CHAPTER: I
INTRODUCTION

1.1. Introduction

The term Intellectual Property reflects the idea that its subject matter is the product of the mind or the intellect. These could be in the form of Patents, Trademarks, Copyrights, Geographical Indications, Industrial Designs, Layout-Designs (Topographies) of Integrated Circuits, Plant Variety Protection. Intellectual Property comes under international legal protection. Intellectual property rights can be defined as the rights given to people over the creations of their minds. They usually give the creator an exclusive right over the use of his/her creations for a certain period of time. These rights are governed worldwide by Trade Related aspects of Intellectual Property Rights (TRIPS) agreement. One of such Intellectual Properties is Traditional Knowledge.

The role of Traditional Knowledge with its spiritual, cultural and economic value is being increasingly recognized today. Such knowledge has been used for centuries by indigenous and local communities under local laws, customs, and traditions. Such knowledge economy passes the totality of all knowledge and practices, whether explicit or implicit, used in diverse facet of life. This knowledge which is the result of community's cooperative efforts is built on the foundation of past experiences and observations. The Products based on traditional knowledge are important sources of income, food and healthcare for large parts of the population in developing countries in particular and, in turn for their sustainable socio-economic development.

Traditional Knowledge evolves over a period of time by contributions of members of a particular society. Modified, enlarged and enriched, it becomes a valuable knowledge for the particular society since it is tasted through use over a period of time. It is generally an attribute of a community...
intimately linked to a particular socio-economic context through various
economic, cultural and spiritual activities. What makes traditional knowledge
traditional is not its antiquity, but the way it is acquired and used. In other
words, the social process of learning and sharing knowledge, which is unique
to each culture, lies at the very heart of its traditionality.¹

Traditional Knowledge is not static. It is inherently dynamic, as it
evolves in response to challenges posed by the environment. The changing
social environment alters its form and content; thus it is subject to a
continuous process of verification, adaption and creation. Traditional
Knowledge encompasses the entire field of human endeavor. It includes a
broad range of subject matter such as agriculture, scientific, technical,
ecological, medicinal and biodiversity related knowledge; expression of
folklore in the form of music, dance, song, handicrafts, designs, stories and
artwork, element of languages, such as names, geographical indications and
symbols; and movable cultural properties.²

The main issue and challenge is the protection of Traditional
Knowledge as Intellectual Property. The primary beneficiaries of this kind of
protection are indigenous people and the community groups. However, the
state as guardian of its people's culture and heritage also has an interest in the
preservation of the Traditional Knowledge, which exists within it. The
protection of Traditional Knowledge has been advocated in many national,
regional and international levels. The provision contained in Article 8 (j) of the
convention on Biological Diversity (CBD) as adopted in 1992, triggered a
number of proposals to deal with this issue at the national and international
level.³ Most notably, in 2000, an Intergovernmental Committee on Intellectual
Property and Genetic Resources, Traditional Knowledge and Folklore was
established under the auspices of WIPO. A corollary to the assumption of the
necessity to protect Traditional Knowledge is the assertion of the right of

indigenous peoples and traditional communities “to determine the appropriateness of the use being made of their culture”. It is recognized that each indigenous community must retain permanent control over all elements of its own heritage. It may share the right to enjoy and use certain elements of its heritage under its own laws and procedures, but always reserves a perpetual right to determine how shared knowledge is used. The main Objective of protection would be to obtain recognition and some compensation for the commercial use of Traditional Knowledge outside the community of the society, which generated it, either by excluding the unauthorized use by third parties, or by ensuring a right to remuneration or benefit sharing for such use. This is most important in the context that more than 80% of medical plants are collected from forests or uncultivated sources. So its protection in form of a recognized Intellectual Property has become a need of an hour.

Traditional knowledge is a cumulative body of knowledge which is handed down through generations, trough cultural transmission. Modern manufacturing industries are now commercially exploiting traditional knowledge, without even sharing the benefit accrued from it with the indigenous communities.

Around the world, various local communities possess knowledge and practices gained by them through experience of centuries and transferred from generation to generation. This culturally transmitted knowledge is referred to as traditional knowledge. Traditional knowledge is the result of intellectual activities in diverse traditional contexts. The term “traditional knowledge” is a very broad concept, which encompasses within itself indigenous knowledge related to various categories like agricultural knowledge, medicinal knowledge; bio diversity related knowledge as well as expressions of folklore in the form of music, dance, songs, handicraft, designs etc. It has played and still plays an important role in the lifestyle of indigenous communities.

