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Article

Modernity, Orientalism and the Construction of International Relations

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Abstract

The assertion that the post-Cold War era has witnessed the rise of culture and identity as important factors in world politics has become a truism in much recent International Relations (IR) literature. However, this obscures the extent to which a specific culture, that of the post-Enlightenment West, has shaped the development of IR as a discourse and a discipline from its inception. The premise of this paper is that IR's origins in this particular cultural context has fashioned its key analytical concepts and categories in a way that serves to justify and perpetuate the hegemony of the West. In order to historicize the construction of IR it is necessary to interrogate the discipline's relationship with the idea of modernity and in particular, with Western accounts of the modernity which is the source of its historical framework and ideals. In doing so, the notion of modernity and its dominant conceptualizations, which tend to ignore or marginalize the experience of colonialism, will be problematized. Focusing on the foundational idea of the

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'anarchical international system', the paper aims to show how IR's use of the concept of anarchy has been shaped by the theory and practice of modern orientalism that emerged from the imperial and colonial encounters between Europe and non-European societies between the end of the fifteenth and eighteenth centuries and remains one of Western modernity's most prominent features.

Keywords: Orientalism, international relations theory, postcolonialism, anarchy

Colonialism and Modernity

Innocent Modernity

The concept of modernity is usually defined as encompassing the processes of change and transformation that have ensued since the beginning of the Industrial Revolution and the rise of capitalism in Europe. These include the advent of large-scale production and consumption of commodities, a decline in religious forms of authority and the religious world-view, the appearance of new class formations and the growth of new ways of producing and classifying knowledge. Moreover, Western modernity is associated with the Enlightenment, a period during the seventeenth and eighteenth centuries that saw a heterogeneous group of thinkers mainly from France, Scotland, Italy and Germany produce an intellectual movement resulting in a fundamental shift in European social thought. However, the Europe-centered account of Western modernity favored by theorists like Marshall Berman tells only part of the story and perpetuates the image of what Paul Gilroy has called an innocent modernity, that emerged "from the apparently happy social relations that graced post-Enlightenment life in Paris, Berlin and London" (Gilroy, 1993:44; Berman, 1988). Even postmodernists like Zygmunt Bauman, Michel Foucault and Jacques Derrida, though well aware of Western modernity's not-so-innocent workings, fail to give due weight to the significance of Europe's

violent encounters with the rest of the world through colonialism, imperialism and slavery in understanding modernity's ethical and intellectual legacy in the West.[1] Rather, the subjugation of non-European populations is seen as irrelevant or as an aberration resulting from premodern sentiments that were eventually overtaken by Enlightenment rationality.[2] Yet, as will become clear, to minimize colonialism as an aspect of Western modernity is to deny the central role that Europe's contact with its colonial Others has played in determining the meaning of modernity's key concepts of rationality and civilization, thereby diminishing its ongoing political, economic and cultural legacy to the modern world order. While it may have begun as a pragmatic, haphazard practice driven primarily by economic imperatives, colonialism cannot be understood outside the cultural context that gave it a framework and meaning. Colonialism, then, has a philosophical, historical and theoretical genealogy that can be traced squarely to the Enlightenment and the emergence of modernity in Europe. Western modernity was, therefore, not just complicit with colonialism but was constituted by it.

Modernity, Orientalism and Colonialism

In their theorization of the relationship between modernity and colonialism Michael Hardt and Antonio Negri argue that European modernity was not a unitary concept but rather

[1] While Zygmunt Bauman's work encompasses an important interrogation of the violence of modernity he focuses his attention on Europe's genocidal practices toward its *internal* Others, (Bauman, 1989, 1991). Likewise, although Jacques Derrida and Michel Foucault both broached the complicity of Western rationality with colonialism, their discussion of the problem was limited. See Derrida, 1974; Foucault, 1980.

[2] Modernity theorist Ernst Gellner for instance, regards colonialism to be just another form of oppression brought about by the uneven diffusion of technological advance, and therefore considers it unworthy of particular attention. (Gellner, 1993: 3).

occurred in two modes (Hardt and Negri, 2000). The first of these modes was a radical revolutionary process, the result of the European "discovery of the plane of immanence" between 1200 and 1600, which saw humanity conferred with the powers previously thought to be held by the heavens, thereby opening up new possibilities of freedom, democratic politics and scientific inquiry (Hardt and Negri, 2000:73). However, the revolution of European modernity provoked a counterrevolution that sought to dominate these new forces in order to "reestablish ideologies of command and authority" by seeking to "transplant the new image of humanity to a transcendent place... and above all oppose the reappropriation of power on the part of the multitude" (Hardt and Negri, 2000:74-75). In the midst of this crisis, during the development of Renaissance thought, Europe made the discovery of territories and populations drastically different to its own. This discovery strengthened the revolutionary forces challenging the accepted orthodox Christian history of the world and bolstered the idea of human equality initiated by revolutionary Renaissance humanism. Europe's outside thus became another front in the counterrevolutionary war of containment in the struggle over the paradigm of modernity. The concept of Eurocentrism was forged precisely for this purpose, coming into being at the moment when the counterrevolutionary forces became conscious of Europe's ability to subject the newly discovered populations to their domination (Hardt and Negri, 2000: 76-77). Colonialism, therefore, functioned as a temporary solution to the crisis that marked the emergence of European modernity.

Eurocentrism was crucial to the formation of the concept of 'the West' in modern discourse. The discourse of the 'West and the Rest' pitted a rational, civilized and progressive West against a stagnant, barbaric and superstitious Rest, and fed into the notion that there is a single (European) path to civilization and social development. This, in turn allowed for the hierarchization of societies, putting the West, which in Kant's terms had "thrown off the yoke of immaturity", at the pinnacle of social development (Kant, 1970:55).

At the other end was the lowest stage of development, the state of nature, a concept that came to underlie the development of European political thought during the Enlightenment (Jahn, 2000). The concept has its origins in the Spanish 'discovery' of native American peoples in the fifteenth century, which posed a fundamental challenge to the Christian conceptions of human nature, history and destiny underpinning European society. Hence, Spanish writers like Las Casas, drew on the old religious concept of the state of nature – the condition of humans before their exit from Eden – and reinvented it as a secular and historical first stage of human development, represented by native Americans. This enabled the Spaniards to explain the existence of societies so different from their own and to develop the political and moral framework to interact with them while pursuing their primary goals of wealth accumulation and religious conversion (Jahn, 2000:50). The state of nature thus, "brought with it a worldview based on a hierarchy of cultures which served as the basis for a theory of unequal relations between political communities" (Jahn 2000:96). The concept of the Rest was built upon the edifice of this hierarchy of cultures and was intrinsic to the development of the European Enlightenment. Without it, the West would not have been able to recognize and construct itself as the center of its discourse on modernity, civilization and development (Hall, 1992:311-14).

The discourse of the West and the Rest that took shape in the post-Enlightenment period is referred to here as modern orientalism. Ziauddin Sardar argues that orientalism should be treated as a series of discourses changing with historical circumstances but linked by common features, rather than as a monolithic metanarrative (Sardar, 1999:55). He locates orientalism's origins in Christian Europe's encounters with Islam in the eighth century, which, he argues, represented the first challenge to the Christian world-view, and produced the "willful misunderstanding and knowledgeable ignorance" that have remained its guiding spirit (Sardar, 1999:19). However, as Edward Said argues, it is only from the late eighteenth century that orientalism can be analyzed as a

systematic, institutionalized practice (Said, 1995:3). In its most basic understanding, orientalism is a complex set of dominant representations by which the non-European Other was produced as the West's contrasting image. When used by Said and Sardar, the term orientalism refers specifically to the societies of the Islamic world, China, India or Japan. However, here orientalism will be treated as a general term for the practice of producing non-Western Otherness, thereby, making it just as applicable to European discourses about the 'primitive' societies of Africa and the indigenous peoples of Australia, the Americas and the South Pacific. It is true that some Western scholarship compares non-European societies positively with the West.[3] However, on balance, both in its scope and impact, orientalism is a discursive formation that shows the superiority of the West in contradistinction to its Others. In any case, orientalism is about more than just the ability of the West to (mis)represent the non-West, whether positively or negatively. Rather, orientalism "is a form of inward reflection, preoccupied with the intellectual concerns, problems, fears and desires of the West that are visited on a fabulated, constructed object" (Sardar, 1999:13).[4]

Orientalism, is not however, a totalizing discourse, for it contains internal divisions that are the manifestation of "an internal dislocation within Western culture, a culture which consistently fantasizes itself as constituting some kind of integral totality at the same time as endlessly deploring its own impending dissolution" (Young, 1990:139). The source of this internal dislocation lies in the ontology of Western philosophy, which, according to Emmanuel Levinas, has long been dominated by the concept of totality and the desire for unity and sameness (Levinas, 1987). It is clearly evident in the philosophy that became the

[3] Nietzsche, for example, wrote favorably on the 'heroic virtues' of Islam (Nietzsche, 1990:195-96).

[4] Nietzsche's favorable treatment of Islam, for instance, served to buttress his critique of Christianity, which, he argued, had imparted onto Western society a false piety and a 'slave morality'.

hallmark of Enlightenment thought, that of the seventeenth century thinker Rene Descartes, whose self-defining concept of consciousness gives rise to a form of reason that reduces "the unintelligible diversity and material alterity of the world to the familiar contents of our minds" (Gandhi, 1998:36). Under the influence of Cartesian rationality, difference, in Enlightenment thought, came to be represented as Otherness and this was taken to constitute a threat to the totality of Western self-identity. Consequently, when it comes to comprehending the Other in theory or knowledge, alterity, and the threat that it poses, is neutralized through the assimilation of the Other into the Self, which can then once again proclaim its universality. Orientalism therefore, is a projection of this dissonance in Western thought onto external geographical or cultural differences (Young, 1990:140).

Orientalism and International Relations

The pervasiveness of orientalist discourse in dominant modes of Western thought has meant that the modern social sciences have been significantly affected by its influence. By tracing the emergence of IR as a modern social science it is possible to see how orientalism has manifested itself in the discipline. In particular, it will be argued that orientalism permeates IR through the concept of anarchy that resides at its core as the basic assumption of many theorists and which was developed through a mixture of social contractarian thought and early British social anthropology.

The Enlightenment and the Social Sciences

The emergence of the modern European social sciences was a legacy of the Enlightenment thinkers and their successors. The Scientific Revolution of the seventeenth century produced a fundamentally new way of thinking about human society and its organization and this led to the development of a small group of 'moral sciences', the predecessor of the professionalized

disciplines of sociology and the other social sciences in the early nineteenth century (Hamilton, 1992:36). The main aim of the moral sciences was to overturn the Christian view of human society. Developing a universal, secular understanding of 'human nature' was vital to this and was achieved by taking a particular understanding of human psychology and giving it a central and strategic scientific position. Specifically, human nature was understood as essentially uniform despite its wide empirical variation. From this came the idea of empiricism according to which, all human knowledge comes only from experience and that by using a scientific method it is possible to explain social phenomena on an objective basis. This concept, along with the notion of progress, the idea that with the aid of reasoned and empirically-based knowledge, social institutions could be developed that would move human society to a more enlightened state, became a pillar on which the founding concepts of the social sciences were to be based (Hamilton, 1992:37). Hence, by the end of the nineteenth century the social sciences came to be defined along the lines of the natural sciences, that is, as being dependent on empirical evidence.

Within the social sciences, Enlightenment ideas about human nature and progress are often treated as abstract, value-neutral, theoretical devices derived from classical Greek and Roman texts. However, the development of these ideas and the emergence of the social sciences took place against a much more concrete social and cultural context than that of ancient Greece or Renaissance Rome, during a "gestation period of European narcissism and imperialism" (Pieterse, 1994:130) and in an intellectual climate which depended on empirical evidence to explain social phenomena. In this context, and building on earlier orientalist knowledge, the non-European Other, being representative of irrationality and barbarism, came to provide much of the empirical evidence crucial for the constitution of Enlightenment ideas. Indeed, Peter Hulme and Ludmilla Jordanova argue that, given the reliance of Enlightenment thinkers, particularly those of the social contractarian variety, on accounts of the 'natural worlds' by

explorers and missionaries from the frontiers of European imperial expansion, these travelogues ought to be considered Enlightenment texts (Hulme and Jordanova, 1990:8). Moreover, J. Marshall Beier suggests that they be regarded as foundational texts of the Western social sciences since they were among the founding documents of the disciplines of anthropology and sociology and given the ongoing influence of social contractarian thought (Beier, 2002:85). This is not to say that ideas from ancient Greek and Roman texts did not have a great influence on the construction of these concepts. However, the dominant understanding of the natural and social sciences during the Enlightenment necessitated empirical evidence and the apparently corroborating information provided by non-European societies at the time were crucial in giving credence to ideas in the theoretical and political development of Western thought. Thus, the notion of progress was produced by introducing a philosophy of history based on a linear timescale that located non-European societies further behind those of Europe. Tying into this was the idea of a universal human nature, which led to the naturalization of particular features of the European path of development such as state building, private property and a monetary system.

IR as an academic discipline had its institutional inception in the period following World War I, well after the birth of the social sciences during the Enlightenment. Yet, in its construction it is clearly "a child of modernism, receiving its intellectual sustenance from the nation-state ideals of the Enlightenment and modern Western notions of rationality and progress" (Paolini, 1999:37). The 'great texts' of international theory that underpin the discipline conform to the story of the West's Greco-Roman heritage with Thucydides and Machiavelli taking pride of place alongside thinkers such as Rousseau, Hobbes, Locke and Kant in imparting a supposedly enduring wisdom on matters of human nature and political behavior. On closer examination, however, it becomes clear that the supposedly transhistorical and transcultural theories of IR have been developed using particular interpretations of ancient writings alongside orientalist knowledge about the non-

European Other that has permeated Western thought for centuries. IR's use of political theory is illustrative of the argument that the Western 'tradition' of political philosophy, far from being a well-established historical reality, is rather, a retrospective construct and a vital component of orientalist discourse serving to "demarcate and delineate a Western tradition of rationality and liberty from its Eastern Other" (Seth, 2001:75-6). In order to demonstrate the complicity of orientalist knowledge and regimes of representation in IR, the genealogy of the concept of anarchy, a basic premise of many IR theorists, will be traced back to its origins in social contractarian thought and early British social anthropology, two branches of knowledge that derived much from, and were deeply implicated in, Europe's colonial and imperial projects.

Images of Anarchy in International Relations

The idea that the international system is anarchical because it has no overarching political authority is central to international theory although what this condition of anarchy means to the system differs depending on whether the theorist subscribes to the realist, liberal or constructivist school of thought. In all cases, however, the image of anarchy in the international system conveys much more than just decentralized political structures. Rather, anarchy in IR is consistently linked to ideas about the state of nature or primitive societies, both of which were heavily dependent on orientalist knowledge for their construction.

As discussed earlier, the state of nature in modern European thought came to be represented by the native American. Both Biblical and Greek writings were reinterpreted in light of the discovery of the native American, who was perceived to an example of man in its original or early form. Subsequently, the empirical study of native American societies replaced the authoritative texts as the basis of social and political thought (Jahn, 2000:109). This was particularly the case in the work of social contractarian thinkers whose arguments rest on the idea of the

state of nature. Hobbes, for instance, famously argued that those living in societies in which there is no centralized sovereign power are living in a state of nature in which life is "solitary, poor, nasty brutish and short" (Hobbes, 1968:64). This was the consequence of the equal and free status of individuals in the state of nature which, in the absence of "a common power to keep them all in awe" leads to a "condition which is called war; and such a war, as is of every man, against man" (Hobbes, 1968). To buttress his argument Hobbes cites the example of "the savage people in many places of America" who "have no government at all and live at this day in that brutish manner, as I said before" (Hobbes, 1968:64-65). With this empirical evidence to apparently back up his arguments, it becomes possible to understand how Hobbes is able to privilege a reading of Thucydides that emphasizes the centrality of fear to human nature so unproblematically.[5]

Hans Morgenthau follows the Hobbesian assessment of human nature and Hobbes' interpretation of Thucydides to fashion his realist theory of international relations, arguing that, "political realism believes that politics, like society in general, is governed by objective laws that have their roots in human nature" (Morgenthau, 1967:4). Human nature, for Morgenthau is a result of "elemental biophysical drives" which gives it a timeless and universal essence that manifests itself in the quest for power (Morgenthau, 1967:31). According to him, "the drives to live, to propagate and to dominate are common to all men" and quotes extracted from Thucydides and the Dead Sea Scrolls are provided as the additional evidence for this transhistorical truth (Morgenthau, 1967:31-33). That Morgenthau sees the international system as a primitive system is clear. The "decentralized structure of international society" he argues, inevitably results in the "decentralized nature of international law" and as such it "is a

[5] It hints at why Hobbes in his essay 'Of the Life and History of Thucydides' is able to accept Thucydides' assertion, in the *History of the Peloponnesian War*, that Sparta went to war out of fear, despite, as David Welch points out, the contradictions in the text and the lack of supporting evidence to back up the claim. (Welch, 2003:305-06).

primitive type of law resembling the kind of law that prevails in certain preliterate societies, such as the Australian aborigines and the Yurok of northern California" (Morgenthau, 1967:265).

The ethnographic evidence for this claim comes from a study of 'primitive law' by the British social anthropologist, A. R. Radcliffe-Brown, whose work was based on the theory of 'primitive' societies pioneered by early sociologists like Emile Durkheim in the nineteenth and twentieth centuries. Durkheim derived his theory of primitive society by consulting reports from missionaries and travelers on the indigenous societies of Australia and the Americas and he was influenced in his interpretation of these by Rousseau's conception of the state of nature (Durkheim, 1965). For Rousseau, the state of nature is a speculative idea of 'natural man' stripped of all societal influences and is thus, a state "which perhaps never existed" (Rousseau, 1984:68). Consequently, when Rousseau looked to the Americas he did not see Hobbes' state of war for he did not believe native Americans to be in the state of nature. Rather, he found evidence of communities living a fairly peaceful existence because they were held together by "natural compassion" (Rousseau, 1973:67). Quoting from Jean Baptiste du Tertre's *General History of the Caribbean Islands Inhabited by the French (*Hulme, 1990:16), Rousseau argued that "it is...absurd to represent savages as continually cutting one another's throats, to indulge their brutality, because this opinion is directly contrary to experience; the Caribbeans, who have as yet least of all deviated from the state of nature, being the most peaceable of people in their amours…" (Rousseau, 1973:71) For Rousseau, non-European societies may not have represented the state of nature but they did inhabit a position not too far removed from it in his linear timescale of development. Durkheim sought to differentiate primitive from modern societies in a scientific manner, coming up with the idea of 'mechanical solidarity'. In his view, human beings in primitive societies constitute a mechanical solidarity as they display no individual consciousness whereas advanced societies resemble an organic solidarity because they are characterized by a division of labor

(Durkheim, 1933:2-3) The highly speculative nature of theories about primitive society in British anthropology changed in the 1920s when A. R. Radcliffe-Brown and his colleague, Bronsilaw Malinowski, started visiting indigenous communities in Australia and the Oceanic region. Their characterization of these groups remained however, much the same as that of Durkheim. Radcliffe-Brown, in particular, was heavily influenced by Durkheim's theories, which, he felt, could be rendered scientific through his empirical observations (Sampson, 2002:433-35). Thus, primitive societies in early sociology and social anthropology were portrayed as simple and functionally undifferentiated while primitive social systems were seen as decentralized, disorganized and anarchic. It is this image that Morgenthau grafts onto the international system. State behavior is thus said to be governed by certain transhistorical, universal features akin to those found in primitive societies and embodied in Morgenthau's six principles of political realism (Morgenthau 1967:1).

The combination of social contractarian theory and early British anthropology can also be found in the work of the neo-realist, Kenneth Waltz. Finding the definition of human nature that informs the Hobbesian state of nature too arbitrary, Waltz draws on Rousseau's idea of the state of nature instead and supplements these with anthropological theories of primitive society in deriving his ideas (Waltz, 1959:166). As we saw earlier, unlike Hobbes, Rousseau argued that the state of nature is not a state of war because "men are not naturally enemies, if only because when they live in their primitive independence the relation among them is not sufficiently stable to constitute either a state of peace or a state of war" (Rousseau, 1997: 46). In the state of nature then, humans live solitary and peaceful lives because they do not need to cooperate with one another. Waltz draws on this idea but reinterprets it in his theory of international relations, arguing that in the state of nature people *cannot* cooperate because of the absence of government (Jahn, 2000:16). He claims that, "by defining the state of nature as a condition in which acting units, whether men or states, coexist without an authority above them, the phrase can be applied to

states in the modern world just as to men living outside a civil state" (Waltz, 1959:173). However, as a follower of Rousseau, Waltz must qualify his definition of the international system as a state of nature. He argues that, "for individuals the bloodiest stage of history was the period just prior to the establishment of society. At that point they had lost the virtues of the savage without having acquired those of the citizen". Thus "the late stage of nature is necessarily a state of war" and "the nations of Europe are precisely in that stage" (Waltz, 1959:184). Consequently, in the international system, "force is a means of achieving the external ends of states because there exists no consistent, reliable process of reconciling the conflicts of interest that inevitably arise among similar units in a condition of anarchy" (Waltz, 1959:238). This characterization is the result of Waltz transposing onto the international system a theory of 'primitive' social structures put forth by the generation of British social anthropologists following Radcliffe-Brown and Malinowski, who based their work on African political systems (Beers Sampson, 2002:430). Drawing on the work of S.F Nadel, for instance, Waltz argues that "to define a structure requires ignoring how units relate with one another (how they interact) and concentrating on how they stand in relation to one another (how they are arranged or positioned)", because the arrangement of units is a property of the system (Waltz, 1979:80). Building on both Nadel and his colleague, Meyer Fortes, Waltz characterizes structure as "an abstraction, it cannot be defined by enumerating material characteristics of the system. It must instead be defined by the arrangement of the system's parts and by the principle of that arrangement" (Waltz, 1979:80). By defining social structure so abstractly, Waltz, like Morgenthau, is able to transpose the concept of primitive anarchy to the international system, substituting states in place of Fortes and Nadel's 'tribal units' (Beers Sampson, 2002:444).

Primitive societies and the state of nature also form an integral part of the work of the liberal realist scholar Hedley Bull. Bull is not convinced that the Hobbesian state of nature is relevant to the international system and instead turns to John Locke whose

"conception of the state of nature as a society without government does in fact provide us with a close analogy with the society of states" (Bull, 1977:48). Like Hobbes, Locke, an Enlightenment thinker who had a close association with private and state bodies responsible for devising colonial policies, rested much of his speculation about the state of nature on ethnographic writings from the seventeenth and eighteenth centuries (Cox, 1960:97-8). For Locke, the state of nature is "a state of liberty, yet it is not a state of license" since it "has a law of Nature to govern it" which is "put into every man's hands, whereby every one has a right to punish the transgressors of that law" (Locke, 1924:119-20). However, because of "self-love", "ill-nature, passion and revenge" humans are not equipped to judge themselves and each other fairly, "and hence nothing but confusion and disorder will follow" (Locke, 1924:123). Citing José de Acosta's *The Natural and Moral History of the Indies* Locke finds exactly this situation in native American societies, leading him to conclude that they are "still in a pattern of the first ages in Asia and Europe" (Locke, 1924:167, 71). Following Locke's conception of natural law, Bull argues that "in modern international society, as in Locke's state of nature, there is no central authority able to interpret and enforce the law, and thus individual members of the society must themselves judge and enforce it" (Bull, 1977:48). However, this being the case, "justice in such a society is crude and uncertain" (Bull, 1977:48). As in the work of Morgenthau and Waltz, studies by British social anthropologists on African political systems once again make an appearance. For Bull, "international society is an anarchical society, a society without government" just as in "primitive stateless societies" which "present this spectacle of 'ordered anarchy'" (Bull, 1977:59). Mentioning the work of Meyer Fortes and E.E. Evans-Pritchard among others, Bull constructs many similarities between primitive societies and in international society. In both for example, "the politically competent groups may legitimately use force in defense of their rights, while individuals and groups other than these must look to the privileged, politically competent groups for protection, rather

than resort to force themselves" (Bull, 1977:62). He also however, finds a much greater degree of social cohesion in primitive societies due to their "less exclusive and self-regarding nature...their cultural homogeneity, the underpinning of their rules by magical and religious belief, and their small and intimate nature" (Bull, 1977:65). Because international society does not display this type of "wholeness and unity" Bull rejects the use of structural-functionalism in his analysis and admits that to a large extent "international politics is better described as a state of war" (Bull, 1977:75-76).

The notion of the anarchical international system is also deeply embedded in the work of liberal IR scholars many of whom take Immanuel Kant as their philosophical inspiration (Hoffmann and Fidler, 1991:lxxvii). Kant agreed with Hobbes that humans living in a state of nature exist in a state of war and also finds evidence of this "in the wilds of America" (Kant, 1998:160). Subsequently, Kant argues that in their "external relationships with one another, states, like lawless savages, exist in a condition devoid of right" and that "this condition is one of war" (Kant, 1998:165). The acceptance of the state of nature as a central tenet has flowed into the work of contemporary liberal IR proponents of Kant like Stanley Hoffmann who argues that, "the 'Hobbesian situation' must be our starting point. In international relations, there is an essence of political behavior, what philosophers have called the 'state of war,' a competition without any restraints" (Hoffmann, 1965:27). While not explicitly referring to anthropological studies like Waltz and Morgenthau, images of primitive societies clearly inform Hoffman's image of the international system. The model on which he bases his theory is that of a "decentralized milieu divided into separate units. It is not a Community, but at best it is a society with limited conditional cooperation among its members...It has no central Power – hence, resort to violence by each unit is legitimate" (Hoffmann, 1965:14). In order to introduce ethics and morality into the international system it must be transformed from the "state of a jungle to that of a society" for "moral opportunities, in every milieu, depend on the social framework" and "if (as in

primitive societies) integration is total, there is not moral choice at all" (Hoffmann, 1981:35).

Concerns about turning the 'jungle' of the international system into a society also underpin the work of the constructivist IR scholar Alexander Wendt who, like Hoffmann, uses images of primitive society and the state of nature as a point of departure. Wendt begins by noting that, "anarchy poses a distinctive and important problem for international politics, to which a constructivist approach suggests some new solutions". His take on the anarchy problematique is to claim that "anarchy is what states make of it", that is, anarchy does not have to lead to realist power politics and self-help systems because anarchy itself has no internal logic (Wendt, 1992). So, where Waltz's abstract notion of structure allows him to posit states in the role of tribal units, for Wendt the picture is complicated by his conviction that structure be must defined by both material and ideational aspects. In Wendt's schema this means that an agent, such as a state, cannot automatically be a role in a structure, rather it must take on a role depending on the ideas and interests it shares with other agents (Wendt, 1999:251). He, thereby, develops a theory in which international systems change and evolve depending on the ideas and roles that are internalized by states. To make his point, Wendt identifies the three structures of Hobbesian anarchy, Lockean anarchy and Kantian anarchy, he believes to be at work in the international system. Here it becomes clear that the Enlightenment philosophy of history and the primitive societies of social anthropology are still very much part of Wendt's conceptualization of international politics. His three structures of anarchy are particularly evocative of Adam Ferguson's 'stages' theory of history in which savagery was followed by barbarism and finally civilization. Hobbesian anarchy is a system consisting of states taking on the role of enemy, which gives rise to a type of violence that has no internal limits, the "kind of violence found in a state of nature" (Wendt, 1999:261). Hobbesian anarchy is thus akin to the state of nature and although Wendt admits that it is "an ideal type, and perhaps never characteristic of the state of nature among

individuals" he still argues that "the Hobbesian condition does describe significant portions of international history", perhaps because as he later claims, "states are by nature more solitary than people" (Wendt, 1999:266-67). Wendt's Hobbesian anarchy is therefore described in terms similar to that of Waltz's international system, its unmitigated violence means that it cannot sustain role asymmetry and it remains dominated by states taking on the role of enemy (Wendt, 1999:257). What distinguishes Wendt's theory though, is his argument that this "state of war is constituted by shared ideas, not by [a logic of] anarchy or human nature" (Wendt, 1999:260). This takes Wendt closer to the social anthropology of Radcliffe-Brown who, like Wendt, was interested in how social systems evolve (Beers Sampson, 2002:447). Thus, Wendt's Hobbesian anarchy can evolve into a functionally differentiated Lockean anarchy that is constituted by a role structure based on rivalry rather than solely enmity. It is this "live and let live logic of Lockean anarchical society" that he claims is dominant in the Westphalian system despite occasional lapses into the Hobbesian condition of nature's realm (Wendt, 1999). However, it is Kantian anarchy, in which states have internalized the role of friend and have built collective identities, that is the most functionally differentiated and hence representative of the highest stage of evolution. Radcliffe-Brown's sociology drew from Emile Durkheim's notions of functional differentiation and the division of labor to explain how some groups evolve into civilized societies and Wendt's explanation of how a Kantian anarchy is brought about does the same (Beers Sampson, 2002: 449). Among the four master variables he identifies as necessary for collective identity formation are interdependence, common fate and homogeneity. This third variable is the precondition from which a division of labor emerges and "increases the extent to which actors are interdependent and suffer a common fate", which in turn produces functional differentiation (Wendt, 1999:356). The fourth variable, self-restraint, also has echoes of Durkheimian social theory, for Wendt suggests that this is "the essence of civilization" (Wendt, 1999:359). As opposed, it might be added, to the

passionate reflex that supposedly dominates behavior in primitive societies (Beers Sampson, 2002:450).

