

Original Paper*

**Culture and stigma: Ethnographic case studies
of tiger-widows of Sundarban Delta, India**Arabinda N. Chowdhury, Ranajit Mondal,
Mrinal Kanti Biswas, Arabinda Brahma

Abstract. A significant proportion of the population from the villages of Sundarban, India, depends on the reserve forest resources for their livelihood. During their livelihood activities inside the forest, many forest-goers became victims of tiger attacks. Most of the forest-goers are poor people. Husbands are the only bread-earners of the family and, after their untimely accidental death; widows are thrown into extreme poverty and dire hardship. In addition to that, they are subject to social isolation because of the cultural stigma related with tiger killing in the local community. The present case studies from two mouzas (*Note 1*) of Indian Sundarban reflect the sufferings and continued life struggle of these 'Tiger-widows' (locally called Bag-Bidhoba) and different dimensions of stigma that marginalized them from the mainstream community life; the consequent negative impact on their mental health is discussed.

Keywords: Tiger-widows, culture and stigma, Sundarban, human-tiger conflict, mental illness, conservation.

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INTRODUCTION Stigma is a mark of disgrace that sets an individual or group apart. Goffman (1963) described stigma as a process based on social construction of identity. When a person or a family is labeled with stigma, they are considered as a stereotyped group, which generates negative attitude and ultimately prejudice and discrimination (enacted stigma). As a response, the person develops shame and experiences blame, helplessness and distress (felt stigma). As Ablon (2002) notes, "stigma is society's negative evaluation of particular features or behavior". Cultural values and beliefs that define certain conditions may negatively taint and attach a stigma tag to the identities of targeted individuals and their families. In other words, stigma is the interaction of three elements: namely problems of knowledge (ignorance), problems of attitudes (prejudice), and problems of behavior (discrimination) (Thornicroft *et al*, 2007). The life of widows over the globe is a miserable tale of social injustice (United Nations [UN], 2001) and cultural stigma that severely affects their social and economic status as well as jeopardizing their sexual, physical and mental health to an unprecedented degree (Chen, 1998; Begum, 2011). The UN and different female activist groups are concerned with the enormous psycho-social problem of different categories of widows globally, such as, HIV widows, widows of ethnic cleansing, insurgency widows, war widows, widows of mass farmers' suicide (India); finally, tiger-widows, whose husbands were killed by tigers during their forest-based livelihood activities in the Sundarban reserve forest (SRF), India (and also in Bangladesh). Kazim (2011) has thus very

Correspondence to: Arabinda N. Chowdhury, Professor & former Head, Institute of Psychiatry, Kolkata, India.
Stuart Road Resource Centre, Corby, Northants, NN17 1RJ, UK

E-mail to: arabindachowdhury985@gmail.com

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rightly said that “a new caste is developing in the villages on the edge of the jungle: the tiger widows”. The present case studies of tiger-widows from the Sundarban delta, in India will show how the socio-cultural construction of stigma related with tiger attacks not only discriminated them in the community and deprived them from social justice and support but also rendered them prone to mental health vulnerability.

Sundarban, human-tiger conflicts and tiger-widows

The Sundarban, is the world’s largest delta at the mouth of three great rivers, the Ganges, Brahmaputra and Meghna which converge at the Bay of Bengal. It covers an area of 10,200 Km² (42% in India and 58% in Bangladesh). The Indian Sundarban comprises 19 community development blocks; 13 under South 24 Parganas and 6 under North 24 Parganas district of West Bengal state. United Nations Educational, Scientific and Cultural Organization (UNESCO) declared Sundarban as a World Heritage site in 1987. The Sundarban Biosphere Reserve (9,630 Km²) covers the delta south to the Dampier-Hodges line and includes the Tiger Reserve, the Reserve forest and human settlements (**Figure 1**).

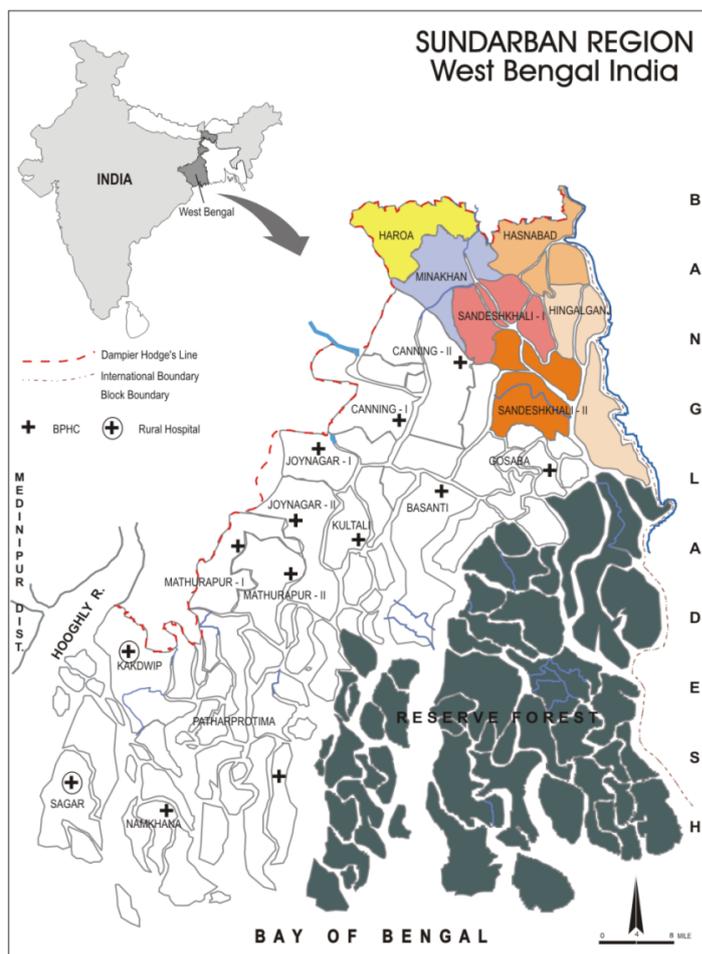


Figure 1. Indian Sundarban (not to scale). 6 coloured blocks are within North 24 Parganas district.

It has three distinct zones: The Core zone (1,700 Km²), including the primitive area; the Buffer zone (1,225 Km²), and the Transition zone, which contains mangrove and non-forest areas. The Sundarban Tiger Reserve (STR, 2,585 Km², **Figure 2**) was established in 1973 and contains the subcontinent’s largest population of Royal Bengal Tigers (*Panthera tigris tigris*). Recent camera trap count shows the number of tigers at 103 (Singh, 2013). The North-West side of STR is surrounded by

network, and almost non-existent electricity (only 17% households have grid connectivity; Centre for Science and Environment [CSE], 2012). Healthcare is poor and inadequate (Chowdhury *et al.*, 2008a). The main forest-based livelihood activities are fishing, woodcutting, firewood collection, honey, wax, crab and tiger prawn seed (TPS - collection of juvenile prawn, *Penaeus monodon*), all of which are potentially life threatening from human-animal conflicts.



Figure 3. A renowned Bouley of Satjelia GP, who was attacked by tiger twice and narrowly escaped.

STR issues permit for honey collection, fishing and woodcutting in the forest, but many people enter the forest illegally (over 10,000 annually). Locally, an illegal trip is called ‘black’ and any tiger attack is called an ‘accident’. The woodcutting team usually consists of 6 to 10 people with a leader called *Bouley* (**Note 3** and **Figure 3**). *Bouley* is a traditional expert, who knows the occult art of keeping the team out of danger in the forest. A *bouley* is said to have supernatural powers to keep the work area protected so that tigers cannot enter into the ‘chanted territory’. Similarly, a 6 to 8 members’ honey collection team is led by a *Mouley* (**Note 3** and **Figure 4**). They are also traditional experts and said to possess supernatural powers to sense forest dangers and prevent tiger attacks with their ritual and chants. *Bouleys* and *Mouleys* are magico-religious traditional people (like forest Shamans) and Sundarban islanders believe that they are blessed by divine force of the Goddess Bonobibi.



Figure 4. A renowned Mouley of Satjelia GP, who confronted tigers face-to-face, four times.

