POLITICAL ECONOMY OF U.S. - INDIA RELATIONS: A STUDY OF IPR ISSUES, 1993-2008.

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DECLARATION

I declare that the dissertation entitled "POLITICAL ECONOMY OF U.S.-INDIA RELATIONS: A STUDY OF IPR ISSUES, 1993-2008" submitted by me for the award of the degree of Master of Philosophy of Jawaharlal Nehru University is my own work. The dissertation has not been submitted for any other degree of this University or any other University.

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Dedicated to My Parents

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ABBREVIATIONS

ACTN	Advisory Committee on Trade Negotiations
Agmark	Agriculture Mark
AIDS	Acquired Immune Deficiency Syndrome
AIPA	American Inventors Protection Act
ASTA	American Seed Trade Association
BDCs	Beneficiary Developing Countries
CBD	Convention on Biological Diversity
CDs	Compact Disks
CFTC	Commodity Futures Trading Commission
CSH	Child Survival and Health
CSIR	Council of Scientific and Industrial Research
CSO	Central Statistical Organization
DA	Development Assistance
DPCO	Drug Price Control Orders
DVDs	Digital Versatile Discs
EB	Bureau of Economic and Business Affairs
EOP	Executive Office of the President
EPO	European Patent Office

FDI Foreign	Direct Investment
FDIC Federal Deposit Insu	rance Corporation
FERA Foreign Exchan	ge Regulation Act
FMC Food Mach	inery Corporation
FTAs Free	Trade Agreements
FTC Federal	Frade Commission
GATS General Agreement or	1 Trade in Services
GATT General Agreement on	Tariffs and Trade
GDPGross	Domestic Product
GHA Global Human	nitarian Assistance
GHCS Global Health a	and Child Survival
GNI Gros	s National Income
GSP Generalized Syst	em of Preferences
HP	Hewlett-Packard
IBM International I	Business Machines
IBRD International Bank for Reconstruction	and Development
IIPA International Intellectual	Property Alliance
IIT Indian Instit	ute of Technology
IMET International Military Educa	ation and Training
IMF Internation	al Monetary Fund
IP In	tellectual Property

IPC	Intellectual Property Committee
IPE	Intellectual Property Enforcement
IPRs	Intellectual Property Rights
ISI	Indian Standards Index
ISO	International Organization for Standardization
ITA	International Trade Administration
LDCs	Less-Developed Countries
MFN	
MNC	
NADR	Nonproliferation, Anti-Terrorism, Demining, and Related
NAFTA	North American Free Trade Agreement
NGOs	Non-Governmental Organizations
OECD	Organization for Economic Cooperation and Development
OIPR	Office of Intellectual Property
PCT	Patent Cooperation Treaty
PEPFAR	President's Emergency Plan for AIDS Relief
PhRMA	Pharmaceutical Research and Manufacturers of America
PL	
R&D	
SEC	Securities and Exchange Commission
TRIPs	Trade-Related Aspects of Intellectual Property Rights

UDHR	Universal Declaration of Human Rights
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNRRA	United Nations Relief and Rehabilitation Administration
US	
USA	United States of America
USAID	United States Agency for International Development
USPTO	United States Patent and Trademark Office
USTR	United States Trade Representative
WIPO	World Intellectual Property Organization
WTO	

PREFACE

Political economy is the study of individual and society, markets and state using methods and knowledge drawn from political science, economics and sociology. The goal of all political actions is the pursuit of power while the economic activities are targeted towards the pursuit of wealth. Hence, the marriage between politics and economics, that is, political economy is used to explain complex phenomenon that characterizes the present century.

The globalized world order of the 21st century considers economics as one of the major drivers of the overall political decisions taken by the states on both domestic and foreign policies. Trade, investment and business activities link states that are separated by geographical and political barriers. These inter linkages constitute the bedrock of international relations in the post cold war era. While commercial interactions between states have existed from the days of yore, in the modern age, knowledge and information have emerged as the strong winds determining the intensity of the currents of commerce. The United States of America, which emerged as the undisputed superpower after the end of the cold war, realized that the nature of political power has changed in the new context of the post cold war era. Power lies not only in guns and barrels but also in markets and ideas. Taking cognizance of the new realities that governed world politics, America's economic statecraft has manifested itself as a powerful entity in the management of the world economy. The U.S. makes the best advantage of international institutions, such as the International Monetary Fund (IMF), the World Bank and the World Trade Organization (WTO). While the IMF and World Bank are responsible respectively for the exchange rate stability and development, WTO's function is by and large trade facilitation and intellectual property protection.

Ever since the birth of the WTO, sea change in the global governance of intellectual property rights (IPRs) has emerged. Whereas member countries have retained substantial autonomy in decision making, the 1990s witnessed the establishment of new global norms regarding protection of intellectual property rights. At the heart of these changes was the WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs), a binding international agreement that sets new universal standards for countries to grant protection

towards IPRs. The United States possess the highest number of patents and copyrights and thus Washington began to promote strict implementation of TRIPs in order to protect its interests. The new standards require countries to increase the range of products and processes that qualify for protection as 'intellectual property' and also amplify the extent of protection provided for such products and processes. The initiative for a stronger code to protect the IPRs was also the expression of the concerns of leading industrialized countries over their relatively declining performances in the international market.

Hence, commercializing knowledge and making it coequal to other tangible inputs in the production process has become the order of the day. The concept of knowledge as property and the appropriation of intellectual property under the current regime of Trade Related aspects of Intellectual Property Rights (TRIPs) have brought about competition and more precisely a contest for power among the developed nation states. This testifies the neo-liberal argument that economics is the major driver of politics and wealth enhances the comprehensive power of the nation.

The present research focuses on the political economy of U.S. - India relations with regard to intellectual property rights. The objective of this research is to highlight and critically evaluate IPR protection in the respective countries and its ramifications in bilateral relations. The timeline of study (1993-2008) represents the crucial period in contemporary American history marked by the emergence of the U.S. as a unipolar power in world affairs. During the same time India witnessed substantial changes in its political economy and slowly became part of the global economy by instituting a series of economic reforms. While U.S. - India economic relations boomed in the post cold war era, several trade frictions emerged, particularly related to intellectual property rights. The study has attempted a modest analysis of the role of intellectual property rights in shaping U.S. India relations in general and trade and investment ties in particular. It also explains the points of convergences and divergences between the two states with respect to IPRs and how it affects the dynamics of their bilateral relationship.

Research Questions

- 1. How has the concept of intellectual property rights evolved in the United States?
- 2. How serious is the role of intellectual property rights in shaping US-India economic relations?
- 3. Which are the major disputes over the IPR issues in US-India relations?
- 4. How have they affected the political atmosphere in bilateral relations?
- 5. Does the present structure of Intellectual Property Rights regime attempt to reinforce and sustain the hegemonic structure of international order?

Hypotheses

- U.S. policy on intellectual property rights aim at preserving U.S. hegemony.
- The political economy of U.S. India relationship exemplified by intellectual property rights, threatens social justice in India.
- IPR is a tool of American soft power that limits, but not prevents India's trade and investment ties with the US.

Research Methods

The research study is analytical and explanatory in nature. It employs both qualitative and quantitative methods to answer the research questions and testify the hypotheses. The study takes cognizance of both theoretical and empirical methods to reach sound conclusions. Statistical tools have been employed to understand the bilateral trade dynamics. Case study constitutes an integral part of research since the bilateral disputes between the United States of America and the Republic of India can be best understood by various case studies. Also, historical-analytical methods have been undertaken to testify the research propositions.

Both primary and secondary sources of information have been utilized in the research using the deductive methods. The primary sources include the official reports by government ministries, congressional reports, state department documents, speeches of the President, reports of international and inter governmental organization, archival and web documents accessed from various academic and research institutions and also from the internet. The research has also involved the extensive use of secondary sources which include books, journal articles, and newspaper clippings. Resources available in American Library, JNU Central Library, Exim Bank Library, ICWA Library have been utilized for an in-depth analysis of the concerned subject.

Chapter Design

The study is accomplished in five separate but interrelated chapters.

Chapter 1- Political Economy in U.S. Foreign Policy

This chapter introduces the topic by tracing the role and significance of political economy as an approach to U.S. foreign policy. It investigates the relationship between the liberal tradition of political economy and the American republic, delineating the role of state as an economic unit. In this sense the spirit of the research is set in this chapter by explaining how economics and politics are closely inter-related in today's neo-liberal world order where America as a world power plays a vital role.

Chapter 2- Evolution Of IPR Issues In U.S. Foreign Economic Policy

Economic policy plays an important role in foreign policy. Since the world is now moving towards what is known as the knowledge driven economy, intellectual property rights and its protection is a major issue when it comes to trade and investment. Given that the United States of America is a major exporter and importer of a wide array of goods and services, intellectual property rights issues form a vital pillar supporting and advancing America's interest in foreign lands. The Chapter is a retrospective observation of intellectual property rights in America and how it has evolved through different stages and formed an integral part of America's bilateral trade relations. A detailed study of IPR issues in U.S. foreign economic policy and various strategies adopted by America to protect its intellectual property forms the main theme of this chapter.

Chapter 3- Major IPR Issues in U.S. - India Economic Relations

The third chapter deals with the intellectual property rights issues in the bilateral relations between the United States of America and India. This chapter focuses on how the U.S. - India economic relations in general and IPR issues in particular. In this chapter, case study research has been employed to find out areas of conflicts between U.S. and India and how it's ramifications on bilateral relations.

Chapter 4- Social Impact of IPR Issues

This chapter studies the impact of intellectual property rights in the social sectors of the economy. Intellectual property rights protection is not only about politics and economics but also involves a sociological enquiry. In this chapter the relationship between IPR and development is investigated by studying the effect of IPRs in some of the crucial sectors of the economy.

Chapter 5- Conclusion

The final chapter is an analytical summation illustrating the role of political economy in US-India relations with regard to IPR issues. On the basis of the research done in the previous chapters, the concluding chapter testifies the hypotheses. It attempts to answer the research questions in order to arrive at a concrete understanding of the topic.

POLITICAL ECONOMY APPROACH TO U.S. FOREIGN POLICY

"Our foreign relations, political and economic, are indivisible"

- Harry S. Truman, 33rd President of the United States of America

Introduction

International Relations encompass the study of a whole gamut of factors which influence and determine relations among states. It is interdisciplinary in the sense that states engage with each other in multiple arenas, such as political, military, economic, and cultural among others. In the globalized and liberalized environment, the nature of relationship among states has become far more complex and diverse. Today, military strength is undoubtedly a necessary but no longer a sufficient determinant of the comprehensive power of nation. Indeed, the very definition of national interest has abandoned the old understanding of this concept. National interest cannot be the interest of a particular country in a globalized and interdependent world.

Joseph Nye thus argues that "*national interest is defined as the set of shared priorities regarding relations with the rest of the world*" (Nye 1999). The pursuit of national interest is a combination of military and non-military variables. The present nature of world politics confers equal if not more significance to the non-military variables since some of their influence is far more entrenched and extensive than the military capability of a nation.

It should also be noted that the practice of foreign policy is as old as the state system itself, what is new is the changing nature of international relations and along with it, the change in the set of priorities that states have. The present chapter deals with one such important determinant of foreign policy, that is, political economy. Political economy is the point of convergence of the three branches of knowledge, namely politics, economics and society and helps to understand the influence of one upon the other.

Economic variables form an important dimension in the foreign policy making of a nation. A strong economy forms the backbone of a nation, helps its rise and sustains its predominance. In other words, a nation's military capacity might be able to make a nation powerful by defeating actual enemies and threatening the potential ones but to sustain its power and to demonstrate its influence, economic variables are quite essential. It should also be remembered that military strength is partly dependent upon the economic power and wealth of the nation. Also sometimes, economic power which is often considered as a soft power can be harder than the conventional hard powers and can cripple a state without a bullet being fired. It can also be said that no country can sustain its power until and unless it has a strong and flourishing economy. In the globalized era of the present century, where interdependence between states assumes added significance, and trade and investment forms a vital pillar of economic growth, the study of political economy and its role in shaping the foreign policy of a country becomes vital.

The United States of America from its very formation has been a strong supporter and upholder of economic and political freedom. The American Dream lies in the exercise of the free will of the people in making economic and political decisions. Political economy's place in international relations finds significance in the sense that the game of politics is often played out with the instrument of economics.

The State as an Economic Unit

In order to understand the role of political-economic factors in guiding the foreign policy, state is categorized as an economic unit within which the economic functions of production and distribution occur. Since the inception of the study of political economy, there is a great debate among scholars as to what should be the function of the state in relation to the market. While the central problem of every economy involves finding the answers regarding the basic economic problems of what, how and for whom to produce; the role and involvement of the state differs from nation to nation.

State as an economic unit has been perceived differently by different schools of thought. While the interpretation of the role of state may vary according to various traditions of thought, the central argument remains that state do play a very prominent role in shaping the dynamics of the interplay between politics and economics.

State can be defined as an economic unit which has a unique set of rules and regulation within which the broader activities of production and distribution takes place. It is unique in the sense that each nation state has certain rules and regulation which governs the way their market would operate and also prescribes the role of the government in addressing matters pertaining to the market.

The oldest system of mercantilism which prevailed during sixteenth to late eighteenth centuries argued for a government regulated market since they were of the opinion that unregulated market would not be able to maximize national advantages in trade. The mercantilists aimed at maximizing the country's wealth which was measured in terms of monetary asset. Protectionism was encouraged and maintaining positive balance of payment was the call of the day. Economic relations were viewed as a zero-sum game where a nation could gain advantage only at the expense of other nation's wealth. In mercantilism, state was given a premier role in correcting the discrepancies arising out of the market. Hence when it came to the conflict between politics and economics, politics played the decisive role where the major actor was the state and the economic goal remained that of increasing state power.

Mercantilism faded away with the emergence of liberal thinking which called for a lesser role of the state in market system. Economic liberalism rejects the whole idea of economics being subordinate to politics. The sphere of economics should be free from political interference and should be autonomous in its functioning. The actors in the market place included private individuals who were given the freedom to take their decisions on production and distribution. Hence the economic decisions of what, how much and for whom to produce is left to the market forces which automatically adjusts itself according to the existing demand and supply patterns. International economic relations are hence viewed as a positive sum game where each nation gains by participating in trade and investment. While Marxism held that economics played a dominant role in the relationship between economics and politics, the main departure of Marxism from the earlier traditions remain that the main units of analysis were classes whose interest were antagonistic in nature. It represents a clash of interest between the exploiter class who owns capital and the exploited class who have nothing more than their labor to offer. Marxism was essentially a critical response to liberal traditions. Economics was given the primary role in the sense that international relations were viewed in a situation of constant competition between capitalist classes of different states, hence a zero sum game. The history of international political economy was seen as the history of capitalist expansion across the globe (Jackson and Sorensen 2013).

According to Robert Gilpin, "the purpose of economic activity in a particular country largely determines the role of the state in that economy. In those liberal societies where the welfare of the consumer and the autonomy of the market are emphasized, the role of the state tends to be minimal. Although liberal societies obviously differ in the extent to which they do pursue social welfare goals, the predominant responsibility of the state in these societies is to correct market failures and provide public goods. On the other hand, in those societies where more communal or collective purposes prevail, the role of the state is much more intrusive and interventionist in the economy" (Gilpin 2001).

The Liberal Tradition of Political Economy and the American Model

The political philosophy of liberalism laid the foundation of the study of political economy. The belief in the individual liberty and private property lies at the core of liberal principles. Liberal philosophy believes in the power of the market, upholds free trade and argues for minimum role of the government in matters of the market. Though there is some debate about the extent of interference that state should have in the affairs of the market, liberal scholars by and large hold that the government should concentrate in securing its borders, administration of justice and facilitating the free and unrestricted functioning of the market. Such a philosophy is imbibed in the writings of classical liberal scholars such as John Locke, Adam Smith, David Ricardo, Jeremy Bentham and John Stuart Mill among others.

The 'war of all against all'¹ is minimized if not totally eliminated if states are interlinked in an extensive manner. These inter linkages happen through various historical processes and cultural interactions, but the main component is the economic exchanges which connect states which are divided by geographical, social and political boundaries.

The assertion of inalienable and natural rights of people to 'life, liberty and the estate' by the late seventeenth century political philosopher John Locke is considered a renaissance in political thinking. Locke talked about the right to property and instilled the idea of individualism in human beings. He went on to assert that private property is a natural right and is historically and plausibly prior to the state (Richards 2004). He asserted, *"The great and chief end, therefore, of men's uniting into Commonwealths, and putting themselves under government, is the preservation of their property" (Second Treatise, Chapter IX).* The idea of tolerance, the consent of the ruled and government as trustee were enunciated throughout Locke's political philosophy. The fundamental theoretical construct of Locke sets the basic premise on which the system of capitalist economy thrives upon.

Utilitarian's, such as Jeremy Bentham and John Stuart Mill believed in the maximization of utility through actions that would bring about 'greatest happiness of the greatest number'. Unlike Bentham, Mill goes on to differentiate between the kinds of activities pursued to gain happiness in the sense that there remains a differentiation between moral and intellectual pleasures which are of higher value than physical pleasures. Again, unlike Bentham, Mill did not consider 'pushpin as good as poetry' (Mukherjee and Ramaswamy 2011). The Utilitarian school of thought remains significant as it built a strong base for the values and ideas on which a liberal society and economy would thrive upon. Their ideas continue to shape public policies thus prescribing different role for the state and the individuals in society.

Political economy as an approach can be profoundly observed in the writings of Adam Smith. Known as the Father of modern economics, Adam Smith in his seminal work, *An Inquiry into the Nature and Causes of the Wealth of Nations* argues for a free market economy of what can be regarded as the laissez faire system. He calls for a minimum interference of the government in

¹ The term was used by Thomas Hobbes in his seminal work *Leviathan*, published in 1651. Originally written in Latin, the phrase originally used by him was 'bellum omnium contra omnes' which in English means 'war of all against all'.

the affairs of the market and assigns greater role to the invisible hands of the market. His enquiry therefore encompasses both the interplay of market forces and a minimum role of the state in the society (Smith 1776).

International trade as a guiding principle enhancing the wealth of the nation finds significance in the writings of Adam Smith and David Ricardo. Adam Smith considered trade to be fundamental to a country's wealth creation and prescribes the theory of absolute cost advantage. It suggests that the fundamental basis of trade is the difference in absolute cost. In a simplified two country model and considering two commodities, absolute cost arises when one country can produce a particular commodity at a lower cost than another country and the other country can produce some other commodity at a lower cost than the first country. Hence, absolute cost difference arises when each of the two countries can produce some commodities at a lower cost of production than the other country. However, this system of analyzing international trade encounters serious criticism, when one considers a situation where one country can produce both the commodities at a lower cost than the other country. In this case, the first country has an absolute advantage over the production of both the commodities while the other country has an absolute disadvantage over the production of the commodities in question. Hence, following the methodology of Adam Smith, trade between both the states is impossible. The theory of absolute cost difference fails to explain international trade in such a situation. A new theory to explain trade in such a situation was developed by David Ricardo. Ricardo's theory, known as the theory of comparative cost advantage explains trade arising out of the comparative cost difference in production. In a simplified two country model and taking two commodities, a country can produce both the goods at an absolutely lower cost than the country, but has a greater comparative advantage in the production of one commodity and lesser comparative advantage in the production of the other while the other may produce both the commodities at an absolutely higher cost, but has comparative less disadvantage in the production of one good than the other. International trade is possible in such a situation since it is the relative difference in costs will determine the commodities to be produced and traded by different countries. The theory of Comparative Cost Advantage holds that a country should concentrate in the production and exchange of those commodities in which it has a lower comparative cost, that is, greater comparative advantage. In other words, a country should specialize in the production of those commodities in which it has greater comparative advantage and export it to other country while

importing the goods in which it has less comparative advantage or comparative disadvantage (Ricardo 1817). The result would be efficiency since resources would be diverted to only those areas where production would bring about comparative advantage, thus minimizing wastage of resources. In such a situation both countries stand to gain from international trade due to efficient allocation of scarce resources and specialization in production. This is the philosophy behind the liberal ideas of justification of international trade.

The United States of America from its very foundation has been regarded as 'the nation with a mission' of protecting and promoting the liberal philosophy of society and politics at home and abroad. It stands for inalienable rights of human beings to pursue freedom of thoughts and expression and champions the virtue of the market.

The American system represents the 'neo classical' model of market-oriented capitalism. It is a competitive economy which rewards individuals according to their capability (Gilpin 2001). As prescribed by the neo classical school of thought, the market oriented capitalism allows individuals to enjoy the freedom to maximize their utility. Moreover, profit maximization remains the goal of the private corporate bodies. Competition is believed to be at the core of the American system of production and distribution. It celebrates inequality arising out of equal opportunity in the sense that each individual is rewarded according to his/her own capability and talent.