Traditional Knowledge is dynamic in nature and it is difficult to coin a concise definition for the term which will cover all aspects it holds. The

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debates for a single definition for traditional knowledge were always without consensus. As subject matter here is very dynamic in nature it should be taken care that its definition does not delimit or restrict its scope. Broadly speaking, around the world, there is certain cumulative body of knowledge which is handed down through generations through cultural transmission; this is known as traditional knowledge. As per the official definition of WIPO, traditional knowledge is tradition-based literary, artistic or scientific works, performances, inventions, scientific discoveries, designs, marks, names and symbols, undisclosed information, and all other tradition-based innovations and creations resulting from intellectual activity in the industrial, scientific, literary or artistic fields. “Tradition based” here refers to creations, innovations, and cultural expression which have been transmitted from generation to generation. Traditional Knowledge is the part of cultural identity of indigenous communities. It provides the ways by which human society can survive in current hostile environment. Intertwined within practical solution, they transmit history, beliefs, aesthetics, ethics and traditions of particular people. Protecting the traditional knowledge through the intellectual property regime performs the important function of preventing the third parties from misappropriating the knowledge. However, apart from being inaccessible to most traditional knowledge holders, the regime does not necessarily guarantee the preservation of safeguarding the knowledge. These concerns call for a consideration of avenues that can be used particularly at policy making level, to strike a balance between protecting traditional knowledge through the intellectual property regime and ensuring preservation of their culture and access to knowledge.

1.2. Research Problem:

Traditional knowledge is essentially culturally oriented and it is integral to the cultural identity of the social group in which it is operated and preserved. Indian culture is quite versatile. There is so much diversity in terms of religion, culture, traditions, customs, languages etc. all. In spite of these all diversities, India is united and one country. It is a well-known fact that 70% population of our country still resides in villages and there are number of
communities are in existence. After the development of science and technology, man has reached to the mars and many inventions have been made which have made human life very smooth. In urbanization, most of these inventions have been utilized and most of such inventions have been protected through Intellectual Property Rights.

Still, some communities, in some corners of the world, are in existence, where the development has not reached. Such communities have very perfectly preserved their knowledge by passing that to their generations in heritage. For example, Patola of Patan is an art which is available today with four families only. The Fish Therapy for asthma is exclusive knowledge of some communities of Hydrabad. Thus, this kind of knowledge is preserved by some communities and it should be protected from being forfeited by the intellectual locality of outer countries of the world.

Traditional Knowledge has been used for centuries by indigenous and local communities under the local laws, customs and traditions. It has been transmitted and evolved from generation to generation. Traditional Knowledge plays a vital role in making a nation more progressive and transforming its society. It provides an open gate for tradition based literary, artistic or scientific works, performances, inventions, scientific discoveries, designs, marks, names and symbols, undisclosed information, and all other traditional based innovations and creations resulting from intellectual activity. Traditional Knowledge refers to knowledge, innovations and practice of indigenous and local communities around the world. This is the knowledge which has been preserved in human memories and not written anywhere. It is accessible through recall and practice of learned skills in a useful way in day to day life. The term also refers the knowledge that has been accumulated by any society in the course of long experience in a particular place, landscape or ecosystem. Traditional Knowledge means and includes Spiritual Experience, Philosophies, Politics, Technologies, Subsistence Activities and External relations of all forest dwelling people whose lifestyle is strongly influenced by their own traditions.
Protection of Traditional Knowledge has always been a matter of interest in view of the rich countries like India. The knowledge of such kind has always been in the hands of the indigenous and local communities which are being exploited on large scale without a share of profit being handed over to them. These resources are used in such way that leads to bio piracy. The unique nature of such knowledge makes it unfit for protection by the existing legal structure. Intellectual Property Rights Regime is seen as one of the possible measures to protect the Traditional Knowledge. Most countries use Intellectual Property Rights as a legal mechanism to allocate rights over knowledge, which has a significant role in the relationship between indigenous and local communities, their knowledge, and the other societies with which they interact.