People of Sundarban, both Hindus and Muslims, have a strong faith on folk cult of Bonobibi (Queen of the forest), the guardian deity of the forests and Dakkhin Ray, the Tiger God. Bonobibi is the deity for protection in any forest activity and are respected with high reverence and spiritual devotion (**Figure 5**). Manasa, is a four-armed Hindu folk Goddess of snakes, protector from snake bites. Health risks (both mortality and morbidity) from snakebites are high in Sundarban. People of Sundarban have deep faith in these mythical cults as their protector and fate-regulator, which is being reflected in their day to day socio-cultural discourses and religiosity (Chowdhury & Jadhav, 2012). People usually seek traditional treatment from indigenous magico-religious healers like Sarpa-Baidya (snake-bite healers),

Gunin and Ojha, who by supernatural means and rituals (*jhar-phuk*, chants, herbal roots and enchanted water, amulets or talisman) treat varieties of ailments, ranging from ghost-possession to veterinary problems.

Human-wildlife conflict (HWC), especially human-tiger conflict (HTC) is a regular feature in Sundarban and almost every household in Jamespur and Annpur villages of Gosaba in Sundarban has lost one member to tiger, crocodile or shark attacks (PTI, 2009). Each year about 40 people are attacked by tigers (National Geographic, 2009). There are two types of HTC: inside the forest and outside the forest by straying tigers. The latter has a high potential of retaliatory killing of tigers as well. From 1985 through 2004, about 75 honey collectors were killed by tigers in the forests. In 10 years (2000-2009), 91 people died in tiger attacks, 60 cattle were killed and 73 cases of tiger-straying incidents were reported. There are about 3,000 tiger widows in Indian Sundarban region (Bhattacharya, 2012) and 10,000 in the Bangladesh Sundarban (LEDARS, 2010). The present study is an attempt to highlight the stigma burden (from tiger attack) and social misery of the tiger-widows.



Figure 5. Bonobibi Puja is a great annual community festival in Gosaba Island.

METHOD

Study area The Gosaba block is the last inhabited island before the deep Sundarban forest start (**Figure 2**) and is at the extreme eastern corner of the Sundarban region close to the international border with Bangladesh. Gosaba has 14 Gram Panchayats (a democratically elected local self-government unit), of which, 8 GPs are facing the STR buffer zone (and partly Core area). The Satjelia and Lahiripur villages are situated on the Melmel riverbank opposite to SRF (1 and 2 in Figure 2). Gosaba is the poorest and under-developed block in Sundarban and a significant proportion of the population is thriving on forest resources.

Ethical approval The study protocol was approved by the Ethical Committee of the Department of Health and Family Welfare, Government of West Bengal and the Gosaba Block Panchayat Samity (**Note 1**).

Study design A mix of both quantitative and qualitative methods was used in this research. The primary aim of the study was to explore the nature and extent of human-animal conflicts in the Sundarban village's frontal to SRF. Two villages (Satjelia and Lahiripur) were selected. A door-to-door survey of 3084 households was executed along with focus group discussions and in-depth interviews (IDI); data on human-animal conflicts was reported earlier (Chowdhury *et al*, 2008b). The second part consisted of an in-depth study of stigma related to tiger-killing of 65 widows (38 were from Satjelia and 27 were from Lahiripur Mouza) who were identified in the previous survey and was a primarily quantitative study by using the Stigma questionnaire and clinical examination of mental health problems of 54 widows (who were willing to be examined), and these findings were reported elsewhere (*in press*). Concurrently, in the third part, an ethnographic study was conducted on these 54 widows. In

the present paper a detailed account of community stigma about tiger killing and discrimination of tiger widows and the narratives of distress of 7 widows (4 from Bidhoba Para of Satjelia and 3 from Jamespur of Lahiripur mouza) are presented. One case history (Case 2) was taken from a relative. This study was conducted during 2006-07.

In-depth interview (IDI) An ethnographic case study approach was adopted for these interviews. The research team (ANC, RM) stayed within the community, attempted to blend with the target population and gained local socio-cultural insights from the community through participant observation and by exploring the tacit knowledge. The interviews were quite detailed and lengthy and were conducted over few sessions in 2 to 3 days. The purpose of the interview and any confidentiality matters were explained to all the widows and all agreed to be interviewed. All the widows gave written consent (by thumb impression) to record the interviews and permission to have their photographs published in academic journals. All the names of the widows in this paper have been changed. The interviews were later transcribed. Several long sessions (2 to 3 hours) of IDI with the widows at their cottage was done focusing on the details of the tiger attack incident and its aftermath including grief and bereavement process, stigma and social discrimination issues. They were encouraged to give a spontaneous and detailed account of their stigma-related life events and all were very cordial and open-minded, and narrated the community's discrimination and their experiences frankly and in a heart breaking way.

Mental health assessment A mental health assessment of the widows was part of this research protocol. A detailed mental state examination was carried out and, based on their psychological distress and specific mental symptoms, a psychiatric diagnosis as per DSM-IV guideline (APA, 1994) was given where applicable. This was performed jointly by a professor and consultant psychiatrist and a senior postgraduate trainee. It has been added as *Clinical impression* at the end of each ethnographic report. All widows who had designated mental illness (Chowdhury *et al*, 2013) agreed to receive treatment. Consequently appropriate treatment was given.

RESULTS

Narrative of stigma sufferings The history of every tiger-widow is a narrative of extreme misery, poverty, neglect, abuse and social isolation due to stigma attached to tiger attacks. Following, there are seven case studies highlighting the different dimensions of cultural stigma related with tiger killing. A short appropriate heading for each case has given, to capture the main stigma issues that impacted the widows' life.

CASE 1. DEPRESSION, PHYSICAL ABUSE AND EXPLOITATION, NEGLECT BY FAMILY AND EXTREME POVERTY

The incident Mr. Mistry went with a team of five people in an 8-day wood-cutting black trip inside the SRF in April, 1991. He was a *Bouley*. On the night of the 8th day, the group slept on the open deck of the boat and anchored the boat in the middle of the Kappur khal (narrow canal). Before going to sleep Mr. Mistry 'para' to the boat, i.e., guarded the boat by chant to prevent potential tiger attack. Around midnight a tiger swam across the river, climbed on the boat silently, caught him by the neck and jumped back into the forest. Others woke up by his heart-breaking shouting and saw he was struggling with the tiger. Within a minute, the tiger vanished into the forest. He was a *Bouley* who was supposed to have a supernatural power to prevent tiger attack. When he was taken by a tiger so easily and silently, others became too scared and numb to chase the tiger. They set off for their return journey immediately.



Aftermath and stigma issues Mrs. Mistry was terribly shocked and emotionally shattered after hearing the ‘accident’. As it was a black trip, she could not cry loudly fearing that the forest guard will hear her and ask her to pay a fine for illegal forest entry, harass her, or arrest her. Mrs. Mistry did not have the chance to perform any mortuary rituals as the body was missing. It was a terrible experience having to keep her bereavement secret; she avoided social interaction and felt extremely depressed and fearful. She only wept alone behind closed doors. She developed a suspicious attitude as if others were discussing her husband’s black trip and were planning to inform the forest guards.

Economic distress and struggle to survive Mr. Mistry had *Janata* (local insurance policy), which Mrs. Mistry handed over to a neighbor who promised to get the insurance money back; however, he forfeited the money. When she asked for the money, the man denied her any payment and engaged in quarrel where he verbally abused her. He threatened her that if she demands money again, he will inform the forest guards. She was in extreme financial stress and struggling to maintain the family with two daughters and one son. All were young kids. She had a widowed father-in-law from her in-laws side, and he himself was too poor to help her. She had one brother, on her parental side that was also a fisherman, but kept his distance after this incident. One good-will schoolteacher of a nearby village helped her to get a maidservant job near Kolkata. She went for meager income (Rs. 40/month – about 1 US\$) to the town but was severely mistreated by the landlady. She virtually semi-starved for three months and became extremely weak and ill and had to return to her village home with half of the salary (full payment was not made as she refused to continue her stay there). She searched for a job in and around villages but people refused to employ her as she was a woman with ‘bad luck’ and others could be affected by her misfortune. She plunged into extreme economic stress, often passing days in semi-starvation. There was no proper food, no rice, only boiled semi-edible fruits and leaves from the forest. Occasionally, she begged for some rice from the neighbors to feed the children.