The Savage Within International Relations Theory

By describing the international system as anarchical IR theorists cannot help but activate images of the state of nature and primitive society, concepts that contain culturally specific understandings of human nature and history which are hidden from view through the language of universalism. In doing so they end up recycling orientalist ideas about non-Western societies that can no longer be considered valid sources of knowledge. The ethnographic evidence that social contractarian theorists used to substantiate their claims about the state of nature is highly dubious for a variety of reasons not least of which were the colonizing imperatives of those writing the studies. As Beier suggests, the idea of the savage in the state of nature, "fulfills a vital rhetorical function in support of the contemporary settler state itself" by justifying "past conquests and continuing assimilative practices, even to the extent of making them seem morally imperative" (Beier, 2002:108). Likewise, British social anthropology's representation of primitive social systems was used by British colonial administrators to justify and implement their rule. They were particularly fond of the evolutionist strand of thinking, which maintained that unless change was introduced very gradually primitive societies would suffer cultural degeneration, because it allowed them to resist any innovations threatening to their authority (Kuklick, 1991:222). Anthropology has long realized that the notion of 'primitive society' is a Western invention, the production of which supplied nineteenth century Europe with the necessary Other against which it could reinforce itself in a time of rapid change and uncertainty (Barkan and Bush, 1995:2). The British social anthropology that has so influenced IR theorists reflected the downward spiral of Britain's self-confidence at the end of the nineteenth century, due to declining economic growth, the fall in its international clout and increasing demands for independence from its colonies (Kuklick,

1991:5).

As culturally peculiar ideas that were given form and meaning by European domination over non-European societies, the concepts of the state of nature and primitive society have had similarly deleterious effects when transposed onto the international system via the description of it as anarchic. It has resulted in a portrayal of the international system as a primitive struggle that must be mitigated through the use of force or the imposition of some form of universalist ethic and the capacity for this is consistently found only in the West. As will be seen below, contemporary international theory remains embedded with the notion that the West sets the standard for civilized human conduct and Western, liberal democracies are constantly treated as the only entities capable of bringing any sort of order to the system. International theory is thus conceptually limited by being bound to an orientalist logic devoid of genuine consideration of how to deal with the cultural diversity of the world in a way that does not involve coercion, domination and the assumption of Western superiority.

Realism, Anarchy and Western Civilization

Nowhere are the conceptual limitations of international theory more evident than in the work of Kenneth Waltz, for whom questions of ethics, morality and cultural diversity do not enter into the picture he paints. For Waltz, states act as they do not because of ideology or cultural factors but because they operate in an anarchical system that forces them to behave in a particular (self-interested) way. The structural-functionalist anthropology that influenced Waltz's theory of international politics considered the personality structure of the individual in primitive societies to be epiphenomenal since individual behavior was thought to be entirely the product of social conditioning (Kuklick, 1991:120). Hence, just as "anthropologists do not ask about the habits and the values of chiefs and the Indians" when accounting for how the "interactions of tribal units are affected by tribal structure", Waltz

does not consider it relevant to take into account cultural and other differences when accounting for states' behavior since their actions are the result of systemic features (Waltz, 1979:81). War and insecurity in the international realm are thus unavoidable products of like units, whether they are empires, nations or tribes, acting in a self-help system where survival is their key aim. And this has been the case, claims Waltz, through the millennia from the time of Thucydides through to Hobbes and the Cold War (Waltz, 1979:66-67). Weighing the arguments in favor of transforming the anarchical system into one of hierarchy against the alternative of just system maintenance, Waltz comes to the conclusion that the former is too risky. For him, system transformation is taken to mean "that we act to make and maintain world order", just as England claimed to bear the white man's burden and France had her *mission civilsatrice (*Waltz, 1979:200). Accordingly, Waltz argues that system transformation in the contemporary period risks all the pitfalls of colonialism for "if a country because of internal disorder and lack of coherence, is unable to rule itself, no body of foreigners, whatever the military force at its command, can reasonably hope to do so" (Waltz, 1979:188-89). Moreover, he fears the "arrogance of the global burden bearers" preferring instead the "selfishness of those who tend to their own narrowly defined interests" (Waltz, 1979:205). In a characterization that bears the hallmarks of the policy of indirect rule which came to be favored by colonial administrators, Waltz praises the US Cold War strategy from the 1970s as one that aimed at "maintaining and working the system, rather than of trying to transform it" (Waltz, 1979:203).

Morgenthau's ideas on dealing with international anarchy are complicated by his claim that the drive for power within human nature dictates the behavior of societies. Whereas for Waltz, conflict arises from the structural anarchy of the international system, for Morgenthau conflict and anarchy are the result of human nature. Thus, the inherently self-interested nature of states means that any efforts to transform the present system of sovereign states into something like a world state will fail. Instead, Morgenthau stays true to his insistence about the centrality of

human nature in arguing that only the practice of diplomacy, as a traditional and timeless feature of social relations between humans, can create peace through accommodation (Morgenthau, 1967:519-21). Anarchy, in other words, cannot be ordered but can be tamed. For Morgenthau, this goal has been "the paramount concern of Western civilization", because, "since the time of the Stoics and the early Christians, there has been alive in Western civilization a feeling for the moral unity of mankind which strives to find a political organization commensurate with it" (Morgenthau, 1967:373). Furthermore, he claims that the "increase in the humaneness and civilized character of human relations which the last centuries have witnessed in the Western world" has made the search for an end to war and international anarchy even more of a priority for the West (Morgenthau, 1967:374). According to Morgenthau then, establishing peaceful relations between societies through the establishment of moral rules is a uniquely Western preoccupation since the West is at a high stage of social development and not as beholden to the vicissitudes of human nature. Rather, the West has replaced crude and violent methods of combat with "refined instruments of social, commercial, and professional competition", with the "competition for the possession of money" being the most important. (Morgenthau, 1967:223). Such an interpretation of history displays a willful amnesia when seen from the non-Western world where the competition for their wealth often resulted in the use of crude and violent methods by European colonial powers.[6] Thus, what we get in Morgenthau is a culturally peculiar understanding of human nature and history dressed in a universalist guise that allows

[6] Also forgotten in Morgenthau's account is the long history of the West as a disrupter of peace, as it was, for example, in 1509 when the inability to compete on a commercial basis led to the Portuguese declaration of a proprietorial right over the Indian Ocean, resulting in a violent disturbance of the centuries-old Indian Ocean trade. The trade had flourished in a system of bargaining and compromise without any power trying to gain control of it by force, possibly due to the influence of the pacifist beliefs and customs of the Gujarati Jains and Vanias who played an important part in it. (Ghosh, 1992:286-88; Philip, 2003: 33-4).

him to portray the West as the standard bearer for peace and morality in an international system he has constructed as devoid of both.

Ordering Anarchy

Similar understandings of history and the international system can be found in the work of Hedley Bull. However, for Bull, anarchy can be ordered, as demonstrated in primitive societies. According to Bull, on the basis of their studies of African systems, Fortes and Evans-Pritchard came to the conclusion that "a high degree of common culture was a necessary condition of anarchical structures, while only a central authority could weld together peoples of heterogeneous cultures" (Bull, 1977:64). He finds that "the society of sovereign states...is *par excellence* a society that is culturally heterogeneous" (Bull, 1977:64). The states system must, therefore, either be centralized or instilled with a common culture. Bull argues that since war has been an endemic feature of the states system, its replacement with a universal political organization would be ideal and the precedent for this ideal model can be found in the "pluralistic security-communities" that exist among Western states (Bull, 1977:283-4). However, since a decentralized system is likely to persist for the foreseeable future he argues that reforming and reshaping the existing model remains the only available avenue for mitigating conflict between states (Bull, 1977:287). Indeed, Bull argues this is even more vital in light of the "revolt of non-European peoples" which weakened international society by undermining the nineteenth century common culture that previously formed its basis (Bull, 1977:257-9 & 316-7) His solution is the establishment of an international society based on a common cosmopolitan culture that would bring the sort of wholeness and unity underpinning the ordered anarchy of primitive societies (Bull, 1977:316). However, while Bull acknowledges that the "nascent cosmopolitan culture of today, like the international society which it helps to sustain, is weighted in favor of the dominant cultures of the West" he fails to grapple

with the implications of this apart from suggesting the "need to absorb non-Western elements to a much greater degree if it is to be genuinely universal" (Bull, 1977:317). Diversity is therefore permissible only so far as it fits into the existing model of cosmopolitan culture developed and defined on the West's own terms.

For Hoffmann also, decolonization has meant that "the international system is much more heterogeneous than at any other moment; not only in terms of ideologies but also in the sense that there is a radical difference between states run by secular churches...and all the others, or in the sense that states behave as it they did belong to different ages of international affairs" (Hoffmann, 1981:201). Like Bull, Hoffman finds the establishment of world order conditional on the development of cosmopolitan-ism because (and here he harks back to the state of nature as a state of war) the alternative of a "world of self-contained oases or self-contained islands in a state of siege is a very dangerous world" (Hoffmann, 1981:222) However, "for the time being we have to be resigned to the fact that cosmopolitanism will be possible only in some parts of the world", that is, in parts of the world containing secular, Western-style liberal democracies (Hoffmann, 1981:223). Hoffmann's cosmopolitanism entails the development of a "liberal ethic of world order" in which the "individual's right to democratic self-government should be recognized as the highest principle of world order, with state sovereignty as a circumscribed and conditional norm" (Hoffmann, 1998:247). Any suggestion that the potential violation of the sovereignty of nonliberal states might entail a new kind of Western imperialism however, is dismissed by the claim of liberalism's universal relevance (Hoffmann, 1998:245). The universality of liberalism was, of course, the basis on which liberals like Locke and John Stuart Mill justified colonial rule, and Hoffmann's thinking does not escape their logic. Just as it was for Locke and Mill, what it means to be human, for Hoffmann, is narrowly defined according to liberal precepts, as evidenced by his emphasis on the individual,

while anything outside of this vision is vulnerable to intervention in the form of civilizing missions.

Hoffman's liberal ethic of world order is largely what we find in Alexander Wendt's Kantian anarchy although Wendt is cautious about settling "prematurely on liberal democracy as the only pathway to a Kantian culture" (Wendt, 1999:364). Indeed he leaves open the possibility that Kantian culture is "multiply realizable" through for example, "Islamic states, socialist states, "Asian Way" states" (Wendt, 1999:342-3). Yet Wendt's theory is largely an explanation of how some states, namely Western ones, have been able to lift themselves out of the Hobbesian state of nature into a Kantian peace, in which common, fundamentally liberal values are the binding factor. Self-restraint, that "essence of civilization" is most likely to be found, Wendt argues, in democratic states and capitalist states are more likely to be interdependent (Wendt, 1999:364). Moreover, given that the other two variables Wendt identifies as being necessary for "prosocial behavior" are homogeneity and common fate, it is difficult to see how diversity of political form is allowed for in his theory. Identities are formed, Wendt claims, through imitation and social learning and the 'Western way' appears to be the preeminent model of behavior in Kantian anarchy (Wendt, 1999:336).

International Relations: Still a Western Social Science

The assumption of anarchy in international politics has major implications for the treatment of culture in IR. Because the culturally specific construction of the concept of anarchy is not recognized it is instead essentially considered to be the product of the functioning of human nature in an environment free of constraints. Thus, cultural difference in realism is considered to be a superficial mask under which lies the real driver of human behavior and therefore state behavior, a self-interested human nature. Alternatively, in liberalism, cultural particularity is treated as a stage along the path of evolution to a universal condition based on values derived from the natural rights of individuals.

Ultimately then, in both these dominant strands of IR, dealing with the cultural diversity of the world is avoided through its absorption within a universal human nature. However, if as Clifford Geertz argues, there is no such thing as a human nature independent of culture (Geertz, 1973:49), which is a socio-historical construct, then there is "neither an unchanging subcultural self nor an established cross-cultural consensus" (Geertz, 1973:52). What this implies is that the universal human nature that IR scholars assume to exist is actually a Western cultural construct, which is why their theories so often end up implicitly and unreflectively universalizing Western culture and imposing it as a norm.

This assumption of the universal applicability of modernist Western ontology results in a highly restricted understanding of the conditions necessary for the realization of peace, justice, freedom and human rights in world politics. As Siba Grovogui notes, "the actualization of modern Western maxims and standards of international relations have failed for three centuries to bring about their declared goals of peace and stability" (Grovogui, 2001:434). This leads him to wonder why Western thinkers remain the sole inspiration of today's scholars of international relations. Indeed, it could be argued that as long as Western thinkers remain the sole inspiration, IR will remain circumscribed by its parochialism in dealing with cultural diversity and hamstrung in its efforts to bring about a more peaceful world. The decolonization of IR must, therefore, proceed in two directions. Firstly, IR needs to remember its origins as a Western social science that built its core categories on centuries of accumulated orientalist knowledge about the non-Western Other. Secondly, rather than objectifying the contents of the world and distorting it to make it fit within a Western conceptual framework, IR theorists must devise fundamentally different ways of interacting with the non-West based on acknowledgement, dialogue and respect for their self-defined histories, knowledges, and worldviews.

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Article

The Invisible Migrant Afghans in Central Asia

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Abstract

Post 2014, the security situation in Afghanistan continued to be critical. However, the conflict is fading from international memory and Afghan refugees have been known to point out that at borders it is Syrians who are asked to come forward while Afghan refugees remain caught in a gridlock. This invisibility extends at various levels and in neighboring Central Asia the reasons for this are multiple. Geographically contiguous, ethnic groups on the Uzbek/Tajik / Turkmen side of the Afghan border are Afghan Uzbeks/Afghan Tajik/Afghan Turkmen. Traditionally movement as also social interaction was the norm. As such when the first waves of migration began it was easy to avoid large cities and move in with kin groups in the peripheral towns. It was also convenient to elude incorporation as a separate group in official enumerations in a situation where state laws were less than favorable. Afghans in the region became in a sense 'invisible' as over the years the attempt was to escape detection, settle in with the local population through marriage or move further west. They

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are also imperceptible in the migration debate within the region where the focus has in recent time been on labour movement from Uzbekistan, Kyrgyzstan and Tajikistan to Russia and Kazakhstan and the effects of stagnant economies and the declining rates of the rouble on remittances sent back home. While insignificant in numbers, to the state they represent a security dilemma and the reluctance of states to open borders has as much to do with economic issues as perceptions of threat. This presentation will be an attempt to look into this dilemma of 'invisibility' where despite small numbers and the rhetoric of a common economic space the human migrant remains an 'abnormal subject' ignored by the state except in rhetoric on the necessity of closed borders.

Keywords: Afghanistan, refugee policy, labour migration, borders and security, migrants and refugees

Introduction

My first encounter with Afghan migrants in Central Asia was outside the UNHCR office in Tashkent in 1998. At that time the UNHCR had a regional office in Tashkent and the Head of Mission was Mr Taslimur Rahman, who was originally from Bangladesh. Mr Rahman had heard that two native language speakers had been staying in Tashkent for some time and invited us for lunch and conversation in Bengali. We met him at his office and as we were driving out of the UNHCR office compound we noticed small groups of people outside the gates. Not a perfect application line for processing of 'refugee status' documents that one would expect but it was clear that their destination was the UNHCR office. When asked about them Mr Rahman commented that some of them were probably Afghan refugees who had come to the UNHCR office to apply for refugee status in Uzbekistan, but most were local militia who hung around trying to find out who was entering the compound and was therefore an 'illegal' migrant. Subsequent harassment, as they stepped out of the office, was not unknown and therefore the hesitance of the Afghans to enter the compound.

As a well know figure in the city he was also often approached outside the office for help. He went on to say that most had illegally crossed the borders from Afghanistan and few made it to the big cities, preferring instead to merge with the local communities in rural areas along the border where they were indistinguishable from the locals. My research interest at that time was principally on the transitional state and the conversation moved on to issues as wide ranging as the recent magnificent celebrations of the 2500 years of the cities of Bukhara and Khiva to the availability of fresh water fish at Alexey Bazar.

My next encounter (or non-encounter) was when I received the invitation to speak on Afghan migrants in Central Asia. I wrote to some academics and social scientists in Tashkent asking them about information and access and this is an excerpt from one of the e-mails that I received in response.

> *I have not met researchers on such issues. I don't know anyone who works on it in Uzbekistan and Central Asia. I have not seen issues on this topic neither Russian nor Uzbek (or English) languages. Probably, you can get information in some international organizations, first of all the United Nations High Commissioner for Refugees (the office of the UNHCR in Uzbekistan has been closed a few years ago).*
>
> *In my opinion, one reason of it - this topic is not very relevant to the present for Central Asia, because there are few Afghan refugees. Probably you know, we have not had refugee camps for the Afghans (unlike in Pakistan).*
>
> *There are only 125 persons in Uzbekistan who have a refugee status. They are ethnic Uzbeks who came mainly from Kyrgyzstan.*
>
> *There are few Afghan citizens who live here, they are businessmen, some of them married to citizens of Uzbekistan. But they don't seek refugee status (at least in Central Asia, because they want to go further (in my opinion)).*
>
> *It is very difficult to obtain refugee status in Uzbekistan. In*

> *addition, the Uzbek-Afghan border is almost inaccessible to cross (114 km on the Amu Darya river and the main bridge Termez-Hairatan is the only possibility).*
>
> *I have met some information in mass-media (in Russian language)*[1]

Subsequently, he sent me a set of newspaper reports about Afghan refugees in Tajikistan and Kyrgyzstan which emphasized their status as mostly illegal with no possibility of employment or education.[2] Quite apart from the inconvenience caused by this sceptic reaction (which was repeated in others) this was very different from the response that an invitation for a round table on the security scenario in Central Asia in the post 2014 years elicited a year ago from security analysts in Tashkent.[3] Afghanistan was very much a part of the security discourse of the region and while security concerns have assumed salience across the globe, Afghanistan's proximity to Central Asia has meant that perceptions of security or insecurity dominate the strategic discourse in the region. Issues that stand out include the challenges that the Central Asian states will face in terms of stability, ethnic tensions, radicalization of youth, destabilization of commodity flows and energy security and the impact that these could have on Central Asian society including an array of issues like movements across borders, radicalism within states, the sharing of water, and various multilateral attempts at combating insecurity. Afghanistan was assumed to be in a 'state of permanent strategic uncertainty' and this had a negative impact on the security

[1]Personal e-mail correspondence with author.

[2]The articles were mostly from Afghanistan.ru. See for instance, "Afganskii Bezhinste Organizovali Picek v Bishkeke" (2013), "Politizatstiya Voprosa Afghanskii bezhentsiv v regione (2012), Korgin, 2006.

[3]A round table was jointly organized by the Maulana Abul Kalam Azad Institute of Asian Studies, Kolkata and the University of World Economy and Diplomacy, Tashkent, on the theme *Central Asia and Regional Security: The Way Ahead,* in Tashkent on April 4, 2013. The papers presented at the round table were subsequently published in Dash et al., 2014.

situation in the neighborhood, particularly Central Asia (Yakubov, 2014).

Ildar Yakubov epitomises the uncertainty that the Afghan situations presents to Central Asia in the following paragraph:

> Withdrawal of ISAF, uncertainty about the progress in Afghanistan, vagueness about a possible agreement between the government and the opposition are the key factors that would determine the level of threats to the regional security, in particular to Central Asia. The intensification of activities by terrorist and extremist forces connected with Afghan groups is an obvious and impending challenge. The most vulnerable to instability may seem Tajikistan and Kyrgyzstan in the years to come, where there are serious internal risks and extremely limited resources to counter these threats and protect the borders from infiltration. The risk of refugees fleeing from Afghan to neighbouring countries of the region and consequent deterioration in situation Central Asia will grow, including hardening of fundamentalism and strengthening of religious radicalisation. The growth of drug trafficking will become more systematic, its structural and resource base more organized and would assume a secured character after 2014.
>
> Another kind of threat is the sharpening geopolitical competition in the region. It is likely that Washington will establish its permanent military bases in Afghanistan. Attempts by the US and its allies to strengthen the leverage and involvement of the Central Asian countries in the military-political cooperation can elicit response from geopolitical competitors of the US. For example, Russia is already seeking to expand and strengthen its military and political foothold in the region. It is likely to intensify efforts to involve countries of the region in Russia's geopolitical orbit. As a result, there is a clear possibility for the militarisation of Central Asia. The unpredictability of

> the situation in Afghanistan creates apprehensions about mindless supply to and arming of the Afghan National Army with modern weapons and military equipment. It can disrupt the balance of military power in the region and may contribute the unchecked proliferation of arms into the long term. Lastly, further escalation of Afghan conflict would entail deterioration of economic development in the region, restriction in energy supply, communications, trade and economic relations, finally stalemating and freezing of planned projects in Afghanistan (Yakubov, 2014).

The Afghan neighborhood was seen as being affected by extremism and resultant migratory movements both of which posed threats to security. The sheer volume and duration of the displacement, along with the fact that they were seen to have contributed to the overall criminalization of society through drug deals and transfer of arms meant that they began to be viewed with suspicion. More importantly, the emergence of an aggressive version of Sunni Islam that was seen as transcending boundaries in the region was viewed as particularly problematic as was the fact that the Taliban began to grant refuge to various extremist groups, including the Islamist Movement of Uzbekistan.

While this insecurity was pervasive, statistics regarding the ethnic break-up of the Central Asian states did not show Afghans/Pashtuns in sufficient numbers or even as a separate category to pose a threat. While in states like Uzbekistan this could well be because the last complete census was done during Soviet times and the latest 2010 census is limited to only 10% of the

[4] See for instance CIA, The World Fact Book. The years indicate when the last complete census was conducted.

Uzbekistan: Uzbeks 80%, Russian 5.5%, tajik 5%, Kazakh 3% Karakalpak 2,5% Tatar 1.5% and others 2.5% (1996)

Turkmenistan: Turkmen 85%, Uzbek 5%, Russian 4% and others 6% (2003)

Tajikistan: Tajik 84.3%, Uzbek 13.8% (includes Lakai, Kongrat, Katagan, Barlos, Yuz), other 2% (includes Kyrgyz, Russian, Turkmen, Tatar, Arab) (2010 est.)

population, none of the other four states show Afghans/ Pashtuns as a separate group.[4] The other possibility of this lack of enumeration could be their inclusion within the other native ethnic groups like Tajiks/Uzbeks/Turkmen in the region and the fact that small numbers of Afghans are expected to have merged with the local population. Geographically contiguous, ethnic groups on the Uzbek/Tajik/Turkmen side of the Afghan border are Afghan Uzbeks/Afghan Tajik/Afghan Turkmen. Traditionally movement as also social interaction was the norm rather than any exception. As such when the first waves of migration began it was easy to avoid large cities and move in with kin groups in the peripheral towns. It was also convenient to elude incorporation as a separate group in official enumerations in a situation where state laws were less than favorable. Afghans in the region became in a sense 'invisible' as over the years the attempt was to escape detection and move further west. Even here, most migrant Afghan narratives indicate that the road to the west is mainly through Iran and Turkey rather than through the Central Asian states. Afghans are also imperceptible in the migration debate within the region where the focus has in recent time been on labour movement from Uzbekistan, Kyrgyzstan and Tajikistan to Russia and Kazakhstan and the effects of stagnant economies and the declining rates of the rouble on remittances sent back home.

Yet the possibility of influx remains alive in the rhetoric of the state and an unstable Afghan state looms large in terms of the security discourse. To the state they represent a security dilemma and the reluctance of states to open borders has as much to do with economic issues as perceptions of threat. Continuing global conflicts and the fact that today terror organizations have become international recruiting units also means that despite shared

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Kyrgyzstan: Kyrgyz 70.9%, Uzbek 14.3%, Russian 7.7%, Dungan 1.1% and others 5.9% (2009)

Kazakhstan: Kazakh (Qazaq) 63.1%, Russian 23.7%, Uzbek 2.9%, Ukrainian 2.1%, Uighur 1.4%, Tatar 1.3%, German 1.1%, other 4.4% (2009 est.)

frontiers and the rhetoric of a common economic space the human migrant remains an 'abnormal subject' ignored by the state except in rhetoric on the necessity of closed borders. Susan Schmeidl argues that the case of the Afghan refugees is also interesting as migration was not linked to security till a number of years after the movements began and at a time when their numbers were not at their height. She also argues that states with smaller numbers of refugees felt more threatened than those hosting the majority (Schmeidl, 2002). This poses the question whether it was actual or perceived threat that was more important and whether Talibanisation was a myth that was developed to deal with domestic issues.

This paper will be an attempt to look into this dilemma of 'invisibility' where official figures of migrants remain low yet where they are always present in the security rhetoric of the state. It begins with an examination of mobility within the region.

Migration Networks in Central Asia

Population mobility had always been associated with the region that is now identified as stretching from Afghanistan, across Central and West Asia. Movements of nomadic pastoralist societies but also movements resulting from trade, pilgrimage and conquest marked the landscape of the region since times immemorial. With colonial redrawing of the political map, these everyday movements were sought to be restricted in a variety of ways. Subsequently, sedentarization, the Soviet collectivization campaign, forced deportation of minorities during and after the world wars and the buffer status that Afghanistan had in the 'great game' has traditionally been identified as the cause of forced migration and displacement in the region. With the disintegration of the Soviet Union and the emergence of new states a number of other issues have assumed importance in the interpretation of forced migration and refugees. State building processes across the region have left people stateless as they fall outside the definition of citizens (Uzbek brides in Kyrgyzstan), ethnic conflicts have

encouraged movements across borders that have subsequently been met by resistance from the host state as upsetting demographic balance (Uzbeks who crossed the border into Kyrgyzstan after 2005) economic imperatives have led to labour migration, in certain cases resentment among displaced peoples have encouraged them to join resistance movements in other parts of the globe (IMU joining ISIS) and environmental degradation has led to displacement (Aral Sea). Most of these movements cannot be comprehended through a statistical approach since the flows escape official census. There is also the trend of the return of the refugee with all the associated institutional issues (the return of Afghan refugees). In certain cases states have actively encouraged return for a variety of political reasons (the Uzbek government have asked for the return of migrants from Russia) and the reluctance towards return has come from the migrants.

After the collapse of the Soviet Union the majoritarian nationalism that gained ground in the Central Asian states jeopardized the ethnic balance. This resulted in the movement of Russian minorities as a response to the anticipated loss of status and politicization of political life. In a number of cases it also led to statelessness. Large numbers of people with different ethnic backgrounds and holding Soviet documents discovered that new nationality laws of emerging sovereign states left them out of the definition of a citizen though in most cases constitutions recognized all people living within its territorial boundaries as citizens. Afghan students left stranded in the states with Soviet passports that were no longer valid also became stateless. Moreover, not all the states acceded to UN conventions on refugees and statelessness. This was complicated by the fact that the history of borders in the region is problematic and the territories of the five states are closely interwoven with the existence of a number of enclaves. Post delimitation the borders were left flexible within a broader system where people shared a common Soviet passport and movement and employment was unrestricted. This, of course, changed in the post 1991 period. In most cases, as in the Ferghana Valley where populations were mixed movements, trade,

marriages continued unhindered. Since movement across the borders in the valley did not require documentation, old Soviet passports were often not changed to new national ones. From 1999 and particularly since 2005 when borders (like the Uzbek-Kyrgyz or Uzbek-Tajik) were fenced and visa regimes were introduced large numbers of people found themselves stateless. Statelessness is not just the result of circumstances (like the border brides of Central Asia) but also the result of events like riots that leave people without documentation (the Uzbek Kyrgyz riots in Osh). In recent times citizenship rules have been used in Uzbekistan as a political instrument to punish non-compliance with the ruling establishment and passports have been cancelled leaving nationals stranded in third countries.