Intellectual property rights have never been more economically and politically important or controversial than they are today. Patents, copyrights, trademarks, industrial designs, integrated circuits and geographical indications are frequently mentioned in discussions and debates on almost all diverse topics including public health, food security, education, trade, industrial policy, traditional knowledge, biodiversity, biotechnology, the Internet, the entertainment and media industries. In a knowledge-based economy, there is no doubt that an understanding of IPRs is indispensable to informed policy making in all areas of human development. Intellectual Property was until recently the domain of specialists and producers of intellectual property rights. The TRIPS Agreement concluded during the Uruguay Round negotiations has signaled a major shift in this regard. The incorporation of intellectual property rights into the multilateral trading system and its relationship with a wide area of key public policy issues has elicited great concern over its pervasive role in people’s lives and in society in general. Developing country members of the World Trade Organization (WTO) no longer have the policy options and flexibilities developed countries had in using IPRs to support their national development. But, TRIPS is not the end of the story. Significant new developments are taking place at the international, regional and bilateral level that build on and strengthen the minimum TRIPS standards through the progressive harmonization of policies along standards of technologically
advanced countries. The challenges ahead in designing and implementing Intellectual Property policy at the national and international levels are considerable. Empirical evidence on the role of IP protection in promoting innovation and growth in general remains limited and inconclusive. Conflicting views also persist on the impacts of IPRs in the development prospects. Some point out that, in a modern economy, the minimum standards laid down in TRIPS, will bring benefits to developing countries by creating the incentive structure necessary for knowledge generation and diffusion, technology transfer and private investment flows. Others stress that intellectual property, especially some of its elements, such as the patenting regime, will adversely affect the pursuit of sustainable development strategies by raising the prices of essential drugs to levels that are too high for the poor to afford; limiting the availability of educational materials for developing country school and university students; legitimizing the piracy of traditional knowledge; and undermining the self-reliance of resource poor farmers. It is urgent, therefore, to ask the questions: How can developing countries use IP tools to advance their development strategy? What are the key concerns surrounding the issues of IPR for developing countries? What are the specific difficulties they face in intellectual property negotiations? Is intellectual property directly relevant to sustainable development and to the achievement of agreed international development goals? Do they have the capacity, especially the least developed among them, to formulate their negotiating positions and become well-informed negotiating partners? These are essential questions that policy makers need to address in order to design IPR laws and policies that best meet the needs of their people and negotiate effectively in future agreements.\(^5\)

Various action-research projects have focused on developing alternative tools to protect traditional knowledge which are rooted in local customary laws rather than based on existing Intellectual Property standards. Existing Intellectual Property Rights including patents, trademarks, copyrights, geographical indications, industrial designs etc. are largely unsuitable for protecting rights over traditional knowledge because they provide commercial

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incentives, whereas traditional innovations are driven primarily by subsistence needs. Survival from nature requires continual access to new knowledge and innovations which is collective rather than exclusive rights. To sustain biodiversity based lifestyles, communities need to maintain control over their knowledge and related bio-resources and prevent others from unfairly exploiting or appropriating them, while taking advantage of market opportunities themselves. Many communities are facing increasing threats to their resource rights due to the spread of western Intellectual Property Regimes often through Free Trade Agreements.

Intellectual Property Rights can confer rights over community resources to others if they are mis-granted or granted too easily and do not require consent or benefit-sharing when community resources are used by others. Limiting rights to use, sell or exchange a bio-resource can be a serious problem if the livelihood of traditional communities depends on it.

Traditional Knowledge plays an important role in the provision of health care in many cases of patenting of developing countries. Their use is also significant in developed countries, increasing their commercial value. Several high profile cases of patenting traditional medicines, without consent from or compensation to their holders, have focused attention on their importance. Such importance has gained attention not only on international platform but also on national platform, and thereby calling for a legal step that a country should take in order to initiate for the protection of traditional knowledge

1.3. Principal Aim and Objectives

The principal aim and objective of this research work shall be as under:

1. To find out what can be included in the definition of Traditional Knowledge.
2. To analyze Intellectual Property Rights aspects of Traditional Knowledge.
3. To analyze the existing Intellectual Property System for protection and
promotion of Traditional Knowledge.
4. To study the regulatory framework and International Conventions related with Traditional Knowledge.
5. To analyze need of new measure of protection for Traditional Knowledge.