Then she started TPS collection in the river and paddy collection (**Note 4**) in the crop field and worked on a temporary basis as a day labor in and around the village. One of her daughters died from snakebite four years after the ‘accident’. This was another emotional trauma, which she managed with many difficulties. The other children (one daughter and one son) married. The son separated from his wife and both were very hostile to her. She was physically abused by her son and his wife twice and was driven out of their cottage a few years ago. She is now living on TPS and fuel wood collection from the forest with some occasional help from her daughter.

Mental health She is now alone in extreme poverty and said with profuse crying: *“I have done my duties for my kids with difficult and hard physical labor, tolerating others’ insults and abuse, passing a life of isolation as an outcast ... what more? ... The whole night I stared at the sky ... life is a big odd deal and burden... it would have been better if I don’t exist...I am waiting for my call (death) from Bonobibi. I have no desire to live anymore, no peace of mind, everything seems meaningless, I had enough, but how can I end my life- it depends on Her (Bonobibi) will, most of the days I starved – not cooking, nor feeling like eating, passing sleepless nights when all negative thoughts are coming, crying to myself only and praying to Her- please take me (death) there. Feeling physically weak, sometimes failing to keep balance in the river or while walking.”*

Clinical impression Major Depressive Disorder, Severe without psychotic features (296.2x3)

CASE 2. ACCIDENTAL HOMICIDE, STIGMA AND BLAME, ABUSE BY IN-LAWS AND HUMILIATED RE-MARRIAGE

The incident Mr. Mondal went for fuel-wood collection in SRF with a team of five people – including his younger brother – for a five-day black trip in January 1997. On the 3rd day in Marich Jhappi jungle he was attacked by a tiger. Everyone was close by and they had a fierce struggle with the tiger, which ultimately fled the scene. Mr. Mondal, however, was struck on his head by a fellow woodcutter’s bamboo and due to the severe head injury; he died immediately on the spot. It was an unintentional homicide and considering the imminent police case, associated hassle and legal issues, the team decided to cover up his death as a ‘tiger attack’; everybody, including his younger brother,

took an oath not to disclose the truth to the family or in the village. They buried the body on the riverbank and returned to the village with their planned story.

Aftermath and stigma issues Mrs. Mondal was in a terrible shock with this misfortune at her 5th year of marriage. She was 23 years of age at that time and staying in an extended family with in-laws. She had two daughters (4 and 3 years); the younger one was intellectually disabled. She did not have the chance to perform any mortuary rituals as it is not permitted for tiger attack deaths (because it is an unnatural death) and kept all her bereavement secret to avoid community gossip and being noticed by the forest guards or their informers. Her in-laws, blamed and abused her as ‘Aw-lakshmi’ (lady who brings misfortune) and ‘Aw-poya’ (unholy) and cursed her for their son’s death. She was subjected to repeated physical abuse by her mother-in law and was not given even a full meal. She was forced to do all the household chores such as courtyard scavenging, cattle-shed cleaning, cooking, washing, fetching drinking water from a distant tube-well, preparing hay for the cows and watering the kitchen garden, without any break or rest. Her life continued with physical hardship and mental abuse along with semi-starvation for months, which caused her health and mental state to deteriorate. After few months, one of the team members shared with her confidentially the true story regarding Mr. Mondal’s death but threatened not to disclose it to anybody. It was another severe emotional blow to her already bereaved mind and she decided to kill herself. She drank kerosene oil in an impulsive attempt to self-harm but survived. This added further momentum to insults from her in-laws, as this was perceived by them as a potential threat to invite legal action against the family (as a case of young widow torture by in-laws).

Remarriage issue After two years of continuous verbal, physical and mental abuse, half-fed with unkempt apparel, and looked down on by all as a bad woman, she became desperate to escape from this unbearable atmosphere and tried to create a friendship with a married man at the next village who agreed to marry her on two conditions. The first condition was that she had to dispose of the two young girls and the second one was that she had to flee with him to an unknown place because he could not take her in his own home where he had already his wife and three children. Both the proposals were difficult and challenging, especially the second one which involves social shame, insult, and uncertainty. Nevertheless she was desperate and adamant to leave her cruel and undignified life and negotiated the plan with her sympathetic parents, who agreed to take the responsibility of the elder daughter. She disposed her elder daughter and then one evening she fled from the village with this man to an unknown destination, leaving her mentally disabled girl behind.

It was now known that she was living with this man in a distant town. She never visited her village again and was not keeping any contact with the family members. Her father visited her once and it seemed that she had settled well. This history was taken from her sister, who said, “*she was very very low while she was here, always talked about suicide and expressed that she couldn’t bear the situation any more. She was very neglectful about her health and dress, looked like a brain-short (mentally abnormal). It is good that she is now living in mental peace.*”

CASE 3. STIGMA, POVERTY AND PHYSICAL HARDSHIP OF TIGER-WIDOWHOOD

The incident Mr. Mondal went for a three-week honey-collection legal trip with a team of 16 and a Mouley, in mid-April, 1987. At the end of the first week they had shortage of rice and drinking water on the boat. As a make-shift arrangement, Mr. Mondal with his younger brother-in-law and other four came back to collect some rice and water from the shops at Duttar Office after Jhila jungle. That was a Monday and at about 4 pm they crossed the Sarsin Gazi’s jungle at Gopal Khalir khal. The brother-in-law proposed to check the corner of the jungle, as it seemed that there might be a big beehive. They all went in search of a beehive, which they found in the jungle. There was a ‘Jhor’ in the jungle (a sign in the bushes after a tiger has



crossed), but they failed to notice it. A tiger was hiding near the beehive tree and jumped on them. The brother-in-law fell unconscious on the ground. Mr. Mondal was attacked on his neck and the tiger vanished inside the jungle without any resistance. Others were so frightened (usually tigers hide near the bee-hive trees as they know people will come and are easy prey), that they immediately returned to the boat and came back home next afternoon. Mr. Mondal received Rs. 2000 from Forest Department and Rs. 800 from the honey sale (about 28 US\$, in total). This was the only capital with which she started a new struggle for survival with one daughter (10 years) and one son (12 years), amidst a condemning community environment.

Aftermath and stigma issues The body of Mr. Mondal was missing and there were no mortuary rituals observed. Mrs. Mondal was in a nuclear family and after the husband's death she was thrown into abject poverty. She said, *"no one came to help me a little... I couldn't allow my son to continue his schooling for money"*. She was boycotted from all social festivals, she was not invited in weddings or rice-initiation ceremonies of toddlers in the village, she tolerated negative comments, she was not allowed to touch the idol of Goddess Bonobibi or Kali during community Puja (worship) – which she recalled: *"as if I am untouchable, even my presence will spoil their festivity ... How could I have any role in the tiger accident - I understand that Ma (mother) Bonobibi was angry with us, but it was not my fault. I prayed to Bonobibi thrice everyday while he was in the trip. I took one meal at night and never put vermilion dust on my forehead during his trip. Has ever any wife desire her husband's death? A husband is everything in a woman's life, if he is gone then everything will vanish from her life. That, I am realizing every day, every moment (sobbing)."*

After 5-6 months, she started working in a teashop in Gosaba bazaar (adjoining island) but this was a difficult trial because of the long travelling distance and having to leave young kids at home. Moreover, as people knew that she was a tiger-widow and she had no one as her guardian (husband), she was ridiculed with improper comments from many customers. She remembered a few customers who refused to take tea and bread from her because she was a tiger-widow. She felt the market environment as physically unsafe and was slightly scared (a lot of drunkards and cannabis smokers assembled in the afternoon). She left the job and started searching for a maidservant job in the nearby villages. She said, *"It was very difficult to get a maid servant job in a well-to-do family as I was a tiger-widow; they feel that I am 'cursed' and that by employing me in their household they may be subjected to some misfortune."* She started working as a day-labor during the agricultural season, working as a helper in somebody's house-work, having duties such as scavenging and cow-shed cleaning, boiling paddy or cutting hay for their livestock, collecting cow dung from the field and selling cow dung cake. Sometimes she also caught *meen* (TPS) from the river. It was a hard struggle to survive. Every day was a physical hardship to earn a meager amount. But, she said, *"with the blessings of Ma Bonobibi, I managed somehow, my son-in-law has arranged marriage for my daughter and my son became a bit older. He now works as day-labor. I am very fearful about forest and never allowed my kids to step inside. The forest has taken away my everything, so no more to that side. I am earning some money from cattle grazing. Nevertheless, people don't miss the chance to ridicule me. One cow-owner said: 'to hand over my cows to you for grazing is to hand them over to the tiger's mouth'. I have to tolerate all these, as I need money to survive. I now have 16 cattle to graze and they pay me Rs. 2 for every cow, per month. One young boy, whose father was also killed by a tiger a few years ago, also helped me in cattle grazing."* She is now staying with her son. She avoids any river-based activity near the forest.

