resources, economic activities, education, etc.). Hence, such activities could provide a community perspective that would aid in the effort to understand the access and benefit sharing provisions under the Convention and in the work on developing national action programmes on access and benefit sharing. The study is seen by the authors as a pilot exercise in the use of an analytical framework to explore the links between actual community practices on distributing benefits and well-being, one of the implied mandates of the Convention on Biological Diversity. It concludes by providing some suggestions pertinent to the negotiations on the international regime on access and benefit sharing.

1. Preface

The Convention on Biological Diversity (CBD) is the first international instrument to deal with issues of ethics and equity with regard to the sharing of benefits derived from genetic resources between those who have conserved them and those who exploit them. Provisions of the Convention (specifically, Articles 8 (j), 15 (7), 16, and 19), along with the Guidelines on Equitable Access to Genetic Resources and Benefit Sharing (Bonn Guidelines), aim to ensure that the benefits enjoyed by end-users of genetic resources are shared equitably with the providers of such resources.[1]

Literature on bioprospecting - the search for and extraction of biological resources for use in the development of new products - and benefit sharing typically examines the contractual relationship between end-users of resources (e.g., academics, the pharmaceutical industry, mining firms, etc.) and the local communities or countries where the resources originate (Laird and Wynberg, 2008). This is the archetypal and mainstream framework. Equity in this scenario concerns how much end-users are willing to pay or share benefits with providers of biodiversity resources based on a fair calculation of costs of the value added and income generated by the user. This literature demonstrates that bioprospecting contracts often fail to facilitate the equitable distribution of benefits, promote the conservation of biodiversity or address the concerns of local stakeholders. Local concerns, which vary depending on context, include tenure rights, reduced demand for labour and resources once the production activities of external stakeholders cease and the elite capture of benefits (Barrett and Lybbert, 2000).

The existing literature raises but does not explore at length an additional issue, which is the effectiveness of the Convention on Biological Diversity in ensuring inter- and intra-community equity in economic transactions relating to biological resources (Barrett and Lybbert, ibid.). Specifically, it has been pointed out that there is a lack of literature detailing case studies on the distribution of benefits and costs among members of communities living in close proximity to biological resources.

The present study seeks to address this lacuna in the literature by highlighting the results of research on benefit sharing mechanisms among entrepreneurial communities from different geographic locations across the tropics. Rather than focus on bioprospecting as a contract between local communities and end users the study examines it as the use of biological resources for income generating activities at the local level by the providers of the resources. In this view the providers of biological resources are also responsible for adding value to the resources, for instance through the development and marketing of the final 'bio'-product for consumption. The study also focuses on how various communities in a range of ecosystems share the benefits derived from economic activities and how that affects their ability to meet their needs and ensure social and economic well-being. It is the authors' hope that the study will shed light on community priorities for resource use, acquisition of benefits and mechanisms for the distribution of benefits. It is also hoped that the study will provide some guidance to those focusing on issues of access and benefit sharing (ABS) and contribute more generally to the negotiations that are taking place on the proposed international access and benefit sharing regime. It should be noted that the term "biological resources" is used in the study to include all living resources from nature. This understanding of the term better reflects community definitions, and is inclusive of genetic resources, which are under discussion under the Convention on Biological Diversity.[2] This is an important distinction to

[1] The text of the Convention is available online at http://www.cbd.int/convention/convention.shtml, the Bonn Guidelines are available at http://www.cbd.int/doc/publications/cbd-bonn-gdls-en.pdf.

[2] The Convention on Biological Diversity refers to "genetic resources" as any material of plant, animal, microbial, or other origin containing functional units of heredity that have actual or potential value and to "biological resources" as including gentic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity.

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make as it helps to better capture and reflect the value of community-led activities that result in the conservation of bio-diversity.

One of the common comments heard about implementation of access and benefit sharing actions at the national level is the lack of experience of countries in identifying suitable entry points for establishing access and benefit sharing regimes that benefit local communities. Although many case studies are available currently on access and benefit sharing issues from around the world, several of them were developed prior to the entry into force of the Convention on Biological Diversity. This includes the INBio - Merck arrangement, under which Merck, in 1991, entered into an agreement with the Costa Rican environmental organization INBio initially for a period of two years to access biological resource samples in exchange for an initial payment of one million USD; or the Kani Tribe - TBGRI case in which the Tropical Botanical Garden and Research Institute based in a province of India decided to share 50 per cent of the benefits they received from licensing a proprietary Ayurvedic medicine, with the Kani tribe whose knowledge had contributed to the development of the product. A few examples of agreements developed since the Convention's entry into force are seen as having been specifically designed with the Convention's access and benefit sharing principles in mind. For instance, the Hoodia and San community case, in which the Council for Scientific and Industrial Research of South Africa entered into an agreement with the San tribe to share a percentage of benefits accruing from the sale of an anti-obesity drug that was developed by the Hoodia from a substance used traditionally as an appetite suppressant by the San tribes in the region.

