

Sukinda Pata: A Case-Study on Changing Perspectives of Commons and Commons Management due to Industrialization in Odisha

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This paper analyzes, based on a household survey, the reaction of local people to the proposed ash-pond at Sukinda Pata, a village near the planned steel-hub of Odisha, proposed by the Jindal Stainless Steel and the social, economic, and environmental impact of the ash-pond. In fact, one of the things that the world needs to explore is – in the words of Orissa’s best socio-economic analyst, Birendra Nayak - the effect of activities in the “invisible commons” like mines and ash-ponds on the “visible commons” like rivers and land.

Key words: Sukinda Pata, ash pond, Jindal Stainless Steel, industrialization, bio-diversity, socio-economic analysis

In this case-study, we analyze, in a specific village of Odisha, Sukinda Pata, located near the proposed steel-hub at Kalinga Nagar in Jajpur district, the attitude towards a specific aspect of industrialization. This article has been inspired by and draws almost exclusively on two articles that appeared in a vernacular fortnightly (Sahu XXXX, Sahu 2010).

Sukinda Pata (SP hereafter) is a village located in the south-eastern part of Kalinga Nagar, the proposed steel-hub of Odisha that witnessed the death of twelve tribals and one policeman on 2 January 2006 in the wake of protest by local people against commencement of construction work by Tata Steel and generally against reckless industrialization in the area that was attempting to throw them out of their land. Jindal Stainless Steel, which has a plant in Kalinga Nagar, has been planning to set up an ash-pond in SP for its 500 megawatt power-plant around that hub. The proposed ash-pond was expected to displace of livelihood 40,000 farmers as well as 5,000 traditional fishermen dependent on nearby rivers. SP has not only 6,500 acres of fertile land where multi-cropping is done, it is also rich in bio-diversity and a glorious example of sustainable living.

Towards granting of the environmental clearance of the Central Pollution Control Board to the above-cited power plant, a public-hearing was conducted in September 2005 by the State Pollution Control Board. People and organizations from around Kalinga Nagar and intellectuals and well-known denizens of the nearby Jajpur Road municipality participated in the hearing and pointed out about the pervasive pollution that this plant would cause. Though the company had not mentioned about the site of the ash-pond in its Environmental Impact Assessment (EIA) booklet that it had published prior to the public-hearing, many in the audience, in their wisdom, talked about the planned construction of the ash-pond in SP and highlighted the socio-economic significance that the village had assumed in the lives of the region. Some even pointed out about the unique “wetland characteristic” of SP and demanded withdrawal of the plan for setting up the thermal plant there. The company had given some data about the location and environment of the approximately 300 acres that they needed inside Kalinga Nagar for the thermal plant. But, though the area required for the ash-pond was of an equal

magnitude, the company, in its EIA, had neither mentioned about the location of the proposed ash-pond nor about its environmental impact. Still, the firm seemed to get away with it.

For a while, in a section of the land given to it by the government, the firm had cleared a 100-hectare area of sal-piasal, kendu-mahula, and different medicinal trees that was the habitat of jungle animals, some of them rare and endangered. But, the firm had failed to displace tribals that have been living in the area for generations. Besides, a few months before the public-hearing, farmers of SP area had formed a Farmers Protection Committee and pledged to fiercely oppose any attempt by the government to handover SP land to corporations. They had also written to the Central Revenue Divisional Commissioner about their objection, pointing out the close relationship of SP with the agriculture, livestock management, and fishing by the 35,000 local people living in five gram-panchayats and nearby villages and a part of Jajpur Road municipality. In November 2006, tahsildar of Sukinda issued individual notices to farmers, which sparked off still opposition from the local farmers, who demanded cancellation of the proposed ash-pond.

SP is as full of natural variety as it is rich in bio-diversity. It is 30-40 meters above the sea-level. It is endowed with 400 acres of marshy clay land (locals refer to it as quagmire). There exists in SP relatively sandy, alluvial soil and upland and lowland enriched by layers of silt. One of the uniqueness of SP was the slow-moving water in stretches of wetland; this slow motion avoids land-erosion.

