CASE STUDY

An Indigenous Method of Cremation in Earthen Containers as a Sequel to Disaster Resilience: A Case Study of Kusheshwarsthan Wetland Area in Darbhanga District of North Bihar

Vidyanath Jha

DOI: 10.18811/ijpen.v8i02.10

Abstract

The paper takes into account an indigenous adaptation for cremation in the extreme flood situations in the Kusheshwarsthan East C.D. block of Darbhanga district in north Bihar. With no dry land all around in the vicinity, people have no option other than raising a bamboo platform on which 6 to 8 fit high mud container (Kothi) is placed inside. The dead body is put in a squatting position. The fuels include degrained maize cobwebs, dung cakes, wood splits of mango and desi ghee (clarified butter). Sugar crystals are added to invigorate the flames of the pyre. Wooden boats are hired to ferry the dead body as well as the mourners to the cremation place. Almost a decade-long practice of using degrained maize cobwebs as cremation fuel is an example of resilience during extreme flood disasters. At the same time insistence on using mango wood also for burning a dead body speaks of people's adherence to this plant, even during extremities.

Keywords: Cremation, Floods, Disaster, Earthen container, North Bihar, Maize Cobwebs, Dung cakes, Mango wood.

International Journal of Plant and Environment (2022); **ISSN:** 2454-1117 (Print), 2455-202X (Online)

Botany Department Under LN Mithila University, Darbhanga

***Corresponding author:** Vidyanath Jha, Retired Professor of Botany under LN Mithila University, Darbhanga, Email: vidyanathjha@gmail.com

How to cite this article: Jha V. (2022). An Indigenous Method of Cremation in Earthen Containers as a Sequel to Disaster Resilience: A Case Study of Kusheshwarsthan Wetland Area in Darbhanga District of North Bihar. International Journal of Plant and Environment. 8(2), 149-152.

Conflict of interest: None

Submitted: 15/03/2022 **Accepted:** 20/05/2022 **Published:** 25/06/2022

Introduction

All organisms on this earth have to meet the inevitable end of their lives after completing their life span. Natural resources available in the region are utilized for meeting the requirements of cremations. Humans observe the ritual of disposal of the corpses in a dignified way mostly through burial or cremation. Generally, dead bodies are burnt using wood as the main fuel under an open method. However, the dearth of wood has now led to devising pit-based cremation by using dung cakes as fuel (Fig. 1) (Tewary, 2009; Gupta, 2010). The latter is considered a more efficient method so far as the conservation of energy is concerned. In extreme flood-affected areas, with no dry land available in the vicinity people resort to devising alternative methods to cremate the dead bodies. Normally a dead body consumes 280-300 kg of split wood for full cremation under the open method. However, efficient methods of cremation consuming a lesser amount of wood have also been devised. A practice of burying dead bodies also exists in the area.

Materials And Methods

Investigations were made on emergency measures adopted during extreme floods with water all around for cremating a dead body in the low-lying areas of Kusheshwarsthan East C.D. Block of Darbhanga district. Details of making the earthen container, fuels used in the cremation and other relevant processes were collected. The information procured has been presented in one table and six figures.

Results And Discussion

The rainy season of 2021 witnessed intensive and prolonged water logging over a wide area in the Kusheshwarsthan east block. Cremation in the Mahisaut village (Figs. 2 to 6) in an earthen granary called Kothi attracted wider media attention in view of the indigenous response that the episode witnessed in such a disastrous situation. With no dry land visible for miles together, people resorted to hiring the country-made motorized boats that ferried the dead body, the mourners and the items used in the cremation (Table 1).

Fig. 1: Site of a pit based cremation, alongside a state highway in the district using dungcakes and fuel, at the time of high floods

Table 1: Items used in Kothi-based Cremation in Kusheshwarsthan Area of Darbhanga District

Items	*Details*
Kothi (earthen container)	Made of clayey soil otherwise used as granary in villages (Figs. 4,5 & 6).
Nerha (degrained maize cobwebs200kg)	Used as cremation fuel. (Figs. 3 &4)
Goitha (circular dung cakes 200-250kg)	Used as cremation fuel. (Fig. 3)
Wood splits of mango (100kg)	Used as cremation wood. (Figs. 4,5 & 6)
Bamboo pieces (6, of Chabh variety) over which for carrying the ground. (Figs. 2 & 5)	Used for making platform Kothi is placed and also corpse to the cremation
Sugar crystals (2 to 5 kg)	Used to invigorate the flame.
Poaceous grass (Kharh, a Sachharum sp.)	Used to ignite the pyre (Fig. 4)

Fig 2: A dead body being ferried over a boat for cremation in Kusheshwarsthan area.