What some fail to recognize is that communities around the world are already working on access and benefit sharing irrespective of whether the access and benefit sharing provisions of the Convention on Biological Diversity are being implemented at the national and local levels and in terms that are not typical of current

international discussions on access and benefit sharing. The examples and experiences identified in the study demonstrate how some communities have used principles of governance, ethics, equity and resource sharing as key bases for securing livelihoods at the local and household levels. As mentioned, community activities revolve around the development and use of biological resources for generating profit and mechanisms for sharing that profit. Hence, if such activities can be adapted to the implementation of access and benefit sharing principles under the Convention on Biological Diversity it could provide a community perspective that would aid in the effort to understand the access and benefit sharing provisions under the Convention and could also be useful in the work on developing national action programmes on access and benefit sharing. The study is seen by the authors as a pilot exercise in the use of an analytical framework to explore the links between actual community practices on distributing benefits and well-being, which in truth is one of the implied mandates of the Convention on Biological Diversity.

2. Respondent Communities

The communities that participated in and contributed to the study, which the authors refer to as "respondent communities", are recipients of the Equator Prize, awarded biennially by the United Nations Development Programme (UNDP) under its Equator Initiative to recognize outstanding grass-roots efforts in the area of biodiversity conservation and poverty reduction. The Equator Initiative is a partnership that brings together the United Nations, Governments, civil society, businesses and grass-roots organizations to build the capacity and raise the profile of local efforts to reduce poverty through the conservation and sustainable use of biodiversity. Several Equator Prize recipients run biodiversity-based businesses and enterprises. Representatives of these communities attended the ninth meeting of the Conference of the Parties to the Convention on Biological Diversity, which was held in Bonn, Germany, in May 2008; some of those representatives were interviewed for this study.

The Equator Initiative communities provide an extensive case set (of more than 1,400 community enterprises) that has been analysed by researchers with regard to various factors contributing to successful community and indigenous enterprises (Berkes and Adhikari, 2005). Previous research done on Equator Initiative communities has highlighted that community based resource management can result in positive social and economic development and that often this development is the result of appropriate institutional linkages and an affinity for land (referred to as a "special relationship to land") (Berkes and Adhikari, 2005). In a review of the impact of the Equator Initiative, Timmer and Juma call for the expanded use of social mapping exercises and effective use of community dialogue spaces, an Equator Initiative modality that so far has brought together local and indigenous groups to share best practices and connect local practitioners with global processes, thereby influencing policy formation (Timmer and Juma, 2005).

In the present study we have found that principles such as distributive justice, reciprocity, compensation and equity form the basis for how

communities regulate access to their resources and share the benefits that derive from their exploitation. Again, it may be noted that communities are not, however, basing their actions strictly on the debates about access and benefit sharing under the Convention on Biological Diversity, which is perhaps a key reason for de-linked actions and re oriented understanding, at the local level, for national and global policymaking on access and benefit sharing.

2.1 Methodology

2.1.1 Data collection

The Equator Initiative organizes community dialogue spaces at international conferences and other forums relevant to conservation, environment and development. During the ninth meeting of the Conference of Parties to the Convention on Biological Diversity, a dialogue space called the Community Dorf was organized by the Equator Initiative. During this event, 14 detailed personal interviews were conducted with representatives from communities covering a wide range of ecosystems from Latin America, Africa and Asia and the Pacific. A letter outlining the scope, purpose and consequences of the research was provided to participating community representatives. Interviews were based on a pre-designed questionnaire and information was collected both in small group and single person interviews.[3]

Community representatives provided answers to questions regarding changes in their livelihood activities, management norms and rules and the distribution of benefits from activities. In addition, respondents reflected on the impact that their biodiversity-based enterprise and distribution mechanisms had had on individual and group well-being. The information obtained was chiefly evocative, with representatives focusing more on processes and impact than on quantitative values. The following section highlights the profiles of the communities, and their strategies for management of their bio-physical and economic resources.

[3] The questionnaire was translated into French, Portuguese, and Spanish by colleagues at the United Nations University Institute of Advanced Studies.