Also, the American economy is a variant of managerial capitalism. The American corporations played a pioneering role in transforming the economy by the late nineteenth century from a proprietary capitalism to one dominated by large oligopolistic corporations. The role of the American government in the economy is decided by the dual interplay between neoclassical principles of economic thought and the fundamental features of the American liberal political system. The economic functions of the government are divided and shared by the Treasury, Federal Reserve and other independent agencies. These agencies are strongly affected by the decisions taken by the legislative and the judicial branch of the government (Gilpin 2001). While the government's role in the American economy is to establish and ensure a free and neutral environment for American private business to operate, government may intervene in the economic activities by regulating certain sectors and activities. Such regulation is justifiable in terms of redressing market failures or promoting public good.

The government of the United States has been protecting its enterprises from foreign competition in order to gain from international trade. The United States for long maintained high tariffs and followed the policy of protectionism. State protectionism of domestic industries for the purpose of gaining in foreign trade has been a debated issue among liberal scholars with some justifying it while others refuting it. Liberal economists justifying the premise of protectionism regarded it as necessary practice for addressing the discrepancies arising out of the free forces of demand and supply. H.C. Carey, an American economist reasoned with the existence of duality of laissez faire and protectionism. According to Carey, within the American economy the rules of free trade should be allowed to operate and determine working of the economy and the behavior of economic variables, while in case of economic transactions outside the borders, protectionism should be followed in order to protect the American economy against external competition. This approach found its practical application in 1816 when the United States introduced a restrictive customs tariff towards foreign suppliers, protecting both U.S. industry and agriculture against foreign competition. The approach towards protectionism was also taken up by J.M. Keynes, who is of the opinion that free trade could bring about international specialization only when all the factors of production are efficiently and fully utilized failing to which the state should take up the responsibility to support and increase exports and reduce exports until the condition of full economic equilibrium such as full employment, full utilization of production capacity etc. has been reached. The great economic crisis of 1929-1933 validated the premises of Keynes when the free market mechanism proved to be futile in bringing about economic gains and the state had to intervene, playing the principle role to addressing the development of the economy. Keynes's prescription of state protectionism remained the leading force behind world economic progress till the end of 1970s (Bozyk 2006).

Alexander Hamilton, one of the authors of the Federalist Papers was a strong proponent of policy of protectionism to safeguard America enterprises. In the Report on Manufactures presented to the House of Representatives on December 5, 1791, he argued, "Bounties are, sometimes, not only the best, but the only proper expedient for uniting the encouragement of a new object of agriculture with that of a new object of manufacture. It is the interest of the farmer to have the production of the raw material promoted by counteracting the interference of the foreign material of the same kind. It is the interest of the manufacturer to have the material abundant and cheap. If, prior to the domestic production of the material, in sufficient quantity to supply the

manufacturer on good terms, a duty be paid upon the importation of it from abroad, with a view to promote the raising of it at home, the interest both of the farmer and manufacturer will be disserved. By either destroying the requisite supply, or raising the price of the article beyond whit can be afforded to be given for it by the conductor of an infant manufacture, it is abandoned or fails, and there being no domestic manufactories to create a demand for the raw material, which is raised by the farmer, it is in vain that the competition of the like foreign article may have been destroyed."²

Inspired by Hamilton's ideas Fredrich List, a German- American economist also opined in favor of protectionism as one of the major ways to promote infant industries. According to him the state should protect industries since it is the only way of placing states that are 'far behind in civilization on equal terms with the predominating' ones. It serves as the most efficient means to bring states across the world on an equal footing which is essential for promoting 'true freedom of trade'. State protectionism serves as the ladder to raise states to the stage of industrial development (List 1909). The ideas of these scholars find reflection in the policy that the United States pursued till the end of the Second World War where USA was the bastion of protectionism with tariff rates remaining around 30-40%, reaching its peak with passage of the Tariff of 1828 when high tariffs reaching to 45% to benefit northern industries.³

However, not all scholars who believe in liberal political economy support protectionism or any kind of corrective measures by the state. Milton Friedman, an American economist reached the conclusion that market economy would develop in robust manner without the intervention of the state of any kind. With his inherent belief in the political economy of liberalism with free market economy as the basis, Friedman elaborated the connection between '*Capitalism and Freedom*'. Milton's stipulations impose a radical limitation on state intervention of any kind in the economy and against protectionism in foreign trade. He asserted that the state should concentrate on

² The Library of Congress, "A Century of Lawmaking for a New Nation: U.S. Congressional Documents and Debates, 1774 – 1875," American State Papers, House of Representatives, 2nd Congress, 1st Session Finance: Volume 1, [Online: web] Accessed 5 February 2015, URL: http://memory.loc.gov/cgi-bin/ampage?collId=llsp&fileName=009/llsp009.db&recNum=139

³ The Wall Street Journal, "Episodes of Protectionism in U.S. History" [Online: web] Accessed 10 February 2015, URL: http://www.wsj.com/articles/SB10001424052748704696304575538030239055918

pursuing macroeconomic policies whose parameters be determined by the free market. Whereas this should be the criteria for operations within the economy, for the purpose of foreign relations the guidelines of free trade should be followed. Milton's prescriptions argues for allowing unrestrained imports of goods, services and factors of production with no provisions for state support of domestic exports. Milton's model of liberal political economy is hence a sharp departure from what is prescribed by the Keynesian school of thought (Friedman 2002).

Milton Friedman's conclusions were based on the study of almost 50 years of the development of market economy post the Second World War. He argued that intervention interferes with the ability of the price mechanism to address situations of economic disequilibrium. The market forces of demand and supply has an inbuilt automatic ability to address situations of disequilibrium and is superior to state intervention in the sense that unlike the state it is not tainted by red tapes, incompetence and does not channelize resources to unproductive ventures. Again, state policies have a high tendency towards fulfilling social conditions such as prevention of unemployment, affirmative action, and other kinds of social security measures which are in contraction to the growth of economic management efficiency. These social goals of the state give rise to the need for imposition of taxes of various kinds which restrain the growth of the economy. Imposition of taxes is viewed by most liberal scholars and by many Americans with skepticism since taxes may have adverse effect on the willingness to work and save. For example, direct taxes such as income tax compromise with the ability to save and invest. It also reduces the purchasing power of the consumers and therefore harms the capital accumulation of the economy.

As far as protectionism is concerned, the arguments of the founding fathers about protecting the 'infant' industries is no longer relevant since the United States has emerged as a developed nation and it is much ahead in economic prosperity than many countries. In fact the Gross Domestic Product (GDP) of some of the states in America is comparable to GDP of states across the world. To cite some of some examples, California's GDP of about \$2 trillion in 2012 is comparable to Canada's about \$1.82 trillion. In the same year the GDP of Texas (\$ 1.4 trillion) was more than the GDP of Mexico (\$1.18 trillion), New York's 2012 GDP of about \$1.2 trillion was comparable to South Korea's \$1.12 trillion and GDP of Colorado at \$274 billion crossing the

Egypt's GDP (\$254 billion).⁴ However, American is still criticized for providing subsidies especially in case of agricultural products where enhance its competitiveness in the international market that adds to the misery of the agriculture based economies of the Less Developed Countries (LDCs).

Economic Statecraft and Foreign Policy: Foreign Economic Policy of the United States of America

Economic variables are vital in determining foreign policy. The application of economic variables in foreign policy has been observed and prescribed by philosophers since time immemorial. Even realist scholars cannot ignore the role of economic factors in enhancing the power of a nation. The importance of economic statecraft as a tool of foreign policy dates back to 3rd Century BCE when Kautilya identified 'dana' as an important tool guiding foreign relations.⁵ Kautilya was one of the pioneering thinkers to acknowledge the role of economic diplomacy in international relations. Realist scholars like Morgenthau regards the role of military and hard power as essential parts of statecraft, but do not undermine the role of economic factors in enhancing the power of the state.

While explaining the idea of economic statecraft in is important to understand the nature, scope and domain of its influence. The idea of economic statecraft includes the following basic components:

- 1. Nature of policy instrument used in the influence attempt, i.e., economic
- 2. Domain of the influence attempt, i.e., other international actors

⁴ Kelley, Michael (2014), "This Map Shows How The GDP Of US States Compare To Countries Around The World", [Online: web]Accessed 10 February 2015, URL: http://www.businessinsider.in/This-Map-Shows-How-The-GDP-Of-US-States-Compare-To-Countries-Around-The-World/articleshow/29863595.cms

⁵ Arthashastra by Kautilya identifies four ways of conducting foreign policy. Known as the Chatur Upayas, the instruments of diplomacy include sama, dana, bheda and danda which means conciliation, concession, creating division and force, respectively.

3. Scope of the influence attempt, i.e., some dimensions of the target behavior (Baldwin 1985).

The United States of America understood the game of economic statecraft from the very beginning. The American tradition reflects that political decisions should be backed by economic rationality (Gilpin 1975). This is evident from the farewell address of the very first President of the United States of America, George Washington. Even when he urged "to steer clear of permanent alliances with any portion of the foreign world" he underlined that importance of economic diplomacy when he argued "to give to trade a stable course" (Washington 1796). Also scholarly discourses often reveal that for most of America's history, foreign and national security policy heavily resolved around foreign economic policy (Rosati and Scott 2011).

Thomas Paine, the noted author of *Common Sense* and sometimes depicted as one of the founding fathers of the American tradition of isolationism, was also a fervent believer in the utility of economic statecraft. In a ploy to preserve America's interest and secure its independence, he called for conducting trade and commerce with Europe and proposed setting up of an international organization of neutral states based on economic sanctions (Baldwin 1985). The Federalist Paper 6 can be cited to sum up the faith of the founding fathers in the power of trade and commerce.

"But ... there are still to be found visionary or designing men, who stand ready to advocate the paradox of perpetual peace between the States, though dismembered and alienated from each other. The genius of republics (say they) is pacific; the spirit of commerce has a tendency to soften the manners of men, and to extinguish those inflammable humors which have so often kindled into wars. Commercial republics, like ours, will never be disposed to waste themselves in ruinous contentions with each other. They will be governed by mutual interest, and will cultivate a spirit of mutual amity and concord" (Hamilton, The Federalist Paper No.6).

History is witness of the fact wars have been fought by the United States of America to secure its trade routes and further its commercial advantages. The Barbary Wars of 1801–1805 and 1815–1816 against the North African states of Tripoli and Algiers respectively, was fought by the

newly formed nation-state of America to secure its trade routes and ships navigating the Mediterranean Sea across the Strait of Gibraltar.⁶

Again, the annals of history unveils that America's overseas political ambitions have often been triggered by its economic prerogatives. Trade compulsions played a very important role in America's first venture in the Asia Pacific, i.e., the Spanish American War of 1898. While the currency of power in the 19th century was to have a colony, the Spanish American war of 1898 worked in two ways. It made America the patron of the island states of Philippines, Puerto Rico and Guam thereby making it a world power equivalent to other powers of the 19th century like Britain and France and its base in the Philippines served to fulfill the ultimate objectives of trading with China. This was evident since soon after the capture of the island states, Open Door Notes were sent to all the major powers wherein recognition of China's territorial integrity was upheld along with the most important clause of having equal trading rights of all states in all parts of China. It can be said that with the eye on Chinese market, America ventured out in the far off lands of the Asia Pacific.

The policy Isolationism i.e., not meddling with the affairs of Europe which helped America to preserve its national wealth and build up a strong foundation, made an exception for trade and commerce. The first President of the United States of America, George Washington believed, *"The great rule of conduct for us in regard to foreign nations is, in extending our commercial relations, to have with them as little political connection as possible. So far as we have already formed engagements, let them be fulfilled with perfect good faith. Here let us stop. Europe has a set of primary interests, which to us have none or a very remote relation. Hence she must be engaged in frequent controversies, the causes of which are essentially foreign to our concerns. Hence therefore it must be unwise in us to implicate ourselves, by artificial ties, in the ordinary vicissitudes of her politics or the ordinary combinations and collisions of her friendships or enmitties" (Washington's Farewell Address To The People Of The United States, 106th Congress 2nd Session), thus underlining the danger of entangling with the political turnoil of Europe and stressing on commercial engagements.*

⁶ U.S. Department of State, Office of the Historian, "Barbary Wars, 1801–1805 and 1815–1816", [Online: web] Accessed 10 March 2015, URL: https://history.state.gov/milestones/1801-1829/barbary-wars

It can be observed that the early American philosophers' emphasized mainly on trade and commerce as the main component of economic diplomacy. However, with the passage of time the content of economic linkages between states expanded and today the concept of economic diplomacy is played out by America in ways whose outreach is more than just trade and commerce. It includes investment by American companies in foreign lands, foreign economic aid and economic sanctions, among others. Economic statecraft can be used as a reward or as an instrument of punishment. It can take the form of economic sanction which can be categorized as positive sanction whose instruments include tariff discrimination, providing aid, granting Most Favored Nations (MFN) status, license giving, tariff reduction etc., and negative sanctions whose examples are embargo, withdrawal of MFN status, boycott, dumping, blacklist, quota, asset freezing, aid suspension.

For most of the First World War, America stayed as a neutral country; nevertheless it gained by supplying arms and ammunitions and was heavily involved in the financial outcomes, such as debt negotiations and German reparations. In the Second World War too, America's involvement remained limited to the status of being a supplier country until the Pearl Harbor bombing, which compelled America to actively join the war.

America by the end of the Second World War emerged as a powerful country with a flourishing economy. In the year 1948, the United States accounted for approximately 60% of world industrial output. In terms of technical advancement, it outpaced all other economically developed countries. While the Second World War brought misery and hopelessness to many of the western European countries, it was a boon in disguise for the United States. The United States made great achievements in new product design, new materials and technologies unknown in other countries. As a manifestation of this, America became the world's main exporter, accounting for over 23% of world exports in 1948. Furthermore, in the subsequent years the United States earned an enormous current account trade surplus with Western Europe and the rest of the world. This resulted in what is known as the dollar-gap in Western Europe. This dollar-gap that is, a long term shortage of dollar foreign exchange resources forced the United States to extend credit assistance and offer commodity deliveries of worth \$16.4 billion to the Western Europe (Bozyk 2006).

The Cold War which started soon after the end of the Second World War and continued for over four decades witnessed the use of economic statecraft for gaining supremacy. Behind the veil of missile and nuclear warheads, it was the game of economic diplomacy that was being played out by the Soviet Union and the U.S.A. For instance, the Marshall Plan was an economic assistance program that aimed at economic recovery and resulted in resurgence of European industrialization. It also acted as a stimulant to the U.S. economy by establishing markets for American goods. The heart of the Marshall Plan suggests, "It is logical that the United States should do whatever it is able to do to assist in the return of normal economic health in the world, without which there can be no political stability and no assured peace. Our policy is directed not against any country or doctrine but against hunger, poverty, desperation and chaos. Its purpose should be the revival of a working economy in the world so as to permit the emergence of political and social conditions in which free institutions can exist. Such assistance, I am convinced, must not be on a piecemeal basis as various crises develop. Any assistance that this Government may render in the future should provide a cure rather than a mere palliative. Any government that is willing to assist in the task of recovery will find full cooperation I am sure, on the part of the United States Government. Any government which maneuvers to block the recovery of other countries cannot expect help from us. Furthermore, governments, political parties, or groups which seek to perpetuate human misery in order to profit there from politically or otherwise will encounter the opposition of the United States" (Marshall 1947). The Marshall Plan was institutionalized as an integral part of U.S. foreign policy all through the Cold War years, forming the legalized concept of U.S. foreign aid programs. It represents an excellent example of economic diplomacy being used to enhance political power and national interest.

The aftermath of the Second World War also witnessed the establishment of the Bretton Woods Organizations⁷ under the guidance of the United States of America. This simply represents the picture of how America now wanted to manage the economies of nation-states worldwide. The centre of world politics shifted from Europe to North America under the auspices of the United States of America. American Dollar became the standardized measure of value and was equaled

⁷ Created in the year 1994, the Bretton Woods institutions were the culmination of the United Nations Monetary and Financial Conference. At the conference the member nations agreed to create a family of institutions to address critical issues in the international financial system. The IMF, World Bank and the WTO are integral part of the Bretton Woods institutions.

to gold, and the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD), commonly known as the World Bank were given the responsibility of maintaining price and exchange rate stability and giving developmental assistance to low and middle income countries, respectively. The Bretton Woods Organizations of 1944 thus guaranteed America's firm footing into the next century by laying down the rules governing the international economy. America thus introduced and institutionalized a perpetual system of economic hierarchy into the globalized economic order. As early as 1944, the United States of America invited forty three other countries to meet at Bretton Woods, New Hampshire, for the purpose of building a new international economic system, thus playing a pioneering role in setting up international economic/ financial organizations. Together with these countries, the United States established the International Monetary Fund (IMF), the International Bank for Reconstruction and Development (IBRD) or the World Bank, and the General Agreement on Tariffs and Trade (GATT).

The Bretton Woods Organizations were based on the principle of free market economy and trade liberalization. These organizations believed in achieving economic growth through the application of what is known as the 'Washington Consensus'. At the heart of this model lies the application of a set of ten policies framed by the United States which is thought to bring about speedy growth in developing countries. The main philosophy behind the Washington Consensus lies in achieving macroeconomic stability and implementing changes necessary in order to integrate with the world economy. This includes opening up of the economy for the purpose of free movement of goods, services and factors of production which in turn is held as indispensable to high labor and capital productivity. It restricts the role of the state and emphasizes on deregulation and privatization of ownership in industry, agriculture and services. It underlines the replacement of public ownership by private ownership in all spheres of economic activity in order to induce efficiency. Along with this it emphasized the role of Foreign Direct Investment (FDI) and protection of intellectual property rights The IMF and the World Bank and the GATT which was later succeeded by the World Trade Organization (WTO) have adopted these principles, requiring indebted countries to implement them as an indispensable condition for obtaining credit assistance from these institutions. The IMF, World Bank and the

WTO thus became the chief proponents of an economic policy pursued under globalization in line with the 'Washington Consensus'.

The end of the cold war witnessed a new beginning of America's supremacy where the function of the Bretton Woods Organizations became significant along with the worldwide implementation of the policies under Washington Consensus. Therefore the fall of the Soviet Union and the resultant victory of the United States of America maintained and upheld the significance of economic statecraft where borderless economy remains the objective. America emerged as the undisputed superpower dominating the unipolar world structure.

Significance of U.S. Foreign Economic Policy:

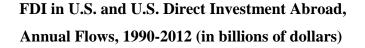
The United States is an economic giant that invests enormous amount of money in foreign lands and is also one of the world's largest consumers of goods and services. The U.S. direct investment abroad was more than \$400 billion in 2011. U.S. firms are the most prolific overseas investors: a recent study by the United Nations indicates that U.S. firms are the largest foreign direct investors in the world and own as much abroad as the British and German investment combined, the next largest foreign direct investors (Jackson 2013). It is known as the engine of world economic prosperity.

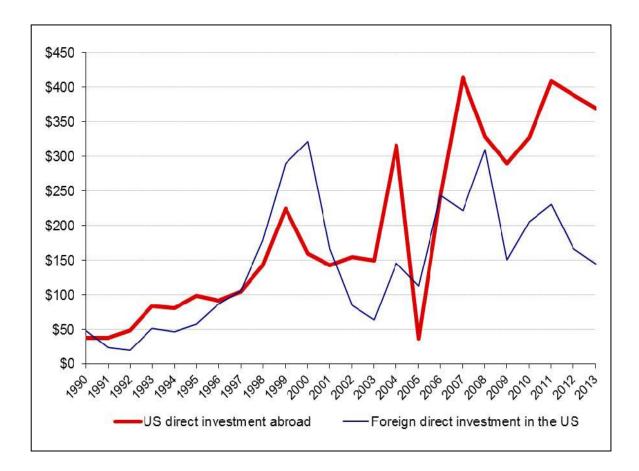
Foreign economic policy being one of the most important instruments of enhancing America's position in the world, calls for a series of dedicated Executive Branch Organizations which confer utmost significance to pursing America's interest in global economic policies. The Executive Branch Organizations includes Executive Office of the President (EOP), the Executive Departments and other agencies. Included in the EOP are the Council of Economic Advisors, the Office of Management and Budget, Office of U.S. Trade Representative and National Economic Council. The Executive Departments entrusted with economic policy making with regard to foreign policy are the Treasury Department, the State Department, Agriculture Department, Commerce Department, Energy Department and Labor Department. Other agencies which work towards advancing and protecting U.S. foreign economic policy objectives are the Federal

Reserve System, U.S. Agency for International Development, Export- Import Bank, Overseas Private Investment Corporation, Trade and Development Agency and others such as Commodity Futures Trading Commission (CFTC), Federal Deposit Insurance Corporation (FDIC), Securities and Exchange Commission (SEC), Federal Trade Commission (FTC) (Rosati and Scott 2014). Some of the Executive Departments have bureaus devoted to particular objectives or areas such as the Bureau of Economic and Business Affairs (EB), which forms an integral part of the US State Department and whose responsibility is to promote economic security and prosperity at home and abroad. The Bureau's work lies at the critical nexus of economic prosperity and national security.