In 1876, during the construction of the Patia anicut, the Jokadia dam was built to regulate the water-flow from Denei, Gandaanaala, and other mountain springs and channel it to the Patia river. Gandaanaala is enriched by water-flow from the hilly areas of Sukinda and some selected hilly areas of the Kendujhar district (in Odisha). In the rainy season, sometimes the flooding of Gandaanaala becomes severe and keeps land away from SP submerged for weeks – fertile silt gets washed in by this flood-water and enriches SP and has made the north-side agricultural land near the bank of Gandaanaala suitable for winter crops. Similarly, Chandia-Kacheri Gaan water –stream emerging from the Badashuli mountains has made SP fertile for hundreds of years. The land on the Western part of SP, which is harnessed for late-autumn harvesting, gets water during times of low or no rainfall, making it appropriate for winter crops. Total land suitable for such winter crops is around 1,500 acre and is spread across three gram-panchayats near SP.

Almost a century back, seeds of Dalua rice were sown in SP. No bullock or plough was necessary for farming. In the fertile land and amidst water, seed used to germinate and grow, and rice was reaped after four months, in summer (end of Spring). Yield was far higher than that of the current improved varieties of rice. In upland, castor, mustard, ragi, gram, biri, and mung were cultivated. The method was completely natural: just sow and reap. Only now are we talking about natural farming; no one knows how many hundreds years back this started in SP.

That time, there was no vegetable farming in SP. From the fertile wetland, people collected seasonal leafy vegetables like Madaranga, Sunsunia, and Kalama and ate them. They also did fishing in the SP rivers to meet their consumption needs, and fishing was not confined to the fishermen. Round-the-year consumption of fishes and crabs was in fact a part of the *modus vivendi* of people of all classes in the villages. One saw thousands of Thantia crocodiles roaming around during the floods in SP. Even Baula and Ghadial crocodiles were also seen, though in fewer numbers. Besides, many bird varieties – especially swan species - visited SP every winter, as they got plenty of food and security; aquatic birds still visit SP every winter. At other times crne and herons roam around the area with gay abandon.

Table-1 gives an idea of the wealth in the SP area. It takes into account the values of vegetables grown in the area, milk, fish, and income from livestock management. It gives a healthy picture, that would all be destroyed if the ash-pond comes.

Bottom Ash (poisonous ash mixed with heavy metals) consists of silica, lead, iron as well as poisonous and radioactive materials like chromium, zinc, mercury, glass, thorium, uranium, and cadmium. Chemical reaction of these poisonous materials mixes with food and drinks as well as water and adversely affects the health of humans and animals. The 500 megawatt thermal-plant would emit 2,34,934 tons of bottom-ash. The ash-pond would be designed to store five years' fly-ash and 25 years' bottom-ash. After those 25 years, either the ash-pond would be cleaned, polluting the nearby environment, or a new area would become the "captive target" for the ash-pond. If one were to estimate the value of this loss, it would be around Rs.15,000 crores in terms of present-value.

DATA

We visited Sukinda Pata and toured around the area to get a feel of the biodiversity and its environment. Door-to-door surveys were also conducted by field-investigators in 115 households of SP. Some interesting observations are given below.

Interestingly, people are not willing to admit their income in any recorded format. So, figures quoted by them are 50-80% of their actual net income. That apart, people have gauged the distance from the Sukinda Pata by taking the distance from the crop lands or the proposed ash-pond. This has been mostly corrected. It was quite impossible to get responses from the section of the populace that supports the ash-pond on the ground that it is the price one pays for industrialization; they were not willing to vent their opinions publicly or put it in writing. Similarly, the "intellectuals" of Jajpur Road, the nearest big city, were reluctant to open up, though many of them are for big industry.