In the post-Soviet situation it is common to think of migration as a "westward" process where the movement is from Russia to southern and western Europe, the United States or even Israel. There is however another kind of migration out of the former Soviet space into the Russian Federation and Kazakhstan inspiring the use of the term *gasterbaitery* (the Russianized plural form of the German word *Gasterbaiter* meaning unskilled or semi-skilled migrant labours). Kazakhstan's resource fueled economic boom and thriving market economy have turned it into a flourishing migrant receiving state. This image of Kazakhstan as a receiver has benefitted from a consistent state policy to encourage the return of the ethnic Kazakh diaspora referred to as the *oralman* under a state sponsored repatriation programme. However, unlike the oralman programme, migrant workers from other Central Asian states remain unaccounted and invisible to state authorities due to lack of appropriate legal framework and labour policies that dooms them to an illegal and irregular status. Despite lower wages many migrant workers from Central Asia choose Kazakhstan to look for jobs since it is closer to their home countries and easier for them to adapt to local cultural norms. Since most work illegally, there are few correct estimates with numbers varying widely. About two thirds are from Uzbekistan, some 25% from Kyrgyzstan and the rest from Tajikistan and other CIS countries. At least half of them

work in construction and in work that is shunned by the locals. Several others work in the expanding service sector, catering, transportation, delivery, retail and sales and the rest work as seasonal labors in agriculture, in tobacco, cotton fields, food stuff packaging and processing. The Central Asian migrant labour movement had traditionally been a seasonal one, where most travelled as unskilled labors with no intention to settle.[5] While most of this movement was driven by economic issues, conflict situations in the post Soviet states also led to labour movement. The Tajik Civil War and the condition of the Tajik economy after the war remains a principle reason why large numbers of Tajik men moved to Russia and Kazakhstan for work and continue to do so despite the fact that in 2013 alone 942 guest workers returned to Tajikistan from Russia in coffins (Inter Press Service News Agency, 2014).

In the last two decades since independence, Tajikistan, has transformed itself from a state of internally displaced persons and refugees to one of the largest regional labour exporters. However, many different migratory patterns persist in Tajikistan and the country remains a large exporter of labour, a transit country, a refugee sending country and also a refugee receiving country. The labour market in Tajikistan changed dramatically with the transition to market economy. Drop in production intensified with the beginning of the Tajik Civil War and this led to mass scale job losses (Olimova and Bosc, 2003). The Civil War resulted in the death of at least fifty thousand, caused six hundred thousand to be internally displaced and eighty thousand became refugees. These were significant numbers for a population of about seven million. Initially, the government was unable to provide state services outside the capital and particularly in regions that had sided with the opposition during the Civil War. Also it could not provide a

[5]There have been exceptions. In the aftermath of the Osh conflicts in 2010, the profile of the Uzbek migrant from Kyrgyzstan changed dramatically. Entire families including women and children were seen to be on the move for good. See Abdurasulov (2012).

safety net to the population recovering from the war. The end of the Civil War saw refugees, internally displaced persons and former combatants returning home only to find little chance of employment and assistance from the government. The severity of the damage caused by the war varied regionally as the South particularly the Garm area had suffered most from the fighting. Gorno Badakshan suffered not just from geographic isolation but also because it was allotted an unequal share of resources as this region had supported the opposition during the war. The sudden end of support from Moscow in addition to the devastation caused by the Civil War including a crumbling infrastructure, little industrial development and lack of arable land in an essentially mountainous terrain meant that labour migration became a necessity (Chiovenda, 2013). This large scale movement altered the demographic structure of the population and affected every aspect of social, economic and political life in Tajikistan. Similarly, in the aftermath of the conflicts in Osh and Jalalabad, Uzbeks no longer felt safe within the Kyrgyz Republic and this meant movement not just in search of security but also work. Migration is one of the ways in which the Uzbek minority in Osh and Jalalabad coped with the nationalist Kyrgyz policies and the negative propaganda that accompanied the conflict. Aksana Ismailbekov argues that sending young male family members to work in Russia was not just economically motivated but also a strategy to avoid conflict within the *mahallahs* and protect them from discriminating policies (Ismailbekova, 2012).

The state, on the other hand, remains trapped in a self limiting discourse within the framework of 'nationalism' and 'securitization'. This prevents it from addressing the complexities of a rapidly growing economy and adopting appropriate migration laws. This is true of all the states in the region and results not just in depressed trade flows but also increasing numbers of

[6]Border control policies of the Uzbek state for instance have been identified as theatrical/performative See Megoran et al. (2005).

'illegal' migrants.[6] Boundary enforcement measures are introduced and justified in terms of protecting the economic and political security of the state. Nick Megoran, through his study of the portrayal of Uzbekistan as a 'threatened state' has demonstrated how governments frame the state border not merely as a legal line on the map but rather as a moral border where the state is depicted as a realm of order, progress, stability and wealth surrounded by disorder, backwardness, chaos and poverty. However, such boundaries also tend to overlook economic considerations and fail to come to terms with everyday experiences of negotiating borders. The likely result is further erosion of its ability to regulate or manage migration flows and the informal labour market. However, this is also a way through which the state covertly opts to let migrant workers remain invisible and illegal while utilizing the cheap labour that they provide. To acknowledge the scale of the undocumented and informal labour would entail an obligation to enact appropriate legislation.

This ready availability of cheap semi skilled and short term migrant labour has contributed significantly to spurring rapid growth in construction and the service sector in cities like Kazakh Almaty, Astana, Shymkent, and Aktau. However no official statistics or data is available on the role of the migrant workers in the labour force or in the informal economy. It is evident that though the state authorities continue to combat illegal migration, regarding it as a security threat or as promoting criminal activities, they covertly allow influential recruiters or employers to hire the *gastarbeitery*. The only change is a December, 2013 law that allows individual Kazakh citizens to hire foreign migrant workers with work permits. The law clearly states that it is intended to make it easier for Kazakhs to hire household help not for profit by private businesses (Weitz, 2014). Migration policy of the emerging Eurasian Union has also been the focus of attention. On January 1, 2012, an agreement on the Legal Status of Migrant Workers and Members of their Families came into effect between Russia, Belarus and Kazakhstan as part of the Customs Union. The intention was to establish a legal framework necessary for the

emergence of a common labour market within a single economic space supported by the Customs Union (Weitz, 2014).

The Eurasian Economic Union treaty between Russia, Kazakhstan, Belarus and Armenia came into force in January 2015 and Kyrgyzstan joined in May 2015. This agreement allows for free movement of goods, people, services and capital between the states where signatories will not be able to implement protectionist policies on workers coming from member states and workers can stay in the host country as long as they have a valid employment contract. However, these free labour provisions run counter to many of the provisions for controlling the labour market in Russia and Kazakhstan and the implementation of the EEU provisions will be a departure from a situation where labour market controls and legislation were primarily bilaterally determined. A potential point of control could be labour contracts, In December 2014, a whole new chapter was added to the Russian Labour Code regulating the work and contracts of foreign citizens where employment contracts are tied to the migration status of the foreign workers (Schenk, 2015). The Central Asian *gastarbeiter* experience is closely interlinked with a process of internal and trans-national migration that is connected with what is popularly known as *Kitaiskii bazaars* in the region and the consequent influx of both Chinese goods and migrants. On the one hand these markets have created opportunities for internal migration from rural to urban centers within Central Asia but have also encouraged the specter of 'social problems' that every migrant situation creates. It is also here that the interface between the migration and trade comes to the forefront bringing into focus the debate on the 'migration state'.

Movements from northern Afghanistan into Central Asia

The Mazar-e-Sherief area in northern Afghanistan that borders Uzbekistan is mostly inhabited by ethnic Uzbeks. Movements of people across the frontiers, that had till recent times not been clearly demarcated, had been the norm as had relations through

marriage. The Uzbek President's elder daughter Gulnara Karimova had herself been married to an Afghan Uzbek. And when the Emir of Bukhara had been chased out of his capital he had fled, along with his entourage to Afghanistan. In fact northern Afghanistan was where the Basmachi also fled when they were chased out of the Emirate of Bukhara and the Uzbeks in the area are their descendants. However, this did not prevent the state from being suspicious about the newer entrants. By the mid 1990's the Uzbek state had become suspicious of extremist movements across the border and as Mr Rahman noted in an interview, while the Uzbek government was willing to provide humanitarian assistance across the border they were not willing to allow refugees within the state. The threat perception is clear from this comment by President Karimov:

> What is Uzbekistan supposed to do to maintain freedom and independence in the lawlessness that surrounds us? Who are we supposed to turn to for support when the Taliban are seizing one city after another, making no secret of their euphoria, and threatening to move even further north?[7]

In 1998 according to Mr Rahman there were 8000 refugees in Uzbekistan of whom only 3000 were recorded. This was of course an estimate as the Uzbek government had never allowed the UNHCR to undertake field assessment to estimate numbers of Afghans and Tajiks within the state. The number of Afghans in Uzbekistan had increased at a much slower rate than in other neighboring countries like Pakistan and Iran. This was due to a number of factors. Uzbekistan's geographic location, at a distance from the conflict zones in the south and central Afghanistan, was a principle reason. Until the late 1990's the northern parts of Afghanistan were largely untroubled and enjoyed relative autonomy from the central administration. After Mazar-e-Sherief was captured Uzbekistan reinforced its borders and closed its

[7]Karimov in an interview with *Moscow Times*, 8 October 1998, cited from Heath 2003.

check point at Termez. Refugee flows were also restricted the state's restrictive policies on refugees. Uzbekistan is not a signatory to the UN Refugee Convention of 1951 or the Protocol of 1967. However in 1999 the President signed the Charter for European Security paragraph 22 of which contains a commitment by signatory states to respect the right of asylum seekers and ensure protection of refugees as set out by the 1951 Convention and the 1967 Protocol. This is a purely political commitment and does not constitute a legally binding commitment.[8] Uzbekistan is a signatory to the Minsk Agreements on the free movement of citizens within the CIS however this is restricted to a 45 day stay and has limited scope in Tajikistan, Kyrgyzstan and Turkmenistan.

There is no Law on Refugees in Uzbekistan and the legislation of Uzbekistan does not contain any procedure for obtaining refugee status or asylum. The only reference to the institution of asylum is in the Criminal Code of the Republic of Uzbekistan of 1994 and in the Constitution of Uzbekistan, adopted in 1992. Art. 223 of the Criminal Code notes :

> foreign citizens and stateless persons, who have arrived illegally in Uzbekistan may be exempted from the visa and registration obligations, if they have applied for political asylum to the President, as foreseen under the Constitution of the Republic.[9]

However, since the Constitution merely states that "the President of the Republic shall rule on the granting of political asylum", without stipulating an application procedure, Article 223 of the Criminal Code cannot be invoked, as the Constitution neither

[8]Background Information on the Situation in the Republic of Uzbekistan in the Context of the Return of Asylum Seekers, UNHCR document, www.refworld.org/pdfid/3f6861782.pdf, accessed on 25/11/15

[9]Background Information on the Situation in the Republic of Uzbekistan in the Context of the Return of Asylum Seekers, UNHCR document, www.refworld.org/pdfid/3f6861782.pdf, accessed on 25/11/15

foresee a right to apply for asylum nor indicates a procedure in which to file an application. This lack of refugee legislation along with strict control over foreigners meant difficult conditions for migrants particularly in the light of the fact that Uzbekistan was itself a struggling and transitional economy. Uzbekistan's refugee and migrant policy has been shaped by security concerns and after the bombings in Tashkent in 1999 and the IMU incursions from the South. While to a large extent Uzbekistan has been able to restrict entry, the Kyrgyz borders are more difficult to control and easy to penetrate. In the weeks preceding the riots in Osh in 2010, the India Chair in Osh remembers watching groups of bearded men moving around the town from his rooftop, men who were definitely not locals.

Like in the rest of the region it is in and around the Kitaiskii bazar or Chinese markets that one is most like to encounter migrants including the Afghan migrants. Chinese goods are ubiquitous across Central Asia. Initially, the traders at these bazars were locals bringing scarce goods from just across the border to sell. But in recent years, they have been replaced by an influx of Chinese tradesmen who have set up permanent shops and have become a fixture of Central Asian urban life. Like Barakholka and Ya Lian bazars in Almaty, the Dordoi and Karasuu in Bishkek shows the enormous economic outreach of Chinese products in Central Asia. The story is similar in Bishkek's Osh Bazar. It is in these bazaars that Afghans, some married to local women run their business and shops and others work in businesses owned by the Kyrgyz. A section of Afghans who have lived here for a number of years have obtained Kyrgyz citizenship and incorporated as 'new Kyrgyz'. Some had come as students and remained in Kyrgyzstan. There are also funded and self financed students at the American University the OSCE Academy and the Ataturk Alatoo University (Kazemi, 2012). There are also NGOs and support groups like *Dosti* which provide them with support.

However, given the fact that a significant section of the Kyrgyz workforce has to move to Russia or Kazakhstan for work,

economic opportunities are restricted and like in the rest of the region, Kyrgyzstan is mostly a transit state for movements towards Canada, western Europe or the US. As a signatory to the UN Convention on refugees, Kyrgyzstan has been legally bound to provide asylum to refugees. However, since the post 2001 era there has been apprehension about the resettlement of Afghans in the southern Osh and Jalalabad regions not just because of the possibility social conflicts because of the density of population and scarcity of land but also because of the apprehension that southern Kyrgyzstan particularly Batken has faced extremist incursions which could intensify if members of these organizations crossed over as refugees (Karim Kyzy, 2001). There is also an ongoing controversy over their status. Several Afghans claimed that they had fled their country because of political and security reasons and as such were refugees, while the UNHCR, the IOM and Afghan diplomatic sources note that they are economic migrants who are simply seeking better opportunities (Kazemi, 2012). In the post 2010 period, following the violent clashes in Osh, southern Kyrgyzstan is no longer a preferred destination for Afghan migrants.

Similarly Kazakhstan has a miniscule number of officially registered refugees –662 (593 Afghans, 27 Syrians and others) (Lillis, 2015). According to a commentary on the 1951 Convention and its 1967 Protocol, in Kazakhstan, the Commission on Citizenship under the President plays a central role in the asylum management process (Zimmerman, 2011). The Resolution of the commission on refugees contains a definition of 'refuge' that is wider but similar to the 1951 Convention. The Resolution states that the Chairman of the Commission has the right to grant political asylum. There are only two migration departments in Kazakhstan that grant asylum and are located in Almaty and Shymkent, with the UNHCR office willing to accept applications only in Almaty. Also only selective categories of refugees have access to the Refugee Status Determination Commission and Afghan refugees are a major category of persons allowed into the

national asylum process. Most requirements for asylum are consistent with international standards though there are reports that the Ministry of Foreign affairs has introduced an additional requirement that political asylum cannot be granted to a person if the fact of asylum significantly affects bilateral relations with another state. These laws also mean that most Afghans remain outside the legal process which provides some protection and wish to move on to third countries.[10]

Tajikistan hosts the largest number of Afghan refugees among the Central Asian states. Movement from northern Afghanistan across the border in Tajikistan intensified when the Taliban again became a visible presence across northern Afghanistan. This movement was impelled by the fact that if the intimidation of the local population had started even with the presence of ISAF these would intensify when the forces withdrew. The stories are similar with families arriving without proper documentation and problems of registering as a refugee. Some, who came a number of years ago and married local Tajik men now face difficulties as they often did not register as Tajik citizens and do not have documents to prove that they are from Afghanistan. Once accepted by the state Afghan refugees are generally given residence permit for the town of Vahdat, 20 kilometers from the capital and most commute to work. While there is some attempt to rebuild their lives in Tajikistan most agree that this is a transitional phase and that the final destination is Canada or Europe (Dustmurad et al., 2013). This is because freedom of movement and residence is restricted, the asylum system is fragile and statelessness remains a major challenge. In a study aptly called "Lives in Limbo" the UNHCR underlines a number of issues which have contributed to less than ideal conditions.

> Tajikistan is a post conflict state which has few resources, limited governmental capacity, no functioning social

[10]*KAZAKHSTAN: Afghan Refugees seek third-country resettlement, IRIN, Almaty 10 March 2005.*

welfare system and poor socio-economic indicators. Livelihood opportunities are scare, obliging nearly half of the adult male labour to work abroad and support their families by means of remittances.[11]

Conclusions

A semantic and political debate affects the future of people who leave their homes for other countries. Are they refugees fleeing their countries due to war and persecution, or are they migrants moving in search of better opportunities? A 'refugee' remains a political concept with the 1951 Convention noting that it refers to someone "unable or unwilling to return to their country of origin due to persecution". This is the category that states, signatory to the Convention pledged to protect and allow into their territory. However, as soon as the nomenclature changes and the 'refugee' becomes a 'migrant' he fails to qualify for unrestricted entry and becomes subject both to the laws of the state where he seeks entry and also the requirements of the labour market. The distinction between 'forced' and 'voluntary' however remains blurred and dependent on perceptions of the host state and the global community. It is generally assumed that Afghanistan is no longer at 'war' since it has all the functional trappings of the state and recently held elections. However, anyone familiar with the country would note that conflict continues particularly in the margins and the fears of chaos with the withdrawal of the ISAF

[11] *Lives in Limbo A review of the Implementation of UNHCR's Urban Refugee Policy in Tajikistan,* UNHCR Policy Development and Evaluation Service, PDES/2011/03, May 2011.

[12] The disclaimer that BBC uses is interesting. It says that the BBC uses the term migrant to refer to all people on the move who have yet to complete the legal process of claiming asylum. This group includes people fleeing war torn countries such as Syria, who are likely to be granted refugee status as well as people who are seeking jobs and better lives who governments are likely to rule as economic migrants.

forces remain a reality for many. Also the repatriation process has faced difficulties. New terms, more appropriate for migratory movements, need to be developed that would take note not just of the reasons, but also the intentions and motivations of the migrating group since it is this that makes the Afghan migrant 'invisible' within systems that fail to take note of complex realities that lead to movements.

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Article

Mapping Knowledge and Denial: Outline of a Cross-country Analysis of the Impact of Environmental Think Tanks on Climate Politics and Climate Skepticism

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Abstract

Anthropogenic climate change is a scientific fact. For decades the international community of climate scientists have compiled data, applied the most sophisticated models and methods. Among climate scientists the existence of human made climate change is consensual. Yet, scientific knowledge and expertise have been unsuccessful in convincing 'climate sceptics' or to provide the necessary backing for decisive action on the global stage. Despite the successful Paris summit climate denial is still widespread and a constant threat to national and global climate politics. This contribution argues that the distinct patterns of climate denial are a consequence of country specific patterns of translating and transmitting scientific knowledge on climate change. It is crucial to investigate how it is fed into political and public debates. This paper therefore focuses on particularly important "switchboard organizations", so called think tanks, outlines an analytical framework and presents some empirical evidence for national patterns of knowledge distribution. The overall aim is to stimulate

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a debate on the national differences and its consequences in the use and abuse of climate related scientific knowledge.

Keywords: Climate Change, Climate Denial, Knowledge Politics, Think Tanks

> *As human beings, we are vulnerable to confusing the unprecedented with the improbable. In our everyday experience, if something has never happened before, we are generally safe in assuming it is not going to happen in the future, but the exceptions can kill you and climate change is one of those exceptions. (Al Gore 2009)*

Introduction

How to deal with a pressing issue, with a problem which has the potential to spiral out of control and to cause major crises all over the world? Natural disaster followed by waves of refugees are just one all too likely threat. What about a challenge that doesn't manifest itself in a single cataclysmic event but leads to slow and gradual degradation of peoples living conditions? Climate Change surely is such a pressing issue. Yet, while single events (say a flood or a drought) can be experienced immediately it is still hard to link a particular event to climate change. At the same time, 'climate change' itself cannot be experienced first hand. It is a mere scientific category used to catch and describe the changing weather patterns, the impact on sea currents, the spreading of 'invasive species' to new ecological environments or the melting of glaciers and ice caps. In short: while extreme weather events can become visible to anyone who can look out of a window, climate changes reveals itself in diagrams, charts, studies and reports.

In principle, this should be no problem. In fact, many problems, including environmental ones (such as the depletion of

the ozone layer by CFCs) gained prominence only because of the findings of highly complex and rather inaccessible scientific research. However, in the case of climate change things seem to be more complicated. The complexity of climate science, the reliance on 'models' (a perfectly rational approach within the scientific community, which is nevertheless likely to cause confusion in public debates, cf. Trenberth, 1997) and the overall difficulties involved in linking a particular event directly to climate change, have opened up possibilities for climate sceptics.

Climate skepticism and climate denial can take two forms: Some climate change deniers question the very existence of climate change. One has not to turn to Donald Trump who not only called climate change a 'hoax' but suspected it to be a Chinese invention to cripple the US American economy (Wong, 2016). Climate skeptic views are deeply rooted in the United States (McCright & Dunlap, 2011) and tirelessly propagated by conservative think tanks and pressure groups (Dunlap & Jaques, 2013).

The United States is a textbook example for the critical importance of knowledge in climate politics. For the success of climate skeptic positions (culminating in the appointment of renowned climate skeptic (and director of the conservative think tank Competitive Enterprise Institute) Myron Ebell to lead Environmental Protection Agency during the transition period by Donald Trump (cf. Bravender, 2016), cannot be explained by a lack of scientific knowledge. It is not that IPCC reports are unknown in the United States. What differs is the interpretation of available knowledge and the credibility of scientific expertise.

It is therefore important to investigate how complex scientific knowledge is made available in public and political debates and to focus on the transmitters and translators of science knowledge to explain national differences and the success of climate denial.

This contribution will give a brief overview of climate skeptic position in comparative perspective. It will then focus on think tanks as important translators of complex scientific findings before presenting selected empirical evidence from Germany. The final

paragraphs are dedicated to an outline of an analytical framework for systematically analyzing the impact of knowledge politics on national climate politics. The conclusion not only sums up the findings of the article but also aims at stimulating a debate on the use of knowledge and knowledge politics in national (and in consequence: international) climate politics (Stehr 2005).

Mapping Knowledge and Denial - the initial Situation

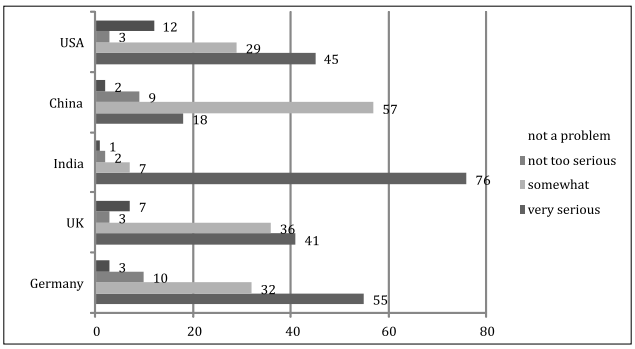
Perhaps the one situation symbolizing the utter denial of climate change came in February 2015. Oklahoma Senator and author of the widely read book *The Greatest Hoax: How the Global Warming Conspiracy Threatens Your Future* Jim Inhofe tossed a snowball to the Senates Floor to 'prove' that climate change is a hoax (cf. Gillis, 2016). The episode is emblematic for two reasons: First, it illustrates the abovementioned confusion between (regional or local) weather events and global climate change. Climate scientists would not claim that snowfall would become all but impossible in Washington DC in February. Secondly, it reaffirms the impression that climate denial is mainly an American problem. Senator Inhofe´s dramatic gesture not only got a lot of media attention but also set the stage for the next round in the ever more fierce controversy on climate politics in the US. Yet climate scepticism is not a domestic problem of the United States. Climate denial is a serious danger for international treaties such as the Paris Agreement. The pending threat of major contracting parties (such as the US) to reneging on their promises could either discourage the other parties from pursuing ambitious emission reduction targets or render these efforts less effective. Moreover, climate skeptic positions can be found elsewhere too. Even in Germany, self-appointed trailblazer in climate protection, climate skeptics are on the rise. While the latest electoral successes of right-wing party "Alternative for Germany" (AFD) can be explained by its radical position of immigration and refugee policies it should not be forgotten that it also promises to abandon the decarbonizing the economy and to "remove the stigma of a pollutant from CO_2"

(AFD Manifesto 2016). In consequence rather than regarding climate skepticism and climate denial as particularities (or: pathologies) of the US American political system on should have a closer look at the different levels of climate skeptic positions in different countries.

A representative survey conducted by the PEW Research center in 2015 which aimed at comparing peoples attitudes on the global level revealed some interesting findings (see figure 1 below): Climate skepticism is a relatively marginal position in the US with only 12 per cent of the respondents believed that climate change is "no problem" at all. Compared to other countries in the survey (China: 2%, India: 1%, UK: 7% and Germany: 3%) the number is still high but it certainly doesn't explain the attention of climate skeptic positions in the media and in the political discourses.

These results raise two important questions: First, how can the considerably higher numbers of persons who identify themselves as climate skeptics in the US be explained? And second, how come that climate skeptic positions are widely debated in public and political discourses given that only about an eight of the population are climate skeptics?

Figure 1:
Attitude towards Climate Change ("Is climate change a problem")



Source: PEW Spring 2015 Global Attitudes Survey

Since this contribution is not concerned with climate skepticism in the United States it will approach these questions from a somewhat different angle: the first question directly relates to the use of scientific knowledge. As mentioned in the introduction, people in the US actually could have access to the latest scientific reports. However as several studies have shown, climate skepticism is not only (relatively) widespread, but also spread widely by an armada of "Merchants of Doubt" (Oreskes & Conway, 2010). As Dunlap and Jacques (2013) have aptly demonstrated, conservative think tanks play a central role in this undertaking.

Think Tanks as Translators, Transmitters and Distorters of Climate Knowledge

When think tanks play such a significant role in influencing public debates on climate politics in the US one has to ask what impact (if any) they have in other countries. To raise this question is particularly important since think tanks have developed into global phenomena only recently. Until the 1990s they have been described as a mere particularity of the US (Ricci, 1993). Today numbers of think tanks is increasing all over the globe. The *2015 Global Go To Think Tank Index Report* (McGann, 2016) ranks the United States number one with 1835 registered think tanks. China (435), the UK (288), India (280) and Germany (195) follow (McGann 2016: 34). But what exactly are these think tanks doing?

To answer this question one has to ask first what think tanks actually are: for Diane Stone think tanks are organizations 'at the intersection of academia and politics' (2000: 154) purpose-build to 'make academic theories and scientific paradigms policy relevant' (ibid.). At the same time think tanks may not limit themselves to the role of transmitters or translators of scientific knowledge. Some think tanks, frequently referred to as 'advocacy think tanks' (see below), actively seek 'to shape the parameters of public debate' (ibid.) especially if they have an 'ideological disposition' (ibid.).

The different roles think tanks can play, the various strategies they can pursue and the differences in the organizational structure make them the ideal object for studying the distinct ways of how (and why) knowledge is fed in public debates and policy- making processes. However, it is this diversity which makes it hard to define what a think tank actually is. Leading scholars including Diane Stone describe the label 'think tanks' as an "umbrella term that means many different things to many different people" (1996: 9). In fact there is a "lack of consensus (...) in defining think tanks" (McGann & Johnson, 2005: 11). A working definition could describe think tanks as "independent, non-profit research facilities, engaged in applied research provided to political decision makers (Ruser, 2013: 331) that is organizations engaged with analysis, advocacy, education and formulation (...) of policy options" (McGann & Johnson, 2005: 11-12).

Although such working definitions provide suitable starting points for conceptualizing think tank behavior empirical analysis requires a more narrow description of what think tanks are and what they´re doing. A practical solution to this problem is to distinguish between different *types* of think tanks. Kent Weaver formulated a prominent typology, which takes into account, different patterns of recruitment, funding, output and audience already in 1989. Weavers model includes two fundamental types of think tank: 'Universities without Students' (UWS) and advocacy think tanks. UWS 'tend to be characterized by heavy reliance on academics as researches, by funding primarily from private sector (…), and by book-length studies as the primary research product' (Weaver, 1989: 564). UWS can be described as true translators of scientific knowledge. The aim is to provide scientific advice to the clients and contribute to shape the 'climate of elite opinion' (Weaver, 1989: 564). UWS maintain the high standards of academic inquiry and can also be labeled 'academic think tanks'.

In contrast, advocacy think tanks 'combine a strong policy, partisan or ideological bent with aggressive salesmanship and an

effort to influence current policy debates.' (Weaver, 1989: 567) The two types of think tanks can serve fundamentally different purposes. Again, according to Weaver (1989: 568-569) think tanks can be a 'source of policy ideas' function as evaluators of policy proposals and programs, provide skilled personnel and be a source of 'punditry' for the media. In order to fulfill this particular role think tank staff must have the ability and show the willingness to adhere to the standards of good scientific practice. For advocacy think tanks 'scientificity' is also important but for a different reason: Scientific authority (or at least a semblance of it) serves as the currency needed to sell normative biased ideas. The most striking example for this kind of strategy may be the setup of *The Nongovernmental International Panel on Climate Change*, NIPCC (http://climatechangereconsidered.org) by the "Heartland Institute", an ultra-conservative think tank. Clearly reports and studies issued by the NIPCC (which all find that climate change is a hoax) do not resonate within the community of international climate scientists. Moreover, the criticism voiced by think tanks like the Heartland Institute must not be confused with standard scientific practice to question the findings and challenge the hypotheses of scientific peers. The target audience such 'reports' isn't the community of climate scientists and their aim is not to provide the 'best available knowledge' to policymakers. However, laypeople may find it hard to see the difference between a report of the IPCC and the NIPCC. Since the Heartland Institutes 'aggressive salesmanship' ensures that NIPCC studies are distributed among the media, circulated in newsgroups and blogs and provided to conservative policymakers, a relatively small number of highly specialized think tank staffers can create the impression of scientific controversy on the issue of human made climate change (cf. Dunlap & Jacques, 2013). In sum, think tanks may play only a minor role in *scientific* debates (although notable exceptions like e.g. the Potsdam Institute for Climate Impact Research (PIK) do exist) but they can be crucial in translating scientific knowledge into policy relevant information and thus into arguments used in public debates.

