

**DEBUNKING THE MYTHS OF INDIGENOUS KNOWLEDGE:
TOWARDS A POLITICAL ECOLOGY OF THE MANDI OF
MADHUPUR, BANGLADESH***

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Abstract

This paper examines the concept of indigenous knowledge and its role in the politics of indigenous movements from a political ecology perspective. It offers an empirical analysis of indigenous knowledge among the Mandi (Mande/Garo), a matrilineal ethnic group in Bangladesh. This study shows that Mandi farmers do not identify their knowledge as indigenous although they identified themselves as different from the majority population of the country. Drawing from the literature and ethnography, I find that indigenous knowledge as a concept is untenable, both theoretically and empirically. However, the concept is very popular in the development discourse and in indigenous movement. At one hand, the international development organizations use it as a tool for making the indigenous habitat available for capitalist market penetration, on the other, the indigenous people regard this concept as a way to get their voices heard in the local and global development planning. Indigenous knowledge lives because it serves the role of a weapon for both sides of the development apparatus.

1. Introduction

This reciprocal relationship between nature and humans—humans are naturalized and nature is humanized—in which labor is active, transformative, and social (the appropriation of Nature is determined by social relations, particularly relations of ownership and control). The properties of natural resources and environmental processes shape, in complex ways, the transformation process and the social relations of production.¹

Early writings in political ecology focused on unequal power relations, conflict and cultural ‘modernization’ under a global capitalist political economy as key forces in reshaping and destabilizing human interactions with the physical environment.² Political ecology combines the concerns for ecology and political

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1 N. M. Peluso and M. Watts (eds.), *Violent Environment*, New York: Cornell University Press, 2001

2 P.A. Walker, Political Ecology: Where is the ecology? *Progress in Human Geography*, Vol. 29, No. 1, 2005, p. 74

economy that encompasses the constantly shifting dialectic between society (classes and groups within it) and land-based resources.³ Political ecology developed around a set of core concepts: first, resource use is organized and transmitted through social relations that may result in the imposition of excessive pressure of production on the environment. Second, the field recognizes plurality of positions, perceptions, interests and rationalities in relation to the environment such that one's profit may be another's displacement. Third, global connectedness shapes local spaces and is shaped by it through extra-local political economic processes and forth, interconnectedness of political, economic and ecological expressions mutually reinforce local marginality.⁴ This paper critiques the concept indigenous knowledge to expose the political ecology of the concept within the empirical case of Mandi farmers in Madhupur, Bangladesh. In doing so, the third and forth core concepts of political ecology remains relevant.

The concept of indigenous knowledge has been widely used by academics as well as development activists throughout the world to explain the relationship between indigenous populations and their environments to bring sustainable development to the indigenous populations worldwide. My research inquires how the concept of indigenous knowledge functions theoretically and empirically. Since there has been considerable debate about the content, usage and impact of indigenous knowledge in sustainable development of indigenous communities, analyzing existing theoretical positions about this concept is important for positioning myself on this widely debated issue. Moreover, in this research, I also enquire, how this concept functions for a specific indigenous community.

Existing literature on indigenous knowledge includes three different perspectives about the relationship of indigenous knowledge with the environment and its impact on development. One view condemns indigenous knowledge because it poses a threat to the ecosystem by over exploitation of natural resources and through abusive agricultural practices.⁵ Another view

3 P.M. Blaikie & H. Brookfield (Eds.), *Land degradation and society*. London: Methuen, 1987, pp. 13-17.

4 L. Gezon & S. Paulsen, 'Place, Power, Difference' in *Political Ecology across Spaces, Scales and Social Groups*; S. Paulson, L. Gezon & M. Watts (Eds.), New Jersey: Rutgers University Press, 2005, p. 2.

5 M.R. Dove. "The life cycle of indigenous knowledge, and the case of Natural Rubber Production" in *Indigenous Knowledge and its transformations: critical anthropological perspectives* R. Ellen, P. Parkes, A. Bicker (Eds.). Amsterdam:

suggests that indigenous knowledge is ‘the science of the people’ that is inherently conservationist and in harmony with the eco-system.⁶ However, there is a third perspective, which is close to political ecology approach. According to this perspective, dividing knowledge into scientific and indigenous is flawed, since scientifically valid knowledge cannot be separated from its indigenous base.⁷ According to this view, indigenous knowledge does not have either positive or negative relationship to the environment, this so-called relationship was created by the Western scholars, reflecting the dichotomy between tradition versus modernity in the distinction of indigenous *versus* scientific. This relationship separating indigenous from scientific, either in a positive or negative view indirectly helps to open up remote indigenous habitats for the contemporary global capitalist accumulation.

Examining the case of the Mandi farmers (an indigenous group), of Bangladesh, I show how global connectedness in political, economic and ecological way reinforced local marginality. Moreover, I show that the local space is not only shaped by his connectedness, it also shapes. I show these through an empirical case.

The major problems that I address in this research are; how does indigenous knowledge as a concept function in academic and development discourse? How does indigenous knowledge function in a particular indigenous community in question? Also, how does the indigenous community negotiate with the globally connected processes of development through using indigenous knowledge?

1.1. Rationale

For years scientists have labeled local agricultural knowledge of ethnic minorities as destructive to the environment and have tried to end such ethnic

Harwood academic publishers. 2000; G. Masipiquena, A. Persoon and D. J. Snelder. “The Use of Fire in the Northeastern Luzon (Philippines): Conflicting view of Local People, scientists and government officials” in *Indigenous Knowledge and its transformations: critical anthropological perspective's*, 2000.

6 L. Grenier, *Working with indigenous knowledge: a guide for researchers*. Ottawa: International Development Research Centre (IDRC), 1998; and N. Sundar, “The construction and destruction of ‘indigenous’ knowledge in India’s joint forest management programme” *Indigenous Knowledge and its transformations: critical anthropological perspectives*, R. Ellen, P. Parkes & A. Bicker (Eds.), Amsterdam: Harwood, 2000

7 A. Agrawal, “Dismantling the divide between Indigenous and Scientific Knowledge” in *Development and Change* Vol. 26, 1995a, pp. 413-439; and R. Ellen & H. Harris, “Introduction” in *Indigenous Knowledge and its transformations*, Amsterdam: Harwood, 2000

practices that are rooted in local knowledge. This decade-long predominance led governments of many countries to plan projects to conserve local ecology by removing the indigenous people from their environment.⁸ However, the opposite 'romantic' view of indigenous knowledge suggesting that indigenous knowledge is more eco-friendly than western science has political implications since it allows indigenous communities to lobby for and/or fight for their land rights. Therefore, the rationale behind studying this concept is two fold; first, critically examining the discourse of the indigenous knowledge presents the need for an alternative to the indigenous development model. Secondly, the results of research on the Mandi farming community have practical implications on critiquing the concept of indigenous knowledge can be useful for the Mandi, the government of Bangladesh and other local, national, and international organizations to prioritize their development goals in the country

2. Methodology

Ethnographic research on agricultural practices, indigenous knowledge and environment of the Mandi was conducted in two villages named Beribaid and Gayrabaid of Madhupur in Tangail district of Bangladesh in summer of 2005 and 2007. I conducted elite interviews and focus group discussions with Mandi farmers and Bangali executives of local non-government organizations. I also used detailed observations of Mandi farmlands, homesteads and marketing process (including transportation of the produce from the remote areas) to gain knowledge about the popular crops and current cropping pattern. The Mandi as a group was selected because of their unique lineage features and convenience of access to the community. Due to the weather extremes, time and resource constraints no other contrasting groups could be studied. Taking into consideration of the limitation of one case based research I consider this case study to be the essential first step towards an empirical understanding of functioning of indigenous knowledge.