The significance of U.S. foreign economic policy can be understood by analyzing the annual flow of FDI into the country and the country's FDI investments abroad. The graph shows the tradeoff between the Foreign Direct Investment in the United States and U.S. Direct Investment Abroad, Annual Flows, 1990-2012 (in billions of dollars)







Source: Data from U.S. Department of Commerce as cited in Jackson, James K. (2013), "U.S. Direct Investment Abroad: Trends and Current Issues", [Online: web] Accessed 11 March 2015, URL: http://fas.org/sgp/crs/misc/RS21118.pdf

Also, Overseas Grants and Loans form an essential part of US foreign economic policy. These may be of economic and military nature. According to the annual report submitted to the Congress by the 'U.S. Overseas Loans and Grants', informally called 'Greenbook' which is responsible for summarizing United States Government foreign assistance data as per the

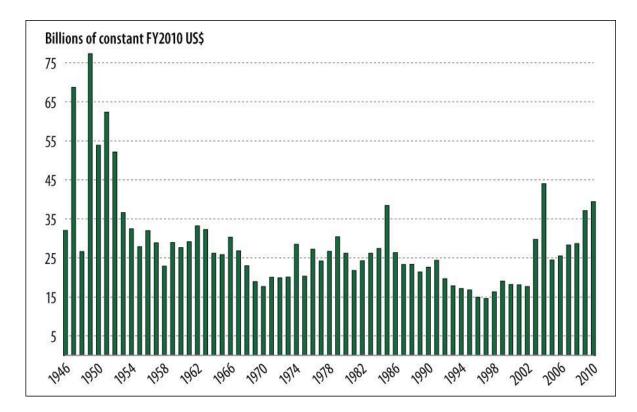
Foreign Assistance Act of 1961, the United States of America total foreign assistance in 2012 amounted to (current US\$) \$ 48,426,782,206.00 of which \$ 31,204,816,037 was for economic purpose while military aid amounted to \$ 17,221,966,169⁸.

A major part of the overseas grant is spent on providing humanitarian assistance. As per the reports of the Global Humanitarian Assistance (GHA) program, humanitarian assistance accounted for 12.9% to 16.8% of the United States Official Development Assistance making the American government the world' largest provider of humanitarian assistance in the past decade. In 2013, humanitarian assistance was U.S. \$ 4.7 billion making the United States the largest donor of official humanitarian assistance. The countries of the Sub-Saharan region have generally been the foremost beneficiary of the humanitarian assistance program.

The following table is representative of the amount of foreign aid provided by the United States of America from 1946 to 2010.

⁸ USAID From the American People, "FY 2012 Total Foreign Assistance Profile: Summary Of All Countries" [Online: web] Accessed 11 March 2015, URL: https://eads.usaid.gov/gbk/data/profile.cfm

Figure 1.2 U.S. Foreign Aid: FY1946-FY2010



Sources: U.S. Overseas Loans and Grants (Greenbook), Office of Management and Budget Historic Budget Tables, FY2011; annual appropriations legislation and CRS calculations as in Congressional Report "Foreign Aid: An Introduction to U.S. Programs and Policy" URL: http://fas.org/sgp/crs/row/R40213.pdf

Trade, investment along with foreign aid acts as a soft power due to its capability to influence the political and economic imperatives of another state. It can be used to reward a friendly nation or can be used to punish a potential enemy.

The United States of America has come a long way since the declaration of independence in July 4, 1776. Foreign economic policy forms a necessary corollary to the ethos of Americanism that pledges "allegiance to the flag of the United States of America, and to the republic for which it stands, one nation under God, indivisible, with liberty and justice for all" (Pledge to the American Flag).

Over the years, foreign economic policy has become diverse and robust. The United States promotes its economic interests through international organizations, bilateral agreements by coaxing states to comply with its directives which are far from being impartial. The American economy interacted with the world by means of trade and investment and also by providing grants, aid and assistance. What ushered in the era of globalization is the use of economic statecraft in an extensive manner as a means of both rewards and punishments. Wherein rewards were given by America in terms of MFN status, some of the common forms of punishments included sanctions, waiving of MFN status, embargo etc. The compulsions of globalizations have benefitted the United States like never before refuting the arguments of scholars and theoreticians who talked about the fall of the leader of the capitalist liberal order.

U.S. Foreign Economic Policy and Intellectual Property Rights: IPR as a Tool of Economic Diplomacy

While the popular and well known instruments of economic statecraft is elaborated in the above discussion, the power of having control over knowledge and information, creativity and inventiveness and even the capacity to think is what makes the idea of intellectual property (IP) the most potent tool of economic diplomacy.

By assigning exclusive property right over intellectual capability, states appropriate control over knowledge and market and seek to influence economic and political decisions of another states. Recognizing this, the United States of America, made the protection of intellectual property rights an integral part of its Constitution. Article I, Section 8, of the U.S. Constitution granted to Congress the power, *"To promote the progress of science and useful arts, by securing for limited times to authors and inventors, the exclusive right to their respective writing and discoveries"* (Constitution of the United States of America, Article I, Section 8).

It is generally agreed that knowledge and innovation have played an important role in recent economic growth. Studies by economists such as Paul Romer established the existence of a positive linkage between knowledge and economic growth. Knowledge is held as the most effective means to reach the end of high economic growth (Idris 2003). Therefore it can be argued that countries that seek to bring about rapid growth should enact policies to encourage investment in Research and Development (R&D) in knowledge based commodities.

Intellectual Property is now one of the most valuable assets in commercial transactions, whether in international agreements, manufacturing, licensing, purchase or distribution agreements, mergers and acquisitions. Though intangible in nature, it undoubtedly plays a vital role in all major tangible transactions. It restricts competition and creates a unique opportunity for research and development. What is noteworthy is the kind of politics that goes into the formulation of intellectual property laws. The laws which guide economic activities are actually formulated with the aim of fulfilling political objectives and here lies the crux of intellectual property regimes and its governing bodies as a tool of foreign policy. The subsequent chapters will explain the role of intellectual property in enhancing the comprehensive power of a nation and will also analyze the dynamics of power play behind its formulation and application.

EVOLUTION OF IPR ISSUES IN U.S. FOREIGN ECONOMIC POLICY

"The future of the nation depends in no small part on the efficiency of industry, and the efficiency of industry depends in no small part on the protection of intellectual property."

Richard Allen Posner

Introduction

The influence of the liberal school of political economy has had a profound influence in shaping American ideas and ideals. American foreign policy has evolved over the years and in this sense represents the core beliefs and values of 'Americanism' which in turn has been shaped by its historical legacies and recent experiences. It can be argued that foreign policy making in the present century is not only limited to 'shaping the world in its own image' but also about taking into account the developments around the world and protecting those interests which are important for the nation.

Foreign economic policies are actions by the state intended to influence the economic environment beyond the national jurisdiction. It can be regarded as hybrid, combining general elements of foreign as well as economic policy (Cohen 1977). The search for an apt foreign economic policy which would fulfill a nation's ambitions does not end with the mere exercise of political power but by integrating with the globalized world economy and carving out an area of influence within it. In this sense foreign economic policy can be defined as 'governmental actions intended to affect the international economic environment' (Baldwin 1985).

Cohen points out the duality of character in U.S. foreign economic policy. The goals of U.S. foreign economic policy are not limited to cultivating a favorable international economic environment. The goals also take into account the needs and priorities of domestic economic environment since the external sectors contribute to a major portion in economic prosperity at home (Cohen 1977). In this sense foreign economic policy serves as a means to achieve the dual ends of both domestic and foreign policy, namely a prosperous America and a flourishing global politico- economic environment. Foreign economic policy also forms a part of the larger goals of American national security strategies. It therefore works as a tool to accomplish national security objectives.

The 21st Century is a world driven by ideas and knowledge. The rise of the knowledge economy or the information economy is an economy built largely on intellectual property. Intellectual property rights (IPRs) foster creativity, enhance capability and also benefit a nation while engaging in international trade. America today is known as the leading exporter of knowledge and technical know-how and hence stronger regimes of intellectual property rights are essential to protect knowledge from illegal encroachment. Thus we witness the massive expansion of intellectual property rights laws. In this chapter the critical issue of intellectual property rights and their evolution in United States foreign economic policy will be examined along with delineating the philosophical, economic and legal rationale behind having such Intellectual Property (IP) protections. This chapter also emphasizes how intellectual property rights work to further American goals and interests worldwide.

What are Intellectual Property Rights?

The term intellectual property was first used in print by an American librarian Lysander Spooner while arguing that scientists and inventors must have the permanent property rights in their ideas (Christopher and Sell 2006).

Intellectual Property as the name suggest are products of one's own intellectual capability and mental exertion. It is unique in the sense that it is a creation of mind and is exclusive to an individual. The attribution of the term property to intellectual capability makes its owner or creator use it or share it in a manner which is equivalent to any tangible property. The creator or

owner of intellectual property benefits from the exclusive right granted to him/her in deciding the terms of its market exchange and any profit accrued from the said exchange. Though being intangible in nature, it works as a fixed asset in profit making and in furthering research and development.

The World Intellectual Property Organization (WIPO) which was established in 1970 to encourage creative works and protect intellectual property worldwide defines intellectual property rights as 'creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce.⁹

Article 2 (viii) of the Convention Establishing the World Intellectual Property Organization provides that "intellectual property shall include rights relating to:

- Literary, artistic and scientific works,
- Performances of performing artists, phonograms and broadcasts,
- Inventions in all fields of human endeavor,
- Scientific discoveries,
- Industrial designs,
- Trademarks, service marks and commercial names and designations,
- Protection against unfair competition, and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic field.¹⁰

As per the categorization of the WIPO, intellectual property can be of 5 types, namely, copyrights, patents, trademarks, industrial designs and geographical indicators. These five typologies are grouped into two broad categories such as Industrial Property and Copyrights.

⁹ World Intellectual property Organization (WIPO), "What is Intellectual Property?" [Online: web] Accessed 2 April 2015, URL: http://www.wipo.int/about-ip/en/

¹⁰ Embassy of the United States, New Delhi, India, "IPR Toolkit - Intellectual Property Rights (IPR) in India" [Online: web] Accessed 2 April 2015, URL: http://newdelhi.usembassy.gov/ipr.html

Under Industrial Property patents for inventions, trademarks, industrial designs and geographical indications are included while Copyright covers a whole range of subjects from literary works (such as novels, poems and plays), to films, music, artistic works (e.g., drawings, paintings, photographs and sculptures) and architectural design. Rights connected to copyright comprise performing artists and their performances, producers of phonograms in their recordings, and broadcasters in their radio and television programs.¹¹

As enunciated by the WIPO, the 5 types of IPRs can be summarized as follows:

Copyright applies to cases where there is some kind of artistic skills involved. It is a legal expression whereby the rights of the creators of literary and artistic works are safeguarded. It can be applied in case of books, poems and plays, musical and dance compositions, paintings, sculptures, computer programs, advertisements and movies, databases and the like. The holders of copyrights enjoy exclusive rights over their creations or can permit others to use the works on agreed terms. Copyright generally begins with the creation of the products and its duration is normally not less than 50 years after the death of the creator but states can extend the duration of copyright as it may deem necessary, enabling both the creator and the successor of the creator to benefit from the creation.

Patent is an exclusive right granted to an inventor of a product or process that presents a novel and new way of doing something or provides a new technical solution to an existing problem. Patent rights provide the inventor with protection for their invention for a period of 20 years. The grant of patent rights makes it mandatory for the third party to seek consent from the patent owner on mutually agreed terms before the invention is commercially made, used, sold or distributed. However, after the expiry of the term of the patent the invention is legally made available in the public domain and can be used for commercial purposes by others.

Trademark is a distinctive sign or mark which enables identification of goods or services of one enterprise from those of other enterprises. The practice of having trademark as a sign of uniqueness to a particular provider of similar and competing goods and services dates back to ancient times. However, what is new in modern industrial societies is the system that facilitates

¹¹ World Intellectual Property Organization (WIPO), "What is Intellectual Property?", [Online: web] Accessed 2 April 2015, URL: http://www.wipo.int/edocs/pubdocs/en/intproperty/450/wipo_pub_450.pdf

trademark registration and protection. Trademark has its own economic utility in the sense that it facilitates the creation of brand name since consumers identify themselves to particular brands and their trademarks bringing into effect what is known as brand loyalty. Trademark may consist of one of more letters or words, signs, symbols and drawings. There may be other kinds of trademark which are given by certification bodies to establish the standard of the product. These are, for example Indian Standards Index (ISI), International Organization for Standardization (ISO), Agriculture Mark (Agmark) certifies the products of having certain quality standard and thus increases their sale by establishing reliability in the minds of the consumers.

Industrial Designs represents the 'ornamental or aesthetic aspect' of an article. It may consist of a 'three-dimensional features, such as the shape or surface of an article, or of two-dimensional features, such as patterns, lines or color.'¹² The IPR in case of industrial design is applicable to a wide range of products such as handicrafts, textiles, medical instruments, electrical appliances, consumer goods, leisure products, vehicles and architectural instruments among others. The conditions for protection under industrial design suggest that the design should be novel and non-functional and must have an aesthetic sense in it. The technical part of the design is not protected by this particular IPR, but it may be protected by patent. Protection under industrial design is generally for a minimum period of 5 to a maximum of 15 years and encourages the innovation of both commercial and traditional sectors by making the article attractive and enhancing exportability of the products.

Geographical Indicators are signs used on goods demarcating their specific geographical origin and signifying that they possess certain qualities, reputation or characteristics which are intrinsic to their place of origin. Hence as the term indicates, they indicate the geographical location of the source of the product. Generally, a geographical indicator includes the name of the place of origin of the goods such Darjeeling Tea, Georgian wine, Roquefort cheese. These indicators by virtue of their name itself enable the consumers to denote their quality and thus add to their sale irrespective of their prices. The protection of geographical indicators generally takes place in accordance with the national laws of the country and is also protected by laws such as laws

¹² World Intellectual property Organization (WIPO), What is Intellectual Property? Accessed 2 April 2015,http://www.wipo.int/edocs/pubdocs/en/intproperty/450/wipo_pub_450.pdf

against unfair competition, laws for protection of certification marks or laws enacted to protect for the purpose of protecting geographical indicators.

While the broad meanings and ethos of protection remains uniform in all countries, states have evolved various mechanisms to protect the exclusivity granted to an individual/ institution by means of intellectual property rights. Some of these mechanisms are common to all states, i.e., by means of international laws or declarations overseen by international organizations while some are national laws which determine the rights and remedies within the boundaries of the state. Whereas some of these laws might differ in their content, their core concern remains the same, that is, when intellectual capability is 'propertized' by making it a part of legally enforceable property rights, the right holder gets full protection from infringement and also enjoys a full range of remedies that owners of physical property have.

The birth of the system of intellectual property has often been assigned to the period of Renaissance. The Venetian law of 1474 was the first systematic endeavor to safeguard inventions by a form of patent that granted exclusive right to an individual (Idris 2003). Later intellectual property was safeguarded through statutes, for example the Statutes enacted in England that granted monopoly rights to inventors or creators. The Statue of Monopolies enacted in 1623, called for protection for a period of fourteen years to 'the true and first inventor and inventors'¹³ of new manufactures and processes, while the 1710 Statute of Anne was the first statute to provide for copyright of printed books. The rising drive towards valuation of knowledge as intellectual property can be attributed to the 'post-industrial society'¹⁴ which marked a new stage in the treatment of knowledge equivalent to physical property and as a saleable commodity. The intellectual property regime as we know today began with the Paris Convention for the Protection of Industrial Property in 1883 which enabled individuals of a particular country to

¹³ The National Achieves, United Kingdom, "Statute of Monopolies 1623", [Online: web] Accessed 5 April 2015, URL:http://www.legislation.gov.uk/aep/Ja1/21/3/section/VI

¹⁴ The term post industrial society was popularized by Daniel Bell in his book, *The Coming of the Post Industrial Society: A Venture in Social Forecasting*, published in1973. Post industrial society is regarded as the next historical stage after the industrial society which is characterized by a transition from a manufacturing-based economy to a service-based economy, hence the intangible modes of production such as knowledge, skill, expertise assumes significance.

obtain IP protection globally. This was followed by the 1886 Berne Convention for the Protection of Literary and Artistic Works which was an international agreement governing copyright. Since then legislations safeguarding intellectual property has evolved over the years, with its ever expanding jurisdiction and states working to protect and promote intellectual property. Its importance can be measured by its inclusion in Article 27 of The Universal Declaration of Human Rights (UDHR) making it one of quintessential elements to the realization of human rights.

"1. Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.

2. Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author" (The Universal Declaration of Human Rights, Article 27)¹⁵

Rationale for Intellectual Property Rights

The product of one's own intellectual capability becomes property when the exclusivity is granted to the creator of the product in terms of ownership, usage, further research, transfer including determining conditions for market exchange conditions.

There are three underlying principles for justifying intellectual property rights:

Philosophical Rationale:

While there are vast amount of literatures defending property rights, some of the erudite scholars have highlighted the following point:

The foremost philosophical defense of intellectual property rights comes from the 17th Century scholar John Locke, who pioneered the idea of human beings having the inalienable rights to life, liberty and property and rejected the divine right theory of political sovereignty. According to

¹⁵ The Universal Declaration of Human Rights, [Online: web] Accessed 10 April 2015, URL: http://www.un.org/en/documents/udhr/index.shtml#a27

Locke, "Though the earth, and all inferior Creatures be common to all men, yet every man has a Property in his own Person. This no Body has any Right to but himself. The labour of his body and the work of his hands, we may say, are properly his. Whatsoever then he removes out of the state that nature hath provided and left it in, he hath mixed his labour with it, and joined to it something that is his own, and thereby makes it his property. It being by him removed from the common right of other Men. For this labour being the unquestionable Property of the labourer, no Man but he can have a right to what that is once joined to, at least where there is enough, and as good left in common for others" (John Locke, Second Treatise, section 27).

Summarizing Locke's labor theory of property, Robert P. Merges states that individual appropriation occurs through the exercise of labor. A person is the self-owner of his labor therefore whatever gainful endeavor that he makes by toiling on resources must be appropriated to him. Such harnessing of resources found in the 'common' with the use of one's labor gives rise to private property (Merges 2011). In the *Second Treatise*, Locke goes further to argue that people come together to form government on the basis of this right to individual appropriation.

It can be deducted from the Lockean proviso¹⁶ that the idea of self-ownership and individual liberty are ingrained in Locke's understanding of property. Here it is worth mentioning that property rights for John Locke are only a natural outcome of particular historical construct of the state of nature in wherein all things were held in common. An individual who is the owner of his labor works upon the resources which are 'held in common' to produce a commodity and hence has the rightful claim upon his fruits of lab our and that state has the duty to respect and protect such ownership as a part of natural right. The Lockean proviso can be applicable to intellectual property where labor is regarded as the most important factor, which adds value to raw material (in terms of knowledge) and which is in some way 'held in common'. Individual liberty is served by granting the right to property, i.e., the fruits of labor. Locke, however, provided for a safety valve by arguing that one should appropriate property while 'leaving as good and enough for others.'

¹⁶ The term Lockean proviso was used by American political philosopher Robert Nozick in book 'Anarchy, State and Utopia' (1974).

Self-ownership is significant since it leads to the argument of utility. This is to say that self ownership provides incentives which lead to the efficient utilization of the scarce resources of the world thus boosting the social value of the commodity by encouraging innovation, research and development of new products and services.

The idea of property as vital to the realization of social existence has also been espoused by the 18th century German philosopher Georg W.F. Hegel in his most notable work *Grundlinien der Philosophie des Rechts* (Elements of the Philosophy of Rights). Here he opines that property is the prerequisite to the achievement of freedom and is the expression of individual will. The Hegelian tradition of acknowledging property can be analyzed as 'self-developmental' enabling human beings to fully realize and express their individual personalities (May 2000).

The existence of the states is justified as its bargain with the civil society for the purpose of protecting property. *"The reasonableness of property consists in its satisfying our needs, but in its superseding and replacing the subjective phase of personality. It is in possession first of all that the person becomes rational. The first realization of my freedom in an external object is an imperfect one, it is true, but it is the only realization possible so long as the abstract personality has this first-hand relation to its object."¹⁷*

The rationale for intellectual property can be drawn from this since the Hegelian concept of property also suggested that the creative acts resulting into property and leading to development of personality is the logical transformation of the material reality. Intellectual property has often been viewed as the powerful means to externalize or extend subjectivity which according to Hegel is the prerequisite to the attainment of freedom (Richards 2004).

