

Women, Iron, and Environment in the Traditional Khasi-Jaintia Economy (Pre-Colonial and Early Colonial period)

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Abstract

The women in the Khasi-Jaintia hills played a decisive role in the growth and commercialization of the traditional iron manufacturing industry in these hills which dates back to antiquity. The industry remains undisturbed till it was replaced by the factory-made British iron. The traditional iron industry evoked keen interest among scholars since the colonial period. Interesting accounts are given by the colonial writers which give us a peek into the status of this important occupation and the impact it had on the economy. The paper is an attempt to explore the part played by the women in the growth of this industry and the resultant impact it had on the forest resources and vegetation of the region.

Keywords: Environment, Forest resources, Khasi-Jaintia, Matrilineal, Pre-Colonial, Sacred grooves, Traditional Iron Industry

Introduction: The role of matrilineal society is looked upon as the major contributing factor which brought about the success rate of economic advancement in terms of production and resource mobilization among the Khasi group in the pre-colonial economic set-up. Drawing upon contemporary practice in some of the remote parts of Jaintia Hills, we may be inclined to generalize that the earlier Khasi-Jaintia society adopted duo local marriage for men (In which they live in both their mother's and wife's households). A recent experimental study had showed that Khasi women choose the competitive environment more often than men. It may be observed that the most important economic feature of the Khasi society is that the return to unverifiable investment in human capital of girls is retained within the household whereas much in contrast to other societies where only the verifiable components of investment can be retained in the form of bride price or dowry¹. It is understood that since a khasi female is raised exclusively for the benefit of their mothers' and grandmothers' household, their innate competitiveness does not need to be discouraged or competitiveness is encouraged. Thus the Khasi institution which favours transmission of behavior through social learning also favours the transmission of genetically inherited characteristics such as innate competitiveness.

The inhabitants of the Khasi-Jaintia hills could boast for being one of the earliest manufacturers of iron tools. The tradition of iron manufacturing in these hills continued undisturbed throughout the pre-literate period and survived well into the time of British annexation of these hills in the later part of the 19th Century. There are scholars who held the opinion that the Khasis(collectively

¹ Uri Gneezy, Kenneth Leonard John List (January 2008). Gender differences in competition: Evidence from Matrilineal and Patriarchal Society. NBER Working Paper Series, National Bureau of Economic Research, Massachusetts, Cambridge

including the Jaintias) are the authors of the industry in the hills and they could also be probably the first iron using culture among the innumerable tribes inhabiting the North Eastern region. In this context linguistic evidence suggested that the Khasis had an indigenous name of Iron (*Nar*), a word not being used by any other tribal community.²

I. Role of Iron in the Economy

From the Ethnographic and Anthropological records of European workers and administrators published in the form of monographs and articles circulated over the different journals of humanity and science there are numerous references about the conspicuous role of iron in the Khasi and Jaintia hills. Sir W.W Hunter in his official report³ (1879) has noted on the role of the Iron Industry in the Khasi hills. The traditional industry plays an important part in fostering the economy of the people of these hills. The traditional Industry had tune itself more to the demands of external consumption and only a small portion was actually meant for home production. The major part constitutes an important item of export of these hills. But the influx of the cheap iron finished products from England provided stiff competition to the local product which contributed to a steep decline of the industry by the last quarter of the 19th Century.

Lt.Yule in his account of the traditional Industry observed that there are separate centres which specialize in the smelting and manufacturing of iron products. The place from where the ore was mine or extracted need not necessarily be the core area for smelting and manufacturing of iron products He was in awe at the marked effect that the once prosperous industry had on these hills leaving behind trails of big and naked boulders offering a striking reminder on the extent of excavation when the Industry was at its peak. He went on to add that “*so numerous and extensive are the traces of former excavations that . . . one may guess them to have occupied the population for twenty centuries*”⁴ Some of the existing ethnographic records⁵ bear enough evidence revealing the role of Iron as the most decisive trade item contributing to the bulk of the national income of the Khasi State. Colonel Lister had in 1853 mentioned that the amount of Iron in the form of hoes and in lumps of pig iron exported from these hills to the plains of Assam and the Surma valley was around 20,000 *maunds*⁶. Another report by Pemberton substantiated this observation made by Colonel Lister in which he stated that Iron ore constitute as one of the main items of export from the hills⁷. Records in 1858 have shown that the annual amount of iron exported to the plains from the Khasi hills was estimated to be 1800000 kilograms equivalent to 1800 tonnes which Rs 67500/- at the rate of Rs 37.50p per ton. The Report 20 years later reflected the impact faced by the Khasi Traditional Industry as the figures in 1876-77 showed that the annual export of iron implements fell to Rs 7000/- annually and the imports by the hills on iron nails and other iron finished products from the plains rose to an astonishing value at Rs 18000/- annually. This was the sudden peak of British monopoly on market and trade in the context of which Manchester finished products had taken firm control on the supply replacing everything of the indigenous manufacturing. It is most likely, that the Khasi imports on finished iron products would be very marginal if at all and on the contrary, the