2.1. Methods

In order to keep record of the observation, I took extensive field notes and photos. I conducted semi-structured interviews of two local Mandi farmers (one

8 G.K. Chakma, *Bangladesh: Report on indigenous people and protected areas*. Dhaka: International Indigenous Forum on Biodiversity Indigenous Peoples Conservation Committee. 2004; P. Gain, *The last forests of Bangladesh: dying forests, mistaken plantations and immense sufferings of the forest people feature the forests of Bangladesh*. Dhaka: SHED, 1998; and P. Parkes, "Enclaved knowledge: indigent and indignant representations of Environmental Management and development among the Kalasha of Pakistan", *Indigenous Knowledge and its transformations: critical anthropological perspectives*, Amsterdam: Harwood, 2000.

female) and two NGO-workers that work with the Mandi. My interviews generated information about the Mandi agriculture and indigenous knowledge including sifting cultivation, the history of use of modern farming methods among the Mandi, and the current mode of agriculture and their perception of the relationship between agriculture and the environment.

Interviews of the NGO workers generated information about the perception of the NGO and the project personnel about the Mandi, their agriculture, environment and indigenous knowledge. The data identified the processes that these organizations perform in order to motivate such development through the planning and implementation of their projects.

There were 6 (six) FGDs performed with Mandi farmers of different age and sex groups (Table 1). All FGDs used the same checklist that generated information on the current agricultural practices, their advantages and disadvantages, justification for changing the form of cultivation from swidden to wet rice and other plantation agriculture, and the Mandi's perception of environment, agriculture and indigenous knowledge. The basic focus of these FGDs was on the current agricultural practices and their relationship with indigenous knowledge and environment. Age and sex differentiated data revealed differences of opinion and even of facts and experiences.⁹ All of the participants were married. The males started their agricultural activities only after their marriage when they moved into the wife's or her parents' house.

Table 1: Demographic Features of the Mandi of Madhupur.

Age Groups			Sex		Level of Education		
20-30	31- 70	71+	Male	Female	Illiterate	Up to Class 10	SSC
-	-	11	6	5	8	3	-
-	11	-	6	5	2	8	1
14	-	-	6	8	-	12	2
Total = 36			Total= 36		Total=10	Total = 26	

Author's calculation (2005)

⁹ For example, male and female participants differed about who used to cut the trees during *jhum*. Males said they used to cut the trees but the females of the same age group reported that during the British rule, the forest department used to cut the trees for auction. Both could be true, but such differences of opinion could never be revealed if different sex groups were not contrasted.

2.2. Introducing my case: The Mandi of Madhupur

Bangladesh has about 20 - 56¹⁰ different indigenous tribal groups. The Mandi¹¹ are a matrilineal ethnic group living mostly in North Central Bangladesh.¹² In Bangladesh, there are about 100,000 Mandis who live mainly in the old Mymensingh district and in its bordering areas of the Indian State of Meghalaya at the southern edge of the Garo hills and adjacent plains. Gradually, they have spread through Mymensingh, Netrokona, Sherpur, and Tangail districts.¹³

The Mandi are a distinct ethnic group with unique physical features, social, cultural and economic practices. Physically they are closer to the South East Asians than South Asians. In the recent past, they used to have slash and burn agriculture but now mostly cultivate wet rice in the low-lying lands of the Madhupur forest tract (Figure 1). They often grow cash crops like pineapple, banana, etc. on their higher lands. Although their rice agriculture hardly differs from their Bangali neighbors, Mandi women continue to use agricultural knowledge and practices learned during the slash and burn period in their homestead gardens. The strength and openness of the Mandi women is one of the most appealing features of the group.¹⁴

Christianity and changing government policies have had the largest impact on Mandi communities in recent decades. Unlike their neighbors, more than 90 percent of the Mandi are Christians.¹⁵ Due to the presence of educated Christian missionaries in the neighborhood, the Mandi have high level of literacy.

10 The broad range may be the result of the ongoing debate about some community's indigenous identity.

11 Other ethnonyms are: Garo and Mande. Bangalis tend to call them Garo. Though for the Garos, "Garo" is a outsiders' word, not their own and since their experience with outsiders has sometimes been unhappy, they resent the term Garo. I use the word 'Mandi' to refer to this group because they use it. The word 'Mandi' like many other indigenous names means human being.

12 E. Bal, *They ask if we eat frogs: Social boundaries, ethnic categorization and the Garo people in Bangladesh*. Delft, Netherlands: Eburon, 2000; R. Burling, *The Strong Women of Madhupur*. Dhaka, University Press Limited, 1997

13 S. Islam (Ed). *Banglapedia: National Encyclopedia of Bangladesh*, Multimedia CD, Asiatic Society Bangladesh, Dhaka, 2004

14 R. Burling, *Strong Women of Madhupur*, 1997

15 E. Bal, *They Say We Eat Frogs*, 2000.

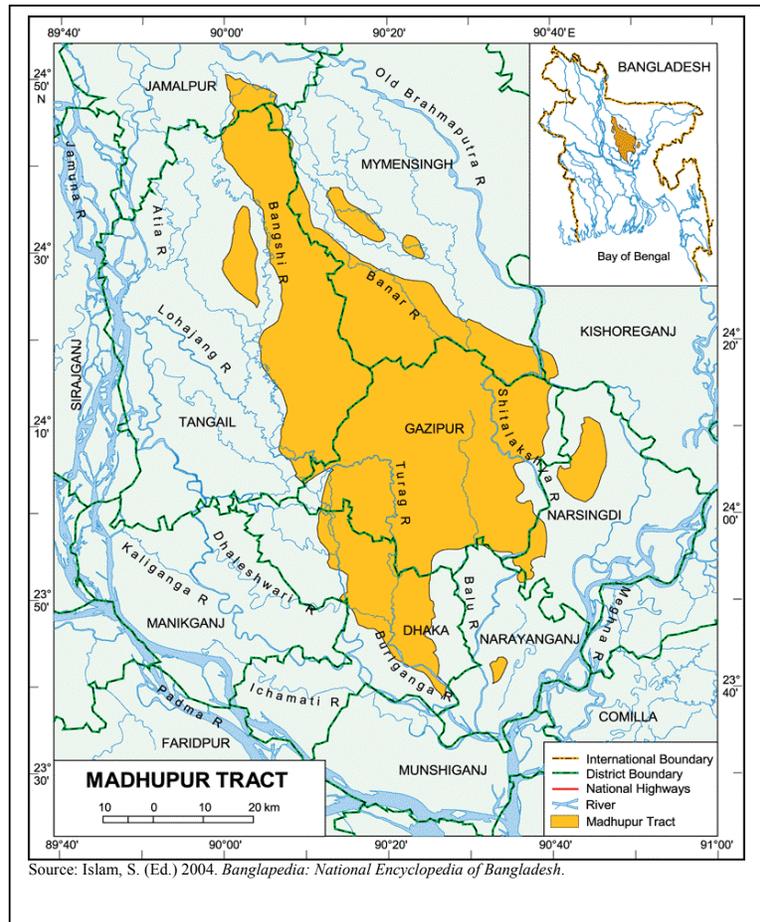


Figure 1: Madhupur Tract

The Mandis constitute less than one tenth of one per cent of the population in Bangladesh, a tiny minority among more than one hundred fifty million Bangladeshis. Inevitably, the Bangalis have a far larger presence in the day-to-day life of the Mandis than Mandis have in the lives of Bangalis. Historically, the Mandi did not own land and whatever land they now hold in possession, they do so without any ownership documents. Their indigenous identity is a major development dilemma that generated a debate around the concept.