The philosophical rationale behind intellectual property provides the theoretical justification of the contemporary nature of it, acting as the base where the superstructure of rights and penalties for its violation can be structured upon. They form the background for the legal and economic justifications to be built upon. However, what is common in all these arguments is the basic premise of individual being the primary owner of his property (here knowledge) and the state as the protector of that property exercising authority by enacting legal provisions.

¹⁷ Hegel, Goerg W.F., (1996), The Philosophy of Right, translated by S.W. Dyde. Amherst, New York: Prometheus Books

Economic Rationale

In economic terms, intellectual property differs from physical property since the depreciation cost of knowledge is nil and its stock remains intact on successive usage. However, if regarded as a 'free good' where availability is not contingent upon the ability to pay a price for its procurement, the producer may lose the incentive to create since its original creation may be an expensive and time consuming proposition. The basic economic argument behind intellectual property rights is that it gives economic incentive for innovation of new commodities/ ideas and therefore generates a surplus by charging a price that is higher than the marginal cost of the product. This is to say that revenue earned must be able at least to cover the average variable cost of production. Again, the value of the original idea/ product cannot be equaled to the value of the reproduced one; hence the protection should be over how other people utilize the original idea. Protecting intellectual property would make the knowledge and availability scarce by preventing free consumption and utilization of products of invention, scientific discoveries, artistic and literary works. Intellectual property therefore qualifies to be an 'economic good', that is, goods produced by means of resources having alternative uses, capable of satisfying human wants and having a definite economic value measured in terms of money.

Douglas North argues for intellectual property rights on the premise that mobilization and efficient allocation of scare resources can only be realized by the institution of property where market acts as the medium of exchange by transferring it to those who can make the best use of it (North 1990).

However, the economic rationale of intellectual property rights is not limited to the argument of providing incentives to create intellectual property. Intellectual property rights grant monopoly to the holder of that particular property. Economic analysis of intellectual property laws helps to analyze the commonalities and differences that may exist across various interpretations of laws regulating intellectual property rights. That is to say that among different legal rulings, there are some common set of ideas and empirical clarifications that guide them. The economic scrutiny of these legal provisions makes us understand these common philosophical and empirical motivations. Hence, though being different in their scope and nature of applications, the laws stem from some common ideas and try to achieve similar goals.

What the economic rationale fails to justify is the effect of intellectual property rights on social welfare. Though it is argued that trademark is a rationally designed system for minimizing consumer search costs and that some patents and copyrights do generate welfare, there is no way for justifying the current 'scope and duration' of patent or copyright protection as optimal. The question remains that if the transaction costs and access exceeds the probable advantages and incentives to produce socially useful intellectual property, then the production or motivation to creating such property is reduced. It is often observed that since a large amount of knowledge from the existing intellectual property is used in creating new socially useful intellectual property i.e., as an input in furthering research and development, the rising cost of it will hamper new developments. This will bring development of socially useful commodities to a standstill, adversely affecting social welfare (Landes, Posner 2003).

However, the transformation of knowledge into property by attributing it to the notion of scarcity plays a vital role in the operation of modern day neo-capitalism.

Legal Rationale

The legal rationale behind having property rights is that it serves as the way for the settlement of disputes in society thus helping in avoiding or solving conflict. The root of these rules and regulations are however based on some economic, moral or philosophical justifications.

The laws relating to intellectual property rights stem from ordinary basic property laws relating to protection of physical property. And it is important to note that the basic economics of property holds true for both physical property and intellectual property.

Laws relating to intellectual property rights vary widely from country to country and they are shaped by various factors, such as historical experience, developmental priorities etc., which are specific to that particular nation. It can be argued that the legal rationale behind intellectual property protection codifies the ideological belief and perception of a particular society about how information and knowledge should be regulated.

The aim of the legal provisions protecting intellectual property rights is to strike a balance between the exclusivity of usage and also the public utility that can be served through such creation. It seeks to strike equilibrium between the private rights for reward and the public needs for accessibility to knowledge. This optimum balance can be obtained by assigning a definite time limit for the exclusivity of IPRs (May and Sell 2006). Nation states frame their own intellectual property right laws which are required to conform to the broad outlines laid down by the international intellectual property rights regime.

America's IPR Policy: Protecting Intellectual Property in Foreign Lands

The United States stands for protection of intellectual property rights since it believes that strong IP protection "spurs innovation and job creation, turns innovative ideas, creative designs, and other intangible assets into valuable business assets, is integral to the rule of law and good governance and promotes public health and safety by combating fake goods."¹⁸ Recognition of innovative capability and its protection through legal mechanisms is essential since the strength and vitality of the U.S. economy is directly related to the innovative capability which in turn encourages investment in creativity.

As such, property rights are intrinsic to the American ideals and the property rights are regarded as equivalent to the protection of life and liberty. Such an expression finds place in the Declaration of Independence which suggests, "*That all men are born equally free and independent, and have certain natural, inherent and inalienable rights, amongst which are, the enjoying and defending life and liberty, acquiring, possessing and protecting property, and pursuing and obtaining happiness and safety.*" (Pennsylvania Constitution of 1776, Declaration of Rights). Again, the 14th Amendment to the Constitution states that "…*nor shall any state deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws*" (Fourteenth Amendment (Amendment XIV) to the United States Constitution ratified on July 9, 1868).

The specificity of intellectual property and its protection finds place in the Constitution of the United States of America which forms the primary document comprising the ethos of protecting

¹⁸ U.S. Department of State: Diplomacy in Action, "Why Intellectual Property Matters", [Online: web] Accessed 10 April 2015, URL: http://www.state.gov/e/eb/tpp/ipe/why/index.htm

intellectual property rights. It entitles the Congress with powers "*To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries*" (Article I Section 8 of the Constitution of the United States of America).

Thomas Jefferson, one of the founding fathers of the United States of America recognized the significance of ideas and knowledge as the driving force behind economic progress. In his letters to Isaac McPherson he stated, '...If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea, which an individual may exclusively possess as long as he keeps it to himself; but the moment it is divulged, it forces itself into the possession of every one, and the receiver cannot dispossess himself of it.'¹⁹

Hence, the significance of intellectual property in American thought dates back even before the promulgation of the Constitution of the United States of America. With the dawn of the information age, the protection of intellectual property rights has become one of the most important agendas in international trade. There are a range of bilateral and multilateral treaties that the U.S. has entered into that protects and promotes intellectual property rights of American firms in foreign lands. Also clauses of protection of intellectual property rights remain one of the most important provisions while negotiating a regional economic integration treaty such as the North American Free Trade Agreement (NAFTA) between the Government of Canada, the Government of the United Mexican States and the Government of the United States of America.

The United States achieved a major breakthrough in 1994 by playing the pioneering role in negotiating the most important agreement on IPR protection. The Trade Related Aspects of Intellectual Property Rights (TRIPs) was negotiated as a part of the General Agreement on Tariffs and Trade (GATT) in 1994 and was brought into force in 1996, thus creating conditions where the participation of nation states in bilateral and multilateral trading system became contingent upon the enactment of requisite provisions for protection of intellectual property.

¹⁹ Jefferson (1813), "Thomas Jefferson to Isaac McPherson" Article 1, Section 8, Clause 8, Document 12, Writings
13:333—35, [Online: web] Accessed 10 April 2015, URL: http://press-pubs.uchicago.edu/founders/documents/a1_8_8s12.html

Apart from this, the United States has specialized bodies and actors which are entrusted with protection, promotion and enforcement of intellectual property rights as part of the greater role to protect American trade and business. The tasks of some of these bodies are briefly stated below:-

U.S. Department of Commerce: The Office of Intellectual Property (OIPR) under the aegis of the U.S. Department of Commerce works towards protecting intellectual property rights. It has bureaus such as the International Trade Administration (ITA), United States Patents and Trademark Office (USPTO).²⁰ All these agencies participate in bilateral consultations targeted towards strengthening intellectual property laws in other countries.

USPTO: In accordance with the Constitutional directive of protecting intellectual property rights (Article I, Section 8 Clause 8), the United States Patents and Trademark Office (USPTO) was set up. The USPTO is a federal agency for granting U.S. patents and trademarks registration. It encourages American industries to focus on new inventions and generates employment to millions by registering trademarks based on the commerce clause of the Constitution. The USPTO by granting patents and trademarks to innovation and creativity encourages research on knowledge and forms the avant-garde of the country's economic progress and achievement. The USPTO also works to enforce IP regimes among U.S. trading partners. With the enactment of the American Inventors Protection Act of 1999 (AIPA) (P.L. 106-113) the USPTO was empowered to advise the President through the Secretary of Commerce and the U.S. Federal agencies on IP policies to be undertaken, IP protection and enforcement, and to ensure effective and stronger IP protection worldwide. It ensures effective protection of intellectual property of U.S. companies operating in other countries by coordinating with other international and intergovernmental agencies and supervises trade and other agreements to ensure the effective protection of intellectual property rights. Apart from this, the USPTO provides training, education in intellectual property rights protection and also runs capacity building programs to increase awareness about IP protection.²¹

²⁰U.S. Department of Commerce, "U.S. Government Agencies", [Online: web] Accessed 10 April 2015, URL:http://www.stopfakes.gov/us-gov-agencies/us-department-commerce

²¹ The United States Patent and Trademark Office (USPTO), "About Us" [Online: web] Accessed 10 April 2015, URL: http://www.uspto.gov/about-us

IPC: The Intellectual Property Committee (IPC) was created in 1986 as an ad hoc coalition of thirteen major American corporate houses such as the Bristol-Myers, Food Machinery Corporation (FMC), Monsanto, General Electric, International Business Machines (IBM), Johnson & Johnson, General Motors, Hewlett-Packard (HP), Merck, Pfizer, DuPont, Rockwell International and Warner Communications. The IPC played an important role in the GATT negotiation process by pushing for a broad based intellectual property agreement. The IPC's role during the GATT negotiation remained that of convincing corporate houses in Europe, Japan, and Canada for the need of IPR rules and regulations (Drahos 2003). Hence it is clear that from the very beginning the U.S. corporations wanted to enlarge the sphere of intellectual property rights for their own gains and thus moved the government of the United States, who played the pioneering role in bringing about an international agreement for the protection of intellectual property-- TRIPS. In fact, managerial capitalism of the American economy is based on IPR protection of American business enterprises operating in foreign lands

IPE: Towards the goal of protection of IPR laws both with its territorial boundaries and also in foreign lands, the office of international Intellectual Property Enforcement (IPE) has been set up that endorses U.S. innovation worldwide by advocating effective protection and enforcement of IPRs around the world. IPE's aim is to create market access for American commodities (i.e., goods and services), boosting U.S. business and private sector by strengthening economic rules and norms. The IPE team works closely with the State Department's embassies, consulates, and missions to ensure that the interests of American rights holders are upheld overseas, and to highlight the vital role of IPR protection in supporting global economic stability. In addition to this, the IPE takes active part in bilateral and multilateral negotiations on issues relating to IPR. The Office of the IPE is also instrumental in public diplomacy initiatives to increase awareness about IPR. It plays active role in combating piracy and counterfeit goods.²²

IIPA: The International Intellectual Property Alliance (IIPA) like the IPC is also the manifestation of the coalition of interests of U.S. companies in their endeavor to protect and enforce IPRs. The IIPA mainly works towards protecting over 3200 copyright based industries operating throughout the world. Acknowledging the fact that the U.S. copyright based industries

²² U.S. Department of State, Diplomacy In Action, "Intellectual Property Enforcement", [Online: web] Accessed 12 April 2015, URL: http://www.state.gov/e/eb/tpp/ipe/index.htm

are one of strong and vibrant sectors of the American economy, the IIPA's function encompasses a wide arena of copyright goods, such as all types of computer software, television programs, films, compact disks (CDs), digital versatile discs (DVDs) or any kind of digital representations of audiovisual works, music, records, and audiocassettes; books of fiction and non-fiction category, education instructional and assessment materials, journals of professional and scholarly types , all formats of software and databases. IIPA was instrumental in aiding the U.S. government in the negotiations leading to the passage of the TRIPs at the WTO. As a nongovernmental organization, it works as the chief representative of the U.S. copyright industries in all international negotiations by taking part in activities of the WTO and the WIPO among others.²³ The IIPA works in congruence with other departments such as the U.S.TR helping in the implementation of IPR in U.S. Free Trade Agreements (FTAs).

The Department of State and USTR: Till the early 1960s, matters relating to U.S. Trade and investment diplomacy and President's trade agreement program were overseen by the Department of State. However, with the passage of the Trade Expansion Act of 1962, the Special Representative for Trade Negotiations was appointed by the President to carry out U.S. trade negotiations. Under the new Act, the Special Trade Representative was entrusted with the responsibility to serve as the chair of a new interagency called the United States Trade Representative (USTR) and advise the President on trade agreement program. The USTR came to play the most significant role of fostering U.S. trade interests globally.²⁴ The area of expertise of the USTR includes:

- "Bilateral, regional and multilateral trade and investment issues
- Expansion of market access for American goods and services
- International commodity agreements
- Negotiations affecting U.S. import policies

²³ International Intellectual Property Alliance (IIPA), "International Intellectual Property Alliance (IIPA): Representing The U.S. Copyright-Based Industries for 30 Years", [Online: web] Accessed 12 April 2015, URL: http://www.iipa.com/aboutiipa.html

²⁴ The United States Patent and Trademark Office (USPTO), "About Us" [Online: web] Accessed 12 April 2015, URL: http://www.uspto.gov/about-us

- Oversight of the Generalized System of Preferences (GSP) and Section 301 complaints against foreign unfair trade practices, as well as Section 1377, Section 337 and import relief cases under Section 201
- Trade, commodity, and direct investment matters managed by international institutions such as the Organization for Economic Cooperation and Development (OECD) and the United Nations Conference on Trade and Development (UNCTAD)
- Trade-related intellectual property protection issues
- World Trade Organization (WTO) issues "25

The USTR has been expanded through a series of Acts by the Congress. This included the Trade Expansion Act of 1962 which requires the President to appoint a special representative direct for trade negotiations to an interagency trade organization for making recommendations to the President on trade policies. Again, the Trade Act of 1974 made the USTR a part of the Executive Office of the President (EOP). The trade agreement programs undertaken by the President now comes under the purview of the USTR. The 1988 Trade Act also known as the Omnibus Trade and Competitiveness Act of 1988 enhanced the power of the USTR by making it a Congressional-Executive Partnership for the conduct of U.S. trade policy with major responsibilities. The USTR now serves as an Executive Office of the President protecting and promoting America's trade in foreign countries.

Apart from these agencies, there are specialized bodies that work in specific areas of IPR protection such as the American Seed Trade Association (ASTA) which represents the interest of the American seed industry and the Pharmaceutical Research and Manufacturers of America (PhRMA) which helps in shaping policies relating to IPR protection of pharmaceutical companies.

To summarize, the function of the various departments in the United States of America with regard to IPR protection can be represented in a tabular form:

²⁵ Office of the United States Trade Representatives, Executive office of the President, "Mission of the USTR", [Online: web] Accessed 12 April 2015, URL: https://ustr.gov/about-us/about-ustr

Table No. 2. 1

Department	Responsibilities
USTR	Coordinates the negotiation and monitors
	the enforcement of agreements.
Department of Commerce	Responsible (with USTR) for the Industry
	Functional Advisory Committee on
	Intellectual Property Rights for Trade
	Policy Matters and provides opinions for
	trade and IPR treaties.
Department of State	Provides information about foreign
	governments and their responses. Balances
	the considerations of trade and foreign
	policy.
Patent Office	Provides the expertise in patent, trademark,
	and chip protection.
Copyright Office	Provides expertise in copyright law.
Departments of Agriculture, Treasury,	Participate in the interagency committee,
Labor, International Trade Commission	review the industry submissions, plan
	negotiation strategies, propose Special 301
	lists, and represent departmental positions.

U.S. Departments' Responsibilities with Respect to IPR protection

Source: Liu Paul (1994), "US Industry's Influence on Intellectual Property Negotiations and Special 301 Actions", *UCLA Pacific Basin Law Journal*, 13(1): 1-31, [Online: web] Accessed 12 April 2015, URL: https://escholarship.org/uc/item/92w038w0#page-8

IPR Protection and U.S. Strategies

International trade and protection of intellectual property rights are closely connected in the United States. The U.S. Chamber of Commerce claims that IP is a matter of priority for the U.S. Administration and for members of Congress, and federal agencies and underlines the need to protect IP worldwide. It suggests that forward-leaning policies must be adopted by U.S. Officials to defend intellectual property which would enhance innovation and therefore suggests the inclusion of IP in multilateral and regional forums. It also argues for decisive actions against governments that undermine IP protection. Therefore, the United States has devised several measures to protect intellectual property rights of American firms operating in distant lands. Some of them are discussed below:

Generalized System of Preference (GSP): The GSP is a trade preference system that provides duty free trading for developing countries. Established under Title V of the Trade Act of 1974 (P.L. 93-618; 19 U.S.C. 2461-2465), the GSP confers the President with the authority to allow duty free trading on eligible commodities from the Beneficiary Developing Countries (BDCs). The GSP also scrutinizes the level of intellectual property protection of the BDCs. Hence GSP is granted to developing countries after taking into account the extent to which they are providing 'adequate and effective means for foreign nationals to secure, exercise enforce exclusive rights in intellectual property' (Harrison 1997). Conversely, this suggests that countries which, according to the United States, does not provide for high level of intellectual property rights protection can be penalized by removing them from the GSP list or cutting off trade preferences towards them.

Section 337 of U.S. Law: Section 337 of the Tariff Act of 1930 protects U.S. enterprises against unfair practices in import trade. Under this Section the United States shall not import commodities from countries that infringe the established norms of IPR protection. It has the power to investigate the infringement of U.S. patent, copyright, trademark and other unlawful trade practices that might harm U.S. domestic industries or reduce their competitive strength. Punishment for infringement under Section 337 results in excluding the commodity from entering into the United States of America.

Section 301 of U.S. Law: The Special 301 is a measure taken by the U.S. under their Trade Act of 1974 to create pressure on countries to increase IPR protection for the U.S. companies operating in their lands. In other words, it is an annual review of the global state of intellectual property rights protection and enforcement, which is conducted by the Office of the United States Trade Representative in pursuant to Section 182 of the Trade Act of 1974, as amended by the Omnibus Trade and Competitiveness Act of 1988 and the Uruguay Round Agreements Act (enacted in 1994).

It is significant to note that the U.S. corporate houses played a pioneering role in making inappropriate protection of U.S. IPRs a subject of retaliation. The U.S. industries frustrated with the multilateral approach of the Tokyo Round and the WIPO, urged for a more comprehensive and strict IP protection mechanism. The industry groups began to approach the U.S. government for undertaking bilateral measures to ensure respect for the IPRs of U.S. companies operating in other countries. In 1982, an attempt was made by the USTR to strengthen the protection of patents and trademarks by means of consultations with Korea, Mexico, Singapore and Taiwan. Along with this, the U.S. companies operating worldwide wanted to increase protection of their products by linking trade actions to a country's IPR enforcement. In order to realize this goal, American Multinational giants, for example Monsanto, an American multinational agrochemical firm and Pfizer among others, categorically pressed for making international violations of U.S. intellectual property rights subject to retaliation under U.S. laws. The goal was achieved when the Trade Act of 1984 was enacted making intellectual property rights actionable under Section 301 of the Trade Act of 1974 (Devereaux et. al, 2006). Section 301 of the 1974 Trade Act was a breakthrough in establishing U.S. hegemony in bilateral trade by permitting the United States government to raise tariff unilaterally against countries that deny adequate protection of U.S. intellectual property rights or 'fair and equitable' access to holder of U.S. intellectual property rights. It therefore acts as a coercive instrument in the hands of the U.S. Administrations.

The 'Special 301' empowers the USTR to determine whether a foreign country in providing effective protection of IPR and brings out an annual review of countries not complying with IPR rules under three categories:

- 1. Priority Foreign Country: These are the countries that have the 'most onerous and egregious acts, policies and practices which have the greatest adverse impact (actual or potential), on relevant U.S. products and are not engaged in good faith negotiations or making significant progress in negotiations'(Harrison 1997) to alleviate these issues. Upon identification as a Priority Foreign Country, the USTR undertakes investigation of the priority country's action and decisions. If the USTR finds positive evidences against the priority foreign country, then strict actions are taken by the United States which might amount to trade restrictions, sanctions, suspending trade concessions or an agreement with the priority foreign country aiming to eliminate the cause of enlistment under the priority foreign category.
- 2. Priority Watch List: Countries whose activities meet some but not all of the criteria which enables for enlistment under Priority Foreign Country are enlisted under Priority Watch List. The countries listed as priority watch list comes under the close observation and supervision of the United States in order to make that country comply with IPR rules and allow market access of American goods.
- 3. *Watch List:* The countries under the category of Watch List are of special concern to the United States due to their IPR mechanisms or trade barriers and serves as a means to warning these counties against future retaliations if the same continues to operate.