Fig. 3: Packed cremation fuels loaded on other two boats

Kusheshwarsthan area, situated at the meeting point of Darbhanga, Samastipur and Saharsa districts has been a low-lying area since ancient times. The region is traversed by perennial rivers like Kosi, Kareh and Kamla-Balan. Kusheshwarsthan wetlands have also been declared a bird sanctuary by the Govt. of Bihar and have been christened as a potential Ramsar site as well (Islam and Rahmani, 2008, Jha, 2014).

The area is known as a repository of fish biodiversity and a major site for both culture and capture fisheries (Jha & Chandra 1997, Das and Kolay, 2014). Constant water logging has helped create a flourishing boat industry in the region. Livelihood aspects in the region have attracted wider attention (Jha *et al.,* 2012, 2014, Jha, 2015 etc.)

The hiring of boats for crossing the distance on the water is the foremost essentiality under the disaster. People in this region are in practice of devising indigenous navigatory devices as well during high floods (Jha, 2020). In the present case no expenses were charged by the boat owners. Similarly, degrained maize cobwebs and dungcakes were also available in the house of the deceased himself for which no extra expenses were incurred Fig. 3 shows boats carrying packed bags of fuel to be used in the cremation. Disaster inculcates a sense of solidarity and most of the items used here did not involve any extra cost.

Fig. 4: Dead body being placed inside an earthen Kothi Set over a bamboo platform.

Kothi-based cremation on a quickly raised bamboo platform is a fine example of how the local people respond to a flood-based disaster that blocks their movement on land and leaves no open space to perform even the last rites.

It was quite interesting to note how people leave no stone unturned to perform the age-old practice of using mango wood in the process. Dried fuelcake made from the dung of herbivorous animals like cow or buffalo was acceptable as cremation fuel.

A fast-growing multifaceted fabaceous plant, locally called manager (*Sesbania* sp.) serves as a lifeline in this region (Jha *et al*., 2011). It burns swiftly like rice straw. But in the present case, it was not used on account of being voluminous which could have created the problem with its portability.

Table 1 incorporates the details of the items used in this semi-opened and semi-closed method of cremation. As against a fully open method of cremation, a closed method is also under the practice that involves pit-based cremation using cow/buffalo dung cakes as fuel. The earthen container is carved from clay by mixing paddy, and barley husks with the same. This adds to the resilience of the dried mud container. The Kothi is otherwise used for storing grains by the local people during normal days. People belonging to Baantar, Dhaangar and Musahar castes have an expert to make these earthen kothis in this area.

150kg of de-grained maize cobwebs are used as cremation fuel as the area that has since emerged as a hub of maize cultivation during the last 3-4 decades (Kumar & Singh, 2017; Singh *et al.,* 2018). Maize cobwebs emit less smoke. Fig. 4 shows the de-grained maize cobwebs loaded as a cremation fuel at the bottom portion. The 1976 breach in the adjacent western Kosi

Fig. 5: Upper half portion of Kothi laid over its lower half with the dead body set in a squatting position along with the fuels. The heir aboard another boat in the vicinity

Fig. 6: Pyre under flame

embankment wiped out the mango orchards from the area, more particularly the grafted (Kalami) ones. High flood of 1987 proved another disaster to the green cover in this area. There has been a long tradition of using mango wood (the wood of un-grafted variety of mango is held sacred for this purpose) During the present episode also the inmates of Mahisaut village collected mango wood from the nearby saw mill at Sahorba, situated at a distance of 6 km from the cremation site. The present cremation used about 100kg of mango wood and 200 to 250 kg of goitha (round dung cakes) were also used in this excercise.

Out of the 6 pieces of bamboo culms used in this process, four were used for carving a raised platform over which the kothi was placed. Two pieces of bamboo were used for carrying the dead body to the cremation ground. As usual,a poaceous grass called 'kharh' was used for igniting the pyre. Sugar crystals were used to invigorate the flame to help early completion of the cremation process.

Kusheshwarsthan wetlands have attracted a globalscientific attention so far as concerns for sustainable livelihood in the region have been expressed (Tsakeridis, 2016). As such there is a need for formulation of a fool proof disaster resilience plan. Wildlife Institute of India at Dehradun has prepared a management plan for the protected bird sanctuary area of Kusheshwarsthan (Hussain and Badola, 2017)

Despite raising of embankments on almost all major rivers traversing the area,the region is suffering from the vagaries of nature. Elevated rail and road bridges have been planned to facilitate easy flow of the flood water.

