

## DATA NOTES

## Tribal dependence on fly ash in Korba

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### Introduction

Fly ash, a by-product from power plants, is a powdery gray material that is stored in large ash dykes or ponds. This ash is used in making bricks and in cement factories. Fly ash is considered to be a major pollution problem as it is dispersed into the air and pollutes bodies of water. However, for the local tribal populations of Korba district, Chhattisgarh state, fly ash is becoming a source of livelihood. These forest-dwelling groups are leaving their traditional ways of life and are mingling more and more with the mainstream society of India. The goal of this study was to collect preliminary data on variation in

tribal participation in work with fly ash to determine the feasibility of a full scale research project about livelihood transitions.

### Setting

Korba is a moderately small city situated at the juncture of Hasdev and Ahiran rivers, at 22.20 N and 82.42 E and 304.8 meters above sea level in the heart of Chhattisgarh (Figure 1). The total population of Korba city is 520,174 (per the 1991 census). At present, the population is about 828,000. The population of Korba Municipal Corporation is



Figure 1. Location of the study area.

about 385,000; 51.7 percent of the population of the district is from government-recognized tribal groups (i.e., Scheduled Tribes). At present, in comparison to average landholdings in India, there are 160,892 marginal farmers, 18,935 small farmers, 20,582 medium farmers and 760 rich farmers from all of the minority and majority groups working in this district.

This district, which is in the Bilaspur division, has been declared a Tribal (Adivasi) District, and is home to the Korwa people. Even today, the original forest inhabitants of this place have retained their cultural traditions. The district is developing at a rapid pace—with a number of newly built industrial units and factories—because the area is abundant in electrical power.

Korba is rich in mineral deposits, forest wealth and wild animals. The main forest products of this area are **mahua** (*Madhuca longifolia*), **bija** (*Pterocarpus marsupium*), **sagon** (*Tectona grandis*), **sahaj** (*Terminalia tomentosa*), **murhi**, **tendu** (*Diospyro melanoxylon*), **kahua** (*Terminalia Arjuna*), **kalmih** (*Andrographis paniculata*), mango (*Mangifera indica*), **jamun** (*Eugenia jambolana*), **kari** (*Gloriosa superba*), **khamhar**, **dhaman** (*Grewia folia*), **chaar** (*Buchanania latifolia*), and **sarai** (*Shorea robusta*), among others. The interior of Korba District, especially Podi-Uprora, Kenda, Kendai and Lapha ranges, are home for a number of carnivorous animals, including the tiger (*Panthera tigris*), jungle cat (*Felis chaus*), mongoose (*Herpestes javanicus*), striped hyena (*Hyaena hyaena*), jackal (*Canis aureus*), and Indian bear (*Melursus ursinus*).

The Abujhamaria and Pahari Korba tribes number 52,000 and live in sprawling thick forests spread over thousands of acres at distances between 260 km and 400 km from the state capital. Indian government officials who have come in contact with them say these groups do not get enough to eat, are not adequately clothed, and are far removed from mainstream society.

In spite of being a small town amidst natural beauty, Korba has four coal-fired power plants that produce tons of fly ash as a byproduct. Fly ash is an inorganic mixture made up of silicon, calcium, manganese, arsenic, lead, glass particles, etc. The fly

ash is dumped through large pipes from the power plants into open ash dykes or embankments that are situated on the outskirts of the city. The dykes are often ploughed to keep the upper surface even. Some ash is sent to factories for cement manufacture while other ash is destined for artisanal brick-making—a major pollutant in the area. This relatively new state of Chhattisgarh has 46 tribes, the largest number of any Indian state. According to the 2001 census, the total population of Korba district is 644,860 of which the total tribal population is 116,281—57.23 percent of the population of Korba (Chhattisgarh Government Census 2001).

**Hilly Korwa** The Hilly Korwa reside mainly in the Korba and Katghora area. The Korwas were the first inhabitants of Korba town and Korba district. It is believed that they originated from the kora, or the lap, of Goddess mother Koithama (in Hindi, kora means clean/untouched). As the story goes, this baby was born in the presence of gods, and was thus named 'Korwa'. According to the tales of the hills when the Korwa King lost to the British, he along with his subjects took refuge in the jungles of 'Korea Jhadi'. The British, in search of the King, cleared all the jungles of Korea Jhadi. Since then, the people believe they originated from Korea Jhadi. According to these religious beliefs, the Korwa dynasty came into existence when God Shankar tested the Mohalisin leaf (**paan**).