The Special 301 continues to be the most powerful instrument in the hands of the United States to conform compliance among the foreign countries in upholding IPR protection. Apart from this, the protection of intellectual property rights forms an intrinsic part of U.S. bilateral and multilateral trade negotiations.

The Road towards TRIPs: U.S Interest behind Its Formation

The Trade Related Measures of Intellectual Property Rights betters known as TRIPs Agreement established the most comprehensive protection of intellectual property. After almost several years of negotiation, industries that are based on patents, copyrights and trademarks gained enormous advantage in terms of protection mechanism. The agenda for a comprehensive IP agreement was tabled in the World Trade Organization (WTO)/ GATT (General Agreement on Tariff and Trade) framework during the Uruguay Round negotiations. After several rounds of

negotiations and heated debate between the developing countries led by the United States and the developing states, the TRIPs entered into force on January 1, 1995.

Key drivers of the TRIPs agreement were the American multinational corporations who claimed that they were suffering from huge losses due to inadequate protection of intellectual property abroad. Devereaux argues that the Chairman of MNCs like Pfizer and Opel were instrumental in pushing for inclusion of intellectual property rights in Uruguay Round negotiations. The President's Advisory Committee on Trade Negotiations (ACTN) also played an instrumental role in drafting TRIPs agreement. Here, it is important to note that the ACTN is mainly composed of members who reflect the corporate interests of America. Chairpersons of both Opel and Pratt who once served as members of ACTN were the brains behind engineering and persuading the U.S. government to including IP as one of the topics of the negotiation process. Again, the firm commitment of Commerce Secretary Malcolm Bridge who was the former CEO of Yale locks, towards IP protection within and outside the borders of the United States triggered actions with the Commerce Department agencies, namely International Trade Administration (ITA) and the USPTO to join hands in articulating broader protection of IP and an enforcement mechanism in the GATT negotiations (Devereaux et. al. 2006).

However, it would be inappropriate to suggest TRIPs was the sole outcome of the efforts of the America's trading giants. Drahos observes that the U.S. businesses were never sure that TRIPs was 'doable'. Initially they urged for a more modest agreement. However, lawyers and economists in the United States managed to exploit the existing possibilities and linked trade and intellectual property rights to create a new system. They pushed the U.S. capitalists to foresee the gains and technical expertise that they might incur from such an agreement. Hence he concluded, 'US power, in other words, did not just have a trade centre but was also based on the possession of a body of juristic and economic knowledge that was mobilized at crucial stages by individuals who saw opportunities where others only saw constraints' (Drahos 1995).

Therefore, TRIPs was like a breath of fresh air for American capitalism to manifest and sustain itself in the knowledge driven globalized neoliberal era of the present century. It has sought to sustain American economic supremacy in the world for decades to come.

International Trade and IPR: Advancing America's Interest Worldwide

In the liberal market order, international trade is the currency for business survival, expansion and profit making. International trade is the major anchor to developing a robust economy. It not only boosts up the Gross National Income (GNI) and Gross Domestic Product (GDP) generating employment but also provides the consumers with a diversified wide array of products and services. The globalized economic order has made intellectual property intrinsic to gaining from international trade.

International trade emphasizes the role of technology and the innovative capability that a firm has in enhancing its market share. The role of intellectual property rights in enhancing the competitiveness of firms are many fold. Considering the supply side factors, firms owing some kind of IPRs may have greater competitive advantage from other firms while they engage in international trade. It acts as an intangible fixed asset of the firm adding to its profit. Here it needs to be said that profit maximization is the primary objective of a private entrepreneur. A firm having IP rights over certain goods and services can sell to people of other countries on the expectation of making profits, thus adding the nation's national income. This also enables the host country gain access to a wide range of products and services enlarging the market and providing close substitutes. Since affordable yet quality products are what the consumer looks for in the market, such a market condition generates healthy competition for consumer goods. The market for aerated soft drinks can be regarded as an example. Here brands like Coco Cola, Pepsi etc. are close substitutes, yet being unique to a certain extent and possessing trademarks which adds their brand loyalty. These MNCs due to their IP protection can function profitably in diverse countries and provide goods at a competitively lower price.

While this may be the situation in case of some consumer goods, IP rights in case of goods that fall under the category of being absolute necessities might give more reasons for the entrepreneurs to engage in international trade and investment. When patent rights for necessity goods are held by particular enterprises then the entrepreneur can charge a higher price for that product and enjoy what is known as 'super-normal' profits. This happens in case of life saving drugs where most of the patents are held by the MNCs from developed countries and they sell it to the developing countries at higher prices. The example of life saving drugs can be cited as a case study. Since entry into the market is restricted for the new firms by means of patent rights this leads to a situation of monopoly which often results in a situation of 'price discrimination'²⁶ under the monopoly. Such a condition is detrimental to the principle of free market economy. Price discrimination can also happen when few firms selling the same product decide to form cartels and dominate the market. The MNCs often stand to earn a handsome portion transferring the wealth from the host to the home country. IPR in the form of copyright and trademark can be counted as one of the many factors that contribute to creating brand loyalty in the minds of the consumers for certain consumer goods thus revering the inverse relation between price and demand.

International trade is critical to the survival, growth and success of many sectors of the American economy. The cult of international trade is so strong in the United States of America that not only the manufacturing and the service sector, but also the majority of the farmers and ranchers are dependent on exports. While manufacturing sector exports the most, with one in every four manufacturing jobs dependent on export, the U.S. Department of Agriculture reports that one in every three acres on American farms is planted for export markets.²⁷ Today, the United States of America is the world's largest exporter of goods and services and is often regarded as the major driver of the world economy. A huge section of the population with more than 38 million people depends on trade for their livelihood (U.S. Chamber of Commerce). While American corporate capitalism thrives on foreign trade and investment, intellectual property plays a crucial role in advancing the interest of the entrepreneurs. Reports from the U.S. Chamber of Commerce show

²⁶ Price Discrimination under Monopoly is a situation when the seller charges different prices of the same product from different buyers. This gives rise to super normal profits since the selling price is entirely dependent on the discretion of the monopolist. This is a market condition when entry of new firms into the market is restricted by virtue of some unique characteristics possessed by the Monopolist, for example IP rights.

²⁷ US Chambers of Commerce: Standing up for US Enterprises, "The Benefits of International Trade", [Online: web] Accessed 15 April 2015, URL: https://www.uschamber.com/international/international-policy/benefits-international-trade-0

that 'businesses that rely on IP account for more than \$5.8 trillion of U.S. GDP, drive 74% of U.S. exports, and support more than 55 million American jobs'.²⁸

The American Chamber of Commerce whose philosophy is standing up for American enterprise is concerned with the counterfeit and piracy of IP rights which is damaging for American firms. The working of the U.S. Chambers of Commerce clearly reflects the importance that it assigns to IP and its protection. The U.S. Chamber of Commerce with its motto 'spirit of enterprise' maintains that beyond the borders, 'the United States must continue to play a leadership role in pressing the global community of nations to protect IP. Given efforts by activists worldwide to undermine IP, U.S. officials must adopt a forward-leaning agenda to promote IP and innovation in multilateral forums such as the World Intellectual Property Organization, World Trade Organization, World Health Organization, and regional forums such as APEC.'²⁹ In addition to this, it wants that all U.S. bilateral trade agreements that are already in force and international agreements under negotiations must include provisions for IP enforcement thus underlining the present and future prospect of IPR in international trade. Since the world is moving towards being more technology oriented and knowledge based, IPR world dominate the future of international engagement and become the currency for growth.

Hence, it is quite justified to argue that the currency for power in the 21st century rests on economic diplomacy. The concept of exercising control over how much knowledge a nation and its people can procure and put into use can act as the most effective mechanism of controlling and influencing states for gaining comparative advantage in international engagements. Intellectual property rights are one of the most potent tools in advancing America's international economic policy goals and priorities. The strict IP regimes enable American enterprises to add on a handsome share to the country's economic output.

²⁸U.S. Chamber of Commerce (2015), US Chambers of Commerce: Standing up for US Enterprises "Protect Intellectual Property", Online: web] Accessed 15 April 2015, URL: https://www.uschamber.com/issue-brief/protect-intellectual-property

Intellectual property has its intrinsic linkage with America's foreign economic policy. Intellectual property rights regime works towards advancing the foreign economic policy of the U.S. by awarding or punishing states which protect or infringe upon the intellectual property rights, respectively. Given that American trade and investment has a presence worldwide and that the American economy is often called the world economy, any stringent measure against a non-conforming country can amount to grave consequences. Hence the present regime of intellectual property rights supports and enables America's ambition of free trade and liberal market economy throughout the world.

MAJOR IPR ISSUES IN U.S. - INDIA ECONOMIC RELATIONS

"India and America are natural allies, two nations conceived in liberty, each finding strength in its diversity, each seeing in the other a reflection of its own aspiration for a more humane and just world."

- Bill Clinton, 42nd President of the United States of America

Introduction

The road towards development cannot be achieved by adopting closed door policy. Bilateral and multilateral engagement forms the core of international prosperity, which is now shared by the community of states. Economic prosperity is no longer limited to effective utilization of tangible factors such as land, capital but is also contingent upon intangible assets like knowledge, skill, and potential for innovation which can give a nation greater competitive advantage over others.

U.S. - India relations have evolved over the years changing its courses though various phases of historical juncture. Diplomatic relations between the United States of America and India was established even before India achieved independence from the British rule. The American Embassy was set up in New Delhi on November 1, 1946, when the U.S. Department of State raised the American Mission at New Delhi to an Embassy.³⁰ Official recognition to India came soon after independence when the President of the United States President Harry S. Truman recognized the Union of India as an independent state on August 15, 1947.

³⁰ U.S. Department of State: Office of the Historian, "A Guide to the United States' History of Recognition, Diplomatic, and Consular Relations, by Country, since 1776: India", [Online: web] Accessed 20 May 2015, URL: https://history.state.gov/countries/india

The United States of America and the Republic of India have both embraced and upheld democracy as the pillar of socio-economic development. Both recognize the significance of pluralism and the rule of law. Recognizing the significance of the United States of America, the India's first Prime Minister Pandit Jawaharlal Nehru regarded the United States of America as *'the wealthiest and most powerful country in the world'* (Nehru 1946).

This Chapter traces the bilateral economic engagement between the United States of America and the Republic of India. A historical analytical study of India's IPR protection has been conducted to find out the difference in perception of India and the United States of America with regard to IPR protection. Finally, the chapter makes a case study analysis to find out how India fares under U.S. IPR protection and how it affects economic growth in India.

U.S. - India Economic Engagement

Economic relationship between the United States and India has been one of the defining features of their bilateral engagement. Economic relations existed even before India achieved independence but its signified trade between an independent and that of a colonial possession. Although the nature of relationship changed post independence, for about three decades it represented economic interactions between the most powerful economy in the world and an economy in distress due to decades of colonial rule and unable to provide for the basic necessities of its citizens. Economic relations during this period (1950s and 1960s) can be regarded as characterized by 'donor- recipient syndrome' (Mahapatra 1998).

Over the years the nature of relationship has changed from being one that is described by a donor- recipient syndrome to that of establishing commercial alliance. It is one of the strongest pillars of amicable relations between these two democracies. Even during the cold war days when political and strategic interactions remained modest and there were political divergences, the economic aspect of bilateral relations remained strong. Economic relationship between the United States and India are mainly premised on three planks.

- 1. Trade relations between the two democracies.
- 2. U.S. foreign direct investment in India.

3. Developmental assistances provided by the United States.

All these three categories have their significance in contributing to strengthening bilateral relations. The United States of America being the world's largest economy considers India as a partner in growth. Apart from the strategic significance of India, the United States has been categorically interested in enhancing and solidifying its economic ties with India. With a population of 1.2 billion people and a rising middle class, India is the second fastest growing economy in the world. This means an ever rising demand for consumer products which provides a fertile ground for U.S. companies to invest and trade in India.

Trade: U.S. - India trade relation dates back to the 19th century with the latter exporting spices, jute and cashew to the United States. During the cold war years, notwithstanding the heated political environment, the United States remained one of the largest trading partners of India. However, bilateral economic relations got a boost only after independence and more specifically after the economic reforms of 1991. The United States has been particularly interested in trading and investing in India after the latter initiated the economic reforms in 1991, taking gradual steps to liberalize its economy and open major sectors of the Indian economy including those which were earlier protected by the government and kept out of the influence of market forces. Since then U.S. trade in India have been positive, generally reflecting a rising trend. In 1990 bilateral trade in merchandise goods was as low as \$ 5.6 billion. Between 1990 and 2014, bilateral trade witnessed a growth of about 1094.6% in a period of 24 years and today stands at about \$ 66.9 billion (2014).³¹ As on 2012, India is the United States' 13th largest trading partner, accounting for 1.6% of total U.S. foreign trade.³² However, it is worth mentioning that even though the United States has emerged as India's largest trading partner, the share of India in US trade remains small. Major U.S. exports to India includes machinery, organic chemicals, electrical machineries, chemicals including organic ones, aircraft, mineral fuel, precious stones such as

³¹ Embassy of India, Washington, D.C., U.S.A, "India - US Bilateral Trade", [Online: web] Accessed 20 May 2015, URL: https://www.indianembassy.org/pages.php?id=42

³²U.S. Census Bureau, US International Trade Data "Top Ten Trading Partners- December 2012"[Online: web] Accessed 20 May 2015, URL: https://www.census.gov/foreign-trade/statistics/highlights/top/top1212yr.html

diamonds, optical and medical instruments and edible fruits and nuts; whereas India's export items include garments and textiles, precious stones, iron and steel and pharmaceutical products.

The distinguishing feature in U.S. India bilateral trade has been in the service sector where growth of about 600 per cent was witnessed from 2003 to 2013. India's service export increased from U.S. \$ 2 billion in 2003 to over U.S. \$ 19 billion in 2013 whereas U.S. export of services to India increased from U.S. \$ 3.7 billion to around U.S. \$ 13.5 billion during the same period. The unique feature of their bilateral trade in services lies in the fact that, while the United States runs a surplus services trade with the rest of the world, it has been experiencing a growing trade deficit with India since 2006. Such a trajectory also proves India's emergence as America's favorite destination for outsourcing (Meltzer 2014).

The U.S. share of trade with India in terms of goods can be tabulated as follows:

5\$ millions)	Balance (US\$ mill	Imports (US\$ millions)	Exports (US\$ millions)	Year
	-1193.0	3192.4	1999.4	1991
	-1862.6	3779.7	1917.1	1992
	-1775.7	4553.6	2777.9	1993
	-3015.8	5309.6	2293.8	1994
	-2430.5	5726.3	3295.8	1995
	-2841.3	6169.5	3328.2	1996
	-3715.0	7322.5	3607.5	1997
	-4672.7	8237.2	3564.5	1998
	-5383.0	9070.8	3687.8	1999
	-7019.3	10686.6	3667.3	2000
	-5980.3	9737.3	3757.0	2001
	-7717.4	11818.4	4101.0	2002
	-7717.4	11818.4	4101.0	2002

Table No. 3.1 U.S. Trade in Goods with India

2003	4979.7	13055.3	-8075.6
2004	6109.4	15572.0	-9462.7
2005	7918.6	18804.2	-10885.6
2006	9673.6	21830.8	-12157.3
2007	14968.8	24073.3	-9104.4
2008	17682.1	25704.4	-8022.3
2009	16441.4	21166.0	-4724.6
2010	19248.9	29532.9	-10284.1
2011	21542.2	36154.5	-14612.3
2012	22105.7	40512.6	-18406.9
2013	21842.3	41845.3	-20003.0
2014	21627.6	45228.2	-23600.6
No. of the second s			

Source: Data compiled from U.S. International Trade Data as provided by United States Census Bureau, [Online: web] Accessed 20 May 2015, URL: https://www.census.gov/foreign-trade/balance/c5330.html

From the table, it can be deduced that U.S. - India trade relations have grown over the years (in terms of trade in goods). U.S. exports to India have been relatively rising only with an exception of a few years but imports have steadily increased over the years. However, all through the years the balance of trade remained negative due to the exceeding trend of imports over exports suggesting the increasing demand for Indian commodities in America.

Investment: With the opening up of the Indian economy since 1991, India has sought to create an investor friendly environment making it one of the most promising destinations for foreign direct investments. The United States has been a keen and crucial investor in India. U.S. foreign direct investment is concentrated in manufacturing, scientific and service sectors. Professional, technical and information technology are the main service sectors that attracts Foreign Direct Investment (FDI) from the United States.

In terms of FDI approval, actual inflows and portfolio investments, U.S. investment is visible in almost every sector that is open for private investments. Presently, the United States is one of

the largest foreign direct investors in India. The cumulative FDI inflows from USA amount to about \$7.96 billion (data till July 2008). About 8% of actual FDI inflows into India (in rupee terms) come from the United States of America. The sectors that attract U.S. FDI are: Fuels in terms of power and oil refineries, Telecommunication services such as radio, mobile and telephone, electrical and electronics products and services including Computer Software, food processing industries and Service Sector which are of financial and non-financial nature.³³

The table below gives a detailed picture of actual inflow of FDI into India and share of United States in it.

Table No. 3. 2

Years	Total FDI (\$ Mln)	U.S. FDI (\$ Mln)	U.S. Share (%)
1991	143.6	11.3	7.87
1992	258.0	43.9	17.02
1993	582.9	147.7	25.34
1994	1048.5	118.9	11.34
1995	2172.0	215.6	9.93
1996	3021.0	271.0	8.97
1997	4579.1	736.6	16.09
1998	3377.2	347.1	10.28
1999	4016.1	431.2	10.74
2000	4498.1	418.4	9.30
2001	4281.1	367.6	8.59
2002	4434.5	282.8	6.38
2003	3109.0	396.3	12.75
2004	3753.6	647.65	9.93

Share of U.S. FDI in Total – Actual Inflow

³³Embassy of India, Washington, D.C., U.S.A, "Bilateral Economic Relations" [Online: web] Accessed 20 May 2015, URL: https://www.indianembassy.org/pages.php?id=49

2005	4353.8	472.07	10.00
2006	11,122	732.34	6.59
2007	21,797	875.50	4.02

Source: Data Compiled from SIA Newsletter, Department of Industrial Policy & Promotion, Govt. of India as cited in The Embassy of India, Washington DC, USA. [Online: web] Accessed 20 May 2015, URL: https://www.indianembassy.org/pages.php?id=49

It is noteworthy that the FDI inflow from the United States is fluctuating in nature. Inflow of investment has been progressive for a few years since 1991 and then declined considering the percentage share of the U.S in total FDI. Over the period the trajectory of U.S. investment in India has been non linear. One of the reasons for such a trend can be the growing share of other countries who are now more interested in investing in India.

U.S. Development Assistance:

India has received developmental aid from America by means of unilateral transfer payments and aid in terms of tangible commodities such as food aid. Aid is provided by America mainly through the United States Agency for International Development (USAID). The USAID was born on November 3, 1961 through the passage of the Foreign Assistance Act of 1961. Formed by means of an executive order signed by President Kennedy, the USAID is the primary U.S. Government agency that aims at eradicating poverty by providing assistance to foreign countries. It helps developing societies to exploit their potential and works toward their broad based economic growth thus aiming to create markets for American commodities in developing countries.

As in the case of India, despite being one of the world's rapidly growing economies, India from its very independence has been plagued by poverty, inequality and underdevelopment. India's underdevelopment is again a product of several years of colonial rule. The pre-independence period was characterized by near stagnation of our economy. The condition of the Indian economy during the British era was exquisitely exposed through Dadabhai Naoroji's eloquent exposition in his 1876 classic titled, 'Poverty and Un-British Rule in India' where he stated, 'India is suffering seriously in several ways and is sinking in poverty', and 'masses of India do

not get enough to provide the basic necessities of life' (Naoroji 1901). Therefore, India after independence suffered from some of the worst socio economic problems such as low per capita income, high dependence on agriculture, semi feudal mode of production, abysmal standard of living, religious orthodoxy, population pressure among others. Estimates by the Central Statistical Organization (CSO) Delhi shows that national income of India was Rs. 8650 crores in 1948-49 and increased only up to Rs. 8850 crores in 1950-51 (estimated in 1948-49 prices). Therefore, the rate of growth of national income per annum was as low as about 0.77 percent.