2.1.2 Demography and type of activities

The majority of respondent communities (13 of 14) come from regions that host multiple ecosystems and have a wide variety of resource dependencies. The economic activities of most communities are closely related to their ecosystems and the natural environment has shaped their traditional skills, knowledge and practices. In some cases, the extent of dependence on natural resources for livelihoods has changed (e.g., hunting wildlife). In other cases, communities have adopted activities that are entirely new to its members. The choice of activities primarily depends on the communities' traditional activities, natural capital (in the form of ecosystems and biological resources) and suggestions or opportunities that come about through links with non-governmental organizations, international organizations and others. Summaries of the location and traditional and current livelihood activities of the respondent communities are presented below.

- **Community: Community Tours Sian ka'an**

  Location: Mexico, Latin America

  Ecosystems: coastal, freshwater and wetland

  Traditional activities: apiculture, fishing, resin collection, traditional medicine and hunting

  Current activities: ecotourism (main), conservation promotion, bird monitoring, training activities (including agriculture) and fishing. (Note: hunting has been banned.)

- **Community: Pescado Azul Asociación de Mujeres**

  Location: Ecuador, Latin America

  Ecosystems: island and marine

  Traditional activities: fishing and farming

  Current activities: processing of smoked fish (tuna). The group has started to use other fish too in order to reduce consumption pressure on shark.

- **Community: Estado de Quintana Roo**

  Location: Mexico, Latin America

  Ecosystems: coastal, freshwater, wetland, coral reef, wetland, tropical forest and mangrove

  Traditional activities: Fishing, hunting and copra production

  Current activities: Sustainable fishing

- **Community: The Equilibrium Fund**

  Location: Guatemala, Latin America

  Ecosystems: agriculture, forest

  Traditional activities: handicrafts (wood and bronze), agriculture and chicken farming

  Current activities: Producing processed products of Maya nuts, baking, training for baking and other activities and reforestation

- **Community: Barrio El Progreso**

  Location: Guatemala, Latin America

  Ecosystems: forest, freshwater and agriculture

  Traditional activities: agriculture, medicinal plants, handicrafts and fishing

  Current activities: Forest protection, medicinal plants and products, ecotourism, training for baking, stitching and eco-education in schools

- **Community: Tarcoles, Puntarenas**

  Location: Costa Rica, Latin America

  Ecosystems: forest, coastal, mountain, wetland

  Traditional activities: agriculture and fishing

  Current activities: low impact/sustainable fishing, processed fish production and ecotourism (early stages)

Chapter 2 Respondent Communities

■ **Community: Talamanca Initiative**

Location: Costa Rica, Latin America

Ecosystems: glacier, rainforest, wetland, coastal, mountain, forest, national park

Traditional activities: farming, non-timber forest products, cacao monocultures and fishing

Current activities: organic fair trade agriculture, community ecotourism, payment for ecosystem services, agriculture, fishing, fruit collection, handicrafts and aquaculture (tilapia)

■ **Community: Chibememe Earth Healing Association**

Location: Zimbabwe, Africa

Ecosystems: grassland, forest, riverine forest

Traditional activities: animal husbandry, small grain production, fishing, hunting, fruit collection, medicinal plants, non-timber forest products and hunting

Current activities: Farming, including cotton, maize, peanut butter, grains and seeds and livestock (milk and meat), oil production, fishing, non-timber forest products and ecotourism.

■ **Community: Sepik Wetland Management Initiative**

Location: Papua New Guinea, Pacific

Ecosystems: wetland, marine, grassland, freshwater

Current activities: rubber plantations, handicrafts, eco-guide training and ecotourism

■ **Community: Kalinga Mission for Indigenous Communities and Youth Development Inc.**

Location: Philippines, Asia

Ecosystems: mountains, rivers, forests, hot springs, rice terrace, extinct volcano

Traditional activities: hunting, fishing, non-timber forest products and crafts

Current activities: Sustainable hunting, fishing, farming, rice, coffee, vegetables, handicrafts, weaving and garment making

■ **Community: Shompole Community Trust**

Location: Kenya, Africa

Ecosystems: grasslands, forests, salt spa, hot spring, mountains, riverine, wetland

Traditional activities: hunting, livestock, and farming

Current activities: ecotourism, livestock, farming and research (in collaboration with universities)

■ **Community: Aaharam**

Location: India, Asia

Ecosystems: dryland

Traditional activities: non-specific

Current activities: medicinal plant collection (supply chain for the Grama Mooligai Company Limited), financial self-help groups, dryland crop farming (tamarind, chillies, coriander, mango and vermicompost), biomass fuel and biomass stove production and liquid petroleum gas cylinder sales