² Namita Shadap Sen, *Origin and Early History of the Khasi-Synteng People*, Firma KLM privateLtd, Calcutta, 1981

³ W.W. Hunter, 1879, *Statistical Account of Assam*, Tubener, London

⁴ Lt.Yule, *Notes on the Iron of the Kasia hills for the Museum of Economic Geology, JASB, Vol.XI, Part II, 1842, pp 853-857*

⁵ Thomas Oldham, *Geology, Meteorology, and Ethnology of Meghalaya*, Mittal Publications Delhi (1984)

⁶ P.R.T. Gurdon, *The Khasis*, Low Price Publications, New Delhi, 2002, p.57

⁷ R.B. Pemberton, *The Eastern Frontier of India*, Mittal Publications, New Delhi (2008) p. 255

exports of pig iron and manufactured iron implements must have been very high and without slight exaggeration the Khasi-Pnar economy was fully dependent on this industry as the mainstay of their economy for at least 200-300 years before the coming of the British. This is in consideration to the fact that the earliest date of iron manufacturing from these hills on the basis of C-14 from an iron smelting site of Nongkrem in Khasi hills goes back 2014 ± 80 years BP⁸

II. Folk Narrative and Iron Trade

Besides these reports and information that are available based on colonial records, the myths and folklores existing in the culture of the Khasi-Jaintia people points to the conspicuous role that Iron had in the socio-economic and cultural of the people. In this context in the chapter dealing with the origin of clan P.R.T Gurdon, records about the oral history on the origin of one of the Khasi clan called the Lalu. The story recounts that the ancestress of this clan in the wake of her exile from across the border of the Khasi-Jaintia inhabited area and after settling in different parts of Jaintia hills finally came into the heart land of the Khasi hills and settled at Nongkrem. Here the legends recounts that this women was instrumental in introducing the art of smelting iron in these hills and also paid every man 20 cowries (shishibidi) per day for helping her to establish a market. Looking at this story which is certainly an embedded historical narration, a new perspective emerged on the character of iron trade among the Khasi. With the scientific report on the antiquity of iron manufacturing already established, it is too illogical to accept that the story of this ancestress should stretch back to the period when iron manufacturing first begin in these hills, as both the scientific date and the story appeared in the same geographical location. The only logical connotation which can be derived from this clan narrative was that iron manufacturing became an art till it was transform into a commodity of trade. Thus a plausible conclusion would be that the ancestress of the clan must have been instrumental in bringing about a commercialization of the iron commodity in spite of the technology being practiced for many centuries before her in Nongkrem village

The story of *U Thlen* or the serpent for example, stated that the monster creature had created great havoc and fear among the people. The serpent was finally killed after he had swallowed lumps of red hot iron which he mistakenly took it for food offered to him daily with herd of goats⁹. The other legend was that of *U Lum Diengiei* in which once upon a time a giant tree by the name of Diengiei blocked the sun, as a consequent of which the earth was covered with darkness. The ever growing branches of the *diengiei* tree were chopped off with iron axes thus restoring peace to these hills. Yet another legend of a waterfall called *Nohkalikai* narrates the story of a woman who committed suicide after being deceived by her second husband to consume the flesh of her own child. The legend, tells of her occupation as an iron ore washer. These stories points to the association of the Khasis with the Iron Industry from a very remote period of time¹⁰.

III. Impact of Iron Mining and Smelting

⁸ Pawel prakop and Ireneusz suliga, 2013 "Two thousand years of iron smelting in the Khasi Hills, Meghalaya, North East India" *Current science* VOL. 104. NO.6 pp 761-768.

