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PRESERVING TRADITION IN TRANSITION: EXPLORING IRON SMELTING AND CAREER DYNAMICS IN THE AGARIA COMMUNITY

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ABSTRACT

Rural India preserves the age-old traditional crafts and the ways of creation pass on from the older to the younger generations. This study represents the traditional iron smelting craft of the Agaria tribe of Madhya Pradesh. The Agaria tribe of Madhya Pradesh are experts at manufacturing a variety of products through traditional methods of iron smelting since the Vedic period. It emphasizes the relationship between their craftsmanship, livelihood, and the changing goals of the younger generation. The study examines the cultural and economic significance of iron smelting in the Agaria community throughout history. It also looks into the noticeable change in recent years, with the community's younger generation increasingly pursuing other career options rather than continuing with the traditional craft. This shift raises concerns about the implications of cultural heritage in the face of modern economic realities. It may impact the viability and future of Agaria iron smelting. The empirical research method was employed for data collection through well-structured interviews of 50 artisans and allied workers of Agaria craft. The research provides insights into the processes at work and proposes recommendations for striking a balance between tradition and adaptation within the Agaria community to prevent the younger generations from abandoning the traditional Agaria craft.

Keywords: Traditional Crafts, Agaria Tribe, Craftsmanship, Iron, Craft, Community.

1. INTRODUCTION

The tribal population of India is the second largest in the world. Five states of India that are Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, and Maharashtra are the abode of the Agaria Tribe. They are primarily located in Madhya Pradesh and other central regions of India. According to the Census 2011, Madhya Pradesh has 41,243 as the total urban population of the Agaria tribe and the rural population is 38,387 (Census of India). Situated in the heart of Madhya Pradesh, the Agaria tribe weaves a tale of craftsmanship as ancient as time itself. In the iron smelting craft, the Agaria artisans sculpt not just artifacts but narratives, preserving the beauty of their craft through the ages. In their iron smelting process, Agaria artisans use a primitive and labor-intensive technique involving clay furnaces.

Fig. 1. Bharat Bhavan Bhopal, Madhya Pradesh

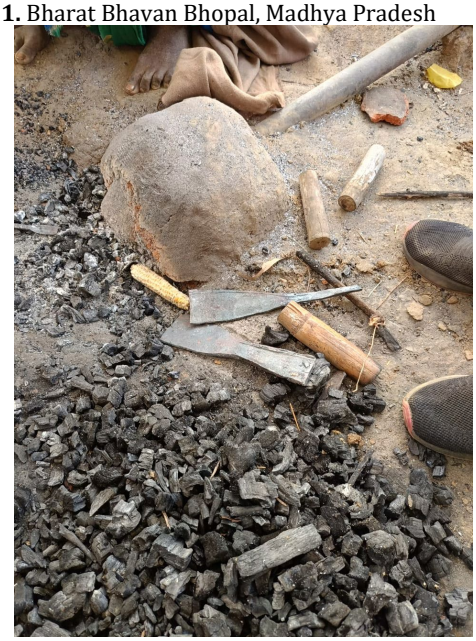

Fig. 2. Iron Melting

The Agarias primarily depend on three kinds of income which are labor, agriculture, and iron metalworking. The Agaria people manufacture and repair household and agricultural tools. In addition, they cultivate their hillsides and steep terrain through agriculture. They typically have uneven terrain that is dependent on rainfall and few irrigation facilities. Additionally, they practice agriculture using outdated methods, which leads to low production which is not enough for their needs. Their main crops include dhan (rice), kutalzi, chana, tiwara, urad, laung, arahar, ramtila, and kod'o (millet) (Amit Soni). The Indian government has taken several actions to improve the socioeconomic status of the nation's tribal population. Tribal Cooperative Marketing Development Federation of India Limited (TRIFED) was established for the welfare of tribal population.

