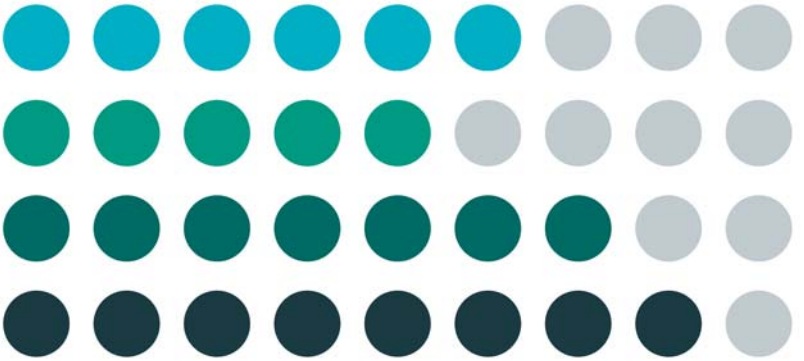

LEGAL PROTECTION FOR TRADITIONAL KNOWLEDGE

Towards a New Law for Indigenous Intellectual Property

Anindya Bhukta

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INVESTOR IN PEOPLE

my wife
source of my inspiration

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CONTENTS

PREFACE

Misappropriation of different types of traditional knowledge of different countries is, nowadays, a thriving business and hence a great challenge to the developing world, especially to the developing countries of the Southern hemisphere. The aboriginal communities of these developing countries, who possess this knowledge, are getting deprived as a result. The multi- national companies of developed countries, who are especially misappropriating this knowledge, neither recognize the contribution of these people, nor do they share the benefits arising out of the commercial use of this knowledge with these people. All these can happen due to the absence of any appropriate law to protect this valuable knowledge base. Presently different countries are trying to prevent these mis-appropriations with the help of existing intellectual property rights laws. Some *sui generis* laws have also been developed. But the problem is that most of these initiatives consider a particular dimension of this multi-dimensional knowledge suited to their objectives. What is happening as a result is that very often these laws are becoming overlapping and contra-dictory. To overcome this problem what is the need of the hour is to develop a comprehensive law which will encompass all the dimensions of traditional knowledge.

The objective of the present study, 'Legal Protection for Traditional Knowledge: Towards a New Law for Indigenous Intellectual Property' is to find out the lacunas of the present

legislative structure and to propose the outlines of a law, its objectives and provisions that could protect the rights of the traditional knowledge holders. Accordingly, the study defines the term traditional knowledge, addresses its different dimensions and explores the economic importance of this knowledge. How this issue is addressed in different international and national forums, how different existing IPR laws try to protect the rights of knowledge-holders, what initiatives are taken by different countries – all such issues are discussed in the present treatise. The study also explains the limitations of existing laws in this regard. Finally, on the basis of the above analysis, a *sui generis* law – what should be the objectives of the law, what provisions should be included in the law – has been suggested.

The present work is the outcome of my decade-long study on different issues on intellectual property rights. It's my great pleasure that a renowned publishing house like Emerald Publishing Limited has come forward to bring my work to the notice of the world of intellectuals. I would always be indebted to all the family members of Emerald, especially to Nick Wolterman, who extended immense support to me throughout this journey with Emerald. I would also like to convey my sincere gratitude to Professor Sebak Kumar Jana of Vidyasagar University, West Bengal, for his valuable suggestions in completing the work. Above all, I must acknowledge the fact that the work would not have started at all if Professor Raj Kumar Sen had not been there to literarily insist on my serious pursuit of the project. Professor Sen is no longer among us. I shall feel his absence once more when this book finally sees the light of the day.

Anindya Bhukta
Arambagh
January 25, 2019

1

INTRODUCTION

1.1 THE PRELUDE

Voice started rising all over the world, especially in developing world, against the misappropriation and bio-piracy of traditional knowledge (TK) since the very inception of the decade 1990. As the shadow of protest got looming larger and larger, cries for the enactment of an appropriate law to protect the knowledge base of aboriginal communities in different parts of the world started pitching their volume up.

Traditional knowledge is a community-based collective knowledge. It has various dimensions, ranging from traditional cultural expressions to traditional medicines. The uniqueness of traditional knowledge lies in its transgenerational character, which flows over generations just through verbal process of transmission. The text of this knowledge is preserved nowhere in the written form. 'Traditional knowledge', as defined by World Intellectual Property Organisation (WIPO), 'generally includes the intellectual and intangible cultural heritage, practices and knowledge systems of traditional communities, including indigenous and local communities' (http://www.wipo.int/tk/en/resources/glossary.html).