CASE 4. DOUBLE STIGMA: TIGER KILLING AND POSTHUMOUS CHILD

The incident Mrs. Gayen became a widow at the age of 29 years. Her husband was killed by tiger during a solitary lobster trip near Marich Japhi jungle on 24.9.98.



Aftermath and stigma issues The trip was 'black', therefore Mrs. Gayen had to keep secret her emotional outcry so that the news would not be made public and she would avoid the attention of the forest guards. Her husband's body was missing, and she did not perform any mortuary rights. In fact, for a period of a few months she had to dress like a married woman and passed her days in deep sorrow, economic crisis and social fear. She had a 2-year-old daughter and was pregnant for five months at this point. To have a posthumous child is a great shame in the village mainly because suspicion is thrown to the incumbent regarding the legitimacy of the child. She was looked down not only by neighbors but also by her in-laws. She remembered that it was a terrible mental and physical struggle to keep living, mainly for the sake of the unborn child. She delivered a baby girl. She was young so her father negotiated a remarriage with a promise of high dowry money with a man from a distant village. Her father was also willing

to take responsibility for the elder girl. At the end, the man declined because she had a posthumous child, he expressed his concern about her character and abandoned the negotiation. She passed her life in extreme social isolation and poverty, often with sarcastic remarks from others and raised her two daughters by pursuing TPS and Bagda-prawn collection in the river. As there was no a family guardian, she received bad words in trivial quarrel with her neighbors, from time to time. She had to be very cautious in dealing with any male person in the community because that may have added gossip about her character. She said, "*People, even aged ones never left a chance to ridicule my younger daughter; they would say, 'who knows who your father is!'. The meaning of life has changed completely after his death. The relatives became distant, community looks down on us and excluded us from any social festival. Even during Bonobibi puja we are not invited or allowed to worship Her in the pandel (temporary temple), and in-laws keep no contact and hate me. I am only living for the sake of my two daughters. After their marriage I will be free from this tormenting burden of shame and blame and death will be the only good outcome*". She currently works as maidservant in an adjoining village and frequently engages in TPS and crab collection in the river.

Mental health With uncontrolled sobbing she said, "*Since the accident I am also changed, no joy in mind, feeling absent-minded, can't remember things, sometimes tears roll down without any reason. Feeling absolutely lethargic, no interest or motivation inside, feeling empty... When I see a couple walking by – it reminds me my days with him. I feel depressed all the time and cry to myself... I followed all the rules while he was in the forest... eating only once in a day, prayed thrice to Her (Bonobibi) daily, not combed my hair or took vermilion. I don't know what displeased her! Bonobibi punished me severely in this life; I don't know what is waiting for me in the next life. I am so worthless and unfortunate really!*"

Clinical impression Dysthymic Disorder (300.4).

CASE 5. SUICIDE IN THE FAMILY IMPACTED STIGMA AND DEEPENED SOCIAL ISOLATION

The incident Mrs. Raptan became a widow 13 years ago when her husband was killed by a tiger during an illegal fuel-wood cutting trip near Bhai-Jurir-Khal jungle in SRF. She got the news around 4 pm and her elder daughter committed suicide by pesticide ingestion at 6.30 pm of that evening. She had 4 sons and 3 daughters. She was bewildered with double trauma but managed with great difficulties by the help of a few solicitous relatives. She explained the reason of her daughter's suicide as a sudden emotional shock due to father's 'accident', but few neighbors opined that it was because of her unmarried pregnancy as she was seen quite frequently during the evening mixing with a boy (**Note 5**) from another village.

Aftermath and stigma issues She had an extremely difficult time raising her children, not only because of economic hardship but also of social ostracism. She was marked as a bad woman and her family was said



to be a 'cursed family'. Her in-laws stopped all connections with her and her own family also kept distance from her, except for her father who helped her financially quite a few times. She was boycotted from all community festivals and not invited to any familial ceremony like a wedding or a newborn's birth ceremony. People that knew her in the community avoided her and stopped talking. She worked with her young sons all day on the riverbank to collect TPS and crabs and picked paddy from the field. She explained what a difficult struggle she had to face to raise the children. She was refused any help or support from the community and her in-laws because she was a tiger-widow and on top of that because of the suicide, the family was seen as highly unholy and cursed and people virtually boycotted them. She said, *"No one in the community to talk to, or anyone to get help from, even by suggesting to offer good. Life was like inside an open prison. I always felt scared as if I have done something wrong, I felt so guilty and puzzled all the time."* The sons are now grown up and are all working as day laborers. The sons also help her with some agricultural work in her two Bighas (1 Bigha = 1,600 square yards) of land near the river. She said: *"The Bonobibi turned her face from me (death of husband) once, but afterwards she graced me because one of my daughters had a love-marriage and another had dowry money negotiated to a minimal by a well-wisher village-elder. It was a great relief as people here usually avoid any matrimonial relation with families that have tiger accidents."*

Mental health She described that at least on three occasions in the past she had extremely low mood with severe loss of energy and physical strength, strong suicidal thoughts, multiple bodily pain and complete loss of sleep and appetite. These symptoms persisted for 3-4 months. At one point she felt so bad and tired of life that she planned to take pesticides to end her life but the children stood as the protective factors. She said, *"I thought if I die by suicide, it will cause further damage to the family name and my daughter's marriage will be at jeopardy. This thought prevented me from doing anything bad."* Currently, she reports that her mind (mood) is broken, she proved no pleasure in mind, she always feels sad and anxious and a deep sense of self-blame and guilt is acting inside her mind as she had not done any mortuary rituals for her deceased husband. She believes that if these death rituals are not performed, the soul of the deceased cannot rest in peace. They (unsatisfied soul) roam around in a restless condition. These thoughts scared her sometimes. For the past few years a cleaning habit has been bothering her. She used to clean the cottage courtyard several times in a day, clean and wash the utensils several times in a day, wash the fish several times before cooking and was always very particular about cleaning and washing hands and feet if anyone was coming from outside. This excessive concern with cleaning and tidiness often precipitated quarrel with her kids. She said, *"I cannot satisfy my mind, so I repeatedly do the cleaning. People ridicule me for my habit but if I don't do it, I feel restless in my mind. I apprehend something bad may happen to me or my kids."*

Clinical impression H/o Recurrent Major Depressive Disorder, Severe without psychotic features (296.3x3). Currently: Dysthymic Disorder (300.4) with OCD symptoms (300.3)

CASE 6. FAMILY TOTALLY CONDEMNED AND ISOLATED FOR REPEATED TIGER KILLINGS IN THE FAMILY

The incident Mrs. Gayen, a 42-year-old lady, is one of four widows in the same family. She narrated her odd deal as follows: *"Our family is totally condemned and isolated from the community, as four male heads of our family were killed by tigers, one after another. People think we are a cursed family and that if they keep social terms with us they will be subject to the Goddess's anger and will contract misfortune, as Bonobibi and Dakkhin Ray will not spare them. We are a joint family. My husband was the youngest amongst the four brothers. The eldest one (big brother) was killed by tiger 26 years ago while on a woodcutting trip. His body is missing. The big brother left two sons, who are now engaged in crab collection. About 5 years later, the second brother, who was also a Gumin, went for a fishing trip and was killed by a tiger while sleeping on the boat. His body is also missing. He had two sons, who are now earning a meager sum by honey collection from the forest. The third brother was very unlucky; he went for a fishing trip and fell in the middle of*





a thunderstorm. While fixing up the turned down nouka (boat) he was taken by a tiger. His mutilated body was taken at home and burnt on the riverbank. His one son is now engaged in woodcutting and honey collection with other brothers. The last accident was of my husband nine years ago. He went for woodcutting with a team of 8 persons with two noukas. The trip was black. He was also a Gunin. He always took the name of the Ma (Bonobibi) while working inside the forest and never confronted any adversity by the grace and kindness of Ma Bonobibi. They started in high tide on an early Saturday morning. The accident took place in the evening. They were uploading the woods on the boat. My husband was in the forest side. Suddenly the tiger attacked him from back and bit his neck and took him away inside the forest. They recovered the mutilated dead body, which was burnt on the riverbank.

