

Deconstructing the Trafficking of Tiger Parts from the Satkhira Range of Bangladesh Sundarbans



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MSc. Thesis

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ABSTRACT

This research was carried out to understand the roles of different types of intermediaries in the trafficking process of tiger parts from the Satkhira range of Bangladesh, and suggest opportunity-reducing measures to reduce trafficking activities. Attention was also given to the organization of such a group and the interest and influence that each actor has in the trafficking process. The nature of this research was purely qualitative and data collection was carried out using semi-structured interview guides with three different groups of interviewees. In order to carry out the research, a conceptual framework was developed based on typologies of intermediaries and criminal groups, theories from criminology (situational action theory) and crime science (crime scripts, situational crime prevention). After identifying the types of intermediaries in the trafficking process and the organization of their groups, the context in which local people become involved with trafficking activities was explained in light of opportunities created by specific intermediaries in the trafficking process. Following this, crime scripts were developed to show the sequential activities that key intermediaries carry out during their activities in the trafficking process. Afterwards, the results were used to discuss the roles of intermediaries in light of relevant literature and theories from the conceptual framework. Based on the findings of this research, four key intermediaries, namely non-local logistician, local logistician, processors and smugglers were found to be directly involved in the trafficking process of tiger parts from the Bangladesh Sundarbans. Other types of actors who play a facilitating role in the trafficking process are government colluders and third parties. Though the actors in the trafficking process exhibit signs of organization, they are likely to operate as a criminal group with a horizontal structure rather than an organized criminal group with hierarchical structure. Actors with the highest interest and influence in the trafficking process are the non-local logisticians and local logisticians as they are likely to gain the most from the trade. Various measures were suggested to deter intermediaries from the trafficking process based on the opportunity reducing strategies from the Situational Crime Prevention framework. Some of these measures can affect particular intermediaries, while others are likely to affect all the intermediaries. Also some of the preventive measures are complimentary, which points to the fact that the suggested measures need to be implemented in tandem or in parallel to achieve greatest benefits.

Keywords: Illegal wildlife trade, Tigers, Intermediaries, Sundarbans, Situational Crime Prevention.

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CHAPTER 1: INTRODUCTION

The tigers of the Sundarbans are an isolated population of Bengal tigers (*Panthera tigris tigris*) that have adapted uniquely to the terrain of a mangrove forest (Dinerstein, 1997). The Bangladesh Sundarbans Reserve Forest (SRF) which spans around 6,000 km² has an estimated carrying capacity of around 330-500 tigers, which makes it one of the largest potential tiger habitat in the world (Barlow, 2009). However, according to a camera trap survey carried out in 2015, there were around 106 tigers living in the Bangladesh Sundarbans (Dey et al., 2015). Various studies have highlighted the role of poaching as being an existential threat to the survival of the remaining tigers of the SRF (Aziz, 2015; Saif, 2016; Aziz et al., 2017; Hossain et al., 2018). A pilot study using camera trapping technique to detect illegal human activity found that a great number of people access the three Wildlife Sanctuaries (where all types of human activity is prohibited) for fishing and collecting NTFP resources (Hossain et al., 2016). Though the study was not able to detect activities related to poaching, it did conclude that such activities are difficult to detect using cameras (Hossain et al., 2016). Another study found a significant decrease in tiger numbers (by 41%) between 2007 and 2011 as well as there being no difference in their relative abundance between the Wildlife Sanctuaries and areas outside the sanctuaries (Hossain, et al., 2018). Recent research has also documented how poaching for illegal trade in tiger parts for commercial and local demand occurs in the Sundarbans of Bangladesh (Saif, 2016). The local trade is limited in size and value, because villagers use tiger parts as gifts for friends and family rather than seeking commercial gain (Saif & Macmillan, 2016). However, this local acceptance in the use of tiger parts allows outside traders to enter local communities and seek tiger parts to purchase (Saif, 2016). In particular, ‘non-local Bangladeshis’ play the role of ‘middlemen’ or intermediaries who incentivize tiger killers to carry out poaching and supply them with tiger parts (Saif, 2016). These trade intermediaries are a key link between the harvesters (tiger killers) and consumers of illegal wildlife products (Phelps et al. 2016) (See Table 1). Such trade intermediaries who operate in illegal networks can have diverse and complex roles required to facilitate the trade (UNODC, 2002; Phelps et al., 2016). The number of intermediaries involved in such illicit trade depends on the restrictions imposed on the trade (Phelps et al., 2016). Extant literature on the trafficking of tiger parts from the Bangladesh Sundarbans is scarce and very little is known about the types and the role of intermediaries in the trafficking of tiger parts in the context of the Bangladesh Sundarbans. Improving this knowledge gap will provide a better understanding of the trafficking process of tiger parts from the Bangladesh Sundarbans and aide in designing preventive measures to reduce poaching pressure on the threatened tigers of the Sundarbans.

In order to understand the trafficking process of tiger parts from the Bangladesh Sundarbans, typologies of intermediaries (Phelps et al., 2016) and criminal groups (UNODC, 2002) along with the theoretical and analytical frameworks developed in criminology and crime science are used. Specifically, ‘situational action theory’ (Wikström, 2014) from criminology, ‘crime scripts’ (Cornish, 1994) and ‘situational crime prevention’ (Clarke, 2009) from crime science was used as the theoretical and analytical frame to understand the trafficking process and suggest measures to reduce opportunities for intermediaries to carry out trafficking of tiger parts from the Satkhira range of Bangladesh Sundarbans. To identify the types of intermediaries and the organizational structure of their group the typology developed by Phelps et al., (2016) and UNODC (2002) was used respectively. The situational action theory (SAT) was developed by Wikström (2004; 2014) as a general theory of moral action and crime that focuses on the person-environment interaction. It explains the occurrence of an *action* based on three things: the *person*, the *setting* and the *situation*. In explaining criminal acts, it proposes that *people* vary in their criminal propensities while *settings* vary in their criminogeneity and when crime-prone people are exposed to criminogenic settings, they view crime as a likely alternative (Wikström, 2014). In essence, the theory proposes that people commit crimes not because of their attributes (age, sex, ethnicity, employment or social status, genes,

etc.) but due to their propensity to commit particular forms of crime when exposed to settings that provide the criminal opportunity in which the person considers that opportunity as an alternative action (Wikström, 2014). The tenets articulated under SAT thus provided the theoretical lens to understand the role intermediaries have in creating the criminogenic setting that leads to the proliferation of crime propensity among local people living adjacent to the Sundarbans forest. To understand the role of the intermediaries and propose preventive strategies to limit trafficking of tiger parts from the Bangladesh Sundarbans, two complementary analytical frameworks and method from crime science (crime scripts and situational crime prevention) were used. Crime scripting is a process that requires documenting the resources and sequential actions of a felon before, during and after carrying out the illegal activity (Leclerc, 2014). It requires collecting information on 'how the offender went about the crime commission' along with the choices made by the offender throughout the criminal act (Tompson & Chainey, 2011). Developing actor specific crime scripts will help to identify 'pinch points' for each actor involved in the specific stages of the trafficking process. These 'pinch points' can be targeted using situational crime prevention techniques (SCP) to reduce the opportunities to commit the offence at specific stages of the trafficking process. SCP is comprised of a set of mechanisms that can potentially alter an offender's behavior through changing situational factors that allow the offender to offend. Therefore, both crime scripts and SCP are complimentary frameworks as their aims are to thwart specific crimes from taking place through identifying vulnerable situations in the crime process and reducing the opportunity to commit an offence through prevention measures (Tompson & Chainey, 2011; Viollaz et al., 2018). Both these frameworks were used to identify and formulate interventions to stop or discourage wildlife crimes like poaching and illegal wildlife trade in different contexts (Lemieux & Clarke, 2009; Pires & Moreto, 2011).

Poaching for illegal trade in tiger body parts in the Bangladesh Sundarbans provides support to the urgent need to understand the illegal trade of tiger parts originating from the Bangladesh Sundarbans in a more detailed manner. Therefore, the aim of this research will be to understand the role of intermediaries in the trafficking process of tiger parts in the Satkhira range of Bangladesh Sundarbans and suggest preventive measures that reduces the opportunity in the trafficking process. To achieve this, the research attempted to identify the different intermediaries and their roles in facilitating the trafficking process and then use that information to suggest prevention measures to reduce opportunities for the intermediaries to become involved in trafficking activities. Answers to the following research questions will be necessary to achieve this objective,

Main Research Question:

1. What roles do intermediaries play in facilitating the trafficking of tiger parts from the Satkhira range of the Bangladesh Sundarbans?
 - a. What are the types of intermediaries that facilitate the trafficking process in the Satkhira range?
 - b. What are the sequence of activities carried out by key intermediaries in the trafficking process in the Satkhira range?
 - c. How do intermediary activities affect the personal and social opportunities for local people to become involved in the trafficking process in the Satkhira Range?
 - d. How are intermediaries organized in the trafficking process in the Satkhira range?
2. What prevention strategies are most likely to deter intermediaries involved in the trafficking process of tiger parts in the Satkhira range?
 - a. Which situational crime prevention techniques are appropriate to deter intermediaries during the trafficking of tiger parts in Satkhira range?
 - b. How can each appropriate situational crime prevention technique be implemented in the Satkhira range?

CHAPTER 2: CONTEXT OF STUDY

The global illicit trade in wildlife products is estimated to be valued around US\$23 billion annually and is anticipated to be the 4th largest illicit trade after narcotics, human trafficking and weapons trade in terms of value (UNDP, 2015; WWF, 2012). Since 1975, tigers are listed as Appendix 1 species under the CITES (Convention on the International Trade in Endangered Species) which bars the international commercial trade in tigers or its derivatives, albeit with some exceptions. Even with such restrictions, between 2000 and 2015 eight hundred and one (801) tiger parts seizures, estimated to be equivalent to a minimum of 1,755 live tigers, was made in the 13 tiger range countries (Stoner et al., 2016). Following a rule of thumb used by INTERPOL, which suggest that only 10% of total trafficked contraband is seized, implies as many as 17,550 tigers entering the global illegal trade in tiger parts over this 15-year period. Ninety percent of seized tiger parts are reportedly en route to China (EIA, 2016). Seizure records suggests that tiger parts originating from captive tiger sources is what drives the illegal trade in tiger parts (EIA, 2016; Stoner et al., 2016). Even though many Asian countries have made it illegal to trade in tiger parts (in line with CITES directives), trade and production still persists in China, Laos PDR, Thailand, Vietnam, Malaysia, Myanmar, South Korea, Singapore and Japan (Nowell & Ling, 2007; TRAFFIC, 2008; Nijman & Shepherd, 2015; Nuwer, 2017). In many of these Asian countries, economic development and increases in individual purchasing power coupled with long-standing beliefs have created growing demand for exotic animal products used as a sign of wealth, pride and power (Ellis, 2005; TRAFFIC, 2008; Conrad, 2012). For instance, throughout the 1990s until 2006, clothing trimmed with highly endangered animal skins was high fashion in Tibet and shunned only after the 14th Dalai Lama appealed to all Tibetans to move away from the practice (Liou, 2006; Yeh, 2013). The collapse of demand in Tibet simply meant that traders of skins shifted products to supply the home furnishing and décor markets that caters to Chinese elites (EIA, 2013). It is believed that the value of wildlife products depends greatly on the cultural context where it is used (Uhm, 2016). In Chinese culture the use of endangered species in traditional medicine is deeply rooted in their cultural philosophy (Xu & Yang, 2009). Hence, laws against the use of wildlife products are ineffective as laws with weak social foundations face poor implementation (Locke 1689, as cited in Uhm, 2016). Moreover, consumers of traditional medicine believe wild tiger parts are more potent and effective at curing diseases than those from farmed tigers, which creates a double jeopardy for wild tigers (Gratwicke et al., 2008; Uhm, 2016). Such a rising demand has led to persistent and rampant poaching of tigers in their range countries (Dinerstein et al., 2007).

On the supply-side, a critical element of the problem lies in the Chinese State Forest Administration's (SFA) willingness to support the domestic commercial trade of Tiger skins for 'educational' and 'scientific' purpose (Guynup, 2017). China officially banned the international trade in tiger bones in 1993 just before funding and allowing the opening of tiger farms to meet the domestic demand (Moyle, 2009). The complexity and dichotomy of the SFA in banning trade in tiger bones but allowing limited national trade in tiger skins and bones of other big cats have encouraged the establishment of around 200 registered tiger breeding centers (Nuwer, 2017). These operate under the banner of 'educational' and 'conservation' purposes in China, Laos PDR, Vietnam and Thailand (Nowell & Ling, 2007; EIA, 2016; Bale & Actman, 2017; Parry, 2018). Owners of these farms are alleged to have no interest in securing a future for wild tigers, as extinction of wild populations will allow them exclusive control of the trade in tiger parts (Gratwicke et al., 2008). Incidentally, these centers have a growing stock of captive tigers, and are known to stock up and supply large amounts of tiger products that include tiger bone wines, raw bones and pelts to oriental

consumers (EIA, 2013; Bale & Actman, 2017). This ready supply de-stigmatizes the use of tiger parts among end consumers and creates the demand through illicit supply. Tiger pelts and body parts have become a status symbol for the wealthy and influential elites of Southeast and East Asian countries, and are often used as gifts to cement business deals or simply flaunt wealth, power and influence (UNODC, 2016; Guynup, 2017). The domestication and utilization of wildlife for ‘conservation purpose’ has created a favorable environment for State-sponsored and private enterprises to profit from the domestic trade in tiger parts in China (EIA, 2013).

Criminal networks allegedly use these centers as a façade to supply poached tigers, as it is impossible to distinguish between wild and farmed tigers (Dinerstein et al., 2007). Especially, allegations are strife against breeding centers in Thailand, Laos PDR and Vietnam for being involved in laundering wild tigers and their parts for illegal trade (Davies & Holmes, 2016; Nuwer, 2017). These centers breed tigers like livestock for profit, to supply the tourist industry and the illegal trade in their body parts for traditional medicine and luxury markets (Bale & Actman, 2017; Parry, 2018). Most of these breeding facilities are disguised as zoos that attract people with gimmicks such as petting, feeding and taking pictures with tigers restrained and tamed with fear and pain (WPA, 2016). Tigers born in these farms go through a horrific and terrible ordeal from birth to slaughter (Bale & Actman, 2017). Not to mention that those born in captivity hold little to no conservation value due to inbreeding and lack of skills to survive in the wild (Nyhus et al., 2010). Although there have been calls from scientists within the Chinese Academy of Sciences for enacting stricter laws related to animal welfare that can potentially stem breeding of tigers in captivity, it has been widely sidelined by Central People’s Government of China (McClatchy, 2014). It seems that even a decade of mounting international pressure on the Chinese delegations to CITES Conferences, has had no effect in their inclination to curtail the legal trade of tiger pelts and other big cat parts that is causing declines in wild populations of tigers and other large cat species (EIA, 2018).

CHAPTER 3: LITERATURE REVIEW

3.1. ORGANIZED CRIMINAL NETWORKS AND TIGER POACHING

Though tigers make up only a small portion of the large heterogeneous list of animals that enter the illegal trade every year, trade in tiger parts have been increasing over the last decades due to its high profitability, low law enforcement and weak sanctions (EIA & WPSI, 2006; Moyle, 2009). The economic theory of crime suggests that criminal acts are based on rational economic decisions (Becker, 1968). With profit margins potentially reaching 900% for tiger pelts, it dwarfs the costs related to getting caught (EIA & WPSI, 2006). Moyle (2009) suggests that criminal organizations involved in illegal trade of tigers and other wildlife operate as any other profit-oriented enterprise and therefore are likely to minimize costs and maximize profits throughout their supply chain. His research paints a chronological picture of how criminal organizations ‘procure, transport and sell’ tiger parts from source countries to destination countries, over international borders, from poacher to user. Using past evidence from investigations, he summarizes that criminal organizations are most likely to follow a ‘sell to order’ method, as such a method is characteristic of markets with high-value products with low-volume trade. He argues that taking pre-orders from traditional Chinese medicine shops coupled with the culture of ‘*guanxi*’¹ in Chinese society reduces the risk of discovery or penetrability of this trade in China. He concludes that the lack of insight into the distribution of tiger parts in China remains poorly understood.

The first step in the supply chain of the illegal trade are people who kill tigers in the forest. They possess specialized hunting skills and intimate knowledge about tiger behavior and habitat. Especially members of local communities with hunting experience are likely candidates to carry out poaching for organized criminal networks (Plowden & Bowles, 1997; Khadka, 2008; Saif & MacMillan, 2016). Professional poachers are also known to travel from different places of the country to tiger habitats to carry out poaching (MacMillan & Nguyen, 2014). Even in the face of legal sanctions, poaching can still be an attractive option for members of local communities who seek to increase their disposable income or even sometimes be intimidated into poaching by criminal organizations (TRAFFIC, 2008; MacMillan & Nguyen, 2014). Furthermore, tigers only occur in Asia where the incidence of poverty among communities living around remaining tiger habitats is prevalent, which creates incentives to kill tigers (Damania et al., 2003). Though there is increasing evidence that large amount of tiger parts from farmed tigers enter the illegal trade, pursuing poaching wild tigers still makes economic sense for criminal organizations (Bulte & Damania, 2005). This is because it costs at least US\$4,000 to rear a tiger to adulthood in captivity while it takes as little as US\$15-20 to poach one in the wild (Damania et al., 2003; Lapointe et al., 2007). Even after accounting for transaction and other costs, transnational criminal organizations drives poaching of wild tigers due to it simply being cheaper and more profitable compared to raising them in farms (Gratwicke et al., 2008; Moyle, 2009; EIA 2013). Therefore, it is not surprising that organized criminal groups, and not poachers, retain bulk of the profits from trade in tiger parts (Nowell, 2000; Saif & MacMillan, 2016). Moreover, killing high value species such as tigers likely involves support from political elites or law

¹ The culture of ‘*guanxi*’ is a powerful force in Chinese culture that cultivates close relationships between individuals, based on trust, reciprocated through the exchange of gifts and favors. It is considered a strong social bond based on trust and loyalty between individuals, which is difficult for outsiders to infiltrate (Moyle, 2009; Uhm, 2016)

enforcement officers (government colluders) who use their official government positions to facilitate the trade for ‘financial, social or personal gain’ (Saif, 2016b; Phelps et al., 2016).

Once a tiger is killed, it is most likely that domestic intermediaries facilitate the link between poachers and the larger criminal network (Moyle, 2009). Cash payments, which are significantly higher than a poacher’s traditional income, reciprocates trust and loyalty between poachers and domestic intermediaries and likely deters defection (EIA, 2006; Banarjee, 2007; Saif & Macmillan, 2016). Only when poachers are able to undertake subsequent tasks in the supply chain that reduce transaction costs, like transporting parts over borders, does it make sense for criminal organizations to internalize poachers into their network (EIA & WPSI, 2006; Moyle, 2009). Moyle (2009) suggests that transport from the poacher to storage, until shipment, are likely carried out by a single domestic organization to reduce the risks of detection and costs related to evasion (confiscation, arrest, etc.). Based on evidence from past arrests of tiger poachers, Moyle (2009) suggests that the transfer of the product between the domestic organization and a foreign buyer likely takes place within the range country, as evasion costs are likely to be significantly higher in China. The next stage in the supply chain involves the transport of the tiger products through international borders into China. He proposes that this happens in bulk with other wildlife products through whichever available route (land, sea or by air) that has the lowest detection rates. Though a preferred route is difficult to pinpoint due to lack of seizure data from different routes, Moyle (2009) suggests that smugglers prefer pre-ban networks that existed before the 1993 Chinese ban on international trade of tiger parts and with the complicit involvement of border communities in channeling the trade. Using available seizure data from China, he suggests a strong geographical association between the Chinese black market of tiger parts and tiger range countries, again likely based on pre-ban trading routes. Through his analysis of the data, he hypothesizes that there is a relationship between trade routes in sub-species specific tiger products and proximity of the nearest tiger range country (e.g. Indo-Chinese in Yunnan, Bengal in Tibet and Amur in Heilongjiang). He draws parallels to the illegal trade in narcotics like cocaine and heroin to explain how trade in tiger parts may follow similar principles that make the narcotics trade difficult to control. He concludes that incomplete knowledge of the black market in tiger parts hinders effective conservation policies for tigers and that effective deterrence is going to require a better understanding of the black market for tiger parts in China.

3.2. TIGERS AND LOCAL COMMUNITIES

As a high value species, the incentives for tiger poaching is increasing as the value for tiger parts is rising (MacMillan & Nguyen, 2014; Challender & MacMillan, 2014). The growing demand from affluent consumers, crippling poverty among local communities and relatively easy access to natural resources in source countries motivates the poorest to poach wild animals for short-term gains and cash payments (TRAFFIC, 2008). However, a critical threshold exists for poaching in tiger populations, which once crossed can lead to local population extinctions (Kenney et al., 1995; Chapron et al., 2008). Poaching wild tigers to meet the demand for illegal commercial trade in tiger parts can have a devastating effect by potentially eradicating wild populations in a short amount of time (Kenney et al., 1995; Chapron et al., 2009; EIA, 2013). It can have numerous demographic consequences on local tiger populations. This includes increased rates of infanticide by new males replacing poached individuals, removal of the fittest individuals leading to loss in genetic variability and inbreeding depression, and loss of adult breeding females leading to reduced population persistence (Kenney et al., 1995; Swenson, 2003; Rosen & Smith, 2010; Chapron et al., 2008). Compared to other solitary felids such as cougars (*Puma concolor*) and

leopards (*Panthera pardus*), tigers have longer inter-birth intervals and reach reproductive maturity at a later age (Chapron et al., 2008). Therefore, even a modest mortality rate of wild local populations that do not have a source population to replenish lost individuals are unlikely to recover after populations decline (Chapron et al., 2008). Chapron et al. (2008) concluded that a decline of more than 15% of adult breeding females per year leads to unsustainable declines in local populations even in the presence of an adequate prey population. Their findings suggest that ensuring a high survival rate for adult breeding females will allow populations the ability to compensate for low survival rates in other age classes (juveniles, transients) of the populations.

