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ABS and Kani Case in India

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International Conference on Access and Benefit Sharing for Genetic Resources
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Structure of the Presentation

* Emergence of ABS as a Key Issue
* Quick Re-look at Kani Case
* Consent - At What Stage and With Whom
* The revised mechanism
* Welfare Gains
* What are the issues!
Quick Look at Kani Case

• The story of the Kani access and benefit sharing (ABS) model begins in April, 1987.

• The full team led by the Chief Coordinator of AICRPE (All India Coordinated Research Project on Ethnobiology) arrived in the forests in December for expedition which was follow up of June visit.

• Within two days, the scientists realised that the Kanis who accompanied the team as guides, did not feel as tired and fatigued as the scientists.
Quick Look at Kani Case

- On further inquiry the scientists found that the fruits the tribal group members were chewing had imparted this vitality and rejuvenation.

- Persuasion leading to the Kani tribe agreeing to share details about the concerned plant.

- The scientists took samples of the fruit and other parts of the plant for phytochemical and pharmacological studies at the Regional Research Laboratory (RRL) at Jammu.

- The investigations confirmed the presence of certain glycolipids and non-steroidal polysaccharides with immuno-enhancing and anti-fatigue properties. The plant was Trichopus zeylanicus travancoricus, which the Kanis describe as Arogyappacha (meaning source for ever-green health).

- Detailed phytochemical and pharmacological investigations pursued at RRL, led to the filing of patents.
Later, with the move of the Chief Coordinator of AICRPE, from RRL to the Tropical Botanic Garden and Research Institute (TBGRI), Thiruvananthapuram, Kerala as its Director in 1990, the research on this plant, Arogyappacha also moved to TBGRI.

The Director constituted a team of scientists alongwith two Kanis guides as consultants to focus on this study.

Eventually, this project led to the development of a product called ‘jeevani’ which was ready to market by 1994.

Jeevani was developed from the leaves of Arogyappacha plant (never used by the Kani tribe members). Proceeds given to a trust of Kanis for welfare activities.

Patents with RRL and TBGRI while NutriScience (a US based marketing company) got a trademark.
The Convention on Biological Diversity (CBD) which came into force on 29 December 1993, aimed at ensuring conservation and the sustainable use of biological diversity in addition to a fair and equitable sharing of the benefits arising from the utilisation of biological resources.

India was among the first few to sign and ratify the convention in 1994.

As part of the international commitment to produce relevant legal procedures and policies, the Indian government enacted the Biological Diversity Act (BDA) in 2002.
*BDA is one of the major instruments available to the government for the protection of indigenous knowledge systems.

*The other legal provisions dealing with biodiversity are:

- the Indian Forest Act (1927),
- the Wild Life (Protection) Act (1972), and
- the Forest Conservation Act (1980).

*The recently announced National Tribal Policy (2006) has set a new legal context for tribal communities.
National Laws and Implementation

• The BDA 2002 received the assent of the President on 5th February, 2003 which led to the formulation of the Biological Diversity Rules in 2004.

• The Act intended to provide for conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto.

• The Biological Diversity Rules provide the necessary statutory and administrative mechanism at the national level to realise the above objectives.

• The National Biodiversity Authority (NBA), established at Chennai, was the major institutional arrangement proposed, which includes a chairperson (Chief Executive), 10 ex-officio central government representatives and 5 non-official specialists and experts.
National Laws and Implementation

The main functions of the NBA are:

- to lay down procedures and guidelines to govern activities such as the granting of permission to foreign/domestic companies for obtaining any biological resource and for transferring the results of any research.

- advises the government on specific areas such as notifications of threatened species, designation of institutions as repositories for different categories of biological resources, and

- exemption of certain biological resources, normally traded as commodities.

- it also encourages the setting up of State Biodiversity Boards.
National Laws and Implementation

The ABS Provisions

• Article 21 of Chapter V of the BDA suggests mechanisms for determination of equitable benefit sharing.

• As part of this, the NBA under section 19 and section 20 demands equitable sharing of benefits arising out of the use of accessed biological resources, their by products, innovations and practices associated with their use and applications and related knowledge.