2.3. Indigenous Knowledge

A very early definitio¹⁶ of indigenous technical knowledge regards this knowledge as the result of a general intellectual process of creating order out of disorder and not simply as a response to practical human needs.¹⁷ Indigenous knowledge is the unique, traditional, local knowledge existing within and developed around the specific conditions of women and men localized for generations to a particular geographic area. Such knowledge systems are cumulative, representing generations of experiences, careful observations, and trial-and-error experiments. New knowledge is continuously added to this system of knowledge¹⁸ Some are more specific in defining indigenous knowledge as local environmental knowledge (knowledge of plants, animals, soils and other natural components) with practical applications.¹⁹

Indigenous knowledge as an object of study has emerged in the development literature for about 20-30 years.²⁰ The use of the term 'indigenous' began with

16 Indigenous knowledge as a concept stands on contentious and disputed ground. I came across the following terminologies in existing literature - traditional, local, folk, indigenous environmental/ technical knowledge, ethnoscience, rural peoples' knowledge, and so on. All these have been used interchangeably and with shared inter-subjective understanding with the term indigenous knowledge. I shall use the term indigenous knowledge instead of one or the other of all these variants since they all refer to the same focal semantic space.

17 M. Howes and R. Chambers. "Indigenous Technical Knowledge: Analysis, Implications and Issues" in *Indigenous Knowledge Systems and Development* D. Brokensha, D.M. Warren & O. Werner (Eds.). Washington DC: University Press of America, 1980, p. 324.

18 L. Grenier. *Working with indigenous knowledge: a guide for researchers*. Ottawa, Canada: International Development Research Centre (IDRC), 1998, p.1.

19 R. Ellen and H. Harris, "Introduction" in *Indigenous Knowledge and its transformations: critical anthropological perspectives*, 2000, pp. 2-5

20 F. Berkes, J. Colding and C. Folke, "Rediscovery of Traditional Knowledge as adaptive management" in *Ecological Applications*, Vol. 10, No. 5, 2000, pp. 1251-1262; J.S. Jerome. "Intellectual Property Rights and indigenous peoples: a history of the topic as an object of study" in *Regional Worlds: cultural environments and development debate*, 1996.; A. Agrawal. "Dismantling the divide between Indigenous and Scientific Knowledge" in *Development and Change* Vol. 26, 1995a, pp. 413-439; A. Agrawal, "Indigenous and Scientific Knowledge: Some Critical Comments" in comments and response in *Indigenous Knowledge and Development Monitor*, Vol. 3(3-4), Vol. 4(1-2), 1995b; P. Sillitoe, "The development of Indigenous Knowledge: a new Anthropology" in *Current Anthropology*, Vol. 39, No. 2, 1995b: pp. 223-252; M.R. Dove. "Hybrid history and the indigenous knowledge among Asian rubber small-holders" in *International Social Science Journal: Indigenous Knowledge* Special Issue September, 2002, p. 173

Robert Chambers' group at the Institute of Development Studies in 1979 influenced by the disillusionment with the top-down development practices by the end of 1970s due to the lack of understanding of local situations and reliance on misconceptions and erroneous information²¹ As a result development activists started to look for 'alternative wisdom in development initiatives' for their projects' success. Indigenous knowledge for sustainable development served this purpose and emerged as a significant focus of study in the past decades in the global development discourse around the globe. There has been considerable debate about the content, usage and impact of indigenous knowledge in development of indigenous communities. There are three different perspectives; the modernism, the indigenism and the politics of indigenous knowledge discourse. Now I present each of these perspectives one by one with their implications for my empirical case, the Mandi of Madhupur. At the end, I show how the Mandi actors are not mere subjects of this rhetoric rather successfully use this concept as an opportunity.

3. Modernism/ Tribalist Discourse

The inherent ethnocentrism and elitism of twentieth century global science presents a heritage of denial, which has been justified by methodological reductionism and evaluative process in the realm of scientific knowledge that render indigenous knowledge as "unscientific". During the late European colonial period, in scientific fieldwork at South and South-East Asia, traditional local knowledge was evident but mute since the source of such local knowledge in the scientific literature was not specified and indigenous sources were almost never referred to.

With the inexorable rise of modernity at the end of colonial era, this knowledge became relegated to ignorance and superstition. This was seen as useless and negligible compared to the useful and superior scientific knowledge.²²

21 J. Ferguson, *The Anti-politics Machine: 'Development', Depoliticization, and Bureaucratic power in Lesotho*. Minneapolis: Minnesota University Press, 2002; L. Grenier, *Working with Indigenous Knowledge*, 1998; J.C. Scott, *Seeing like a State: how certain schemes to improve human condition have failed*. New Haven: Yale University Press, b 1998; P. Sillitoe, "The development of Indigenous Knowledge: a new Anthropology" in *Current Anthropology*, Vol. 39, No. 2, 1999, pp. 223-252

22 M. Howes, "The use of Indigenous Technical Knowledge in development" in *Indigenous Knowledge Systems and Development*, D. Brokensha, D.M. Warren and O. Werner (Eds.), Washington DC: University Press of America, 1980; M. Howes and R. Chambers, 1980, "Indigenous Technical Knowledge: Analysis, Implications and Issues" in *Indigenous Knowledge Systems and Development*, 1980

Modernism needed to overcome tradition. For more than fifty years, development models were based on knowledge generated in laboratories, research centers and universities and only then transferred as technology to ignorant peasants of the underdeveloped world.²³

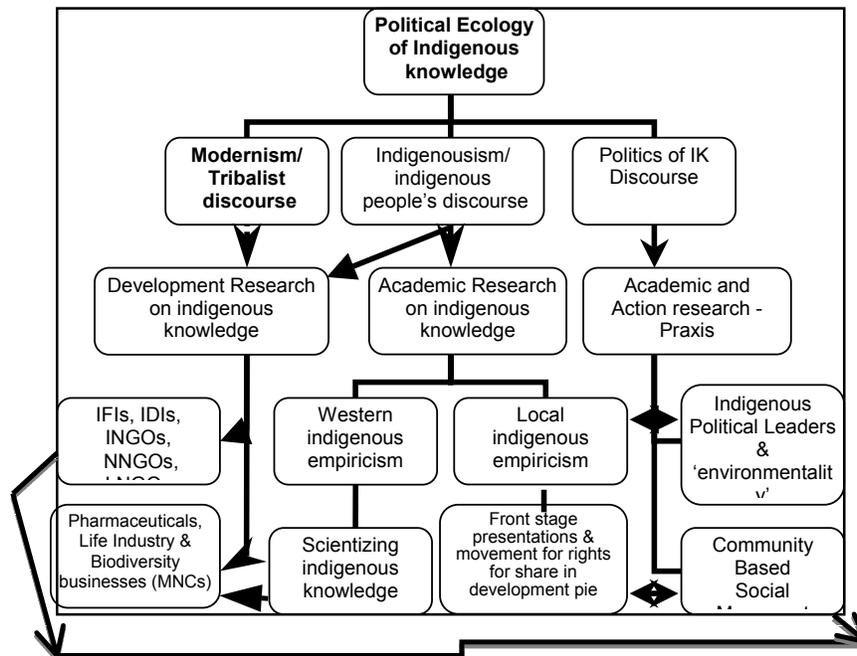


Figure 2: Indigenous Knowledge Debate and its Sides

To the proponents of high modernism based development projects indigenous knowledge appeared to be mystical and irrational. To these scholars, indigenous knowledge had little scientific validity and had negative impact on the environment via abusive practices such as use of fire in the swidden fields and overexploitation of the resource base.²⁴