Aftermath and stigma issues “It was terrible mental shock to me because I had two little kids (one son and one daughter) at that time. We are four widows in a same family. Our previous cottage was on the riverbank, which collapsed for embankment breakage during a heavy monsoon, and then this cottage was built. Two brothers were Gunin so they cure many people of this and other villages. But in our bad days nobody offered any help, on the contrary they isolated us as an unholy family because of these four deaths. We never did anything wrong, we are very religious, we prayed to Bonobibi every time and both Gunin brothers were very devoted to the deity. My husband also worshipped Goddess Lakshmi. These consecutive four accidents virtually made us beggars. We had a very tough time and struggled a lot. We could not afford schooling for our children; altogether they were seven. How could we bear the cost of schooling? And moreover in the school they were ridiculed as their fathers were killed by tigers. Even the teachers were not always kind to them. So they stopped schooling and engaged with household work and helped us. But we (widows) have good and helping terms among us in our family. All these fearful days are gone; we always felt scared and isolated, felt that something bad could occur at any time. People made bad comments about us. They avoided us in all matters; we four widows were never invited to any religious or social festival in the village. In fact we always hid ourselves so that people could not see us during the festival time. If we went outside, people shouted towards us and asked us to stay indoors. People are so cruel even after community puja; they didn't offer us the Prosad (food offerings to the deity) of the God or Goddess. We were so untouchable to them. They forbid others from taking any food or water from our hand. Myself and the widows of the other brothers jointly worked to raise our children. We did hard work like meen dhara (TPS Collection), crab and fuel wood collection from the forest. I also earn some money by cattle and pig grazing. We have 3 bighas of land and we all work for some agricultural production. Unfortunately in subsequent two years after embankment breakage, there was inundation of saline water and all our crops were destroyed. We suffered a great loss”.

The eldest son of the family (son of the big brother) said: “We don't care who keeps on good terms with us or not. Accidents can happen to anybody, any time. We are going to the forest next week for honey collection. A search for honey is a search for tiger. Nobody knows when it will attack. One can see the live tiger footmark in the mud. It is risky but what is there to do? The forest is the only source of our living. We cannot sit idle at home to starve. If Ma (Bonobibi) wishes to keep us alive, we will, otherwise not.”

Mental health “With constant hardship by the grace of Ma Bonobibi and Manasa, all the children are now grown up and they are engaged in forest earning like their fathers (profuse crying). The only anxiety and bad thought frequently haunts my mind - what Bonobibi has written in their fate. ... Every day is a burden, no strength in body, no energy or peace in mind, for long I had no happiness in my mind, I can't remember when the last time I laughed. Sleep is disturbed, frequently broken with bad dreams- sitting in the dark, all sad memories rushed in, crying and praying to Ma Bonobibi when my toil of life will end.”

Clinical impression Dysthymic Disorder (300.4).

CASE 7. DEPRESSION, SUICIDE ATTEMPT AND EXTREME PHYSICAL, PSYCHOLOGICAL ABUSE AND EVICTION BY IN-LAWS

The incident Mr. SK went for a crab collection trip for 8 days near Chamta jungle during the first part of July 1978. He had a Forest Pass and also Janata insurance. The team harvested a good number of crabs but on day 5, he was attacked by a tiger and taken away inside the deep forest. Others shouted and chased the tiger with sticks and machete in vain. They could not trace the body.

Aftermath and stigma issues Mrs. SK was 32 years old at the time of her husband's death, was given the news early next morning. She became numb and speechless, *"I almost fainted but somehow managed. I felt myself as a dead wood, no tears in my eyes. The only thought that came into my mind was how I would bring up my two kids; an 8-year-old boy and a 6-year-old girl."* She had no chance to observe any mortuary rituals, as it was an unnatural death. The in-laws family, who were very hostile from the beginning, became more aggressive and the mother-in-law along with her brother-in-law accused her for this death. They said that she is 'unholy' and 'apoya' and has brought bad luck on the family. If she stays in this family, more misfortune will ensue. Her mother-in-law asked her to leave the house and return back to her parental home, which she strongly declined. The result is the ongoing physical and psychological abuse and blame in every step of her day-to-day life. She narrated her suffering with tearful eyes and low voice: *"She (mother-in-law) always insults me and is very abusive toward me. She threatened me that I was the cause of her son's death so I should not have any right for a full meal, as it was a waste. She only gave me a meal once, which I shared with my two kids. On one occasion there was a snake in the cowshed and she said that it appeared because of me, an unholy and cursed person staying in this house, so it is a sign that some misfortune may cast on the family. My brother-in-law supported that and both of them physically abused me on that day to make me leave the house. I felt so sorry and low on that day, felt that life is not worth living and decided to kill myself. But in view of my two kids I couldn't. I tolerated the humiliation, insult and physical abuse for more than 2 years and finally when one day she snatched away my rice plate from me on the plea that I haven't completed some household task – scavenging the courtyard and the cowshed - I decided again to kill myself. I felt so low that for a few feast of rice they behaved like beasts and I lost all my human dignity and desire to live in such a retched condition. I tried to hang myself that night but my two kids shouted and my father-in-law came and rescued me. I went through a terrible time; extremely low mood; life seems to have no meaning; always felt tired and had no desire for food. One day my brother-in-law was bitten by a snake but he survived with the treatment of an Ojha in our village; however, this incident precipitated a big row. My mother-in-law became furious and abused me with slangs, physically beat me with broomsticks, she grabbed my hair and dragged me outside the house and threatened me not to enter this house again. She shouted, saying I have eaten one of her son and that I'm going to eat the other one... All the neighbors were enjoying the fun, nobody came to support me or to prevent her from attacking me physically (pause and profuse crying).... That was a great disaster – where will I go with my kids? In the mean time I got some compensation money, Rs. 10,000 from Janata and Rs. 2,000 from the Forest Department and my mother-in-law virtually tried to snatch this money from me. I hid the money under a bush near our cottage and informed my father. My father asked me to leave the house and allowed me to stay with them. So I decided to leave. My father-in-law kept the son and I went to my father's house with my daughter. My father bought a small land with my money near the riverbank and raised a small cottage, but this was washed away due to embankment breakage in a Bhora kotal (severe high tide) during 1984 monsoon. I was given shelter by one of my distant relatives and they arranged the marriage of my daughter. My son-in-law looks after me, I do all the household work in my relative's house and somehow I am managing my living"*.

Mental health *"If you don't have your marad (husband), then no one is there in your bad days. Life is not in a standstill, but I lost all my energies over these years, now feeling sad all the time, losing strength of my mind and body, feeling tired to continue... as if life has nothing to offer new... whenever I sat silently, all the bad memories of humiliation and torture surfaced over my eyes, tears roll down... I have only one question to ask to Ma Bonobibi; what was my fault and why she punished me in this cruel way?"*

Clinical impression Dysthymic Disorder (300.4) with H/o Major Depressive Disorder and suicidal attempt by hanging.