The craft has been passed down through generations, embodying a unique blend of traditional knowledge and craftsmanship. The Agaria tribe's iron smelting is not merely a craft but also a way of life, reflecting their cultural identity and historical practices. The iron products crafted by the Agaria community include tools, utensils, and decorative items. The intricate and skillful ironwork exhibits the tribe's commitment to preserving their heritage and sustaining their traditional livelihood. However, in recent times, challenges such as economic pressures and a shift in the younger generation's aspirations have threatened the continuity of this age-old craft, raising concerns about its future. Efforts to document, understand, and support the Agaria tribe and their craft are crucial for preserving this unique cultural heritage.

Fig. 3. Artisans working

The Agaria are a community deeply immersed in their craft and materials, their lives revolving around the sound of bellows and the clang of hammers shaping the iron they work with. They typically don't live long lives, have poor memories, and leave behind no particularly memorable personality.

2. HISTORY

The Agaria tribe has a long history of mastering the art of iron smelting. While the precise origins of the Agaria tribe and their art of smelting are unknown, historical accounts indicate that this culture has been smelting iron for generations. The Agaria people established a distinctive livelihood centered around iron smelting, living in the areas with access to iron ore reserves. The craft involves extracting iron from raw ore through a careful process that includes heating, melting, and shaping the metal into various implements.

Fig. 4. While working

The Agaria community sees iron not merely as a material but as a magical substance with unique properties. A vestal iron is so strong that it can ward off attacks from phantom adversaries, earthquakes, and lightning. 'Aag' or fire is likely the word "Agaria" originated from. The Agaria are not a homogeneous tribe, they are made up of numerous groups that live in isolated locations, differing in minor rituals and even in names, and having no connection to one another. Despite this, they are all connected by their unique appearance, mythology, and way of life. They use the bellows of a specific kettledrum pattern, which are covered in cowhide, and operate with their feet, to extract iron from the ore in tiny clay furnaces.

The Agarias come from the legendary heroes of their tribe, emerging from ancient times in the distant past of their famous myths. The Agarias identify as the descendants of the twelve brothers who were formerly part of the legendary Lohasur. The Lohars, the Agarias or the Asuras, and the Birjias were the three groups into which Lohasur's kin separated throughout time. Lohasur, Koelasur, and Agyasur, among other tribal gods or demons connected to the ancient Asuras, are worshiped by them. Jwala Mukhi, Kariya Kuar, and Logundi Raja are the heroes in their mythology. It is said that their Iron City and the former Logundi Raja realm were attacked and destroyed by the Pandavas. According to other stories, their city was demolished by Lord Krishna.

Amidst the tales of origin, the Agaria tribe's resilience shines through as they continue their legacy of iron smelting, a craft deeply ingrained in their cultural heritage. The art of iron smelting and the production of iron is an ancient Indian industry. Iron smelting and the production of high-grade steel were effectively carried out throughout India and flourished, showcasing the mastery of artisans. Nonetheless, Neogi's suggestion that iron engines of war were in use between BC 2000 and BC 1000 is hard to accept. However, it appears from Herodotus that the Indian warriors in Xerxes' army were armed with cane arrows that were iron tipped. The Agarias migrated from Odisha and central Bihar to the rest of Bihar, Madhya Pradesh, and eastern Uttar Pradesh by the 19th century. After 1857, when India was under British rule, the production of iron was banned, and the Agarias, who were skilled in iron smelting, lost their traditional jobs. Many of them either moved to various places or became wanderers. Moni Ghose from the Tata Iron and Steel Company was able to track down a few Agarias in 1964 who were still knowledgeable about the subtleties of the trade. She convinced them to build and run their historic iron-smelting furnaces at Kamarjoda in Bihar and Jiragoda and Chiglabecha in Odisha. Others, such as historians Dharampal and Mahesh Sharma in the 1980s, attempted to track down Agarias and convince them to resume their traditional craft. A team led by Sunil Sabasrabudby discovered several Agaria villages in Madhya Pradesh's Sonebhadra, Wadrufnagar, Surguja, Jaspur, and Mandla districts in 1993–1994, where the locals were continuing their traditional craft. The group studied these people from a techno-economic and sociological perspective, and in 1994 they released a report on it. They found that furnaces used by Agarias in Madhya Pradesh decreased significantly from 100 to less than five. This happened because of the enforcement of limits on collecting wood and iron ore.