²³ Chamber and Richards 1995, cited in R. Ellen, R and H. Harris, "Introduction" in *Indigenous Knowledge and its transformations: critical anthropological perspectives*, 2000.

²⁴ A. Masipiquena, G.A. Persoon and D.J. Snelder, "The Use of Fire in the Northeastern Luzon" 2000.

3.1. Modernism – the Mandi Case

In the case of the Mandi, the Garo self image presented a critique of ‘Garo’ as a social category.²⁵ The Garo discourse is shaped by the interaction of both the tribalist and indigenous discourse. In the tribalist discourse, scholars, and tribal people themselves reproduce the image of indigenous groups as primitive and isolated people without history. Even though historical scrutiny refutes the very notion of a tribal category in South Asia, South Asian perceptions of tribe have remained remarkably uncontested. A close scrutiny of the discourse on *Garoness* reveals that their perceptions and presentations of collective self reflect a number of elements of tribalist discourse. Concretely, the history of the Mandis of Bangladesh shows that their contemporary notions of ‘Garoness’ are by no means a reflection of ‘a primitive people without history’ but also the recent outcome of the convergence of colonial and indigenous categorizations through the complex interaction of colonization and resistance, decolonization and state-formation, ethnicism, Islamization, Christianization, and modernization.²⁶

The Mandi self image reflects the difference between the image they wish to convey to outsiders (front stage) and the image they have of themselves (backstage). In backstage discourse, Mandi present their identity first as primitive - fixed by birth and tied with nature in a deterministic and inflexible way. Secondly, their identity is of a ‘pure tribe’ loosing its distinct culture through ‘feeling Garo, acting Bangali’ image. However, in the public image of the Mandi in national, international media, politics and public debates the Mandis emphasize the following: first, they have outgrown their primordial tribal identity and became *modern*, second, the Mandis as proud minority have been victimized by economic and political developments and, third, they are inextricably linked with nature and so cannot live without forests.²⁷

Although the Mandi self image depends on being a pure natural tribe, due to the negative social connotation of ‘tribal’ arising from modernism, they create a public image that they have outgrown this tribalness. Memories of victimization by the Bangali Muslims motivate the Mandis to project images of their vulnerability so that state, national and international development and humanitarian organizations can help protect them from the majority. The Mandi

25 E. Bal, *They Ask if We Eat Frog*, 2000.

26 E. Bal, *They Ask if We Eat Frogs*, 2000, pp. 15-16

27 Ibid.

image as ‘the children of the forest’ is crucial for those living in Madhupur to make sure that their forest does not become an eco-park forcing eviction of the community from their ancestral land.

3.1.1. Madhupur Forest and the Mandi Agriculture

After the independence of Pakistan in 1947 from British rule, Madhupur was declared a reserve forest in 1952 and a national park in 1961.²⁸ However, in 1971 with the establishment of Bangladesh, the Forest Department banned the Mandi from entry and usage of the uplands or forest coverage (*chala*). The Mandi were forced to remain within the low-lying lands of the tract, which were also *khas*²⁹ land. Legally, citizens do not have any possession or usage right to this type of land. They can only use these with government permission. However, both the Mandi and Bangali inhabitants of Madhupur tract considered that their usage of the land gave them disposal right. They even transferred, sold and inherited such land without possessing any Record of Rights (ROR) issued by proper government authority. They do it in two ways: first, secretly continuing *jhum* in the upland tracts despite opposition from the government forces. The other is through creating a new self-image as indigenous community victimized by the majority. The first presents us with how the tribalist discourse works for the Mandi and the second one shows how the indigenism works.

Farmers participating in the FGDs reported that they were engaged in wet rice cultivation and fruit and vegetable plantations like their neighboring Bangalis. According to their account, they stopped their generation-old *jhum* cultivation and switched to ‘modern’ cultivation techniques for the following reasons: the government-imposed ban restricted Mandi’s access to the forests of Madhupur, increased Mandi population put extra pressure on *jhum* land and yield, increased need for more profitable crop production led to search for new production techniques, and social and technological changes made modern cultivation techniques easier to adopt.

Accounts of the farmers identify why the Mandi farmers had to stop *jhum*. One of the farmers said:

28 S. Dey, P. B. Resurreccion and P. Doneys, “Gender and environmental struggles: voices from Adivasi Garo community in Bangladesh” in *Gender, Place & Culture: A Journal of Feminist Geography*, 2000.

29 Khas land is land that is under government’s reserve (*khas*) which is unsettled.

Jhum formally ended at the end of Pakistani regime when Madhupur was declared a 'reserved forest' and the Mandi were forbidden to enter the forest. It was not until the liberation of Bangladesh that the ban actually took effect.

Similarly, the respondents in my study, from all three age groups reported to have done or seen *jhum* cultivation until early 1980s. There are two possible explanations as follows; either *jhum* cultivation continued to be performed illegally decades after the formal ban, or the Mandi were too fascinated with the idea of telling outsiders about their shifting cultivation and thereby tell stories of their parents as their own. However, earlier research findings suggest that the Mandi communities of Chunia (a village close to my study villages) still enter the forest and practice *jhum* and they do this as a form of resistance against the ban³⁰. The ban shows the extent of the role of modernism in the lives of the Mandi.

In sum, indigenous subsistence practices which have emerged from poverty and insufficient resources were regarded as wasteful by the modernists. This continued until recently when the western scholars became interested in traditional knowledge. This was partly because of the failure of top-down development schemes and the crisis in the high modernist projects of science and technology envisioned by the western scholars.³¹

4. Indigenouism

Some scholars referred to the emergence, growth and contemporary attention to the indigenous knowledge as a 'revolution' occurring in the field of development. This romantic view defines indigenous knowledge as 'people's science' and proposes that people with this knowledge are like scientists who have a complex set of classifications and abstract philosophical ideas which can provide systematic accounts of various aspects of the world.³²

Indigenous knowledge is now seen as a way to preserve nature and environment because traditional, indigenous or primitive people are in some kind of idyllic

30 Dey *et. al.*, *Gender and Environmental Struggle*, 2013

31 J.C. Scott, *Seeing like a State: how certain schemes to improve human condition have failed*. New Haven: Yale University Press, 1998

32 P. Sillitoe, "The development of Indigenous Knowledge: a new Anthropology" in *Current Anthropology*, Vol. 39, No. 2, 1998, pp. 223-252; N. Sundar, "The construction and destruction of 'indigenous' knowledge in India's joint forest management programme" in *Indigenous Knowledge and its transformations: critical anthropological perspectives*. 2000.