DISCUSSION Ethnography is a valuable field research methodology designed to explore the social interactions and dynamics, behaviors, and perceptions that occur within groups, teams, organizations, and communities (Reeves *et al*, 2008). Ethnography is the study of the psycho-social dynamics, processes, and meanings within cultural systems and thus helped to generate an understanding of the cultural context from an emic perspective. As Hammersley (1992) states, *"The task [of ethnographers] is to document the culture, the perspectives and practices, of the people in these settings. The aim is to 'get inside' the way each group of people sees the world."* The most important outcome of ethnographic

research is story telling: snapshots of people's lives and relationships, inner thoughts, feelings and contradictions, and individual and community behavior in response to socio-cognitive dimensions in a specific cultural setting. In this study, ethnographic documentation of multifactor cultural dynamics of stigma in the context of local beliefs and practices, pointed out that how cultural beliefs shape stigma and how tiger widows carried the burden of tiger-attack stigma throughout their life that negatively impacted their physical and psychological wellbeing to the point of mental health morbidity. The descriptive account of social life and culture in Sundarban community helped us obtain a portrait of the tiger widow with deep understanding of their experiences, shared meanings and patterns of behavior. Following is a brief discussion on six important results of the ethnographic analysis of psychosocial and cultural dynamics of stigma related to tiger-attack in the Sundarban communities.

Cultural stigma of tiger-attack The ethnographic history of all seven tiger-widows speaks for the insurmountable sufferings, economic hardship and social discrimination they faced after the death of their husband by tiger attacks. Tiger-widows are perceived by the in-laws and community as 'unholy women' and they are blamed by the in-laws for the death of their husband (as if they carry some hidden bad and dangerous traits that cause this misfortune and it is their sin for which their husbands were punished by Bonobibi). They are identified in slang that is detrimental to their mental health: "swami-khego", she who eats her husband. In most cases, in-laws denied any responsibility for the widows or their kids. So in addition to humiliation and discrimination, they were also thrown into a state of extreme financial struggle. Tiger-widows are seen as inauspicious and evil. They are supposed to live in isolation, not having any social discourse with other male figures, having to wear white *sarees* (nowadays most of them have no money to buy white *sarees*, they wear colored *sarees* given by some other well-to-do families), and wear no ornaments or bangles. They are not invited in any marriage or community festival as they stand as a mark of 'ungodliness' and sign of misfortune and may spoil the sacredness of the festival or function. Their face should not be seen first in the morning or before starting any good work or job (for example, before purchasing cattle or some land or starting for a forest trip), they should not go out in the morning on the roadside so that nobody will see their face first thing in the morning. It is believed that the whole day might be fruitless or invite danger, for anybody who sees them. All these cultural superstitions shun them from the mainstream community life and in many Sundarban blocks they are living in a segregated hamlets, called Bidhoba Palli (widow hamlet), which reflect their outcast status from the community (Ojha & Chakraborty, 2009).

The fringe population around SRF is mostly marginal, and accommodates landless poor people. Forest-based livelihood is the only means of living for them. Living in isolation in the detached islands, with high level of illiteracy and constant life struggle with various adversities (cyclonic storm, rain and flood, embankment rupture, loss of property and life) including fatal tiger, crocodile or shark attack, make them psychologically dependent on different folk cults like Bonobibi and Tiger God. Bonobibi is supposed to protect them from any forest dangers, such as thunderstorm, high tide and tiger attack. This faith has become deeply ingrained into the belief system of these people (Jalais, 2008). Their religiosity and spirituality is expressed in their day-to-day life pattern, by worshipping Bonobibi before entering the forest or having a strong faith and conviction that Bonobibi will certainly protect them not only during their in-forest activities but also from natural calamities and other untoward incidents. In these ethnographic narratives, the spiritual context of Bonobibi has appeared time and again and in spite of their extreme misfortune they still express a God-grant from their reverend deity. It seems that the tiger attacks tend to shake their religious devotion and faith because the attack itself is a sign that the Goddess is displeased with the victim and therefore refused to protect them from the tigers. This belief is strongly shared by the community as well. This generates a sense of guilt and sinfulness (felt stigma), which impacts immensely on their post-trauma mental state. In fact, the stigma of the tiger attack posed a compounded stigma on the widows: in addition to the general social stigma of widowhood, the cultural belief of tiger attack with all its spiritual and religious overtone branded them as a 'cursed family' and thus not only produced discrimination by the community but also created social avoidance because of the fear of magical/supernatural contamination of 'divine curse' to others (enacted stigma). There are many forest incidents (e.g. escaped imminent tiger attack, repeated attacks, attack to the same family members or body not eaten after the attack) and family incidents, for

example, suicide, attempted suicide, mental illness in the victim's family and any other accidents or adverse events such as the destruction of the cottage during a storm or the sudden death of livestock, are believed to be the extension of divine disgrace and that in turn reinforce and strengthen the cultural stigma and related beliefs in divine disgrace. Cumulatively these potentiate the strength of cultural superstition about tiger killing at the general backdrop of extreme ignorance, illiteracy and poverty in Sundarban communities.

Stigma is a social process and Link & Phelan (2001) very aptly stated that it "*represents a very persistent predicament in the lives of persons affected by it. Finally, because there are so many stigmatized circumstances and because the stigmatizing processes can affect multiple domains of people's lives, stigmatization probably has a dramatic bearing on the distribution of life chances in such areas as earnings, housing, criminal involvement, health, and life itself.*" The experiences of the tiger-widows here speak the same truth. **Table 1** shows the stigma process of tiger killing according to the concept (slightly modified) of Link & Phelan (2001) in the context of Sundarban's socio-cultural landscape.

Social security and economic hardship In the Sundarban community, housewives are also taking part in family income, in addition to looking after the household chores. They work with their husband in fishing, firewood collection, in agricultural field and other relevant work. This joint labor involvement is not criticized or socially forbidden, as it is economically beneficial. Surprisingly, after the death of their husband from tiger attack they become the target of all social oppression, both from their own family as well as from the community. This is a glaring example of gender discrimination. The husband is the bread earner of the family, so after his death all economic burdens fall on her shoulders. In all practical sense this is an extremely challenging situation in the context of poverty-stricken islands where no alternative occupational choice is available for these illiterate widows. Most of the tiger widows are part of marginal families and are below poverty line. This economic disaster severely affects their food availability, nutrition, health (both physical and mental), children's health and schooling. Forest-based living is the only option of livelihood for landless poor people, therefore irrespective of the forest trips' legality; the widows must be covered with a social security program so that they can have a dignified living. Tiger-widows are extremely vulnerable for economic exploitation and, cheating for money compensation is a frequent incident in Sundarban. STR allows compensation if the victim has an entry permit and was killed outside the core area. The whole claim process is very complicated and involves a nexus of middlemen or touts, who deliberately cheat the ignorant and illiterate people. The official standing is also not always transparent (Roy, 2013c) and many scams have also been reported regarding the allotment of boat license (Roy, 2013b; TNN, 2012). A form of economic and administrative support must be in place to facilitate children's education and prevent child labor activities. Local Environment Development and Agricultural Research Society (LEDARS), a proactive NGO in Bangladesh, very successfully initiated a livelihood security program for tiger-widows in south coastal Sundarban (LEDARS, 2013).

Negative community attitudes and gendered impact of HTC Community attitude influences the social construct of stigma. Current research is placing much emphasis on the social aspects of stigma. Yang and colleagues (2007) advocate that the individual moral experience in the context of local social world "*provides a new interpretive lens by which to understand the behaviors of both the stigmatized and stigmatizers*". Social prejudice and moral sense of negative connotation (being cursed by Bonobibi or Dakkhin Ray) related to tiger-killing not only complement each other but also reinforce the dimension of stigma and associated discrimination of tiger-widows. A similar example may be drawn from the study of stigma of mental illness, where indigenous concepts and sociocultural context deeply influence the origin, meaning, experience and consequences of stigma (Ng, 1997) or cultural devaluation of stigmatized identities for mental and physical ill health (Quinn & Chaudoir, 2009). A protracted eco-cultural educational campaign advocating against rituals and beliefs regarding tiger attacks is an urgent need, so that the natural and normal interpretations of tiger attacks outlaw the 'divine curse' concept from peoples' mind. It is also interesting to note the gendered aspect of this HTC-stigma in Sundarban, i.e. there are quite a few widowers in the community whose wives have been killed by tigers. But they are not subjected to any such stigma or social restrictions. This stark discrimination is

pointing towards the impact of HTC only on women. This is a serious concern and Ogra (2008) raised this gender aspect of human-animal conflict as an important part of future research and an issue in conservation policymaking.