Even today, India faces some of the worst socioeconomic challenges. With a population of over 1.2 billion people, India is world's second most populous country after the People's Republic of China. With one-third of its population surviving on less than \$1.25 per day, India is home to about 40 percent of the world's malnourished children and the world's largest number of poor. About 60 percent of India's population do not have access to sanitation facilities and about 400 million people which is more than total U.S. population do not have electricity.³⁴ India ranks quite below its neighbors in terms of Human Development Index and faces continuous challenges in key sectors like energy, education, maternal and child care, sanitation, and water.

From 1947 through 2010, the USAID have provided a total of more than \$ 15.9 billion in direct aid to India, of which more than half were in the form of food aid and some in the form of economic grants and loans (Kronstadt et al. 2011). The relationship however, did not always follow a smooth trajectory. The darker side of donor-recipient relationship manifested itself a number of times characterized by undue delay in food aid authorization, sometimes because of American arrogance and at times due to political considerations. The worse situation took place in the midst of the Second World War when India was facing a disastrous famine. The United Nations Relief and Rehabilitation Administration (UNRRA) that was set up by an agreement among 44 states including India, denied to help India citing that its role was limited to helping regions that the 'liberated from the enemy' and therefore the Indian situation was out of the purview of the UNRRA area of operation. History repeated itself again in the year 1946 when President Truman underestimated the draught stricken situation of India (Mahapatra 1998). Post

³⁴ USAID: From the American People (2015), "India: Our Work" [Online: web] Accessed 20 April 2015, URL: http://www.usaid.gov/india/our-work

Independence the situation remained pitiable until the United States started assisting in India's development paradigm by providing unilateral development assistance under the India Emergency Food Assistance Act was signed by President Truman in 1951. A major breakthrough came in the year 1977 when the U.S. Congress voted in favor of providing U.S. \$ 60 million to India in terms of food and agricultural aid (Bovard 1988). The food aid provided by the United States helped India combat with the acute condition of food crisis resulting from prolonged period of draughts.

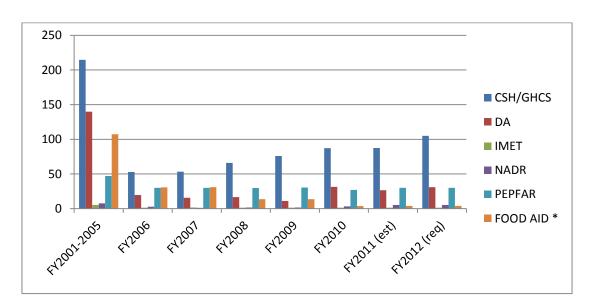
However, U.S. assistance was not only limited to food aid but encompassed other agricultural necessities such as fertilizers, credit, irrigation, electrification, social forestry, research in agricultural sector, providing alternative energy, capability building and water resource management. It also addressed the health sector and projects were undertaken with the aim to uplifting India's health sector. With the overall aim of bringing sustainable economic development, the United States Agency for International Development (USAID) works with the Indian government in providing immunization, maternal and child health care, family planning, Acquired Immune Deficiency Syndrome (AIDS) awareness, eradication of polio and other preventable diseases, economic growth, environment protection and disaster management.

The United States was instrumental behind India's achievement of self-sufficiency with respect to food grains. In India, the Green Revolution, that is, a series of research in agriculture that is targeted towards increasing productivity by undertaking scientific and technology transfer schemes, was possible due to the initiative of the United States. The program was carried out with the assistance of the U.S. based Rockefeller Foundation and under the guidance of U.S. agronomist Norman Borlaug. It successfully introduced the new variety of wheat that helped India avert famines and reach self-reliance in the 1960s. The average cereal production increased in India by 47% between the periods 1952 to 1965 and 1967 to 1978, making the nation self-sufficient in the production and distribution of cereal grains (Anderson and Hazell 1985).

The United States has also been assisting in India's education and technological up gradation. The USAID helped set up eight agricultural universities in India which are equipped with worldclass research facilities. The first Indian Institute of Technology (IIT) along with 14 regional engineering colleges remains the most glaring example of USAID to India.³⁵

Apart from socioeconomic development, the United States has also provided security assistance to India since 1947. A total of about U.S. \$175 million was provided to India since independence of which more than 90% was during 1962-1966 (Kronstadt et al 2011). Presently, military assistance is humble and is concentrated in combating terrorism, control of narcotics and providing military training. A detailed picture of U.S. aid to India from FY2001- FY2012 can be represented though the chart below:

Figure No. - 3.1



Direct U.S. Assistance to India, FY2001 – FY2012 (in millions of dollars)

Source: Chart compiled from data available in U.S. Departments of States and Agriculture; US Agency for International Development, as cited in Kronstadt, K. Alan et al. (2011), India: domestic Issues, Strategic Dynamics, and U.S. Relations, Accessed 10 May 2015, URL: https://www.fas.org/sgp/crs/row/RL33529.pdf

³⁵USAID: From the American People, "History" [Online: web] Accessed 7 May 2015, URL: http://www.usaid.gov/india/history

Abbreviations:

CSH/ GHCS: Child Survival and Health or Global Health and Child Survival, from FY2010

DA: Development Assistance

IMET: International Military Education and Training

NADR: Nonproliferation, Anti-Terrorism, Demining, and Related (mainly export control assistance, but includes anti-terrorism assistance for FY2007)

PEPFAR: President's Emergency Plan for AIDS Relief

^{*}P.L. 480 Title II (grants), Section 416(b) of the Agricultural Act of 1949, as amended (surplus donations), and Food for Progress. Food aid total is exclusive of freight costs.

It can be deduced from the chart that the greater amount of unilateral developmental assistance during the initial years consisted of funds relating to health care, developmental assistance and food aid. The data chart also reflects that the United States has consistently provided assistance to India in terms of PEPFAR, DA and CSH/GHCS. It is interesting to note that Food Aid to India has declined over the years suggesting India's drive towards self sufficiency.

India and Intellectual Property Rights

Leaving aside U.S. development assistance, economic relations between the United States and India has been influenced by the contemporary nature of intellectual property rights regime. It can also said that while bilateral relations are generally good, there are a number of economic and trade issues between the United States of America and India of which intellectual property rights protection is significant given the renewed significance of knowledge to the development of an economy.

In India, the legal mechanisms for protection of intellectual property rights date back to the preindependence era. However, India's accession to the TRIPS agreement brought about a number of modifications in its national laws regulating intellectual property. This is evident in the arena of patents, copyrights and trademarks.

As far as patents are considered, it was in the year 1856 that India under the British East India Company's rule endorsed the Act VI of 1856 on protection of inventions. Though premised on the British Patent Law of 1852, the Act VI of 1856 used the term 'privileges' instead of patents to grant certain exclusive privileges to inventors of original manufacturers for a duration of 14 years. However, the Act VI of 1857 did not have the sanction of the British Crown and it was replaced soon after with a modified version known as Act XV of 1859. Act XV of 1859 modified the earlier legislation by granting exclusive privileges to fruitful inventions and extended the priority period from six months to one year. According to this Act, importers cannot be included under the category of inventor.³⁶

The road to the development of intellectual property rights in India was further laid down through the passage of the Patterns and Designs Protection Act under Act XIII of 1872. This Act was novel since it sought to widen the area of protection by including designs under it. The final Act relating to IPR protection in colonial India came in the year 1911 when the Indian Patents and Designs Act (Act II of 1911) was passed replacing all preceding Acts. This Act with its further Amendments in 1920, 1930 and 1945 provided the guidelines for protection of inventions until the Government of independent India decided to alter the fate of India's knowledge economy and undue the misgivings of British patent raj.

In 1950, a committee constituted under the chairmanship of Justice (Dr.) Bakshi Tek Chand found the pre independence Acts to be inadequate and the 1911 Act was amended through Act XXXII of 1950 and Act LXX of 1952. Both these Acts called for compulsory licensing, while the former dealt with works of inventions, the later talked about patents in respect of foods, medicines, chemicals used in plants and inventions relating to surgical or curative appliances. Apart from a bill was introduced in the Parliament based on the Committee's recommendations

³⁶ Manual Of Patent Practice And Procedure (2008), The Patent Office, India, Accessed 10 May 2015, URL: http://ipindia.nic.in/ipr/patent/Patent_Manual_Feedback/WO_Ga_34_China.pdf

in 1953, namely, Bill No.59 of 1953, which unfortunately was not pressed for consideration by the Government and therefore lapsed.³⁷

In 1957, another committee was appointed under Justice N. Rajagopala Ayyangar Committee to examine and revise the Patent Laws of the country. The Committee analyzed the necessity of patent in India including its role in advancing the country's development.

The Report argued for a renewed system of IPR in India and made five recommendations. Firstly, there must be a precise definition of inventions what can be patented. Secondly, the scope of anticipation should be enlarged so as to encompass knowledge published both inside and outside the country. Thirdly, remedies should be given for foreign patents which are unworkable in India. Fourthly, there should be special provisions for patents relating to food and medicine. Finally, remedies should be provided in case the patentee resorts to any sort of abuse. (Ayyangar 1959). Based on the recommendations of the Committee's report the Government of India passed the Indian Patent Act 1970. This new Act replaced all the previous Patent Acts with the exception of laws relating to designs where the previous Act continued to operate. While the Indian Patent Act continued to be the overall guideline regarding patent protection, it was amended thrice (Patents (Amendment) Act, 1999, Patents (Amendment) Act, 2002 (Act 38 of 2002) and Patents (Amendment) Act 2005 (Act 15 of 2005) in order to meet international and domestic requirements.

While this remains the history of patents in India, the protection of original works of authorship including literary works, audio, video and software was first initiated in 1847. In independent India the first copyright regulation was under the Indian Copyright Act of 1957. Subsequently, the Copyright Act has been amended five times, i.e., in the year 1983, 1984, 1992, 1994, 1999 and finally in 2012. The Copyright (Amendment) Act, 2012 is the most substantial and wide encompassing and extends the arena of copyright in the digital sphere, introducing statutory licensing for broadcasting organizations, providing the authors and composers the right to receive royalties, membership rights for all authors in copyright societies. The Copyright

³⁷History of Indian Patent System, [Online: web] Accessed 10 May 2015, URL: http://ipindia.nic.in/ipr/PatentHistory.htm

(Amendment) Act has a special provision providing the physically disabled the right to access any works.³⁸ The Copyright Acts reflects the ethos of the Berne Convention of Copyrights. Under Copyright Act of 1957, protection in case of works of literature, drama, music and art shall cover the both the entire lifetime of the author in addition to sixty years after the death of the author from the beginning of the next calendar year following the year in which the author dies. In case of works published anonymously, the duration of copyright is sixty years from the beginning of the next calendar year in which it was first published.

Similarly, laws relating to the protection of trademarks have its root in the colonial era. Lokganathan traces the roots of the Indian trademark system to the British common law. The UK Trade Marks Registration Act of 1875 was the first of its kind in the British legal system, making registration of trademarks mandatory by law. Under the colonial rule of the British, the principle was embodied under the Special Relief Act of 1877, Section 54 which made the treatment of trademark equivalent to property. Thereafter the Trade Marks Act of 1940 became the first legislation granting recognition to trademarks. Independent India replaced the 1940 Trade Marks Act almost after two decades by passing the Trade and Merchandise Act of 1958 (Lokganathan 2012). Subsequently, in congruence with the worldwide developments in trademarks as well as to meet India's obligations under the Trade- Related Aspects of Intellectual Property Rights (TRIPS), the Trade Marks Act of 1999 was passed.

The laws relating to the protection of Indian designs has been influenced by the TRIPs Agreement. India's Design Act, 2000, provides the guideline for protection of industrial designs as an element of intellectual property. Finally, the protection of geographical indicators as a constituent of intellectual property was enacted in 1999. The Geographical Indications of Goods (Registration & Protection) Act, 1999 and the Geographical Indications of Goods (Registration & Protection) Rules 2002 governs the protection geographical indicators reflecting the philosophy of Articles 1 (2) and 10 of the Paris Convention for the Protection of Industrial Property and Articles 22 to 24 of the TRIPS Agreement. Hence laws relating to intellectual property rights have undergone reforms owing to India's accession to TRIPs agreement.

³⁸Copyright Office, Government of India, [Online: web] Accessed 10 May, 2015, URL: http://copyright.gov.in/

India and Special 301

While economic relations between the United States and India have shown a positive and upward rising trend over the years, the United States has been wary of India's allegedly weak IP protection mechanism, which, according to the U.S. Government, hurt American industries and hampers its competitive strength.

India in this sense has come under the Special 301 provision of US Trade Act, which identifies offenders of U.S. intellectual property rights. Enlistment in the Special 301 means wide ranging consequences for the enlisted country since it grants the President authority to take any of a broad range of retaliatory actions against a country that "maintains unjustifiable or unreasonable tariff or other import restrictions," or "subsidies . . . on its exports . . . which have the effect of substantially reducing sales of the competitive United States product. . . ." (Destler 2005).

India is classified as a 'priority watch list country' on the U.S. Special 301 list for failing to provide an adequate level of IPR protection since the beginning of Special 301 reports in 1989. The Special 301 is a measure taken by the US under their Trade Act, 1974 to create pressure on countries to provide IPR protection for the U.S. companies operating in foreign lands. It is a coercive instrument in the hands of the United States. Significantly, in 1994 the Clinton administration designated India as a 'priority foreign country', a label which is reserved for the worst IPR offenders.

India has often been targeted under the Special 301 provision due to its alleged weak IP protection especially in areas of drug patenting and the rampant instances of piracy. The United States alleges that IP laws in India appear to be favoring local companies and restricting free competition by not allowing foreign companies in certain key areas. Washington also complains that India's IP record is unstable and does not provide the much needed incentive for innovation.

U.S. -India Disputes on Intellectual Property Rights: Case Studies

Ownership of intellectual property has often been the bone of contention between the United States and India. The eagerness of the corporate houses in America to appropriate the traditional knowledge available to indigenous people has resulted in bio piracy disputes between the United States and India. When the intellectual property system is used by individuals or entrepreneurs to legitimize their exclusive jurisdiction and control over biological products and resources that belong to the native culture of a society and has been an integral part of the knowledge and culture of non-industrial societies, it is called bio piracy.

As far as traditional knowledge is concerned, there are two important international conventions that clarify the relationship between indigenous knowledge systems and IPRs. These are the Convention on Biological Diversity (CBD) and the TRIPs. The CBD is a multilateral treaty that undertaken at the Earth Summit in 1992 and entered into force on 29 December 1993 has two articles namely Article 8 (j) and Article 18.4 are particularly dedicated to the right to protection of traditional knowledge.

Article 8 (j) of the Convention on Biological Diversity states, State Parties are required to 'respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote the wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices and practices,'³⁹ and Article 18.4 underlines, 'the Contracting Parties shall, in accordance with national legislation and policies, encourage and develop methods of cooperation for the development and use of technologies, including indigenous and traditional technologies, in pursuance of the objectives of this Convention. For this purpose, the Contracting Parties shall also promote cooperation in

³⁹ Convention of Biological Diversity (1993), "Article 8. In-situ Conservation", [Online: web] Accessed 4 May 2015, URL: https://www.cbd.int/convention/articles/default.shtml?a=cbd-08

the training of personnel and exchange of experts.^{'40} Hence the Convention on Biological Diversity unlike the TRIPS recognizes the significance of indigenous knowledge and culture of the natives and seeks to protect the ownership rights of the indigenous communities as far as their traditional knowledge is concerned.

It is interesting to note that the United States under the leadership of President George H. W Bush did not sign the CBD. Though President Clinton signed the CBD on June 1993, it U.S. Senate did not ratify it. Until today, the United States, fearing the effect that it would have on its corporate capitalism did not ratify the CBD.

While the CBD recognizes the right of the indigenous communities towards their traditional knowledge, the TRIPS tells a whole different story in this regard. The TRIPS recognizes copyright and related rights, trademarks, patents, geographical indications, industrial designs, layout-designs (topographies) of integrated circuits and trade secrets as intellectual property rights. It neither mentions the protection of traditional knowledge nor does it distinguish between the indigenous knowledge and knowledge for commercial use. Article 27 3(b) of the TRIPS Agreement provide that members 'shall provide for the protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof.' Here it is important to note, though the Sui generis legislation is to be decided by national laws, they should not contradict the guidelines of the TRIPS Agreement. This suggests that legislation for IPR should ^c contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of the producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to the balance of rights and obligations' (Article 7: Objectives). The problem here is that the TRIPS Agreement refuses to identify the rights in developing countries that are beyond the minimum standard of TRIPS Agreement. Thus, the knowledge that should reside in the 'public domain' is appropriated by the corporate enterprises under the TRIPS regime.

Few instances of bio-piracy dispute can be briefly exemplified as under:

⁴⁰ Convention of Biological Diversity (1993), "Article 18. Technical and Scientific Cooperation", [Online: web] Accessed 4 May 2015, URL: https://www.cbd.int/convention/articles/default.shtml?a=cbd-18

Neem: Scientifically known as *Azadirachta indica*, the Neem tree has been traditionally known as wonder plant in ancient India because of its medicinal values. Referred to as 'arista' meaning perfect, complete and imperishable' in Sanskrit, the '*nimbati syasthyamdadati*' i.e., the giver of good health is used as an antiseptic, anti allergic, antiviral, spermicidal, anti inflammatory, anti bacterial among others. Neem hence forms a part of India's traditional knowledge and efforts to patent the plant is symbolic of how the politics of knowledge leads to the deprivation of the rights of the traditional and indigenous communities.

The patenting of Neem began in the year 1983 when the US based Terumo Corporation obtained the patent for the use of Neem bark for therapeutic purposes. Thereafter, in 1985 a US based timber exporter named Robert Larson, obtained a patent of Neem seed. In course of time, about 54 patents were granted to the United States relating to Neem.

However, controversy arose in India regarding the patenting of azadirachtin, a naturally occurring substance found in Neem. Patent No. 0436257 B1 became the bone of contention between India and the United States. The patent for azadirachtin jointly held by the United States Government and the multinational was a case of bio piracy, where the traditional knowledge of India was exploited and nothing novel discovered. A legal battle against the Neem patent was launched in June 5, 1995 and Neem, known as 'free tree' became the symbol of achieving freedom against bio piracy. After a prolonged period of 5 years the patent was repealed by the European Patent Office (EPO) in May 2000 (Shiva 2000).

Turmeric: scientifically known as Curcuma *longa*, turmeric is known as Haldi in most parts of India. Belonging to the ginger family, it has magnificent healing capabilities. It is used to cure digestive disorder, liver ailments, arthritis, and eye disorder among others. Knowledge about the medicinal properties of turmeric dates back to India's Vedic era and hence forms an integral part of India's traditional knowledge.

Dispute over the patenting of turmeric began after the University of Mississippi Medical Centre in the United States applied for patenting of turmeric to be used as a wound healing agent at the USPTO on December 28, 1993. A patent right over turmeric was granted by USPTO on March 28, 1995 which lead to the IPR battle between the United States and India. The scientists at The Council of Scientific and Industrial Research (CSIR) lead this battle by filing a petition at the USPTO against the patenting on turmeric in June 1996. The battle went on for nearly 2 years ultimately settling in favor of India when the USPTO revoked the patent on August 13, 1997. India was thus able to preserve what belonged to the cultural heritage of ancient India. It represented the first case when the encroachment upon the traditional knowledge base of a developing country was successfully challenged (Iype 1997).

Basmati: Whereas the Non-Governmental Organizations (NGOs) and scientists played the key role in revoking the patents in Neem and Haldi, the case of basmati was taken up by the Indian Industry. India is one of the leading producer and exporter of basmati rice and the patenting of basmati by the American corporation RiceTec (Patent No. 5663484) meant a huge blow not only to the Indian economy but also to India's heritage.

In the words of Vandana Shiva, who led to case against the patenting of Neem, "The theft involved in the basmati patent is, therefore, threefold: a theft of the collective intellectual and biodiversity heritage of Indian farmers, a theft from Indian traders and exporters whose markets are being stolen by RiceTec, and finally, a deception of consumers since RiceTec is using the stolen name Basmati for rice which are derived from Indian rice but not grown in India, and hence are not of the same quality." (Guha Roy 1998).

India started its campaign against the bio piracy of basmati in the year 1998 and finally on August 2001, the USPTO revoked a large section of the patent on Indian Basmati rice. This comprised the title of RiceTec patent No. 5663484, the fake assertion of RiceTec inventing basmati rice, and the claim of having generated methods of breeding basmati rice (Shiva 2007).

These are some of the glaring evidences of how the instruments of deprivation have changed its shape in the globalized liberal economic of the present century. The MNCs which now have enormous amount of power at their disposal try to arm twist the technological capabilities and knowledge field of developing countries and tries to exploit that very country whose knowledge it appropriates.