As a large carnivore, tigers require large home ranges and a substantial prey base to persist as viable populations in their habitat (Karanth & Stith, 1999; Chapron et al., 2008). However, local communities living around tiger habitats are most often dependent on resource extraction from tiger habitats. Among other types of resources extracted, hunting prey animals that tigers depend on as their food source is an eminent threat to the survival of tigers in the short run (Damania et al., 2003; Aziz, 2015). Evidence supports that in the absence of high rates of human caused mortality, there is an inverse relationship between a tiger's home range and its prey density, as a lower prey density leads to larger home ranges and vice versa (Barlow, 2009; Miquelle, et al., 2010). Therefore, loss of natural prey and their habitat lead tigers to seek food in human dominated landscapes and cause provocations (Goodrich, 2010). In addition, local hunters and trappers often use snares and traps to hunt tiger prey animals (deer, boars, etc.) which do not discriminate between tigers and their prey (Aziz et al., 2017). Tigers caught in these traps end up dead or with wounds and injuries that may force them to enter nearby human habitations in search of food and end up causing damage leading to its death by villagers. Jim Corbett (1944) was among the first to suggest that tigers attack humans when “compelled, through stress of circumstances beyond its control”. Tiger killing by villagers depends on a complex mixture of social and psychological perceptions (Dickman, 2010; Inskip et al., 2013). For example, the death of a family member or livestock to tiger attack can have severe negative impacts on household income and exacerbates direct risk perceptions, which forms a negative attitude towards tiger conservation among the affected villagers (Inskip et al., 2013). Such negative associations with tigers often act as motivations to kill them opportunistically as ‘revenge’ for past attacks on family and friends or assist professional poachers with information that can lead to successful poaching events which supply the illegal trade (Shepherd & Magnus, 2004; Johnson et al., 2006; Saif & Macmillan, 2016). One such place where tigers and humans have lived precariously over many generations is the Sundarbans (Barlow, 2009). Though conflict with humans have always been present and led to tiger deaths, recent studies suggests that the scale of the tiger poaching to supply the illegal trade has become a major cause for their decline in the Sundarbans of Bangladesh (Saif et al., 2016; Aziz et al., 2017; Hossain et al., 2018).

3.3. THE SUNDARBANS AND TIGER KILLERS

The Sundarbans is the ‘largest contiguous mangrove ecosystem in the world (10,200 km²) shared by both Bangladesh (6,017 km²) and India (4,183 km²) (Giri et al., 2011). It was classified as a Class 3 Tiger Conservation Landscape of Global Priority as it hosts the only known population of the Bengal Tiger (*Panthera tigris tigris*) living in a mangrove ecosystem (Sanderson et al., 2010; Ahmad et al., 2009). The Bangladesh Sundarbans is a Reserve Forest (SRF) with three Wildlife Sanctuaries (West, South and East) comprising around 1,400 km² where all types of human activity is illegal. Divided into four tiger habitat ranges by the Bangladesh Forest Department (Sathkhira, Khulna, Chadpai and Sarankhola), it is bordered

by six administrative sub-districts (Upazilas) consisting of 76 villages scattered around the perimeter of the forest with around 350,000 inhabitants directly dependent on the forest's natural resources for their livelihoods (Ahmad et al., 2009; Saif, 2016). Compared to other mangrove ecosystems around the world, the Sundarbans holds a high diversity of mammals, birds, reptiles and fish, holding viable population of species which are facing extinctions elsewhere (Barlow, 2009; Islam & Gnauck, 2009). The forest department is the sole custodian of the forest's resources and provides operational level rights to local communities to extract resources through the issuance of permits in exchange for a fee. Entering the forest without permission (permits) to collect NTFP, fishing in restricted canals or harvesting NTFP in protected areas with a permit are some activities considered illegal by the forest department in the SRF and the Wildlife Sanctuaries. A growing human population together with lack of opportunities for alternative livelihoods has been causing the degradation of the SRF (Jin-Eong, 1995; Waggoner & Ausubel, 2001; Iftekhhar & Islam, 2004). More recently, unplanned development has added to the string of woes on the shoulders of local communities living adjacent to the SRF. Haphazard industrial development and change in land use from agriculture to industrial scale shrimp production has greatly changed the ability of the natural ecosystem to maintain its resilience and support already fragile livelihoods for local people dependent on the forest (Chowdhury, 2017; Chandan, 2018a; Hossain et al., 2018). It has become apparent that pollution from shrimp farms and newly established industries are causing great damage to ecosystem functions that support wild fisheries connected to livelihoods of hundreds of thousands of underprivileged and often landless families. The loss in traditional livelihoods and crippling poverty capitulate people into illicit activities like poaching tigers as it offers considerably large incomes and a way out of their misery (Saif & MacMillan, 2016; Chandan, 2018b).

In the latest Tiger Action Plan 2018-2027, the forest department suggests that tiger poaching to supply the illegal trade is a primary threat to the tiger population in the Sundarbans (Khan et al., 2018). It acknowledges that little is known about the illegal trade in tiger parts and that seizures are opportunistic with majority of the poaching incidents not detected due to the 'covert and illegal nature of this activity' (Khan et al., 2018). The report draws on seizure records to show that between 2000 and 2015, seizures of tiger parts in Bangladesh were mostly tiger pelts that accounted for 2.4% of the total tiger part seizures in tiger range countries (Khan et al., 2018). The report points to the fact that Bangladesh lies between India and Myanmar, two countries that have a high incidence of tiger poaching, which makes it unlikely for criminal groups in the international trade of tiger products to overlook the population of tigers in the Sundarbans. Poaching for commercial trade in tiger-skin has been present in the SRF for decades and recent research found that commercial trade was introduced by 'non-local Bangladeshi' traders coming from other cities of the country to look for tiger parts (Saif & MacMillan, 2016). In-depth research into poaching found the trade in tiger pelts and tiger bones to operate via different traders and trading routes in Bangladesh, which is consistent with contemporary knowledge of trade in wildlife products (Saif et al., 2016; Phelps et al., 2016). Saif (2016a) through her PhD research in investigating tiger poaching in the SRF suggested that poaching and opportunistic killing of tigers is driven largely by a demand from commercial traders and to some extent by local beliefs in the use of tiger parts. She developed a local typology of tiger killers based on killing techniques and motivations of each type of killer. Apart from villagers who kill tigers when tigers enter villages for safety reasons, all other types of tiger killers (professional poachers, local hunters, trappers and pirates) kill tigers inside the forest. Professional poachers are known to enter the forest in the guise of fishermen, in groups of 4-6, to set traps for deer or boar which they poison and use as bait (Saif, 2016; Aziz et al., 2017). Once a tiger dies of poisoning, they gut and skin the tiger, taking the skin and burying the bones inside the forest until they find a suitable buyer for the bones (Saif, 2016). Their motive is primarily

to supply tiger parts to the commercial trade, believed to be their primary livelihood. On the other hand, local hunters enter the forest with guns to hunt spotted deer for own consumption and to supply the local market, but will kill a tiger if the opportunity arises for extra income, excitement, safety or revenge (Saif & MacMillan, 2016). Trappers rely on setting traps and snares to kill prey animals in which tigers can get trapped, injured and even killed (Saif & MacMillan, 2016; Aziz et al., 2017). To reduce their poaching effort and chances of arrest with incriminating evidence, poachers and trappers keep snares in bags and hides them inside the forest (Aziz et al., 2017). Pirates also kill tigers in the forest primarily due to their safety and profit by supplying tiger parts to the commercial trade (Saif, 2016).

Saif's (2016b) used her research findings on tiger poaching from the SRF and combined it with national seizure records to suggest that professional poachers and opportunistic tiger killers sell tiger parts differently due to differences in their familiarity with trader networks. Her research findings suggest that professional poachers have strong trade networks and therefore are less likely to sell to outside traders who come to villages seeking tiger parts. On the other hand, opportunistic tiger killers (local hunters, trappers, pirates) are less likely to have a strong trade network and therefore most likely sell tiger parts to traders coming to villages from other cities of the country (Saif, 2016b). Since professional poachers develop a strong trade network, they will have a higher bargaining power when it comes to setting the price compared to opportunistic tiger killers (Saif, 2016b). These actors allegedly use family members or work in teams to supply tiger parts to traders located in other cities (Saif, 2016b). Her research findings suggests that buyers of tiger skins are more varied compared to buyers of tiger bones, which is driven by demand from 'non-local Bangladeshi' traders. Based on interviews with people involved in selling tiger parts, Saif (2016b) found that selling tiger bones is less complicated compared to selling tiger skins as tiger bones are easily concealable, requires minimal processing and it is easier to get in touch with buyers of bones compared to buyers of skins. She suggested that the purported presence of outside traders seeking tiger parts in surrounding villages of the Sundarbans acts as incentives for forest going people to turn into opportunistic tiger killers (Saif, 2016). Her research explicitly focused on the roles of tiger killers (poachers, hunters, trappers, pirates) in the illegal trade of tiger parts from the Bangladesh Sundarbans, and hence only provides a general overview of the of other people (intermediaries) involved throughout the supply-chain of tiger parts trade in Bangladesh.

In order to understand how the illegal trade of tiger parts operate and suggest strategies to reduce and deter trafficking activities, it is important to identify the actors involved in each step of the trafficking process based on a delineation of their roles, responsibilities and activities. Also gaining knowledge about the formation of their group and their influence on specific actors in the trafficking process will likely be helpful in targeting prevention strategies. Therefore, the dual objective of this research was to identify the different intermediaries in the trafficking process and suggest crime prevention strategies that has the highest potential to reduce the opportunity for intermediaries to undertake trafficking activities related to tiger parts from the Satkhira range of Bangladesh Sundarbans.

CHAPTER 4: THEORETICAL FRAMEWORK

Conservation crimes, such as wildlife trafficking, is both a natural resource and societal problem that requires a multidisciplinary approach to understand the issues involved and provide practical guidance for ‘on-the ground practice’ (Gore, 2017). In this regard, the developing paradigm of conservation criminology considers the use of theories and frameworks from criminology and crime science as one of the foundational field of the discipline that studies crimes against nature (Gore, 2011). In case of this research, different theoretical concepts and frameworks were used to guide the research process that provided an interdisciplinary lens to achieve the research objectives. In particular, intermediaries involved in the trafficking process of tiger parts from the Sundarbans were identified based on a characterization of their roles in the trafficking process as defined by the typology of intermediaries developed by Phelps et al., (2016). The organization of the intermediaries as a criminal group involved in the trafficking process of tiger parts was also identified using the typology of organized crime groups suggested by the UN Office of Crime and Drugs (UNODC, 2002). After identifying intermediaries in the trafficking process of tiger parts and their organization in the Satkhira range of Bangladesh Sundarbans, the theoretical and analytical perspectives offered by situational action theory (SAT) (Wikström, 2004; 2014), crime script analysis (Cornish, 1994) and situational crime prevention (SCP) (Clarke, 2009) was applied. These frameworks were useful in highlighting the sequence of intermediary activities (crime scripts), explaining how particular intermediary activities affect the opportunities for local people to become involved in the trafficking process (SAT) and suggest opportunity reducing crime prevention measures (SCP) to deter trafficking activities in the Satkhira range of the Bangladesh Sundarbans. Since all these frameworks have been used to study crime in different ways, their integration into a single conceptual framework for this research provided the unique perspective to achieve the objectives of this study. Thus, the purpose of this section is to provide a brief description of the typology of intermediaries suggested by Phelps et al., (2016), the typology of criminal organizations suggested by the UNODC and followed by a representation of SAT, crime scripts and SCP. After a brief discussion of these frameworks, their integration into a conceptual framework that guided data collection instruments and analysis of the findings for this research is provided.

4.1. TYPOLOGY OF INTERMEDIARIES AND ORGANIZATION OF CRIMINAL GROUPS

Intermediaries or ‘middlemen’ is a broad term often used to describe actors who play the roles of key facilitators between wildlife harvesters and wildlife consumers. Intermediaries who collect wildlife products from wildlife harvesters and supply to consumers play diverse and complex roles, much like intermediaries involved in illegal networks (Phelps et al., 2016; UNODC, 2002). Often interventions to deter illegal wildlife trade (IWT) are taken without explicit consideration of the distinct roles actors play in the trade and contexts in which it happens (Milliken et al., 2012; Biggs et al., 2017). The lack of systematic tools and conceptualizations of the different components (e.g. products, actors, networks, contexts) that make up the IWT often leads to a poor understanding of such trade (Phelps et al., 2016). In order to analyze such a complex phenomenon in a more structured way, Phelps et al., (2016) developed a typology-based framework by synthesizing findings from literature that considered among other things, the varying roles intermediaries play in the IWT. By using evidence of IWT from across different taxa and contexts, Phelps et al., (2016) distinguished between roles played by ‘harvesters, intermediaries and consumers’ involved in IWT across different countries. Since the objective of this research is to identify only actors involved in trading tiger parts (not harvesters or consumers), only the typology of intermediaries developed by Phelps

et al., (2016) was used to characterize the actors involved in the trafficking of tiger parts in the Satkhira range of Bangladesh Sundarbans. The typology developed by Phelps et al., (2016) for intermediaries used for this research is represented in Table 1. Along with characterizing intermediaries using different roles suggested by Phelps et al., (2016), their motivations for becoming involved with trafficking tiger parts and the recruitment process of intermediaries were explained to provide a better understanding for determining the appropriate types of interventions to deter trafficking activities.

Table 1: Typology of intermediary roles in illegal wildlife trade networks (Source: Phelps et al., 2016)

Intermediaries	Logistician	Involved in ordering, aggregation, and transport, as well as financing and planning trade. May be directly involved in handling trade or involved at a distance.
	Specialized smuggler	Transport that requires specialized actions to evade detection or negotiate access, usually across borders (eg transboundary smuggling, specialist networks)
	Government colluder	Involved in using an official government position (eg park ranger, police officer, judge, prosecutor) to facilitate trade, whether for financial (corruption), social, or personal gain
	Third party	External services hired to support trade, but potentially unknowingly (eg bus or air transport)
	Processor	Involved in product transformation (eg skinning, medicine preparation)
	Launderer	Involved in laundering illegal wildlife into legal markets chains (eg via captive breeding or processing operations)
	Vendor	Involved in direct sale to consumers or to other intermediaries (eg market, online platform)

Actors involved in illegal networks are often organized into diverse configurations (UNODC, 2002; Phelps et al., 2016). The UN Convention against Transnational Organized Crime in Article 2 (a) defines ‘organized criminal groups’ as: ‘...a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences in order to obtain, directly or indirectly, a financial or other material benefit’ (UNODC, 2002). Such a broad definition was deliberately taken to define organized criminal groups so as not to limit its application given the diversity of such groups (UNODC, 2002). However using such a broad perspective to define organized crime groups also meant challenges for collecting data on such groups (UNODC, 2002). Overcoming many of the methodological challenges, the study by UNODC used data collected from affiliated organizations from sixteen UN member countries to compare and contrast between different criminal groups in selected countries to develop a typology of organized criminal groups. Though the study states that using forty groups from sixteen countries is not representative of all the different types of criminals groups that exists around the world, it provided similarities between the groups that was used to create the typology of criminal groups. The analysis of the data from the sixteen countries resulted in the culmination of five different types of criminal groups that exist in those countries. Table 2 provides a basic description of the five typologies identified by the UNODC study.

In order to give greater detail to the structure and the organization of the criminal group involved in the trafficking of tiger parts in the Satkhira range of Bangladesh Sundarbans, the typology of organized crime groups suggested by the UNODC (2002) was used. Being able to categorize criminal groups into a particular category can help law enforcement to take apprehension measures.

Table 2: Typologies and description of the organization criminal group (Source: UNODC, 2002)

Typology of Criminal Group	Short Description of Criminal Groups
Standard hierarchy	Single hierarchical group with strong internal systems of discipline.
Regional hierarchy	Hierarchically structured groups, with strong internal lines of control and discipline, but with relative autonomy for regional components.
Clustered hierarchy	A set of criminal groups which have established a system of coordination/control, ranging from weak to strong, over all their various activities.
Core group	A relatively tightly organized but unstructured group, surrounded in some cases by a network of individuals engaged in criminal activities.
Criminal network	A loose and fluid network of individuals, often drawing on individuals with particular skills, who constitute themselves around an ongoing series of criminal projects.

4.2. SITUATIONAL ACTION THEORY

Situational action theory, developed by Per-Olof Wikström in 2004, provides a ‘broad’ and ‘deep’ theory that explains rule-breaking behavior in people (Pauwels et al., 2018; Hirtenlehner & Reinecke, 2018). The theory incorporates both people-oriented and context-oriented explanations of criminal conduct and simultaneously provides an explanation of the mechanism that brings about the criminal behavior in people (Hirtenlehner & Reinecke, 2018). According to the theory, three things are important to explain why people break common rules of conduct in particular settings. These include understanding (1) ‘the developmental processes (life histories) that make people who they are (person emergence)’, (2) ‘the social (historical) processes that create particular kinds of environments (social emergence)’ and (3) ‘the contemporaneous (social and self-) selection processes that place kinds of people in kinds of settings’ (Wikström, 2014). According to Wikström (2014), these are not simply questions that seek to discover what causes people to commit crime, but rather seeks to understand why particular people and places develop lawless tendencies compared to others and what makes crime-prone people interact with criminogenic settings.

The elements that make up SAT are the *person* (having criminal propensity), the *setting* (containing environmental inducements that give rise to criminal opportunities), the *situation* (the interaction between the *person* and *setting* that leads to the ‘perception-choice’ process) and the *action* (e.g. committing crime or not) (Wikström, 2014). It postulates that *people* vary in their crime propensities while *settings* vary in their criminogeneity and when people with particular criminal propensities are exposed to particular criminogenic settings, they are likely to commit crime (Wikström, 2014). The core tenet of the theory is based on the idea that the interaction of a *person* and a *setting* results in a *situation* (exposure) that leads to the *action* (crime) (See Figure 2) (Wikström, 2014). When a person is exposed to a particular setting, his or her own moral norms and the perception of the norms related to the setting allow the person to make a choice to commit the action based on deliberation or habit during the ‘perception-choice’ process (Wikström, 2014).

Choices made out of habit are those that a person is used to in a given setting, hence very little thought process is required when making the choice and it is somewhat automated and thoughtless. However, when there are several suitable alternatives to choose from, the process of choice will follow a rational deliberative process (Wikström, 2014). This deliberative process is influenced by the personal morals of a person as well as the ability to exercise self-control (moral filter and controls) (See Figure 1). As a result, the choice that a person makes depends on their criminal propensity, which is driven by two important factors, (i) the individual's moral beliefs and (ii) their ability to exercise self-control (Wikström, 2009). Between these two factors, morality (values and emotions) takes precedence over self-control, because a person with strong personal morals is unlikely to choose crime as an option (Wikström, 2009). Only when a person faces a motivation that conflicts with their morality, the capability to exercise self-control comes into play (Wikström, 2009). Such characteristics are often influenced by psychosocial (moral education and cognitive nurturing) and socio-ecological processes which are in turn dependent on the wider political and economic system (Wikström, 2014).

Key situational factors that influence the 'perception-choice' process are motivators (temptations and provocations), the moral filter (personal morals and moral norms of the setting) and controls (self-control or deterrence) (See Figure 1) (Wikström, 2014). SAT considers that motivators (temptations or provocations) initiates the process of taking an action but does not fully explain why people choose to act in a particular way. To explain why people choose to carry out a particular action, the theory suggests that there is an interplay of personal morals and the moral norms of the setting that creates alternative options for the person to choose from (Wikström, 2014). Therefore when a person's morals and the moral norms of a setting encourage (discourage) a particular type of action, that action is likely (unlikely) to occur (Wikström, 2014). However if the person does not consider the action as an alternative then that action will not be part of the options to choose from. Wikström (2014) explains this by using the example that most people who cannot afford a BMW car are likely to walk past a BMW with doors open and keys in the ignition but will still not see this as an opportunity to steal the car.

In relation to the *setting*, key environmental factors that determine the criminogeneity is its moral context or in other words the rules that apply to the setting and its level of enforcement (Wikström, 2009). It is important to understand the moral context of the setting as it provides the opportunity or friction that leads a person to commit crime (Wikström, 2009). As a result, when people are motivated to commit crime, they will also take into account the moral context of the setting in making their choice on whether to go ahead with committing the crime. Therefore, if a setting provides strong deterrence, likely through enforcement mechanisms, a crime-prone person is unlikely to commit the crime and adhere to the *setting's* moral norms (Wikström, 2014).

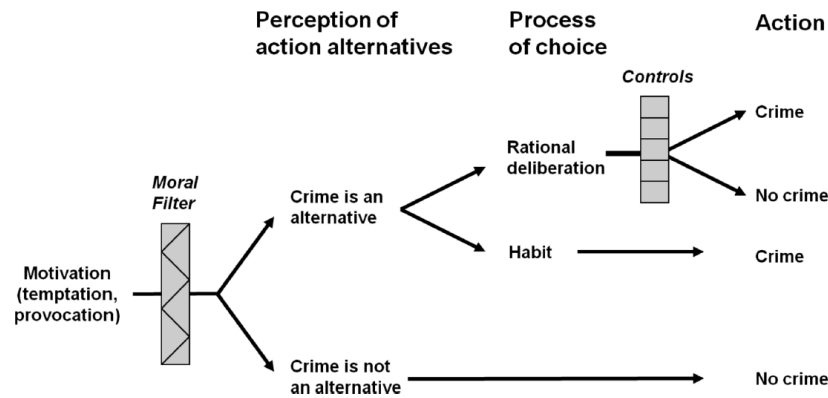


Figure 1 The situational process of SAT showing the key situational factors applied to the explanation of crime (Source: Wikström, 2014)

Wikström (2014) takes the situational model and complements it with factors he calls the ‘social causes of crime’ or the ‘causes of causes’. In this model Wikström (2014) highlights how the exposure of people (person emergence) to settings (social emergence) leads to processes of social and self-selection that creates the situation where people respond to motivators by committing an act of crime (See Figure 2). In this model, he explains ‘emergence’ as the process through which people (person emergence) and settings (social emergence) acquires an immoral or criminogenic stature through social interactions. In the social model Wikström (2014) suggests that historical processes of emergence explain person emergence and social emergence. In case of person emergence, historical processes can explain how an area acquired the ‘particular mix of kinds of people with particular preferences (desires, commitments, sensitivities), personal morals and abilities to exercise self-control’ (processes of person emergence) (Wikström, 2014). In case of the setting, historical processes explain how a particular location ‘provide particular opportunities and frictions in particular moral contexts’ (Wikström, 2014). Therefore, understanding the processes through which people and settings acquire their criminogenic stature provides the scope to understand processes of social- and self- selection (See Figure 2).