The political landscape in the United States provides perfect conditions for advocacy think tanks. They are well integrated in national networks of partisan knowledge production, have access to funding opportunities and find it easy to align with media outlets. However other countries might be more hostile environments (cf. Ruser, 2013). The following paragraphs provide a brief comparison between US American and German Think tanks and introduce some original data on the German think tank landscape.

Data and Methodology

To estimate the significance and the role of individual think tanks the study relies on insights and methods of relational sociology and social network analysis. Instead of focusing on individual actors (e.g. by linking the "importance" of an actor to its organizational structure, staffing or financial situation) the relational approach aims at explaining the influence of think tanks by investigating their relative position in a given network. Analyzing the positioning of think tanks allows for distinguishing between "influential" think tanks (e.g. organizations that have access to government authorities or maintain close ties to foundations and other research institutes) one the one hand and marginalized think tanks (which lack these ties) on the other. Thus methods of SNA allow for unraveling the relational structure of environmental think tanks and for mapping the distribution of policy relevant climate knowledge (Ruser, 2013; 2014). To analyze environmental think tanks in Germany and to compare them to their US American counterparts, network data was compiled by combining information from the think 'tank directory database' (basic information on think tank types) and data provided by the thinktankmap.org project. Information on cooperative research projects and consulting cooperation was obtained from respective think tanks websites and subsequently coded to compute an undirected network of think tanks and their clients and partners. The final data file included information on 46 organizations

including national and international government authorities, foundations and think tanks. Network ties are defined by ongoing project cooperation (year of reference is 2013). 21 academic and 12 advocacy think tanks were included in the dataset. In addition 13 government authorities, occurring as clients and four industrial / civil society organization (clients/ cooperation partners) have also been considered. The ratio of academic and non-academic think tanks reproduces structural data provided by Thunert (2004) who describes the German case as dominated by academic think tanks (accounting for about 50 per cent) with advocacy think tanks (about 30 per cent) trailing behind (contract research institutions and party affiliated think tanks accounting for 10-15 % each) (Thunert, 2004: 72).

Empirical Evidence – Contrasting Germany and the United States

Think tanks have increasingly attracted scholarly attention thus "generating vast quantities of policy research" (Hird, 2005:1). However, as Murray Weidenbaum has noted "[a]ctually trying to measure their impact on specific public policy changes, however, has frustrated scholars for years" (2010:135). Measuring their impact is further complicated by the fact that the term "think tank", as mentioned above, refers to a variety of organizations, which can play several roles in different political environments.

To improve our understanding of which roles think tanks can play in climate politics the following paragraphs outline a comparison between US American Think tanks and their German counterparts. US American think tanks are particularly well researched (Ricci, 1993, Abelson, 2009). For climate politics, empirical studies find that conservative think tanks in the USA (McCright & Dunlap, 2003: 354) are instrumental in backing 'skeptical' views on climate change (Oreskes & Conway, 2010). Think tanks utilize scientific expertise (McCright & Dunlap, 2003: 358-359) and to feed the often complex findings of climate research

to media outlest and political parties in an easy-to-understand, easy-to-digest way. The secret of their success is that climate skeptic positions promoted on the basis of 'scientific findings' by conservative think tanks were highly correspondent to the views held by conservative white men who form the bulk of the conservative countermovement (McCright and Dunlap, 2011:1163). As Dunlap and Jacques (2013) have demonstrated books denying the existence of climate change published by think tanks provide an 'effective tool for combating the findings of climate change scientists' (Dunlap and Jacques, 2013: 3). In contrast to the latter that publish mainly in peer-reviewed, scientific journals and hence adhere to the rules of good scientific praxis, advocacy think tanks effectively dodge peer review. Since the public is often not familiar with the standards of scientific practice, the authors of such books can nevertheless become regarded as 'climate experts'. Compared to researchers in the academia the think tank staff enjoys greater freedom, which in turn serves their political goals:

> Not being subject to peer review allows authors or editors of denial books to make significantly inaccurate and discredited claims that are often amplified in conservative media and the blogosphere, potentially reaching significant segments of the general public. Their false claims are also used by conservative politicians, who sometimes invite the authors to testify at congressional hearings (…) and thereby provide them a direct voice in the policy-making arena (Dunlap and Jacques, 2013: 15).

The studies of Jacques, Dunlap and McCright are consistent with the description of the United states as a 'market oriented knowledge regime', which is characterized by highly adversarial, partisan, and competitive knowledge production processes. Conservative think tanks are capable of creating a competitive advantage because they can restrict themselves to a mere semblance of scientificity. In the increasingly polarized political landscape in the US (Kuo and McCarthy, 2015) advocacy think

tanks are particularly successful, since they can provide "ammunition for policy makers who need justification for their already preferred policy choices" (Rich, 2004:211). In contrast to the United States the impact of environmental think tanks in Germany has attracted less scholarly attention (for notably exceptions see: Braml, 2006, Thunert, 2000; 2004 and Cough and Shackley, 2001). However, more recently empirical studies attempt to map and investigate think tanks networks and their impact on climate politics in Europe and Germany (cf. Plehwe, 2014).

The empirical evidence presented here adds to these recent attempts. The data was analyzed by using Pajek software package. The integration of think tanks into cooperative networks and their relative importance within these networks was calculated by analyzing the "closeness centrality". The closeness centrality of an actor/node can be defined as "the sum of graph-theoretic distances from all other nodes, where the distance from a node to another is defined as the length (in links) of the shortest path from one to the other" (Borgatti, 2005:59). It takes into account the distance of an actor to all others in a network (or a network component) thus giving a measure of relative "structural advantages" of certain actors (Haneman and Riddle, 2005). Actors with high closes centrality degrees occupy favoured positions in a network: "Actors who are able to reach other actors at shorter path lengths, or who are more reachable by other actors at shorter path lengths have favoured positions. This structural advantage can be translated into power" (ibid.). For environmental think tanks occupying a favoured position implies advantages in attracting public money for doing research and privileged access to policymakers for disseminating their policy recommendations.

Based on the project data on climate research complex patterns of cooperation could be revealed. The network consists of three unconnected components. While this finding immediately reveals that some actors (mostly relatively young and comparatively small

advocacy think tanks) have virtually no chances to participate in more prestigious publicly funded research projects, it also limits the applicability of the closeness centrality measure to the main component of the network (cf. Borgatti, 2005: 60).

To begin with perhaps the most important finding: in contrast to the US *academic* think tanks are the key players in Germany. Measuring the relative importance of all actors in the network by calculating the respective closeness centrality degrees revealed significant differences between advocacy and academic think tanks: 12 academic 6 Advocacy think tanks in the main component. Average closeness centrality is higher for academic think tanks (0,3059 compared to 0,2635 for advocacy think tanks). Thus a privileged group of academic think tanks could be identified: The most central actors in the network are the *Potsdam Institute for Climate Impact Research* (0,4353), the *Wuppertal Institute for Climate, Environment and Energy* (0,3718) and the *Institute for Ecological Economy Research* IÖW (0,3499). All three are academic think tank with the *Öko-Institute* (0,2950) as the most important (pro-climate) advocacy think tank clearly trailing behind. Governmental authorities play a crucial role too. Ministries and Federal Agencies are by far the most important clients for environmental think tanks. Public authorities demand climate expertise and turn to Universities without students to get the best scientific advice.

Focusing on the respective closeness centrality values (see appendix) also shows the hierarchies within the network of think tanks, government authorities and funding agencies. On the left one can see a particularly dense region of the network. It is in this area where privileged academic think tanks, ministries and public authorities meet and cooperate. Smaller, mostly highly specialized, academic think tanks function as sub-contractors of the larger UWS. Advocacy think tanks find themselves (again with the notably exception of the Öko-Institute) relatively marginalized or even disconnected.

The relational approach that German advocacy think tanks do not (necessarily) lack the resources to make them heard. They are rather disadvantaged in a consulting landscape, which can be described as a "closed shop". A handful of renowned academic think tanks maintain close ties to government authorities and important funding organizations. This closed shop situation makes it particularly hard to push a dissenting agenda. Even with climate skeptic parties, such as the AfD on the rise, which indicates an increasing demand for "ammunition for policy makers" (Rich, 2004: 211) who don't believe in global climate change, providers of such knowledge must still operate from relatively disadvantaged positions. Since they´re effectively cut off from participating in prestigious research and consulting projects they´d have to establish alternative channels to communicate to policymakers and the wider public.

Conclusion and Outlook

Climate politics is not about 'having the facts'. Scientific findings have to be communicated, debated and processed in public debates and political decision-making processes. Analyzing the translation, the transmission and at times the distortion of knowledge about climate change is therefore crucial for understanding national climate politics. It is particularly important to investigate the political strategies for using (or abusing) scientific knowledge. For climate science knowledge is too complex to have an immediate effect. It needs to be translated and explained to policy-makers and the wider public.

Think tanks can play an important role in this. However as the comparison of the United States and Germany demonstrate the roles played by think tanks can differ considerably. As part of a conservative movement advocacy think tanks in the US are highly important in promoting climate skeptic position. Studies like Naomi Oreskes and Erik Conways "Merchants of Doubt" or the empirical analyses of Aaron McCright and Riley Dunlap show

"how […] conservative think tanks were able to define—or, more accurately, *re*-define—global warming as non-problematic" (McCright and Dunlap, 2003: 349).

In Germany, in contrast, academic think tanks dominate. Their aim is to translate scientific findings into policy relevant information without altering the content of the research. Advocacy think tanks are by and large marginalized just as climate sceptic positions (so far). Even more important, the relational approach pursued here reveals that even under changing conditions (e.g. electoral successes of climate sceptic parties) restructuring networks of knowledge production and knowledge distribution is big challenge.

Even form the very limited evidence that could be presented here, it can be derived that mapping the networks of knowledge dissemination is crucial for understanding why and how climate sceptic positions can have considerable impact in one country and be marginalized in another. Likewise to understand the roles environmental think tanks can play it is *not* sufficient to draw the comparison at the organizational level. To understand their impact their respective network position has to be taken into account. With more and more countries, including the emerging economies of China and India pledging to reduce their Co_2-emmissions (for India see: Gupta and Gupta, 2016:121) the liability of national pledges is becoming more and more important. Cross-country analyses of the impact of environmental think tanks and the networks for producing and distributing climate knowledge and/or political "ammunition" contributes to assessing the respective liability.

Climate science is warning that the Earth´s climate is changing with possibly dramatic consequences. Climate Change seems to be one of those 'exceptions to the rule that can kill' Al Gore has in mind. Yet, since climate science is complex and its findings opaque for anyone not acquainted with the complex models needed to discover the small signals that add up to the global climate change

climate politics is essentially knowledge politics.

What is needed is a better understanding or our understanding of climate change. Cross-country analyses and an international dialogue are needed for mapping knowledge and denial and for uncovering the mechanisms that promote climate change denial.

Appendix: Closeness Centrality, Main Component

Organization	**Closeness Centrality**	**Type**
Öko-Institute	0.295026	Advocacy
ISOE	0.283318	Academic
PIK	0.435343	Academic
Climate-KIC	0.287888	Advocacy
German Aerospace Center	0.287888	Academic
GIZ	0.287888	Government
German Research Foundation	0.287888	Government/Foundation
Project Management Jülich	0.287888	Government/Academic
Kurt Lange Foundation	0.287888	Industry/Foundation
Volkswagen Foundation	0.287888	Industry/ Foundation
Federal Environment Agency	0.364266	Government
Federal Ministry of Economic Affairs	0.287888	Government
European Institute of Innovation	0.287888	Academic
Deutsche Bundestiftung Umwelt	0.287888	Government/Foundation
Climate KIC	0.287888	Advocacy
Federal Ministry of Food and Agriculture	0.287888	Government
World Bank	0.287888	Government
Helmhotz Centre for Environmental Research	0.249637	Academic
CESifo	0.264430	Advocacy
Ecologic	0.264430	
Climate Media Factory	0.247904	Advocacy

Organization	Closeness Centrality	Type
e-fect Consulting	0.247904	Advocacy
Federal Institute for Research Building	0.247904	Academic
Wuppertal Institute	0.371855	Academic
Mercator Foundation	0.258682	Industry/Foundation
DIW	0.330538	Academic
Leibnitz Institute Ecological Urban	0.283318	Academic
Federal Agency for Nature Conservation	0.212489	Government
IÖW	0.349982	Academic
Ecofys	0.237987	Advocacy
Environmental Policy Research Centre	0.278892	Academic

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Article

Educational Status and Constraints of Rural Women in India: Evidence from a Study of Rural Punjab

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Abstract

This paper presents evidence based on a study conducted on 600 rural women in Malwa region of Punjab. Rural women's educational status has been gauged through the prism of two parameters: first their literacy status with levels of education, and second, the constraints faced by them to avail of educational opportunities. The findings reveal that literacy among rural women is much below the state and national average. Out of the literates, educational status of women in rural areas is very low. Even across all social groups, the substantially low levels of education among rural women present a grim picture of educational attainment in rural areas. A comparison of women from different social groups reveals that scheduled caste women are at the bottom of the scale with abysmally marginal levels of education; among upper caste women, a vast majority are educated but below primary and elementary level. Further, constraints for their educational participation cited by women respondents included: poverty in the family, parental illiteracy, weak socio economic status of family, non–availability of

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educational institutions, social barriers, negative attitude of parents towards girls' education, lack of security for the girl child, cost of education, lack of employment opportunities and socio-cultural practice of dowry. Findings clearly indicate that a state which is among the most developed states of the country is still lagging behind in providing the majority of rural women with equal opportunities in life. It is suggested that mere increase in literacy figures does not depict the educational development of people, rather the focus must be on ensuring certain minimum levels of education to all. The constraints in educational participation of rural women need to be addressed in every context.

Keywords: Women, rural opportunities, constraints, literacy

Introduction

The value of education for development is increasingly recognized both in the instrumental sense of enabling rapid national growth and in the direct attainment of human self-consciousness and capability. India is a country of grand contradictions, rich diversity and sharp disparities. The country accounts for 30 percent of the world's total non-literate population and out of which 70 percent are women. Women constitute 48.2 percent of the total population and 37.6 percent are still non-literate. The non-literacy is much more intense in rural areas at 53.9 percent. We cannot forget that 68.84 per cent of the Indian population lives in villages. Although the gaps between male and female literacy rate is a rough measure of education, it is a good indicator of gender differences in varied forms of development in human capital (Schultz, 2002). The education of women has remained an overarching concern of policy makers and academia. Since Independence the policy framework and provisions of educational opportunities for women and girls have remained an important part of the national endeavor in the field of education. National Policy of Education

(1986-92) also recognized that empowerment of women is possible only with the critical pre condition of participation of girls and women in the educational process. The Program of Action (1992) focused on empowerment of women and emphasized the participation of women in the education process. But despite all forceful interventions of affirmative action, feminist movements, constitutional guarantees, protective laws, state efforts and pressure from the United Nations with regard to the uplift of women by expansion of education, the education of women is still in the state of an enigma after 69 years of independence. It is a matter of great concern that on one hand the nation is becoming a global leader in the knowledge economy, and on other hand is a home to more than half of the world's poor and non-literate people, out of which a vast majority are women.

Equal opportunities and status are two dimensions of empowerment which define, challenge and overcome barriers of life with which one's ability to shape up life and environment get increases. Although women are vital human resources, their economic, educational, social and political empowerment hastened the pace of social development. On similar lines Patnaik (2000) argued that investing in women's "capabilities" and empowering them to achieve their "choices" and "opportunities" is the surest way to contribute to economic growth and overall development of society.

Arguably, there is an uneven rate of progress at all levels of education. Economic status, class, caste and locale play a significant role in determining the extent of availability of equal opportunities. Rural women have historically been denied access to education due to vicious cycles of poverty, patriarchy, class, caste and gender divisions. Feudal and patriarchal social structures on the one hand and neglect by developmental policies of the state on the other, have pushed them to the margins rendering them more vulnerable to different kinds of discrimination. As per Census 2011 figures the literacy rate among rural women is 58.75 percent as compared to 72.9 percent among urban women; which is much lower than literacy rates among

rural and urban men, which stand at 70.7 percent and 86.3 percent respectively. Evidently gender gaps in literacy in rural India declined in recent years due to concerted efforts in school enrollment of the girl child in many states.

Since last decades, education of rural women remained a serious concern among academia and researchers. Bhandari and Smith (1997) found that rural women in Madhya Pradesh have a mere 0-8 years of schooling. 47 percent of rural women are engaged in agriculture whereas 53 percent women supplement family income through paid labour. Mazumdar (1987) found that discrimination in terms of education against women is maximum among families of low socio-economic status and in rural areas even in families with middle and high socio-economic. Emphasizing the need of women's education, Kabeer (2001) argued that education is a catalyst for empowerment. Access to education may in itself not be a relevant measure of women's empowerment, but the level of education has a potential to enhance women's capacities and self-determination. Similarly, Sadgopal (2003) and Mukhopadhyaya (2009) concluded that educational empowerment of rural women is meaningless unless the society and its institutions respond to the discriminatory practices against rural women. Women can transform their life situation through education. Expressing concerns on low education levels of rural women, Dreze and Sen (2013), affirmed that in India, the mean years of schooling stand at 4.4 years and for females is even lower.

Status of Women in Punjab

Punjab state has the dubious distinction of devaluation of women as apparent from the adverse sex ratio. The sex ratio in the state is 895/1000, much below the national figure of 940/1000 (Census 2011) and also is much below the 'less developed' Bihar. More alarming is a steep decline in number of girl children in age group of 0 to 6 years, which drastically declined from 901 in 1961 to 846 per 1000 boys in 2011. The sex ratio brings into question the vital

issue of the right to life and the right to be born for the girl child. Despite high levels of economic growth and per capita income, there is pervasive gender bias in the state. However, the declining sex ratio and the high mortality rates for females reveal not only outright discrimination, but also the fact that women are left out when it comes to utilizing the advantages which development has showered upon the State.

People simply cannot afford to bring female children into the world as girls are viewed as a liability. Arguably, levels of development in the state have not been able to translate into change in the status, position and progress of women. The state is predominantly a rural economy with 62.25 percent of its total population and 70 per cent of its total workers living in villages. Out of the total 17,344,192 rural population, 8,250,716 are females. The average literacy rate for the rural population is 71.42 with rural male literacy rate at 76.62 percent and rural female literacy rate at 58.9 percent. Rural female literacy is far below the state and national literacy figures. Wider educational disparities exist across gender, location, region and social groups. Punjab ranks 14th on the Human Development Index among 35 States/UTs, but for the Gender Development Index it plummets down to the 19th position, pointing toward the need to improve social, educational and economic status of women. This implies that the development process in the state is highly skewed against the female population and the fruits of educational expansion and income have not been borne by the female population in the state. In other words the state lags behind in quality of life indicators such as literacy rate, infant mortality rate and availability of clean drinking water supply. It is generally believed that a greater degree of urbanization would make the area more conducive to learning for women. But it has not been happened and holds true only to a very limited extent in Punjab. The issue of lack of security of women and girl children merits serious attention. Invisible participation in economic activities, little representation in the political decision-making bodies and cumulative socio cultural milieu attributes poor social status of women in the state.

Sample and Methodology

This study was conducted on 600 rural women residing in villages of four districts namely Sangrur, Mansa, Bathinda and Muktsar of Punjab. Women were selected in the age group of 25 to 45 years and those who have been living in village since last 20 years outside the urban metropolitan area. The villages were selected through proportionate random sampling located at least 10 kilometers away from the main road. Data was collected in 2014 through a questionnaire, structured interviews, observations and focussed group discussions.

Results and Discussions

Educational Status of Rural Women:

Out of a total sample of 600 rural women, 279 (46.5 percent) were non-literate and 321 (53.5 percent) were found to be literate (Table 1). Caste differences in literacy rates are apparently visible across social groups as upper caste women include 36 percent non-literate and 64 percent literate women. Values reveal that the percentage of literates is significantly higher for the upper castes. Similarly, in the backward category 53 percent were found to be literate. The corresponding figure in scheduled caste category depicts that fairly small percentage (37%) of SC women are literate whereas non-literacy is much higher among scheduled castes and marginalized groups. It is pertinent to mention here that Punjab has the highest SC population(31.94%),among all states of the country. Out of this, 73.33 percent of SC (Dalit) population lives in rural areas. In the surveyed villages, some have more than 50 percent of Dalit population and non-Dalit are from economically weaker sections. The livelihood of rural women largely depends upon labour and agriculture due to scarcity of employment and skill. The inference drawn here clearly indicates that those who are already under privileged are not able to access equitable educational opportunities. Low literacy figures depict the severity

Table- 1

Literacy rates in Rural Women

	Total	General category	Backward Caste	Scheduled Caste
(A)Illiterate	279 (46.5)	111 (36)	46(47)	122(63)
(B)Literate	321 (53.5)	198 (64)	50 (53)	73 (37)
Grand Total	600	309	96	195

Note: - Figures in parenthesis are percentage share.
Source: - Primary survey.

of the issue and point out that educational status of rural women is abysmally low.

Literacy figures alone do not provide any meaningful clue regarding actual levels of educational attainment. Hence the other question explored was the years of schooling and levels of education in rural women. Figures presented in Table 2 show that 36.4 percent women had education below primary level and 18.2 percent had just primary education. Similarly, only 11.4 percent of rural women have education below elementary level. Overall, 66 percent had schooled below elementary level. A small percentage (8.9 percent and 6.4 percent) women had elementary and Matric levels of education respectively, whereas only 4.6 percent of total literates have secondary level of education. A very small percentage (3.7 percent) had some skill based training and are largely from the upper caste groups. The graduate and post graduate levels of education are available to 2.4 percent and 1.8 percent of rural women respectively.

The comparison across social groups on the basis of education levels clearly reveals that SC women have terribly low levels of education as compared to upper caste women. Out of SC women, 37 percent are literate women and out of literates 47.9 percent have accessed education below primary level. None of the SC rural

women had been able to access graduation or post-graduation.It presents in clear sense that out of literate rural women, the level of educational attainment is alarmingly low. Even where education opportunities are availed, this is largely by upper caste groups which are dominant groups in the society. On the other hand it reveals that presence of illiteracy, ignorance and lack of skill are deeply ingrained in the rural set up. The poor educational development of rural people and further that of women is a cause of concern. Moreover, rural Punjab is already facing an agrarian crisis, which has deeply affected the life of women and of children.

Table-2

Educational Attainment Levels among Rural Women

	Total	**General category**	**Backward Caste**	**Scheduled Caste**
Literate Below Primary	115 (36.4)	62(32)	18 (36)	34(47.9)
Primary	59 (18.2)	37(18.6)	9(18)	13(17.8)
Below Elementary	37 (11 .4)	21(10.6)	7(14)	9(13.6)
Elementary	29 (8.9)	20(9.5)	4(8)	5(6.8)
Below Matric	21 (6.4)	14(6.9)	3(6)	4(5.4)
Matric	19 (5.9)	14(6.9)	2(4)	3(4.1)
Secondary	15 (4.6)	11(5.5)	2(4)	2(2.7)
Skill Training	12 (3.7)	8(4)	3(6)	1(1.4)
Graduate	8 (2.4)	7 (3.5)	1(2)	Nil
Post Graduate.	6 (1.8)	5 (2.5)	1 (2)	Nil
Total	321	198	50	73

Note: - Figures in parenthesis are percentage share of women at different levels of educational attainment out of literate group.

Source: - Primary survey.

Padhi (2012) in a study explored the impacts of agrarian crisis on rural women and concluded that structural oppressions of caste, culture and patriarchy in rural setting is layered and affect women in multiple ways. Women in Punjab are bearing the brunt of agrarian distress in the rural economy and are surviving with dispossessions and deprivations. High dropout rate among girls in this region has curtailed the educational development of rural women.

The low educational participation of women hinders their political awareness, self consciousness and participation in the development process. Denial of equal opportunities does not augur well for democracy which is largely dependent on equal participation of all sections of the society.

Constraints in Educational Opportunities

What makes women remain outside the purview of the educational arena? The focussed group discussions with rural women pointed to the numerous constraints and social obstacles behind low educational empowerment, which according to the respondents, contributed significantly to educational deprivation in one way or another. A majority were of the view that the negative attitude of parents towards girls' education is responsible for low levels of women's education. Poverty stood as major barrier for educational drop out of girls, as cited by maximum respondents -- 83 percent of the illiterate women viewed that parents were not in a position to afford educational expenses. Similarly, non-availability of educational institutions near village and poor academic performance at the school level led to exclusion of girls from the educational system. Further, lack of literacy among parents and distance of school were also cited as hurdles in educational access of rural girls. A large proportion of rural women interviewed observed that the lack of employment opportunities after education discouraged parents to invest on education of daughters. Another social factor which played a significant role in keeping rural women deprived from education

was early marriage and practice of dowry. People viewed dowry practice as a great liability for parents. Parents preferred to marry daughters instead of investing on their education. 78 percent of the non-literate women and 81 percent of those with education below primary level alleged that the cost of marriage was the major reason for low levels of education among rural girls. Further, 62 per cent of non-literate women cited that parents feel that co - education schools and schools in another town are unsafe for

Table -3

Constraints in Educational Opportunities cited by Rural Women

(Percentage)

Level of Education	Non-literate	Literate (Below primary)	Primary	Elementary	Matric	Secondary
Family Attitude	76.4	81	64	58	46	47
Poverty	83	86	78	84	78	74
Social Barrier	62	58	36	62	51	26
Parental illiteracy	84	79	67	58	42	26
Distance of school	34	22	68	51	59	29
Non Availability of Ed. Institute for further study at parental village	3.4	18	39	52	66	69.4
Poor academic performance	2	32	56	72	51	43
Dowry and cost of marriage	78	81	72.4	79.3	69	58
Un –safety	62	74	56	65	63	59
Lack of employment after education	13	15	31	37	49	63
Irrelevance of education	41	32	46	35	32	19

Source: - Primary Survey.

daughters. The non availability of educational institutions at an approachable distance remained a major factor behind their exclusion from education after primary and upper primary level. Clearly, rural women experience numerous constraints which severely affect their ability to compete, their efficiency and morale. An effort to address these constraints can go a long way in reducing gender inequalities, dismantling various forms of discrimination and increasing their access to resources, which may also prove a necessary pre-condition to achieve social justice and equity.

Table- 4

Percentage of Rural Women with Availability of Educational Institutions in Village

Type of School	Distance from parental home	Non-literate	Literate (Below primary)	Primary	Elementary	Matric	Secondary	Graduate
Primary	<1 Km	21	33	52	54	52	57	58
	Between 1-2 Km	45	44	42	42	42	41	39
	>3Km	34	23	6	4	6	2	3
Elementary	<1 Km	12	44	31	39	37	43	46
	Between 1-2 Km	38	35	26	32	36	35	39
	>3Km	40	21	42	29	27	22	15
Secondary school	<1 Km	6	3	7	9	11	36	38
	Between 1-2 Km	12	14	8	12	38	53	52
	>3Km	82	83	85	79	51	11	10
College	<3 Km	0	0	1.2	1.6	1.2	1.4	1.2
	Between 4-10 Km	0.5	1.2	2.1	2.4	2.9	2.7	3.7
	11-20 Km	1.4	5.6	5	7	7.9	5.9	9.1
	>20 Km	98.1	93.2	91.7	89	88	90	76

Source: -Primary Survey

Availability of Educational Institutions

The next objective of the study was to evaluate the extent of availability of educational institutions to rural women and how it contributed to their educational deprivation. Table 4 presents the same figures with respect to educational attainment level.