IPR and Economic Growth: the Case of India

The current regime of intellectual property rights calls for a uniform protection mechanism for the both the developed and the developing countries irrespective of their stage of socio economic development. The issue of whether legitimizing the exclusive rights over knowledge by means of intellectual property has been beneficial to economic growth is hotly debated in developing countries like India. While the advocates of IP regime put forward the argument of IP protection stimulating innovation thereby leading to economic growth, the skeptics deny this saying that IP protection eliminated competition that forms the basis of the capitalist market economy and therefore has detrimental long term consequences in retarding innovation and economic development of the developing nation.

Ownership of patents and royalties by foreign corporate enterprises may destroy the economic structure of a developing country making them permanently dependent on foreign supply, leaving little motivation and resources for growth of indigenous industries. Empirical studies reveal that developing countries benefit from a weak intellectual property rights regime. In their investigation of the impact of IPR on economic growth, Falvey, Foster and Greenaway studied 80 countries and found that IPR and economic growth are positively related in low and high income countries but not in case of middle income countries. While the high income countries benefit from IPR in terms of innovation and the low income countries enjoy technology flows, the middle income countries loose out since their scope of duplicity and imitation is reduced (Falvey et al. 2004). The relation between IPR and economic development has been non-linear in developing countries. Maskus analyses the functional relationship to be a U-Shaped curve, which falls initially as income rises and increase thereafter (Maskus 2000).

Even if the positive correlation between economic development and IP regime is acknowledged, developing countries tend to loose from the current structure of IPR. Patel argues that the patent system represents the most unequal international relationship. Such a conclusion was arrived at by analyzing the distribution of patents among the developing and the developed countries. During the 1970s, there were about 3.5 million patents in existence. Of these, no more than 6 per cent were granted to developing countries. An overwhelming majority of these patents as high as 84 per cent were owned mainly by the trans-national corporations of the five major developed

market economy countries. Over 95 per cent of these patents were not used at all in production processes in the developing countries. The developing countries held no more than 1 per cent of the 3.5 million patents in the world (Patel 1989). India being a developing country shares the same plight as does the newly emerging countries of Asia, Africa and Latin America. India acceded to the TRIPs Agreement in 1994. However, it was not before January 1, 2005 that the new patent law adhering to the guidelines of the TRIPs agreement was officially enforced.

Intellectual property has benefitted the high income countries than the developing countries. The Table below clearly shows that developed states head the list when it comes to patent rights applications.

Table No. 3.3

Country	2000	2001	2002	2003	2004
USA	38007	43053	41293	41093	41870
Japan	9567	11904	14063	17376	19982
Germany	12582	14031	14326	14676	14892
France	4138	4707	5088	5163	5281
United	4795	5482	5375	5208	5056
Kingdom					
Netherlands	2928	3410	3977	4453	4458
Switzerland	1989	2349	2756	2866	2875
Republic of	1580	2324	2520	2951	3521
Korea					
India	185	190	500	723	698

Country wise Intellectual Property Applications

Source: table compiled from data provided in S.B, Akash (2007), "Intellectual Property Rights Regime in India under WTO Regime" in Talwar Sabanna ed. *WTO and Intellectual Property Rights*, New Delhi: Serials Publications.

The table clearly reflects that the developed nation head the list of patent application. It is also a comparative study revealing the discrepancies that exist between India and some of the developed countries. From the table it can be deduced that The United States tops the list with 38007, 43053, 41293, 41093, 41870 patent applications between 2000 to 2004 while number of patent application from India is 185, 190, 500, 723, 698 during the same period. This suggests a huge gap between these two countries. Not only this, India ranks poorly in comparison to all others countries included in the table. Hence it can be concluded that if there is any correlation between intellectual property rights and economic growth, India is at the losing end compared to developed countries.

However, it would be a mistake to say that the current regime of intellectual property did not benefit the Indian economy. Acceding to the TRIPs agreement did bring about some positive effects in economic growth in terms of boosting innovation. Various studies have found that India's accession to the TRIPs regime have been beneficial in terms of accelerating research and development. Empirical study of Indian firms from 1989 to 2008 reveals that firms that are into innovation driven industries have increased their expenditure on research and development. Post TRIPs the average increase of R&D spending has been 20 per cent points higher than before (Dutta and Sharma 2008). More importantly, it brought about the awareness among researchers and invention about the possible benefit that they would accrue from their intellectual creativity. As the drive towards knowledge economy is accelerated, the government of India should work in congruence with scholars and non-governmental organizations to undertake positive steps that would harness India's intellectual capability and effectively utilize it for boosting economic growth in the country.

SOCIAL IMPACT OF IPR ISSUES

'The strengthening of intellectual property rights largely benefited the developed countries, and only later did the costs to developing countries become apparent, as lifesaving generic medicines were taken off the market and developed-world companies began to patent traditional and indigenous knowledge.'

- Joseph E. Stiglitz, Making Globalization Work

Introduction

Intellectual property rights regimes are not just about achieving relative economic gains in international relations. While there are economic motives that drive political actors to enact rules and regulations on intellectual property, its ramifications are also witnessed in the social sectors of the economy. In this sense intellectual property rights has some significant impact on either promoting or inhibiting social justice in a country.

In order to analyze the relationship between IPR and social justice, it is necessary to understand the meaning of social justice. The term social justice includes economic justice but is more than economic justice. In the sense it encompasses the moral principles underlying the economic relations and its underlying institutions. It includes within its ambit policies that are directed towards the overall welfare of the citizens. It encompasses a multitude of areas such as fiscal, monetary, social, economic that are geared towards promoting the general well being of the citizens. It suggests the existence of conditions that are conducive for the development of individuals as social beings. The concept of Social justice, is, therefore broad based and sustainable in the sense that the growth of one section of the society should not infringe upon the ability of the other sections to develop itself.

According to the United Nations (UN), "Social justice may be broadly understood as the fair and compassionate distribution of the fruits of economic growth..."⁴¹ Specifically, the term social justice is not found in the American Constitution. However, the promotion of justice in general, is one of the basic ideals behind the making of the American Republic. 'Liberty and justice for all' is the watchword of the American pledge of allegiance. The U.S. Constitution protects and promotes the social and moral rights of its citizens through the first 10 Amendments, collectively known as the Bill of Rights. The Bill of Rights therefore can be regarded as the manifestation of the social concern for a just treatment to be meted out to each individual.

In India, the idea of promoting social justice draws upon its Constitution. The Preamble to the Constitution of India reads, "We, the people of India, having solemnly resolved to constitute India into a sovereign socialist secular democratic republic and to secure to all its citizens: justice, social, economic and political..." (Constitution of India: Preamble). Hence, the Preamble clarifies that one of the basic and most important objectives of the Indian Constitution is to promote justice among its citizens. Social justice has also been safeguarded through the Fundamental Rights (Part III, Articles 12- 35 with the exception of Article 31 and Article 31D) and the Directive Principles of State Policy. Though not enforceable, the Directive Principle of State Policy lays down the ethos for the promotion of social justice.

Yet, the promotion of social justice often stands compromised owing to the appropriation of knowledge under the contemporary regime of intellectual property rights. The Chapter illustrates upon the motives of IPR regimes, analyzing its social impact in widening the gap between the developed and developing countries with special reference to U.S.-India relations.

⁴¹ United Nations (2006), "Social Justice in an Open World, The Role of the United Nations", [Online: web] Accessed 25 May 2015, URL: http://www.un.org/esa/socdev/documents/ifsd/SocialJustice.pdf

The Impact of IPR on India's Pharmaceutical Sector

IPR in case of pharmaceutical products is the most important arena that has drawn major criticism from the developing world. This is more so in case of life saving drugs. Here it is important to note that the demand for life saving drugs in perfectly inelastic in nature. This means that percentage change of quantity demanded does not respond to the percentage in price. So whatever be the price of the product, the demand remains unchanged. Consumers cannot change their demand according to the changes in price level as these drugs are utmost essential to survival. Under the TRIPs, the drug manufacturer or inventor can patent the drug or its technology. This is to say that the TRIPs legitimize the monopoly rights in case of pharmaceutical products. The grant of monopoly right in medicinal field has detrimental effect to social welfare since the monopolist can now enjoy super normal profit by practicing price discrimination. Given that earning higher rates of profit is their only objective, big pharmaceutical enterprises will focus on producing drugs that cater to the rich and affluent western market. This implies the diversion of resources to developing new lifestyle improving drugs such as slimming pills rather than pursuing research on developing tropical and communicable disease-curing drugs that kill hundreds of people in the LDCs every year. Therefore, rather than doing good to the people, IPRs have made life contingent upon the ability to pay.

Prior to the TRIPS agreement, the Patent Act of 1970 by and large guided India's pharmaceutical sector. There were other directives as well such as the Drug Price Control Orders (DPCO) 1970 and 1979, Foreign Exchange Regulation Act (FERA) of 1973, and New Drug Policy of 1978 among others was in favor of Indian manufacturers and helped India to gain from its IP protection. The Patent Act of 1970 granted process patents only for chemical substance including those used in making pharmaceutical products and reduced the duration of patents to seven years from the date of filing or five years from the date of sealing, whichever is less. Again, all the imported substances invented in India. This spirit of the Patent Act of 1970 was further reinforced by the Drug Policy of 1978 that aimed at self-reliance and self sufficiency in drug technology and production. Import substitution and bulk production of indigenous drugs were undertaken to make drugs affordable and easily available. The mechanism adopted for this was

reverse engineering that decodes the original process for producing drugs in bulk amount. These policies not only geared drug production but also boosted the R& D in drug production. During the decades of 1970s and 1980s, the drug industry grew at the rate of 21 percent and 11 percent respectively. Again, expenditures in the R&D sector in the year 1986 stood at about Rs. 50 Crores which was about 2 percent of the industry's turnover (Roy 2010).

The only actors that did not gain from the Patent Act of 1970 were the multinationals (MNCs) operating in the pharmaceutical sectors. Because of the indigenous orientation of Patent law, the MNCs became hesitant to launch their new medicines into India. However, studies show that this did not deprive the Indian patients from gaining access to latest drugs. Using non-fringing processes, the Indian firms made these new drugs available to Indian consumers. Ranitidine (Glaxo) and Amlodipine (Pfizer) are some of the examples that can be sited in this regard (Barua and Stern 2010; Bhaduri and Ray 2006).

Therefore, self reliance, development and protection of indigenous medicinal products remained at the core of the Patent Act of 1970. However, heyday of indigenous industries operating in the pharmaceutical industry did not last for long owing to India's accession to the TRIPS agreement. India was obliged in change the previous patent law and the new Patent Act of 2005 was legislated. Under the Patent Act of 2005, product patents were allowed for 20 years duration, the clause of 'national treatment'⁴² was applied to pharmaceutical products that abolished discrimination between imported and domestic products in respect of IPR protection and the system of process patent was also altered from that of the 1970 guidelines. Under the Patent Act of 1970, the burden of proof in case of process patents rested on the original inventor. The Patent Act of 2005 transferred the burden of proof to the third party in case of infringement.

The new Patent regime manifesting the aims of the TRIPs agreement posed significant challenge to the Indian pharmaceutical industry, especially to the organized ones. The Indian companies

⁴² National treatment simply means giving others the equal treatment as one's own nationals. It forms a fundamental premise of the WTO based trading system The principle of national treatment suggests that imported goods and services should be treated as equivalent to locally produced goods once they have entered the domestic market. This principle is also applicable to intellectual property rights also and is found in all the main WTO agreements such as Article 3 of General Agreement on Tariffs and Trade (GATT), Article 17 of General Agreement on Trade in Services (GATS) and Article 3 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).

have been facing will difficulty in coping with the foreign drug companies since the previous strategy of drug manufacturing by using non-fringing process development of patented molecules is no longer be feasible. Again, the TRIPs agreement placed limits to the generic drug market. The essential point to note is that most of the new drugs introduced by the MNCs are not novel in the sense of pioneering in therapeutic use, but are modifications of the existing ones (Roy 2010). These drugs that flood the market owing to their competitive strength diminish the life span of the existing drugs, the result of which is the increasing rate of obsolescence in the drug market.

The TRIPS has made the health sector highly competitive both in terms of price and in terms of quality. Product regulation and quality regulations are the new face of trade barriers that works to benefitting the developed countries and depriving the less developed ones. The developed world restricts the entry of cheaper pharmaceutical products into their commercial market by using these restrictions, thereby protecting their pharmaceutical giants.

Therefore, the imposition of TRIPS in the field of pharmaceutical products leads to unnecessary commercialization at the cost of health of the poorer section of the society. The focus of research is no longer innovation, but rather the creation of IPR that work as a means to the end of achieving income rights that is, garnering a major share of the profit . In this sense TRIPs distorts innovation rather than promoting it. Patents have been converted into legal devices that enhance commercial claims. Here, demand is not the issue since the majority of the world's population resides in the developing countries where tropical diseases are the main cause of yearly deaths. The issue is the ability to pay which leads to inefficient diversion of resources from the most urgent to the least urgent ones. For instance, the pharmaceutical industries in order to maximize their commercial gains invest more on lifestyle drugs such as Viagra, rather than investing on tropical disease curing medicines (Lea 2007). Studies reveal that between the year 1975 and 1997 only 1 percent of the new chemical products marketed were relating to tropical disease. This can be proven statistically also by analyzing the per capita annual drug expenditure of some of the developed and developing countries: Japan US\$411, US US\$191, Germany US\$111, Mozambique US\$1, Bangladesh US\$1 and India US\$3.29 (Drahos and Braithwaite 2002).

One might argue, since therapeutic drugs needed to cure tropical communicable diseases are required mostly in the developing countries, why are the indigenous enterprises reluctant to produce them? Apparently the new regulations under the TRIPs seems to focus more on research and technological advances to discover new drugs that can be beneficial to human beings, but reality shows a somewhat different picture. While pharmaceutical is one of the world's most extensively researched sectors, it involves high level of monetary investment and a high degree of risk and uncertainty. India is only a developing country and Indian entrepreneurs cannot afford to take such risks single handedly. They lack the financial strength to carry out such intensive research. These Indian pharmaceutical firms operate jointly with foreign pharmaceutical giants, and in this process are coerced to focus more on the demand of the international market rather than on national priorities, as the former fetches more profit. Amidst this ploy, health concerns often take a back seat.

With the rise of commercialization in health care sector, prices of medicines have been rising. This is because of the brands and expenditures on promotional activities. In short, India pictures the flipside of the TRIPS regime. Here both price and quality moves towards favoring the rich at the expense of the poor who are deprived of affordable and quality medicines. In such a situation the TRIPS imposes welfare costs rather than welfare gains.

Intellectual Property Rights: The Intangible Divider

The contemporary nature of intellectual property rights has been criticized by the developing countries as being biased and beneficial to the advanced industrialized countries of the West. Pugatch gives two grounds for the justification of this statement: first the principle of 'national treatment' and second the requirement of standardization. The first principle that is the system of 'national treatment' requires member states to treat foreign nationals as their own therefore enabling foreign corporate houses to exploit and benefit from their IPRs in states other than their own. The requirement for 'standardization' means that countries joining the international intellectual property protection system have to enact and implement similar domestic IP legislations to protect intellectual property infringement at home. Both these measures are doubtful because countries have considerable amount of gaps in the scope of their IP legislations and hence the principle of national treatment in itself is insufficient. It should also be remembered that states across the globe cannot be homogenized under a particular category since

they are at different stages of their development, all their priorities are not shared and homogenous, and therefore the universal character of having a single set of laws that would be applicable to all states ignoring their historical stage of development is inappropriate (Pugatch 2004).

Again, the economic motives of America's politically backed 'corporate capitalism' are largely felt in the framing up of political agreements. Stiglitz points out the negative outcomes of international agreements that the liberal scholars might have never dreamt of while rallying for free trade. Trade agreements, at least in the philosophical sense was supposed to foster integration among states that are separated geographically or politically, but for the MNCs, corporate profits seems to be the most important goal of international engagement. While analyzing the unequal development that the international regime of Intellectual property rights brings upon the developing countries, it can be pointed out that what separates the developing and the developed countries is not just the disparity and the gap in resources but also the disparity in knowledge (Stiglitz 2006). The TRIPs has been designed in the way to favor the Western companies, making access to knowledge more difficult for the developing countries perpetuating the already existing inequality among nation states. One of the detrimental effects of TRIPs is on the access to life-saving medicines; TRIPs attempted successfully to restrict the access to generic medicines, putting these drugs out of the financial reach of most people in the developing countries. The gravest form of inequality is sanctioned and legitimized through the TRIPs agreement when the right to life is held contingent upon the ability to pay. Hence TRIPs is nothing less than the victory march of the corporate groups in the United States and Europe over the health care of billions of people in the developing world. Its present nature works as a 'death warrant' for thousands of people in the poorest countries of the world.

By giving the inventor sole right over the fruits of his invention intellectual property rights creates monopoly. This generates monopoly rents (excess profits) that provide the incentive for investing in research. The rent-seeking nature of intellectual property rights is not only morally repugnant but also has material costs. It creates monopoly rents hampering access to health care facilities. The most negative outcome of the rent-seeking nature of intellectual property rights arises when the wealth appropriated by the top layer of the society actually comes at the expense of the bottom layer of people. Therefore, the TRIPs proved to be nothing more than imposing the

most unbalanced intellectual property regime. The second argument against TRIPS is that they circumscribe the use of knowledge. This not only creates distortion, but it also does something even worse by creating monopoly. The danger of monopolization is greater in small developing countries than in large developed countries, because markets are smaller and more frequently dominated by a limited number of firms.

Circumscribing the use of knowledge is wrong according to scholars such as Samuelson. Knowledge by the very definition of Paul Samuelson is 'non-rivalrous'. Knowledge is a public good whose benefit should not be appropriated by a single individual but should be utilized for the benefit of society at large. Reality shows that the regime of intellectual property rights work in the way to restrict or limit the use of knowledge. This leads to inefficiency from the underutilization of a public good. The developing countries not only tolerate this distortion and inefficiency, but by being a part of legal framework, sanction it (Stiglitz 2008). The free trade agreements act as a 'Trojan horse' that facilitates the imposition of U.S. copyright and patent law on other states (Lea 2008). Thus, inequality among societies is not only the result of the laws of economics, but also the game of politics. The hope remains that the inefficiencies of monopoly power can be counterbalanced by increased innovation. Here too the TRIPs as a part of the art work of the U.S. MNCs work towards furthering the deprivation level by sustaining the knowledge gap between the developed and developing countries. The developing countries had no option to bypass the TRIPs agreement since they faced an unpleasant dilemma to either forego the trade benefits of WTO membership, or work under the package provided by TRIPs. The whole process works like a vicious circle where the myth of promoting welfare in developing countries masks the profit motives of the developed countries.

IPR and Sovereignty in the Developing States

Given the highly prejudiced nature of the IPR agreements, the question arises whether the contemporary nature of intellectual property rights push for conditions where the developing countries would have to compromise with their sovereignty?

The modern concept of sovereignty was first analyzed by Bodin in his *Republic* in 1576. By sovereignty he meant 'supreme power over the citizens and subjects unrestrained by the laws' (Sabine and Thorson 1973). If sovereignty as 'a constituent of the state' is understood as having supreme authority over a particular polity then it can be contented that the contemporary nature of international politics along with the compulsions of the globalized economy have amounted to limiting the sovereign power of the weaker state, i.e., the developing countries who have started off late in the current race of development. The less developed countries (LDCs), who have gained independence mostly in the latter half of the 20th Century becoming sovereign nation state, only to compromise owing to the biased structure of the globalized world order. Sovereignty, in the LDCs has always been compromised, if not completely at the mercy of the developed countries.

The knowledge economy has also had the spillover effect of phenomena of globalization. The voices of the LDCs are lesser heard when it comes to decision making in the international forum where they have to compromise their position to give way to the developed countries to continue their exploitative mechanisms. This becomes clear if we see the current regime of environmental protection, the case of nuclear proliferation and intellectual property regime. Since knowledge have now become one of the most important input in the production of goods and services, the developed countries are leaving no stones unturned to manipulate the international organizations and gain as much as they can from patent and copyright protection, compelling it to be broadened like never before and encroaching upon areas such as agriculture, life saving drugs and even traditional medicines. The result of this has been the emergence of 'information feudalism' (Drahos and Braithwaite 2002). Comparing the basic tenets of medieval feudalism and modern day IPR doctrines, it can be argued that in both these systems there is the underlining characteristic of inequality between the richer few and the poorer majority. Inequality is the reality in both the medieval feudal society and the modern capitalist system. In the feudal system the ownership of land was the symbol of power and deprivation was measured in terms of physical property while the information feudalism is characterized by both deprivation and piracy of intellectual property. Given that knowledge is the most important input in the production process, the contemporary IPR regimes are progressively transferring knowledge from the intellectual commons to the private bodies. These private bodies are actually conglomerates of big entrepreneurs and science corporations rather than individual creators or

scientists. Such a move enhances the monopolistic tendencies of the private corporate houses who now manipulate the 'invisible hand' to their advantage. Not only this, they even interfere in the decision making processes of the states so that policies are enacted in their favor. The sovereign power of state is reduced in this process and states are less capable of protecting their citizens from the consequence of IP monopolization and therefore a major part of the world suffers from the encirclement of knowledge.