‘Social selection’ here refers to the ‘systems of formal or informal rules and differential distribution of personal and institutional resources’ that drive or discourage particular kinds of people into becoming involved in ‘time- and place-based activities’ (Wikström, 2014). ‘Self-selection’ refers to the choice a person makes to become involved in a particular activity within the constraints presented by the ‘social selection’ (Wikström, 2014). Based on this explanation, Wikström (2014) proposes the social model of SAT (See Figure 2).

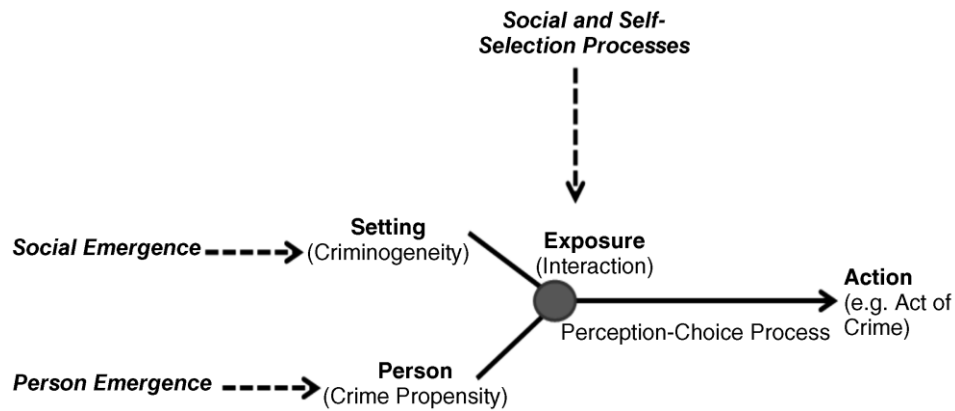


Figure 2: The social model of SAT (Source: Wikström, 2014)

In light of the objective of this research, the focus was in using this theory to explain how key intermediaries in the trafficking process creates the opportunity for others to become engaged in trafficking tiger parts by affecting both the person and social emergence. Also, the theory was used to explain how the historical processes at the village level enables this interaction and leads people to become involved in trafficking activities. The social model will therefore provide the means to explain how the interaction between the local people (persons with crime propensities) living in villages adjacent to Sundarbans (setting with criminogeneity) are exposed (interaction) to committing acts of crime and facilitate the trafficking of tiger parts from the Satkhira range of the Bangladesh Sundarbans.

4.3. CRIME SCIENCE: CRIME SCRIPTS AND SITUATIONAL CRIME PREVENTION

The two other frameworks used in this research are more analytical in nature and offers a systematic approach to analyze the crime process (crime scripts) and suggest preventive measures (SCP). Both crime scripts and situational crime prevention (SCP) are a part of crime science, and differs from mainstream approaches based on criminology. Crime science uses tools and techniques from various other disciplines with a prerequisite on using a scientific method of inquiry to investigate how crime can be reduced (Brayley et al., 2011). The distinction between crime science and criminology is that measures advocated by the former seek to study and prevent crime through a scientific and multi-disciplinary approach whereas the latter focuses on studying why people commit criminal acts through understanding social factors. Crime science has developed into a discipline fairly recently with the establishment of Jill Dando Institute of Crime Science at the University College London in 2001 (Laycock, 2005). It has become a paradigm of its own, which advocates the use of ‘data, logic, evidence and rational thought’ to control and prevent crime (Laycock, 2005). Results from crime science research is used in developing proactive crime prevention strategies that are based on an understanding of the situational factors that influence crime events (Gradon, 2013). Some criminologists consider crime science to be an extension of environmental criminology, because the latter diverges from the view held by traditional criminology and focuses on the opportunities created by the ‘environment’ that precipitates a crime event (Kahler & Gore, 2017). While criminology focuses mostly on ‘motivational factors’ of crime, environmental criminology puts more emphasis on the ‘opportunity’ aspect of crime (Clarke, 2009). Environmental criminology is composed of theories that seek to understand the circumstances in which criminal events occur (Wortley & Mazerolle, 2008).

Environmental criminologists believe that criminally disposed people will commit more crime if they encounter more opportunities for crime and that regularly encountering such opportunities will lead them to seek even more opportunities to commit crime (Clarke, 2009). They suggest that more opportunities for crime may also lead ordinary law-abiding citizens and individuals without prior criminal predispositions to offend (Clarke, 2009). In essence, as the opportunities for crime increase, crime will also increase. Much like the approaches in environmental criminology, SCP is steeped in crime science and developed over recent decades to prevent crime from taking place by focusing on changing situational opportunities of crime rather than just being focused on the offender (Wortley & Mazerolle, 2008). In order to do this it then becomes important to understand the crime commission process by examining the particular actions and resources required for a crime to take place. Crime scripts is such a method often used to document specific forms of crime in a sequential manner.

4.3.1. Crime Scripts

Crime scripting is an analytical tool developed to unravel the sequence of actions taken by an offender through systematically examining all the steps related to a specific type of crime (See Table 3) (Cornish, 1994). It was initially developed in the field of psychology as a method to study the series of actions and decisions that constitutes an event and was introduced in crime science by Cornish (1994) to deconstruct specific crimes into smaller components that allows identifying ‘pinch points’ for interventions (Cockbain & Laycock, 2017). Cornish (1994) used the behavior associated with going to eat at a restaurant as one example to highlight the string of actions associated with dining out. In this simple example, a person would have to enter the restaurant, take a seat, go through the menu, order something from the menu, eat, request the bill, pay the bill and then leave. He suggests that such a string of actions is applicable to crime as well, since offenders are likely to follow commonly used set of behaviors when committing crime. Based on this idea, Cornish (1994) suggested that documenting several sequential steps provides a description of the specific crime process. As a result, it becomes important to understand the crime commission process, especially from the perspective of an offender (Cornish, 1994). Wildlife trafficking like most other crimes requires offenders to follow certain routines and take specific decisions throughout their roles in the criminal process (Pires & Moreto, 2011).

Crime scripts can be distinguished between ‘empirical’ scripts that are simple descriptions of recurrent sequences of behavior often used in criminal investigations but lacking enough interpretation to design preventive measures and ‘explanatory’ crime scripts, which require a detailed explanation of observed behavioral patterns such as by using adapted concepts from ethology to understand human behavior (Ekblom & Gill, 2016). In their explanation, Ekblom & Gill (2016) suggest that among the different concepts borrowed from ethology (function, causation, development and evolutionary history), explanations of ‘function’ and ‘causation’ of human behavior is interlinked. In their adaptation of the functional explanation from ethology, they explain that unlike animals whose functions are latent (animals do not understand that licking salt from rocks restores the biochemical balance in their bodies), humans beings can ‘consciously articulate, reason with and combine’ goals and ‘exercise voluntary control over prioritization and execution’ of these goals (Ekblom & Gill, 2016). On the other hand, causes of human behavior is driven by a stimuli or motivation that leads to the desire to achieve a goal or an objective. By using these different levels of explanation to interpret individual behavior, it is possible to provide the insight into an individual’s ‘perception, knowledge and motivation’ for committing a specific type of action (in this case crime) (Keatley, 2018). Ekblom & Gill (2016) also makes distinctions between ‘competence’

and ‘performance’ and suggests that the former depends on self-knowledge and experience that people bring to situations that allow them to make decisions, while the latter is the ability to carry out actual sequence of behaviors that lead to failure or achievement of a goal. From a functional perspective, competence allows someone to use their experience to become specialized or versatile and anticipate or adapt to variations in situations during the different stages of committing an action (Ekblom & Gill, 2016). From a causal perspective, having competence in doing something is only part of the process of taking action and will inevitably require improvisations based on the available information of the (anticipated) situation to complete the action (Ekblom & Gill, 2016). As a result, a detailed consideration of the underlying causation of the crime is required to design effective preventive interventions that impede an offender’s performance (Ekblom & Gill, 2016).

Since multiple actors are involved at different stages of the trafficking process in the illegal wildlife trade of tiger parts in Bangladesh, developing a ‘master script’ of the entire trafficking process will be problematic. This is because separate groups are involved in different capacities, who are also unlikely to be linked to those in more distant steps in the trafficking process (Moreto & Clarke, 2013; Viollaz et al., 2018). Rather, a more appropriate approach was to identify key intermediaries and their roles in the trafficking process, as they are the nodes in the illegal network who play diverse, complex and critical roles in facilitating the illegal trade (Pires, 2012; Vira et al., 2014). After identifying key intermediaries in the trafficking process, crime scripts were developed and analyzed for each key actor based on the functional and causal explanation of the scripts as suggested in Ekblom & Gill (2016). Therefore, it is assumed that by analyzing the sequence of actions taken by key intermediaries directly involved with the trafficking process would allow to identify ‘pinch points’ in the sequence where SCP interventions can be applied to stop the crime (Clarke & Eck, 2014; Viollaz et al., 2018).

Table 3: Definition of scene classifications for crime scripts (Source: Thompson & Chainey, 2011; Keatley, 2018).

Scene classification	Definition
Preparation	Relates to the identification of an opportunity (to commit a crime)
Pre-Activity	Relates to the logistical precursors of the crime, involving any behaviors or events necessary to commit the crime.
Activity	Relates to the crime itself
Post- Activity	Involves any behaviors or steps needed to exit the scene and avoid detection

4.3.2. Situational Crime Prevention Framework

As an approach to crime prevention, SCP is based on elements derived from other ‘opportunity’ based theories of environmental criminology such as routine activities theory (Cohen & Felson, 1979), crime pattern theory (Brantingham & Brantingham, 2008) and the rational choice perspective (Clarke & Cornish, 1985). It is based on the premise that criminal acts are carried out by people because it provides them some sort of benefit (rational choice perspective), and that crime occurs when a ‘motivated offender’ finds a ‘suitable target’ in the absence of a ‘capable guardian’ in a particular place and time to successfully commit

the criminal act (routine activities theory). An important aspect of SCP is that situational factors can motivate a person to commit a crime (Milgram, 1974; Wortley, 2001). Based on the rational choice perspective, criminals like any other human being are likely to develop a general strategy through ‘choice structuring’, based on the ‘constellation of opportunities, costs and benefits’ that particular forms of crime offers (Clarke & Cornish, 1985). As a result, it requires focusing on highly specific forms of crime that allows the SCP framework to suggest measures designed to manipulate the immediate environment to make crime more difficult and risky as well as less rewarding and excusable for the offender (Clarke, 1997). By focusing on specific types of crime, the framework can be used to single out only the determinants of a specific crime, since similar crimes may have quite different motivations and determinants (Clarke, 2009). In other words, SCP represents a micro-level perspective that focuses on specific categories of crimes and attempts to understand the situational dynamics in order to prevent crime from taking place (Wortley & Mazerolle, 2008). Such a situational perspective of crime views the offender as just one element of a criminal event without too much attention on ‘why’ offenders become who they are and therefore does not explicitly seek to find ‘cure’ for offenders predicament (Wortley & Mazerolle, 2008). Rather, it strives to understand the dynamics of crime by focusing on the ‘where, when, who, what and how of crime’ (Wortley & Mazerolle, 2008). In this way SCP framework explains criminal acts from the perspective of the available opportunity to commit crime, rather than solely the offender’s predispositions such as biological factors, developmental experiences and social forces towards committing crime (Clarke, 2009).

Hence, SCP suggests that the offender’s choice to commit a crime can be influenced by changing the situational context in which the crime would naturally occur. The purpose of SCP measures is primarily to make criminal acts less attractive by reducing the opportunity to commit the crime through various measures that relate to *increasing the effort, increasing risks, reducing rewards* (Clarke, 2009), *reducing provocations* (Wortley, 2001; Cornish and Clarke, 2003) and *removing excuses* (Homel & Clarke, 1997) related to committing the crime. Under these so called ‘five-pillars’ there is a list of 25 techniques, which can be used to implement locally targeted preventive measures designed to modify the environment in which the crime occurs (Cornish & Clarke, 2003; Pires & Moreto, 2011). In order to apply these techniques it is important to focus on specific categories of crime that concentrates in space and time and also understand how the crime is committed (Clarke, 2009). It also requires identifying and focusing on places (hot spots) or things (hot products) where crime concentrates, as it creates the opportunity to design situational interventions with most benefits (Clarke, 2009). A detailed understanding of the process of the criminal act informs about the steps taken prior, during and after the commission of the crime and can then be used to design more effective interventions (Clarke, 2009). Thus, in case of SCP it is more important to understand ‘how’ rather than ‘why’ the crime takes place. SCP as a framework to prevent crime has been applied to understand instances of wildlife crime such as illegal wildlife trade and poaching (Lemieux & Clarke, 2009; Pires & Moreto, 2011).

4.4. THE CONCEPTUAL FRAMEWORK

In order to apply the different frameworks explained above, a logical sequence of steps was followed to achieve the objectives of this research. In this regard, Figure 3 provides a graphical presentation of the flow of application of each of each discussed framework and Figure 4 provides a systematic description of how each framework was operationalized to meet the needs of the research.

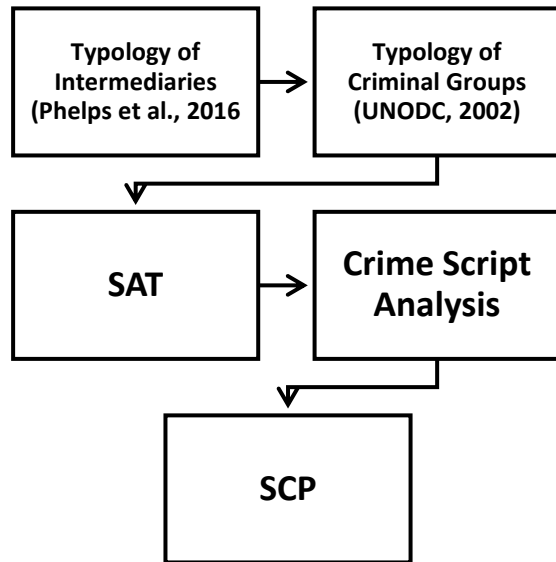


Figure 3: Integration of different concepts and frameworks into a conceptual framework for this study

interaction between particular intermediaries and local people creates the opportunity that leads to ‘self-selection’ and drives particular kinds of people becoming involved in poaching within the constraint presented by the ‘social selection’.

The fourth step involved developing and analyzing crime scripts for intermediaries directly involved in the trafficking process. In case of developing the crime scripts, rather than using the original classifications of a ‘scene’ used by Cornish (1994), a condensed version used by Thompson & Chainey (2011) to study illegal waste trafficking was used (See Table 3). The rationale for condensing the script ‘scenes’ from eleven to

The first step in the process of analyzing and understanding the roles and relationships that intermediaries have in the trafficking process required the use the typology developed by Phelps et al., (2016) to delineate the intermediaries based on their activities.

In the second step, the group characteristics of the intermediaries were compared to the typology of criminal groups developed by the UNODC (2002), which resulted in the identification of the particular type of criminal group that exists in the trafficking of tiger parts from the Satkhira range of Bangladesh Sundarbans.

In the third step, particular aspects of SAT was used as a lens to understand how particular types of people become involved in illegal trade in tiger parts (person emergence) and how actions of some intermediaries gives rise to the criminogenic setting (social emergence) for poaching and trafficking of tigers parts. Particularly, components of SAT was used to explain how the

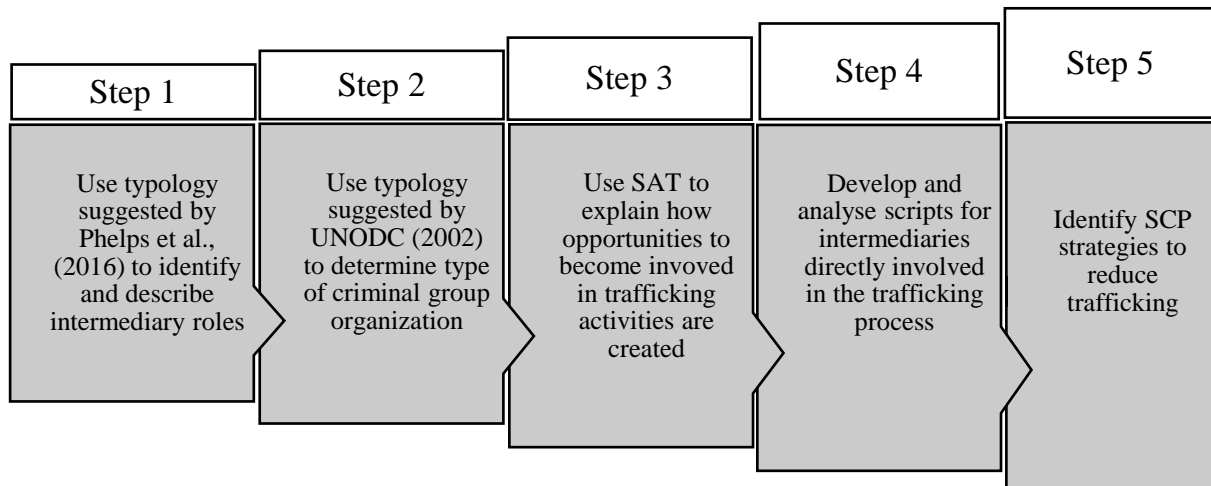


Figure 4: Procedural steps for applying the conceptual framework to identify the roles of intermediaries facilitating the trafficking process, and suggest SCP techniques to deter the trafficking of tiger parts from Satkhira range in Bangladesh Sundarbans.

four classifications is to simplify the script analysis process, without impeding details required to understand the ‘scene’ itself (Tompson & Chainey, 2011). In the final step, the SCP framework was used to identify the most appropriate crime prevention techniques that can be used to reduce criminality by having the greatest impact on illegal decision-making of the actors. The integration of the different frameworks chosen for this study allowed portraying an inclusive account of intermediaries in the trafficking of tiger parts which in turn helped to identify the situational crime prevention techniques to deter trafficking.

CHAPTER 5: METHODOLOGY

To answer the research questions, it was important to understand each step in the illegal trade of tiger parts and the activities of the different intermediaries in a detailed manner. Hence, social research methods involving qualitative interviews with key actors were selected to elicit in-depth information about the trafficking process in the Satkhira range of the Bangladesh Sundarbans. Semi-structured interviews with interviewees holding expert knowledge on wildlife crime, especially poaching and illegal trade in tiger parts in Bangladesh formed the core of the research methods. One of the focus of the data collection instruments was also to collect detailed descriptions about each step of the trafficking process through inference by those intimate with details of the illegal trade. By interviewing different groups of people, which include people previously involved as intermediaries in the trafficking process, people from local communities and experts in tiger conservation, helped to triangulate and validate the data from the different sources (Tompson & Chainey, 2011).

5.1. RESEARCH DESIGN: CASE STUDY

A case study design was opted to understand the trafficking process of tiger parts from the Satkhira range of the Bangladesh Sundarbans since it was beyond the scope of this research to delve into the particulars of the trafficking process from the entire breadth of the Sundarbans. A case study research design is based on the premise that the case to be studied (trafficking of tiger parts from Satkhira range) is a specific case (trafficking of tiger parts from Bangladesh Sundarbans) and hence can provide an insight into the situation prevalent among similar cases (Kumar, 2014). Since little is known about the different types of intermediaries, their activities and the organization of their groups in the trafficking process of tiger parts in Bangladesh Sundarbans, an explorative case study was also expected to provide a holistic understanding of the trafficking process and a glimpse into how the entire trafficking process operates (Burns, 1997; Newing et al., 2011).

Such a design involves in-depth data collection about a single ‘case’ with the aim to provide a detailed understanding of the selected case (Newing et al., 2011). Case studies were used to understand illegal wildlife trade and poaching activity in a variety of contexts around the world (Hauck & Sweijd, 1999; Wyatt, 2009; Moreto & Lemieux, 2015). Choosing a particular location in the Sundarbans to study the trafficking process affords the opportunity to reveal detailed descriptions of the trafficking process with the potential to inform broader theoretical understanding and underlying issues related to the overall trafficking process of tiger parts in Bangladesh (Newing et al., 2011). Such an understanding was required to identify specific prevention techniques that are likely to reduce the incidence of trafficking of tiger parts from the Bangladesh Sundarbans. The unit of analysis were the actors and their actions in the trafficking process of tiger parts at the Satkhira range level.

5.2. SITE SELECTION

The primary research site included six locations adjacent to the Satkhira range of Bangladesh Sundarbans (See Figure 5). The Satkhira range is one of the four tiger ranges demarcated by the forest department. A key reason for choosing the Satkhira range over other ranges for conducting fieldwork was due to evidence

from research findings suggesting an established trade in tiger parts that enter the commercial trade and poaching activity in this part of the Sundarbans (Saif, 2016; Aziz et al., 2017). In addition, a unique attribute of the Satkhira range is its proximity to the international border with India, which is accessible both through river and land routes. This creates the opportunity for tiger killers to sell tiger parts to traders who smuggle tiger parts into India through the Sundarbans forest (Saif, 2016). Recent research has also shed light on the increasing presence of outside traders looking for tiger parts in villages adjacent to the Satkhira range of Sundarbans (Saif & MacMillan, 2016). Therefore, six locations on the periphery of the Satkhira forest range were selected for conducting interviews with people from local communities (Group A) and people previously involved with trafficking related activities (Group B). These six locations encompassed the entire breadth of the periphery of the Satkhira range and corresponded to a major town or a village where people lived and VTRT groups (Group A) were located. The third group of interviewees, domain experts (Group C) were chosen based on their experience in working with tiger conservation and illegal wildlife trade. Three out of four of these interviewees were located in the Satkhira range level and the remaining one was conducted in Khulna, the largest city near the Sundarbans. The specific locations where data collection was carried out with interviewees from Groups A, B and C are shown in the map below.