ANALYSIS

Table-2 give some summary statistics. Average annual income highlights that the typical family in SP is reasonably well-off even in financial terms, leave alone the joys of living in an environment of natural beauty and biodiversity (which is, of course, under

serious threat due to industrialization). Table-3 highlight an interesting information: that the closer the panchayat is to SP, the more likely are the people to have shifted away from cultivation during the last few years; the correlation is indeed quite high (-65%); but it is also true that relatively younger folks stay close to the Pata. Of course, those staying closer to the SP also have had lower income (correlation 86%) and one wonders whether this anyway influences their decision to shift or is influenced by the changing ecology around the Pata. Table-4 highlights that the closer on is to SP the less likely is he or she to expect to benefit from industrialization. Table-5 reveals that the greatest livelihood challenges in SP, the area around which is getting industrialized at a fast pace, are lack of irrigation water, environmental pollution, unpredictable rain – all due to industrialization. In fact, Table-6 delineates that villagers realize the shape of things to come. They perceive that, with growing industrialization of the area, destruction of grazing field, ground water pollution, air pollution, loss of crops would become inevitable part of their lives and – contrary to the dreams that corporations sell them to get their support and land - there would be no employment to take care of them. Table-7 highlights that there is absolutely no support for the ash pond; but, as we have stated earlier, there could be a sampling bias. But, that notwithstanding, some people reckon that a section of the society may gain due to industrialization. During our tour, we had sensed that the younger generation – inexperienced as it is about the world – is the segment of the society that supports industrialization and perhaps the ash-pond too, as a price to pay for industrialization.

CONCLUSION

It is undeniable that the ash-pond would kill Sukinda Pata's biodiversity and its socio-economic strength. But, given the industrialization-mania that the state government is suffering from, whether locals people would ultimately be able to preserve the area's "natural wealth" is hard to say. May wisdom dawn upon the government! Amen!

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Appendix - I

Questionnaire: Sukinda Pata

Name of Village/Block: _____

Panchayat: _____

District: _____

Gender: Male/Female: _____

Age: _____

Profession: _____

Monthly Income: _____ **(Family Size:** _____ **)**

1. What is the distance of your village from Sukinda Pata?
2. What do you do (profession) and since when are you doing this?
3. Since when are you staying here?

- A) < 2 years B) 2-5 years C) 5-10 years
D) >10 years

Only if answer is A

- i) Did you move to this place by your free will?
 - a. If yes, why?

 - b. If no, what circumstances forced you?

 - ii) What livelihood challenges did you face there (earlier place of stay)?

 - iii) Has the current place given you a better chance to face those challenges?
 - a) If yes, how?

 - b) If no, why not?
4. What livelihood challenges do you face in your present place of stay?

5. What was your principal profession 10-15 years ago?
6. Did you enjoy the activity/profession? Why or why not?
7. What is your principal profession now?
8. Do you expect that you will forever be engaged in this profession? Why or why not?
9. What else can you do if the current profession does not give you a good life or becomes extinct?
10. How much do you earn per month from your current profession?
11. Is the earning sufficient, or do you engage in some other *secondary* activity?
12. Are you depending upon the rivers for your livelihood?
If yes, then,
 - a) Directly (irrigation, fishing, etc.)?
 - b) Indirectly (please elaborate)?
13. Are you depending upon the forest for your livelihood?
If yes, then,
 - a) Directly (collecting firewood, NTFP, etc.)?
 - b) Indirectly (please elaborate)?

14. What would you do if these commons (rivers and forests) are destroyed?

15. What actions have you personally taken to protect the rivers and forests?

16. What actions has your community taken to protect the rivers and forests?

17. If the proposed ash-pond is constructed here, how would it affect your livelihood?

18. Are you willing to pay those prices for industrialization in this area?
 - A) If yes, why?

 - B) If no, why not?

19. Have you raised your voice in support or opposition of the ash-pond?
 - A) If yes, how often?

 - B) If no, why not?

20. Suggest some kind of industrialization which will keep all your needs fulfilled, would not increase pollution, and would not destroy natural resources.

21. If you are a farmer, then

A) How many and what crops do you grow per year?

B) Where and to whom do you sell what you grow/produce?

C) How much do you make per month on the average?

D) Does the income give you & family a decent life?

E) Why did you not choose any other profession?

F) Due to the changes taking place here, have you not got any new job or better profession that can give you "better" living?

22. Is there any particular section of your society that has benefited from the industrialization that is taking place around you?

If yes, what fraction and in what way(s) have they gained?

23. Is there any particular section of your society that has suffered due to the industrialization that is taking place around you?

If yes, what fraction and in what way(s) have they suffered?