People of the Agaria tribe are committed and hardworking. Currently, the Agaria community artisans are moving away from the traditional iron smelting method and using the easily accessible iron in the market to make artifacts. Agaria work sheds at present hardly have "Kothal" or mud furnaces. Traditional air-blowers known as "chapua" have been replaced by electric fans. The traditional process of smelting iron is gradually disappearing. Agaria craft's business is also being impacted by the large number of affordable, well-furnished factory-made agricultural and household instruments. Consequently, people are shifting to different professions and relying primarily on labor and agriculture to support themselves.

Fig. 5. New Fan for clay furnace

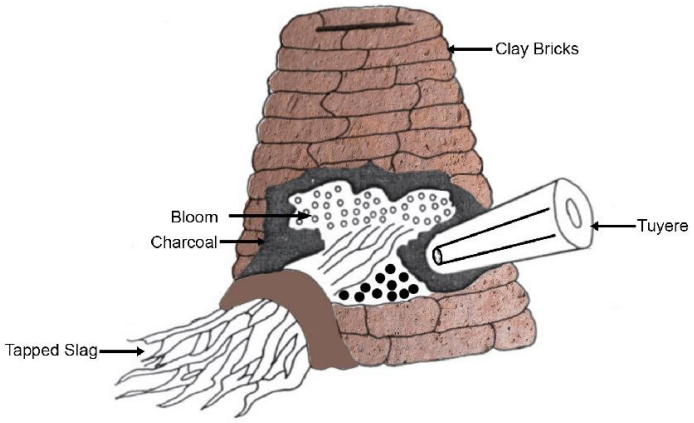

Fig. 6. Old clay furnace

Fig. 7. Working tools

3. LITERATURE REVIEW

1. Chiranjit Goria studied the traditional indigenous methods that the Agaria tribe used for iron smelting. The Agaria iron smelters' ethno-technological analysis indicated that the Central Indian Agaria tribes were able to produce forgeable iron from their small furnaces and had the knowledge of the procedures involved in producing iron. Nevertheless, native Agarias smelting methods and procedures, which had been thriving in the nineteenth century, had to take a back seat during the first ten years of the twentieth century.
2. Some of the fundamental characteristics of the Agaria tribe of Sonbhadra are highlighted by Crook W. (The tribe and caste of the North-western provinces of Oudh VOL. I. 1896). The Agaria tribe, organizational structure, festivals, tribal council, religious beliefs, physical characteristics, food, tattoos, social uses, occupation, marriage laws, family structure, and ceremonies. Additionally, Crook describes how Agaria of Sonbhadra prepares iron from ores and the reasons behind their departure from their customary occupation.
3. Deepak Dwivedi et al. (2021) explored the exceptional corrosion resistance of iron using ancient Indian iron-making practices. The Iron pillar standing tall since the fifth century AD in Delhi is an example of exceptional corrosion-

resistant iron. The researchers have examined the iron created using traditional techniques by Agaria tribes residing in central India.

4. Dr.K.S.S. Vara Prasad, (July 2021), in his study on" Emerging Tribal Art Trends in Modern Design- An Empirical Study" observed that the individuality of the tribes, their customs, beliefs, philosophies, and other practices might lose to commercialization and modernization.
5. Dr.Kamruddin studied the Agaria tribe of Sonbhadra, Uttar Pradesh, and mentioned the low-income level of the Agaria's tribal people.
6. B. Prakash in his archaeometallurgical study concluded that India perfected the art of manufacturing objects like iron pillars situated in Delhi.
7. Through S.Udayakumar's experimental study, the ancient iron product manufacturing technology and its importance can be well understood.

4. OBJECTIVE

1. To analyze the economic significance of iron smelting for the Agaria community.
2. To understand the factors affecting the younger generation of the Agaria community to switch career paths rather than pursue their traditional crafts.
3. To provide suggestions to achieve/find a balance between maintaining the Agaria craft and the evolving goals of the younger generation of the community.