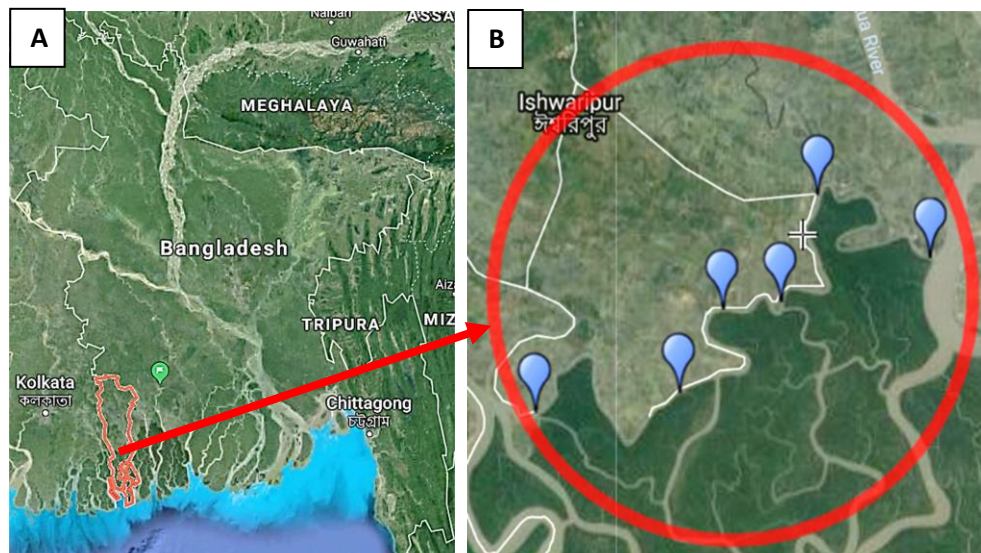


Figure 5: Site maps showing (A) the Satkhira sub-district (red boundary) and location of one Group C interviewee (green marker point), and (B) the six data collection locations adjacent to the Satkhira forest range.

5.3. SAMPLING STRATEGY AND SELECTING INTERVIEWEES

The aim of sampling was to collect data from three distinct groups of interviewees: (i) members of Village Tiger Response Team (VTRT), (ii) ex-poachers, ex-smugglers and local-logisticians, and (iii) domain experts in wildlife crime and tiger conservation in Bangladesh, (See Table 4). Since it was important to select interviewees who were able to provide the necessary information along with a diversity of opinion and for purposes of triangulation and validation, interviewees were selected using a purposive/convenience and snowball sampling techniques (Suárez et al., 2012; Crandall et al., 2018). By choosing to interview different groups of people and ask them questions about a specific topic provided the opportunity to use ‘between-subject’ and ‘cross method’ forms of data triangulation (Newing et al., 2011). Choosing a sample

size in qualitative research requires consideration of the attainment of the saturation point of data or the financial constraints (Kumar, 2014). Though a pre-determined sample size was used for each category of interviewees, in general the principle of saturation was also applied to determine whether further information was required from a specific category of informants during fieldwork (Newing et al., 2011; Kumar, 2014).

The first step of the data collection involved interviews with VTRT group members from Satkhira range of the Sundarbans (See Table 4). This group of interviewees is referred to as ‘Group A’ informants for ease of reference. Out of a total of 49 VTRTs with approximately 350 members spread across the Sundarbans perimeter, there are around 11 VTRT groups consisting of 72 members in the Satkhira Range (Saif, 2016; per. comm. Mahbubul Alam, WildTeam). WildTeam developed VTRTs to support WildTeam and FD to avoid tiger killing by villagers. VTRT members are villagers from bordering communities, who work as volunteers without any cash benefits to deter tiger attacks on humans and minimize human killing of tigers, as much as possible. They have been carrying out awareness creation activities with the help of WildTeam field staff. They have adept local knowledge about resource collection practices and are engaged in trying to stop people in using poison, snares and traps to hunt animals (Saif, 2016). A purposive approach was used to select the interviewees from the VTRT groups with consultation with the research assistant and WildTeam field staff. The criteria for choosing VTRT members was their knowledge on the activities of poachers, pirates, smugglers and logisticians in the trafficking process. In total 14 interviews were carried out with this group and covered at least one VTRT member from each of the 11 groups in the Satkhira range.

The second group of informants included local people who were involved in trafficking activities. This group of interviewees is referred to as ‘Group B’ interviewees. Collecting data from this group was more challenging due to the sensitivity of the research topic and the interviewee’s involvement in illegal trade in the SRF. The dominant view held in criminological research involving criminals highlights major challenges to gaining access to such groups of people. However, studies using interviews of active offenders involved in illegal wildlife trade portray a different picture and show such groups of people may be more willing to talk about their lives than popularly believed (Wong, 2015a; Uhm, 2018). As it was difficult to access offenders through formal channels (persons in prisons), sampling was carried out using access to (apparent) past offenders through informal channels particularly those of the research assistant. The sampling strategy for this group of informants followed a combination of convenience and snowball technique. Though sampling using informal channels (personal networks) does not allow for statistical statements and generalizability due to its non-random nature, it can still be used to develop theoretically generalizable concepts (Jacques & Bonomo, 2017). All the interviewees from this group implied that they were involved in one of the aspects of the trafficking process. In total, I was able to interview five people from this group, which included two ex-poachers, two ex-smugglers and a local logistician. Both the ex-poachers and ex-smugglers explicitly said they were involved in poaching and smuggling deer meat from the Sundarban forest, but did not mention anything related to killing a tiger or transporting its body parts. My research assistant identified the logistician, who only wanted to talk to me after learning that I was a student studying in the Netherlands and that I wanted to know more about tiger conservation in the Sundarbans from him.

The third group of interviews was carried out with people selected based on their level of expertise, knowledge and time spent in working with tiger conservation and wildlife crime in Bangladesh. Informants

from this group primarily composed of domain experts working with tiger conservation and wildlife crime in Bangladesh for at least 8 years. This group is referred to as ‘Group C’ interviewees for ease of reference. The focus of the interviews with this group was to understand the context and the opportunities that exist in the illegal trade of tiger parts and gain the insight into how people who had a vested interest in protecting the tigers of the Sundarbans viewed the different aspects of the trafficking process in the Satkhira Range. A purposive/snowball sampling technique was used to select these informants, as the information required was highly context specific. In total 4 domain experts were found willing to be interviewed.

Table 4: Number of Interviews with different groups

Interviewee Type	Interviewee Codes	Number of interviews
Group A – VTRT members	GA	14
Group B – Ex-intermediaries	GB	5
Group C – Domain Experts	GC	4
Total number of interviewees		23

5.4. GAINING ACCESS TO INTERVIEWEES

Case study research in conservation necessitates attention to both practical and theoretical consideration that can affect the outcome of the research (Newing et al., 2011). Among practical considerations were issues related to the accessibility to the site and interviewees, the necessary infrastructure for conducting the research and the permission to carry out the research (Newing et al., 2011). It was evident that access to the field site and logistic support in the field was paramount to carry out fieldwork in the Sundarbans. In case of this research, WildTeam, a local NGO working with tiger conservation in Bangladesh since 2003, agreed to provide in-kind support that included use of office space and lodging during the fieldwork in Khulna, the closest major city from the field site. In addition, WildTeam also provided support to select a research assistant who was well acquainted in local dynamics, to act as a local guide in the field for the duration of the fieldwork in Satkhira.

Using the services of an individual who was familiar with the target population helped me to facilitate entry and establish rapport with the target groups (Group A and B) and enhanced the ability to gather and validate fieldwork evidence (Wiebel, 1990). WildTeam helped me to choose my research assistant, who was involved with a recently concluded project of WildTeam. My research assistant played an important role in gaining the trust of interviewees from Group A and B. Many of these interviewees mentioned that they were talking to me because my research assistant requested them to or else they would not agree to talk to outsiders about issues related to poaching and trafficking so openly. They also pointed out that they trusted my research assistant enough to know that whatever they told me would not harm them in any way. Essentially, my research assistant played the role of a gatekeeper to these interviewees (Uhm, 2016). Since I was not able to record many of my interviews, I had to rely on initial interview notes and then recall to write more detailed notes after those interviews were over. During this process, my research assistant often helped me to understand key terms as well as the background of the interviewees and the social context of the village they lived in. With regard to access to Group C informants, I used personal contacts to reach these informants.

According to Newing et al., (2011), when carrying out research with people ‘the level at which FPIC should be sought and the form it should take varies according to the circumstances’. Since most of my interviewees were from the local community and had limited formal education, it was not practical for me to collect written consent forms before the data collection (Newing et al., 2011). In case of collecting the informed consent from my interviewees I relied on their verbal agreement and willingness to carry on with the data collection process after an explanation of the purpose of the study, how the data will be used, how much time I required from them and so on (Lewis, 2003). Before I started the interview, I gave each interviewee a general description of myself and explanation of the purpose of my research. I explained to them that I was doing this research as a part of my Masters degree at a university in the Netherlands. I also mentioned the topic of my research and the type of issues that I wanted to cover through my conversation with them. I also made it clear to them that I will not be using any personal information and that anything they told me, could not be traced back to them. I explained to them that I was not there to inquire about specific people who are involved in the trafficking of tiger parts, but rather wanted to know what they knew about how the trafficking of tiger parts takes place in their area. I stressed on the point that their knowledge on the topic would help me to understand the trafficking process of tiger parts. I also made it clear to the interviewees that they are always free to stop the interview if they needed to take a break or felt uncomfortable answering my questions.

It was apparent during data collection that my dual role of as an ‘insider-outsider’ and the access to my interviewees of Group A and B through the research assistant created a congenial atmosphere during data collection, which is similar to what Wong (2015a) found during her research in the organization of the trade in tiger parts in China. The fact that I explained to my interviewees how the information collected from them (Group A and Group B) will be used and how their names would not be used or revealed to local enforcement authorities led to more open discussions. Also being an ‘insider’ provided me the opportunity to freely communicate and adjust according to local norms and etiquettes of interacting and talking about the trade in tiger parts.

5.5. DATA COLLECTION AND TRIANGULATION

Semi-structured interviews with interviewees formed the basis of the data collection tools (See Annex II). The interview guides were initially developed in English and were later translated into Bangla for ease of use during the data collection process (See Annex III). Three separate semi-structured interview guides were used for collecting data from the different group of informants. The interview questions were tailored to elicit knowledge from each group of informants based on their sphere of knowledge in the trade of tiger parts (Warchol et al., 2003). Questions were formulated to collect information about the types of intermediaries involved in the trafficking process, their specific activities and the effect each intermediary had on other people to become involved in trafficking activities. To carry out my data collection in the Satkhira range, I rented the services of a trawler boat with lodging and cooking facilities with boatman for 11 nights. Staying on the boat gave me two advantages. First, I was able to provide the interviewees the privacy to talk openly about the questions I had, since I picked up the interviewees from suitable location near their house or village and traveled to the middle of the river to conduct the interview. Secondly, it helped me to travel along the periphery of the Satkhira range to reach my interviewees with ease and lessened the hassle to commute between my lodging and the interviewees location.

There are multiple limitations in researching illegal trade using semi-structured interviews with people involved in the trade (Uhm. 2016). These include the difficulty in triangulating conflicting information,

inability to record interviews and relying on reconstructing information from memory and notes and facing dangerous situations (Uhm, 2016). I also faced these situations during my fieldwork. Though I was not able to record some interviews and had to rely on memory and notes to reconstruct the transcripts, I was still able to re-check gained information with subsequent interviewees. During my data collection period, I met different types of people in the villages who I did not use as my interviewees because it may have been detrimental to my research process. One such person was a cattle smuggler who smuggled cattle from India into Bangladesh using large engine boats. When I met him, I was not able to reveal the true purpose of my visit to the Sundarbans as my research assistant and boatman felt that if I told him about my research objective he may not want to talk to me and rather create a dangerous situation for me. According to my research assistant, he was a powerful person in that area of Bangladesh and controlled a group of followers who were engaged in different types of illegal activities. This person told me stories of how he killed and skinned more deer than the hair on his head and how corrupt the law enforcement officers are when it comes to protecting the Sundarbans. Similar accounts of cooperation and willingness of people involved in illegal activities to talk about their 'achievements' and activities they carry out, often using neutralization techniques to defend their position, were found by other researchers studying the illegal wildlife trade (Wong, 2015a; Uhm, 2016). Also during the interviews, I had to be conscious of controlling my emotional reactions to statement from the interviewees, as it may have been detrimental to the interview response (Wong, 2015a).

Triangulation of data collected through qualitative interviews is an essential component for ensuring accuracy and validity of the data. Collecting data from different sources provides the opportunity to triangulate the same information with multiple sources (Kumar, 2014). It is particularly important when dealing with sensitive issues such as illegal activities since different people may say different things about a specific issue, which can lead to discrepancies (Newing et al., 2011). Therefore, the focus was to identify the discrepancies and probe them further with each informant group without repeating things learned from other sources (Newing et al., 2011). More specifically using the 'between-subject' and 'cross-method' forms of triangulation allowed me to check for consistency in the collected data. These forms of triangulation includes collecting the same type of information from different sources (between-subject) and the use of information gathered through archival research, interviews and informal conversations to check for consistencies among each (cross-method) (Newing et al., 2011). Such methods of triangulation allowed me to isolate discrepancies and probe further about specific issues with other sources of information. Sensitivity of the research topic may have produced some narratives that are distortions of the truth intended to lead the research astray, but it was unlikely that interviewees from the different groups will say the same distorted story, as they will be strangers to each other (Newing et al., 2011). For example, during data collection I noticed that people living in a particular area were not too fond of their neighbors across the river (Gabura union). These interviewees told me that people who lived across the river were involved in crime, piracy and lacked empathy. Since I also had interviews with people from across the river, I asked them (in the Gabura union) how likely it is for people to become involved in crime in their area. Both interviewees from that area mentioned that, compared to other communities around the Sundarbans, people in their area had a higher chance of becoming involved with crime. They also pointed out that the people who stay away from crime are unlikely to report something illegal due to fear of being targeted by offenders. Also, through my conversations with my boatman and research assistant I confirmed that the statements I heard from these interviewees were actually an accurate depiction of the true nature of that area. Therefore,

a detailed consideration of the arguments collected from different sources was needed within the context of the prevailing social and cultural conditions (Edwards & Levi, 2008; Uhm, 2016).

5.6. METHODS OF ANALYSIS

A purely qualitative method of analysis was chosen for this research. The first step in the analysis process involved transcribing and collating the interview data from the recordings and the field notes of all the interviews. The transcripts were written in English, even though the interviews were in Bangla, the native language of the interviewees and myself. After making digital transcripts, I developed a first cycle of codes based on the interview data and field notes using a qualitative data analysis software (Nvivo version 8). During the first cycle of the coding process, I consciously reflected on the issues raised by the research questions and used some pre-determined codes. The specific aim of the analysis was to identify the different types of intermediaries based on their activities, develop crime scripts for each identified intermediary, highlight specific intermediary activities that encourage local people to become involved with the illegal trade and reflect on suitable SCP techniques to reduce the trafficking of tiger parts from the Sundarbans. Although there was a specific aim during this step of coding, an inductive analysis was also used to reveal themes and patterns relating to the objective of this research. After completing the first round of coding, patterns and categories emerged which provided an additional scope to identify and create relationships between themes. Afterwards, a second round of coding was carried out to condense the codes into themes that emerged from the previous step of coding (See Annex IV). After the second round of coding, it was possible to provide in-depth descriptions and interpretations of trafficking activities and its effect on local communities by highlighting direct quotes and narratives of interviewees.

5.7. ETHICAL CONSIDERATIONS

During the research I avoided using any covert research techniques to gather information and relied on 'ethical situationalism' when faced with dilemma situations (Hammersley & Atkinson, 2007). In doing so, ethical principles related to informed consent, confidentiality, privacy and issues of harm arising from the research was considered throughout the research process (Hammersley & Atkinson, 2007). All the interviews adhered to the principle of informed consent and confidentiality/privacy in favor of the informant. Each interview was preceded by a short introduction about myself and the purpose of the interview, the type of information that was asked and measures were taken to ensure confidentiality and privacy of the interviewee (Hammersley & Atkinson, 2007; Kumar, 2014). In general, the process of taking informed consent involved informants to provide their verbal agreement to participate in this research by allowing me to continue with the interview. In two out of the twenty-three interviews, the sensitivity of the topic did not allow me to explain the full extent of the research objective, but rather a more nuanced brief of the purpose of the research was provided (Uhm, 2018).

Also, both Group A and B interviewees were provided cash payments to compensate for their time providing the interviews. Making payments to gain access to interviewees is a debated issue as some believe it may lead to coercion if the amount is so high that makes the participant in the research to participate because the level of reward is too high to refuse (Head, 2009). However, Sullivan & Cain (2004) suggests that compensation for research participants should be high enough to show 'respect' for their time and effort but not so high, that it might coerce them to participate in situations where they do not want to. This reasoning is also supported by the Association of Social Anthropologists of the UK and Commonwealth

(ASA), which suggest that researchers may use the principle of 'fair return for assistance' when dealing with research participants (ASA, 1999). Group A participants were given 3 Euros and Group B participants 10 Euros, which was determined based on my research budget and through discussion with my research assistant. Given that most of my interviews took longer than an hour and focused on issues that people do not want to talk about openly, I felt that making cash payments was a reasonable reimbursement for their time and effort. Head (2009) in her study to explore the values held by lone mothers of pre-school children regarding paid work and care used GBP 10 to recruit participants as she was finding it difficult to recruit participants using other measures (posters, leaflets, etc.). Though paying respondents to participate in research is a contentious issue because it can bias responses, I was able to make the payments after the interview was completed. I was able to do this because my research assistant had helped me set up the meetings. Also many of my interviewees showed surprise when I handed them the money after the end of the interview, which implied that they were not expecting a payment from me. Therefore, I feel that the payment of money did not have any impact on the responses that I received or on the general research process, as the research participants could not have known that that I would be paying them for their time (Head, 2009).

5.8. ANTICIPATED LIMITATIONS

Before going into the field to carry out data collection I had to be conscious about the completing my data collection within a reasonable amount of time and within my research budget. In doing so, I was aware that I would need to keep a tab on my expenses in the field while at the same time ensuring that it did not have an adverse effect on the research process. As I knew that I would have to hire a boatman and a research assistant for my field work, I had taken the decision to gain their trust by going the extra mile by making sure that I did not create unnecessary work them while I was with them in the field.

Since I was going into the field with the help of WildTeam, I had to be conscious about my role as a researcher. I had to be careful in not making promises of any kind to my interviewees by saying something to my interviewees that would be detrimental for the field operations of WildTeam. In this regard, I had planned to explicitly mention to all my interviewees (especially Group A and B) that I was not an employee of WildTeam and that they were only helping with logistical support to carry out my research and that my interviews with them was part of my educational programme to complete my MSc. degree and nothing else. Also, as I had to rely heavily on the support of a research assistant who I had recruited with the help of WildTeam, I had to make sure that the interviewees selected by my research assistant were not given an introduction to the topic of discussion prior to my interviews with them to avoid any type of bias. Therefore, I strictly asked my research assistant keep introductions to a minimum. Another limitation I anticipated was carrying out research in difficult conditions and having an adaptive mindset to overcome challenges that I faced during my data collection process. In this regard, I planned to rely on the advice of the people who were with me in the field (my boatman and research assistant).

CHAPTER 6: FINDINGS AND ANALYSIS

The focus of the this research was to understand the roles of different types of intermediaries, how it affects people from local communities in becoming involved in the trafficking activities and suggest measures that can potentially deter or reduce opportunities to smuggle tiger parts from the Sundarbans.

6.1. TYPE OF INTERMEDIARIES

Intermediaries involved in the trafficking of tiger parts in the Satkhira range of Bangladesh Sundarbans play diverse roles in facilitating the movement of tiger parts from the forest to the village and then from the village to other cities or across international borders. Data from the interviews suggests that intermediaries in the Satkhira range includes at least two types of logisticians (local and non-local), processors, specialized smugglers, third parties and government colluders. Intermediaries in this research were classified based on the typology of intermediaries suggested by Phelps et al., (2016) (See Table 1). Interviews with the different groups of people revealed that there are few to no overlap between the activities carried out by each intermediary. It became evident from the interviews that actors in this trade were only connected to intermediate actors and not with other actors in the supply chain. The data from the interviews also revealed that the way the trade operates depends on whether tigers parts are supplied by poachers/hunters or pirates. Figure 6 provide a depiction of how the trade of tiger parts operate in the Satkhira range of Sundarbans.

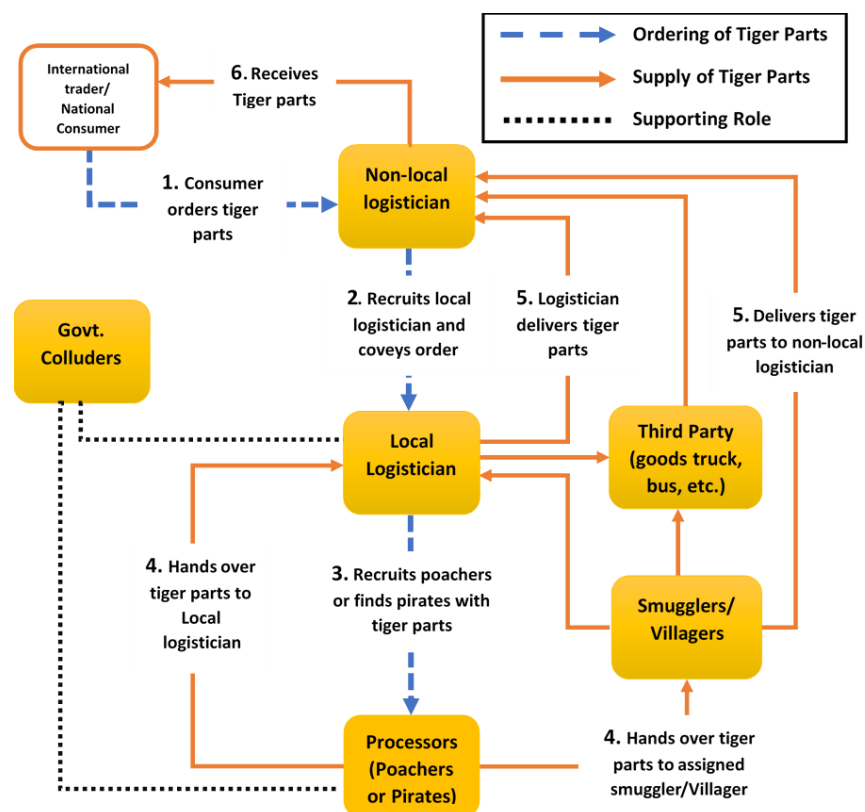


Figure 6: Step by step process of the order and supply of tiger parts from the Satkhira range of Bangladesh Sundarbans. The numbers (1, 2, 3, 4, 5 and 6) indicate the various sequential steps in the trafficking process. Numbers 4 and 5 suggest that tiger parts can be delivered to the next actor using different ways.