Out of non-literate rural women, a mere 21 percent had the primary school available at a distance less than 1 kilometer, whereas 33 percent gave up education below primary level only due to availability of school at distance more than one kilometer in their parental village. Among literates, 52 percent primary level and 54 percent elementary level educated women have primary schools at a distance less than one kilometer. Further, 57 percent of women with secondary and 58 percent of women with graduation level educational qualification could study only because they have educational institution at distance of one kilometer. Similarly, 45 percent of the non-literate and 44 percent of below primary level educated women had primary school at distance between 1 to 2 kilometers from their parental home. For primary and elementary level educated women, 42 percent in each category have facility of school at distance in same range. This reveals that parents withdrew daughters from school due to non-availability of school at approachable distance. This phenomenon also works today on for younger girls and is one reason for dropout of girls as explored also in the previous studies (Kaur, 2012). It clearly points out that availability of educational institutions near the parental village plays a determining role in educating rural girls whereas non availability causes educational deprivation.

It seems very clear that Punjab one of the prosperous states of India in per capita income, could not address the varied forms of gender discrimination and developmental issues. Arguably, in a state the education system is deeply rooted in class, caste, cultural, regional, linguistic and patriarchal hegemony, which has reinforced the exclusionary practices in varied forms. The information collected through interviews of respondents revealed that a hefty sum of money spent on dowry results in weighing the

cost of girls' education against cost of marriage. And also at times, the demands from the groom's family continue even after marriage.

Gender discrimination and insensitivity is one of the most crucial challenges in Punjab today. The need is to bring girls and women out of the clutches of ignorance and non-literacy. Government incentives can be useful to encourage poor families to invest in education of girls, but it is not the ultimate tool. However, state sponsored schemes should be simplified and made more flexible to enable more girls to benefit from them (Singh , 2016).

Conclusion

The inferences drawn from the discussion clearly indicate that the educational system and developmental plans in the state have definitely been showing the presence of exclusionary processes, particularly in rural areas and especially for women in weaker sections of state. It has emerged from the study that factors behind educational deprivation of women do not work in isolation, rather there are multiple causes —cultural, social, psychological and political determinants. Along with caste, class and cultural hegemony, patriarchal ethos reflect clearly, as vast majority of women are deprived of the basic opportunities of life. Low levels of education and the nexus of the structural oppression of class, caste and patriarchy is layered in such a way that still women are in the grip of the vicious cycle of ignorance and non-literacy. Evidently, the high quantitative growth rate of general education in Punjab, is not rationally commensurate with the development of human resources especially for females in rural areas. For addressing these failures, a significant rethinking of state policy and clear public understanding of the abysmal extent of social, economic and educational status of rural women is required urgently. Punjab, which is one of the prosperous states in India, is now at the top in terms of gender discrimination, gender bias, violence and lowest female child sex ratio. The solution for all these ailments lies in education of women significantly. Policy makers must learn that

issues such as disparities, socio-economic stratifications, class and caste hierarchies, identities, patriarchy and regional and gender imbalances have a decisive impact on social and economic development of the country.

It is needed that state should develop clear and specific plans to address the quality of rural education and participation of women in the developmental process. Instead of allowing the mushrooming growth of private, ill equipped, profit oriented, poor quality teaching shops to mislead the rural population, there is urgent need to strengthen the public education system to improve quality of rural education. Further, in order to address the dwindling rural economy of the state, investment in human resources irrespective of gender is mandatory to augment the assets of people, through skill development and employment generation. Ensuring rural women's rights, opportunities, participation and leadership in developmental processes, requires comprehensive gender-responsive measures at different levels. In addition to legal, policy and institutional frameworks, civil society should also come forward. Illiteracy, low levels of education and socio-economic marginalization are serious impediments to women empowerment that are required to be addressed in every context.

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Article

Rural Water Supply Services in Punjab: A Case Study

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Abstract

The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic use. Known for its green revolution world over, the state of Punjab has got recent global attention as a 'cancer state'. The state has an average 90 cancer patients per 0.1 million population - higher than the national average of 80 per 0.1 million. One of the major reasons for the same is the highly contaminated water. The present study is on District Moga, which lies in the Malwa region in Punjab where the ground water is found to be contaminated with toxics such as uranium. It has led to a large number of cancer patients from this region i.e. around 136 cancer patients per 0.1 million population. Besides piped water supply services; Reverse Osmosis Systems have been installed by the state government in the problematic villages to provide safe drinking water to the people in this region. The present study analyzes the

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issue of adequacy, accessibility, acceptability and safety of both the drinking water services (piped water supply and RO supply services) in District Moga.

Key Words: Adequacy, Accessibility, Acceptability, Reverse Osmosis Systems, Safety

Introduction

"Access to safe water is a fundamental human need and, therefore, a basic human right. Contaminated water jeopardizes both the physical and social health of all people. It is an affront to human dignity."

Kofi Annan, United Nations Secretary-General

Water is a fundamental human need. Safe drinking water is indispensable to sustain life and health, and is fundamental to the dignity of all. The social and economic development is closely tied to water. All people whatever their stage of development and their social and economic conditions, have the right to have access to drinking water in quantum and of quality equal to their basic needs (UN, 1977). However, facts show that 884 million people in the world do not have access to safe drinking water. More than 3.4 million people die each year from water, sanitation and hygiene-related causes. Diarrhea is the second leading cause of death among children under five in the world and 88 per cent of global cases of diarrhea are estimated to be attributable to unsafe drinking water, inadequate sanitation, and poor hygiene (WHO & UNICEF, 2000). The human right to water has been included – implicitly or explicitly – in a number of international treaties and declarations. However, since its adoption as a 'right' under UN General Comment No. 15 (2002), practitioners and scholars started investigating the theoretical and practical dimensions of the recognition of this right. All international mechanisms including General Comment No. 15 held that national governments are

primarily responsible for enabling implementation of the right to water through legislation, regulation, policies, work plans and associated budget allocations.

India has been a party to all major international human rights treaties, which have accorded a human rights' status to the right to water. India is also a party to UN resolution on water passed in 1977 during 'UN Conference on Water'. The right to water is not enshrined in the Indian Constitution as an explicit fundamental right; however time and again Article 21 of the Constitution - which provides right to life as a fundamental right - has been interpreted as including right to a decent life, a right to live with dignity and a right to a humane and healthy environment, which would certainly imply a right to clean drinking water. The Supreme Court of India in many cases has declared drinking water as a bare necessity, a community property and a fundamental right. The Kerala High Court in a case as early as in the year 1990 (Attakoya Thangal v. Union of India), recognized the fundamental importance of the right to water. In another case in the year 2000 (Narmada Bachao Andolan v. Union of India), Supreme Court of India while upholding the Indian government's decision to construct over 3,000 dams on the river Narmada, stated that "…water is the basic need for the survival of the human beings and is part of right of life and human rights as enshrined in Article 21 of the Constitution of India". The National Human Rights Commission of India has also time and again recommended for insertion of a new article in the Constitution to ensure right to safe drinking water (Kothari & Patel, 2006).

In India, the constitutional right to plan, implement, operate and maintain water supply projects has been vested with the state governments. Parts IX and IXA of the Constitution empowers states to endow panchayats/municipalities with such powers and authority to enable them to function as institutions of self government and goes on to list 'Drinking Water', 'Water Management', 'Minor Irrigation', and 'Watershed Development' as subjects under the jurisdiction of local government. At the central

level, the Ministry of Water Resources is the apex body for formulation and administration of the rules, regulations and laws relating to the development and regulation of the water resources. Besides this, the Ministry of Rural Development and the Ministry of Housing and Urban Poverty Alleviation, serve in advisory capacities in financing and designing water supply programs. In consonance with its powers, the central government has initiated certain programmes such as - Accelerated Rural Water Supply Programme (1972-73) and National Rural Drinking Water Programme (2009) to ensure adequate and safe water services in rural India.

Though the Government of India has undertaken a large number of policy initiatives, there is still a large proportion of population especially in rural India, which does not have adequate accessibility to safe drinking water. The World Health Organization report revealed that seventy-five percent of the surface water in India is contaminated by human and agricultural waste and industrial effluent (WHO, 2008). The National Sample Survey Organization Report (2012) estimated that in rural India, 88.5 percent households had improved source of drinking water. However, a detailed analysis of the report reveals that only 30.1 per cent rural population has access to tapped drinking water; rest of the population rely on wells, rivers, tube wells, hand pumps, ponds, tanks and springs as a source of drinking water. Furthermore, 11.5 per cent of habitations do not meet even the lifeline minimum requirement of water i.e. 40 liter per capita/ per day. The simple coverage indicators also neglect other critical aspects of water access such as - source sustainability, quantity of water available, distance from water source, water quality at point of use etc. As competing demands for water have grown, many villages that previously received adequate water have 'slipped back'; their residents are no longer assured of the previous adequate quantity or quality of water (Shah, 2013).

Right to Drinking Water in Rural Punjab

Historically, drinking water supply in the rural areas in India has been outside the government's sphere of influence. The Government of India's effective role in the rural drinking water supply sector started in 1972-73 with the launch of Accelerated Rural Water Supply Programme (ARWSP). During the period 1972-1986, the major thrust of the ARWSP was to ensure provision of adequate drinking water supply to the rural community through the 'Public Health Engineering System'. The second-generation program started with the launching of 'Technology Mission' in 1986-87, renamed in 1991-92 as Rajiv Gandhi National Drinking Water Mission. Stress on water quality, appropriate technology intervention, human resource development support and other related activities were introduced in the Rural Water Supply sector. The third generation program started in 1999-2000 when Sector Reform Projects evolved to involve community in planning, implementation and management of drinking water related schemes, later scaled up as '*Swajaldhara*' in 2002.

The Rural Water Supply (RWS) sector has now entered the fourth phase with major emphasis on ensuring sustainability of water availability in terms of portability, adequacy, convenience, affordability and equity while also adopting decentralized approach involving PRIs and community organizations. Adequate flexibility is afforded to the States/UTs to incorporate the principles of decentralized, demand driven, area specific strategy taking into account all aspects of the sustainability of the source, system, finance and management of the drinking water supply infrastructure. However, with high operational and maintenance (O&M) costs and low O&M cost recovery from users, the water supply systems were becoming unsustainable for the Punjab state.

The state of Punjab, with an area of 50,362 square kilometers, occupies 1.54 per cent of the country's total geographical area. The state has a total population of 27.7 million (Census Report, 2011). The state has got recent global attention due to alarming rise in the

number of cancer patients. According to scientists, this is due to the high presence of toxic metals in the ground water. The Punjab health department study revealed that there are 23,874 cancer patients in the state and 33,318 people have lost their lives to the deadly disease in the last five years (The Times of India, 2013). Various studies by Bhabha Atomic Research Centre (Mumbai), the Central Ground Water Board (Delhi) and Post Graduate Institute for Medical Education and Research (Chandigarh) have found arsenic and toxic levels much higher than the permissible limits in the underground water in the Malwa region of the state (including Mansa, Bathinda, Moga, Faridkot, Barnala, Sangrur and some parts of Ludhiana). The uranium content in this region has been found to be 50 per cent above the permissible WHO limit (Yadav, 2013). The state has an average 90 cancer patients per 0.1 million population - higher than the national average of 80 patients per 0.1 million. The Malwa region reports the highest number of cancer patients with an average of 136 cancer patients per 0.1 million population.

Considering the seriousness of the issue, The National Rural Drinking Water Programme (NRDWP), which provides for adequate water for drinking, cooking and other domestic basic needs on a sustainable basis for every rural person has been implemented by the Government of Punjab through Department of Water Supply and Sanitation. Besides this, Rural Water Supply and Sanitation (RWSS) policy framework has been developed to provide all villages in the state with 100 per cent water supply coverage with higher service standards.

Since, the state needed significant improvements in the quality of rural water service delivery requiring both additional investments and reforms, the RWSS program was taken up with the support of World Bank by adopting 'Sector Wide Approach'. The World Bank has already initiated these types of projects in other states such as Uttaranchal, Andhra Pradesh and Assam. Besides this, to accelerate the provision of potable drinking water to 'Non Covered' villages and augment the existing Rural Water

Supply Schemes, the state govt. took the financial assistance from NABARD. First such project was approved in August 2000 (Annual Report, 2014). Since then, till date total 21 projects have been got sanctioned from NABARD. Under this project, potable water has been assured throughout the year for drinking and cooking requirements, with installation of Reverse Osmosis (RO) systems in the problematic villages. A nominal rate of Rs. 0.10 per liter is charged from the consumers. The state government has commissioned 1198 RO plants till July 2014 and it is in the process of installing 687 more such plants. Various modes of water supply have been identified to serve water to these RO plants, such as canals and tube-wells.

However, planning is just the beginning of the process, as the more difficult challenge lies at the implementation stage. The study analyzes the efficacy of the above stated projects in District Moga.

Research Methodology:

Moga is one of the 22 districts of Punjab. It spreads over an area on 2230 km, which comes to 4.42 per cent of the total area of the State. The district primarily consists of rural area with 77.45 per cent of its population living in villages (Census Report, 2011). The district lies in the Malwa region of the state, which has the largest population of cancer patients in India due to contaminated ground water. Hence, it becomes extremely important to supply an alternative safe mode of drinking water to people in this region. The elements of right to water include: adequacy, accessibility, acceptability and safety. The present study will analyze the enforcement of all these elements in District Moga.

The methodology adopted in conducting this study is both quantitative as well as qualitative. The study reported on here draws on both primary and secondary sources. The secondary data have been obtained from government reports, books, journals, newspaper articles and Internet. The primary data has

been collected through questionnaires and interview schedules. The Moga district comprises of 5 blocks with 322 villages. A stratified random sample of 2 villages with the highest population from each block has been taken. Hence, the study has been conducted in 10 villages. Furthermore, 10 people from each village have been interviewed; thereby total sample size has been of 100 people. The medical officers and health supervisors of these 10 villages have also been interviewed. A random sample of four government-aided schools has been taken to analyze the availability and accessibility of safe drinking water for school children. The observation method has also been used to gauge the ground level reality. To evaluate the quality of water in the sampled villages, water samples were taken from each village and its total dissolved solids were got tested in a laboratory.

Status of Drinking Water Services in District Moga

The three major sources of drinking water used by people in the district are piped water supply, RO services and private sources such as submersible pumps or ROs installed at home. The piped water supply is provided by the government and is availed through taps at household level or at a stand-alone at a public place. The Reverse Osmosis (RO) system has been installed by the state government in the districts, which have more instances of cancer and other diseases due to contamination of water. All 322 villages in District Moga have provision for piped water supply; while only 183 villages have RO plants. Though sampled villages had both these means of water supply, their dependency on water for drinking purpose was more on RO services (48 per cent), followed by private means of accessing water (31 per cent). Only 21 per cent people were found to be relying on piped water supply for drinking purposes.

As 69 per cent of the population in sampled villages relied upon piped water supply and Reverse Osmosis system services, the following section has dealt with various elements of right to clean drinking water (a) Adequacy; (b) Accessibility; and

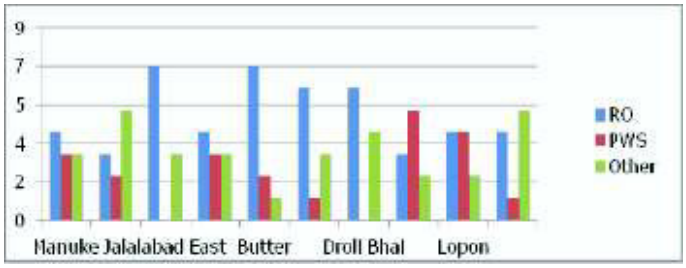

Figure 1: Drinking water source used by people

(c) Acceptability and safety, of both of these services in the District.

(A) Adequacy of Drinking Water

The 'right to adequate water' entitles every individual to have access to 'sufficient' amount of safe drinking water. While the amount of water required for various purposes varies according to different conditions; for drinking purpose 20 liters per capita per day (lcd) has been considered to be a minimum quantity by the World Health Organization.

(i) Adequacy of piped water service: The visit to the sampled villages revealed that though there was piped water supply connection in all ten villages; there were certain gaps in adequacy of the services. For example, there was no supply of piped water in village Jalalabad East for last two years and in village Droli Bhai for last two months. The reason for the same was stated to be the 'repairing of pipe lines'. However, the reason was not tenable as it was almost two years that village Jalalabad East had no piped water supply. Besides this, half of the area of village Charik did not have any pipelines laid for piped water supply. Lack of piped water supply in two villages (Jalalabad East and Droli Bhai) and partial supply in

one village (Charik) led to inadequate piped water supply in these three villages, which left people with no other option than to use RO services or any other private means of water supply for drinking purposes.

Table 1
People's Perception about the Adequacy of Piped and RO Water Services

Sr No.	Village	Piped water supply services (Out Of 21)		RO water services (Out Of 48)	
		Adequate	Not Adequate	Adequate	Not Adequate
1	Manuke	1	2	3	1
2	Gholia Kalan	1	1	2	1
3	Jalalabad East	No Water Supply	-	4	3
4	Kot Isse Khan	1	2	3	1
5	Butter	1	1	4	3
6	Chairk	0	1	3	3
7	Droli Bhai	No Water Supply	-	2	4
8	Ghal Kalan	2	3	2	1
9	Lopon	1	3	4	0
10	Nihal Singh Wala	1	0	4	0
TOTAL		**8**	**13**	**31**	**17**

Besides the issue of availability of piped water service in sampled villages, it is also important to introspect that whether, the supply of water was sufficient and continuous for personal and domestic uses. The study revealed that out of 21 persons (using piped water supply for drinking purposes), only 8 were found to be satisfied with the piped water supply in their village. In village Jalabad East and Droli Bhai, adequacy was nil as these two villages did not have access to piped water supply. Detailed discussions with the people in other eight sampled villages revealed many loopholes in the

supply of piped water services. The most common complaint was leakage in the water supply pipes, which led to low pressure of water. Hence, people residing near to the water box received adequate water while those residing far from it had insufficient access to water. Secondly, there was irregular supply of piped water in sampled villages. Water supply was found to be only for 30-45 minutes twice a day, sometimes once a day and/or on alternate days.

(ii) **Adequacy of RO water services:** As far as adequacy of RO water services was concerned, out of total 48 RO water consumers, 31 stated that water supply was adequate. Hence 65 per cent consumers were found to be satisfied as far as adequacy of RO water services was concerned. However, detailed discussions revealed certain shortcomings in the services. Some of these were-

- **Violation of supply schedule at RO plants:** As per contract rules, the RO plants should supply water twice a day (morning and evening, even on Sunday) for two hours each. However, visit to the sampled villages revealed arbitrary violation of this provision. The employees at each RO plant had set the water supply schedule arbitrarily. Many of them were found to be absent from their duty even at the time schedule allotted by them. This led to a lot of inconvenience to the consumers.
- **Lack of power back up facility and safety measures:** The RO plants in the sampled villages neither had any power back up facility nor they had any safety measures installed. The recurrent power cuts in most of the villages in Punjab led to frequent dis-functioning of RO plants in the sampled villages. The problem became more severe during summer season, when power cuts were more often. Furthermore, lack of fire safety measures or any security guard in these plants made these plants vulnerable to other hazards.
- **Restriction on the quantity of water supply:** As per state government's guidelines, each family is entitled to get 20 liters water per day from RO plant. Though 20 litres is enough for

fulfilling daily drinking water needs of a family; however, people asserted that during certain festivals or occasions, more drinking water is required. As there was no provision of getting additional water from RO plant; in case of extra requirement of drinking water, people were forced to drink piped water. This caused in-sufficiency of safe drinking water.

The above discussion clearly revealed that there were many discrepancies in piped water supply and RO services in the sampled villages. Piped water supply was not available in two villages at all. In remaining villages also, there were many problems identified in the piped water supply. The same was true with RO services, as it also had many shortcomings in provision of services, which led to inadequate supply of drinking water to the public.

(B) Accessibility of Drinking Water

Several of the explicit rights especially those guaranteeing the rights to food, health and development cannot be attained without guaranteeing access to drinking water. As per WHO's interpretation, 'access to water' refers to access to safe drinking water, which includes physical accessibility, economical accessibility, non-discrimination and information accessibility. The status of all these four parameters in District Moga has been analyzed below.

(a) Physical accessibility: Everyone has the right to water services that are physically accessible within, or in the immediate vicinity of, their household, and workplace and educational or health institutions. Relatively small adjustments to water services can ensure that the needs of the disabled, elderly, women and children are not overlooked, thus improving the dignity, health, and overall quality for all. As per WHO guidelines, the water source has to be within 1,000 meters of the home and collection time should not exceed 30 minutes.

As far as physical accessibility of piped water supply is concerned, the survey revealed that piped water is physically accessible to all either through tapped water supply at their homes or through the stand alone at a public place. In both the cases, it was found that people do not have to travel more than 1000 meters to access the drinking water. As far as RO services were concerned, physical inaccessibility was found to be a major concern. The study revealed that there was only one RO plant in each sampled village. As some villages were large in size, many households had to travel long distance (more than 1000 meters) to reach these plants. Furthermore, as work of water collection was primarily delegated to women in each household; discussions with these women revealed that walking long distance back home with 20 litres of water was very laborious for them. Secondly, collecting water from RO was also found to be time consuming (more than 30 minutes). The employees of the plants did not operate it for the designated time; many times, it was found to be closed when people reach there to collect water. It led to long queues in front of these plants which besides making it a time consuming process; caused a lot of inconvenience to the people. Women consumers further asserted that as many of them were working women, it led to delay in reaching their workplace. Hence, there were many drawbacks as far as physical accessibility of RO service were concerned.

(b) Economic accessibility (Affordability): Water facilities must be available and affordable for everyone, even for the poorest. The cost should not exceed 5 per cent of a household's income, meaning services must not affect peoples' capacity to acquire other essential goods and services, including food, housing, health services and education (WHO, 2004).

As far as economic accessibility of piped water supply was concerned, it was free of cost at the stand alone. Furthermore, a nominal amount was charged for household tap water supply. The only catch in piped water supply was that as most of the water supply pipes in sampled villages were either broken or leaking

leading to low pressure of water; many people have to dig deep ponds in their homes for storage of water. Besides this, some people had to install water pumps in such ponds to receive water with full pressure. This required additional expenditure on water services. As everyone could not afford this additional expenditure, uninterrupted piped water supply was not accessible to them.

The RO water services were contracted out by the state government and as per contract, a nominal amount of Rs. 0.10 per liter was charged from the consumers. As the maximum limit of water available per household/day was 20 ml; it comes to Rs. 2/per day and Rs. 60 per month per household. As per WTO guidelines, the cost of drinking water should not exceed 5 per cent of a household's income; it means that for RO water to be economically accessible to the people in sampled villages; their household income must be Rs. 1200 or more. However, during the visit to the sampled villages, it was found that many poor families were economically incapable of paying Rs. 60 per month for drinking water services. The in-depth study of the problem further revealed that the Malwa belt (comprising mainly of the south-western Punjab including Moga), is one of the most backward region of the state. With clean drinking water costing at least Rs. 60 per month, the families of landless and small farmers, daily wagers and others continued to rely upon other sources of water such as piped water supply or from ponds and wells. To make situation worse, the state government is planning to increase the amount to Rs. 90 per month (from Rs. 60 now); which will further make the RO water economically inaccessible to a larger segment of the rural poor.

(c) Non-discrimination and attention to vulnerable groups: International human rights law envisages an equal enjoyment of all rights by all people; states must therefore work towards non-discrimination in the water service provision. However, in real sense, non-discrimination also requires targeted affirmative measures by the state to fulfill the special needs of

the vulnerable sections of the population such as elderly, women, children and differently-abled.

The present study found no case of discrimination in sampled villages as far as provision of both kinds of water services was concerned. However, there was absence of any affirmative, targeted action for ensuring smooth services of water to vulnerable sections of the society. Firstly, there were no ramps at any stand alone or RO plant in the sampled villages; which made it impossible for a person on wheel chair to access water from these sources. Furthermore, there was no provision of home delivery of RO water, even at an additional charge. Hence, accessibility of water seemed to be impossible for the elderly, sick or differently-abled person, who could neither reach RO plant nor could receive RO water at home. Thirdly, there was absence of any provision of safe drinking water in the schools in the sampled villages. Four government aided schools had been visited during the research and it was found that schools neither had any stand alone systems for piped water supply nor RO plants had been installed to supply water. In the absence of both the modes of water supply, the schools relied primarily on the ground water as drinking water source for students. This adversely affected the health of the children as ground water in these villages was highly contaminated and was not fit for drinking. Hence, the need was felt to have a pro-active approach for providing safe water services to the vulnerable sections in the sampled villages.

(d) Participation and full access to relevant information: Consumer's knowledge regarding water related issues and duty of government to provide and spread such knowledge is an important element of right to accessible water. In order to develop understanding and appreciation of safe and clean drinking water among rural communities, the Punjab government implemented National Rural Drinking Water Quality Monitoring and Surveillance Programme (2006). The program provided for empowering rural communities by bringing awareness through Information, Education and

Communication (IEC) activities to address health hazards due to poor drinking water quality and hygiene.

The study tried to find out the effectiveness of the above said program in the sampled villages. During the survey, people were asked simple questions regarding their right to clean drinking water and hygiene to gauge their basic understanding and knowledge about the issue. They were further asked about their familiarity with any rural drinking water programs started by the government especially the National Rural Drinking Water Programme in their area. The study revealed that not a single person out of the sample of 100 persons had any knowledge about his/her right to access to safe water and regarding rural drinking water programs started by the government. It was further found that no government organizations (including anganwadis and primary health centers) or NGOs had ever made any effort to make people aware about adverse affects of the use of contaminated water and to encourage them to use RO water. The irony was that posters for election campaign could be seen at the each corner of the sampled villages but the same was missing as far as basic rights especially right to safe water was concerned.

The above discussions clearly indicate that there were many shortcomings as far as accessibility of water services were concerned. Besides physical and economic inaccessibility, there was lack of affirmative approach to address the needs of certain vulnerable sections of society. Lack of awareness among the people about their right to clean drinking water had further led to inaccessibility of adequate and safe drinking water services for the people in the sampled villages.

(C) Acceptability and Safety of Drinking Water

Safe drinking water means water that does not have any significant risk to health over a lifetime of consumption, including different sensitivities that may occur between life stages (WHO, 2004). The provision of drinking water that is not only safe but also acceptable

in appearance, taste, and odour must be of high priority. In order to enable and empower local communities to determine the quality of drinking water, National Rural Drinking Water Quality Monitoring and Surveillance Programme (2006) provided for the training of at least five villagers/workers in each Gram Panchayat for testing drinking water sources. The field testing kits have to be provided to each Gram Panchayat with 100 per cent financial assistance provided to the states for this task.

The study found that people were highly dissatisfied with quality of drinking water in their villages. Though there was at least one piped water supply connection in almost all the sampled villages; only 21 per cent people opted for piped water supply for drinking purposes. These 21 per cent were also using it only because other safe water sources were not physically and/or economically accessible to them. To verify the field information, the sample of piped water was taken from all these villages and was got tested. The tests revealed that the total dissolved solids found in the water in all the sampled villages were much higher than the permissible limit. All medical officers interviewed during the research also substantiated that the quality of ground water and piped water supply in the District was not up to the mark. This led to the exposure to many waterborne diseases such as diarrhea, typhoid, Hepatitis-B, dental fluorosis, hypoplasia of teeth, gastroenteritis etc among the people. Various reasons for contamination of piped water supply were identified during the research. The most common reason was leakage of pipes in most of the villages. Leakage led to entry of many unwanted particles in the flowing water. Secondly, water boxes were neither being periodically cleaned nor regular chlorination had been done. In many villages researchers found that water boxes were not even covered with lid. There was dirt, dead flies and other insects in these water boxes, causing odor and contamination of water. Thirdly, though National Rural Drinking Water Programme (2006) provided for the field testing kits and training at Gram Panchayat level; the visit to the sampled villages revealed that people were neither aware about any such program nor they ever had been

trained for field water testing. It was further noted that there was no drinking water testing laboratory even at the district level; which made it difficult for any private individual to get water tested.

As far as quality of water from RO services was concerned, people in all the sampled villages were quite satisfied with the service. However, researchers identified certain specific problems in the quality of RO water in sampled villages. For example algae was found in the RO water storage containers in the village Gholia Kalan. In village Lopon and in some other villages, RO water tanks located outside the RO cabin were either not covered with lid or if covered, then were not locked, which make it prone to mixing of any harmful substances in water by any animal, bird or by any notorious individual. Besides the above-mentioned specific problem with RO plants in selected villages, one major problem, which was common to all the RO plants, was the wastage of huge amount of water. During the process of purifying the water, a RO plant purifies only 33 per cent of the water and remaining 67 per cent is rejected. There were two implications of the same. Firstly, a huge amount of water is wasted which led to unsustainable use of water resources. Secondly, it led to contamination of ground water, as the rejected water by RO (67 per cent), heavy with pollutants, was either injected back into the ground or dumped into the sewerage system that flows back into the rivers and seasonal drains. This polluted water was further getting used for growing crops and vegetables. In villages, the rejected water has been frequently put into ponds where it was drunk by the cattle and also used for irrigation. It again entered the food chain through the milk of these cattle, and the crops and vegetables grown from this water. Hence, serious scientific and technical interventions were required for safe disposal of this toxic water.