5. METHODOLOGY

The iron smelting craft of Agaria tribe residing in district Umaria of Madhya Pradesh is studied
and analyzed to study the economic significance of iron smelting for their community. The first step in learning about the Agaria tribe was through direct observation and interactions with community members and understanding their social lives, traditions, and manufacturing technologies of iron products. The ethnographic methods were employed for the collection of data. The researchers spent time in the field, using the methodological approach that combines quantitative and qualitative techniques to evaluate and explain the economic, sociological, and cultural contexts, the study technique predominantly uses an approach in the natural environment of the respondents. The following methods were utilized:

- In-person visits, observations, questionnaires, interviews, and conversations with Agaria tribes.
- Primary data collection: personal visits, observations, questionnaires, and interviews.
- Secondary data sources: case studies, official records, books, journals, newspapers, magazines, internet.

6. INTERPRETATION

1. AGE

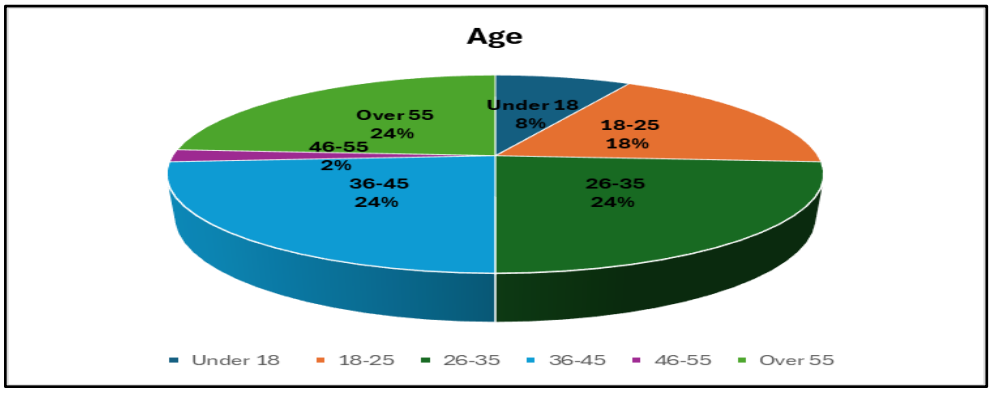

Fig. 8. Age Distribution Within the Agaria Community Artisans

8% of the artisans are under 18 years old, indicating a small but significant proportion of teenagers. 18% fall within the age range of 18 to 25 years. 24% are aged between 26 and 35 years, likely in the prime of their working age. Another 24% are aged between 36 and 45 years. 2% are between the ages of 46 and 55, indicating a smaller percentage of individuals in their late forties to mid-fifties, and 24% of the artisans are above 55 years old, likely in the senior citizen

category. The age distribution reveals a diverse range of individuals across various life stages, from children to older adults, within the Agaria Community.