1.4. Statement of the Problem

As discussed above, there is a clear conflict between the concept of Traditional Knowledge and Intellectual property law. Intellectual Property Rights available today are not able to protect Traditional Knowledge properly. The traditional knowledge needs protection. It is rightly observed that it will be more pragmatic to focus on the cost of conservation of indigenous and local communities as a guide to designing economic incentive that will help them to gain adequate rewards. Different interest groups such as industry, intellectual property experts and indigenous and local people’s organization need to cooperate in order to define mechanisms for more effective sharing of benefits with the providers of the traditional knowledge and genetic resources.

In the present research, the researcher will study the conflict between Intellectual Property law and Traditional Knowledge and will also try to find out the situation by which it can be protected properly either by legal framework or by other suitable methods.

1.5. Hypothesis

To carry out this research work, the researcher considers following main hypothesis:

1. Protection of Traditional Knowledge is a very important issue.
2. Current Legal System in India is not adequate to protect Traditional Knowledge.
3. Considering the complex nature of Traditional Knowledge, new mechanism or sui generis system should be developed for its legal protection.
1.6. Research Questions

In order to examine abovementioned hypothesis, following research questions are required to be answered:

1. What does it mean by Traditional Knowledge?
2. What is the importance or significance of Traditional Knowledge?
3. Whether Traditional Knowledge possesses the characteristics of Intellectual Property?
4. What is the need to protect Traditional Knowledge?
5. What is the role of current Intellectual Property regime for protection of traditional Knowledge?
6. How far the current Intellectual Property Law regime is successful for protecting Traditional Knowledge?
7. What are the requirements for new sui generis measures for protecting Traditional Knowledge?

1.7. Research Methodology

To carry out this research work, purely Doctrinal Research Methodology is selected by researcher and accordingly, historical, analytical and descriptive method or research has been adopted. The research encompasses various primary sources such as cases, statutes, treaties, regulations and notices issued by competent authorities. Various secondary sources like books, articles, journals and periodicals, speeches, legal encyclopedia related to the subject along with e-resources have also been referred in this research.

1.8. Scope and Limitations of Study

Anywhere in the world, people need protection of their properties. Tangible property can be easily protected, but the case of intangible property is different. They require some more effective mechanisms like patents, copyrights, trademarks, geographical indicators etc. These mechanisms can be effectively used to protect individual’s intangible properties. Question, that is
raised, is whether this mechanism is useful in protection of properties owned by the communities. Challenges to Traditional Knowledge are diverse and far reaching and involves many areas of law and policy which is even beyond the expansive view of intellectual property. Thus the scope of this study is limited to the Intellectual Property Rights aspects of Traditional Knowledge only.

The more focus is given in this study to investigate the current scenario where time and again it is proved that current Intellectual Property Regime does not provide sufficient protection to the indigenous people. So the researcher will study the intellectual property aspect of Traditional Knowledge for its protection along with necessity of *sui generis* mechanism. This thesis will explore more particularly Indian scenario for protection and preservation of Traditional Knowledge and Indian requirement to meet with the burning issues like bio piracy.

1.9. **Style of Citation and References**

In order to carry out this research, various sources have been examined and they have been mentioned in references. The Uniform Method of Citation and References have been implemented for this research.

1.10. **Literature Review:**

For carrying out this research work, the researcher has studied various books, articles from journals and e-resources and some of the significant contributions have been mentioned below.

1. K. D. Raju, in his book *‘Intellectual Property Law’* (Edition 2005, New Era Law Publications) has discussed regarding Traditional Knowledge in Chapter X in this book. His work is very important in terms of brief introduction to the Subject Traditional Knowledge and various challenges created by it.

Prior Art in the Patent System in Chapter No. 5 of his book. He has emphasized on the Patent System for protection of Traditional Knowledge and his main focus is on the ‘Prior Art’ search and its relation with Traditional Knowledge. He has also considered the positions and practices of ‘Prior Art Search’ in various countries like U.S, Japan and Under European Patent Conventions.

3. Alikhan Shahid and Raghunath Mashelkar have in his book on ‘Intellectual Property and Competitive Strategies in the 21st Century’ (Edition 2006, Aditya Books Pvt. Ltd, New Delhi. ISBN 81-85353-56-5) discussed regarding Protection of Cultural Heritage, Biodiversity, Traditional Knowledge and Practices, Folklore and Sustainable Socio-Economic Development in chapter IV. He has discussed regarding nature and importance of Traditional Knowledge and also he has explained various strategies regarding Traditional Knowledge. He has described the need of Traditional Knowledge protection with reference to various cases of bio piracy which have taken place in recent past.