Traditional knowledge is the communal knowledge of aboriginal communities. From time immemorial, these aboriginal communities have made them engaged in exploring the mother earth extensively during the search of their means of livelihood. This continuous endeavour of theirs gives us varieties of food and medicines derived from plant and animal resources. The precious knowledge of these aboriginal communities regarding nature and natural resources is, therefore, valuable to the communities themselves and also to the countries they belong to. However, neither the concerned communities nor the concerned countries ever thought of protecting this valuable intellectual property of them until before the 1930s. In fact, in the initial stages of development, it has been seen that only a few people claimed protection for their discoveries and inventions. Discoveries and inventions, at least prior to industrial revolution, were meant for the development of the entire human race of this world, scientific progress was meant for the advancement of civilization as a whole. This attitude also got reflected among the resource-rich countries, among the aboriginal communities who were exploring these resources.

Concern for protecting the rights over natural resources of the owner country and the rights of the knowledge of aboriginal communities in using these resources has never been more relevant than it has been in the twentieth and twenty-first centuries, as never before have individuals been allowed sole ownership of biological matter. The introduction of patent laws in the early1930s, which allowed plant material to be patented, has led to the current increase in both cases of and debates within the topic of biopiracy (https://sites.duke.edu/amazonbiopiracy).

Prior to 1930, patent right was granted only to non-biological matters. In order to be patentable an invention or innovation must satisfy three criteria, namely novelty,

non-obviousness and applicability in industrial processes. But biological matters are essentially the gift of the nature. It is, therefore, impossible for any biological matters to satisfy the criterion of non-obviousness which refers to the presence of an inventive step. In order for an inventive step to be present, the invention or innovation must not have been obvious at the time of its creation to anyone having 'ordinary skill in the art' (Hansen & VanFleet, 2003). The protection to plant genetic resources was, naturally therefore, not sought for by anyone. Such a protection was first extended by the United States.

The United States sought for plant protection in the late 1920s. After the World War I, the US government found it difficult to put more investment in the agricultural sector through public sectors. Therefore the US government had taken a policy decision to promote and encourage the private sector in the field of agriculture (Elumalai, 2012). This policy decision led the US government to enact the Plant Patenting Act in the year 1930. The objective was to give incentive to private corporate bodies in the development of High-Yielding Varieties (HYV) seeds in their laboratories. The research towards developing HYV seeds coincidently started during this period. After World War II, many farmers in developing and industrialized countries became reliant on public breeders and private seed producers for quality seeds.

The advent of biotechnology, especially after the discovery of DNA in 1953 by Dr James Watson and Dr Francis Crick, opened up a new horizon to the breeders. As the prospect of seed business was getting brighter private corporate bodies of the US started putting pressure on their government to ensure the signing of an international treaty which would recognize the breeders' right on these newly developed seeds. The International Convention for the Protection of New Varieties of Plants (the UPOV convention) was signed by

twelve developed countries in 1961 in Paris as the fall out of this corporate pressure.

Prospect of biotechnology became much brighter after the discovery of recombinant DNA technology[1] in 1973. Dr Stanley Cohen and Dr Herbert Boyer use bacterial genes to perform the first successful recombinant DNA experiment, which inserted a recombinant DNA molecule into a cell for replication.

Now all these discoveries were accentuating the probability of biopiracy. The seeds were there. The knowledge about the usage of these seeds was there. Private breeders just started collecting these seeds, modifying their characteristics a little bit with the help of modern technology and then supplying them for commercial use. Who suffered worst in this process, first of all, were the poor, underdeveloped countries, who coincidentally are the biodiversity-rich countries and, secondly, the aboriginal communities of these countries who possess the age-old knowledge of the use of these bio-resources.

As a consequence of this practice of misappropriation of biological resources and the knowledge about their uses underdeveloped countries all over the world, especially the countries of southern hemisphere, started demanding sovereign rights over their natural resources. They raised the legitimate question before the entire world: would it be possible for the breeders to breed new varieties of seeds if the mother seeds weren't supplied by them, if the basic knowledge regarding the use of these seeds weren't supplied by their aboriginal communities? If the breeders can make their seeds patented for earning, then a part of these royalties must go to the countries who own the mother seeds and also to the aboriginal communities who hold the traditional knowledge regarding the uses of these mother seeds.

A resolution to this most contentious issue came from the 22nd annual convention of Food and Agricultural Organisation of the United Nations (FAO) in 1983. In a historical Undertaking, the FAO declared plant genetic resources to be the common heritage of mankind so that it can be freely exchanged. This resolution apparently went in favour of the developed countries, because instead of recognizing sovereign rights of the states over their natural biological resources, the Undertaking established rights of every individual on any natural resources of this world. This means that anyone can freely use the biological resources of any country, which actually was the demand of the developed countries and the multi-national corporate world. But the developed countries vehemently opposed this declaration, because by this Undertaking the FAO recognized the rights of humankind not only over the natural plant materials but also over any seed newly bred in the laboratories.