In spite of the above stated issues, RO water has become the most recommended water source by medical officers. Out of 48 people who used RO water, 45 were found to be satisfied with RO water quality, which indicates that more than 90 per cent people

were satisfied. It is further to be noted that no one from village Gholia Kalan was satisfied with RO water quality. The reason identified was, algae in RO water.

Table-2
Satisfaction with the Quality of Piped Water and RO Water Service

Sr. no	Village	Piped water quality (out of 21)	RO water quality (out of 48)
1.	Manuke	0	4
2.	Gholia Kalan	0	0
3.	Jalalabad East	-	7
4.	Kot Isse Khan	0	4
5.	Butter	0	7
6.	Chirak	0	6
7.	Droli Bhai	-	6
8.	Ghal Kalan	0	3
9.	Lopon	0	4
10	Nihal Singh Wala	0	4
	TOTAL	**0**	**45**

The above analysis clearly indicates that piped water supply was highly contaminated and it was not worth drinking as it was neither safe nor acceptable. Though RO water was found to be safer as well as acceptable; its regular and proper maintenance was lacking in many villages. One of the prime reasons for such shortcomings was the negligence of concerned authorities in maintenance and monitoring of water supply services. It has to be understood that government's job doesn't end up with laying down of pipe lines or by installing RO plants; their further maintenance and monitoring is also essential part of its job so as to

provide safe drinking water to people. The study further observed that most medical officers recommend RO water over other forms of treated water. Though market-driven incentive structures may not be ruled out completely; the study found that people themselves were highly dissatisfied with quality of drinking water in their villages. The same can be substantiated by the fact that though there was at least one piped water supply connection in almost all the sampled villages; only 21 per cent people opted for piped water supply for drinking purposes. These 21 per cent were also using it only because other safe water sources were not physically and/or economically accessible to them. The lab testing of piped water sample also revealed that the total dissolved solids found in the water in all the sampled villages were much higher than the permissible limit. Prevalence of many waterborne diseases among the people in the selected villages further substantiates the findings.

Recommendations

It has to be understood that there is no single model of effective water governance; indeed to be effective; governance systems must fit the social, economic and cultural particularities of each country. Ironically, the centralized wastewater treatment plants or privatization were often automatically applied to all kinds of water issues worldwide without critical reflection or monitoring of their appropriateness and the conditions necessary for their satisfactory performance. However, many problems in water management are more associated with governance failures than with the resource base (Bakker et al., 2008; Rogers and Hall, 2003) and require major reforms in water governance taking into account contextual factors.

One factor that considerably influences the performance of water management is its underlying governance regime. A governance regime as understood here characterizes the way how various state and non-state actors interact horizontally across spatial borders as well as vertically across administrative scales

and how these interactions are regulated by formal and informal institutions. Many resource management problems result from failures of governance (Folke et al., 2005; Pahl-Wostl, 2009). Examples for such failures are corruption, over-regulation or sectoral fragmentation, which reduce the effectiveness of water management. The same is true as far as present study is concerned. Though there is no tailor made solutions to the above stated challenges faced in water governance, the following recommendations may be a reference point for various state and non-state agencies dealing with water governance issues in rural areas.

Recommendations Regarding Piped Water Supply

As piped water supply is a universal source of water service in India and is more physically and economically accessible, it is important to address its shortcomings. Some of the suggested measures are-

- **Ensuring adequate access to water:** Measures must be initiated to ensure that there is piped water supply in each village. Leakage of pipes must be immediately corrected as it not only wastes water but also leads to low pressure of water and water contamination. The repair of the supply lines must be done within a stipulated time period with fixation of responsibility for any deterrence. The water supply should be regular and its duration should be as per the guidelines of water and sanitation department. Regular monitoring must be there to ensure the compliance with the guidelines.
- **Testing and remedial action:** Well-equipped laboratories with trained staff must be established at least at district level. The generated data should be made available in the public domain and in case of contaminations; immediate remedial action must be taken. The community participation in monitoring the water quality must be enforced through training and providing field-testing kits to local community.

The village level water quality monitoring can be strengthened as done in the villages across Gujarat through teams by the name of 'Gram Mitra'. These Gram Mitras undertake monitoring of water sources in villages across the state and also generate awareness on ways and means to keep surroundings of water sources clean.

- **Adopting community based approach:** Government should adopt a bottom up approach and stress must be laid on community participation in dealing with water-related problems. It can be ensured through public awareness programs. The panchayats and civil society organizations can play a significant role in capacity building for the communities. An integrated campaign can result in wide spread information dissemination amongst the masses on the ways and means of preventing contamination of water sources. Mass media can also play an effective role by generating awareness about the adverse effects of drinking contaminated water, water related diseases, hygiene and other water related issues in vernacular language.
- **Regular maintenance:** There should be periodical cleaning of water boxes and regular chlorination must be done. Further periodic water samples should be tested and necessary actions should be taken to improve the quality of drinking water.
- **Strong grievance redressal mechanism:** An effective grievance redressal mechanism must be in place so that malpractices in the delivery of public service can be immediately brought to the notice of concerned authorities. Immediate disciplinary action must be taken against those who do not perform their duties.

Recommendations Regarding RO Water Services

- **More RO plants need to be installed:** Till now, 1194 RO plants have been installed by the government of Punjab. Hence out of total 12294 villages, only 10 per cent villages have RO plant.

Considering the high contamination of water in this region, with alarming increase in the number of cancer cases; it is important that more RO plants must be installed. More funds needs to be allocated so that at least one RO plant is there in each affected village.

- **Better service delivery standards:** RO plant should be regularly serviced and its filters should be periodically changed to make it function effectively. It must be ensured that the water storage tanks are fully covered and locked to protect the same from further contamination. The concerned authorities should keep a regular check on the employees working in RO plants to ensure that they are fulfilling their assigned duties. Strict disciplinary action must be taken in case of any violations of the norms.
- **Ensuring universal accessibility:** There is a need to have an affirmative action for ensuring universal accessibility of clean drinking water. Adequate and safe water supply facilities must be ensured in schools and attention must be paid to provide school children with knowledge with regard to maintaining water quality. This will not only ensure a hygienic environment in schools, but will lead to greater community awareness as children will convey the message back home. Besides this, efforts must be made to install RO plant at such a place where it becomes physically accessible to maximum number of people. Furthermore, home delivery facility can be initiated with preference to vulnerable sections of the population. Ramps must be constructed at the entry of the RO plant so that a differently-abled person on wheelchair can also access RO water.
- **Providing special provisions for economically backward:** Immediate policy intervention is required to ensure RO water to those who are not able to access it due to their economic limitations. Some relaxations or discounts may be given to people who are below poverty line to ensure accessibility of safe drinking water.

- **Installing power back up and safety measures:** The power back up facility must be installed in all RO plants to ensure continuous and regular water supply. Solar system can be installed at suitable places. It will be both environment-friendly and will also lead to uninterrupted water supply. Fire extinguishers and other safety measures must be in place at all the RO plants to deal with any unforeseen hazard.
- **Improving RO technology:** Besides the above stated solutions, it is also important to focus on improving the RO technology. Alternatives technology options must be identified to minimize the water rejection. Secondly, efforts must be made to ensure that the rejected water is not injected into the ground or put into farms or ponds. Strategies must be worked out to utilize this rejected water in a manner that it does not enter into the food chain.

Implementation of the measures stated above requires not only economic and technical resources, but also political and administrative will. Without the recognition of the right of all human beings to gain access to safe, sustainable, sufficient and affordable water services for domestic use, it will be almost impossible to deliver on the right to water. This first step towards realizing this right relies on commitment from all levels of government and requires that water is prioritized within national budgets and in relevant policy documents. The governments have an important role, working together with all stakeholders, to develop a national strategy or plan of action to realize the right to water and to set targets for defined standards. The strategy should also establish institutional responsibility for the process; identify resources available to attain the objectives, targets and goals; allocate resources appropriately according to institutional responsibility; and establish accountability mechanisms to ensure the implementation of the strategy (UN ECOSOC, 2002).

In response to the challenges of today, water management has become increasingly complex. The traditional hierarchical and technocratic focus of water management has shifted towards

integrated management practices, endorsed by the concepts of integrated water resources management and adaptive water management (GWP TEC, 2000; Pahl-Wostl, 2007). Approaches of public participation and cross-sectoral collaboration have complemented traditional management practices in order to increase the legitimacy and effectiveness of policy implementation (Knill and Lenschow, 2000; Huitema and Becker, 2005). As a consequence, some degree of decentralization combined with effective vertical integration and cross-level interactions seem to be an effective approach for increasing performance (Pahl-Wostl, 2009).

This is best achieved through co-ordination with and participation of all relevant stakeholders, including representatives of vulnerable and marginalized groups. To ensure that water quality is safe for all, water quality standards would need to apply not only to piped water sources but also, modified where necessary, to all sources of water provision used in a country, such as tanker sources, wells and RO system. Besides this, efforts must be made to ensure that there is appropriate education concerning the hygienic use of water.

For many years the question has been "can the State steer society?" The question currently posed is "can society co-ordinate and manage itself?" This is the essence of distributed governance. It looks at co-ordination and the various forms of formal and informal types of State/society interactions and the role of civil society and policy networks. (Pierre, 2000). Clearly, drinking water is too fundamental and serious an issue to be left to one institution alone. It needs the combined initiative and action of all, if at all we are serious about the socio-economic development. Safe drinking water can be assured, provided we set our mind to address it. The organizational and institutional changes can come about only if there is an attitudinal change among the government functionaries as well as the people with respect to de-centralization and transferring authority and responsibility to the people at the community level.

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Article

Inter-regional Analysis of Indebtedness among Farmers and Agricultural Labourers in Rural Punjab

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Abstract

The present paper is an Inter-regional analysis of indebtedness among farm and agricultural labour households in the rural areas of Punjab. From the three regions of the state out of the 27 sampled villages , 1007 farm households and 301 agricultural labour households are selected for purpose of survey. The present study relates to the year 2014-15 . The study revealed that the indebted farm households range between 74.48 per cent in the Shivalik Foothills Region to 91.67 per cent in the South-West Region. The highest indebtedness, per sampled household and as well as per

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Note: *This research paper is based on the field survey conducted for a research project "Indebtedness among Farmers and Agricultural Laborers in Rural Punjab", sponsored by ICSSR, New Delhi.*

indebted household, is prevalent amongst all the categories except the medium farmers and agricultural labourers in the Central Plains Region. The amount of debt per operated acre is the highest in the South - West Region for the marginal, small , and semi - medium farm-size categories. The marginal, small, semi-medium,and medium farmers of the South-West Region incurred the highest share of total debt from non-institutional agencies.In the case of agricultural labour households the proportional share of non- institutional agencies is as high as 99.05 per cent,85.81 per cent and 80.06 per cent in the South-West Region, Central Plains Region and Shivalik Foothills Region respectively. The study clearly brings out that even after about seven decades of independence the marginal and small farmers and agricultural labourers in Punjab are still in the clutches of commission agents and money - landers which charge exorbitant rates of interest across the regions.

Keywords: Debt, farm-size, institutional credit agencies, non-institutional credit agencies, rate of interest

Introduction

The problem of rural indebtedness has always been a major social as well as economic issue in India (Sajjad and Chauhan, 2012). Despite the tremendous expansion of the banking sector and the growth of institutional credit for agriculture, the severity of agricultural indebtedness persists (Sidhu and Rampal, 2016). In Punjab, it has been an enduring issue over the last few decades (Satish, 2006). Indebtedness has been renowned as one of the hard faltering blocks in the way of rural prosperity. It is self-perpetuating, cancerous, malevolent and maleficent. It brings awkwardness in the mind, enhances inequalities in the allocation of social and economic opportunities (Jain et al., 2016).

With the advent of New Agricultural Technology subsistence agriculture in many parts of India has been transformed into

commercial agriculture. This transformation is much more perceptible in Punjab than in any other part of the country (Kaur, 2011). The transformation of Punjab agriculture from traditional subsistence farming into modern commercialized farming in a short span of time of about three decades has been internationally acclaimed as a rare success story (Shergill, 1998). The Punjab state was on the forefront in the adoption of New Agricultural Technology which resulted in a large increase in the use of current as well as capital inputs to realize its benefits (Singh and Toor, 2005). Since most inputs used by the farmers are now purchased from the market, farmers have to spend huge amounts of cash on purchasing market supplied farm inputs to carry out their production operations (Kaur, 2011).

The increase in population, subdivision and fragmentation of land holdings due to breakdown of joint family system has encouraged the conversion of semi-medium and medium group of farmers into small and marginal farmers, resulting in un-economic land holdings (Singh, 2012). As a result, growth of agriculture has considerably slowed down. Both labour productivity as well as land productivity has fallen by half in the last three decades and capital-labour ratio has doubled in agriculture (Behera, 2012). The New Agricultural Technology has not made any significant impact on the conditions of rural laborers. All indicators related to the well being of rural laborers have indicated that the success of New Agricultural Technology has worsened the lives of rural labour instead of improving it (Jha, 1997).

The Government of India has fixed the Minimum Support Prices in such a way that while they remain remunerative for farmers. This policy, from 1965 to 1969, resulted in increasing the income of farmers. But the way prices were fixed and manipulated from 1970 onwards was unremunerative and due to this agriculture became a loss making profession (Singh, 2014). The Minimum Support Prices no longer covered the cost of cultivation, they only accommodated the paid-out costs, with no profit when the cost of family labour, value of interest on own capital and rent

of own land are taken into account. Thus, the prevailing market prices, which depend on the Minimum Support Price set out by the central government, gives only subsistence to a self-employed farmers, not any re-investible surplus (Murthy, 2014).

The reports of distress among the farmers coming from different parts of India are cause for much concern. Extreme manifestation of such distress occurs in the form of suicides by farmers. Distress of farmers in India is closely linked to the new liberal policy regime implemented in the country in the recent past. Introduction of liberalization and globalization during the early 1990s further increased pressure on the agrarian economy (Kaur and Singh, 2009). The New Economic Policy advocates withdrawal of the state from the economic sphere, leaving it to the logic of market forces. While it might be a good thing for industry to be allowed to freely import the latest technology from abroad or have a competitive atmosphere, leaving the agriculture sector to the vagaries of free market could prove disastrous (Jodhka, 2006). Sustained agricultural growth up to 1990 reduced rural poverty. Since then slowdown in agricultural growth has become a major cause for concern. There has been a distinct slow down in agricultural growth over past two decades. Stagnant technology, rising input prices, weakening support system and declining profitability have made cultivation a highly risky and un remunerative enterprises (GOI, 2007). The decreases in production, increase in cost of production and bare minimum increase in support prices have made the agricultural activity unremunerative. As a result, indebtedness in agriculture has increased (Mahajan, 2015). The bulk of cultivators of Punjab are born in debt, live in debt and die in debt (Darling, 1925). Though this was the case about nine decades back, the problem of indebtedness not only remains true today but it has aggravated further in the recent years (Narayanamoorthy and Kalamkar, 2005).

The present paper is an inter-regional analysis of indebtedness among farmers and agricultural labor households in the rural

areas of Punjab. More specifically, the present paper concentrates on the following objectives:

i. to analyze the extent and distribution of indebtedness among farmers and agricultural laborers across the regions;

ii. to examine the various sources of debt;

iii. to analyze per household debt according to various purposes;

iv. to compare and contrast the variations in rate of interest paid by the different categories of farmers and agricultural laborers.

Methodology

For the purpose of the present study data are collected from three districts of Punjab state representing three different regions, i.e. the South-West Region, the Central Plains Region and the Shivalik Foothills Region.

The South-West Region comprises of Bathinda, Mansa, Ferozepur, Fazilka, Faridkot, Muktsar and Moga districts. The Central Plains Region constitutes Patiala, Fatehgarh Sahib, Sangrur, Amritsar, Kapurthala, Jalandhar, Nawanshahr, Tarn Taran and Ludhiana districts. The Shivalik Foothills Region comprises of Hoshiarpur, Pathankot, Gurdaspur and Ropar districts. Keeping in view the differences in agro-climatic conditions and to avoid the geographical contiguity of the sampled districts, it was deemed fit to select one district from each region on random basis. Mansa district from the South-West Region; Ludhiana district from the Central Plains Region; and Hoshiarpur district from the Shivalik Foothills Region have been selected for the purpose of present study.

On the basis of random sample method one village from each development block of the selected districts has been chosen. There are twenty seven development blocks in the selected three districts. Thus, in all, twenty seven villages have been selected from the three districts under study. A representative proportional

Table 1
Extent of Debt among Farmers and Agricultural Labourers: Region-wise

Regions	Farm-Size Categories	No. of Households		Indebted Households as Percentage of Sampled Households	Average Amount of Debt (Rs.)	
		Sampled	Indebted		Per Sampled Household	Per Indebted Household
South-West Region	Marginal Farmers	88	84	95.45	222522.71	233119.03
	Small Farmers	62	56	90.32	395677.45	438071.46
	Semi-Medium Farmers	47	43	91.49	443829.79	485116.28
	Medium Farmers	29	25	86.21	617344.83	716120.00
	Large Farmers	14	12	85.71	1266428.57	1477500.00
	All Sampled Farmers	240	220	91.67	419195.83	457304.55
	Agri. Labourers	111	104	93.69	75657.66	80750.00
Central Plains Region	Marginal Farmers	161	147	91.30	302472.05	331278.91
	Small Farmers	149	136	91.28	585093.96	641022.06
	Semi-Medium Farmers	107	96	89.72	717710.28	799947.92
	Medium Farmers	44	36	81.82	863295.45	1055138.89
	Large Farmers	20	17	85.00	1784200.00	2099058.82
	All Sampled Farmers	481	432	89.81	595303.53	662826.38
	Agri. Labourers	139	96	69.06	42143.88	61020.83
Shivalik Foothills Region	Marginal Farmers	159	109	68.55	162550.31	237114.68
	Small Farmers	62	50	80.65	373629.03	463300.00
	Semi-Medium Farmers	38	32	84.21	511052.63	606875.00
	Medium Farmers	15	13	86.67	889800.00	1026692.31
	Large Farmers	12	9	75.00	734166.67	978888.89
	All Sampled Farmers	286	213	74.48	316739.53	425293.45
	Agri. Labourers	51	41	80.39	43362.75	53939.02

Source: Field Survey, 2014-15

sample of households comprising marginal farmers, small farmers, medium farmers, large farmers and agricultural laborers have been taken up for survey. Out of these 27 villages, 1007 farm households and 301 agricultural labour households are selected from the three districts for the purpose of survey. Out of which, 240 farm households and 111 agricultural labour households from Mansa district, 481 farm households and 139 agricultural labour households from Ludhiana district and 286 farm households and 51 agricultural labour households from Hoshiarpur district have been selected. Out of 1007 selected farm households, 408 belong to the category of marginal farmers, 273 to small farmers, 192 to semi-medium farmers, 88 to medium farmers and 46 to large farmers. The present study relates to the agricultural year 2014-15.

Results and Discussion

The extent of debt among farmers and agricultural laborers is depicted region-wise in Table 1. The table brings out that the indebted farming households range between 74.48 per cent in the Shivalik Foothills Region, and to 91.67 per cent in the South-West Region. For the marginal, semi-medium and large farm-size categories, the proportion of households under debt is the highest in the South- West Region followed by the Central Plains and Shivalik Foothills Region. The highest proportion of the small farmers under debt is in the Central Plains Region, while the lowest proportion exists in the Shivalik Foothills Region. The Shivalik Foothills Region shows the highest proportion under debt for the medium farm-size category. The highest proportion of the agricultural labour households under debt is in the South-West Region, followed by the Shivalik Foothills Region and the Central Plains Region. The amount of per household debt ranges between Rs. 42,143.88 for the agricultural labour households in the Central Plains Region to Rs.17,84,200 for the large farm-size category of the Central Plains Region. The lowest indebtedness for the marginal, small and large farm-size categories per household as well as per indebted household is in the Shivalik Foothills Region. The highest

Table 2
Amount of Debt Per Acre: Region-wise

(Mean Values, in Rs.)

Regions	Farm-size Categories	Total Debt Per Owned Acre	Total Debt Per Operated Acre
South-West Region	Marginal Farmers	120282.55	79189.58
	Small Farmers	95114.77	67292.08
	Semi-Medium Farmers	59494.61	48033.53
	Medium Farmers	48801.96	43597.80
	Large Farmers	45407.98	48503.58
	All Sampled Farmers	96145.83	80769.91
	Agricultural Labourers	0.00	0.00
Central Plains Region	Marginal Farmers	175855.84	63947.58
	Small Farmers	144111.81	55617.30
	Semi-Medium Farmers	95313.45	54166.81
	Medium Farmers	68953.31	46639.41
	Large Farmers	84559.24	60584.04
	All Sampled Farmers	109857.00	56713.44
	Agricultural Labourers	0.00	0.00
Shivalik Foothills Region	Marginal Farmers	120407.64	52605.28
	Small Farmers	92026.85	36380.62
	Semi-Medium Farmers	69625.70	42166.06
	Medium Farmers	73355.32	46032.07
	Large Farmers	34020.70	29075.91
	All Sampled Farmers	89982.82	48955.11
	Agricultural Labourers	0.00	0.00

Source: Field Survey, 2014-15

indebtedness, per sampled household and as well as per indebted household, is prevalent amongst all the categories except the medium farmers and agricultural laborers in the Central Plains Region. The result of the study and field survey has brought out that the reason behind this higher tendency of indebtedness in this region is the high operational cost and partly relatively higher expenditure on social ceremonies. The lowest indebtedness is found in the Shivalik Foothills Region. This is the result of low adoption of the New Agricultural Technology.

Amount of Debt

Table 2 clearly shows that the amount of debt per operated acre is the highest (Rs80,769.91) in the South-West Region and the lowest (Rs. 48,955.11) in the Shivalik Foothills Region. The amount of debt per operated acre is the highest for the marginal farm-size category in all the regions. The amount of debt per operated acre is the lowest for the medium farm-size category in the Central Plains and South-West Regions. The amount of debt per operated acre is the lowest for the large farmers in the Shivalik Foothills Region. This shows that in all the regions the burden of debt is higher for the marginal and small farmers in comparison to the medium and large farmers. The amount of debt per operated acre is the highest in the South-West Region for the marginal, small and semi-medium farm-size categories. The reason behind this higher tendency of indebtedness in this region may be high operational cost due to wheat-cotton rotation. For the medium and large farm-size categories, the amount of debt per operated acre is the highest in the Central Plains Region. The amount of debt per operated acre is the lowest in the Shivalik Foothills Region for the marginal, small and semi-medium farm-size categories, in the South-West Region for the medium and large farm-size categories.

The amount of debt per owned acre is the highest in the Central Plains Region, followed by the South-West and then Shivalik Foothills Regions. The amount of debt per owned acre is also the highest in the Central Plains Region for the different farm-size

Table 3
Debt incurred from Different Credit Agencies: Region-wise
(Mean Values, in Rs.)

Sl. No.	Source of Debt	South-West Region						
		Marginal Farmers	Small Farmers	Semi-Medium Farmers	Medium Farmers	Large Farmers	All Sampled Farmers	Agri. Labourers
A.	**Institutional**							
1.	Primary agricultural cooperative societies/co-operative banks	19375.00	41951.62	51063.83	34827.59	41428.57	34566.67	0.00
2.	Commercial banks	67920.45	155322.59	253404.26	416310.34	1110714.29	229750.00	720.72
3.	Land development banks	0.00	0.00	4893.62	0.00	0.00	958.33	0.00
4.	Rural regional banks	4545.45	9677.42	17021.28	34482.76	50000.00	14583.33	0.00
	Sub-total	**91840.90**	**206951.63**	**326382.98**	**485620.69**	**1202142.86**	**279858.33**	**720.72**
B.	**Non Institutional**							
5.	Commission agents	62795.45	128064.52	80744.68	93793.10	42857.14	85754.17	0.00
6.	Money-lenders	52511.36	40403.23	35212.77	37931.03	21428.57	42420.83	2738.74
7.	Traders & shopkeepers	1181.82	903.23	1489.36	0.00	0.00	958.33	6036.03
8.	Large farmers	7090.91	11290.32	0.00	0.00	0.00	5516.67	62567.57
9.	Relatives and friends	7102.27	8064.52	0.00	0.00	0.00	4687.50	3594.60
	Sub-total	130681.81	188725.82	117446.81	131724.14	64285.71	139337.50	74936.94
	Total	**222522.71**	**395677.45**	**443829.79**	**617344.83**	**1266428.57**	**419195.83**	**75657.66**
Central Plains Region								
1.	Primary agricultural cooperative societies/co-operative banks	46894.41	99859.06	145093.46	166931.82	184700.00	101856.55	2741.01
2.	Commercial banks	140062.11	304208.05	393364.49	517954.55	1272500.00	328912.68	3237.41
3.	Land development banks	621.12	7382.55	5607.47	0.00	120000.00	8731.81	0.00
4.	Rural regional banks	0.00	2684.57	0.00	56818.18	20000.00	6860.71	0.00

	Sub-total	187577.64	414134.23	544065.42	741704.55	1597200.00	446361.75	5978.42
B.	**Non Institutional**							
5.	Commission agents	78428.57	107953.02	120654.21	61136.36	95000.00	96074.84	0.00
6.	Money-lenders	24422.36	35637.58	41121.50	43181.82	74000.00	35388.77	1223.02
7.	Traders & shopkeepers	1826.09	4751.68	2429.91	227.27	18000.00	3392.93	4482.01
8.	Large farmers	1304.35	1677.85	3738.32	11363.64	0.00	2827.44	24618.71
9.	Relatives and friends	8913.04	20939.60	5700.92	5681.82	0.00	11257.80	5841.73
	Sub-total	114894.41	170959.73	173644.86	121590.91	187000.00	148941.78	36165.47
	Total	**302472.05**	**585093.96**	**717710.28**	**863295.45**	**1784200.00**	**595303.53**	**42143.88**
		Shivalik Foothills Region						
A.	**Institutional**							
1.	Primary agricultural cooperative societies/co-operative banks	25518.87	95887.10	109736.84	163133.33	105416.67	62533.22	3294.12
2.	Commercial banks	83647.80	231129.03	340789.47	670000.00	558333.33	200454.55	5352.94
3.	Land development banks	6289.31	0.00	15789.48	0.00	33750.00	7010.49	0.00
4.	Rural regional banks	2201.25	0.00	0.00	0.00	0.00	1223.78	0.00
	Sub-total	117657.23	327016.13	466315.79	833133.33	697500.00	271222.04	8647.06
B.	**Non Institutional**							
5.	Commission agents	9301.88	35967.74	41052.63	36666.67	10416.67	20783.22	0.00
6.	Money-lenders	1572.33	3548.39	0.00	0.00	25000.00	2692.31	0.00
7.	Traders & shopkeepers	4427.67	0.00	789.47	0.00	1250.00	2618.88	5058.82
8.	Large farmers	4748.43	322.58	2631.58	0.00	0.00	3059.44	15666.67
9.	Relatives and friends	24842.77	6774.19	263.16	20000.00	0.00	16363.64	13990.20
	Sub-total	44893.08	46612.90	44736.84	56666.67	36666.67	45517.49	34715.69
	Total	**162550.31**	**373629.03**	**511052.63**	**889800.00**	**734166.67**	**316739.53**	**43362.75**

Source: Field Survey, 2014-15

categories except the medium farm-size category. For the medium farm-size category the amount of debt per owned acre is the highest in the Shivalik Foothills Region. The amount of debt per owned acre is the lowest in the South-West Region for the marginal, semi-medium and medium farm-size categories and in the Shivalik Foothills Region for the small and large farm-size categories.

Debt Incurred from Different Credit Agencies

The information regarding region-wise debt incurred from different agencies is presented in Table 3. The pattern revealed by the table is similar to the one presented for Punjab as a whole. The small, medium, semi-medium and large farm-size categories in all the three regions, the marginal farm-size category in the Central Plains and Shivalik Foothills Regions owe the major amount of debt to institutional agencies. The marginal farm-size category in the South-West Region and the agricultural labour household in all the three regions incur the major amount of debt from non-institutional agencies. An average farming household in all the three regions takes maximum amount from institutional agencies. Among the institutional sources, commercial banks and co-operative societies/banks are the major sources of debt. Among the non institutional sources, the commission agents are the major source of debt for all the categories except agricultural laborers in all the regions. For the agricultural laborers, large farmers are the major source and other sources are, traders & shopkeepers and relatives and friends in all the regions.