People belonging to this tribe usually carry bow and arrows. They reside near bodies of water and locations where they can access forest products. Even today, these people typically practice the exchange of goods instead of monetary transactions. The Hilly Korwa worship the Gods and Goddesses Kamdev, Saranghin Devi, Dulha Dev, Karma Dar, Seven Sisters, and Annapurna to name a few. Their main festivals are Goura, Hariyali, Dev Uthani (Ekadashi), Karma and Holi (Sandarbh Chhattisgarh 1993).

**Gond** The Gond (population 203,393 in 1961 in undivided Bilaspur district) mainly reside in the villages of Korba Tehsil where they primarily work as farmers or farm laborers, fish farmers, hunters, and collectors of Tendu leaves. At 8.8 percent, the

literacy rate of this population is very low. Gonds refer to themselves as 'Koyathor'. The idols of their Gods are made from Malidha (flour, sugar Ghee). Although Hinduism does not restrict personal choice in this case, they abstain from eating beef for various reasons. The other tribes of Korba do not refrain from eating beef.

Their main Gods and Goddesses are Dev Mahadev, Dulhadev, Narayan Dev, Suraj Dev, Matha Bhai, Bair Mata, Thakur Dev and Bageshwar. Thakur Dev is a domestic God and no idols are made of this God. Bageshwar God protects the forests of his worshippers who fast in his honor. Khaimata is the Village Goddess. The Gonds mainly worship the souls of their deceased ones. Gond women make baskets and ropes (Sandarbh Chhattisgarh 1993).

**Rajgond** In the past, Raj Gond—also known as Khotalwar (Sandarbh Chhattisgarh 1993) were believed to be the ruling dynasty. These people were accorded the highest status in their community. In the Gond community, the Katola Gond sect is a respected one. They received their name from the state of Khatola in the Bundelkhand Kingdom. The population of Raj Gond in Korba District is very small.

**Kanwar** Of the district's tribal population, 21.9 percent is Kanwar. They mainly reside in rural areas of Katghora Tahsil. The main occupation of people in this community is agriculture. They have low literacy rates compared to other tribes in the area, partially explaining why their status is relatively high. They are relatively integrated into mainstream society. Also, many people of the tribe are farmers and landlords, and it is their belief that they are the descendants of the Kauravas of the Mahabharat (Sandarbh Chhattisgarh 1993).

**Bhaiyana** The people of the Bhaiyana tribe (population approximately 15,000) are on the brink of extinction, as are the Binjwar (below) and Manjwar (population 11,124). Most Bhaiyana people are agriculturists belonging to the generation of Kanwar and Gonds. Historically, the Bhaiyana most likely acted as local administrators. Information

about them is available in the ancient facts. They practice the Hindu faith and consider their principal Goddesses Naktidevi or Nak-hin (without nose) of Bilaspur (Sandarbh Chhattisgarh 1993).

**Binjwar** Also known as Binjwal, the Binjwar (population 14,219) are basically Tantriks (people who believe they can evoke the dead and communicate with ghosts) and are believed to have originated from the Mandla and Balaghat Districts. Binjwars are a rural tribe (Sandarbh Chhattisgarh 1993).

**Dhanwar** This tribe's name means bow and arrows. The men are hunters—gatherers, farmers (population 3,822), agricultural laborers (3,677), and people with their own cottage industries (1,787). The main products of their industries are bamboo mats and baskets (Sandarbh Chhattisgarh 1993). Like the Bhaiyana and Gond, the Dhanwar are Hindu.

### Methodology

Day wage laborers (n=148) on the dykes or in brick factories were contacted and interviewed outside their working area after working hours using a convenience sampling technique. Laborers were asked questions about their type of work, their tribal status, and their pay packets. Pay generally reflected the Indian governments minimum wage standards, with unskilled workers garnering a minimum wage that is different from and lower than that for skilled workers.