harmony with the nature.³³ This harmony enables indigenous people to identify plant life, their uses, and relationship with the wider eco-system better than the western-trained scientists. Indigenous knowledge is also regarded to have comparative advantage over scientific knowledge in assessing changes in eco-system. Therefore, the proponents of indigenism suggested using indigenous knowledge as the ‘eyes and ears of science’. For both western and non-western elites alike, indigenous knowledge refer to great traditions – a tradition of acceptance where whatever is indigenous is good and significant for development.³⁴

Interestingly, this grass root-focused paradigm of indigenism emerged from market liberals, who promote market forces and decry state interventions along with the neo-populists who advocate participation and empowerment³⁵. This recognition of the indigenous is also due to the understanding that such knowledge can contribute to the conservation of bio-diversity, rare species, protected areas, ecological processes and to sustainable resource use in general. This view envisioned connecting local peoples’ understanding and practices with those of outside researchers and development workers by recording and scientising the useful and best indigenous practices.³⁶

In recent decades this tradition is articulated through the voices of governments, NGOs, scientists, citizens. Also, some academic and development professionals make indigenous knowledge more acceptable with catchwords like ‘participation’, ‘empowerment’, ‘bottom – up’ that can be slotted into the western development paradigms.

33 Bessaignet 1964 cited in E. Bal, *They Ask If We Eat Frogs*, 2000, R. Ellen and H. Harris, “Introduction” in *Indigenous Knowledge and its transformations*, 2000.

34 M. Howes, “The use of Indigenous Technical Knowledge in development”, *Indigenous Knowledge Systems and Development*, 1980, p. 337

35 Agro-chemical, pharmaceutical, food and seed industry that is termed as the life industry—all share common interest for indigenous knowledge due to scientific and economic benefits. Since the US Supreme Court ruled in 1980 that a human made strain of microorganism could be considered a patentable product, the life industry had become interested in indigenous knowledge. After this rule, regulated and unregulated bio-prospecting in the South became possible in a profitable way.

36 F. Berkes, J Colding and C. Folke, “Rediscovery of Traditional Knowledge as adaptive management” in *Ecological Applications*, Vol. 10, No. 5, 2000, pp. 1251-1262; A. Kalland, “Indigenous Knowledge: Prospects and Limitations” in *Indigenous Knowledge and its transformations*, 2000, p. 324; P. Sillitoe, “The development of Indigenous Knowledge: a new Anthropology” in *Current Anthropology*, 1998

Table 2: Myths of Indigenous Knowledge.

Modernism/ Tribalist discourse	Indigenouism	Third View (Debunking myths)
<i>superstition of savages</i>	<i>science of people though not just science</i>	Dividing knowledge is erroneous. It summarizes diverse sources of knowledge under two categories
no scientific element in it	more scientific than western <i>science</i>	<i>indigenous</i> and <i>scientific</i> cannot possibly be untouched by and separated from each other
traditional and static	can be preserved by recording and codifying	reification of traditional knowledge and loses distinctiveness if archived
depletes and destroys the environment	inherently conducive to environment	Only indigenouism can not explain people's relation with environment
Natural resource bases have to be protected from indigenous practices	Conserving indigenous knowledge will conserve nature and environment	Existing economic and political relations is to be considered to think about environment
Detrimental to development efforts	great utilitarian value for bottom-up sustainable development efforts	Both types of development stakeholders have use of indigenous knowledge

Although the proponents of indigenouism formulated their theory in opposition to the modernistic view of the indigenous, they inherited the same dualism of tradition versus modernity. This dualism persists through relegating the knowledge of indigenous people as something different (less) than what is called 'scientific' and by unifying a wide range of diverse knowledge and practices of varied communities under the same umbrella concept of indigenouism.

4.1. Mandi way of Indigenouism - New Agriculture

The Mandi farmers possessed a vast amount of knowledge about their land, crops, climate change, tree coverage and crop production. They learned techniques of agriculture through ancestral teaching and, in recent years, from Bangali neighbors, NGOs and extension workers. However, to my surprise, when asked they said they did not consider these as knowledge.³⁷

They have given up their traditional way of shifting cultivation to the newer agricultural practices and had to learn and adjust with the newer agriculture. As

³⁷ For similar findings see, R. Burling, Strong Women of Madhupur, 1997.

such, they possess knowledge about both forms of agricultural practices. However, they did not regard this as indigenous knowledge. The respondents of the study claimed that knowledge comes from books and they did not have knowledge. This points to two things: first, the western concept of ‘knowledge’ had a different meaning to the Mandi. Secondly, indigenous knowledge represents an empirically untenable dichotomy based on the representation of the ‘indigenous’ through western lenses.

The front stage discourse about the Mandi conception of knowledge and relationship about environment is similarly exemplified by the portrayal of old agriculture as inherently environment-friendly by younger Mandi males. According to the oldest respondents, during the ‘days of *jhum*’ site selection for cultivation was based on the slopes of land and soil fertility. The latter was ascertained by the abundance of earth-worms in the land. Moreover, due to the British government imposed ban on cutting of *sal* trees, the presence of smaller number of *sal* trees in the particular piece of land to be used for *jhum* was an important deciding factor. Not so surprisingly, according to one of the most educated participants of the FGDs, the rationale for such taboo emerged from the Mandi consciousness about their environment rather than the regulations of the British rulers against cutting *sal* trees. This reflects how an educated Mandi reinforces the ‘children of the forest’ image as the front stage discourse of the Mandi.

For example, the schoolteacher, who held the romantic view of traditional Mandi way of life, emphasized the sacred and supernatural power of the Mandi rituals and agricultural rites and the special environmental ties of the Mandi with nature and the forest. No other participants talked about the Mandi rituals with such emotional vividness. The school-teacher said,

...farmers used to make decision about the sites for *jhum* based on the dreams they had after performing the site selection rituals. If you were asked not to cut a tree in your dream and you still went ahead – terrible things would happen. Someone got killed while trying to cut a very old sacred tree in a nearby village.

This was a sign of a trained understanding of the ‘environment’ inspired by indigenism. The Mandi self-image regarded this sort of indigenism as the ‘front stage’ presentation of their image to the outsiders to prove that they are the ‘children of the forest’. The front stage presentation of indigenism stems from the opposition to the tribalist modernism. Through these self-images of ‘victimhood’ and ‘children of the forest’, they try to interact with the majority and mingle with them without losing their unique Garones. This is a

way to gain access to the ‘development’ by participating in the indigenous discourse.³⁸

The Mandi use their indigenous identity to unite as a group that provide them with the political platform to struggle for their rights as indigenous people in the era of global attention to their indigenous identity as ‘children of the forest’. However, in the next section, I show why indigenous knowledge, in particular, after being criticized for over a decade, is still important in both local, national and international agenda for development of the indigenous communities, including the Mandi of Bangladesh.