Table - 1

Estimation of annual income of the Sukinda pata area

		Source of Value	Total cultivated area(Acer)	Value of yield per Acer(Rs)	total income(lakh)
1	i	From rainy season KHARIF paddy	300	6,000	180
2	i	From winter/ Summer Vegetables	100	50,000	500
	ii	From mung, urad, groundnut etc.	200	600	120
	iii	From winter season paddy	500	8,000	40
3	i	cows,buffalows milk	15,000 liters of		573
	ii	From cow dung	15,000 tons of cow dung		60
	iii	From selling of high milky cows,calves,buffalows	500 in number		150
4	i	From live stock production for meat etc.	10,000 in number		200
	ii	expenditure			-233
5	i	From Fish, crab & other edible aquatic creature living in marsh land	350 tons (on an average)		175
	ii	From collection of the above by native fisherman and villagers		50,000 per ton	
6	i	From collection of green leaves, lotus, medicinal plants, kaincha, benna grass(used to prepare mats) different flowers,& firewood			50
	ii	From the fruit orchads, bamboo bushes, firewood trees of the families who are settled in Sukinda Pata itself and beloning to khapurja pada gram panchayat			150
7	i	From the Income of Labourers engaged in fishing,cultivation and livestock production		1,500/200 days on an average, per day Rs 60	180
	ii	From the direct or indirect income of the people who do business of the production of the above		Rs. 500/ year, (15,000 Rs on an average.	75
		Total			22 crore 20 lakh

1 lakh= 1/10 of a million= 100,000, 1 crore= 10 million= 10,000,000

Table-2

Demographic picture of the sample

Panchayat	No of respondents	Age	Annual income (Rs)	Family size	No. of crops grown per year	Number of cattles
Jakhapura	13	52.2	81250.0	5.7	2.9	3.9
Khapuriapada	23	59.3	53181.8	5.4	6.2	7.1
Kumbhiragadia	35	51.2	61588.2	5.7	6.3	4.3
Mantira	25	43.4	38640.1	6.8	4.8	4.5
Vyasanagar Municipality	19	55.8	71666.7	6.7	4.5	11.2

Table-3

Relationship between distance of Sukinda Pata from the village and shifting of the occupation from cultivation.

Panchayat	Distance of Sukinda Pata from the village	Cultivation is main profession	Cultivation was main profession(10-15 years ago)
Jakhapura	2.19	8	8
Khapuriapada	0.90	23	22
Kumbhiragadia	0.30	28	31
Mantira	0.16	8	22
Vyasanagar Municipality	1.34	14	14
Total		81	97

Relationship between distance of Sukinda Pata from the village and percent of people benefiting from industry

Panchayat	Distance of Sukinda Pata from the village	Percentage of section population being benefitted.	Percentage of population being suffered.
Jakhapura	2.19	9%	84%
Khapuriapada	0.90	3%	89%
Kumbhiragadia	0.30	4%	84%
Mantira	0.16	14%	78%
Vyasanagar Municipality	1.342105263	5%	90%
Total			

Table-5	
peoples' response about the livelyhood challenges they face	
Livelyhood chalanges of the present stay	No of response
no irrigation, flood, and draught	33
no vegetables grown here, Air- water polution, less fish availability in Pata, or fall of	30
no irrigation, unpredictable rain, and unemployment	25
no irrigation, unpredictable rain, less yield, and increase in expenditure	21
no response	6
Total	115

<u>Table-6</u>	
Peoples' response about the future livelihood challenges expected out of ash-pond	
Expected effect of ash-pond on the livelyhood of the people	No of response
Loss of crops, destory grazing field, air pollution, ground water pollution	26
our souece of income will be lost, there will be no employment,production of this whole area will be	21
Loss of crops, destory grazing field, air pollution and different deceases.	52
Loss of crops, destory grazing field, air pollution	8
no response	8
Total	115

Table-7

Response of people with respect to effect of Industrialisation and resulting ash-pond.

Response	Did you get any beter job due to industrialisation?	Is there any section which is being benefitted?	Is there any section which is being suffered?	Is there any expectation about future engagement if your present occupation is lost ?	Do you support this ash pond?	Have you raised your voice against it?
yes	1	60	65	70	0	56
no	65	21	3	20	108	6
no response	49	34	47	25	7	53