⁹ P.R.T. Gurdon. *Opcit*, pp. 98-99

¹⁰ *Ibid*, pp 163

Thus the traditional Iron Industry occupies an important position in the economy of the Khasi-Jaintia hills in the pre-colonial and early colonial period. But pivotal as it was to the economic prosperity of the hill areas, the Industry was bound to have a telling impact on the environment and forest resources of the Khasi-Jaintia hills. The success of the Industry depends on the easy supply of raw materials and other resources needed for its production. Lt. Yule has given a clear description of the method of extraction of the ore. The popular method employed in the extraction of iron ore was the open mould method in which streams are channelized to the granite material where manual poking on the boulder was done by the workers. This was mostly done in the rainy season as it ensured a continuous supply of water.¹¹

The Industry as already mentioned was a pre-colonial development and colonial documentation came at a stage when the Industry was declining. Recently as pointed above it was brought to light that the Iron-Industry in the hill areas was more started than 2000 years ago. Such a time span and duration on the existence of this Industry in these hills, gave us enough basis to presume that this economic activity was bound to have a drastic impact on the surrounding on which mining activities was conducted and the neighbourhood where the smelting process was actually carried out. In the Khasi hills charcoal was the only fuel used for the entire process of smelting and manufacturing. Colonel Yule and even J.D Hooker mentions that the best charcoal was produced from the local khasi oak but whenever this preferred material was not available other species of trees was used for carbonization¹².

The iron manufacturing of ancient Khasis had its direct impact on the forest resources as the demand for charcoal was massive to smelt the large scale exported pig iron. The over exploitation of this resources for market purposes had ridden the Khasi Hills of its primary forest covers. Though some has ascribe competition from cheap English iron for the decline of this industry, it was however, quite evident that non availability and shortage of charcoal contributed to this decay. This was corroborated by P.R.T. Gurdon¹³ who noted that the areas where the metal was available have been completely denuded of timber. The landscape was thus laid barren of trees as the wood was being used for fuel for iron smelting in the days gone by. The denudation of the forest was also caused by the method of extraction of metals from rock boulders which led to large scale erosion of the soil.

The hype in trade of iron by the Khasis with the plains was an effort which demands collective effort of the community as a whole. Considering this fact, it is most unlikely that the people of these hills could have reached a stage so as advance in management of such a transaction. The role of the clan and the greater responsibility vested in the hands of the Khasi women owing to prevailing matrilineal system provided a much needed cohesion which acted as a positive catalyst towards trade and commerce, a field of specialization which is a monopoly of the women section of the society even in modern times

IV. Growth of Environmental Concern and awareness

The study of Environmental history has emerged as one of the approaches to fill some of the gaps in the broader understanding about the past. The goal of Environmental history is to enhance our understanding of how humans have been affected by the natural environment in the past and also how they have affected the environment and with what result. It is essentially a study of human-nature

¹¹ Lt. Yule, *Op.cit*, p-853

¹² J.D. Hooker, *The Himalayan Journals, Vol-II, 1864, p-267*

¹³ P.R.T. Gurdon. *Op.cit*, pp. 58-59

relationship in the past and the long term impact they had on one another¹⁴. The interaction between human societies and their bio-physical surroundings emerged as a distinct field of scholarship in the 1970's as part of the new Environmental Movement¹⁵. The term Environmental history was first coined by Roderick Nash in an article in 1972.¹⁶ In fact, from the 19th Century as the west began to industrialize, many people began to express skepticism about the emerging industrial society, about the degradation of the country side and the nostalgic notions of preserving the environment. Henry David Thoreau in the mid 19th Century and George Perkins Marsh wrote not only about the human impact on the environment but also call for altering the destructive and ravenous relation with the natural world.¹⁷ The publication of Rachael Carson's book "Silent Springs" in 1962 ushered the beginning of the environmental movement in the US and the west in general. By 1979, the American society for Environmental History was established and by 1999 the European Society for Environmental History was founded.

In India M.K Gandhi may be regarded as one of the earliest environmentalist. At a time when popular opinion was in favour of industrialization, Gandhi rejected industrialization as an option for India. After his death his vision was never pursue as politicians, administrators, legislators and scientist were obsessed with the notion that the country's prosperity depended on rapid industrialization. In 1973 India witnessed a powerful environmental movement, the Chipko Movement. As people became more aware of environmental issues, writers as well as historians of the country began to work in this field.