6.1.1. Logisticians

Interview data revealed that logisticians are the most important actors in facilitating the trade of tiger parts from the Satkhira range. They create the motivations for local people living in villages adjacent to the Sundarbans to become involved in trafficking activities. Without these actors, poachers or pirates will not be able to reach the end consumers of tiger parts. Interviewees suggested that it was very risky for someone from outside the local village to come to an area adjacent to the Sundarbans and seek out poachers. As one ex-intermediary explained: *“If someone comes here looking for tiger parts without a middleman [local logistician] then they will never be able to get tiger parts but rather get into trouble”* (GB1). Evidence from interviews suggested that at least two types of people are involved in this role in the trade of tiger parts from the Bangladesh Sundarbans.

The first key intermediary in the trafficking process is a non-local person who originates from outside the local community and is the only person in the trade aware of the identity of the international trader or national consumer of tiger parts. In Bangladesh, they are in charge of planning, financing and ordering tiger parts for consumers. They will act in close unison with someone they recruit from the local community, who will help to carry out planning, ordering and financing the poachers or pirates at the village level to acquire tiger parts. This two-step process is necessary for outsiders looking for tiger parts due to the difficulty for non-locals to gain access to tiger killers or pirates and seek tiger parts. As an expert explained: *“There are more than one middleman [logisticians] in the trade. The first middleman [non-local logistician] who deals with the buyer will get in touch with another middleman [local logistician] from the local level and the local middleman [local logistician] will communicate with the poachers/pirates”* (GC4). The non-local logistician is likely to be a professional and connected to the larger international trade network of tiger parts. An ex-intermediary revealed this by saying: *“The trade in tiger parts happens because there is an international syndicate that is involved with it. There are some powerful people from Bangladesh who are involved with these syndicates and you will be surprised if I tell you their names”* (GB5). Therefore, non-local logisticians are people who likely wield substantial authority and influence to keep the trade a secret.

Local logisticians, on the other hand, are people from the local community who act as gatekeepers to the poachers or pirates for non-local logisticians. Since it will be difficult and risky for a local person to find a consumer for tiger parts, they will do something like this when the opportunity arises and in exchange for money for only people they can trust. Local logisticians are villagers who hold some degree of authority in the communities and have favorable connections with local political actors. They will keep a low profile and use their social status to assure poachers of protection in case something goes wrong. As one VTRT member suggested: *“The people who do this [trafficking] has some sort of political support. So, if general people find out about it [involvement in trafficking] still they [local people] cannot do anything as they can get into trouble, so they do not speak out. These people [local logisticians] have good liaison with the administration”* (GA7). Based on interviews with ex-intermediaries, local logisticians are also the type of people who would have a good connection with pirate groups and/or local people willing to carry out poaching for money.

6.1.2. Processors

Interviewees suggested all members in the group will play a part during the processing of tiger parts inside the forest. Interviewees also believed that poachers and pirates are unlikely to involve outsiders to help

them process the skins, as this will create the risk of exposure. By only involving people poachers/pirates trust, they minimize the risk of information leaking in the event there is disagreement in sharing profits. As one expert explained: *“The same people who are involved in the killing of the tiger is involved in its processing. There is no point of involving people from outside and increasing the risks”* (GC2). Since poachers and pirates both travel in groups, they will use those in their groups who have the most experience in skinning an animal. Interviewees stated that skinning a tiger requires a certain degree of skill and poachers or pirates will not allow someone new to carry out the skinning process. This is likely because fur-skin pelts may lose value by 25%-50% if it carries marks or tears (Hall & Obbard, 1987). As an ex-intermediary explained: *“These [processors] are the people who are experienced in doing this [skinning animals/tigers]. So, it is only the people who are experienced who go with the poachers. If a new person is recruited, he will have to learn the skills on the job and the others will help him to learn. Only after someone has learnt and seen how to skin an animal will he be allowed to skin a tiger”* (GB2). Therefore, processors are opportunistic people from the local communities who have expertise in skinning animals. They are also people who are known to pirates, poachers or logisticians and will take the risk in exchange for money.

6.1.3. Smugglers

Smugglers of tiger parts can be people who are hired to do this work or people who are coerced through intimidation to smuggle tiger parts. Smuggling tiger parts out of the Sundarbans happens in two different steps and using a variety of methods. The first inevitable step is to smuggle tiger parts from the forest to the local village. When poachers are hired to kill a tiger, they will carry out the tiger parts from the forest to the village to minimize cost of hiring someone and reducing the possibility of exposure. As one ex-intermediary explained this by saying: *“The people [poachers] who kill the tiger will carry it [tiger parts] out to the village on a small boat with 3-4 people. Once near the village it is given to the dalal [local logistician]. After that, it [tiger parts] can travel out in many different ways.”* (GB2). On the other hand, if pirates supply tiger parts, they can use the help of local resource collectors closely related to them (family and friends) to smuggle tiger parts to the village and to the local logistician. As another ex-intermediary explained by saying: *“If pirates kill tigers, they will use people who they trust to carry the tiger parts to the village. These trusted people will bring it to the village and give it to the middleman [local logistician] who sells it to someone else [non-local logistician]. They [people related to pirates] would use boats used to catch fish or crabs to bring it [tiger parts] to the village. They will conceal the [tiger] parts by putting it into a sack. These boats are not always checked, and they are likely to carry it out during the night.”* (GB3).

The next best option for pirates would be to use the boats of people they have kidnapped. Local people used like this are unlikely to get any immediate benefits from pirates and will do something like this mainly out of fear. As one VTRT member explained by saying: *“Pirates can use the boats of the people they kidnap to carry these [tiger parts] things. They [pirates] can ask one of the person from the boat to carry a couple of his [pirate leader’s] guys and some cartons and drop them somewhere”* (GA12). Pirates limit their travel outside the forest because of the fear of arrest by law enforcement authorities and hence they will use non-members only to carry tiger parts to the village. Also, though local villagers fear pirates, pirates and their families (if living in the surrounding village) will not have a good relationship with general community members. Hence, pirates will come to a village rarely and very stealthily, usually very late at night. Therefore, tiger parts are smuggled from the forest to the village by the poacher group or pirate groups using local people with whom they have an amicable relationship or through coercion (only in case of pirates).

Once the local logistician receives tiger parts, it can be transported out of the village by the local logistician himself or through a hired person from the community loyal to the local logistician to carry it to another location. Even if a local person is loyal to the local logistician, such a person will only agree to take the risk of smuggling tiger parts outside the village for an amount of money that is significantly larger than their daily income. A VTRT member when asked why people become involved in smuggling tiger parts to outside the village said: *“The number one reason [that people become involved with smuggling] is the appetite for money, not that a valuable thing [tiger] is being destroyed.”* (GA5). Some interviewees also said that non-local logisticians may also be involved in transporting tiger parts outside the village. Non-local logisticians are likely to use an associate to collect the tiger parts from the local logistician or the local logistician’s hired local smugglers from somewhere close to the village where there is road access for cars. Since, it may not always be possible to reach exactly where local logisticians reside due to poor road conditions, local logisticians or their hired smugglers will need to bring the parts to a suitable location that is accessible to cars. A VTRT member explained this by saying: *“From here the only way [out of this area] is with motorcycle, there is no other way. It is then either taken to Chadarashi launch terminal or Dumuria [where cars can come] late at night”* (GA5). Therefore, smugglers of tiger parts involves a number of different types of people depending on who recruits them. Local people involved in smuggling are only able to do this if they get the opportunity and in exchange for money.

6.1.4. Third Party

According to interviewees other modes of transport used to smuggle tiger parts include goods laden trucks that carry fish, vegetables etc., passenger busses and ships and cargo ships that travel to other parts of the country. Interviewees thought that because such modes of transport are seldom stopped at police checkpoints, it provides smugglers the least likelihood of getting caught. As a VTRT member suggested by saying: *“It [tiger parts] can also be transported with items like fish and crabs in trawlers or trucks. The reason is that these types of transports provide easy hiding location and are seldom checked because it is not always possible to check for skins and bones [in such modes of transport]”* (GA1). When using these modes of transport, smugglers/local logisticians will hide the parts in personal bags or sacks to look like vegetables or other goods. Without prior information, these modes of transports are unlikely to be checked by law enforcement for contraband and hence maybe used by local logisticians to transport parts outside the local area without much difficulty.

Cargo ships, on the other hand, travel everyday through the forest carrying goods to different parts of the country as well as outside Bangladesh. These modes of transport can easily be used to smuggle tiger parts to other parts of the country as well as internationally. These ships often anchor inside the forest at night to rest. Interviewees suggested that cargo ships that travel through the Sundarbans to India and Myanmar could easily be used to smuggle tiger parts outside the country [GB2, GC3, GC4]. They believed that tiger parts could be transferred to these ships when they are anchored inside the forest at night. This is only possible if someone from these ships become complicit with the trafficking process, and collect the tiger parts from poachers/pirate/logisticians to carry it another location, even outside of Bangladesh. As one interviewee explained: *“Ships travel through the Sundarbans and cross over into international waters. They also anchor inside the forest. Now if they [pirates/poachers/logisticians] go into the forest with a small boat when the ship is anchored, there is nothing that can be done.”* (GC4).

6.1.5. Government Colluders

Interviewees suggested that local political representatives and law enforcement agents could also become involved in the trade either directly or indirectly. Members of local government or political parties become directly involved when they themselves become consumers or play the part of a non-local logistician. When this is the case, interviewees suggested that forest dependent people are intimidated to work for the influential person against their will or are coerced with promises of a job or money to carry out poaching or smuggling of tiger parts. One VTRT member explained this by saying: *“Something like this [killing tigers] is not possible without the support of influential people. It is the influential elite people who make poor people to carry out these [poaching/smuggling] illegal activities.”* (GA1). Another interviewee from the ex-intermediary group revealed that people who are involved in the upper tiers of the trade are often those that wield significant authority in the local areas [GB5]. Also, interviewees from the local areas stated that such work is not possible without the protection of local elites. As an expert explained: *“People from the village who have some political connection but not directly related to politics become involved in trafficking. Normal people who do not have any such [political] connections will not take this risk.”* (GC3).

Local government or political representatives can also indirectly become involved when a non-elected member of their group acts as a local logistician. In such cases, the political leader may or may not know what their supporter/worker is actually doing. An ex-intermediary explained this saying: *“Someone will be able to do such work when they have good relationship with local politicians and leaders. However, it is unlikely that the local politicians/leaders will know exactly what that person is upto.”* (GB1). These supporters will use their relationship with the local government or political representative to influence others to facilitate trafficking activities. In Bangladesh, people display that they are connected to politicians, because it creates an impression of power and influence in the eyes of general people. As a result, general people are likely to stay on their good sides and earn their favor in the hopes of using them when local people are in trouble. Therefore, when these people ask favors from general people, it is likely that local people will comply. This is how a VTRT member explained how local people sometimes become involved in trafficking tiger parts: *“Suppose I am poor person and I work in the house of rich person. I also go to the forest. So this rich person will tell me that he will take care of me if I do something for him. This is how local people can become involved in committing crime. There are many people in this area who got involved in crime like hunting deer for these people. The poor people are either given money or work in the gher [fish farms] or business of the rich person. These poor people do it for earning some money so that they can eat for some days. They [poor people] also feel confident they will not get into trouble because they are doing it for someone influential.”* (GA11)

Law enforcement officers can become involved in the trafficking process by helping intermediaries avoid arrest. They may do this by passing covert information about patrolling schedule and routes to poacher groups and logisticians. Another way is when they are under explicit orders from political elites or higher authorities to do so by providing poacher/smugglers safe passage out of the Sundarbans. An ex-intermediary explained by saying: *“A group [of deer poachers] was caught with 22 dead deer. This group has been doing this for a long time and the police was also involved. When they were caught red-handed by coast-guard and forest department, there were police officers on the boat. But the police officers said that they caught these hunters and were just escorting them to police station, which we know was not true.”* (GB3). Apart from political or institutional pressure to directly facilitate trafficking activities, law enforcement officers can also passively permit trafficking activities when they allow resource collectors to enter the forest

without permits in exchange for money. Interviewees suggested that when law enforcement officers are first transferred in areas close to the Sundarbans, they are strict but eventually gives into corruption. This suggests that low-level corruption is present and is facilitated by specific members in these law enforcement agencies. Therefore, small-scale corruption among some low-level officers involved in site security broaden the scope for intermediaries like poachers, smugglers and logisticians to carry out trafficking activities.

6.2. INTERMEDIARY RELATIONSHIPS AND GROUP ORGANIZATION

The trade in tiger parts from the Satkhira range of Bangladesh Sundarbans involves different actors playing specific roles in facilitating the trafficking process. Each actor is linked to the next person in the network through a relationship based on monetary benefits, friendship, trust or fear and provocation. To provide greater insight into how such a criminal group operate, it is important to highlight the nature of the relationships between the different actors. In order to do this a simple stakeholder analysis was carried out, based on each identified actor's influence and interest in the trafficking process. Then the nature of the relationship between each actor was identified.

6.2.1. Stakeholder Mapping and Intermediary Relationships

Intermediaries as stakeholders in the trafficking process include both primary and secondary stakeholders (Clarkson, 1995). Intermediaries who are primary stakeholder in the trafficking process are the non-local and local logisticians, processors and smugglers. On the other hand, secondary stakeholders include actors outside the criminal network such as villagers not involved in the trade, people working in government agencies around the Sundarbans and third party actors. The stakeholder analysis was carried out by categorizing stakeholders according to their level of influence and interest in facilitating the trafficking process. Figure 7 depicts the stakeholder map for trafficking process of tiger parts from the Satkhira range of Sundarbans.

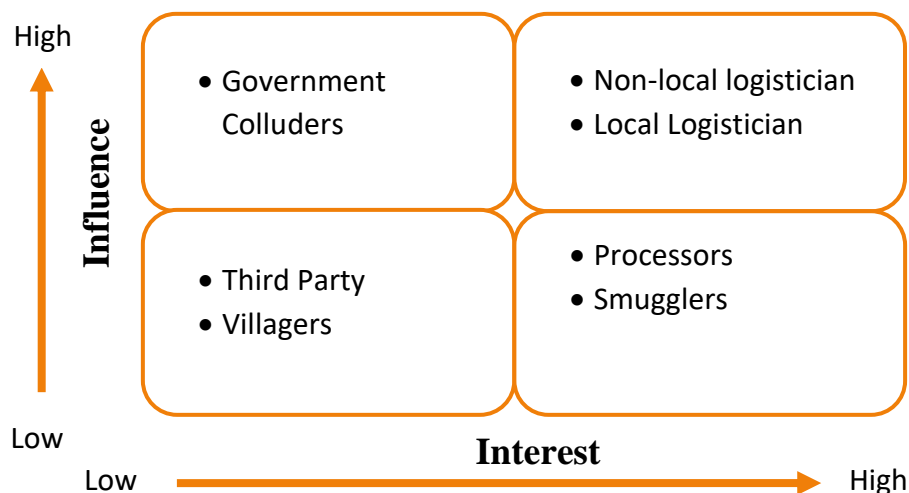


Figure 7: Stakeholder map for intermediaries in the trafficking of tiger parts from Bangladesh Sundarbans

Both non-local and local logisticians have a high influence and interest in the trafficking process. They rank high on the influence scale because they create the scope for others to become involved in the trade. They have a high level of interest in facilitating the trafficking process as they make the most money compared to other types of intermediaries. They have a central role in the trafficking process and without collaboration between the non-local and local logistician, it will be difficult for someone to acquire tiger parts from poachers or pirates from the Sundarbans. Both these actors share a reinforcing relationship based on familial or friendly connections, trust and monetary exchange. As one VTRT member explained: *“After coming to this area, they [non-local logistician] will find a local person they can trust who they can approach. This person is like a friend or family member who is then approached with an offer to collect something for a big amount of money along with the price of the parts”* (GA1). Once such a relationship is formed between an outsider who has a demand for tiger parts and a local person willing to carry out the recruiting, ordering and financing of poachers and smugglers it can lead to instances of future cooperation when the opportunity arises again. As another VTRT member explained: *“They [non-local logisticians] need to have a good relationship with the dalal [local logisticians], without this it [trafficking] will not happen. This relationship builds up based on working together a few times”* (GA5).

Processors are primary stakeholders who have high interest but low influence in facilitating the trafficking process. They are unlikely to operate without explicit demand for tiger parts. Local logisticians or poacher groups will select only those people who have the ability to carry out skinning process and will not defect on the other members. Since the relationship is also based on money, local logisticians risk betrayal if they do not share the agreed amount with pirates/poachers/processors. As one VTRT member said: *“The people who kill it will do it [skin the tiger] because this is secretive thing and a new person cannot be trusted.”* (GA5)

Another primary stakeholder who ranks high on the interest scale but low on the influence scale are smugglers. People who carry out smuggling belong to the local communities and can be recruited by local logisticians as well as pirates. A local logistician will hire someone with a relatively large amount of money compared to their daily income to smuggle tiger parts from the village. Therefore, it is in the interest of the smugglers to facilitate the trafficking process and hence they have a high interest in the trafficking process. This is how one VTRT member explained it: *“Local people will do it [smuggling] if there is monetary benefit for them or else no one can make them do it. They also have the fear of being framed”* (GA4). Smugglers have a low influence in facilitating the trafficking process because they will not have the opportunity to carry out their roles as smugglers without the express demand of tiger parts from outsiders. Smugglers are opportunistic actors in the trafficking process and need to rely on someone close to them to offer them to carry out smuggling. Though smugglers play an important role in the trafficking process, the number of potential people who can be involved as a smuggler is higher than number of people who can play the role of other actors (processors, poachers, logisticians).

When pirates supply tiger parts, they may pay people to carry tiger parts or exonerate the protection money for people who help them to smuggle tiger parts outside the forest. When pirates recruit people to smuggle tiger parts from the forest, the nature of their relationship depends on whether they are closely related to the pirates or people who are kidnapped by them. In cases where pirates seek assistance from family members or friends to smuggle tiger parts, they may do it based on a feeling of close kinship with pirates as well as for money payments. As one VTRT member explained: *“Everyone will think that if they [people who help pirates] pass it [tiger parts] on they will get money worth months of going to the forest. So why*

would anyone not do it. Also this happens mostly through family members of pirates like their cousins who won't get arrested." (GA4).

On the other hand, resource collectors who are not family members but have a good relationship with pirates may become involved in smuggling for a waiver of the money pirates collect from resource collectors. The following is a response of an ex-intermediary when asked about how resource collectors unrelated to pirates become involved in smuggling for pirates: *"Suppose they [resource collectors] want to go into the forest and communicate with the pirates about how much money to pay to operate in the forest for some months. Then pirates would say 5,000 taka [50 Euros], but then [pirates] say they [resource collectors] do not need to pay but instead buy a torch, or a raincoat. Now when people go to give them [pirates] this, they [pirates] will ask them [resource collectors] to carry a box to a certain location and give it to a certain person."* (GB1). It was clear that the nature of such a relationship between pirates and people not closely connected to them are based mostly on monetary benefits.

On the contrary, if the task is given to people who are kidnapped by pirates for ransom, the relationship will be based on fear and provocation only. Pirates will use violence to intimidate the people they kidnap and use it to make them carry out particular activities such as buying groceries, equipment or transporting parcels for them. One VTRT member explained this based on what happens in his area by saying: *"When these people [resource collectors] go to the forest, they may fall victim to the pirates and the pirates abduct them for 50,000 taka [500 Euros]. Then they [pirates] may make them [resource collectors] work for them out of fear."* (GA13). In such cases, local people become involved in smuggling unwillingly and will do something like this out of fear and apprehension of grievous bodily harm. As another VTRT member explained: *"At first they [kidnapped resource collectors] may be afraid and when they don't want to do it [what pirates ask them to] they are beaten up. So they [resource collectors] are forced to work for the pirates. When some of them return back from the pirates they would come and confess and ask for forgiveness."* (GB4)

Government colluders, which includes political elites as well as law enforcement officers, have high influence but low interest in facilitating the trafficking process for different reasons. In the villages adjacent to the Sundarbans, local government actors can have a high influence on the trafficking process as they can try to deter trafficking activities by creating awareness and telling people not to do it or be directly involved in the trafficking process as consumers or logisticians. When directly involved with the trade, they will incentivize people to carry out poaching or communicate with pirates to provide them with tiger parts in exchange for money. As one ex-intermediary explained: *"There are local leaders like the mattabar [village elder], or chairmen and members [political representatives]. They have their own groups. When these people ask people in their groups to do something then they [followers of political elite] have to do it under the leader's pressure. These type of leaders are able to provide protection to their members in many ways, especially from the police. If something happens to their members then the chairman can solve it with the police."* (GB2). Therefore, people working for such government colluders have the confidence that they will not face adverse consequences for the illegal acts that they carry out for the political elite. Also, interviewees revealed that local people who are not followers of political elites may be provoked into carrying out poaching or smuggling through the fear of false accusations and harassments by law enforcement authorities prompted by the political elites. As another ex-intermediary explained: *"I know 20 such hunters who I have tried to convince not to do it and they said they will not do it anymore. But a few weeks later I found them hunting deer. They did not do it because they wanted to, but because they were asked by influential people to do it. Maybe if they did not agree to do it then they would have been falsely*

implicated into something they didn't do. So they are sometimes pressured to do it." (GB5). Therefore, the relationship that government colluders have with the people they employ to carry out different activities in the trafficking process are based on trust, loyalty, provocation and fear, and to a smaller extent monetary benefit. Political elites will only have a high interest in facilitating the trafficking process if they are directly involved, otherwise they are likely to be passive and not become involved with such activities directly.