5. Towards a Political Ecology of Indigenous Knowledge

Studying indigenous knowledge has a vantage point from the political ecology approach.³⁹ Political ecology opened up the category of environment to explore its multi-form representations. One way to approach this environment is to examine knowledge of the environment and why and how particular forms of knowledge predominate. Critiques of indigenous knowledge argued that it is outlandish for any knowledge to be forever marked or fixed as ‘indigenous’ or ‘western’.⁴⁰ In fact the same knowledge can be classified one way or the other, depending on the interests it serves, the purposes for which it is harnessed, or the manner in which it is generated. Western scientific knowledge and the procedures of generating such knowledge serve western interests. To privilege this over other forms of knowledge and procedures of knowledge generation (indigenous) is ethnocentric and reductionist.

This helps to open up the indigenous habitat for neoliberal expansion. In this case, by romanticizing indigenous as good, indigenousism creates a space for collecting good and useful indigenous knowledge as objects of development intervention. Moreover, the life industry opens up remote indigenous habitats

38 E. Bal, *They Ask if We Eat Frogs*, 2000

39 Watts, 2003 in P.A. Walker, Political Ecology: where is the ecology? *Progress in Human Geography* 29, 1, 2005, pp. 73–82

40 A. Agrawal, “Dismantling the divide between Indigenous and Scientific Knowledge” in *Development and Change*, Vol. 26, 1995a, pp. 413-439; A. Agrawal, Indigenous and Scientific Knowledge: Some Critical Comments” in comments and response in *Indigenous Knowledge and Development Monitor*, Vol.3(3-4), Vol.4(1-2), 1995b; A. Agrawal, “Indigenous knowledge and the politics of classification” in *International Social Science Journal: Indigenous Knowledge*, Special Issue September 2002, p.173; A. Agrawal, “Environmentality: Community, intimate government and environmental subjects in Kumaon, India” in *Current Anthropology*, Vol.46(2), 2005.

for bio-prospecting for herbal medicine and many more. In the process of organizing, recording and separating the so-called useful indigenous knowledge, many local and national non-governmental organizations become involved and the remote indigenous habitat also opens up for their operation of 'sustainable development'.

In reality, the epistemic origin of much knowledge is hidden and this secrecy has contributed to the emergence of a perceived divide between the scientific and indigenous. However, due to the contact, variation, transformation, exchange, communication, and learning over last several centuries, it is impossible to see indigenous and scientific knowledge as separate⁴¹. Much of what we recognize as scientific knowledge of the natural world was constituted during the eighteenth and nineteenth centuries in a way that absorbed pre-existing local knowledge. Part of the residue re-emerged as recognized folk knowledge in the late twentieth century and has been subjected to the kind of cultural revival.

In addition, the transformation of European botanical science occurred through contact with South Asian methodologies of classification during the colonial era. Given the long history of mutual knowledge transfer going back to ancient times, any division between European and Asian botanical systems must be construed as arbitrary. Driven by the "scientific" fervor of twentieth century, western or western-trained scholars could rarely recognize such mutual reciprocity in the pursuit of scientific knowledge that was responsible for undermining the validity of indigenous knowledge as a concept under study, which was reversed at the end of the twentieth century.

When knowledge is divided into two and is being extracted, local indigenous knowledge gets detached from its social, cultural and political context. Turning this 'parochial' and 'relative' local knowledge into scientific knowledge is difficult, if not impossible. Recording, codifying and abstracting such knowledge detaches it from its locale, generalizing it and making it non-indigenous and non-contextual.⁴²

Ultimately, by demarcating useful versus useless knowledge of the indigenous people through 'scientizing' it, knowledge is separated and cloistered from the

41 R. Ellen and H. Harris, "Introduction" in *Indigenous Knowledge and its transformations: critical anthropological perspectives*, 2000, p.7

42 A. Agrawal, "Environmentality: Community, intimate government and environmental subjects in Kumaon, India" in *Current Anthropology*, Vol. 46(2), 2005

people and also depoliticized. It fails to address the embedded power inequality between the indigenous and the non-indigenous that is responsible for the very existence of indigeness. In the end we open up the indigenous livelihood for bio-prospecting by the life industry and development prospecting by the NGOs for their development. After the extraction there is little reason left to pay much attention to the indigenous people. Thus documenting and 'scientizing' such knowledge channel resources away from more crucial political task of transforming existing power relations and provide a means to more powerful social actors to appropriate useful indigenous knowledge.⁴³ It is more sensible to focus on multiple domains and types of knowledge with differing logics and epistemologies than distinguishing the binary.

Therefore, the concept of indigenous knowledge in its romantic view implies a system that is static and outside history because dividing indigenous from non-indigenous knowledge obscures power relations, interactions and contestation between them. The concept of indigenous knowledge, therefore, glosses over differences in self-interest as differences in knowledge and represents political challenges of authority and rights as a pedagogical challenge to reveal unrecorded indigenous knowledge.⁴⁴

Different communities residing even in the same ecological environment can have different indigenous knowledge bases, or different interpretations of the similar knowledge or practices. As such, demarking the territory of the concept, indigenous knowledge becomes problematic. Two tribal groups in Sarawak, Malaysia, had different reaction to timber logging when both were aware of the harmful affects of logging on their sacred environment.⁴⁵ When one group resisted excessive timber logging to save their homes, the other not only accepted such logging but also were involved in it. The second group was obligated to respect their elites who supported the timber merchants. Therefore,

43 A. Agrawal, "Indigenous knowledge and the politics of classification" in *International Social Science Journal: Indigenous Knowledge*, 2002.

44 M.R. Dove, "The life cycle of indigenous knowledge, and the case of Natural Rubber production" in *Indigenous Knowledge and its transformations*, 2000. pp. 230-236

45 I. Nicolaisen, "Timber, Culture, and Ethnicity: The Politicization of Ethnic Identity among the *Punan Bah*" *Indigenous People and the State: Politics, land, and ethnicity in the Malayan Peninsula and Borneo*, R. L. Winzeler (ED). Connecticut: Yale Southeast Asia Studies, 1998, pp. 228, 259; J.P. Brosius, "Local Knowledge, Global Claims: On the significance of Indigenous Ecologies in Sarawak, East Malaysia", *Indigenous Traditions and Ecology: The interbeing of cosmology and community*, J.A. Grim (Ed.), Massachusetts: Harvard University Press, 2001, pp.125- 157

grouping these very diverse set of indigenous values and knowledge into one broad category obscures diversity.

Example: the Mandi Way

As described earlier, the Mandi now grow what the majority Bangalis grow for example banana, pineapple, wet rice, papaya instead of the Mi-mandi (Mandi paddy), cassava and more traditional *jhum* crops. This is because most of their traditional Mandi crops are either extinct or are cultivated by the Bangalis more profitably. According to an old farmer in Gayra,

we do not grow the crops we used to grow during the *jhum* cultivation as those are no longer profitable. Now we grow wet rice three times a year; banana, pineapple, ginger, mustard, soybean, cassava, jute, papaya, vegetables and fruits of different kinds, etc. We grow crops that bring more profit or meet our consumption needs. We grow *boro* rice (High Yielding Variety) in the *naama* or low lands and other crops in their *thaan* or uplands.

Many other traditional agricultural roles of the Mandi farmers have changed or become obsolete due to the new farming technology they have now adopted. For example, their traditional role of preserving their own seeds is no longer relevant since they get rice seeds from the government owned Bangladesh Agriculture Development Corporation (BADC). They buy seeds for other crops like fruits and vegetables from either Bangali neighbours or traders in the marketplace. They also reported that they use chemical fertilizers, pesticides and hormones though only in their plantations or in their rice fields. They do not use these in kitchen gardens or where they grow vegetables for household consumption.