• In case, any amount of money is ordered by way of benefit sharing, the NBA may direct the amount to be deposited in the National Biodiversity Fund.
The Act elaborates the various arrangements under which the ABS could be achieved as follows:

(a) grant of joint ownership of intellectual property rights to the National Biodiversity Authority, or where benefit claimers are identified, to such benefit claimers;

(b) transfer of technology;

(c) location of production, research and development units in such areas which will facilitate better living standards to the benefit claimers;

(d) association of Indian scientists, benefit claimers and the local people with research and development in biological resources and bio survey and bio utilisation;

(e) setting up of venture capital fund for aiding the cause of benefit claimers;

(f) payment of monetary compensation and non monetary benefits to the benefit claimers as the National Biodiversity Authority may deem fit.
National Laws and Implementation

Institutional Mechanisms

• The BDA provides setting up of a National Biodiversity Authority (NBA), State Biodiversity Boards (SBBs) and Biodiversity Management Committees (BMCs) in local bodies.

• The NBA and SBBs are required to consult BMCs in decisions relating to the use of biological resources/related knowledge within their jurisdiction and the BMCs are to promote conservation, sustainable use and documentation of biodiversity.

• The main role of NBA, SBBs and BMCs is to prepare the People’s Biodiversity Register (PBR) in consultation with local people.
National Laws and Implementation

Report to the People 2004-07

* The Prime Minister launched a Report on 22 May 2007 that covered all issues related to tribal communities in the period 2004-07 and formulated a draft National Tribal Policy containing issues related to tribal people viz. alienation of tribal land, tribal-forest interface, resettlement and rehabilitation, as well as traditional knowledge).

• Among international initiatives, the CBD is the most appropriate for understanding the ABS regime.

• The CBD was adopted by more than 150 governments at the Rio Earth Summit in 1992 and it came into force in 1993.
International Initiatives

Latest Developments at the CBD

- Discussions devoted on issues related to achieve fair and equitable sharing of the benefits arising out of the utilisation of genetic resources including that by appropriate access to genetic resources and by appropriate transfer of relevant technologies.

- Article 15, of the Convention, sets out a framework to achieve this objective.

- Recognises the sovereign rights of respective countries over their natural resources and suggests the national agencies/authority to set the conditionalities for determining access to genetic resources.

- Discusses various issues related to ABS through Conferences of Parties (CoP). In the last meeting of CoP-8, at Curitiba, Brazil, 2006,

- It was further decided to establish a group of technical experts with a view to achieve the objectives of Article 15 (Access to Genetic Resources) and 8(j) of the CBD.
Other International Initiatives

• Benefit sharing has become the issues of contention with regard to the WTO TRIPS agreement.

• In November 2001, a ministerial conference of WTO members agreed the so-called “Doha Mandate” in Qatar. This mandate identifies areas for further negotiations, one of them being the relationship between TRIPS and the CBD’s protection of traditional knowledge.

• In a submission to the WTO by Bolivia, Brazil, Cuba, Dominican Republic, Ecuador, India, Peru, Thailand and Venezuela it was suggested that a benefit sharing check-list ought to be included into TRIPS to bridge the gap between the two agreements which led to opposition by a group of industrialised countries led by the USA.

• At subsequent meetings of the WIPO too this issue remains unresolved and results as a main hindrance for realising the objectives of the CBD and fulfilling the Doha Mandate.