Pattern of Debt Incurred from Different Credit Agencies

The information regarding the relative shares of different sources of debt is contained in Table 4. The table depicts that an average farming household in the Shivalik Foothills Region owes 85.63 per cent of total debt to institutional agencies while the corresponding figure is 74.98 per cent for the Central Plains Region and 66.76 per

Table 4

Debt incurred from Different Credit Agencies: Region-wise

(Percentage of Total Debt)

Sl. No.	Source of Debt	South-West Region						
		Marginal Farmers	Small Farmers	Semi-Medium Farmers	Medium Farmers	Large Farmers	All Sampled Farmers	Agri. Labourers
A.	**Institutional**							
1.	Primary agricultural cooperative societies/co-operative banks	8.71	10.60	11.51	5.64	3.27	8.25	0.00
2.	Commercial banks	30.52	39.25	57.09	67.44	87.70	54.81	0.95
3.	Land development banks	0.00	0.00	1.10	0.00	0.00	0.23	0.00
4.	Rural regional banks	2.04	2.45	3.84	5.58	3.95	3.47	0.00
	Sub-total	**41.27**	**52.30**	**73.54**	**78.66**	**94.92**	**66.76**	**0.95**
B.	**Non Institutional**							
5.	Commission agents	28.22	32.37	18.19	15.20	3.38	20.45	0.00
6.	Money-lenders	23.60	10.21	7.93	6.14	1.70	10.12	3.62
7.	Traders& shopkeepers	0.53	0.23	0.34	0.00	0.00	0.23	7.98
8.	Large farmers	3.19	2.85	0.00	0.00	0.00	1.32	82.70
9.	Relatives and friends	3.19	2.04	0.00	0.00	0.00	1.12	4.75
	Sub-total	**58.73**	**47.70**	**26.46**	**21.34**	**5.08**	**33.24**	**99.05**
	Total	**100**	**100**	**100**	**100**	**100**	**100**	**100.00**
Central Plains Region								
	Sub-total	**62.01**	**70.78**	**75.81**	**85.92**	**89.52**	**74.98**	**14.19**

B.	**Non Institutional Sources**							
5.	Commission agents	25.93	18.45	16.81	7.08	5.32	16.14	0.00
6.	Money -lenders	8.07	6.09	5.73	5.00	4.15	5.94	2.90
7.	Traders& shopkeepers	0.60	0.81	0.34	0.03	1.01	0.57	10.63
8.	Large farmers	0.43	0.29	0.52	1.32	0.00	0.47	58.42
9.	Relatives and friends	2.96	3.58	0.79	0.66	0.00	1.90	13.86
	Sub-total	**37.99**	**29.22**	**24.19**	**14.08**	**10.48**	**25.02**	**85.81**
	Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**74.98**	**100.00**
		Shivalik Foothills Region						
A.	**Institutional**							
1.	Primary agricultural cooperative societies/co - operative banks	15.70	25.66	21.47	18.33	14.36	19.74	7.60
2.	Commercial banks	51.46	61.86	66.68	75.30	76.05	63.29	12.34
3.	Land development banks	3.87	0.00	3.10	0.00	4.60	2.21	0.00
4.	Rural regional banks	1.35	0.00	0.00	0.00	0.00	0.39	0.00
	Sub-total	**72.38**	**87.52**	**91.25**	**93.63**	**95.01**	**85.63**	**19.94**
B.	**Non Institutional Sources**							
5.	Commission agents	5.72	9.63	8.03	4.12	1.42	6.56	0.00
6.	Money -lenders	0.97	0.95	0.00	0.00	3.41	0.85	0.00
7.	Traders& shopkeepers	2.73	0.00	0.15	0.00	0.16	0.82	11.67
8.	Large farmers	2.92	0.09	0.52	0.00	0.00	0.97	36.13
9.	Relatives and friends	15.28	1.81	0.05	2.25	0.00	5.17	32.26
	Sub-total	**27.62**	**12.48**	**8.75**	**6.37**	**4.99**	**14.37**	**80.06**
	Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Based on Table 3

cent for the South-West Region. The commercial banks and co-operative societies/banks come at the first and second place respectively among institutional agencies in all the three regions. The share of non institutional sources is 33.24 per cent for an average farming household in the South-West Region, followed by the Central Plains Region (25.02) and then the Shivalik Foothills Region (14.37). Among the non institutional sources, commission agents come out to be the largest contributor towards total debt in all the three regions. This proportion is as high as 20.45 per cent and 16.14 per cent for the South-West Region and the Central Plains Region, respectively for an average farming household. Money-lenders are the second important contributor to non institutional debt in Central Plains and South-West Regions. In the Shivalik Foothills Region, relatives and friends come at the second place and the large farmers at the third place.

In the case of agricultural labour households the proportional share of non ,institutional agencies is as high as 99.05 per cent and 85.81 per cent in the South-West Region and the Central Plains Region respectively. The corresponding figure is 80.06 per cent for the Shivalik Foothills Region. The large farmers come out to be the largest contributor towards total debt for this category across the regions. The relatives and friends, and traders and shopkeepers are the other important sources of total debt for the agricultural laborers in all the three regions. The field survey highlights the fact that the agricultural laborers own no assets for mortgage to institutional agencies. Therefore, they are left with the only alternative to go to the large farmers, and traders and shopkeepers as they have easy access to private agencies. The share of non institutional agencies in case of the marginal farm-size category is 58.73 per cent for the South-West Region, 37.99 per cent for the Central Plains Region and 27.62 per cent for the Shivalik Foothills Region. The commission agents come out to be the largest contributor towards the non institutional debt for this category across the regions. The small, semi-medium, medium and large farm-size categories in all the three regions have incurred maximum amount of debt from the institutional agencies. The

Table 5
Debt incurred for Different Purposes: Region-wise
(Mean Values, in Rs.)

Sl. No.	Purpose	Marginal Farmers	Small Farmers	Semi-Medium Farmers	Medium Farmers	Large Farmers	All Sampled Farmers	Agri. Labourers
South-West Region								
1.	Farm inputs & machinery	102750.00	243483.88	294361.70	418724.14	873571.43	259775.00	0.00
2.	Rent of land	25340.91	25483.88	17021.28	0.00	0.00	19208.33	0.00
3.	Marriages and other social and religious ceremonies	21022.73	25000.00	28085.11	60689.66	21428.57	28250.00	23639.64
4.	House construction, addition of rooms and major repairs	26988.64	30645.16	64255.32	82758.62	171428.57	50395.83	11531.53
5.	Domestic needs	26931.82	51306.46	18829.79	20689.66	28571.43	30983.33	25162.16
6.	Healthcare	9715.90	17741.94	1063.83	3448.28	0.00	8770.83	12981.98
7.	Livestock	1818.18	403.23	0.00	0.00	0.00	770.83	270.27
8.	Education	5681.81	1612.90	6382.98	31034.48	64285.71	11250.00	180.18
9.	Purchase of land	0.00	0.00	0.00	0.00	107142.86	6250.00	1891.89
10.	Repayment of debt	2272.72	0.00	13829.79	0.00	0.00	3541.67	0.00
11.	Small business	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**222522.71**	**395677.45**	**443829.79**	**617344.83**	**1266428.57**	**419195.83**	**75657.66**
Central Plains Regionn								
1.	Farm inputs & machinery	199161.49	386281.88	549112.15	676931.82	1531700.00	434085.24	575.54
2.	Rent of land	16459.63	43959.73	18691.59	14772.73	0.00	24636.17	0.00
3.	Marriages and other social and religious ceremonies	10714.29	14093.96	78504.67	22727.27	0.00	27494.80	15978.42
4.	House construction, addition of rooms and major repairs	11490.68	54026.85	17757.01	9090.91	50000.00	27442.83	0.00
5.	Domestic needs	39677.02	43107.38	30981.31	35227.27	50000.00	38827.44	16122.30
6.	Healthcare	11304.35	2684.56	14018.69	0.00	0.00	7733.89	7812.95
7.	Livestock	4037.27	6711.41	0.00	0.00	0.00	3430.35	791.37
8.	Education	4037.27	33557.05	1869.16	18181.82	82500.00	17255.72	863.31
9.	Purchase of land	0.00	0.00	6775.70	86363.64	0.00	9407.48	0.00
10.	Repayment of debt	3726.71	671.14	0.00	0.00	0.00	1455.30	0.00
11.	Small business	1863.35	0.00	0.00	0.00	70000.00	3534.30	0.00
	Total	**302472.05**	**585093.96**	**717710.28**	**863295.45**	**1784200.00**	**595303.53**	**42143.88**

Table 5 (Contd.)

Shivalik Foothills Region								
1.	Farm inputs & machinery	105820.75	260403.23	361842.11	654466.67	559166.67	221145.10	0.00
2.	Rent of land	314.47	10483.87	0.00	0.00	0.00	2447.55	0.00
3.	Marriages and other social and religious ceremonies	4716.98	3225.81	13157.89	0.00	0.00	5069.93	10372.55
4.	House construction, addition of rooms and major repairs	10691.82	48387.10	36842.11	86666.67	0.00	25874.13	2843.14
5.	Domestic needs	30188.68	17258.06	15000.00	22000.00	16666.67	24370.63	17833.33
6.	Healthcare	1886.79	4838.71	31578.95	26666.67	0.00	7692.31	9960.78
7.	Livestock	1886.79	0.00	0.00	0.00	0.00	1048.95	0.00
8.	Education	2830.19	4838.71	52631.58	100000.00	158333.33	21503.50	2352.94
9.	Purchase of land	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.	Repayment of debt	4213.84	24193.55	0.00	0.00	0.00	7587.41	0.00
11.	Small business	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**162550.31**	**373629.03**	**511052.63**	**889800.00**	**734166.67**	**316739.51**	**43362.75**

Source: Field Survey, 2014-15

large farm-size category of the Shivalik Foothills Region owed 95.01 per cent to institutional agencies. The corresponding figures are 94.52 per cent, 89.52 per cent for the South-West Region and the Central Plains Region respectively. The medium farm-size category of the Shivalik Foothills Region owed 93.63 per cent to institutional agencies. The corresponding figures are 85.92 per cent for the Central Plains Region and 78.66 per cent for the South-West region. For the small and semi-medium farm-size categories, the

proportional share of institutional agencies is the highest in the Shivalik Foothills Region, followed by the Central Plains Region and South-West Region. The commercial banks contribute maximum amount of total debt to the small, semi-medium, medium and large farm-size categories in all the three regions.

Debt Incurred for Different Purposes

The purpose-wise distribution of debt is given in Table 5. The table elucidates that the major amount of debt has been incurred by an average farming household for the purchase of farm inputs and machinery in all the three regions. The amount of debt owed for the purchase of farm inputs and machinery is increasing as farm-size increases in all the three regions. The different categories of farmers in all the three regions spent the major amount of debt for this purpose. This is the result of application of New Agricultural Technology which is costly affair and known as inputs package (Kaur and Singh, 2010). The second important purpose of debt is domestic needs for an average farming household in the Central Plains and Shivalik Foothills Regions. The agricultural labour households in all the three regions have incurred the major amount of debt for domestic needs. The domestic needs are the second important purpose of debt for the marginal farm-size category in all the three regions. The house construction, addition of rooms and major repairs is the second important purpose of debt for an average sampled farm household in the South-West Region.

Pattern of Debt Incurred for Different Purposes

Table 6 shows that the highest proportion of debt is spent on purchase of farm inputs and machinery by an average sampled household in all the three regions. This proportion is the highest (71.48 per cent) in the Central Plains Region, followed by the Shivalik Foothills Region (68.16 per cent) and then the South-West Region (57.20 per cent). This proportion is positively associated with farm-size in all the regions. The domestic needs are the second

Table 6

Debt incurred for Different Purposes: Region-wise

(Percentage of Total Debt)

Sl. No.	Purpose	Marginal Farmers	Small Farmers	Semi-Med Farmers	Medium Farmers	Large Farmers	All Sampled Farmers	Agri. Labourers
South-West Region								
1.	Farm inputs & machinery	46.18	61.54	66.32	67.83	68.98	61.97	0.00
2.	Rent of land	11.39	6.44	3.84	0.00	0.00	4.58	0.00
3.	Marriages and other social and religious ceremonies	9.45	6.32	6.33	9.83	1.69	6.74	31.25
4.	House construction, addition of rooms and major repairs	12.13	7.74	14.48	13.41	13.54	12.02	15.24
5.	Domestic needs	12.10	12.97	4.24	3.35	2.26	7.39	33.26
6.	Healthcare	4.37	4.48	0.24	0.56	0.00	2.09	17.16
7.	Livestock	0.82	0.10	0.00	0.00	0.00	0.18	0.36
8.	Education	2.55	0.41	1.44	5.03	5.08	2.68	0.24
9.	Purchase of land	0.00	0.00	0.00	0.00	8.46	1.49	2.50
10.	Repayment of debt	1.02	0.00	3.12	0.00	0.00	0.84	0.00
11.	Small business	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
Central Plains Region								
1.	Farm inputs & machinery	65.84	66.02	76.51	78.41	85.85	72.92	1.37
2.	Rent of land	5.44	7.51	2.60	1.71	0.00	4.14	0.00
3.	Marriages and other social and religious ceremonies	3.54	2.41	10.94	2.63	0.00	4.62	37.91
4.	House construction, addition of rooms and major repairs	3.80	9.23	2.47	1.05	2.80	4.61	0.00
5.	Domestic needs	13.12	7.37	4.32	4.08	2.80	6.52	38.26

6.	Healthcare	4.37	4.48	0.24	0.56	0.00	2.09	17.16
7.	Livestock	0.82	0.10	0.00	0.00	0.00	0.18	0.36
8.	Education	2.55	0.41	1.44	5.03	5.08	2.68	0.24
9.	Purchase of land	0.00	0.00	0.00	0.00	8.46	1.49	2.50
10.	Repayment of debt	1.02	0.00	3.12	0.00	0.00	0.84	0.00
11.	Small business	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
Central Plains Region								
1.	Farm inputs & machinery	65.84	66.02	76.51	78.41	85.85	72.92	1.37
2.	Rent of land	5.44	7.51	2.60	1.71	0.00	4.14	0.00
3.	Marriages and other social and religious ceremonies	3.54	2.41	10.94	2.63	0.00	4.62	37.91
4.	House construction, addition of rooms and major repairs	3.80	9.23	2.47	1.05	2.80	4.61	0.00
5.	Domestic needs	13.12	7.37	4.32	4.08	2.80	6.52	38.26
6.	Healthcare	3.74	0.46	1.95	0.00	0.00	1.30	18.54
7.	Livestock	1.33	1.15	0.00	0.00	0.00	0.58	1.88
8.	Education	1.33	5.74	0.26	2.11	4.62	2.90	2.05
9.	Purchase of land	0.00	0.00	0.94	10.00	0.00	1.58	0.00
10.	Repayment of debt	1.23	0.11	0.00	0.00	0.00	0.24	0.00
11.	Small business	0.62	0.00	0.00	0.00	3.92	0.59	0.00
	Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Table 6 (Contd.)

Shivalik Foothills Region								
1.	Farm inputs & machinery	65.10	69.70	70.80	73.55	76.16	69.82	0.00
2.	Rent of land	0.19	2.81	0.00	0.00	0.00	0.77	0.00
3.	Marriages and other social and religious ceremonies	2.90	0.86	2.57	0.00	0.00	1.60	23.92

4.	House construction, addition of rooms and major repairs	6.58	12.95	7.21	9.74	0.00	8.17	6.56
5.	Domestic needs	18.57	4.62	2.94	2.47	2.27	7.69	41.13
6.	Healthcare	1.16	1.30	6.18	3.00	0.00	2.43	22.97
7.	Livestock	1.16	0.00	0.00	0.00	0.00	0.33	0.00
8.	Education	1.74	1.30	10.30	11.24	21.57	6.79	5.43
9.	Purchase of land	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.	Repayment of debt	2.59	6.48	0.00	0.00	0.00	2.40	0.00
11.	Small business	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Based on Table 5

major purpose of debt in the Central Plains and Shivalik Foothills Regions. The agricultural labour households in all the three regions have incurred the highest share of total debt for domestic needs. The domestic needs are the second major purpose of debt for the marginal farm-size category in all the three regions and small farm-size category in the South-West Region. The share of domestic needs in total debt ranges between 7.16 per cent in the Central Plains Region to 9.38 per cent in the South-West Region. In the South-West Region, house construction, addition of rooms and major repairs is the second important purpose of debt by an average sampled household. Slightly less than 12.30 per cent of total debt has been owed for this purpose in South-West Region. The corresponding figures are 8.13 per cent for the Shivalik Foothills Region and 4.52 per cent for the Central Plains Region.

Another important purpose of debt is to meet expenditure on marriages and other social and religious ceremonies in all the regions. This proportional share is 8.63 per cent in the South–West Region, followed by the Central Plains Region and Shivalik Foothills Region. For the agricultural labour households, this

proportion is 37.91 per cent, 31.25 per cent and 23.92 per cent respectively in the Central Plains, South-West and Shivalik Foothills Regions. In the Shivalik Foothills Region, about 7 per cent of total debt has been incurred for educational purposes by an average sampled farm household. The semi-medium, medium and large farm-size categories of this region owed significant proportion of total debt for this purpose. In the other regions this proportion is very small. Slightly more than four per cent of total debt is incurred for paying rent of land in the South-West and Central Plains Regions. The marginal and small farm-size categories of these regions have incurred an important proportion of total debt for this purpose. The field survey has brought out the fact that these farmers cannot get alternative employment opportunities, so they lease in some land from large farmers and increase the size of their operational holdings.

The above analysis shows that due to the application of New Agricultural Technology the farmers have borrowed funds for growing the crops. The marginal, small and semi-medium farmers and agricultural laborers are unable to meet their consumption expenditure with their income. To fulfill this gap these sections borrow mainly for family maintenance. The situation is worse for the agricultural laborers than the marginal and small farmers. Majority of the farmers and agricultural laborers take loans for consumption as well as for a variety of social obligations, which are unproductive and do not help to generate income (Pal and Singh, 2012).

Debt According to Rate of Interest

The mean values of debt according to rate of interest across the three regions are given in Table 7. The table shows that an average farming household of the South-West and Shivalik Foothills Regions incurred the maximum amount debt at the rate of interest ranging between 1 to 7 per cent. This amount is Rs. 1,643,58.33 and Rs.1,46,431.82 respectively in the South-West and Shivalik Foothills Regions. An average farming household of the Central

Table 7

Debt according to Rate of Interest: Region-wise

(Mean Values, in Rs.)

Sl. No	Categories	Rate of Interest (Per cent)						
South-West Region								
		0	**1 to 7**	**8 to 14**	**15 to 21**	**22 to 28**	**Above 29**	**Total**
1.	Marginal Farmers	272.73	64170.45	29431.82	77795.44	49602.26	1250.00	**222522.71**
2.	Small Farmers	1612.90	159774.20	52822.58	132338.72	41064.52	8064.53	**395677.45**
3.	Semi-Medium Farmers	0.00	214468.09	113404.26	50212.77	65744.68	0.00	**443829.79**
4.	Medium Farmers	0.00	208034.48	277586.21	124827.59	6896.55	0.00	**617344.83**
5.	Large Farmers	0.00	555714.29	596428.57	50000.00	64285.71	0.00	**1266428.57**
6	All Sampled Farmers	516.67	164358.33	114979.17	90545.83	46254.17	2541.67	**419195.83**
7.	Agri. Labourers	2810.81	450.45	3711.71	22445.95	44481.98	1756.76	**75657.66**
Central Plains Region								
1.	Marginal Farmers	5490.68	123354.04	64130.43	64515.53	44422.36	559.01	**302472.05**
2.	Small Farmers	134.23	172255.03	237684.56	115624.16	59395.97	0.00	**585093.96**
3.	Semi-Medium Farmers	560.75	281588.79	280607.48	64205.61	90747.66	0.00	**717710.28**
4.	Medium Farmers	5681.82	312159.09	400000.00	114545.45	30909.09	0.00	**863295.45**
5.	Large Farmers	0.00	189700.00	1357500.00	109000.00	128000.00	0.00	**1784200.00**
6	All Sampled Farmers	2523.91	193731.81	250550.94	86704.78	61604.99	187.11	**595303.53**
7.	Agri. Labourers	6208.63	5848.92	1913.67	4402.88	20604.32	3165.47	**42143.88**
Shivalik Foothills Region								
1.	Marginal Farmers	20660.38	100110.06	26572.33	7377.36	4748.43	3081.76	**162550.31**
2.	Small Farmers	6290.32	201290.32	159596.77	322.58	6129.03	0.00	**373629.03**
3.	Semi-Medium Farmers	1052.63	213684.21	278947.37	14736.84	2631.58	0.00	**511052.63**
4.	Medium Farmers	20000.00	209800.00	623333.33	16666.67	20000.00	0.00	**889800.00**
5.	Large Farmers	0.00	184583.33	504583.33	1250.00	43750.00	0.00	**734166.67**
6	All Sampled Farmers	14038.46	146431.82	140297.20	7055.94	7202.80	1713.29	**316739.51**
7.	Agri. Labourers	13009.80	6588.24	3431.37	5058.82	15274.51	0.00	**43362.75**

Source: Field Survey, 2014-15

Table 8

Debt according to Rate of Interest: Region-wise

Sl. No	Categories	Rate of Interest (Per cent)						
South-West Region								
		0	**1 to 7**	**8 to 14**	**15 to 21**	**22 to 28**	**Above 29**	**Total**
1.	Marginal Farmers	0.12	28.84	13.23	34.96	22.29	0.56	**100.00**
2.	Small Farmers	0.41	40.38	13.35	33.45	10.38	2.04	**100.00**
3.	Semi-Medium Farmers	0.00	48.32	25.55	11.31	14.81	0.00	**100.00**
4.	Medium Farmers	0.00	33.70	44.96	20.22	1.12	0.00	**100.00**
5.	Large Farmers	0.00	43.88	47.10	3.95	5.08	0.00	**100.00**
6	All Sampled Farmers	**0.12**	**39.21**	**27.43**	**21.60**	**11.03**	**0.61**	**100.00**
7.	Agri. Labourers	3.72	0.60	4.91	29.67	58.79	2.32	**100.00**
Central Plains Region								
1.	Marginal Farmers	1.82	40.78	21.20	21.33	14.69	0.18	**100.00**
2.	Small Farmers	0.02	29.44	40.62	19.76	10.15	0.00	**100.00**
3.	Semi-Medium Farmers	0.08	39.23	39.10	8.95	12.64	0.00	**100.00**
4.	Medium Farmers	0.66	36.16	46.33	13.27	3.58	0.00	**100.00**
5.	Large Farmers	0.00	10.63	76.08	6.11	7.17	0.00	**100.00**
6.	All Sampled Farmers	**0.42**	**32.54**	**42.09**	**14.56**	**10.35**	**0.03**	**100.00**
7.	Agri. Labourers	14.73	13.88	4.54	10.45	48.89	7.51	**100.00**
Shivalik Foothills Region								
1.	Marginal Farmers	12.71	61.59	16.35	4.54	2.92	1.90	**100.00**
2.	Small Farmers	1.68	53.87	42.72	0.09	1.64	0.00	**100.00**
3.	Semi-Medium Farmers	0.21	41.81	54.58	2.88	0.51	0.00	**100.00**
4.	Medium Farmers	2.25	23.58	70.05	1.87	2.25	0.00	**100.00**
5.	Large Farmers	0.00	25.14	68.73	0.17	5.96	0.00	**100.00**
6.	All Sampled Farmers	**4.43**	**46.23**	**44.29**	**2.23**	**2.27**	**0.54**	**100.00**
7.	Agri. Labourers	30.00	15.19	7.91	11.67	35.22	0.00	**100.00**

(Percentage of Total Debt)

Source: Based on Table 7

Plains Region owed the maximum amount (Rs. 2,50,550.94) at the rate of interest ranging between 8 to 14 per cent, followed by the Shivalik Foothills and South-West Regions. This amount increases as farm-size increases in all the three regions. The medium and large farm-size categories of all the three regions, the small farm-size category of the Central Plains Region and semi-medium farm-size category of the Shivalik Foothills Region have incurred maximum amount of debt at the rate of interest ranging between 8 to 14 per cent. An average farming household of the South-West and Central Plains Regions has incurred Rs. 90,545.83 and 86,704.78 respectively at the rate of interest ranging between 15 to 21 per cent. The marginal farm-size category in the South-West Region has incurred maximum amount of debt at this range of rate of interest. The agricultural labour households owed the maximum amount of debt at the rate of interest ranging between 22 to 28 per cent in all the three regions.

Pattern of Debt According to Rate of Interest

The information regarding the pattern of debt according to rate of interest is given in Table 8. The table reveals that the agricultural labour households of all the three regions owed the highest share of total debt at the rate of interest ranging between 22 to 28 per cent. This proportion is the highest (about 59 per cent) for the South-West Region and the lowest (35.22 per cent) for the Shivalik Foothills Region. An average farming household of the Central Plains Region has incurred the highest share of total debt at 8 to 14 per cent rate of interest. The medium and large farm-size categories of all the three regions, the small farm-size category of Central Plains Region and the semi-medium farm-size category of the Shivalik Foothills Region owed the highest share of total debt at the rate of interest ranging between 8 to 14 per cent. An average farming household of the Shivalik Foothills and South-West Regions owed the highest share of total debt at 1 to 8 per cent range of rate of interest. The small and semi- medium farm-size categories of the South-West Region, marginal and semi-medium

farm-size categories of the Central Plains Region and marginal and small farm-size categories of the Shivalik Foothills Region have incurred the highest proportion of total debt at this range of rate of interest. An average farming household of the South-West Region and the Central Plains Region owed substantial proportion of total debt at the rate of interest ranging between 15 to 21 per cent. The proportional share is 21.60 and 14.56 per cent respectively for these two regions. The marginal farm-size category in the South-West Region has incurred the highest proportion of total debt (about 35 per cent) at this range of rate of interest.

An average farming household of the Shivalik Foothills Region owed 4.43 per cent of total debt without paying any interest. The marginal farm-farm size category of the Shivalik Foothills Region has incurred about 13 per cent of total debt at zero rate of interest. In the South-West Region 11.03 per cent of total debt has been owed at the rate of interest ranging between 22 to 28 per cent by an average farming household. This proportional share is 11.03 per cent and 2.27 per cent respectively in the Central Plains and Shivalik Foothills Regions. The marginal, small and semi-medium farm-size categories in South-West and Central Plains Regions incurred some amount of total debt at this range of rate of interest. This shows that the marginal and small farmers are still caught in the clutches of commission agents and money-lenders which charge exorbitant rates of interest. The field survey has brought out the fact that the income levels of the marginal, small, semi-medium and medium farmers, and agricultural laborers is very low. They are not in the position even to pay the interest. As a result, total amount of their debt is increasing every year. Some of the farmers are compelled to sell some part or entire land. When no hope is left for these poor farmers and agricultural laborers, they have started committing suicides.

Conclusion and Policy Implications

The above analysis shows that more than four-fifths of the farming households and the agricultural labour household in state of

Punjab are under debt in all the three regions of Punjab state. The amount of debt per indebted household and per sampled household increases as farm-size goes up across the regions. Inter-regional analysis shows that for the marginal, semi-medium and large farm-size categories, the proportion of households under debt is the highest in the South- West Region followed by the Central Plains and Shivalik Foothill Regions. The highest proportion of the small farmers under debt is in the Central Plains Region while the lowest exists in the Shivalik Foothills Region. The Shivalik Foothills Region shows the highest proportion under debt for the medium farm-size category and the agricultural labour households. The lowest indebtedness for the marginal, small and large farm-size categories per household as well as per indebted household is prevalent in the Shivalik Foothills Region. The highest indebtedness per household and per indebted household is prevalent amongst all the categories except the medium farmers and agricultural laborers in the Central Plains Region. The reason behind this higher tendency of indebtedness in this region may be high operational cost. The lowest indebtedness is in the Shivalik foothills region.

The amount of debt per operated acre is the highest in the South-West region for the marginal, small, semi-medium farm-size categories. For the medium and large farm-size categories, the amount of debt per operated acre is the highest in the Central Plains Region. The amount of debt per operated acre is the lowest in the Shivalik Foothills Region for the marginal, small and semi-medium farm-size categories, in the South-West region for the medium and large farm-size categories. The marginal, small, semi-medium and medium farmers of the South-West Region incurred the highest share of total debt from non institutional agencies. The reason behind this may be the higher operational cost due to wheat cotton rotation and the higher expenditure on marriages and other social and religious ceremonies.

The analysis of rate of interest reveals that an average farming household of the Central Plains Region has incurred the highest

share of total debt at 8 to 14 per cent rate of interest. An average farming household of the Shivalik Foothills and South-West Regions have incurred the highest share of total debt at 1 to 8 per cent range of rate of interest. The marginal, small and semi-medium farm-size categories in the South-West and Central Plains Regions have incurred some amount of total debt at the rate of interest ranging between 22 to 28 per cent. The agricultural labour households of all the three regions have incurred the highest share of total debt at the rate of interest ranging between 22 to 28 per cent. These facts clearly bring out that even after about seven decades of independence the marginal and small farmers and agricultural laborers in Punjab are still in the clutches of commission agents and money-lenders which charge exorbitant rates of interest across the regions.