Recently, most Mandi farmers lease out their plantations to *mahajans*⁴⁶ when they cannot afford all the input costs for the crops. Supendra (50) one of my key informants, leased out his land to *Mahajan* for 7 years for only Taka 50,000 (Bangladesh currency) in 2006, because he 'did not have enough money for input costs'. This contrasts with the perceptions of the Bangali farmers in another part of the country. Many Bangali farmers from Trishal, Mymensingh

⁴⁶ Traditional money-lenders were called the *mahajans*. This term had long been used to denote the usury collectors in rural Bangladesh. This type of usury collecting *mahajans* is very rare now. In its more recent usage, *mahajans* are a group of traders who lend money to someone with a contract in exchange of the money or goods or labour. However, among the Mandi farmers, *mahajans* can be any of the following types: leasers, intermediary merchants of agricultural products, and investors in contract growing.

cultivated their own land even in the face of declining yields and financial disadvantages rather than leasing out.⁴⁷

The decision to produce a crop was influenced by factors like cost of living and financial strength of the household. Mandi farmers chose the crops that had most potential for better yields and prices. They would grow rice for their own consumption and sell any excess. In the case of banana or pineapple plantations, they would prefer bananas over pineapple as bananas have a shorter growth period (9 months) than pineapple (18 months). Soybean, mustard, indigo also have similar advantages, as banana and Mandi farmers are interested to grow these crops.

I find it fascinating to expose the profit motivation among the respondents of this study. Subsistence concerns had overridden their so-called environmental consciousness. I do not tend to say that these people do not care about their forest, they do. I argue that they cannot protect it by being the ‘children of the forest’ and starving at the same time. They have children to feed, and for this reason they needed money which comes quickly only from cash crops like bananas or pineapples. Answering why they always need so much cash, one Mandi farmer reported, “the Mandi day-laborers were hired by the big tree traders to cut trees of the forest illegally and when they got caught they needed cash for the trial and other legal costs.”

Keeping in mind the dangers of high yielding varieties, I realize that romanticizing about indigenous people as in idyllic harmony with nature while the western world reaches the stars is as ethnocentric as it is to neglect indigenous knowledge as superstition. All the respondents described *mi-Mandi* (Mandi rice) with respect and passion but none was convinced to produce those species for living because it was not a sustainable option today. Discussion on the Mandi agriculture with these farmers was full of front stage images (children of the forest) of the Mandis. This also described the Garo victimization and vulnerability that supports the theory about the front stage image of Garoness.⁴⁸

The word ‘environment’ itself was not a significant part of Mandi lives. However, the Mandi farmers recognized and identified their relationships with

47 S. Luthfa, “Structural Adjustment Policy, Agriculture and Pauperization in Bangladesh”, *The Social Science Review*, The Dhaka University Studies Part D, Vol. 12, No. 1, 2004.

48 E. Bal, *They Ask if We Eat Frogs*, 2000

the soil, water, rainfall and trees. Mandi seeds had almost become extinct from the Madhupur forest area. The participants said since they no longer cultivate those crops they did not find any reason to save the seeds. This reveals a very significant point that the Mandi are no more (or less) environmentally conscious than the farmers of non-indigenous origin. Just as during crop selection the farmers would select to grow the crop that had shorter growth period and lower input cost and higher price in the market. In such decisions, environment is a minor issue. However, looking at it from a macro political ecology point of view, this loss of bio-diversity is non-repairable for our ecology.

Their recent agricultural practices are no different than any Bangali farmers. Their knowledge about this new livelihood option is also similar to that of the Bangali farmers. Therefore, their knowledge is not indigenous in especially positive way, rather it is knowledge that any farmers anywhere in the world could possess about their specific livelihoods. The difference among the Mandi and Bangali farmers lies not in their possession of knowledge, rather in the fact that, the Mandi are deprived by the non-indigenous people through absence of land rights, government sanctions against their entrance to the forest, lack of resources, oppression and violence based on their ethnic identity and social categorization as tribal for centuries if not longer.

What the third view overlooks is the fact that creating this dichotomy regards the indigenous people as having no agency of their own. They always remain at the receiving end of the scientising process with no history, no resilience and no politics of their own. The politics of indigenous knowledge accounts for how the indigenous community acts to negotiate and bargain with the governmental forces.

5.1. A weapon for the both: the Mandi way

Knowledge is neither static nor an end in itself. It cannot create social change unless other factors like existing power structure, over population, impact of market economy, government policy, and so on are taken into consideration. Moreover, dividing knowledge into indigenous and scientific dichotomy and regarding indigenous knowledge as having either negative or positive impact on environment is an ineffective way to deal with knowledge, agriculture and environment of the people of indigenous communities. In this section, I present a description of different development actors, how they form different sets of clusters and their diverse politics around the indigenous knowledge rhetoric.

5.1.1. Cluster one

This cluster consists of actors such as development researchers, international development institutions including international financial institutions like World Bank, and other international aid agencies, and national and local NGOs that accept development funds from the above institutions as well as, multinational pharmaceutical companies and life industry. The development researchers emerging out of the discourse on indigenism, are the proponents of retrieval, recording and dissemination of indigenous knowledge for development with a bottom up participatory focus. However, since indigenism is embedded in the basic dichotomy of modernism, these researchers cannot allow people to be actors of their own fate. They play the role of modernizers. Indigenist scholars prescribe to fix the problems of the less-developed world by assisting them with their local knowledge. Their optimism for increases in financial and programmatic interest of UK or US government’s funding agency through the use of scientising indigenous knowledge points to the vested interest of these scholars with the international funding agencies.

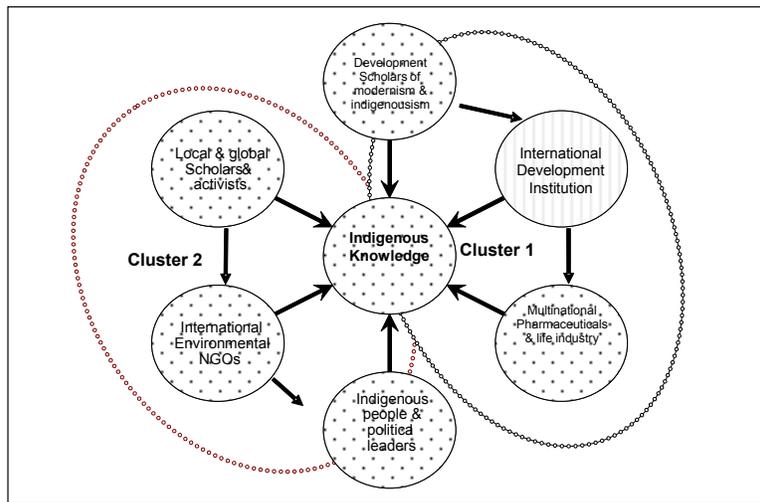


Figure 3: Weapon of the Both

Most important IDIs were created during the cold war to encourage third world countries to develop western style capitalist democracy. They all hold a high modernistic ideology with a neo-liberal approach. Their goal is to simplify, generalize and bring every society under the umbrella of ‘development’. The

historical goals of such institutions involved economic growth, growth with equity, basic needs, which had to make room to invite participatory development, sustainable development, sustainable livelihood, and so on to accommodate alternatives to failed development projects. Indigenous knowledge is one such alternative weapon for the development scholars, IDIs and multinational pharmaceutical industry.