Law enforcement agencies also have a high influence but low interest in deterring the trafficking activities. They have high influence because they are the only group of people who can legally take action against the intermediaries. However, the forest department in Bangladesh which is sole custodian of forests and its resources, lack adequate equipment and human capacity to carry out their duties effectively. In nearly all cases, they have to rely on secret information or anonymous tips from others to be able to take action against traffickers. This was gleaned from what a VTRT member said: *"In the last 2 years they [law enforcement] have become successful. Whenever they got news [about suspicious activity], they have taken action and arrested people. They are mostly the RAB and Coast Guard, the police play a minor role."* (GA5). Situations may arise when a field level officer passes covert information about patrolling routes to members of poacher/pirate groups or the local logistician that will help these groups to avoid detection. As one expert explained: *"The way the Forest Department guards do their patrolling, traffickers will know where they will go. If someone from the team is related to the traffickers in anyway, this information will be passed on for money."* (GC2). This suggests that law enforcement officers have a high influence in facilitating the trafficking process by stopping it, or encouraging it. Also except for the forest department guards, other law enforcement agencies do not have the mandate for nature conservation and therefore will consider trafficking related activities as a lesser crime compared to other types of humanitarian crimes. As another expert explained: *"Tiger conservation is not the mandate of the law enforcement agencies. In Bangladesh, nature conservation is not given much priority [by the government], it is probably number 29, 30 in the list of priorities."* (GC4). Therefore, though law enforcement agencies have a high influence in the facilitation of the trafficking process, they are likely to have a low interest in taking effective measures (except forest department) to stop trafficking of tiger parts from the Sundarbans. Also the relationship that law enforcement officers will have with people with actors involved in the illegal trade are fear, loyalty and trust.

Both third parties and villagers have low influence and interest in the trafficking process. They become involved involuntarily and against their wish into the trafficking process. Third parties include passenger boats or busses, trucks and cargo ships. Owners of these transports are very unlikely to know that their vehicles are used for transporting tiger parts. In case of villagers, they become involved in trafficking activities when they are closely related to those involved in the process. This is clear from the response an ex-intermediary gave when asked what makes local people become involved in trafficking activities: *"Not everyone becomes involved with trafficking. Only those people who have a close relationship with pirates/poachers become involved. If pirates/poachers do not trust the local people, they will not be included into their trafficking activities."* (GB1). Most local people will be afraid of such activity and would keep themselves away when they find out about something like this. As explained by a VTRT member, who said: *"People getting involved in trafficking in this area is low. People are now aware of the punishment of getting caught with tiger parts so I think they will stay away."* (GA4). Therefore, only locals related to tiger killers or logisticians will become involved in the trafficking process due the greed of making money, loyalty and trust.

6.2.2. Understanding the Criminal Groups Involved in Trafficking Tiger Parts

The illegal trade of tiger parts from the Satkhira range of Bangladesh Sundarbans depends on a few key individuals who act as key players in the trafficking network. The network follows a flat structure that is loosely organized that comes together through temporary alliances and associations when there is a demand for tiger parts. The relationship between the non-local logisticians and local logisticians make up the core of this type of trafficking network, while poachers/pirates/processors and smugglers makes up the wider group of actors that supports the core group. It was clear from the interviews that the intermediaries involved in such a criminal group relies heavily on trust and personal loyalties to recruit its members. As one VTRT member described it by saying: *“This [trafficking] is done with the condition that if the friend/relative gets caught they cannot take the buyer’s [non-local logistician] name. So the buyer will not care if his friend [local logistician] goes through 50 other people to get it [tiger parts] and he [non-local logistician] will be safe.”* (GA1). Therefore, actors who play role of logisticians will work with people who they can rely on not to reveal their names to others or to authorities when they are arrested.

The success of the network is heavily determined by the individual characteristics and skills of the different actors directly involved in the trafficking process. However, not all actors have the same weight in the criminal group, which rather forms around a series of individuals who become essential for the trafficking network to operate. It was evident from the interviews that logisticians were the actors who benefitted the most compared to the risk that they would take in the trafficking process. One expert explained by saying: *“The most important role is of the middleman [logisticians]. They benefit it the most in terms of getting the share of money [...] the most risk is taken by the poachers. The poachers will stay in the forest for as long as it takes and they will only travel in and out of the forest at night, they will not move out of the forest during the day to avoid detection”* (GC2). Other actors (smugglers, processors/poachers/pirates) directly involved with the trafficking process also plays a crucial role as they will have specific roles in the trafficking process. Therefore, it was clear from interview data that logisticians act as central nodes in the trafficking network with poachers/pirates/processors and smugglers making up the wider group of actors who have specific roles in the trafficking process.

Though the trafficking network is horizontally organized, actors involved do not work closely with others who are further away from them in the network. This structure ensures the safety for higher-level actors involved in the trafficking network as lower-level actors cannot divulge their identity if they are exposed or want to defect. As an ex-intermediary explained: *“After the tiger parts are given to the dalal [local logistician], the tiger killers will not know what happens to it. This is because information related to such type of activities are kept secret from others in that chain to ensure safety. This is because if one actor knows how much the other actor is getting then they may get jealous and get the other party caught.”* (GB2). Being loosely structured also makes it difficult to trace the activities of individual actors by law enforcement. Therefore, logisticians are the central nodes in the trafficking process who encourage others to become part of a loosely connected horizontal network of actors motivated through money to facilitate the trafficking process.

6.3. CRIME SCRIPT ANALYSIS - INTERMEDIARY ACTIVITIES

Each intermediary in the trafficking process carry out specific activities that has little to no overlap with other intermediary activities. The purpose of this section is to highlight the specific activities carried out by

intermediaries directly involved in the trafficking process (non-local and local logisticians, processors and smugglers).

6.3.1. Non-local Logician

Non-local logisticians are the first person in the trafficking process of tiger parts in Bangladesh. They will receive the order for tiger parts from an international trader or a national consumer for a significant amount of money. After receiving the demand for tiger parts, the non-local logistician will try to find a person from their trusted network (e.g. family and friends) living close to the Sundarbans to play the role of the local logistician and carry out the task of acquiring tiger parts. When non-local logisticians have the lowest risk of detection when they use their personal contacts to gain access to tiger parts. As one villager explained: *“They come to this area [for tiger parts] through a local contact and act as their guests for a few days. So local people do not find out about their intentions.”* (GA1). Therefore, the safest method for the non-local logistician to gain access and avoid raising suspicion in the local community is to arrive to an area as a guest of local villager and use their host to play the role of local logistician.

In the case that the non-local logistician does not know such a local person willing to help them, they will travel to a village adjacent to the Sundarbans in disguise of a holidaymaker and seek out a suitable person who will help them acquire tiger parts. In selecting a suitable person to help them, non-local logisticians will scout for local people involved in crime in the villages. One way they do this is after arriving to the village area, they will hire a local person with a boat to take them on a boat tour of surrounding area of Sundarbans. While making small talk with the hired person, the outsider will express their desire to taste deer meat and try to gather information about people who are involved with deer poaching and piracy in the area. An ex-intermediary gave the following description of this process: *“People [non-local middleman] can come here and ask a local person to take them into the forest for a tour and then approach them with these questions [of buying deer meat, people who hunt deer, etc.]. When they [local person] are asked about these things they may get excited and give out information that these middleman is looking for.”* (GB1).

After gaining information about people that can potentially help them, non-local logisticians will contact these people and start building rapport through exchange of gifts and money before approaching them with the offer to buy tiger parts. It is important for non-local logisticians to gain the trust of the local person as defection will be risky for the non-local logistician. This is because the identity of the person operating as a non-local logistician will only be known to the person he recruits from the local area to play the role of the local logistician. An expert explained this by saying: *“When they [non-local logisticians] make the first contact with such people [local logisticians], they will not likely talk about what the middleman [non-local logistician] wants. They [non-local logisticians] will spend time with them to gain their trust and then make an advance to ensure there is trust.”* (GC2). In this way, a non-local person connected to the broader criminal network of illegal wildlife traders will attempt to recruit a local person at the village level and share their plan for acquiring tiger parts from the Sundarbans. Once non-local logisticians have communicated their demand and have come to an agreement with the local logistician, the non-local logistician will make a partial payment that will cover the cost of the tiger parts to the local logistician and leave the area. They will keep in touch with the local logistician over mobile phones about the progress of acquiring the tiger parts.

It is inevitable that such a person will take all sorts of precautionary measures to avoid detection and express their desire to acquire tiger parts with people who they trust and someone who lives in a village adjacent to the Sundarbans. It is likely that such a person will be a professional and has the necessary experience in carrying out the role of a logistician in the trade of tiger parts from Bangladesh. Many interviewees suggested that it will be very difficult to identify such a person when they are in the local community as such people arrive to these communities in disguise of guests or tourist. It is likely that such a person will have contacts with people living close to the Sundarbans that can help them to acquire tiger parts.

6.3.2. Local Logistician

Local logisticians are the crucial link between outsiders and the poacher/pirates who kill tigers in the forest. People who play the part of the local logistician will approach a handful of people they trust with the offer to manage tiger parts. If such a person is not found with the immediate circle of trusted people, then those people will reach out within their trusted networks to find tiger parts. Local logisticians will also establish contact with pirates who may have stockpiles of tiger parts. Even if they find pirates who do not have tiger parts, they may communicate the demand for tiger parts to pirates. In this way, local logisticians create opportunities for local people to engage in poaching and smuggling near the Sundarbans. An ex-intermediary explained this using his own experience and encounters, by saying: *“I have received such requests [people asking for tiger parts]. They asked me if I can give them a nail, or bones or a skin or teeth. People I know asked me for these [tiger parts]. They wanted it [tiger parts] for someone else [local logistician]. I don’t know if that person is influential, but I know he buys it sometimes. I think this person [local logistician] works for someone else [non-local logistician]. I know this because once a dead tiger was seen near a canal, so this particular person offered money to some honey collectors to get the tiger for him. So these guys [honey collectors] got it [tiger parts] for him and the bones were sold for 2,500 taka [25 Euro] per kg from here. I only know about this because the person who told me trusts me enough to do it in front of me. And someone who puts their trust in me, I will honor it.”* (GB1).

Once local logisticians find people willing to supply them with tiger parts, they will come to an agreement about the cost for the tiger parts and provide their support in whatever way they can. If they have contacts with the local administration or law enforcement, they are likely to use these contacts to manage any unwanted situation and provide logistical support to the poachers/pirates. As an ex-intermediary explained: *“They [poachers] mainly get monetary support. Apart from that, they can ask for help [to the local logistician] when their boat is confiscated by the Forest Department. When these people [poachers] get such support from buyers [local logisticians], then they are likely to give their life for them, this is how the local people are.”* (GB1). Providing logistical support to poachers/pirates is in the best interest of the local logistician, because apprehension of poachers/pirates by law enforcement agencies creates a risk of defection and arrest for the local logistician.

Once they receive information that tiger parts are ready for delivery from the poacher or pirate groups, they will collect it themselves or hire someone trustworthy to collect the tiger parts from a suitable location near the village. During this time they will also make the full payment to the supplying party of tiger parts. It was revealed by some interviewees that though the payment for parts may happen in person, the transfer of tiger parts may not be made in person. Rather the parts are hidden somewhere isolated near the village and the location is only revealed to the local logistician once the full payment is made to the poachers or pirates. This is how one ex-intermediary explained this process: *“This [payment] happens face-to-face. In many*

cases the merchandise is not given from hand to hand, it is kept somewhere else and when the money is received the location of the merchandise is given.” (GB4). However, by not paying the poacher/pirates the agreed amount will be detrimental, as it will significantly increase their risk of arrest through the defection of the aggrieved parties.

6.3.3. Processors

Interviewees from all three groups agreed that the people who process tiger parts are people who are experts in skinning animals and travel with the poacher groups into the forest or belong to pirate groups who stay inside the forest. It was also clear from the interviews that initial processing of tiger parts happens inside the forest, because it will be too risky to do something like this in the village. As an ex-intermediary said: *“All this [processing] happens inside the forest. Nothing related to processing takes place outside the forest. Nothing related to processing takes place outside the forest.” (GB4).*

Before embarking into the forest to carry out poaching, poacher groups along with the processors will buy/arrange knives, knife-sharpening tools and enough food to last them a couple of days in the forest. During this time, group members will also collect information from local forest resource collectors, especially honey collectors, about recent tiger activity in the surrounding forest. They will do this to minimize their effort to look for tigers in the forest. At this stage, poacher groups will also collect a Boat License Certificate (BLC) permit from the forest department under the name of the person who owns the boat that they will use to enter the forest. Such a permit is required to legally enter and collect resources from the forest. Therefore, poacher groups will collect such a permit to reduce complications that can arise if law enforcement officers randomly check their identities inside the forest. As an expert explained: *“In most cases these people [poachers] are related to people who take passes [BLC permit] to go into the forest. Every person who has a pass can take other people with them, but it is not always possible to keep track of who is going with whom and where” (GC4).*

After completing all the preparation described above, the next step for the poacher group will be to come together and travel inside the forest using information that they collected from resource collectors about tiger activity in the surrounding forest. When on the boat they will also look out for fresh pugmarks on the banks of the canals to find a tiger’s trail. Poacher groups are likely to travel into the forest during the neap tides since resource collector activity in the forest will be the lowest during this time. After a tiger is killed, the initial skinning and processing of bones happens entirely inside the forest because it will be extremely risky and irrational to bring tiger parts to the village to process. The person/s with the most experience in skinning animals will lead the skinning process. According to an ex-intermediary: *“Among the 5 people [of the poacher group] not everyone is expert in skinning a tiger. One or two of them help out in different ways and learn how it is done. After a few times they will become experts and they can then go with other people and lead them.” (GB4).*

Since tiger skins are used as rugs or wall hangings, the most likely way to take off the skin is to follow the open skinning method, which requires the animal to be laid flat on the ground with an incision made from the head or the anus lengthwise across the belly of the animal (Roth, 1997). An ex-poacher stated that the skin on the head of the tiger is skinned first, followed by the front legs and moving down to the rest of the body [GB2]. Another ex-intermediary also gave a similar explanation of the process of skinning a tiger, by saying: *“First they will start skinning from the mouth, then they will cut from under the paw and upto the*

armpits. The more intact the skin, the more is its price.” (GB1). The process of skinning a tiger can take two to four hours depending on the skill and the number of people involved in the process. After removal of the skin, blunt tools are likely used to remove any excess flesh or fat from the pelt. To keep the pelt from decomposing and losing the hair or the epidermal membrane, a thick layer of salt is applied to the flesh side of the skin. It can take another three to four days for the skin to dry during which different members of the group will take turns to guard it. When asked what happens after the processing of tiger parts, an ex-intermediary explained it by saying: *“After skinning they [processors/poachers/pirates] will use salt to dry the skin, this can take 3-4 days. They will take turns to keep watch over the skin. After the skin has dried, they will package it and then transport it to a place agreed with the dealer [local logistician] (GB2).* After the skin has dried, it is packaged in a way so that it is easily concealable. After removing the pelt, the body with the flesh, bones and organs are buried inside the forest to allow the flesh decompose. Only if there is a demand for tiger bones along with the pelt will processors/poachers/pirates also carry out the bones with the pelt. However if there is no express demand from the non-local logistician for tiger bones, it will remain buried inside the forest until a suitable buyer for it is found. An ex-intermediary explained this by saying: *“They [tiger body without skin] are buried under the ground. When the meat rots and falls off they are taken out and the marrow is cleaned and supplied to the buyer.” (GB3).* Once the tiger parts are ready, paddleboats are used to transport it to near the village and is handed over to the local logistician or their hired associate.

6.3.4. Smugglers

Tiger parts will need to be carried out of the forest to near the village on paddleboats using the canals that serve as the entrance/exits to the forest. Only paddleboats can be used by poacher groups or pirates because there are restrictions on using motorized boats by villagers in the Sundarbans. When asked to explain the smuggling process from the forest, an ex-intermediary responded by saying: *“First parts are carried out of the forest using small boats [paddleboats]. They [poacher group/smugglers] will carry it [tiger parts] out through the bharanis [entrance/exit canals]. A boat can use these bharanis to disappear into the forest and come out through another side. (GB1).* Therefore, the only way that tiger parts can be transported outside the forest will be through the networks of canals that serve as entrance and exit to the forest.

Before setting out of the forest, poachers or pirates will communicate with the local logisticians and agree on a suitable point to drop off the tiger parts. This location will be somewhere isolated but with access to roads so that the parts can be quickly carried away from that location. According to one VTRT member: *“People [poachers] who carry it [tiger parts] out of the forest would call the dalal [local logisticians] and tell them where to be at what time.” (GA3).* On the other hand, when pirates kill tigers, they are unlikely to carry the tiger parts out of the forest only by themselves due to fear of being arrested by law enforcement. They will rather use a combination of their group members and local villagers they know or have abducted to help them carry tiger parts outside the forest. If people known to pirates are employed to transport tiger parts out of the forest, they will likely have a BLC pass for collecting resources from the forest. As one ex-intermediary explained: *“If the person transporting it [tiger parts] from the forest has a license to go into the forest, then they will go to the forest to collect the resource and also take it and conceal it with their catch. So, if they have a pass [BLC permit] to go to the forest, it is unlikely that they will be checked” (GB2).* Therefore, when villagers well known to pirates are used, they will use a BLC pass and their boats to go into the forest and bring back the tiger parts by concealing them with their fishing nets, other equipment and their catch.

Pirates will have a mechanism to control the behavior of these people they entrust with such parcels. When the relationship between pirates and their helpers are strong, this can involve simply giving directions over mobile phones. However, when kidnapped local people are used to smuggle tiger parts for pirates, some members of the prate group will accompany them until the parts handed over to the next actors, as one VTRT member explained: *“Suppose someone goes to the forest to catch crabs and is captured by the pirates. They [pirates] will ask them to leave someone behind and take one person from the pirate group and get something from the village. This is how pirates can make people do things for them.”* (GA11). In this way, local people can unwillingly become involved in smuggling tiger parts out of the Sundarbans under coercion and physical abuse by pirates.

Once the local logistician receives tiger parts near the village, they may transport the parts outside the village themselves or pay another person who they trust to transport the parts to a pre-determined location outside the village. Tiger parts can be carried outside the village using a variety of methods and modes of transport, as described by an ex-intermediary who said: *“Once near the village it [tiger parts] is given to the dalal [local logistician]. After that it can travel out in many different ways. It can be carried out by motorcycle, bus or goods laden trucks to Satkhira [nearest city]”* (GB2). Interviewees revealed that to avoid spreading putrid smell and attract attention, smugglers will wrap tiger parts into plastic bags and put them in personal luggage or cartons to smuggle tiger parts outside the village. Apart from being carried in bags, pelts can also be wrapped around the body and transported using public transport such as passenger busses and ships. In the Satkhira range, a local woman was caught wearing a burqa (body veil) and a tiger pelt wrapped around her body by law enforcement officers. The next most effective mode of transport used to smuggle tiger parts outside the village are motorcycles. This is because many of the villages adjacent to the Sundarbans do not have roads that are accessible to cars or trucks. According to some interviewees, motorcycles are preferred because they can be used to navigate through passages and poorly maintained village roads and also provide the privacy. When asked about why motorcycles are the likely choice to transport tiger parts out of the village area, a VTRT member explained by saying: *“When they [poachers/smugglers hired/coerced by pirates] reach near a place with a road, in most cases they go by motorcycles out of this area. They don’t use auto-vans because people may get suspicious about a bag that also smells like shutki [sun dried fish]. So, they will use motorcycles to transport it to nearest town/village where they hand it over [to the non-local logistician or their associate].* (GA4). Therefore, whether local logisticians hire someone to carry the tiger parts outside the village or not, tiger parts are smuggled out of the village area mostly using motorcycles, followed by passenger busses or ships.

Also, since the land border with India is close to the Satkhira range, local logisticians can take the help of middlemen that operate smuggling networks to smuggle goods to and from India and Bangladesh using the land border [GB2, GB3, GC1, GC2]. In such a case, an intermediary from the Indian side will be waiting to receive the parts, as one ex-intermediary explained the ease with which the border can be crossed by saying: *“I have heard that it [tiger parts] goes to India. It doesn’t take too long to cross over to India. If it is something illegal, they can easily cross over using the land border through the village. Goods are always being smuggled through these porous borders so it can easily be passed with such goods.”* (GB3).

The following information is summarized as the sequence of activities that are carried out by each of the key intermediary and presented on Table 5 in Annex I. The preceding interpretation of the scripts that different intermediaries follow during their roles in the trafficking process reveals that the sequence of actions that they carry out have little to no overlap with corresponding actors. Also, during the development of the scripts it became clear that some intermediaries are more active in particular scenes compared to others (see Annex I).

6.4. HOW LOCAL PEOPLE BECOME INVOLVED IN TRAFFICKING TIGER PARTS

6.4.1. Social Emergence

According to many interviewees, forest dependent people are unlikely to become involved in the trafficking process by themselves. Only when local people have prior connections or acquaintance with those directly involved in the trafficking process are local people likely to become involved in trafficking activities. As one VTRT member explained: *“People don’t want to commit crimes, but when powerful people support them and ask something from them, they get involved”* (GA9). Interviewees also suggested that sometimes, local people carry out specific activities in the trafficking process under duress of pirates or local logisticians who have local political influence. As one ex-intermediary explained: *“At first they [local people] may be afraid and when they don’t want to do it they are beaten up [by pirates]. So they [resource collectors] are forced to work for the pirates. When some of them return back from the pirates they would come and confess and ask for forgiveness from the authorities”* (GB4). Such a statement reveals that most villagers may stay away from becoming involved with the trafficking process because if caught they will have to spend significant amount of time and their own money after litigation, during which time they lose their livelihoods and create suffering for their families. When an expert was asked whether poor people are likely to become complicit to trafficking activities, replied by saying: *“Nearly 50% of the poorest are aware that if the forest disappears then their children will also suffer in the future. This is because they do not have the ability to send the children somewhere else. So they will only get involved with poaching and trafficking under the pressure of others who make them do it using fear, influence or other means [offering large sums of money].”* (GC3). As a result, though poor people are vulnerable to carry out poaching and smuggling, a large portion of this populace may stay away from such illegal acts due to variety of reasons that include, worry about future generations, risk of arrest and loss of livelihood, and social disenfranchisement.