The concern for protecting the rights over natural resources of the owner country and the rights of the knowledge of aboriginal communities in using these resources, therefore, in this way, were coming into prominence during the last quarter of the twenty-first century, when individual ownership were claiming over biological matters. In fact, the demand for individual ownership was more sought for after the emergence of recombinant DNA technology in 1973. This technology brought about a revolutionary change in the breeding technique. In this technology what is actually done is that a quality gene is first cut from the gene of a plant and thereafter it is inserted into the gene of another plant. A microorganism is used in this process of transformation as the carrier. The multinational corporate world, therefore, was also sought for the grant of patent, not only to biological materials but also to living organisms. Their demand was also finally granted by the

US Supreme Court in the case of *Diamond* vs. *Chakrabarty* in 1980. This historical judgment strengthened the demand for patenting biological matters.

The FAO undertaking of 1983, therefore, did not satisfy the corporate lobby. Succumbing to the mounting pressure of the lobby amendments were even made in the 1961 UPOV accord in 1991, where all the exemptions that were granted to new varieties of seeds in the 1961 treaty were revoked and the breeders were granted, in addition to the rights of production and sell of their seeds to the market, the rights of exportation and reproduction also.

However, the debate over the issue of rights of the state and the aboriginal communities did not naturally end here, because what was claimed by the resource-rich countries and their aboriginal communities was very much legitimate. To draw an end to the debate, the Biodiversity Convention of 1992 gave recognition to the state sovereignty over their biological resources. It implies that like a breeder is entitled to get royalties for his newly bred seed, the country that possesses the mother seed is also entitled to get royalties as the owner of the mother seed.

But even this effort of the Biodiversity Convention went in vain to the insistence of the developed countries and their multinational corporate. The lobby went on pressurizing in adopting the 1991 UPOV model. The fall out of this pressure is the Article 27.3(b) of the Trade Related Intellectual Property Rights (TRIPS) Agreement, which advocates for developing a *sui generis* model of law in protecting plant varieties. This law should be such as to protect the interests of all the stakeholders relating to plant materials.

Against this backdrop search for an effective law to protect the interest of the stakeholders started. The present study is only another among them.

1.2 THE PROBLEM WE ARE FACING

The advancement of civilization is the outcome of advancement of science and technology. Science and technology, however, do not always progress in the laboratories. Rather this advancement often owes havoc to the knowledge of common people. Common people gather this knowledge just by using their intellect, by the closer observation of nature and natural resources, by the hunt for food and medicines for their livelihood. More often these were team effort, rather than individual. This collective knowledge of communities is known as traditional knowledge. They are traditional in the sense that these communities have a long heritage of discovery and development of such knowledge.

Discoveries of aboriginal communities acted as an impetus to the advancement of science and technology. But they claimed nothing in return. In fact, in initial stages of human civilization discoveries in the field of science and technology progressed in this way, the discoverers never claimed any benefit in return for their discoveries. Today who does know, who discovered fire or who was the inventor of wheels? In fact, the discoverers then dedicated their discoveries for the advancement of human civilization.

However, the entire scenario started changing after the introduction of patent right in the sixteenth century. The inventors went on patenting their inventions for monetary benefits. In the twentieth century a new trend emerged. The MNCs in particular started patenting the knowledge, especially of medicinal knowledge, of aboriginal communities in their own name. This trend got accentuated after the birth of biotechnology in the 1970s.

The birth of biotechnology opened up a new horizon, especially in the field of medicines. Medicines are 'normally' derived from biological matters. Biotechnology helps genetic

modification of biological matters much easier and, thereby, helps in developing much more effective drugs. The advent of biotechnology, therefore, on the one hand, has increased the importance of genetic resources and, on the other, raised the demand for TK relating to folk medicines among the MNCs. This is so because, according to figures released by the international pharmaceutical industry, it costs the industry 500–600 million dollars to introduce a new drug in the market. This is the basis for the industry's call for that stringent protection of intellectual property rights (IPR). When a company pirates a product based on TK and converts it into a medicine, it has 'acquired' a product that may be worth hundreds of millions of dollars (Sahai, 2004).

Rising demand for genetic resources along with TK eventually raised the question of protecting the interests of the holders of the traditional knowledge. But no enterprise towards extending such protection can be made full proof without legal support. Developing a legal framework for the protection of traditional knowledge is thus the need of the hour.

This need is, however, more prominent in case of countries like India. Being one of the oldest societies of the world, aboriginal communities of India, through their keen and conscious observations over the years, have built up one of the largest repositories of knowledge of medicinal preparations, method of treatment, literature, music, art forms, designs, marks etc. as well as a vast range of knowhow, skills, innovations, practices and learning. This traditional knowledge base, in a sense, has become an expression of our culture also.

The plunder of this storehouse of knowledge is, therefore, not only an invasion on our economy, but also a brutal attack on the texture of our society and culture. Moreover, since many of the indigenous communities still rely on this knowledge for their livelihood misappropriation of the knowledge