The people of North East India in particular the inhabitants of the hill areas are closely associated with nature. H.O Mawrie a noted Khasi writer stated that 'A Khasi lives with nature and nature lives within him'¹⁸. The Khasi honours nature and all its resources. There is a close communion between God, Nature and man. Human does not unnecessarily distance itself from nature as its life is inter-connected with it. But in the quest to better themselves through new subsistence strategies in the process of growth and progress and to cope with the demands and opportunities of life, human began to breach the hallowed relationship with nature and increasingly began to exploit its resources giving nature itself very little chance to regenerate or to recover. And as man pursues and presses on with his mission to improve his lot, nature itself was thoroughly compromised. This led to the destruction of the forest and the environment leading to in many cases, the emergence of a new form of landscape and vegetation, devoid of the shady green that portrays the glory of the past.

The Iron Industry in the Khasi-Jaintia hills as already discussed had a lasting impact not only on the forest resources but also on the topography and landscape of the region. It was perhaps the result of heavy deforestation that the Industry began to collapse and the smelting sites abandoned.¹⁹. In fact colonial writer wrote in amazement that the whole of Khasi hills was remarkable for the absence of forest²⁰. A contrasting development, probably an offshoot of this impact was the growth of incipient

¹⁴ K. Jan Oosthoek, *What is Environmental History?* <https://www.eh-resources.org>, 2005.

¹⁵ John T. Cumbler, "Environmental History: A Road Map," *A Journal of Environmental and Sustainability*, Issue 19 2009

¹⁶ Roderick Nash, "American Environmental History: A New Teaching frontier" *Pacific Historical Review*, Vol.41, No.3, 1972
Published by University of California Press

¹⁷ John T. Cumbler, *Op.cit*, p-4

¹⁸ H.O. Mawrie, *The Khasi Milieu*, Concept Publishing Co. New Delhi, 1981, p-97

¹⁹ Hamlet Bareh, *The Art History of Meghalaya*, Agam Kala Prakashan, Delhi (1991), P. 97

²⁰ W.W. Hunter, *Op.cit*, p212

environmental consciousness that ultimately resulted in an earliest form of conservation movement represented by the Sacred Grooves in many parts of the Khasi hills. The impact of the traditional Iron Industry on the forest and environment of the Khasi-jaintia hills was perhaps so profound that it may have created an awakening in the minds of the these hill men to revise their attitude towards nature and environment and to relook into the traditional aspect of his former noble relationship with nature. The concept of Sacred Grooves is therefore something which has to be re-evaluated from this perspective. These forests that are scattered in different parts of the Khasi-Jaintia hills stands out as a remarkable contrast to the surrounding grasslands and raises some very interesting question as to the idea that was preconceived before community participation to protect them takes effect. The religious affiliation given to them attached with sanctity and taboo and their identification as abode of the gods once again help to re-invoke the former noble human-nature relationship. Most importantly, however this measure ensures the survival of the primary vegetation within the enclosure of the Sacred Grooves which could have otherwise been swept away by the tide and demands of the traditional Iron Industry. That a new type of vegetation altogether began to swarm the country side and the other parts of the hill areas, will become another interest of research from the botanical and environmental perspective. Environmental issues and the consequent ecological awareness from this perspective must have therefore been experienced by the Khasi people way back in the past when iron started to become an item and a commodity of trade.

V. Conclusion

In post-independent India, the traditional culture with its unique matrilineal element portraying important role of women received the attention of the government of sovereign India. Through the Articles 244(2) and 275 (1) of the Indian Constitution, the Sixth Scheduled was created which empowered the Autonomous District Councils to protect the traditional socio-economic and political set up of the Khasi-Jaintia Hills under the state of Assam. The district council was expected to be buffer institution between the modern state system and the traditional structure of the tribal population. The Sixth Scheduled prohibits the transfer of land from a tribal to non-tribal and the basic structure of the customary or traditional system remains the same under the district councils. The current issue of environmental degradation is also closely linked with the traditional land system of the Khasi-Jaintia community and how the inherent social set up confronts with the government's policy in its effort to tackle issues related to environment degradation. The destruction of the natural resources on the lands which are owned by the clan or the *Rikynti* (lands under the custodian of the youngest daughter of the clan) also followed similar situation when the clan continues to exploit the natural resources for market without any obstruction either from the newly formed district councils or the state government. The situation which concern the *Rikynti* under the control of the clan as per the matrilineal system as it was with iron was also driven by the attractive markets for coal and even timber. Thus environment becomes a victim of over-exploitation owing to this complex system of land ownership and control. And any attempt to redress this issue will lead to infringement of a system that is constitutionally endorsed.

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