4. Dr. M. K Bhandari has discussed regarding the Subject Traditional Knowledge in chapter no. 44 of his book ‘Law relating to Intellectual Property Rights’ (Edition 2006, Central Law Publications, Allahabad). He has discussed about Traditional Knowledge and need for its protection by providing reference of the International Scenario. He has also described regarding the Indian Efforts of Traditional Knowledge Protection.

5. Veena has edited the book ‘IPR Protection and TRIPs Compliance: Issues and Implications’ (Edition 2007, The ICFAI University Press, Hyderabad. ISBN 81-314-1306-3) and in the chapter no. VI, discussion about Traditional Knowledge & Intellectual Property is made with reference to a TRIPS Compatible Approach by Danial Gervais. The discussion is very important in this study because of its suggestive approach. In this work, more weightage is given to the protection of rights of Indigenous People and the sustainability of Traditional Knowledge with current Intellectual Property System has been checked. Apart from that, this work also provides for various important suggestions for the protective measures of Traditional Knowledge.
6. S.K Verma & Raman Mittal has edited a book named ‘Intellectual Property Rights: A Global Vision’ (Edition 2006, Indian Law Institute, New Delhi) in which, detail discussion has been made with regard to Biological Resources and Benefit Sharing: The Intersection between Traditional Knowledge and Intellectual Property by Natalie P. Stoianoff. In this chapter, the discussion with regard to Traditional Knowledge is made with reference to concept of biological resources and benefit sharing. The concept of Traditional Knowledge has been at the center of much international debate with various indigenous people’s right and more particularly biodiversity rights and this work explains the balance between both by referring various provisions of Convention on Bio-Diversity.

7. Ashok Kumar M. & Mohd. Iqbal Ali have edited a book ‘Intellectual Property Rights’ (Edition 2008, Serials Publications, ISBN 978-81-8387-164-8) in which various issues regarding Intellectual Property Rights have been discussed. In chapter no. 17, a detail discussion is made by M. Sankara Reddi, M. Chandrayya & M. Sundara Rao for Intellectual Property Rights and the Tribes of Eastern Ghats. As it is observed, most of the Traditional Knowledge holders are the Indigenous People and the eastern ghat of India is native of such people, they are facing various issues with regard to protection of their indigenous knowledge. The discussion has been made with reference to various examples of protection through international instrument recognizing rights of such people over their knowledge.

8. Madhavi Sunder in her article ‘The Invention of Traditional Knowledge’ (Law and Contemporary Problems, Vol. 70, No. 2, Cultural Environmentalism @ 10 Spring, 2007 pp. 97-124 available at http://www.jstor.org/stable/27592181) has explained about her visit to India and her experiences with regard to traditional knowledge protection in light of TRIPS agreements. She has focused on the utilitarian theory of IPR protection and she has tried to see the entire conflict by viewpoint of theoretical aspects of IPR protection.

9. J. Janewa Osei Tutu, in the article ‘Emerging Scholars Series: A Sui Generis Regime for Traditional Knowledge: The Cultural Divide in
Intellectual Property Law’ (Marquette Intellectual Property Law Review, Volume 15, Issue 1, Article 3 available at: http://scholarship.law.marquette.edu/iplr/vol15/iss1/3 has explained that traditional knowledge can be protected, to some extent, under various intellectual property laws however, for the most part, there is no effective international legal protection for the subject matter and due to this, effective sui generis system has been proposed. It is positively stated that all the developing countries have been more supportive of an international traditional knowledge rights than developed countries. In the light of developing country concerns about the negative effects of strong global intellectual property rights, this research work uses a development focused instrumentalist approach to access the implications of a sui generis traditional knowledge rights.

10. A. Damodaran has discussed various important issues in his article ‘Traditional Knowledge, Intellectual Property Rights and Biodiversity Conservation: Critical Issues and Key Challenges’ (Journal of Intellectual Property rights Col. 13, September 2008, pp 509-513). He has discussed about the task of reconciling TRIPS with CBD and other related Traditional knowledge laws based on a survey of the major national and international initiatives undertaken to protect Traditional Knowledge since 1990.