The area is inhabited by alarge no. of resident and migratory birds although the last few years have witnessed asteep decline in the no. of avian visitors. The water bodies in the region are heavily infested with hyacinth (*Eichhornia crassipes*). The enormous phytomass generated needs to be harvested as bio-energy resource as well as a means of capture fisheries (Jha *et al.,* 2012).

An event like the present one is encountered occasionally and the local people have turned resilient to the same. This semi-opened and semi-closed method of cremation is a way forward in meeting the targets of SDG (Sustainable Development Goals) 30 that envisage ending poverty and other deprivations and must go hand in hand with strategies that improve health and education, reduce inequality and spur economic growth all while tackling climate change and working to preserve our environment. It is relevant to elucidate how folk practices can be useful in reducing the carbon footprint of cremation.

Conclusion

There is a need to devise ways for resilient cremation practice in a disaster prone area like Kusheshwarsthan in Darbhanga district that remains water logged for a considerable part of the year. The area is also known to be a Kalazar affected region as well. After much efforts the Govt. has been able to bring it under control. Implementation of proper disaster mitigation policy could help ease the constraints inflicted by a disaster like high flood that is so rampant in this region. Innovative cremation practices keeping in tandem with local sensibilities need to be devised at the earliest.

Acknowledgments

The author expresses his gratitude towards Sri Santosh Kumar Yadav (Mahisaut, Kusheshwarsthan), Sri Hriday Narayan Choudhary (Beri, Kusheshwarsthan), Sri Govind Choudhary (Sati Ghat, Kusheshwarsthan) Sri Chandra Prakash (Lakshmishwar Museum, Darbhanga) and Dr. Krishna Kumar Jha (Retd. HOD, Hindi, MLSM College, Darbhanga) for their help in preparation of this manuscript.

References

Das, J.P.L. and S. P. Kolay 2014. Ichthyofaunal diversity of Kusheshwarsthan chaurs in Darbhanga district of Bihar. Indian Stream Research Journal 4(5) Doi 10.9780/22307850.

Gupta, A.K. 2010. Potter's wisdom for last journey. Down to Earth, 15th Jan. 2010.

Hussain, S.A. and R. Badola 2017 Management Plan for Kusheshwarsthan Chaur, Bihar (2017-18 to 2026-27). Wildlife Institute of India, Dehradun.139pp.

Islam, M.Z. and A.R. Rahmani 2008. Potential and Existing Ramsar sites in India. BNHS, Birdlife International and Royal Society for the Protection of Birds Oxford University press. 512pp.

Jha, A.K. 2014. Kusheshwarsthan bird sanctuary miscarrriage of a womb. Proceedings of the Indian History Congress, 75th session, Jawaharlal Nehru University, New Delhi.

Jha, BC and K. Chandra 1997. Kusheshwarsthan chaur (North Bihar)-Status and Prospects for Fisheries Development Central Inland Capture Fisheries Research Institute(ICAR), Barrackpore, West Bengal.

Jha, V, AB. Verma and R. Kumar.2011 Livelihood option in north Bihar flood plains - a case study of *Sesbania rostrate* Bremek and Oberm. Ethnobotany 23:143-146.

Jha, V., A.B. Verma, P. Jha, M. Jha and R. Kumar 2014. Wetlands in north Bihar provide a basis to its sustainable development. Journal of Aquatic Biology and Fisheries 2:843-851.

Jha, V. 2015. Indigenous methods of livelihood management in a flood prone region a case study of Kusheshwarsthan area in Darbhanga district of north Bihar. Bioglobia. 2(1): 32-41

Jha, V., T.T. Singh, A.B.Verma and R. Kumar 2012.*Eichhornia crassipes*(Mart) Solms- a shelter belt for capture fishery in flood plains of north Bihar, India. Life Science Bulletin 9(1): 135-138.

Jha, V.2020. Indigenous navigatory devices used during the high floods in north Bihar. International Journal of Plant and Environment 6(4):292-297

Kumar, A and K.M. Singh 2017. A study on maize production in Samastipur (Bihar an empirical analysis.) https://mpra.ub.

Singh, S.B., R.K. Kasana and S.P.Singh 2018.Status of corn cultivation in Bihar, opportunities and future challenges. (https://krishi.icar.gov.in)

Tsakiridis, Alex, 2016, Local Practices of Resilience in Bihar: The Case of Kusheshwarsthan. http//haznet.ca

Tewary, A., 2009. Cowdung cremations catch on in Bihar.https//news.bbc.co.uk-south_asia