### Results

People of the Scheduled Tribes traditionally depend on the forest and forest products for their livelihood. Today, they still retain rights to access those products, but are relying on them less. In Korba, there is an abundance of fly ash and fly ash-related jobs. The jobs related to fly ash include: collection and transportation of fly ash, making bricks from fly ash, construction and maintenance of fly ash dykes, farming on fly ash dykes, and cleaning fly ash-related sites. Day laborers typically have the following responsibilities related to fly ash: 1) load ash from power plants onto trucks that take it directly to cement factories and brick plants; 2) at the brick plant, mix, load, arrange,

**Table 1. Individuals from scheduled tribes working with fly ash (n=30).**

Scheduled tribe	No. interviewees working in fly ash	Other activities of group
Korwa	0	Mostly dependent on forest products, and rarely work as paid laborers.
Gond (Koyathor)	0	Mostly depend on collection of tendu leaves. Women make baskets and other crafts that are then sold in the city. Sometimes they also work as laborers in agriculture.
Rajgond	0	Similar to Gond.
Kanwar	16	Most wealthy tribe. Have left the forest life. Some own land. Many educated and some hold government jobs.
Bhainya	4	This small group still resides in countryside but often works as laborers in various sectors.
Binjwar	6	Prefer forest life even if having to undertake other occupations. Specialists in communicating with the dead.
Dhanwar	4	Depend on forest products, but many leaving countryside.

count, and keep track of fly ash bricks; 3) checking for ash spillage in the pipelines coming to the dykes; 4) prepare bricks on-site for immediate use; and 5) continuously plow dykes to keep them level.

Other types of work people from the tribal countryside can get in the city of Korba typically include: laborers in electrical or manufacturing plants, laborers for other farmers, or small scale farming on their own near shanty towns.

Out of the total 148 fly ash workers interviewed for the study, there were only 30 people who identified themselves as belonging to a Scheduled Tribe (see Table 1). Although Scheduled Tribes account for over half of the population in the district, they comprise only about one fifth of the fly ash labor force. However, if the data is broken down by tribe, it is clear that some tribes are better represented than others among the fly ash labor force. Table 1 presents fly ash labor data by tribe and presents some other economic activities of these populations. While

individual numbers of each tribe's population are not available for Korba, the total tribal population is 369,070 according to the 2001 census.

Only one group was found to have a high level of participation. This group, the Kanwar tribe, is one that has abandoned country life to the greatest extent. Whether or not other groups will similarly follow this pattern depends upon a number of factors. However, the ethnic and class specialization that occurs in many societies, particularly India, may lead some of these groups to continue to occupy even larger percentages of the fly ash workforce. Table 2 below shows the number of interviewed fly ash workers who identified themselves as being from a Scheduled Tribe and what percentage of the fly ash labor force is made up of the seven tribes studied.

Collection and transport of fly ash is relatively mechanized, therefore, labor is not employed in these activities. However, 20 to 40 percent of the workforce in other fly ash related jobs are composed of tribal

**Table 2. Percentage of workers involved in various fly ash occupations (n=148).**

Activity	No. inter-views	% of workers inter-viewed	No. tribal workers	% tribal	Observations
Collection of fly ash	25	17%	0	0%	this is a mechanized process in the power plants; few people required
Transport of fly ash	20	0%	0	14%	through pipelines and via truck
Ash brick making	28	19%	5 – Kanwar 1 – Bhaiyina	21%	shift work (3 shifts), making brick or loading trucks
Dyke construction	0	unknown	unknown	unknown	dykes completed 6+ years ago
Dyke maintenance	40	27%	8 – Kanwar 2 – Bhaiyana 2 – Binjwar	30%	work done by contractors and laborers
Planting on dykes	10	7%	2 – Kanwar 1 – Binjwar 1 – Dhanwar	40%	2 of 6 ash dykes were being reclaimed for farming
Crop maintenance	10	7%	2 – Binjwar 1 – Dhanwar 1 – Bhaiyina	40%	
Cleaning ash-related areas	15	10%	1 – Kanwar 1 – Binjwar 2 – Dhanwar	27%	

workers. This percentage is below the overall population percentage of people listed with Scheduled Tribes, but higher than in many other job sectors that ethnic minorities do not currently occupy. Tribal groups are overrepresented in planting and cleaning, and approach the norm in dyke maintenance and brick making, while underrepresented in collection and transport of fly ash, indicating ethnic specialization within this area of employment.

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