11. Dr. Vishwas Kumar Chouhan, in his article ‘Protection of Traditional Knowledge in India by Patent: Legal Aspects’ (IOSR Journal of Humanities and Social Science, JHSS Volume 3, Issues1, Sept – Oct. 2012, pp. 35 - 42) has explained about Protections of the Traditional Knowledge of the local and indigenous communities as one of the most contentious and complicated issue. The historical development of the protection of intellectual property in the wake of individual private property rights, pushed, the traditional knowledge and the innovative practice based on them is outside the purview of the formal intellectual property protection regime. The need to protect the traditional knowledge captured the attention of the international community only recently but the standard setting was left to the national governments.
He has also given various suggestions for India to extend protection to knowledge, innovations and practices.

12. V. Arunachalam has discussed important issues in his article ‘Indigenous Knowledge and Intellectual Property Rights: The Latent Logistics and the Overt Concerns’ (Journal of Intellectual Property Rights, Vol. 7, May 2002, pp. 222-232). According to the author, awareness of indigenous knowledge and concerns of protecting it are growing over time and most of such traditional knowledge descends from ancient traditions and it would need a property validation and documentation. The author has covered only agricultural crops amongst all the available indigenous knowledge. This article is mainly focused on indigenous knowledge and indigenous genetic wealth which are tightly linked and cannot be isolated for protection.

13. Sita Reddy has published an article on ‘Making Heritage Legible: Who Owns Traditional Medical Knowledge?’ (International Journal of Cultural Property, 2006, 13:161-188, USA) in which she has explained that in recent ears an increasing number of state based heritage protection schemes have asserted ownership over traditional medicinal knowledge through various forms of cultural documentations such as archives, databases, texts and inventories. This research work describes the ambiguities, problems and unintended consequences in the process of making medical heritage legible.

14. Amos Saurombe has published an article on ‘The Protection of Indigenous Traditional Knowledge through the Intellectual Property System and the 2008 South African Intellectual Property Law Amendment Bill’ (Journal of International Commercial Law and Technology, Vol.4, Issue 3, 2009) has described that the discussion of Traditional Knowledge as a subject of intellectual property protection continue to take centre stage at different for a. It is particularly relevant for the developing and least developed countries whose traditional knowledge mechanisms continue to be exploited without accruing any kinds of benefits. He emphasized that the situation in South Africa is also similar and the department in South Africa has started various efforts to create a legal framework to protect and promote Traditional
Knowledge using the Intellectual Property Law mechanisms through enactment of a bill. This research paper seeks to measure the extent to which the bill will protect Traditional Knowledge and the possibility of its use as a model for the region and the developing world.

15. Shamama Afreen and Biju Paul Abraham have, in their article ‘BIOPIRACY AND PROTECTION OF TRADITIONAL KNOWLEDGE: INTELLECTUAL PROPERTY RIGHTS AND BEYOND’ (Indian Institute of Management, Calcutta, Working Paper Series, WPS No. 629/September 2008) discussed regarding the increasing importance of Traditional Knowledge of indigenous communities, both in the economy as well as in biodiversity conservation which has attracted the uncompensated use of such knowledge by multinational companies and research organisations for commercial purposes. In this paper, the authors have highlighted the need for protecting Traditional Knowledge by taking a look at some global bio-piracy cases. They also have discussed various approaches for establishing a protective regime and have put forward the argument that this cannot be done solely through conventional legal, non-legal and voluntary mechanisms, containing not only Intellectual Property Rights but moving beyond to include sui generis systems that can be integrated into the national legal framework and also confirmed the specific needs of indigenous communities.

16. United Nations University – Institute of Advanced Studies (UNU-IAS) has published a report on ‘The Role of Registers and Database in the Protection of Traditional Knowledge: A Comparative Analysis’ in which the concept of traditional knowledge is elaborated and various case studies of registers and databases used to record and protect traditional knowledge is discussed. This report also gives comparative analysis of the role of databases and registers in the protection of traditional knowledge. Various modes of protection including defensive protection and positive protection is also discussed in the report and various important conclusive suggestions are also available in the report.

17. Dr. Mangala Anil Hirwade, in her article ‘Protecting Traditional
Knowledge Digitally: A Case Study of TKDL’ (available at: http://eprints.rclis.org/14020/1/TKDL_paper.pdf) has explained about various aspects of the traditional knowledge protection and suitable suggestions are given for documentation of traditional knowledge especially through digital medium in order to protect it from various issues of bio-piracy.