2. OCCUPATION

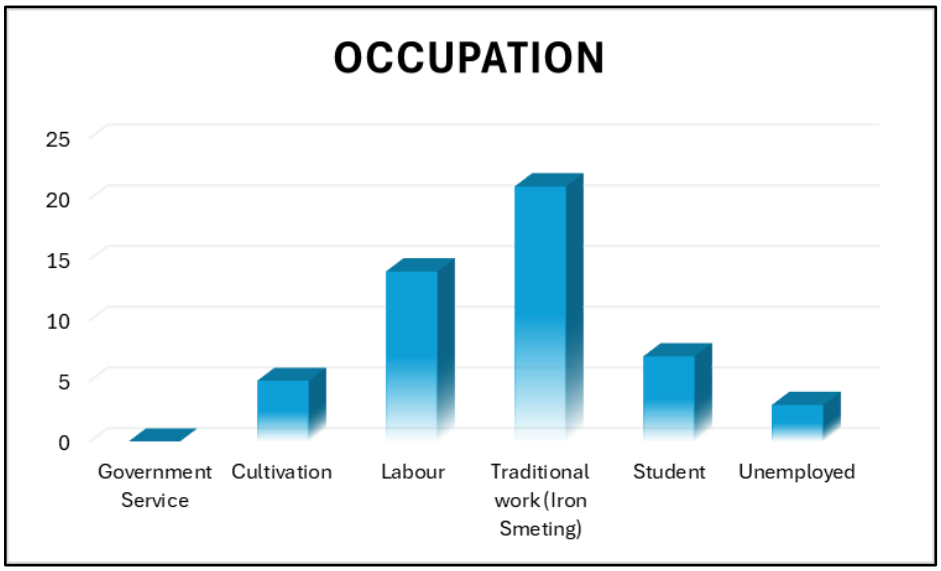

Fig. 9. Occupation Distribution Among the Agaria Community

None of the community members are employed in Government Service. 5% are engaged in cultivation, suggesting a modest proportion of community members involved in agricultural activities. 14% are employed in labor, indicating a significant portion of individuals involved in manual or industrial work. 21% are following Iron smelting craft, which highlights a substantial number of individuals involved in traditional practices and craftsmanship. 7% are identified as students, and 3% are unemployed, suggesting a smaller but still noteworthy proportion of individuals currently without formal employment. The occupation distribution reflects a diverse range of livelihoods within the Agaria community, including traditional occupations, agricultural pursuits, industrial labor, governmental roles, educational endeavors, and a portion of unemployment.

3. SIZE OF FAMILY

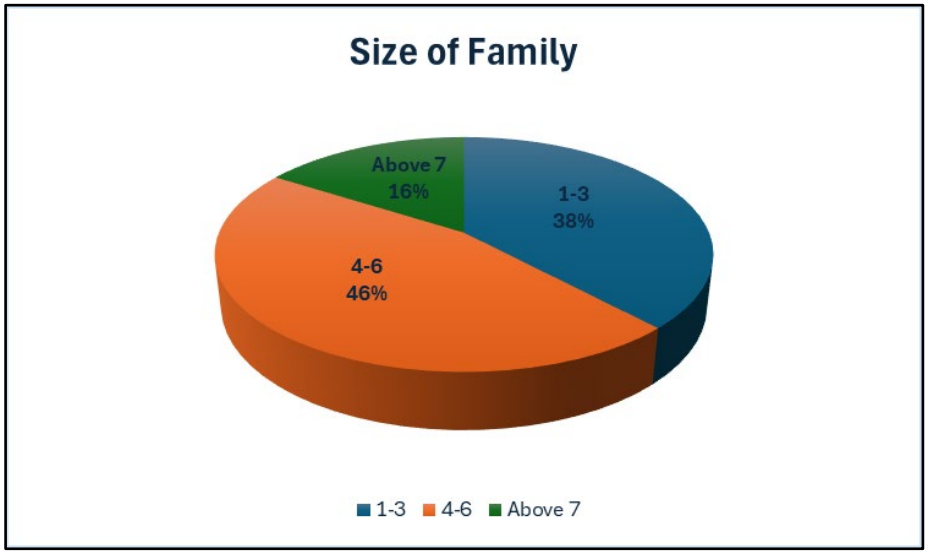

Fig. 10. Family Size Distribution in the Agaria Community

38% of the community households consist of 1-3 members, indicating a significant portion of smaller families within the community. 46% of households have 4-6 members, and 16% of households have more than 7 members, representing a smaller but notable proportion of larger families within the community. The family size distribution reflects a diverse

range of household compositions within the Agaria community, with varying proportions of small, medium, and large families.