Table 1 The process of stigma due to tiger killing in Subardan

Components	
1) On distinguishing and labeling differences (A social selection of human differences)	<p>Cultural superstition A tiger attack is not considered as just an animal attack but is interpreted from a spiritual angle, i.e., the Goddess Bonobibi and Tiger God Dakkhin Ray, are angry or displeased because of any transgression by the victim and thus killed. There is a potential that other family members may fall prey to the tiger's rage or some other misfortune may affect the index family.</p>
2) Association of negative attribution (Stereotypical beliefs)	<p>Shame and blame Tiger widows are disrespected and looked down in the community, because they are seen as a bad omen and blamed for their husband's death. They are considered as '<i>apaya</i>' (inauspicious) and '<i>alaksmi</i>' (bad and dangerous) and seen as harbingers of bad luck. They are stigmatized as those that brought the misfortune (husband's death), and are labeled as 'husband-eaters'. The children of the tiger victims are also ridiculed and looked down by their peers and community.</p>
3) Separating 'Us' from 'Them'	<p>Exclusion Tiger widows are forced to live in dire poverty, excluded from the mainstream community as outcasts and always cursed by all. They are treated as 'unwanted' and thrown out by their in-laws. The victim's family is avoided as 'cursed family' by the community and the community keeps their/its distance to avoid the 'divine wrath and disgrace'. The fear of contamination of ill luck or misfortune or tiger attack by supernatural transmission of divine wrath is a potent cause of avoidance. In some of the forest blocks of Sundarban there are segregated hamlets called Bidhoba Palli (Widow Hamlet), where widows are living in an absolute isolation from the main community life.</p>
4) Status loss and discrimination	<p>Social discrimination Tiger widows are denied all types of social support and thrown into absolute economic insecurity. They are not invited to weddings or social festivals; they are expected not to show their face in any holy occasion, they are believed to hinder marriage prospects because they are 'cursed'. Their presence in any festivity or Puja may spoil the sanctity of the ceremony and thus debar from participation.</p> <p>Families with tiger attack history They are marked as 'cursed or evil family' and '<i>baghe khawoa</i>' (eaten by tiger) family and thus avoided. They face difficulties in negotiating marriage for the female child, the dowry demand goes up, and it is believed that tiger attacks may lead to the development of mental disorders (for the bride-to-be). Finally, people shun a face with tiger scar (bad omen).</p>
5) Power relation and gender	<p>Sundarban communities are male-dominated society. There are many cultural customs only applicable to females. Like other Indian rural societies, there is a set of rules for widows but not for the widowers.</p> <p>Good-luck rituals When the husband goes on any forest activity, the wife has to offer prayer to Bonobibi twice in a day. They must not light a fire under the stove, have a non-vegetarian meal, wash clothes, adorn new clothes and ornaments, or groom them. They should not renew their vermilion on their forehead. They also do not comb their hair, cross the river, take part in any social or religious festival and avoid talking with other male members of the community. These rituals are strictly maintained with a high level of anxiety until the husband returns. Although these rules and practices are meant for the safe return of the husband, in all practicability, they are an implied trial for potential widowhood.</p> <p>Remarriage Widowhood is seen as inauspicious, and widows face several cultural restrictions and social hostility and brutality in the name of 'cultural and religious norms'. Remarriage is not encouraged, rather it is obstructed because the tiger-widows are accused and cursed of being 'responsible' for their husband's death. Most of the tiger-widows are at their early to late thirties with a few young kids, and in addition to the social stigma of tiger killing; the existence of dependent children limits the opportunities for remarriage. Widowers, whose wives are killed by tigers, are not forced to any cultural rules, neither are they stigmatized as 'wife eaters', nor do they have any restriction in social participation, including remarriage.</p>

The role of 'forest guards' is hateful. There are many examples of corrupt practices of these guards involving mistreatments, harassments and intimidation, and record of taking bribes from widows or

other victims. In fact they impose great fear and paranoia among the tiger widows whose husbands entered the forest illegally. This is a type of gender-specific exploitation and abuse that needs to be addressed by the authorities. Ogra (2008) cited similar examples from Uttarakhand forest in India.

Mental health The present ethnographic method helped to unfold the multi-factorial psychosocial dynamics behind the widows' mental health morbidity. The specific distress, symptom experiences and functioning impairments have clearly met clinical diagnostic criteria for DSM-IV guidelines; however the interplay between cultural contexts, adverse life events, loss of an earning member, severe economic distress, social isolation and stigma acted as the major psychodynamics at the background. This highlights the usefulness of ethnographic exploration over the clinical assessment and provides a complementary value in our understanding of the mental health problems of tiger widows in the local cultural context. In fact, this study of cultural system focused both emic and etic perspectives of tiger-widow phenomena.

Children of tiger-widows This problem is still an unfocussed issue in any policy or social research literature. In the face of acute financial crisis, raising children is not only difficult but impossible task for the tiger widows. Leaving school is an obvious fall-out. For the male child immediate engagement with some type of earning is compulsory and in due course joining their father's profession and thus completing a vicious cycle. For the female child, the threatening potentials for non-marriage, sexual exploitation or even trafficking (DNAIndia, 2009), is a serious concern. In the case studies presented, all the widows expressed their keen concern about the marriage of their daughters. Considering this perilous situation, a few proactive NGOs in Bangladesh arranged schooling for the children of tiger-widows (LEDARS, 2011).

Eco-stress and quality of life People in Sundarban live in an ecologically vulnerable environment (Chowdhury *et al*, 1999). The area is cyclone prone, monsoonal and low-lying with many human settlements located alongside the waterways and coastline. Two eco-specific issues are important in the context of adverse quality of life: embankment rupture and HTC. The man-made river embankment (3500 Km) often ruptures with tidal in-flow during full-moon high tides and pushes saline water into the agricultural land. This often takes the shape of flood causing serious damage to crops and lives of inhabitants. Tiger-widow families belong to a mostly landless marginal population, who often live on the riverbanks bordering the forest. These ecological calamities affect them the most. As it has been reported here, the cottage was washed away by cyclonic storm and inundation of the agricultural field after the embankment ruptured during high-tide flood (Case 6, 7). This distressing eco-threat is a regular annual event in Sundarban and mostly affects marginal and poor people.

Human-animal conflict is a constant threat to Sundarban islanders because of the ecospecificity of the region (Chowdhury *et al*, 2001a). People being killed by a tiger is almost regular news in the forest adjoining villages of Sundarban, thus increasing the number of tiger widows, especially in the villages of Deulbari (Bhabani, 2008; Chamberlain, 2008; Mitra & Chakraborty, 2008), Basanti (Dolnick, 2008) and Gosaba (Mitra, 2009; Bhattacharya, 2012), and are becoming a challenging public health concern. One report shows that 579 people were killed by tigers in the Sundarban between 1973 and 1987. Of those, 373 were fishermen, 107 honey-gatherers and the rest were woodcutters. In Arampur village about 80% of the village's 300 homes have no man (Ganguly, 1987). Livelihood activities are intimately related with potential threat of animal attacks, viz. tiger attack in the forest while fishing, wood cutting or honey collection; crocodile, shark attacks, snakebites during fishing or TPS collection in brackish water or the river, and snake bites during honey collection or TPS collection. All the incidents reported here showed how dangerously and with high risk of life they worked inside the direct tiger habitat. Additionally, attack by straying tiger is also rising which causes livestock and human killing. On an average, 12 to 18 tigers stray annually in the Sundarban villages (Bandyopadhyay & Chakraborty, 2010). In 2009, 12 incidents of tiger straying were officially recorded in which tigers attacked villagers or their livestock and 4 people were killed (Dutta, 2009). The constant threat of tiger is present in everyday life of Sundarban islanders and in the absence of any alternative protective mechanism in place, it is not only causing loss of life but also pushes them to extraordinary psychological dependence on superstition and related mythical beliefs.