18. Venkataraman K, in his article ‘Intellectual Property Rights. Traditional Knowledge and Biodiversity of India’, published in Journal of Intellectual Property Rights, Vol. 13, July 2008, pp 326-335 has discussed regarding the importance of traditional knowledge by view point of biodiversity protection. Various facts and figures are described in this article in respect of the Botanical Survey of India and the Zoological Survey of India. This article explains regarding the proportion of various species and dependent communities over it and how they are suffering from various issues of biopiracy.

19. Tripathi S.K, in his article ‘Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore: International, Regional and National Perspectives, Trends and Strategies’, published in Journal of Intellectual Property Rights, Vol. 8, November 2003, pp 468-477 talk about various international and regional attempts to protect traditional culture and folklore. This article is an edited text of the talk of the author given at WIPO Inter-regional Seminar at Iran. Under the national perspectives and trends and strategies, this article reports the Indian position in respect of the protection of traditional knowledge and folklore in light of need of an acceptable and agreed international sui generis system separate from the existing Intellectual Property Rights system.

regimes are enormous. They are considering them as the key resources for sustainable bio prospecting and value addition processes. According to them, the existing intellectual property laws do not entail intellectual property rights to the traditional knowledge holders either at national or international level. They have, through this article, provided an overview of the issues involved in the value addition to bio-resources and protection of IPR to traditional knowledge holders.

21. Gowda Prakruthi P & Khan Ushasi in their article ‘Scared but Vulnerable: A Critical Examination of the Adequacy of the Current Legal Framework for Protection of Tribal Sacred Traditional Knowledge’ published in NUJS Law Review, 1 NUJS L. Rev. (2008) pp.109-120 have properly discussed that the western intellectual property laws have come to dominate the global landscape in the age of commodification of information and the rights of indigenous people and the sanctity of their traditions is one of the biggest casualties of granting proprietary rights to individual creators as envisaged by the current intellectual property regime. They have attempted to explain the concept of sacred traditional knowledge through the prism of cultural relativism and have emphasized on the need of their protection by highlighting the inadequacy of the current intellectual property regime.

22. Varadarajan Deepa, in her article ‘A Trade Secret Approach to Protecting Traditional Knowledge’ (The Yale Journal of International Law, Vol. 36: pp. 371-420) has discussed that many indigenous and local communities object to the way their communally developed agricultural strains, folklore, and traditional medicines their “traditional knowledge” serve as free building blocks for the patents and copyrights of outsiders, often without any recognition, compensation, or control over the way this information is used. Traditional knowledge provides certain multibillion dollar industries, including pharmaceuticals, cosmetics, and agriculture, with useful leads for product discovery and development. Intellectual property law readily recognizes these industries’ innovations; however, it often turns a blind eye to the incremental and seemingly unscientific contributions
of traditional knowledge holders, who are some of the world’s poorest people. She has advocated the trade secret aspect for protection of traditional knowledge in which without publication of the knowledge, it can be protected in secrecy.

23. Andanda Pamela, has published an article ‘Striking a Balance between Intellectual Property Protection of Traditional Knowledge, Cultural Preservation and Access to Knowledge’ published in Journal of Intellectual Property Rights Vol. 17, November 2012, p. 547-558 in which it has been described that protecting traditional knowledge through intellectual property regime performs the important function of preventing third parties from using the knowledge inappropriately. It is also submitted that apart from being inaccessible to most holders of traditional knowledge, the regime does not necessarily guarantee the preservation of safeguarding the knowledge therefore, various concerns for policy making and striking balance between protecting TK through IP regime and ensuring cultural preservation and access to knowledge are advocated.

24. Lalitha N, in the article ‘Protecting Traditional Knowledge in Siddha System of Medicine’ published in Journal of Intellectual Property Rights, Vol. 18, May 2013, pp. 272-282 has mentioned about a unique Siddha system of medicine which is an ancient system that is practiced in Tamil Nadu in South India and in other Tamil speaking regions of the world. The system, which focuses on addressing the root cause of the disease rather than treating the disease symptoms is facing a threat of bio-piracy by various pharmaceutical companies. In this article, the author has advocated the People’s Biodiversity Register to be an ideal solution to the issue of economic and knowledge losses due to bio-piracy and lacuna in protecting the intellectual property available in siddha system.