Here the Gramscian concept of 'hegemony' can be reiterated to understand the methods adopted by the western states to persuade the developing ones. When the exercise of power is sanctioned by the consent of the subjects, it is called hegemony. In order to gain consent, the hegemon uses various 'structures of legitimization' such as the institutions of civil society. These structures facilitate the inculcation of the western value system through the impression of spiritual and cultural supremacy. It is through these structures that the apparent impression of justice is legitimized.

In the era of globalization, intellectual property rights work as one of the structures of legitimization for the western states to sustain and legitimize its hegemonic dominance over other states. The developing countries are made to believe that the rules are regulations are just and perfect for an even development, though reality may reveal the opposite.

Intellectual property rights also work as a tool of *soft power* in the hands of the powerful nation states to sustain their dominance (Nye 1990). Nye suggests that the 21st Century represents a major break from the past in the sense that the traditional source of power namely, military or hard power no longer hold effective for achieving relative gains. Instead the use of these traditional sources has become risky and pricey. Such diffusion of power is caused by a number of events that has changed the course of world politics, namely, a high rate of economic interdependence between nation states, the rise of transnational actors, growing nationalism in weaker states, spread of technological know-how, and revolution information technology. In lieu of all these changes, world politics have experienced a change in the manner power is manifested. While the concept of power and the structures of power by and large remains the same, there is a change in the instruments of power. Recognizing the changes of the highly interdependent world economy and revolutions in the field of information technology, great powers have sought to employ other instruments of power which might not seem to be

apparently forceful, but whose coercive power is more than the traditional instruments. Such is the capability of *soft power* which can be defined as the ability to mould and influence the behavior of individuals and states. Also knows as co-optive power, it signifies the ability of a country to frame a situation or model in a way such that other countries develop preferences towards them or identify their interests in a manner consistent with its own. In the sense that it can change the whole course of developmental paradigm in a foreign state and can even psychologically convince a foreign nation to adopt methods that actually benefits the powerful ones. Soft power lies in the ability to attract and persuade. Whereas hard power, that is, the ability to coerce grows out of a country's military might, soft power arises from the attractiveness of a country's culture, political ideals, policies, economic model, and interdependence. Hence by means of soft power, a powerful country gets other countries to *do* or *want* what it wants.

The significance of soft power lies in its ability deal with critical global issues that require multilateral cooperation among states. The TRIPs as a multilateral agreement regulating trade and investment actually works as soft power in the hands of the United States of America. Through this, the U.S. continues to play a predominant role in international affairs by influencing the behavior of other actors. Hence, the sovereign powers of weaker states are compromised owing not only to the deficiency of resources and knowledge but also lack of a strong and unified voice. Soft power creates an impression of apparent development through acceptance of American styled free trade agreements, while reality beholds a dismal picture for them. An Important point to note is that the developing states do not even realize this while accepting them or even when they do their voices remain unheard. Here lies the superiority of soft power over the traditional sources.

Hence, the imposition of IPR upon the developing countries is more than the expression of desire of the developed countries to extend their dominance and maintain a monopolistic or oligopolistic control over the international market. It is a politically driven motive that seeks to place the sovereign authority of the developing countries at the mercy of the powerful non-state actors' namely multinational corporate enterprises. They lack autonomy of decision making in terms of resource allocation and utilization. The authority of states has thus been lessened even within their own territorial jurisdiction thus compromising their sovereignty.

IPR and Economic Development: Special Reference to India

Before assessing whether the current regime of intellectual property rights promotes economic development in India, we need to get acquainted with the meaning of economic development. The concept of economic development is wider and cannot be comprehended fully by studying one factor. It is more than the material wellbeing of an individual. It is the qualitative measure of the material wellbeing of an individual or a country. It signifies something more than the narrow definition of economic growth. Development includes growth in quantitative terms and other qualitative factors such as good health, environment protection, availability of quality goods, and improvement in physical and mental ability, among others.

Intellectual property rights and economic development are linked to one another in the sense that IPR regimes act somewhat like backward linkage effect in contributing to the competitiveness of the firm. The western countries have benefitted the most from IPRs and in this sense intellectual property rights are intrinsic to the development of the western countries. Scholars such as Jawara and Kwa points out that copying of existing commodities, technologies and processes have been the key to industrial development in countries like the United States of America. However, the rhetoric remains that these countries after having achieved higher levels of development, devised mechanisms that deprive developing countries from using similar techniques. They are strictly forbidden from emulating the path of development followed by the industrialized countries (Jawara and Kwa 2004). Their voice have been permanently lowered if not muted through the passage of the TRIPs, which enabled the technological leader, namely the United States to influence and manipulate the pace of technological and industrial development in the rival and third world countries.

The relation between IPRs and economic development can be well understood by focusing on the plight of pharmaceutical industries. By means of patenting, the United States tries to appropriate the age old traditional medicines of the developing countries and preserves the dominance of few American pharmaceutical giants in the drug market.

India faces a huge challenge in terms of encroachment in its traditional knowledge field, high drug prices and needs a big push in its innovation and research oriented industrial sectors to

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benefit from the current IP regime. TRIPs have legitimized the expansion and restructuring of intellectual property over productive areas that have been traditionally immune to this form of interference. This is evident in the sphere of traditional knowledge of the ancient societies. It is nothing less than an economic device in the hands of the United States for achieving political gains in terms of decision making and accumulation of power. India and other developing nations are categorized as offenders under various mechanisms of IPR protection devised by developed nations. It makes the line of division between the developed and developing world permanent by exercising control over people's thinking and trying to appropriate traditional knowledge. Fighting an IPR case is an expensive enterprise for developing countries like India. Though the legal battle between Rice Tec and the Government of India was decided in favor of India, the whole process of fighting the case proved to be an expensive endeavor on India's counterpart. The Government of India spent hundreds of thousands of dollars fighting the U.S. based MNC, RiceTec that attempted to violate the rights of the Indian farmers by patenting basmati.

Another important area of concern is trademark. Since foreign firms have more competitive advantage and own most of the trademarks, they create condition known as brand loyalty which helps them to gain from the market. In addition, trademarks may become a social burden when they provide consumers with irrelevant and confusing information, particularly with regard to products that are identical in function and in quality. The detrimental effect of trademarks and patents is evident in India where the imposition of IPR regime leads to welfare loss and price increase. Studies reveal that patents make drug prices expansive and only 30 per cent of the Indian population can spend on such modern and expensive medicines (Correa 2000) Therefore, the question remains that how can the IPR promote development in a developing country when the basic necessities of life are commercialized?

There are also serious flaws in the domestic laws of the developing countries that make them vulnerable to the foreign multinationals. In India, a serious loophole in India's Patent (Amendment) Act 1999 is that while exclusive marketing rights are offered to corporations without any exemptions and exclusions, no safeguards have been put in place for protecting public interest. Section 24 (c) and 24 (d) create the illusion of compulsory licensing. However, compulsory licensing applies only to production and manufacture and is meaningless in the

context of selling and distribution. Similarly, price control can be applied if a product is produced domestically. Price controls and compulsory licensing cannot be applied for Exclusive Marketing Rights (EMRs). The Patent (Amendment) Act 1999 has thus created absolute unregulated marketing rights for global corporations and undermined the rights of the India people to adequate and accessible health care (Shiva 2001).

While looking into the reason for acceptance of the unequal regime by India and other developing countries, Nachane demonstrates that historically intellectual property rights have ranged between two extremes, one the natural rights argument and the other being the utilitarian argument. The Indian argument holds that national IPR laws should embody aspects of both views, with 'strong' IPR regimes setting greater store by the natural rights viewpoint and weak' regimes emphasizing the other end of the spectrum. While debating the likely economic consequences of trade regimes for India, the author distinguishes between two opposing views the dominant, traditional view which postulates that strengthening IPRs will have deleterious consequences for LDCs and an emerging, but possibly minority view, that such strengthening is an absolutely necessary precondition for the LDCs to be integrated into the global economy and to launch oft into a sustainable high-growth trajectory. Two of the most important sectors in India that are likely to be affected by TRIPs are the pharmaceutical and agricultural sectors. The trade agreements were was identified as 'Hobson's choice' for India and most other LDCs. The acceptance of the trade liberalization and expanding the domain of intellectual property to include every products and services exemplified the endorsement of the U.S. viewpoint reflects of two phenomena characterizing the world order- firstly, the emergence of the U.S. as a political as well as an economic hegemon and secondly, the breakdown of LDC solidarity which would ultimately have wide ranging ramifications on the trajectory of the development of the southern countries (Nachane 1995).

The contemporary regime of IPR protection has multiple ramifications upon the socio economic and political development of a country and may sometimes alter the development trajectory as a whole. India is no immune to such influences. The impositions of IPR regimes which have been designed by the United States thus have wide ranging consequences in retarding the rate of the economic development and social justice in India. The idea is limiting economic development in foreign so that it does not challenge the existing power structure in the long run. The concept of domination and power is the same, only the bait is new. It's in the form of an a magnificently drafted agreement that apparently seems to be alluring but it's actually a cobweb that seeks to cripple the developing countries innovative capability making it permanently dependent on the developed ones. When such is the case, the present structure of IPR cannot bring about economic development in a third world country.

The Lack of 'big push': Policy Choices for India:

It has now been quite apparent that the contemporary nature of the intellectual property rights is biased towards the United States of America and other developed nations. Scholars critical of the biased nature of IPR suggested various policy options. Pugatch is of the opinion that if a country has modest intellectual property capability then it would be advantageous for it not to join the contemporary international IPR system. Upon not joining the international IPR regime, a particular country can enable its domestic enterprises to access IP products and capabilities without paying for them. This would nullify IP import costs, thereby reducing the cost of production and increasing the competitiveness. Now these firms can compete in the international market and earn handsome profit by exporting those products that its firms can emulate and exploit. Again, by refusing to be a part of the international IP system, a less developed country can increase its national income by an amount which is equal to the excess in prices that its nationals would have paid to foreign companies for their IP products if there IPRs were acknowledged (Pugatch 2004). However such a situation is not possible in practical application as the developing countries had to accept the WTO provisions.

As in the case of India, intellectual property rights can be harnessed by seeking protection in two types of IP that are fundamental to the country's heritage and culture, namely traditional knowledge and genetic resources and geographical indicators such as Darjeeling, Basmati. A major step has already been taken in advancing the farmers rights to remuneration for the use seeds and other genetic substances by foreign enterprises operating in the pharmaceutical and biotechnology fields (Shiva 1993; Mattoo and Stern 2003). India has already won several cases of bio piracy against the American corporate sending a strong signal to MNCs against encroaching upon the traditional knowledge of ancient societies. The CBD is an effective

platform that protects traditional knowledge that should be utilized more often by the developing countries to voice their concern. Scholars, governmental bodies and non-governmental organizations need to work in congruence with one another to boost the Indian economy and boost its IP capabilities and protecting its knowledge against bio piracy. Domestic systems and legal mechanisms for the protection of traditional knowledge and geographical indicators must be strengthened. A landmark in this direction has been the creation of National Community Gene Fund, which though has limitation in terms of enunciating farmers' right, nevertheless gestures a positive beginning. In case of geographical indicators, the piracy of Basmati in the name of Texmati by U.S multinational RiceTec is hoped to serve as the wake up signal for Indian authorities and it's high time that India should get all its geographical indictors registered under the Article 23 of the TRIPS Agreement (Subramanian 2003). The increasing penetration of IPR protection in the realm of small and medium sized industries is also a concern for Indian manufacturing enterprises. IP licensing can be one mechanism by which Indian companies can avoid the abuse of patents and trademarks, especially in the field of software (Hans 2007).

Besides, there has been significant improvement in some areas and an increase in the appreciation and awareness of intellectual property. Patent applications have been rising over the years. In terms of Patent Cooperation Treaty (PCT) filings, the WIPO's report on The PCT filing ranks India among the top Asian countries. The number of trademarks filed has also increased considerably from 38109 in 1995-96 to 60985 in 1999-2000 (Hans 2007). The need of the hour is to strengthen investment in intellectual property in order to keep pace with the advancement in the knowledge based technology. India should engage in a systematic approach to protect its valuable IP inputs and use its legal apparatus in this regard in order to generate wealth in the contemporary IP driven production system.

Since the countries of the world are at different stages of socio economic development concept of one-size-fits-all is no longer applicable. The same should be taken into account while enforcing one uniform code of intellectual property rights regimes. Rather it would be correct to say that a uniform policy cannot be designed when the states are themselves not uniform in their developmental paradigm. The question therefore remains that what should be the apt mechanism to IPR regulation that would serve the dual purpose of providing incentives to innovations without limiting social gains. A balanced policy is required which would take into account the dynamics of the market without infringing upon economic growth (Maskus 2000). It is important to strike an equilibrium balance between the users and the producers of knowledge (Stiglitz 2004). A highly rigid system of IP regime would hamper competition rather than promoting it. This happens when rights of a vital resource or input are held by a group of producers giving them command over the entire market. In other words, innovation is retarded since knowledge is the most input in the production process.

Another suggested remedy is to have separate intellectual property regimes for the LDCs, the middle income, and the advanced industrial countries (Stiglitz 2006). Stiglitz also opines for the adoption of the prize system which is more advantageous than the patent regime. The prize system offers a prize to the investor or discoverer and then makes the knowledge widely available for others to access and also use it as an input for further research and development. Such a system would enable to reap benefits to individual and society and is devoid of inequality-increasing tendencies which are inherent in the current system of intellectual property rights (Stiglitz 2013).

While scholars have proposed an alternative to the current system that guides IPR, the fundamental problem is to device an IPR mechanism that would suit to a country's development paradigm given that countries across the world are so diverse in their capability and development level. Again, the question remains that how far will the powerful industrialized nations accept such an alternative model that would benefit the developing nations instead of adding to their treasures. The developed countries would vehemently oppose any pro developing country regime since the inequality is the call of the day. This is evident in all areas of international relations such as climate change, knowledge sharing, monetary policies among others. The developed and the powerful nation states may seem to entice the world community with their eloquent style of oration but the fact remains that detailed examination of the current IPR paradigm is biased towards the developed north headed by the United States. It merely serves the interest of the corporate business enterprises of America's 'managerial capitalism.'

CONCLUSION

Knowledge, a word so simple yet it is one of the most significant drivers of modern day development and progress. Politics or political science often takes into account the dynamics of power relations involving military and resources while the role of knowledge and information in the game of statecraft remains ignored. The dissertation is a humble attempt to explain the role and significance of knowledge as a part of the game of economic statecraft. In the past, battles have been fought over the territory and material wealth. The present century witnesses frictions, if not battles between and among countries over the appropriation of wealth in terms of knowledge.

In the age of information technology and scientific development, the birth of IPRs is a consequence of the human endeavor to safeguard and sustain the creative ability of individual, business and society. The politics lies in how they are designed and who designs them, making them instruments of economic statecraft. Though the dissertation is based mostly on delineating the empirical and statistical realities of intellectual property rights, theoretical and philosophical premises are evoked to understand the essential frameworks behind the American model and the concept of intellectual property rights. The philosophies of liberal scholars like John Locke, Adam Smith and Ricardo among others have been mentioned since they laid the theoretical basis of modern day liberal economy. The works of John Locke have been reiterated a number of times since he single handedly built the theoretical premise of modern day capitalist economy invoking into people the ideas of right to life, liberty and property and the state as the protector of these higher values of life. The idea that property created by laboring on natural resources is nothing but the manifestation of the self reflects a sharp break from the earlier notion of divine rights theory inspiring a different kind of philosophical foundation on which the modern understanding of liberal state is based. The political setting, international environment and the

nature of interaction among nation states have changed, but what remains is the relevance of Locke and his ideas espoused as early as 17th century.

The United States of America realized the significance of knowledge from the very foundation of the Republic. The significance of knowledge manifests itself in the writings of the founding Fathers and in the Constitution of America. Conceiving knowledge as equivalent to physical property and safeguarding it has been a part of America's engagement with other states. IPR laws have been strengthened, and various department and agencies work in congruence with each other in order to protect American products and companies from infringement. Again, most of the agencies behind the surveillance and monitoring of the IPR protection in foreign lands represents the interests of the America's corporate bodies. The majorities of them are either coalitions of various corporate interests or manned by representatives of the American corporate giants. Hence there is no doubt that the government of America represents the interests of the American enterprises when it comes to issues of intellectual property.

A major breakthrough in IP protection was the single-handed initiative of the United States of America. The economic dominance of America was accomplished through the passage of the TRIPs Agreement and here again the American entrepreneurs played a pioneering role in framing and ensuring its passage. Though its main purpose was to prescribe the minimum standards for IPR protection and enforcement, severe penalties were reserved for WTO member countries not acknowledging and adhering to such protection such as the penalties under Section 301 of U.S. Law and revoking of MFN status among others. Its ambiguity lies in the fact that it does not prescribe any protection mechanism for the traditional knowledge of the ancient societies and enables the commodification of every products and processes.

The research then focuses on the dynamics of U.S. - India economic relations, forging an empirical study of three areas of America's economic engagement with India. The United States has periodically helped in India's development paradigm by granting unilateral developmental assistance. The relationship was not always a bright picture since the 'donor- recipient' relation was affected by political calculations leading to the undue delay in food aid at the time when India was ravaged by famine and food shortage. However, the relationship took a new turn with India undergoing its economic reform that began in the year 1991. Since then, commercial relations have improved between the United States and India, and the two countries have

emerged as reliable trade and investment partners. Nonetheless, protection of intellectual property rights has been a major bone of contention between the two states, with India's name periodically appearing in Special 301 list. Allegations of infringement, inadequate copyright protection and bio piracy have been regular on the negotiation table with the United States expressing concern about the IP protection of U.S. companies operating in India. On India's side, there have been complaints about American enterprises encroaching upon India's traditional knowledge belt and patenting it. Here it can be argued that social justice of the developing countries like India is at stake due to its encroachment by foreign companies in the name of protecting so-called IPRs. Again, India's victory in the bio piracy cases stands as a landmark achievement for developing countries and serves as the potential warning for corporate giants against infringing upon the traditional knowledge of ancient civilizations.

India has not reached a high level of economic growth and a vast majority of India's population is still below the poverty line relying on traditional knowledge and cheap products. As the issue presently stands, stricter IPRs especially in the field of drugs and other health care products compromise social justice in India since the procurement price of such is beyond the reach of the poor. Another point to note here is that IPRs make input price of commodities costlier since manufacturers now have to pay a higher price for processes and factors of production, in case they are patented. This either makes the final product costlier thereby restricting its usage or encourages monopoly where price discrimination hurts the consumers. Since most patents in drugs, products and processes are held by American corporate companies or their cartels, the present paradigm of IPRs helps only to preserve American hegemony, at least in the economic sense. It is also important to note that the victory of India in the bio piracy disputes shows that even if the United States is hegemonic and is the leader in creating the TRIPs-based trading system with the goal to protecting its IPRs, it is bound by the same rules and regulations that are equally applicable to all states.

However, it is significant to note that in spite of having tussles over intellectual property, U.S. -India bilateral trade and investment ties have shown a positive and rising trend. This suggests that even if these states are concerned about the protection of IP rights, they do not let such disputes come in the way of their commerce. Trade and investment thus binds these two countries and helps sustaining amicable ties between them. American interest lies in India's vast populations along with a substantial middle class serving as the market for American companies to sell its products as well as its skilled manpower makes it a fertile ground for investment. Along with this, the strategic location and geopolitical realities make the United States the most significant partner of India. India is a nuclear power in Asia having a functional democracy and is a partner in America's counterterrorist activities in the Asian subcontinent. The IP issues are definitely a major cause of concern but both the states rely on diplomatic negotiations to solve actual and potential disputes. Both the United States and India consider intellectual property rights and its protection to be one of the most vital pillars for the progress of the country. The problem lies in the perception since both states are at different stages of development. America is a developed country whose growth rate is high. It is technologically the most powerful and its knowledge base is strong. Hence it is quite natural for them to circumscribe their knowledge resource by stricter IP protection. India is a developing nation and is far away from reaching the high level of production and consumption that characterizes the American economy. Its development requirements seek cheaper inputs and demands sharing of technology which does not seem feasible. The contemporary system of IPR has been structured in such a manner so that the 'us and them' line of difference is made permanent by an unbridgeable knowledge gap. It seems that behind the liberal philosophy of attaining absolute gain through economic linkages, states behave as Machiavellian realists trying to appropriate relative gains. IPR therefore acts as soft power in preserving American hegemony by facilitating trade and commerce in a manner that apparently enables India to trade freely but at the same time reassures and sustains America's dominance.

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