4. NUMBER OF YOUTHS INTERESTED.

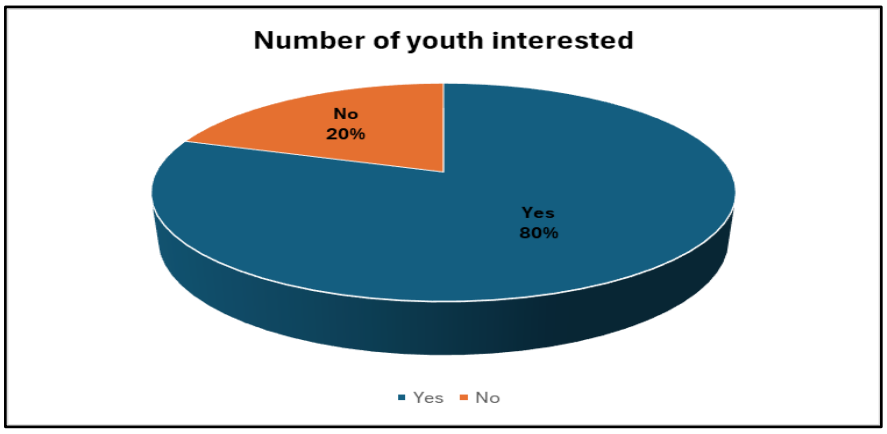

Fig. 11. Youth's Interest in Iron Smelting Traditional Craft

Eighty percent of the youth are interested, suggesting an inclination towards learning about and participating in the iron smelting traditional craft. Twenty percent are not interested, indicating the youth who may not find the craft engaging. The data suggests a positive response from the youth towards the iron smelting traditional craft of Agaria.

7. RESULTS

Social and economic conditions are especially important for the development of any society, family, or individual. The low-income level is a major problem for the Agaria tribe residing in villages Phunga, Kirigi, Kolmi, Ramsa, Batangan, and Harshwah near Amarkantak, District Anuppur.

The ancient Indian technology is surviving through the few tribal people of the Agaria tribe living in remote areas.

- Enforcement and education of policies and programs will help to develop the growth of artisans and prevent the craft from extinction.
- Tribals of remote areas need to be educated and made aware of government policies and programs that exist for their welfare.
- There is a need for more Government policies and strategies for the socio-economic upliftment of these traditional iron smelters.
- Endeavors for proper documentation, understanding, and support are required for the upliftment of the craft and the people of the Agaria tribe as well.
- Efforts through education and awareness programs about this unique indigenous technique by Government or non-government organizations will help to re-establish the craft.
- Further research could delve into strategies for enhancing the economic sustainability of Agaria artisans. This could involve studying alternative marketing channels, exploring opportunities for product diversification, and value-added products to increase profitability.
- Focus on analyzing existing government policies and initiatives aimed at supporting the traditional crafts of the Agaria community. This could identify areas for improvement to better address the needs of artisans.
- Conducting market demand analysis could help identify niche markets or consumer segments interested in supporting the traditional crafts of the Agaria community. This could involve consumer surveys, trend analysis, or case studies of successful marketing campaigns.

8. DISCUSSION

The artisans of the Agaria community are facing significant challenges regarding the survival of their traditional craft. The main issue is the financial uncertainty experienced by the artisans. The intricate artistry and skill-embedded craftsmanship of iron smelting are facing a decline. The rise of industrialization poses a significant challenge to the traditional craft of the Agaria community. The advancement of machines and contemporary manufacturing techniques has brought about a time when the handcrafted works of artisan's face difficulties in fitting into this new era. The mass production and efficiency, with the demands of a rapidly evolving market, the uniqueness and cultural significance of

Agaria craftsmanship is diminishing. Adding to the difficulties is the perceived absence of government initiatives. Although the government recognizes the significance of preserving traditional crafts, the assistance provided to Agaria artisans may not align with the challenges they face. Several factors contribute to the craft's vulnerability such as lack of financial aid, limited access to modern tools, and less promotional efforts. Due to these challenges, the younger generation in the Agaria community is forced to reconsider their professional choices, as other fields offer better pay and stability, leading to a big move away from their traditional craft. Because of this, the craft that used to be a big part of their culture started diminishing. Collaborative efforts among government, non-governmental organizations, and the community could rejuvenate Agaria craftsmanship. Preserving this cultural legacy not only honors artisanal skills but also protects India's diverse traditions. The future of Agaria craft relies on a collective commitment to adapt to change while honoring its long history.

CONFLICT OF INTERESTS

None

ACKNOWLEDGMENTS

None

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