• In 2001, WIPO has undertaken work on ABS related issues through the Inter-Governmental Committee (IGC) on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore.
Jeevani

- Jeevani is a poly herbal drug in a granular form which was developed from the leaves of the plant, *Arogyappacha*. The final product includes three other medicinal plants apart from *Arogyappacha, jeevani, namely withania somnifera linn. (ashwagandha), piper longum linn. and evolvulus alsinoides linn.*
- Apart from modern drug efficacy tests it was also evaluated on the basis of Ayurvedic dravya guna and rasa shastra.
- It is classified under the health promoting (swasthahita) group of drugs.
- In Ayurvedic literature, *Arogyappacha* is described as one of the 18 divine herbs.
- The species *Trichopus zeylanica* can be found in the Malay peninsular, Sri Lanka, Thailand and India.
- In India, it is found distributed in the southern Western Ghats - in the hills of Travancore at Thirunelvelly.
- The Indian species of *Trichopus zeylanica* is different from other Asian specimen and has a subspecies status.
Advantages of Jeevani

* activates the body’s natural defenses
* activates delayed type hypersensitivity reactions and antibody synthesis
* increases the number of polymorphonuclear granules
* activates the cellular immune system
* exhibits hepato-protective and cholorectic activities
* has adaptogenic properties as evidenced by anti-peptic ulcer and anti-fatigue effects.

(WIPO: Case Study 2)
The Kani tribe is a small previously nomadic but now settled community of almost 25,000 members, based in the Agastyar Hills in southern India.

Under the modern administrative system in India, this tribal group is spread over six gram-panchayats across the state of Kerala in southern India.

Most of the members are engaged in cultivation of mixed crops such as rubber, arecanut, banana, pepper, cashewnut, etc.

The individual areas which they are occupying now are on long term lease from the Forest Department. Their choices for cultivation thus depend on the list of NTFPs as issued and amended from time to time by the Forest Department (Gupta 2004).

Mostly selling of NTFPs (like honey, bee wax, medicinal plants, and python fat, fruits, etc.) is the source of their income.

Earlier Kanis had experts (called Plathi), who knew the medical system of their forests very well. However, over the years this practice has disappeared and members have developed their own practices for managing this knowledge system.
Tropical Botanic Garden and Research Institute (TBGRI)

TBGRI was established at Palode, Thiruvananthapuram in 1979 under the aegis of the Science, Technology and Environment Committee (STEC), Government of Kerala. It is controlled by the Kerala State Council for Science, Technology and Environment (KSCSTE) since 19th June 2003.

Objectives of TBGRI

• Conservation and sustainable utilization of plant genetic resources
• Basic and applied botanical, horticultural, biotechnological, phytochemical, ethnomedical and ethnopharmacological research for plant improvement and utilization
• Development of location oriented production technologies that utilize plant resources and human skill
• Dissemination of research and development activities
• Working in collaboration with similar organizations in India and abroad
• Overall R&D activities of the TBGRI are geared to achieve the most tangible results of conservation as well as value added and product oriented sustainable utilisation of plant genetic resources of the region.
The Arya Vaidya Pharmacy Coimbatore (AVP) established in 1943 is one of the largest Ayurvedic manufacturing companies in India. It produces more than 450 varieties of traditional Ayurvedic medicines and more than 15 over-the-counter (OTC) Ayurvedic products. The AVP has expanded and has launched sister companies called ‘Heal’ and AVP Marketing and Exports.

Other Actors includes RRL, Jammu which had provided coordination for AICRPE; Kerala Forest Department; and Kerala Institute for Research, Training and Development of Schedule Castes and Schedule Tribes (KIRTADS).
## Comparison of the First and Second ABS Agreements between Stakeholders

<table>
<thead>
<tr>
<th>First Agreement, 1996</th>
<th>Second Agreement, 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parties were the TBGRI and the AVP</td>
<td>Parties included Kanis (through PMU) the TBGRI and the AVP</td>
</tr>
<tr>
<td>Entered into force on November 10, 1996</td>
<td>Yet to be implemented</td>
</tr>
<tr>
<td>Valid for a period of 7 Years</td>
<td>Would be valid for a period of 7 Years</td>
</tr>
<tr>
<td>License fee of Rs. 10,000,00</td>
<td>License Fee 20,000,00</td>
</tr>
<tr>
<td>Royalty to be paid at 2% for 10 years</td>
<td>Royalty to be paid at 4% for 10 years</td>
</tr>
</tbody>
</table>
## Evolution of Kani Case: A Chronological Exposé