These institutions invested a great deal of their research and development funds in the less-developed regions of the world to 'scientize' indigenous knowledge as a way to achieve tailored social change in those regions. Considerable amount of money was invested to create databases of facets of indigenous knowledge that are useful for the development.⁴⁹ There exists contradictions in such endeavors, for instance, World Bank, through its 'scietization' projects; first, artificially divide indigenous knowledge into useful and useless. Secondly, the indigenous is separated from the base and from the people who posses this knowledge. For the developers like the World Bank, when the useful knowledge is extracted little is left for the people who possessed them, as the process of scientization itself is regarded as conservation.

The most important effect is a political one. Investigating who uses this database, shows clearly that the IDIs benefit the most and communities the least. This is more so because the local knowledge when coded and recorded and archived in national research centers, no longer remains the same knowledge nor is it the property of the people from whom it was collected. Therefore, they can easily be exploited by the bio-prospecting of multinational pharmaceuticals and other life industries, the third component of Cluster 1 (Figure 3).

5.1.2. Cluster Two

This cluster includes the indigenous people, their political and intellectual representatives, and the environmental NGOs (like Genetic Resources Action International, Third World Network). These components act as academic and political lobbyists for transnational networking to end bio-prospecting from the indigenous people of the south. Now this cluster includes both modernists and indigenouists. The Mandi activists who are fighting against the eco-park in Madhupur are included in this cluster, so are the scholars that criticize both

49 P. Sillitoe, "The development of Indigenous Knowledge: a new Anthropology" in *Current Anthropology*, 1998; A. Agrawal, "Indigenous knowledge and the politics of classification" in *International Social Science Journal: Indigenous Knowledge*, 2002

modernistic and indigenouist view of the indigenous and are fighting to gain control over their endangered livelihoods of Mandi farmers. My rationale behind such a position originates from the very nature of indigenouism – inherited dualism, severance of knowledge from the people, creating opportunities for the powerful social actors to gain from the whole process leaving the local people in subjected ‘otherness’ and not including the existing global, regional and national power relationships in the frame of reference.

Indigenous people, like the Mandi from my case study, reflects the burdens of indigenouism in their front stage presentation of their Mandi self. Cluster 1 is analogous to the anti – politics machine⁵⁰, not necessarily acting with an evil intention but because of the constructed misconception and inherent dualism in modernistic ideology. The Cluster 2, in this case the Mandi activists and scholars uses indigenous knowledge as a weapon to represent ‘Mandiness’, despite this is no longer relevant in their mode of production. They see the danger of indigenouism and falsely identify themselves with the concept as a way to fight for their rights. They view that indigenous knowledge serves as an instrument to get heard in the research and academic arena, which is supported by the information collected by the ethnographic study among them.

Bangalis, who had better knowledge of the official land administration system, often settled in the lands that were once cultivated by the Mandis. Since the Mandi lacked enough knowledge of official rules of the land management systems they suffered a lot. However, the Mandi have now started organizing themselves to obtain land ownership rights for their cultivated land based on the UN declaration for indigenous population. Struggle for land rights is one of the most significant political and social movements among the Mandi in recent years. In this struggle, the concept of indigenous knowledge remains useful.

Moreover respondents did not have any significant understanding of the term ‘indigenous knowledge’, they use their Mandi identity politically. As actors Mandi farmers takes in to account their importance as ‘conservationists’ and use this to protect their natural habitat and resources from neo-liberal capitalist invasions, for example setting up of a eco-park in Madhupur. I do not intend to criticize the Mandi efforts to fight for their rights. My intention is to show how it utilizes its inherited dualism and the false identity of indigenouism to its own service. However, this falsehood, forms their everyday encounter with the

50 J. Ferguson, *The Anti-politics Machine*, 1994.

non-indigenous and allows them to survive market penetration and potential displacement threats.

The concept of indigenous knowledge has gone through a developmental cycle, in which it was first more useful and then subsequently less useful. Originally conceived as a radical conceptual breakthrough this concept succumbed to growing critiques, disillusionment, and rejection. Initially, the concept was a deconstruction of a heritage, a heritage of denial. Overtime, this deconstruction became less deconstruction and more a heritage⁵¹ From a conceptually innovative tool, indigenous knowledge in two decades turned into a clichéd dichotomy- “indigenous knowledge is dead, long live indigenous knowledge”.⁵²

6. Conclusion

Indigenous knowledge has been a popular concept in the development literature both for the scholars and the activists for years. The life cycle of this concept has passed through phases of disregard, enthusiasm, and stern critique. Along this life cycle, the concept of indigenous knowledge involved myths in the scholarly literature as well as in the development discourse. Some of the myths, for example, condemned indigenous knowledge to be harmful for environment and regarded it as superstition while others held romantic view of this ‘people’s science’ to have better ecological insight than scientific knowledge. However, some others critiqued the use of this concept by considering the dichotomy as false.

In this research, I traveled through all these different perspectives in academia about indigenous knowledge. I also collected ethnographic information about the agricultural practices and conception of indigenous knowledge among a group of farmers from the Mandi community in Bangladesh, which revealed that Mandi farmers did not identify their knowledge as indigenous. My analysis of literature and the ethnography about the Mandi led me to construe that different sides of the development apparatus are using the concept of indigenous knowledge for differing interests regardless of the fact that this concept is theoretically and empirically untenable.

51 M.R. Dove, “The life cycle of indigenous knowledge, and the case of Natural Rubber Production” in *Indigenous Knowledge and its transformations: critical anthropological perspectives*, 1994, pp. 350-357.

52 R. Ellen, P. Parkes and A. Bicker, Introduction, *Indigenous Knowledge and its transformation*, 2000

Indigenous people as well as many other interest groups employ the notion of indigenous knowledge to push their varied agenda and, in the process, raise related questions about tradition, locality, and indigenous. They also hold the belief that although they no longer employ indigenous knowledge for their subsistence, traditional indigenous knowledge is valuable for defining their cultural identity vis-à-vis the state and other outside development actors. It became purely a political symbol of strategic value in mobilizing the community against forest department.⁵³ The notion of indigenouness offers these people who are often marginalized in the national politics, a political platform. It also provides a world-wide network and a reason to ask for support and attention from the international aid agencies, human rights organizations, etc. The concept still provides a modern basis of the dichotomization and 'othering'.⁵⁴ This activism stems out of the depoliticized mainstream NGO-led perception of indigenouism, which is not oriented towards change in the existing power relations that is responsible for the disadvantaged position of the indigenous population. The community participation provides a more reasonable approach to the analysis of development process by reorienting state policies to allow members of endangered populations to determine their own future, thus facilitating *in situ* preservation of local knowledge and allowing the local people to gain control over the use of their land and resources, intellectual, physical, and biological. Those who are seen to possess knowledge and resources should also possess the right to decide on how to conserve their knowledge and resources, and how, and by whom will it be used.

53 A. Baviskar, "Claims to knowledge, claims to control: Environmental conflict in the great Himalayan National Park, India", *Indigenous Knowledge and its transformations: critical anthropological perspectives*, 2000, pp. 101-117

54 E. Bal, *They Ask We Eat Frogs*, 2000, pp. 36-37