25. Nair M D, has published an opinion on ‘TRIPS, WTO and IPR: Protection of Bioresources and Traditional Knowledge’ which has been published in Journal of Intellectual Property Rights Vol. 16, January 2011, pp 35-37. In this publication, he has submitted that the WTO was set up in the year 1995 and since then, it has been the
custodian of all matters related to the implementation of the TRIPs Agreements endorsed by 153 member countries. WTO is therefore the most important body which monitors and influences working of global intellectual property rights protection in all its member countries. Accordingly, he has given this opinion which discusses about the protection of bioresources and traditional knowledge.

26. Kalluri Shravan, in his article ‘Traditional Knowledge and Patent Strategy’ published in Journal of Intellectual Property Rights, Vol 17, September 2012, pp 430-436 has discussed that for centuries, practices have been invented and passed on from generation to generation among various communities and such practices cover areas such as music, dance, science and technology, medicine etc. As innovations evolved across centuries, the same practices as it stands today is collective knowledge, accumulated across generations restricted to certain groups of people and passed on as traditional knowledge and these practices forming an essential cultural attachment to a community intended to promote community ownership over such knowledge. He has discussed the aspects of patent law which is to promote personal monopoly and profit.

1.11. Scheme of the Study

The present study is divided in six chapters:

CHAPTER I – INTRODUCTION

This chapter pertains to the Introduction which comprises the Introduction to the concept of research relating to Intellectual Property Protection to Traditional Knowledge. Moreover this chapter also includes the entire scheme of research including the research problem, principal aim and objectives, statement of problem, hypothesis, research questions, research methodology along with scope and limitation of the research and literature review. Thus, this chapter is a brief summary of the thesis and will help to understand the real scope of the research.
CHAPTER II – INTRODUCTION TO INTELLECTUAL PROPERTY RIGHTS PROTECTION AVAILABLE IN VARIOUS FIELDS

This chapter contains the introduction to the Intellectual Property Rights and available fields wherein the protection is available. This chapter includes meaning and introduction of the intellectual property, nature of intellectual property, basic concepts of the intellectual property and various reasons to promote and protect intellectual property. Along with this, the chapter introduces all the available fields of intellectual property in India along with a brief summary explaining each intellectual property i.e. patents, trademarks, copyrights, industrial designs, geographical indications, plant varieties and semiconductor integrated circuits.

CHAPTER III – INTRODUCTION TO THE CONCEPT OF TRADITIONAL KNOWLEDGE

This chapter comprises the main concept of traditional knowledge. This chapter introduces the concept of traditional knowledge, its meaning and definitions, importance of traditional knowledge as well as the details regarding the holders of traditional knowledge. Apart from that, this chapter also provides for various kinds of traditional knowledge and its need for protection. Finally this chapter also provides for the intellectual property aspects of traditional knowledge.

CHAPTER IV – PRESENT PROTECTION REGIME OF TRADITIONAL KNOWLEDGE AT INTERNATIONAL AND NATIONAL LEVEL

This chapter contains various national and international efforts for protection of traditional knowledge. The chapter discusses in details regarding international initiatives including the ILO Convention 169, the Mataatua Declaration on Cultural and Intellectual Property Rights of Indigenous Peoples, United Nations Declarations on the Rights of Indigenous People, Convention on Biological Diversity, Trade Related Aspects of Intellectual Property Rights (TRIPS), Intergovernmental Committee on Intellectual
Property and Genetic Resources, Traditional Knowledge and Folklore (ICG), Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biodiversity etc. Apart from that various initiatives taken at different regional levels are also discussed. Finally, initiatives taken in India are discussed which includes various legislations for protection of various aspects of traditional knowledge including the Geographical Indications Act, Plant Varieties Protection Act and Biodiversity Act are discussed. Role of various government and non-governmental organizations including SRISTI, Honey-Bee Network and TKDL are also explained.

CHAPTER V – ISSUES AND CHALLENGES TO TRADITIONAL KNOWLEDGE AS IPR PROTECTION

This chapter contains various issues and challenges pertaining to the Traditional Knowledge. It includes various cases of bio-piracy which created alarming situation for the developing countries like India. The chapter also presents various case studies of traditional knowledge possessed by different indigenous people across the world and challenges created by such knowledge to the existing system of legal protection.

CHAPTER VI – CONCLUSION AND SUGGESTIONS

This is the conclusive chapter which contains the conclusive part of the entire research. This chapter indicates the entire thesis in brief with the important aspects and also provides few suggestions based on the research. This chapter gives various recommendations to be incorporated by the government in order to protect the traditional knowledge through suitable intellectual property protection and/or through necessary sui generis system.