The purpose-wise analysis shows that due to the application of New Agricultural Technology the farmers have borrowed funds for growing the crops. Majority of farmers and agricultural laborers are unable to meet their consumption expenditure with their income. This expenditure-income gap compels these people to use some proportion of the loans to meet their day to day requirements. In spite of the fact that the institutional agencies are the most important source of agricultural credit, it appears that the burden of indebtedness is likely to continue in the coming years on account of low income and their outstanding loans. Indebtedness will continue to grow in case of the farm and agricultural labour household if their income remains static and no efforts are made to improve their economic condition,

To overcome the problem of indebtedness, effective measures should be taken to increase income of the farm and agricultural labour households. It is utmost necessary to re-visit land reforms in favor of the marginal and small farmers as it would result in increasing their farm-size and as a result will be helpful in increasing their farm business income (FBI). The agricultural laborers, an important section of the farming community that has been ignored for ages, must be equally associated with re- visiting

the land reforms. The agricultural laborers should also be associated with the process of land reforms. Every region has certain natural and locational advantage regarding production and marketing of some agro-based and non-farm activities. So such option should be widely explored in each region so that more gainful employment opportunities can be created at the village level. At some places cooperative societies performed very weak in marketing of agricultural products, providing finance to farmers and making machinery available on rent. The region which has failed or performed poorly in this direction should follow the practices of the successful region. There is an urgent need to enforce the Minimum Wages Act properly for the agricultural labour households which will ultimately help in preventing their exploitation at work place. The farmers and agricultural laborer should be given proper training according to the region specific requirements which will lead towards up-gradation of their skills and capabilities. Efforts must be made by the state government to improve the health and educational status of the rural households. The enforcement of the already existing special programs for the rural development should be framed in proper perspective. Increase in the plan allocation and enlarging the scope of rural specific schemes, to cover larger proportion of population can go a long way in improving the economic conditions of the farmers and agricultural laborers households in the State.

We have also noted that the indebtedness is higher in the region where the ratio of non-institutional debt is higher. In such region, the working and performance of the institutional credit agencies should be scrutinized. The institution of these regions should be geared up to perform well up to the need of the agriculture sector so that the non-institutional agencies may not get much leeway to change the exorbitant rates and exploit the farmer and agricultural labour households.

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Article

The State as Cartographer: The Case of the Geospatial Information Regulation Bill (2016), India

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Abstract

This paper attempts a critical analysis of the Geospatial Information Regulation Bill (2016), India. Using existing understandings of territoriality, it builds on literature across Science and Technology Studies, Geography and Anthropology, to place in focus the role of the state with respect to the production of knowledge. By examining the role of the map, it draws attention to opposing dualisms of re- and de-territorialization, which are bound up in definitions of a cartographically premised national identity. Contemporary technological advancements in the form Geographical Information Systems and Remote Sensing present a means of engaging in a history of the map, located in the present. Furthermore, it argues that the bill will adversely affect related areas of research such as climate change, necessitating a more expansive engagement with the question of territoriality as observed through the story of climate change.

Keywords: India, knowledge, geospatial information, territoriality, state, climate change

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Introduction

The Ministry of Home Affairs, Government of India, published the Geospatial Information Regulation Bill on May 4, 2016. The objective of the bill is to 'regulate the acquisition, dissemination, publication and distribution of geospatial information of India which is likely to affect the security, sovereignty and integrity of India'. While the bill is yet to attain the approval of Parliament, it raises quite important questions pertaining to the role of the state, the concept of territoriality, the management of information, and also on what this means for research on climate change in India. By recognising that the knowledge of the state exists alongside possibly competing understandings of spatiality, it has emerged necessary to draw attention to the need to engage with more dynamic conceptions of territoriality that better address the challenges of the present time.

Technologies such as Geographical Information Systems (GIS) and Remote Sensing (RS) have prompted us to look more closely at the contexts and traditions within which knowledge is constructed. Importantly, this also gives rise to a special means of studying statistical methods of mapping in theatrical form, where, as Charles Travis observes, the GIS was anticipated by the early 'map theatre' (2013:176), drawing on de Certeau's argument that mapping consists of 'a totalizing stage on which elements of diverse origin were brought together to form the tableau of a "state" of geographical knowledge and the perspective it offered' (de Certeau, 1988[1984]:121). Indeed, it is with such an approach in mind, that the case of the state and the draft law in question demands to be addressed. But the case of these technologies also raises other related questions on the significance of the postcolonial lens, and its ability to recover and re-present cartographies in legitimate forms (Palmer, 2012).

This paper examines the role of the state as a key actor in the production and regulation of knowledge; the state performs before a national audience, producing critical sites of imaginative negotiation, contestation and resistance (see Hajer, 2009; Scott,

1998). Binaries of acceptability and unacceptability, inside and outside, produced by the state, manifest in the making of the map as an expression and extension of specific forms of nationalistic linguistic power (see Harley, 1989; Walker, 1993). This leads to the construction of a system of knowledge regulation that is legitimated on the basis of its commitment to the protection of national interests. This paper, therefore, attempts to contextualise the bill in question, and also explores its possible implications for the performance of Indian climate change politics, owing to the pertinence of the phenomenon to evolving conceptions of territoriality and contemporary framings of Indian politics.

Boundaries and quantification

The phenomenon of climate change is emblematic of a unique paradox, characterised by a persistent re- and de-territorialisation signified by the term 'territoriality' (Litfin, 1998; Lövbrand and Stripple, 2006). This dualism is central to an understanding of the climate political sphere of the present. It forms the basis for a renegotiation of a politics birthed from the possibility of re-imagining the role of the nation state as a sovereign organisation (Hardt and Negri, 2000; Sassen, 2007; Shapiro, 1994; see also Ruggie, 1993). In this context, the map, and indeed the project of cartography might be re-presented as a key site of political dynamism, participation and resistance (Harley, 1989; 2009; Ramaswamy, 2002; St. Martin, 2009). The question of '*how* the map comes to be' would, therefore, have to be situated in Indian understandings of nationalism and citizenship, owing to their contribution to the making of cartographic imaginaries (Mookherjee, 2011). Critical engagement with the subject of cartographic boundaries has illustrated the interlinkages between the map, and theories of territorialisation, globalisation, cosmopolitanization and nationalization (Anderson, 2006; Dalby, 2008; see also Brenner *et al*., 2008).

Boundaries exert a key influence over the cultivation of bilateral relations, and matters pertaining to the protection of the

'global environment' such as climate change (Wood, 2000). Their porosity is contingent on the maintenance of connections and connectivity, between the 'inside' and the 'outside' (Gupta and Ferguson, 1992; Walker, 1993). Therefore, while international boundaries serve as instruments of regulation, these could equally be manipulated to prevent the exchange and diffusion of peoples, ideas, and things of importance. In the context of climate political narratives, the question of international boundaries is of great importance owing to the need for a cross-national porosity that is mindful of developmental disparities (Wood, 2000). Anssi Paasi (1998) has noted that the boundaries of states acquire a 'multidimensional' quality that spans the realms of the socio-economic, cultural and political.

The role of the boundary reaches beyond the mere function of physical signification, and in the process, encompasses multiple ways of knowing the environment (Wood, 2000; Gupta *et al*., 2012) i.e. a multiplicity of interpretations that vary in accordance with location, situation and context (Hulme, 2008; Jasanoff, 2010). Wood (2000) draws attention to the persistence of conflict over the construction of boundaries, alongside instances of their formal depiction in the documents, maps, and land-based markers of the state (see also Scott, 1998); disrupted treaties, border militarisation, and the vocalisation of overlapping territorial assertions are all examples with a direct bearing on the Indian context, and point specifically to the tensions between the international delineation of the boundaries of the state, and aspirations of self-determination (Wood, 2000).

Here, one might ask: 'what motivates the state to act in specific ways, endorse and regulate particular modes of geographical meaning making, and engage subsequently in demonstrations of credibility?' But there exists yet another question that predates the identification of these drivers of statecraft: 'How was the discipline of geography re-presented as credible?' The quantitative turn in the space of geography serves as a specific instance in the performance of credibility, where Ian Burton observed in 1963 that

(geography would need to) 'acquire demonstrable value as a predictive science without a corresponding need to control, restrict, or regiment the individual' (Burton, 1963: 157). Drawing a parallel to the construction of maps and the control of spatial information, I argue that assertions of neutrality in the making of knowledge claims are poorly founded, owing to the inherently problematic nature of 'the view from nowhere' (see Sheppard, 2001). Knowledge asks to be situated and studied within the contexts of its origination, and has therefore, to be viewed as the imaginative product of social, political and cultural location. Such a perspective also crucially draws upon a longer tradition in geographical thought that grants attention to the need for a critical philosophical engagement with the structure of knowledge.

Representing Spatial Information

Geographical Information Systems (GIS) are premised on the spatial organisation of data. This makes possible the mapping of geophysical features, naturally occurring or anthropologically induced events and activities to specific locations. Their subsequent identification through a set of commonly known names or coordinates is what constitutes acts of 'georeferencing'. Alternately, data might also be processed and georeferenced under the aegis of the Geographical Positions Systems (GPS), which forms another keys means of organising data spatially. Data, in this form, can be used to study a variety of phenomena at the interface of the biophysical and political landscape (Wood 2000). Importantly, while such parameters as boundary segment lengths and prominent nature features might be relatively easy to identify and analyse, the same cannot be said of aspects of socio-cultural and historical import, owing to their incompatibility with methods of quantification (Wood, 2000; see also Sheppard, 2001). Therefore, this also effectively problematizes any study of territory within the parameters of a purely quantitative geographical reasoning, by emphasising the significance of subjectivity, power and responsibility within and across nationscapes.

The phenomenon and attendant politics of climate change illustrate the importance of participation and debate in the public sphere. Access and credibility emerge as key aspects of the process of communicating knowledge on the climate system; Burch *et al*., (2009: 71), place emphasis on the need for 'credible and easily accessible visuals' on climate change. But this is also equally a matter of locational specificity and legitimacy, a concern that has been vocalised by numerous scholars of Science and Technology Studies (see Jasanoff, 2010; Miller, 2004). Moreover, I argue that the state mobilises particular elements of stagecraft, through the repeated assertion of political and moral binaries that create enclaves of regulation and acceptance. This produces and legitimates particular ways of seeing, while taking the emphasis away from co-constructive practices (Burch, 2009; see also Gupta *et al*., 2012) of making knowledge. It is therefore imperative that we view the joint project of cartography and climate change in the full context of its epistemological structures, as a case of the co-production of the natural and social orders (Jasanoff, 2004).

Maps have long been key features of geographical expression. They function as manifestations power, and are socially constructed depictions of history and power (Crampton, 2001). But the possibility of interpreting maps such, stands to be lost engagements with cartography that view the map as parcels of spatial information stripped of a historical context. Carl Sauer (1956), therefore, draws attention to the element of eloquence, as a means of granting the power of speech to the map, as an actor that performs social contexts (of the past). Conversely, the map is also a product of specifically imaginative exercises that in turn create communities (see Anderson, 2006); it is powerful in its ability to unify diverse peoples, but could also function, as mentioned before, as a site of political contestation. This is premised on the observation that maps are always value laden (Harley, 1989), and driven by intentionality, where, as Baudrillard (1983) noted, 'the territory no longer precedes the map, nor survives it. Henceforth, it is the map that precedes the territory…'

Moreover, maps might also function as technologies of persuasion, where Thongchai Winichakul (1996) has argued that our understanding of the nation state results from a visual association with the map. His emphasis is, therefore, on the material dimension of the national imaginations, which provides the citizen with an escape from the discomfort of the abstract and reproduces the nation in bodily form. But maps also ventriloquize discourses of power (see Foucault, 1980), and present and re-present history and socio-political and cultural memory. As a result, these function as devices of thick description (see Geertz, 1994), and might even be viewed as constituting a language of cartography (Harley, 1989). But this language is also one of simplification and depoliticization, where James. C. Scott (1998), for instance, has argued:

> 'They (maps) did not successfully represent the actual activity of the society they depicted, nor were they intended to; they represented only that slice of it that interested the official observer. They were, moreover, not just maps. Rather, they were maps that, when allied with state power, would enable much of the reality they depicted to be remade' (Scott, 1998: 3).

Furthermore, Scott (1998: 1-8) identifies the following elements as constitutive of state initiated projects of social engineering: (i) the administrative ordering, simplification and standardisation of nature and society, (ii) a high modernist ideology that views the nation as an exhibit of visual aestheticism, and aims to bring about monumental changes in patterns of living, (iii) the use of authoritarian power for the realisation of high modernist objectives, and (iv) a weak civil society that is dispossessed of the capacity to act. The fourth point (iv) corresponds to Nico Stehr's (2001: 89) definition of knowledge 'as the capacity to act', where a weakened civil society might be the result of a lack of (access to) knowledge, where the case of the geospatial information regulation bill (2016) fits within such a schematic quite neatly, as will be shown in the sections to follow.

The stagecraft of the state

The Indian state is the primary actor in this story of cartographic (re-) construction. Its actions are driven by the need to represent India in terms of a singular, homogenous, and unified storyline (see Hajer, 2009; Hilgartner, 2000). The Geospatial Information Regulation Bill (2016), serves two purpose: (i) it is a play unto itself, and (ii) it fits within a broader plot of state legitimated control of knowledge. It is scripted to resonate with audiences that share this vision of a single reality. These audiences, in their turn, re-present this view of the state on a multiplicity of platforms, gaining authority and credibility through such acts of repetition. It assumes the status of a reality through the recognition of the Indian geo-body as the dominant, and therefore valid form of expression. It is at this juncture that the imaginative pursuit of patriotism might assume a life of its own, creating a discourse that normalises submission to the cause of the nation. The voice of the surveilling state might assume the following form:

> *Statesman: The map of our great nation needs to be protected. It is our identity and source of strength. It is a reflection of who we are, the children of Mother India.*
>
> *Audience: Oh, mother! Our mother!*
>
> *Statesman: And it is our mother who we as a State have vowed to follow. You and I are no different, my friends. We are birthed of the same soil, and wield but one hoe.*
>
> *Audience: The map is an expression of us and our collective will. Our mother, our soil, and our patriotism shall we till!*
>
> *Statesman: You are all entitled to the patriot's right, and may all that differ turn and take flight!*
>
> *Audience: It is in your eyes that we see the world in its entirety, and together join hands in cartographic piety.*

Interpreting the Geospatial Information Regulation Bill (2016)

The bill defines geospatial information as '… imagery or data

acquired through space or aerial platforms such as satellite, aircrafts, airships, balloons, unmanned aerial vehicles including value addition; or graphical or digital data depicting natural or man-made physical features, phenomenon or boundaries of the earth or any information related thereto including surveys, charts, maps, terrestrial photos referenced to a co-ordinate system and having attributes' (Ministry of Home Affairs, 2016: 2). By including these multiple and diverse forms of informational representation, it results in the creation of a system of tight state controls. In so doing, it also functions as a performance of a very specific genre of nationalism that is premised on an understanding of national security contingent on the removal of human freedoms (see Ramaswamy, 2006). Furthermore, it also symbolises the possibility of a move toward a standardisation of knowledge through the endorsement of a national optic of aestheticism that corresponds with the political imagination of the state (see Scott, 1998).

Importantly, all the forms of geospatial information mentioned above constitute key sources of information on the behaviour of the climate system. The bill, therefore, creates a very specific challenge for the dissemination of information on climate change, given that it also legalises modes of monitoring and surveillance, which significantly complicate the sharing of information among individuals and organisations in society (see Foucault, 2007). The inclusion of a clause that makes mandatory the submission of information to a licensing authority creates significant hindrances in the advancement of geospatial information technologies, and also fosters a climate of mistrust that validated on grounds of securing the nation's borders. But the contemporary period is also illustrative of a significant expansion of the very category of the mapmaker, so as to include a host of non-state actors with a role to play in the shaping of cartographies. The construction of the map can, therefore, no longer be imagined in linear and singular terms, but results instead in multiple competing and entangled presentations of 'is and ought'. It is in such contexts that climate change, as an opportunity and challenge, presents a unique moment for projects of map-making

in India.

Within the particular space of research on climate change, the use of GIS and remote sensing (RS) techniques has tended to dominate inquiry into the dynamic nature of the Earth's climatic system. These are critical to the study of vulnerability to climate change and help in the making of projections under the header of 'fourth paradigm' research, which is data intensive with regard to its use of geospatial technologies (Sundaresan *et al*., 2014). Importantly, it is recognised that both GIS and RS share a relationship of complementarity, where both provide a means of visualising geospatial data collected from multiple sources. But while Rajamony (2013, cited in Sundaresan *et al*., 2014: v-vi) notes that these have made the intricacies of the frontier zones of the climate system more comprehensible, rules and regulations passed at the scale of national frontiers challenge the unhindered collection and sharing of information across territories. The possibilities for the coproduction of knowledge at the local level are similarly complicated by the limitation of (i) access to, and (ii) dissemination of information. But climate change also illustrates the importance of admitting multiple, competing epistemologies into the construction of national political optics (Longino, 2002), which follows from an appreciation of its ability to disorient and/or re-orient existing logics of territoriality, an aspect that the draft law neglects to discuss. Furthermore, while the bill calls for greater regulation of geospatial information by the state, thereby creating problems of access to information by publics, it is also useful to note that India has also been part of the United Nations initiative on Global Geospatial Information Management (UN-GGIM), which in a report released as recently as July 2016 recognised:

> Geospatial information technologies, services and platforms have become critical tools to support national development, economic growth, improved decision-making and policy formulation, and have enhanced the capability for Governments, international organizations and researchers to

> analyze, model, monitor and report on humanitarian, peace and security, sustainable development, climate change, disasters, and other global development challenges (United Nations Economic and Social Council, 2016).

However, the bill in question stands to create rarefied forms of visualising information that are in conformity with, and under the surveillance of the state, thereby making the participation of national and international non-state actors a more difficult task to achieve. In this context, it is as yet unclear as to how incorrect cartographic depictions that are not governed by international treaties or agreements arising outside the territorial bounds of India will be dealt with under the mentioned mechanism of enforcement. But it is also worth asking if the bill is in fact the result of what Ramaswamy (2002) has identified elsewhere as a 'national longing for cartographic form'- a form, which when located within the sphere of services such as GIS and RS, results in a form of 'representation stabilisation' (Sheppard, 2005) or 'flattening' (Wainwright and Bryan, 2009).

Here, the draft law fails to articulate an effective means of addressing the dynamic characteristic of national cartographies that are rendered inescapable by the phenomenon of climate change, which is further compounded by a conscious limitation of map-making actors by the state. Indeed, in extending the possibilities for geospatial information to be used and managed by non-state actors, one finds that there exist diverse, relational conceptions of space. These differing imaginations may in fact be incompatible with a Cartesian system of coordinates that grants primacy to the grid, over social processes (Sheppard, 2005). But even so, Geographic Information Technologies (GITs) have extended both access and responsibility to non-state actors in hitherto unforeseen ways, creating publics in possession of the capacity to act (see Stehr, 2001) as mapmakers and active participants in the imagination of cartographies. However, it is also important to note, as Travis (2012: 175) points argues, 'to liberate geography's various perspectives from GIS and illustrate that the latter is a tool to serve the practices of the former.'

On the subject of map-based depictions, the draft bill contains a clause, which states: 'No person shall depict, disseminate, publish or distribute any wrong or false topographic information of India including international boundaries through internet platforms or online services or in any electronic or physical form' (2016: 4). This clause is problematic for two reasons: (i) the use of the term 'wrong' or 'false' does not adequately account for subjective socio-political and cultural imagination, and instead reinforces a standard of state determined moralism, which precludes any expression of disagreement. But such an understanding of the map stands the risk of undermining the very nationalism it seeks to preserve, especially when viewed in the light of the following statement by Rabindranath Tagore (1915-16, cited in Ramaswamy, 2002: 1): 'The geography of a country is not the whole truth. No one can give up his life for the map.'

The second point I wish to raise is (ii) by restricting the depiction of topographic information on India, research in the area of climate change could be significantly impaired, especially if resulting representations are found to be at odds with the narrative of the state. Reverting to the concept of territoriality, we find that the drafting of the bill as an event can be interpreted as constituting a reterritorialization of knowledge by the state (see Lövbrand and Stripple, 2006). Here, the rationale of a state-centred system of territory shapes our understandings of the world, and is underwritten by an assumption of the need to fulfil a national 'historical destiny' (see Paasi, 1998); the idea of a historical destiny is constructed and represented in the singular form, much like the concept of *a* national identity. Moreover, the bill also calls to our attention the need for a systematic engagement with, and recognition of Internet freedoms, in the light of India's democratic structure. Open source information creates the basis for greater knowledge sharing, and consists in a reduction of the sovereignty of the state as the key site of knowledge production and representation (see Kumar, 2010; Litfin, 1998; Hardt and Negri, 2000). But this also feeds into the 'cartographic anxiety' of the state, which believes in representing the map of the nation as a singular

whole, and conflicts with a national reality of multiple identities, imaginations and worlds (see Ramaswamy, 2002). It is under such circumstances that we might begin to observe the role of 'patriotism' as a key driver of the cartographic project of the state (see Ramaswamy, 2002; 2006).

But there is as yet another facet to the phenomenon of climate change, which when viewed in the context of the bill, and from a postcolonial perspective presents a particular challenge to embedded ways of locating peoples within cartographically structured spaces. More specifically, it forces map-makers to reckon with questions of de- and re-territorialisation, in the context of marginal groups of refugees, migrants, etc., in India; their location within territorialised national frames (as opposed to the language of no borders) forms a necessary first step in the realisation of their rights and entitlements as equal claimants to, and actors within the socio-economic, political and cultural settings of maps (Chakrabarty, 2012). The case of the bill, furthermore, also draws attention to the modalities of a politics of survival that result from the identification of entire groups of peoples as stateless, and therefore, de-territorialised. Here, the following argument by Homi Bhabha (2011: 3-4) continues to remain pertinent to our understanding of such evolving contemporary spatialities:

> They need to settle, claim asylum or nationality, demand housing and education, assert their economic and cultural rights, and seek the status of citizenship. It is salutary, then, to turn to less "circulatory" forms of the economy like trade and tariffs, or taxes and monetary policy—much less open to postmodern metaphoric appropriation—to see how they impact on the global imaginary of diasporic cultural studies. Positive global relations depend on the protection and enhancement of these national "territorial" resources, which should then become part of the "global" political economy of resource redistribution and a transnational moral economy of redistributive justice' (as cited in Chakrabarty, 2012: 6).

Territorial resources of the kind envisaged by Bhabha (2011), as shown in the passage above, are integral to national understandings, expressions and representations of geospatial information. That key questions of *what* will happen to such information, and *how* it will subsequently address matters of representation and rights, in the context of climate change do not appear to have been engaged with adequately in the framing of the draft law. Moreover, it is also imperative that the concerns so far raised be situated within the context of the state's own attempts to create enclaves of 'inside' and 'outside' as a means re-defining norms of acceptability and imaginative correctness.

Conclusion

This paper has attempted to provide a critical analysis of the Geospatial Information Regulation Bill (2016). It has examined the question of territory and cartography, and placed focus on the role and responsibility of the Indian state. Key clauses of the bill have been analysed to arrive at an understanding of the hindrances might pose to the management of information. In the light of this analysis, questions of access and distribution have assumed greater importance, owing to their ability to affect such related areas as research on climate change. Lastly, while acknowledging that the bill is yet to be passed, this essay was motivated by the need to explore its possible implications ex-ante, as a means of arriving at an understanding of the vision of the Indian state.

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Book Reviews

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Yogendra Kumar (ed.): *Whither Indian Ocean Maritime Order? Contributions to a Seminar on Narendra Modi's Speech,* New Delhi: India International Centre & Knowledge World, 2017. ISBN: 978-93-86288-49-3 Hardback

The book is a collection of contributions by the participants in a seminar, of the same name, organized by the India International Centre. The contributions predominantly reflect the opinions and remarks of professionals in the fields of academia, diplomacy, defense and policy making.

The moot point in this edited volume is that it does not engage with the ancient maritime traditions of the Indian Ocean region, exemplified by the Chola maritime and naval traditions, rather focusing on the contemporary period. India is a civilizational power and should not be misunderstood or misconstrued as merely a Westphalian state with Third World Characteristics, as it is labeled by mainstream International Relations theorists. Consequently, it has a different normative, paradigmatic perspective of the Oceans and the subcontinent that has not been adequately addressed in contemporary Indian International Relations scholarship.

The Prime Minister's visionary *Security and Growth For All in the Region* speech comprehensively elucidates that vision and perspective in its civilizational-cultural essence, but the speeches in the book have not been able to fully capture the finesse of the perspective.

However, three essays stand out in this regard, offering clear perspective in a systematic elucidation, and this is the foundational strength of this edited conference volume.

Mapping the Maritime Order from International Relations' Theoretical Perspectives by Sanjay Chaturvedi elucidates the normative and instrumental issues and salience of the Indian Ocean maritime order from a historical perspective, and discusses the evolving theoretical salience of maritime order and governance. In its true academic research salience, the essay seamlessly outlines the historical and civilizational paradigms and elucidates the theoretical essence of order and governance in the region premised on the importance of a Regime Complex for the Indian Ocean Region (IOR). This salient point captures the essence of the visionary SAGAR speech. In mapping the IOR, Chaturvedi comprehensively elucidates in systematic detail the global oceanic basin of the Indian Ocean, which he calls "Greater Indian Ocean World", and deploys it efficiently in an ambitious historical and contemporary focus, while emphasizing the perspective of Sugata Bose's seminal work *A Hundred Horizons (2006).* In elucidating this paradigmatic essay, the author outlines a comprehensive 'level of analysis' approach that is rich in theorization and the praxis of knowledge, while emphasizing the cultural-political geographies of the IOR. His deftness in conducting a very focused survey of seminal concepts drawing from Amitav Acharya's views on the need for Global IR, while presenting them in précis within the finite scope of the essay is splendid, refreshing and thought-provoking. Chaturvedi's employment of the salient labyrinth of the theoretical enterprise of the SAGAR Speech stands out as the original, creative and dexterously elucidated analysis in the book. Thus, this essay provides the epistemic foundations of the Theory-Policy debate taking into account the civilizational and contemporary perspectives of the Indian Ocean Region, in its normative and instrumental perspective.

P.K.Ghosh, in his essay *Indian Ocean Naval Symposium,* has systematically outlined the praxis perspective of the Indian Ocean

Order, from an Indian perspective, especially regarding the eliciting of cooperative and convergent maritime security for India in the Indian Ocean Region. The essay elucidates the contemporary essence of the much-coveted dimensions of cooperative maritime security and governance leadership that India had initiated since 2008. Ghosh has focused well on conceptual, policy and the operational vistas of navy-to-navy cooperation in diverse fields, on immediate and long-term established protocols and praxis of cooperative maritime security.

Ways to Strengthen Cooperation Between BIMSTEC and IORA by Prabir De is a scholarly analysis that elucidates the continental-maritime nexus of economic and sectoral connectivity and interregional cooperation between two sub-regional groups within the larger framework of the Indian Ocean Region (IOR). Prabir De has elucidated well the importance of multi-sectoral cooperation in trade, investment, connectivity and regional cooperation founded on a functionalist and neo-functionalist premise geared towards enhancing regional convergence in maritime trade, land-corridors trade and infrastructural connectivities. The author has substantiated his arguments with quantitative data and factual analysis.

The seminal strengths of these three essays are that they elucidate conceptual clarity, provide a theoretical essence for analyzing the policy perspective geared towards providing a systematic understanding of the issues involved in the discussion of the Indian Ocean. Above all they provide substantive, objective and well-cited analysis.

The other speeches in the seminar volume from contributors whose experience includes policy making, defence and diplomacy, are well grounded in factual details and rigorous policy elucidation. These are presented in first person and are overwhelmingly reflective of personal perspectives. However, rich inferences can be drawn from the experiences of the contributors.

The editor has been dexterous in his finesse in blending the theory-policy-operational perspectives in the collection, and has provided us a superbly elucidated volume which understands the Indian Ocean in a contemporary perspective.

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Corrigendum

In the article titled '*Getting Asia*' *Right* by Siddharth Mallavarapu, published in our journal Vol. 24, Issues 1 & 2 (2016), a minor error has crept in. On page 11, the penultimate paragraph of the Muthiah Alagappa quote (with questions 1 to 4) should have been indented. This has been suitably rectified in the online version.

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