When pirates are involved in supplying tiger parts, they may use people they kidnap to carry out certain activities for them. Pirates in the Sundarbans are infamous for kidnaping forest dependent people for ransom. The ransom amount is often exorbitant and worth months of income for the kidnapped people. As one VTRT member explained: *“When people go to the forest, they sometimes fall victim to pirates and the pirates would abduct them for 50,000 taka [500 Euros]. Then they [pirates] make them [resource collectors] work for them out of fear”* (GA13). People kidnapped by pirates often have to borrow money from others to pay the ransom, which puts them in debt for a long time. As a result, when pirates agree to reduce or exonerate the ransom in exchange of carrying out tasks for them, the kidnapped people are likely to take the risk and carry out these tasks. Since pirates are not able to come out of the forest in fear of arrest, they will use the help of people they know or kidnap to run errands for them. Another VTRT explained this by saying: *“Pirates use the people they kidnap to buy groceries for them. Pirates would give one person from the group a list of things they need and ask a hostage to get it for the pirates with their [resource collector’s] own money. If they do not return with the groceries then the pirates would torture the hostages they keep with them. The rest of the money the hostage has to send to the pirates through bKash [mobile money transfer method]”* (GA3). It is in this way that, pirates provoke local forest dependent people into becoming part of the trafficking process.

When forest dependent people become involved willingly, they are likely related to pirates, either through previous acquaintance or through family and friends. It was revealed through interviews that repeated interaction between local villagers and pirates led a development of stronger bonds between the villager

and the pirate group. As one ex-intermediary explained: *“People can get involved with trafficking through repeated interaction with pirates or through family relationships with people who are involved in it [piracy]. These interactions start with getting food and other things for pirates which slowly develops into stronger relationships”* (GB1). Hence, areas with higher pirate activity can lead to higher available criminal opportunities. Apart from carrying out smuggling, such people are also likely to help pirates by providing logistical support as well as information that help pirates avoid arrest. The ex-intermediary also explained why local people would do something like this for pirates by saying: *“They [local villagers] can give them [pirates] information about boats that are entering a part of the forest that the pirates control. They also help them [pirates] by supplying them with goods and food items. By doing this, these [local] people earn the favor of pirates and benefit by not having to pay money or be afraid of being kidnapped for ransom by pirates”* (GB1). Therefore, in areas near the Sundarbans where pirate activity is high, there may be a tendency for local villagers to help pirates as it will enable such villagers to operate inside the forest without the fear of being kidnapped.

When local elites and influential people are involved in the trafficking process, either as consumers of tiger parts or local logisticians, they will pressurize members from their followers to carry out certain tasks in the trafficking process. People carrying out these tasks are likely to have the confidence in their leaders to bail them out in case of arrest. They will also seek future benefits from their leaders for carrying out such a risky tasks. An ex-intermediary explained how political elites influence trafficking by saying: *“There are local leaders like the mattabar [village elders], or chairmen and members [local government representatives]. They have their own groups. When these people [political elites] ask people in their groups to do something [illegal], then they [group members] have to do it because of the leader’s pressure. These type of leaders are able to provide protection to their members in many ways, especially from the police. If something happens to their members then the chairman can solve it with the police”* (GB2). Apart from just involving members of their followers, political elites can also approach local people to play roles in the trafficking process. When local people not related to politics are asked to do something illegal for political elites, they will do it likely for the money but also to avoid the risk of negative repercussions for their denial. A common response from interviewees was that even though political elites can pressurize people into carrying out something illegal, they are also likely to pay the person doing the work. When asked about the role local influential people have in the trafficking process, one VTRT member explained by saying: *“Local influential people can get local people involved in trafficking. If a local elite asks some to carry something for them, then the local people don’t have anything they can do. They need to carry out their [influential person] order. They [local people] might get some money for their work”* (GA14). Payment or expectation of future favors for carrying out such work along with the assurance that they will not face negative repercussion from law enforcement authorities creates the motivation as well as the criminogenic setting that portrays the crime as a feasible alternative. Hence, for local people incentives will be greater than costs for carrying out something illegal for influential political elites.

Corruption among field level officers of law enforcement agencies in charge of protecting the forest and ensuring security in surrounding villages of Sundarbans also plays a role in creating the space and social acceptability of committing wildlife crimes among local people. Interviewees suggested that some low-level forest officers allow people to access restricted areas of the forest as well as release apprehended offenders in exchange of money. An ex-intermediary, who was also a local fisherman, explained how their field officers of the local forest office collects extra money for giving out passes by saying: *“[Local] Foresters give out passes [BLC permit] to people using banned nets in the Sundarbans. If a pass costs 350*

taka [3.5 Euros] they [local forest official] will take 650 taka [6.5 Euros] for a pass [to such a person]. This happens without the knowledge of the senior foresters and are mainly carried out by the station officers. Also foresters will allow people to use atols [prohibited cages] to catch crabs for money. They will take our names and write down our phone numbers. We pay them once we return from our trip from the forest.” (GB3). Interviewees also stated that the amount of money that law enforcement officers will demand depends on the severity of the offence. As one VTRT member said: *“This [bribe amount] depends on the time and the situation. If it is a serious issue then they [offenders] have to give a lot of money or else a smaller amount.”* (GA5). Another interviewee, an expert who have been involved with tiger conservation closely in the field pointed out that: *“The problem is in most cases people [law enforcement officers] just keep quiet after taking a bribe. No matter which law enforcement agency they are, when they are given money they just turn the other way.”* (GC1).

However, interviews also revealed that the presence of corruption among field level law enforcement officers are not a generalized trait, but rather depends on the habit of particular people in these agencies. One VTRT member explained this by saying: *“I don’t think all forest officials or members of other agencies are involved in these things [corruption]. They also do a lot of good work for the forest. Sometimes we don’t go with them [to the forest] but we observe them and we’ve seen them do good work.”* (GA4). As a result, corruption is likely to take place only when most or key members of the law enforcement group are willing to accept bribes. Even if some members do not get involved, they may still refrain from reporting their group members’ involvement in corruption to higher authorities. Interviewees also suggested that law enforcement officers are posted near the Sundarbans, they do not become involved in corruption initially, but with time and exposure to corrupt members of their group, they may also become involved. Another VTRT members expressed this by saying: *“Law enforcement people who come here for the first time are a bit strict. But after sometime they also become [take bribes] like the others.”* (GA3). According to one expert, reducing corruption in the field offices will require effort on part of the leader of the camp, as without his support it will not be possible to carry out corrupt practices repeatedly. The expert explained this by saying: *“The problem is that, if the person who is higher than me in the team is involved with corruption then others in the team will also try to get some benefit from there, but if the team leader is not corrupt then it will be hard for others to do corruption. So the officer in charge of a camp has the most important role in stopping corruption.”* (GC2). Therefore, corruption among people involved in place management acts as a criminogenic feature that influences the moral norms of the forest setting by changing people’s perception of consequences of committing crime in the forest.

6.4.2 Person Emergence

Since local people living around the Sundarbans are generally poor, it is likely they will give into the temptation of earning relatively large sums of money through illicit activities, especially when it takes relatively less effort compared to their general livelihood activities. One VTRT member explained this by saying: *“People who don’t have any other livelihood opportunities go to the forest. If they had another source of income then they would not go to the forest. People don’t kill tigers just because of the greed of money, but because they don’t have any other income”* (GA13). Interviewees suggested that local people most prone to becoming involved with trafficking activities are those who have the most limited livelihood opportunities. Even if they understand that they are doing something wrong, they will still do it without thinking about the consequences of their actions. When asked why local people become involved with trafficking, one ex-intermediary said: *“Local people can become involved with trafficking when they have*

no other means of income. But when they do it once and they see the money that they can make then they cannot get away from that greed” (GB3). It is likely that both poverty and inability to meet basic needs overrides any personal morality and self-control when given the opportunity to earn money through illegal activities. Therefore, once such a person is exposed to such a situation they are likely to learn from their experience and it becomes easier for them to be repeaters.

However, interviewees also stated that the number of people becoming involved with trafficking is declining due to a variety of reasons that include the availability of employment opportunities in brick kilns or day labors during the dry season, awareness raising and outreach campaigns carried out by WildTeam and VTRT members, availability of cylinder gas for use in cooking. According to some interviewees, the last two reasons have had a significant impact on people’s behavior related to illegal logging in the forest. Many of the interviewees said that now very few people collect wood from the forest anymore and that if someone is found carrying wood outside the forest, then others will stop them and report them to the authorities. As one VTRT member said: *“If someone brings fuelwood from the forest [now], then any ordinary person will inform the VTRT or CPG about it. So, people are aware and they understand that doing this is not right.”* (GA7). Awareness creation activities carried out by VTRTs with the help WildTeam provides various types of information to local communities that range from explanations of forest dynamics to information about formal rules and penalties. As one VTRT member said that: *“People now understand not to use seed pods and leaves as fuel since it can lead to less food for the deer and without deer the tiger cannot survive. Also the fallen leaves and seeds decomposes and becomes food for the fish.”* (GA2). Awareness creation initiatives were cited as one the primary reason why people are now more aware about what is illegal and how it is harmful for the sustainability of the forest ecosystem of the Sundarbans. Therefore, continuous knowledge dissemination about formal rules, penalties and ecological concerns can affect personal morals and abilities exercise self-control.

During data collection, interviews with people revealed that there is a difference in the moral norms among the different communities living around Sundarbans. I came to know from my interviewees that a particular area near the Satkhira range, Gabura union, was a place where people easily become involved in illicit activity such as piracy, deer poaching, illegal woodcutting and the manufacturing of crude guns likely using low-grade arms making equipment. Interviewees stated that it is easier for people in that area to become involved in trafficking as the social accountability is low and people are less afraid of reprimand for their actions from authorities or from within the community. As one VTRT member living close to that area explained: *“People there [Gabura] are a little ferocious and have little sympathy for anything. We do not even marry our children to that side of the river. That is the reason this type of work [poaching and woodcutting] happens there more”* (GA4). When asked about local people’s likelihood for deterring trafficking activities in their area, a resident of Gabura union said: *“The situation is still not present for this. Still local people are afraid of backlash from pirates and dacoits. So they will keep quite even if they know. Also in many cases, pirates/dacoits have connections with elite people, so local people are afraid of it.”* (GA5). Historical processes such as low infrastructural and social safety-net development may have led Gabura it to become a place where piracy and other types of illegal activity is socially tolerated.

6.5. MEASURES TO DETER INTERMEDIARIES IN THE TRAFFICKING PROCESS

Intermediaries in the trafficking process include processors, logisticians, smugglers, third parties and government colluders. Each actor in the trafficking process is connected to other actors based on their level

of trust, interest to earn money and/or fear of retribution from the other actor that ensures secrecy. Due to the clandestine nature of the illegal trade, it is difficult to identify the types of people who are involved in the trade (Saif, 2016; Uhm, 2016). This also creates challenges to develop measures that can successfully deter intermediaries from carrying out their work in the supply of tiger parts. Therefore, aligning with SCP techniques, the following section highlights the various measures that emerged from the data collected from interviewees that may be successful in reducing the opportunities for people to become involved in the trafficking process.

6.5.1. Developing a Wildlife Intelligence Unit to Investigate Trafficking

Interviewees from all three groups believe that the most efficient way to deter intermediaries in the trafficking process is through developing a trained force that can work towards identifying the people planning to carry out poaching or trafficking based on actionable information. Members of such a group need to receive specialized training on how to gather and use such information so that they are able to uncover the chain of actors involved in the trade. Such a unit should be part of the forest department as they are the only agency in Bangladesh with mandate of nature conservation and protection of tigers in the Sundarbans. It is important that this unit gain the trust of the people providing them information, because without this trust their whole operation will fail. As one expert explained: *“We need a wildlife intelligence unit, we do not have anything like this. What we do now is pass information but that is not the same as intelligence. Here [to stop trafficking] intelligence is a very big thing. So, there needs to be a trained unit working for intelligence. There needs to be a formal wing with resources and funds as well as training in this line of work.”* (GC4).

6.5.2. Developing Informer Networks in Local Communities

Interviewees across the different groups suggested that developing a network of local informers with members of the local community is also necessary to support a formal intelligence unit. This is because at the village level, local people are best positioned to relay information about suspected trafficking activity. A VTRT member explained this by saying: *“We stay in the village so we get this type of news the most. We know what is happening in our village. So when I will call my boss [WildTeam staff] and give them some information, my boss will make a call to one of the agencies of the government and they will right away come to the place”* (GA6). However, two important aspects are necessary for such an informer network to work. First, a local informer needs to be recruited and provided remuneration for sharing information related to trafficking activity in their area. Secondly, ensuring anonymity of the informer is paramount for their personal security. As one VTRT member said: *“There is a need to develop some village based informer networks with local people. These people will need to be provided some sort of incentive to work for this, they will not do it for free”* (GA5). An interviewee from the ex-intermediary group also reiterated a similar response by saying: *“If we really want to save tigers then areas around the Sundarbans should be separated into zones where some people are made into teams that does the work of the detective branch who will get money for their effort. Then these people can be used to collect information on people involved in the illegal activities”* (GB4).

Interviewees also pointed out that people may not be too keen about sharing information related to illegal activity directly with law enforcement authorities out of fear of persecution. Interviewees thought that sharing information related to poaching and trafficking directly to law enforcement agencies can lead law

enforcement agencies implicating the information provider with the crime, as only those involved in the crime can know about it. An ex-intermediary explained this by saying: *“This information cannot directly be shared with the forest department, because it is very likely that the forest department will implicate the person sharing the information. So there needs to be a system that allows anonymity of the informer”* (GB5). Therefore, there needs to be a protocol for sharing information to protect the local informer’s identity.

A likely method that can be used is to pass such information through a third party, like an NGO working with conservation, who can then share the information to relevant authorities. This process will ensure a degree of anonymity to the local informer and create a confidence of sharing information without harassment. WildTeam with the support from the VTRT groups has already developed a similar process of sharing information with forest department officers about illegal activity. The following explanation was given by an expert about how such a process of sharing information can be done: *“If this information passes through a NGO, which then passes it over to the multiple authorities then this can work. If the information is only shared with one law enforcement authority then it is unlikely to work if there are corrupt people in that authority, they will try to stop it from being caught. So, if three different agencies get the information they can act as a counterbalance for the other agency as they will have different objectives. Even if all the agencies are corrupt they will still not take bribes in front of the another agency”* (GC2).

6.5.3. Monitoring Forest Resource Collectors

In order to avoid detection, poacher groups will travel into the forest in disguise of forest resource collectors. Legally, resource collectors can only enter the forest to collect NTFP after obtaining a BLC permit from the local forest department office. This permit contains information about the type and quantity of the NTFP that can be collected, the permissible area of harvest and the duration of the permit. Resource collectors who obtain these permits also need to return to their local forest department office and deregister their names from the list of license holders before the expiry of the permit. Resource collectors have to pay a fine to the local forest department office if they overstay their allocated duration in the forest. Resource collectors also need to provide evidence of the amount of NTFP they have collected during their time in the forest. Therefore, all BLC holders aim to maximize their collection based on their allowed quota. Though poachers may also collect BLC permits, they are unlikely to spend too much time collecting the NTFP resources assigned to their BLC permit. An ex-intermediary explained this by saying: *“If someone makes a pass with BDT 10,000 [100 Euros] and only catches crabs worth BDT 5,000 [50 euros] and keeps doing this then there must be something else that person is doing to recover his permit costs. So if some people inform the FD when they find out about such activities, that some boats are going to the forest and earning less than what they are spending and if the FD investigates it then I think something good will come out of this.* (GB1). Hence, poachers with a BLC permit are likely to return with an amount of resources that is significantly lower than average amount collected by other resource collectors for that period. Therefore, it may be possible for the local forest department office to identify BLC holders in the list who report significantly below the average amount of resources collected for a period. In such cases, these BLC holders can be investigated about their actual role in the forest. The same ex-intermediary went on to explain why monitoring BLC permits holder can be helpful said: *“The authorities need to check whether the people going to the forest are actually going there for what they said they would. This is because when a person goes to catch crabs they need to spend BDT 5,000 [50 Euros] on food for a 7-day trip. So, if they only catch crab worth BDT 1,000 or 2,000 [10 or 20 Euros] then that does not make sense. If someone catches way*

less than the average of others, then there is something up with that. This checking can only be done by the foresters.” (GB1)

6.4.4. Continue Anti-piracy, Amnesty & Rehabilitation Initiative for Pirates

Interviewees cited the presence of pirates in the forest as a major reason for the decline in tiger numbers in the Sundarbans. As one ex-intermediary explained: *“The biggest challenge are the pirates who live in the forest. As long as there are pirates in the forest, they will kill tigers when they find them. So tiger conservation will be very challenging as long as there are still pirates in the forest.” (GB4)*. Since pirates live inside the forest, they will kill tigers without any hesitation as they spend nearly all their time in the forest and are exposed to life threatening danger from tigers attacks, snakebites and encounters with rival pirates groups or law enforcement agencies. Local people become involved with piracy in desperation and greed of earning large sums of money. However once someone joins the pirate groups it is difficult for them to return to normal life, as they will be wanted by the law enforcement agencies for their crimes. During data collection from the different areas of the Satkhira range, many of the interviewees referred back to a particular incident between law enforcement agencies and people involved in smuggling tiger parts which allegedly still acts as a deterrence for people from becoming involved with trafficking. As a VTRT member said: *“Around 3 years ago, 5 people were killed in a shootout with police in Golakhali for getting caught with tiger skins. This has created a lot of fear in people who would have thought of doing this [trafficking]. (GA7)*

Recently the Government of Bangladesh concluded an initiative to allow pirate groups to surrender their arms and receive a pardon and money to start a normal life. In the Satkhira range, many of the interviewees stated that most of large pirate groups that operated in that area took this opportunity and surrendered. However, interviewees also said that some smaller groups of pirates with a handful of members still cause trouble to resource collectors when they travel alone inside the forest. As one VTRT member said: *“You can say that there are no [more] pirates in the forest, there may be a few small groups now. Local people are still scared of these groups.” (GA11)*. Therefore, combining anti-piracy activities with amnesty initiatives has already been successful in removing pirates from the Sundarbans.

6.4.5. Improving Patrolling Strategies

The dense foliage around the boundary of the Sundarbans acts as natural barrier for people wanting to access it. Access to the interior of the Sundarbans is only possible using the tidal canals, which leads to a vast network of creeks. These entrances are locally known as ‘bharani’, which translates to ‘exits’. Resource collectors use these entrances to enter and exit the forest when they go to collect NTFP. People who transport tiger parts outside the forest will also have to use these waterways to exit the forest and cross the river to reach the village. Therefore, one expert suggested that stationing forest department or other law enforcement boats near these entrances at night can increase the perceived risk of such people being caught, by saying: *“Another thing that can be done is to set up checkpoint at the entrance of a Bharani [exits] at night. So people who go into the forest at night will have difficulty moving in and out at night” (GC2)*. Another expert also believed that such increasing patrolling measures will increase the risks for poachers or smuggler to carry tiger parts outside the village. However, he believed that the challenge with increasing patrolling would come down to the need to allocate further resources, such as boats, fuel and work force by the law enforcement agencies to such measures, as he said: *“The patrolling needs to be increased in the*

rivers around the forest. Also the forest guards who are engaged in patrolling need to given the right equipment to carry out their work. The biggest challenge that they have is that they run out of fuel.” (GC3).

Given the resource limitations that the forest department perennially faced with, the department recently adopted the ‘spatial monitoring and reporting tool’ (SMART) patrolling technique from the outgoing project by WildTeam which instituted it. This unit is now funded directly by the Bangladesh Prime Minister’s Office. Experts as well as VTRT members felt that after the SMART patrolling technique started in the Sundarbans, resource collectors were much more aware of not entering the forest without permits and the sanctuary zone to collect resources. One expert explained that SMART acts a deterrent to poachers and smugglers by explaining that: *“Maybe the poacher and smugglers have changed their ways after the [operation of] SMART, [but] this is hard to tell. SMART is just a deterrent. If they [poachers get caught then then measures can be taken to prosecute them. This is all a deterrent” (GC4).* However, interviewees across experts and VTRT members felt that measures should be taken to ensure that people in charge in SMART patrols do not succumb to corruption. An explained the issue by saying: *“The SMART was honest when it was under the WildTeam management. But now, that they are working for the forest department they do not get the same type of benefits. As a result, they are now prone to corruption. They will take the money from the people who own many boats and if they find someone in the forest who have not paid them then they will harass them and arrest them.” (GC3).* Therefore, just using technology without improving the living and working conditions of the people who will use this technology is unlikely to bring desired benefits.

6.4.6. Improving Benefits and Capacity of Forest Guards

Forest guards in the Sundarbans are under resourced in terms of personnel, equipment and logistics. They do not operate like other uniformed service members (e.g. coast guard, army or border security forces) who have strict schedules for physical training and other daily activities as well as superior weapons. As one expert explained: *“Suppose in case of the police if there are 4 people in a camp they will work in 8 hour shifts. But with Forest Department guards it is not possible. The forest service has to be made into a uniform service like the armed forces. Like the police They have to be given proper training. There needs to be a schedule for the training. For example, Forest Department officers should have something like the fire department physical training schedule. Such activities need to be given an institutional form. The Forest Department also needs more advanced weapons” (GC4).* Forest guards also receive inadequate remuneration considering the risk they take in carrying out their duties inside the forest. They also do not operate in shifts and will need to spend months at a stretch inside the forest and away from their families. Such austere working and living conditions may lead some to become involved in dishonest ways of earning an income. One expert explained why field level forest officers become involved with corruption by saying: *“Why will the [forest] guards not take bribe. They only get their salary and nothing else. These guards are living away from their families and living in isolated places and dangerous areas. They can’t come out to piss at night because they can be taken away by tigers. This happened in Notabeki where a guard was taken by a tiger when he came out to take a leak around 3-4 years ago” (GC1).*

6.5.7. Awareness Creation in the Local Communities

Awareness creation regarding forest conservation issues among local communities living along the periphery of the Sundarbans can play a positive role in increasing a pro-environmental attitude towards

tiger conservation. Local people living around the Sundarbans think that the tiger is the best protector of the forest. They believe that if there tigers disappear from the forest, people will not be afraid to go and take whatever they want from the forest. One VTRT member aptly explained this by saying: *“People now say that if there are no tigers in the forest then even women will go into the forest to cut trees. Even if hundreds of people guard the forest there will still be some damage, but if there are tigers in the forest it can do the work of 5000 people. So, everyone wants the Sundarbans to survive along with the tigers.”* (GA4).