CONCLUSION The global widow demography is heartbreaking. At least 245 million women around the world have been widowed and more than 115 million widows live in devastating poverty (Lederer, 2010). India is the second country after China to have maximum numbers of widows: 45 million widows; 9.9% of women are widows and every fourth household in India has a widow (Khanna, 2011). Even though India has made considerable economic progress and social reforms over the past decades, the cultural oppression and social alienation of widows are still a soaring point in Indian society (Khusbhu, 2012). Ostracized by family and society, thousands of widows in India take refuge for salvation in the 'Widow-Cities' (Vrindaban, Mathura, Hardwar, Banaras, Nabbadweep, etc.) of India (Damon, 2007). The story of widows over the globe is a miserable tale of social and cultural injustice (UN, 2001). Widowhood is a devastating life crisis that brings permanent social stigma. "*They are excluded culturally, socially, economically and legally. In one hand they lost their husband and at the other hand they have to face discrimination of various kind and degree*" (Anjuli, 2011). To highlight these inhuman aspects and in order to activate world attention, United Nations declared the 23rd June as International Widows Day. The present study speaks the multitude of sufferings of the tiger-widows of the Sundarban. They are deprived of all human dignity of living, discriminated by their family and community, struggle to survive profound degree of poverty, live a life with multitude of post-trauma scars and deprivation (BBC, 2009), abuse and exploitation. This should have come to international attention because of the concern of increasing tiger-human conflicts in recent years, both in India and in Bangladesh (Islam *et al*, 2007) and consequent rising of numbers of tiger-widows in the region. Tigers are now in the global spotlight because of their endangered status and are a high value conservation species. This is highlighted by the formation of Global Tiger Initiative and Global Tiger Forum involving governments of 13 tiger range countries, the World Bank, many wildlife activist groups, WWF, civil society, media corporate and business organizations and a worldwide tiger conservation program that has been launched. The world has lost 97% of its wild tigers in over a century and currently there are only 3,200 remaining (Earth Protect, 2010). So tiger conservation is a high priority issue and the 29th July has been set as the Global Tiger Day. Therefore, the issue of keeping Sundarban biodiversity in regular ecological balance and the tiger habitat free from biotic disturbances and anthropogenic pressure is the most vital conservation agenda beyond any doubt. The Indian Government has initiated Project Tiger in 1973 and currently it extends over 37,761 Km² with 27 Tiger Reserves. The project shows good results: from mere 268 tigers in 9 reserves in 1972 to 1576 tigers in 27 reserves in 2003 (Jhala *et al*, 2008). The two main strategies of the Project Tiger are: All types of human exploitation and biotic disturbance in the core area of the reserve will be eliminated, and the buffer areas should have 'conservation oriented land use' (Project Tiger of India, 2010). The next critical issue to emerge is how to free human pressure when a large number of people live in the fringe area and depend solely on the forest products. High density population pocket in the close vicinity of reserve forests is a key factor for HWC (Ogada *et al*, 2003) as has been reported that in India, 69% of the reserves have an adjoining population of more than three million who are engaged in agriculture, livestock grazing and forest product collection (Madhusudan, 2003). In Sundarban, 0.22 million people are living in 66 *mouzas* within 2 Km of Tiger Reserve buffer zone, 32% of whom depend on the resources of Sundarban mangrove forest directly or indirectly (Chakraborty, 1986). To ensure the conservation progress, Tiger Reserve authorities are implementing strict rules of forest entry, which in turn put economic stress on the forest-dependent population (TNN, 2012). From the political ecology this is a very serious question and complicated by many social and political factors. Adams and Hutton (2007) raised three key issues in the context of protected area (PA) and political ecology of conservation: "*the rights of indigenous people, the relationship between biodiversity conservation and the reduction of poverty, and the arguments of those advocating a return to conventional protected areas that exclude people*". Displacement or voluntary village relocation (Shree, 2013) is a good answer but it involves politics, laws and money, imposing an extraordinary degree of practical logistic hurdles (Karnath, 2011). To complicate the approach further, the legal issue, i.e. human rights and forest rights of forest dwellers (ActionAid India, 2013) raised a serious political debate in many parts of the world including

Sundarban. The Forest Rights Act was passed in 2006 by the Indian Government and came into force in 2008 but was not implemented for Sundarban, which generates several protest movements, by the stakeholders of Sundarban (Roy, 2013a). Even though many policies and conservation strategies were discussed in national and international forum, at the ground level no significant change has been observed in the material development of quality of life of the forest-based population, and the problem remains unresolved (Das & Kotari, 2013).

Whether the crisis of the tiger-widows of Sundarban will reach to any suitable national or international forum for any solution is a matter of uncertain future (Chakraborty, 2009). It has to be cautiously remembered that the increasing HTC could underscore the conservation strategies as it has serious negative impacts on both humans and tigers (Goodrich, 2010; Kelliher, 1988). It is a very serious concern that needs checking and balancing between the two issues: tiger and biodiversity conservation and the wellbeing of forest dependent population. Treves and colleagues (2009) thus very rightly remind us that, “*HWC exemplifies a fundamental challenge for biodiversity conservation: reconciling local concerns for security and economic growth with international concerns for saving threatened species*”. Three key issues here are important and deserve attention: Firstly the tiger habitat should be undisturbed by restricting human intrusion, which can be done by local human resource (Neuman-Denzau & Denzau, 2010) and wildlife management (Halder, 2011). To complement the first, the second and most vital issue is the alternative, sustainable economic and social activity generation for marginal populations (Datta *et al*, 2011) and should address the economic and social security for the widows and other victims. For both, human wellbeing and tiger conservation, consideration of local socio-cultural factors (Dickman, 2010) by stakeholder engagement in participatory decision-making (White & Ward, 2010) and participatory planning (e.g., cost-effective design, wildlife specificity and selectivity and sociopolitical acceptability) may help to reduce human-tiger conflicts and thus the number of tiger-widows (Treves *et al*, 2009). The aim should be: “*This so-called ‘human-wildlife conflict’ (HWC) needs to be addressed to ensure that local people do not unfairly bear the negative side-effects of conservation, becoming more opposed to it and further jeopardizing the survival of high conservation value (HCV) species*” (Brown-Jones, 2012). Lastly, a protracted eco-cultural advocacy, as part of a community mental health activity (Chowdhury *et al*, 2001b) and basic eco-development educational program, would not only help to address the gender-environment issues (Agarwal, 1992; United Nations Environment Programme [UNEP], 2004) to mitigate the cultural stigma against tiger-widows, but also enhance the wider social acceptability (Manfredo & Dayer, 2004) of eco-conservation of Sundarban’s biodiversity.

NOTES

1. *Mauza/mouza*: An administrative land area in a block of a district within which there may be one or more villages. In West Bengal, each *mouza* is under a separate Gram Panchayat (GP) and all the GPs of a block are under the Panchayat Samity.
2. Poverty line: The level of expenditure (or income), below which an individual or a household cannot satisfy a certain minimum consumption level. Planning Commission of India, on the basis of the National Sample Survey-61 round survey data on consumer expenditure published state specific poverty line – for West Bengal it is Rs. 382.82 (nearly US\$ 8) for the rural and Rs.439.42 (about US\$ 9) for the urban areas, per capita per month (Planning Commission, 2007).
3. The syntax and spelling of the two terms *Bouley* and *Mouley* differs, e.g. *Bouli*, *Baoli* or *Mouli* in Indian Sundaban and *Bawali* and *Mowal* or *Mawali* or *Mouwali* in the Bangladesh Sundarban.
4. Paddy collection: After the harvest of paddy crops from the field some paddies are fallen into the field and these were collected and sold in grocery shops. Usually one can collect 1-2 Kg a day and 1 Kg will fetch Rs.5.
5. Eco-landscape and sexual behavior: The interaction of adolescent girls and boys during evening time is seen with suspicion in the local community. One general practitioner of Gosaba provided this account to one of the authors (ANC). He is a certified physician to perform medical termination of pregnancy (MTP) and practices in the island for many years. He said: “*In recent years the MTP rate has been increased in this island block.*” He put the reason as the increased heterosexual teenage mixing because of the influence of movies shown in video parlors. “*There are at least 23 video parlors in and around Gosaba island and they are operating 5-6 shows daily with a very minimal ticket price. Most of the movies shown are on violence, crime and sex and some also secretly show blue films. For sexual intimacy, say in an urban set up, people have to book a hotel room for at least a night, which involves planning, time and cost too. But here, after the evening the whole island becomes a hotel room, dark with no crowd and mostly undisturbed, anybody can have sex, if they wish to, either in the field, on the river*

bank, behind a bush or under the tree." He estimated that at least 50 cases of teenage unmarried pregnancy yearly seek his help.

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