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ICAR floated the idea for documentation of ethno-biology for conservation of IKS of the tribal communities of India</td>
<td>21 September 1976</td>
</tr>
<tr>
<td>The Department of Science and Technology launches the AICRPE under the 'Man and Biosphere Programme'</td>
<td>July 1982</td>
</tr>
<tr>
<td>Ministry of Environment and Forests takes over the AICRPE</td>
<td>September 1983</td>
</tr>
<tr>
<td>Coordination Unit for the AICRPE established at the RRL, Jammu, under Dr. Pushpangadan</td>
<td>18 September 1983</td>
</tr>
<tr>
<td>First Group of AICRPE led by Dr S Rajasekharan meets the Moottu Kani (tribal head) and gets permission for the expedition</td>
<td>June 1987</td>
</tr>
<tr>
<td>Full AICRPE Group led by Dr Pushpangadan in the Agastya hills, accompanied by Mottu Kani’s Representatives</td>
<td>December 1987</td>
</tr>
<tr>
<td>First scientific paper on <em>Arogyappacha</em> in <em>Ancient Science of Life</em></td>
<td>July 1988</td>
</tr>
<tr>
<td>Two Kanis joined the TBGRI as consultants on monthly salary of Rs. 3000/- (they remained there until 1999)</td>
<td>January 1993</td>
</tr>
<tr>
<td>First Patent on <em>Arogyappacha</em> (Application No. 8/DEL/94)</td>
<td>8 December 1994</td>
</tr>
<tr>
<td>Original proposed date for signing of an agreement between the TBGRI and the AVP</td>
<td>22 July 1995</td>
</tr>
<tr>
<td>Executive Committee reconsidered the matter</td>
<td>16 October 1995</td>
</tr>
<tr>
<td>Final approval to transfer the technology to the AVP</td>
<td>20 October 1995</td>
</tr>
<tr>
<td>Agreement for Transfer of Technology signed</td>
<td>10 November 1995</td>
</tr>
<tr>
<td>Direction by the Executive Committee to consult the SC/ST Department for working out the modalities</td>
<td>30 September 1996</td>
</tr>
</tbody>
</table>
(a) a process of Preparation of novel immunoenhancing anti-fatigue, anti-stress and hepato-protective herbal drug, (Pushpangadan P., Rajasekhran S. and George V., 1996, Patent application number 959/MAS/96 dated June 4, 1996) and


* The application does not specifically mention the tribal knowledge of arogyapaacha, but it records that “the therapeutic effect of this plant has been established by detailed pharmacological studies.
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<tr>
<th>Event</th>
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<tr>
<td>Transfer of technology to the AVP</td>
<td>September 1996</td>
</tr>
<tr>
<td>Execution of the Trust Deed</td>
<td>12 September 1997</td>
</tr>
<tr>
<td>Approval for transfer of funds to the Trust</td>
<td>9 October 1998</td>
</tr>
<tr>
<td>All Segment Meeting of the Kani Tribes organized by the Secretary,</td>
<td>21 January 1999</td>
</tr>
<tr>
<td>Kerala SC/ST Department at Chonam para, Tribal Settlement</td>
<td></td>
</tr>
<tr>
<td>Funds transferred to the Trust</td>
<td>22 February, 1999</td>
</tr>
<tr>
<td>First election at the Kani Trust</td>
<td>9 September 2001</td>
</tr>
<tr>
<td>TBGRI agreement with the AVP comes to an end</td>
<td>2003</td>
</tr>
<tr>
<td>The TBGRI gives a year long extension until 2004</td>
<td>2003</td>
</tr>
<tr>
<td>Business Management Committee with Kanis formed at TBGRI. Minimum</td>
<td>2004</td>
</tr>
<tr>
<td>license fee is decided at Rs 2 million and 4 % royalty</td>
<td></td>
</tr>
<tr>
<td>Fresh advertisement for production of Jeevani</td>
<td>2006</td>
</tr>
</tbody>
</table>
Pre CBD Context

• ABS arrangement was a voluntary initiative, initiated by the scientists as there was no legal obligation laid out in India at the time.

• ICAR constituted an inter-organisational panel on 21 September 1976, decided that with an indiscriminate and unplanned management of tribal areas.

• AICRPE: Initially launched by the Department of Science and Technology (in 1982) it soon joined the Ministry of Environment and Forests.

• The precise mandate was to develop several interdisciplinary teams across the country to document the multi-dimensional perspectives of tribal lives, their culture, beliefs and knowledge systems that promote sustainable resource management.
• Head of the AICRPE project
  - Closely involved in the national and global discussions on the protection of the indigenous knowledge system.
  - The very mandate of the AICRPE and the background of the RRL, Jammu had framed his approach.
  - He provided inputs for the Declaration of Belém, 1988 which eventually led to the establishment of the International Society of Ethnobiology (ISE).
  - This Declaration had explicitly recognised that indigenous peoples have been stewards of 99 per cent of the world's genetic resources and that biological diversity will decrease significantly if knowledge underlying the resource management practices of the world's indigenous peoples depreciates due to the forces of rapid social change in the societies in which this knowledge is reposited.
The Negotiation Phase

- Initially, Kanis participated in an informal manner more as bystanders

- But they entered the process in a formal way in the second phase in 2004.

- However, the negotiations within the TBGRI reveal more about how the actual ABS regime emerged.

- When the product was developed, the TBGRI invited companies to bid for the product’s commercial production. The AVP was short listed for production of the drug after they agreed to establish a GMP (Good Manufacturing Process) facility according to WHO standards.

- The Chief Minister (who is Chairman of TBGRI Governing Council) asked to review the deal as a letter written to him by the then leader of the Opposition Mr. V.S. Achuthanandan, (the current CM) argued that the lumpsum amount offered by the private company was inadequate.
The Negotiation Phase

• Accordingly, the TBGRI appointed a committee of scientists to look into both points.

• The TBGRI Scientists’ Committee found that there were no GMP standard production and marketing capacities in the Kerala State Drugs and Pharmaceuticals, Alappuzha and Pharmaceutical Corporation of Indigenous Medicine (Oushudhi), Trichur, etc. the two major public sector organizations.

• Both agencies were neither producing nor marketing herbal drugs. With regard to the point on a lump sum license fee of Rs 1 million (approximately $ 25,000) it was noted that no institute had earned any better amount on any herbal product.

• It was pointed out that the Central Drug Research Institute, Lucknow, an institute under the CSIR, had earned only Rs. 0.5 million through its memory enhancing drug Bacopa Moneri (Brahmi).

• In the subsequent meeting on 20 October 1995 the agreement with the AVP was cleared by the Governing Body. The Agreement left all the rights with the TBGRI.
Executive Committee decided to follow the CSIR model of benefit sharing.

In this, 60 per cent goes to the scientists and 40 per cent to the institutions.

In the Executive Committee Meeting of the TBGRI in September 1995, it was decided that the proceeds would be shared on a 50-50 per cent basis.

The scientists decided to forego their share in favour of the tribal community.

The fact that by then, India had signed the CBD and Articles 8(j) and Article 15.7 were directly applicable, helped the director to pursue this case with the Executive Committee.

As a result, the arrangement was worked out at 1:1 that is 50 per cent to the tribal community and 50 per cent for the Institute.

After the TBGRI decision was made: Discussions for the Trust came up
The Negotiation Phase

• The Secretary of the Scheduled Caste and Schedules Tribes (SC/ST) Department was emphatic in ensuring that the trust should be representative in nature.

• He called a meeting of all the factions of the Kani tribes on 21 January 1999 at Kottur.

• All Kani members present, suggested to the Secretary to transfer the money to the trust and **NOT TO A GOVERNMENT DEPARTMENT**

• The Kerala Kani Community (Samudaya) Welfare (Kshema) Trust registered on 12 November 1997.
* In light of this case study, it is also important to look into the wider processes and issues. Some are:
- it is important to take note of the fact that the knowledge was shared way back in 1987 (when neither the CBD nor any national guidelines were in place) and the product was released in 1994 (when the CBD had just entered into force).
- In the initial phase it lacked a clear and transparent process of acquiring consent. Since there were very few members of the large community involved, the ones outside the privileged few did not participate in the process.
- Those who divulged the IKS secret had no legitimate support from the rest of the community and they were the ones most rewarded by the TBGRI arrangement (Bijoy 2007).
Key Issues

• Growing interplay between the collective rights, as evident from the common goods approach and individual rights, as evident from the upcoming intellectual property regime.
• With the expansion of economic growth across developing countries, it is this common goods approach which is facing the maximum pressure from those who wish to tap natural resources for personal profits.
• Apart from monetary returns for the sharing of knowledge, it is also important to mention non-monetary aspects. For instance, in the Kani case it has come to the fore that PIC would have been more effective had there been some prior effort for capacity building and awareness creation.
• Fact that Kanis could oppose the transfer of money to the tribal community department and the blockade by the Forest Department to check the picking of Arogyappacha leaves shows that awareness about rights has been raised in a community, which was largely passive earlier.
Nature of Patent Protection

• In the Kani case the role of the IPR has emerged as a crucial impediment (Reddy 2006; Gupta 2004). The fact that the TBGRI never thought of protecting jeevani as a trademark (Varshney 2004) and also did not include the tribal informants as co-inventors in the patent application is largely seen as a gross violation of ethical norms.

• However, Gupta 2004 elaborates that many of these observers overlooked that the patent applications from the TBGRI was only for the process of making drugs because Indian patent law did not permit product patents at that point.

• Thus it did not affect adversely anybody’s right as whatever was in the public domain remained so even after such patents were granted. The patent just protected the TBGRI formulation.

• This problem may have been removed with the Second Patents Amendment Bill wherein disclosure of PIC and IKS related details is mandatory.
Vulnerability

• The vulnerability is exemplified through the ongoing conflict between the culture of being a nomadic tribe over the one with a settled life style.

• Since their movements within forests have been restricted over the years, the Kanis had no choice but to adopt a settled style of living. As a result, they had to earn from what was available there.

• The shift to a settled life also increased their proximity to external cultural and social influences.

• The urge to acquire livelihood security coupled with the growing influence of the Forest Department, catalysed the process of breaking down of the social fabric within the community. In the process they lost the unity of the tribal group. This paved the way for an alien culture of individualism. Thus, under two different cultural systems the vulnerability multiplied.

* It has been documented very clearly that narrow and conflicting institutional interests make the tribal community even more vulnerable. When the TBGRI and the KIRTADS took counter positions on the ABS issue - the Kanis ended up being the instruments for carrying out institutional arguments. It was much later that the Government of Kerala intervened and sorted out the matter between the two institutions.
Recent Policy Responses

• The Kani case has offered lessons to be learnt at various levels and some have been corrected in last 2-3 years.

• TBGRI formally got the tribal Group on the table through a new model for negotiations.

• The recent policy initiatives from the Government of India may help in correcting the continuous pressure from outside in the tribal areas. The proposed New Tribal Policy (2006) has legal provisions to safeguard against exploitation.

• The introduction of PIC and ABS as part of TRIPs regime may help in addressing concerns related to the protection of intellectual property of indigenous knowledge system.

• The Biodiversity Conservation Act stipulated establishment of the National Biodiversity Authority (NBA) which is already in place in the southern Indian city of Chennai since 2002. However, so far it has not released any formal document or a model guideline for ABS.
Issues to be Considered at International Level

- **Our Project and UNEP:** Following COP VI decision, a database on capacity-building projects for ABS was established to facilitate information exchange on ongoing capacity building activities related to access to genetic resources and benefit sharing.

- The Kani case has demonstrated that a mere national level benefit sharing arrangement would not be sufficient for deriving actual benefits. They need to be supplemented with international arrangements.

- The fact that NutriScience (a US based marketing company) could get a trademark in the US and could market the drug at a price eleven times more than what the Kani tribe was getting from the local pharmacy is itself suggestive of such a need.

- Here the reverse is also true. Second Phase should consider wider global selection process for firms.