Currently, VTRT carry out awareness-raising meetings in which, among other things, they tell people about the role tigers play in the ecosystem of the forest. They also tell people what is allowed and what is forbidden in the forest laws. As a result, people living on the periphery of the Sundarbans are now aware of the forest laws as well as have an idea about the forest dynamics. As one VTRT member said: *“After getting involved with Tiger Team [WildTeam] we got to know how tiger conservation is linked to the saving the forest. Now we know that the deer eat the fruits/seeds that fall from the trees and if there are too many deer then there will be less tree regeneration and the forest will die. So If tigers are saved, the trees will be saved, then the forest will be saved and this will save all other animals, including the deer, that live in the forest”* (GA3)

Interviewees also stated that after the formation of VTRTs, people living on the periphery have changed their behavior with regard to illegal acts related to the forest. They said that before the formation of the VTRT it was easier for people to buy deer meat and even buy tiger parts in areas adjacent to the Sundarbans, which has significantly changed now. Many interviewees attributed this change in behavior to the awareness raising activities carried out by the VTRT with the help of WildTeam. As one VTRT member explained at length how they use different techniques to influence people by saying: *“This [eating deer meat] has also reduced, because people now consider it as an offence. In our social meetings we just do not talk about the law, we also try to explain these things from a religious point of view that this is wrong. In our Muslim faith, eating dead animals is haram because these animals are killed by suffocation or poison or with guns, so it is not possible to know how the animal was killed. So, people have a negative view on eating deer meat.”* (GA7). Thus, awareness creation activities should focus on providing information related to changes in forest laws and as well as sustainable practices of resource collection.

Talking to interviewees made it evident that people who survived the cyclone storms of 2007 and 2009 have realized that if the Sundarbans disappears they will be at higher risk of casualties every year. Interviewees who survived these storms pointed out that if it were not for the forest slowing down the storms, whole villages would have been destroyed. Therefore, adults and the older generation now understand that the forest protects them from storms and tidal surges and without the Sundarbans, their existence will be at stake. As one VTRT member said: *“After the big storms, people now understand that we need to save the forest if we want to protect ourselves from these storms. It is because of the Sundarbans that we are alive. So, if the tiger is alive in the forest then the forest will live. If there are tigers in the forest then people cannot just go and cut trees in the forest out of fear”* (GA14). As a result, interview data suggest that awareness creations activities should continue, especially with the support of local people like the VTRT members and other influential people.

6.5.8. Creating Sustainable Alternative Livelihoods

Many people living around the Sundarbans do not own land and have to rely of collecting resources from the forest or work for others as day labors for a meagre wage. Often the income they earn from these

activities are not enough to cover their basic needs such as food for the family and paying for children's education. The desire to earn money to satisfy basic needs is one of the primary causes for people to be attracted to poaching and trafficking activities. As one VTRT member explained: *"Local people get involved thinking about the money that they can earn from getting involved with trafficking. They do it to run their family, but they do not think about what can happen to them if they get caught. These people think from day to day, whatever they earn in a day they spend it, they do not care if the Sundarbans survives or not, they only want to survive the day."* (GA1).

However, interviewees suggested that the situation is improving now as the government and NGOs have been trying to provide alternative means of income for the poorest in these communities.. One VTRT member explained this by saying: *"These people [poachers/smugglers] have also changed their ways because compared to 5-7 years ago, now there is a lot of support from the government and NGOs to improve livelihood opportunities for people, but before this was not there. I think there are still 10% people [involved in trafficking] who do it very covertly. Maybe they still do it because they are not getting this support"* (GA5). However, the point of contention about these activities is that they are often not sustainable and people are forced to revert to their old ways once the livelihood creation project is over, as explained by one expert, who said: *"This [creating livelihoods] can be done by the NGOs working in the community. The problem is when these NGOs finish their projects these people [project's beneficiaries] go back to their old ways"* (GC4). Therefore, any alternative livelihoods initiative should be sustainable and need to focus on supporting people to move away from forest resource collection.

Such alternatives can include providing capital assets such as rickshaw vans or small capitals and the relevant financial training to start a small business. According to an interviewee, such assets or capital should be given on the condition that the value of it is repaid to the donor within a reasonable timeline. According to him, this will ensure that people will not consider it as a donation but rather a debt and will work towards repaying it. The VTRT member succinctly explained this by saying: *"In Burigoalini [area adjacent to Sundarbans], there were many people who used to steal wood [from the forest], but now there is NGO who made a list of people who depend on the forest in a village. The people from the list were given sewing machines or vans, but not for free. The people who receive them will have to payback the price of it in installments. Many people have stopped going into the forest after this work started. These people earned from this and paid back the money in installments and are now happy with their families. So if these people [NGOs/donors/Government] can be give some sort of support they [poachers/smugglers] may turn away from such activities"* (GA4). Therefore, it is important to identify needs based sustainable livelihood opportunities that will have a higher chance of internalization by community members even after a project that provides this support has concluded. According to an interviewee:

6.5.9. Increasing Legal and Judicial Capacity to Fight Wildlife Crimes

The laws protecting wildlife in Bangladesh makes a distinction between a person who kills a tiger and a person smuggling or selling tiger parts. A person charged with killing a tiger can get a non-bailable prison sentence ranging from 2 to 7 years along with a fine BDT 1 lac (EUR 1,000) to BDT 10 lacs (EUR 10,000). If the person is a repeating poacher then the prison sentence can be increased to a maximum of 12 years and be fined to a maximum of BDT 15 lacs (EUR 15,000). On the contrary the law states that smuggling or selling tiger parts is a bailable offence, which carries a prison sentence not exceeding 3 years and a maximum fine of BDT 3 lacs (EUR 3,000). Repeating smugglers or sellers can get a maximum of 5 years

imprisonment with a maximum fine of BDT 5 lacs (EUR 5,000) fine. It is often difficult to catch people who have killed a tiger, hence most criminal prosecutions consider people as smugglers or sellers. Also, the weight of the penalty depends on the judge deciding the case. In many cases, people arrested with tiger parts get out of prison relatively quickly by obtaining a bail from the courts. One VTRT explained this by saying: *“People who get caught for these crimes [smugglers/sellers] are arrested and go to jail but then they get out again in a few months, so how is this helpful. They get involved in this work again”* (GA5).

Due to lack of funds, it is not possible for the forest department to hire experienced lawyers to fight these cases. In contrast, people charged with such crimes are known to hire experienced lawyers who help them to get acquittal for their crimes. As one expert explained: *“Also the lawyers that appear for the accused are well paid, but the lawyers that help us are underpaid and payment is delayed. We cannot just employ a law firm because they are a business and it will require a lot of money.”* (GC4). Another aspect of the judicial system in Bangladesh is that, because trafficking is considered as a criminal offence, proceeding will start from the district magistrate’s court, the lowest court in the judicial hierarchy. Often judges in these lower courts lack the expertise in dealing with environmental cases, especially those related to poaching and trafficking related crimes. As a result, often such cases may be given a lower priority compared to cases related to offences against humans. An expert explained this from experience by saying: *“The people who will do the judging, most of them have very little knowledge about wildlife or nature conservation. I am talking about the magistrate level [lower court]. They may have the capacity to handle these types of cases, but I think the importance for handling these crimes is missing”* (GC4).

6.5.10. Using dedicated hotlines for tourists to report wildlife crime

The Sundarbans is one of the largest tourist locations in Bangladesh. Tourists can only travel inside the forest with the help of registered tour operators as their guides. These tour operators have large passenger boats with accommodation facilities and generally spend a couple of days inside the forest with tourists. Since tourist would spend their nights inside the forest on their boats anchored in the middle of the river, one expert suggested that tourists can be encouraged to report strange behavior or occurrences happening around them to the nearest forest department office. According to him, every tourist boat can have a list of phone numbers of the nearest forest office and law enforcement agencies (e.g. coast guard and river police). He pointed out that these phone numbers cannot be personal phone numbers and need to be dedicated phone numbers for that forest office because forest department officers can be transferred from their duty stations. Therefore, he suggested that the forest office and the law enforcement agencies of a particular location needs to keep a dedicated phone number for receiving any news related to wildlife crime in the forest. It was also clear during the interview that there needs to be a clear protocol when calling these numbers. This expert suggested that, first phone calls need to be made to the local range office and if action is not taken in a reasonable amount of time, callers can call higher authorities. This is likely to ensure accountability of the field office officers. Therefore, there needs be clear protocol for anyone using the phone numbers and it should be explained to the tourists once they arrive on the boat. The expert explained this by saying: *“The forest department can give a list of phone numbers based on which Range of the forest tourists are in. The main issue is that the phone numbers need to be fixed for a forest range so that even if the contact person changes the phone number does not change. These lists can have a step-by-step instruction for the tourists about what to do if they don’t see any action happening after their first phone call. So, the first phone call can be to the nearest camp, then the range office, then the regional office and then the Dhaka office. This will ensure that there is accountability within the FD force”* (GC3)

CHAPTER 7: DISCUSSION

Various types of people are involved in the trafficking of tiger parts from the Satkhira range of Bangladesh Sundarbans, something that is characteristic of the illegal trade in wildlife across the world (Broad et al., 2003; Milliken et al., 2012). Among the different intermediaries, the non-local logistician, the local logistician, smugglers and the processors (involved with poachers or pirates) are central actors in enabling the trafficking of tiger parts from the Sundarbans. Other actors such as third parties and sometimes government colluders play a secondary role in facilitating the trafficking process. These latter actors are likely to become involved through their relationships with those directly involved with the trade, or indirectly without their knowledge of supporting the trade. In the illegal trade of wildlife products, often ‘outsiders’ are able to recruit locals to harvest wildlife due to poverty, unemployment and poor local conditions (Uhm, 2016). Also, it is always difficult to identify the specific people involved with such criminal activity due to the secrecy and the clandestine nature of the trafficking process (Uhm, 2016). However, the purpose of this research was not to identify particular individuals. Its aim was to identify the types of intermediaries involved in trafficking tiger parts based on their activities; how their activities affect opportunities for local people to become involved with trafficking; and suggest measures to deter or reduce opportunities in carrying out these trafficking activities. The following sections provides a discussion of the results of this research in light of extant literature related to illegal wildlife trade, the conceptual framework and the methodology used for this research.

7.1. SETTING THE SCENE FOR TRAFFICKING OF TIGER PARTS FROM THE SATKHIRA RANGE OF BANGLADESH SUNDARBANS

Villages adjacent to the Satkhira range of Sundarbans are some of the least developed places in Bangladesh. People living in these villages often lack access to fresh water, reliable electricity and healthcare facilities. Most people also lack a stable income and rely on a daily or weekly income for their livelihoods. As a result, for some people poverty is always a real everyday concern. In some of the adjacent villages of the Satkhira range of Sundarbans, locals claimed they often face discrimination by political elites and their supporters as well as constantly dread harassment through false accusations and extortion by some corrupt law enforcement officers. Inside the forest, local people also face the danger of being kidnapped by pirates for large ransoms when collecting resources. Only people who pay and collect ‘passes’ from the pirate groups operating in their area are able to collect resources without harassment. Such a mosaic of different conditions creates a setting of uncertainty and inequality for people living in these villages.

Though the forest department decides how resources derived from the Sundarbans is regulated, they lack the logistical capacity to monitor whether their guidelines are being followed. Nearly half of the Sundarbans is demarcated as a wildlife sanctuary where human access and resource collection is prohibited. Due to restrictions in resource collection, resource stock in these areas are plentiful and lures people to these areas to collect resources. By operating in these areas, resource collectors can greatly increase their income and reduce their effort in collecting resources. Interview findings suggest that resource collectors are able to use these wildlife sanctuary zones by paying money to relevant place managers. Evidence from interviewees suggest that low levels of corruption among some low ranking law enforcement officers and guards create a situation where local people are tempted to disregard the rules and guidelines set for protecting forest

resources. When benefits of non-compliance outweigh its costs, people are known to disregard regulations (Keane et al., 2008). Positioning these circumstances within the broader picture of lasting poverty and lack of alternative livelihood options provides some insight into why resource collectors choose illicit ways of earning an income. As a result, when local people consider the moral norms and its enforcement in the Sundarbans as weak and are faced with opportunities of earning a relatively large amounts of money (causes), they are likely to be encouraged into becoming a part of the trafficking process. Therefore, key intermediaries rely on the weak social, economic and political context of the village setting to gain access to local people with weak personal morals who can expedite the trafficking process and thereby fosters the criminogenic attribute of the villages surrounding the Sundarbans.

Some explanations of crime suggest that crime reflects the breakdown of the ‘social fabric’ of a society and often reflects poverty and inequality in society (Faulkner et al., 1996). In this sense inequality and poverty in villages adjacent to the Sundarbans acts as a critical motivator for particular local people to become involved in trafficking activities. Crime is also associated with moral values in different ways and on different scales (Halpern, 2001). On a societal level, crime is considered a result of moral decline among its members, where people increasingly disregard society’s norms and laws (Halpern, 2001). Therefore, values held by the majority can indirectly cause crime by not sanctioning offenders that may lead to higher incidences of crime (Halpern, 2001). Evidence gathered through interviews also suggests that the moral bearings differed from community to community, as some places allegedly had more people inclined towards crime (e.g. Gabura union). At the individual level, a person beliefs, morals and social conscience directly determines if they consider an act to be criminal (e.g. stealing property). The social model of situational action theory (SAT) suggest that ‘acts of crime are always an outcome’ of the conflict between the person morals and the moral norms of the setting (Wikström et al., 2018). Therefore, when locals with low levels of morals towards environmental protection (crime propensity) are approached in the villages (setting) by key actors in the trafficking process (situation) with offers of significant money or threat (temptation/provocation), they are likely compelled to become involved in trafficking activities (action). Actors such as logisticians, political elites and pirates create the motivation (temptation or provocation) for local people to become involved in trafficking activities.

Individuals are influenced by both ‘personal’ (e.g. needs, desires, etc.) and ‘situational’ factors (e.g. weak monitoring by enforcement, easy access to forest, etc.) in making their decision to become involved in trafficking activities (Clarke & Cornish, 1985). Interviews with VTRT members and ex-intermediaries show that personal factors are influenced by the amount of money that local people stand to make by becoming involved with trafficking. Clarke & Cornish (1985) developed a decision-making framework for offenders in which they suggest that a person goes through a two-step process when making the decision to commit a crime. The first step takes place before committing the crime and requires the person to decide whether to become involved in the crime based on personal factors (e.g. satisfying desires, needs, etc.) (involvement decision). The second step takes place during the process of committing the crime (event decision). During the second step, the offender will decide whether the features of the setting and its surrounding circumstances allows the criminal act to take place. Based on this framework, involvement decision for actors interested in trafficking activities are driven by an desire to earn a significant amount of money to satisfy immediate needs but is also influenced by emotional aspects such as trust and loyalty with recruiters. On the other hand, event decisions requires judgement of more tangible aspects of the environment in which offenders have to operate. SAT suggests that the moral norms of the place and its level of enforcement encourage (or do not discourage) acts of crime when such opportunities arise

(Wikström et al., 2018). Considering the vastness of the Sundarbans coupled with the weak law enforcement capacity, lack of informal rules towards nature conservation, looming poverty and corruption creates environmental inducements that give rise to criminal opportunities for particular people to become involved in the trafficking process in the Satkhira range of the Bangladesh Sundarbans.

7.2. EXPLAINING THE ROLE OF INTERMEDIARIES

7.2.1. Logisticians

The most important intermediaries in the trafficking process are the logisticians because they have a high influence and interest in successfully facilitating the trafficking process as they stand to benefit the most. They also make the necessary connections between other actors for the trade to operate. Evidence from interviews suggest that least two types of people are involved in the role of a logistician in the trade of tiger parts from the Bangladesh Sundarbans. These actors are in charge of ordering, aggregating, transporting, planning and financing the trade and may be involved directly or from a distance with the trade (Phelps et al., 2016). The non-local logisticians are likely professionals, connected to the larger and more organized international criminal syndicate dealing with tiger parts [GB5]. Often such actors are likely to have connections with upperworld actors such as customs officials and local police (Uhm, 2016). Wong (2015b), who studied the trade in tiger parts in China, found that the central node in the trade, recruited workers based on similar ethnicity and friendship. Uhm (2016) while studying the illegal trade of caviar from the Caspian Sea region to Russia found that generations of family members are involved in the trade. In the Sundarbans, non-local logisticians gain access to local logisticians in one of two ways. The safest way would be to recruit the local logistician through their network of family and friends who live around the Sundarbans. Such cooperation between family members involved as middleman and poachers have been observed in the illegal trade of pangolins in Malaysia (Pantel & Chin, 2009), rhino horns from South Africa (Milliken et al., 2012), tiger and leopard parts from India (EIA & WPSI, 2006), caviar from Azerbaijan (Uhm, 2016) and tiger parts in China (Wong, 2015b).

Selecting family members as local logistician greatly reduces the chance of exposure to a wider audience for the non-logistician. This is similar to the finding by Moyle (2009) who studied the black market for tiger products in China. Moyle (2009) suggest that using family members in such illicit activities ensures loyalty and reduces the chance of infiltration by law enforcement. Friendship can also foster strong ties between the two types of logistician as stated by some interviewees. Uhm (2016) found that some traders of Barbary macaques in Morocco were people who knew each other from before they became involved in the trade. Therefore, if relationships are based on familiarity and shared values, then mistrust between the different actors can be negated (Misztal, 2013). If the relationship between the two logisticians is not based on solidarity and cooperation, it will have adverse consequences since disputes cannot be resolved through legal mechanisms (von Lampe & Ole Johansen, 2004). Findings from interviews also confirm this as non-local logisticians will first look for someone from their network of family or friends who they share a close kinship with to play the role of the local logistician. The motivation for local logistician can both be desire-dependent and desire-independent (Searle, 2003). The primary motivation is to earn money (desire-dependent). However, it may also be complimented with their commitment to help a family member and earn their favor (desire-independent).

The other way non-local logisticians recruit local logisticians is through a more hands on approach by travelling to the local community in the disguise of a holidaymaker and seek out a suitable person who will help them acquire tiger parts. Once they find such people, non-local logisticians will meet them and start building rapport through exchange of gifts, money and assurances of other logistical support during the work. This is loosely similar to the cultural practice of ‘guanxi’ performed by Chinese individuals to develop a strong and trustworthy relationship (Moyle, 2009; Uhm & Wong, 2018). After trust is established, an agreement will be reached about the type and price of tiger parts, how communication will be carried out and other logistical issues. When these matters are settled the non-local logistician is likely to exit from local village and rely on the local logistician to acquire the tiger parts and deliver it to the non-local logistician. Non-local logisticians will avoid taking risks of handling tiger parts by themselves from the local areas. This is similar to the behavior of dealers and buyers of tiger and leopard pelts in India, where other actors are hired to carry out these activities (EIA & WPSI, 2006).

The nature of the relationship between the two types of logisticians is primarily based on money, but trust and loyalty also play a significant part. Since the contract between people involved in illegal activities cannot be legally enforced, such people have to rely on an internal system of rules and codes to conduct business among themselves (Uhm & Wong, 2018). As discussed earlier, non-local logisticians establish trust by making money payments before tiger parts are delivered and by using family relationships to gain access to tiger parts. In the underworld honesty and reputation is considered to be a valuable asset (Smith & Varese, 2001). By being honest with each other and maintaining a reliable reputation, both logisticians would benefit each other in case of future business opportunities (Uhm & Wong, 2018). Wong (2015b), through her research in the illegal trade of tiger parts in China, found similar reputation building behavior among traders of tiger skins in Lhasa, Tibet and Kunming, China. She found that when trading networks were small, it was easier for people in the network to build reputation because betrayal by any actor in the network would be easy to identify and take action against the defector. Interviewees suggested that defection in such illicit trade only occurs when there is disagreement between actors regarding sharing of earnings.

Evidence from interviews revealed that poacher groups (of 3-4 people) would get around BDT 1.5 lacs to BDT 2 lacs (EUR 1500 to 2000) for a tiger skin. Comparing this with evidence from arrests, end consumer in Bangladesh can pay as much as BDT 15 lacs to BDT 18 lacs (EUR 15,000 to 18,000) for a tiger skin alone (BanglaNews24, 28th, March 2016; The Daily Star, 26th August, 2016). This difference suggests that logisticians make the most money from the sale of tiger parts in Bangladesh. This is somewhat similar to the case in Tanzania, where trappers only receive half of the money that city traders pay for bush meat to the village middlemen, even though village middlemen have very little costs (Broad et al., 2003). This uneven revenue distribution is typical in the trade of wildlife where wildlife harvesters receive only a small fraction compared to other intermediaries (Freese, 1996, as cited in Broad et al., 2003).

7.2.2. Processors

Processors are primary stakeholders who have high influence and interest in facilitating the trafficking process. They are people who have specialized skills in physically transforming wildlife by ‘cleaning, butchering, skinning or preparing medicines’ (Phelps, et al., 2016). In case of intermediaries involved in the trafficking process in the Bangladesh Sundarbans, processors are people from the local community with experience in skinning animals. People considered by logisticians or poachers to have the necessary

competence in carrying out the skinning an animal is chosen to be processors. They are recruited from people known to poachers/local logisticians or belong to pirate groups. Social ties among members in illegal enterprises are not uncommon, and is often considered by criminologists as a breeding ground for crime (van de Bunt et al., 2014). People who play the role of processors will do it for the money they stand to earn. According to SAT, motivators only instigate the decision making process (perception-choice process), but the decision to carry out an act of crime depends on the interplay between the person's own morals and the perception of the norms of the setting (Wikström, 2014). Within the weak social context of villages near the Sundarbans, opportunities to earn significant amount of money from people loyal to each other creates the temptation for people with such skills to play a part in the trafficking process.

Such people will only carry out the initial curing of the pelt inside the forest. Pelts can likely be further processed and treated in a location outside the village area. This is similar to what happens with tiger skins in India, where investigators found the involvement of poachers only rough curing the skins, which were later processed in a more specialized facility outside the local area (EIA & WPSI, 2006). Evidence from interviews also suggest that the trade in bones is not that widespread in the Satkhira range. News reports of tiger parts seizures from Satkhira also support this evidence as four people were arrested and six others killed in a shootout with law enforcement were all found carrying only tiger skins (The Daily Star, 2016, August 26; BanlgaNews24, 2016, March 28). Saif (2016), based on interviews and seizure data from 1990 to 2015, identified three different trade routes of tiger parts from the Bangladesh Sundarbans and concluded that the trade routes leading out of the Satkhira range are used to smuggle skins.

7.2.3. Smugglers

Smugglers of tiger parts from the Sundarbans are primary stakeholders in the trafficking process with high interest but low influence in the trafficking network. This is because they are opportunistic actors from the local community who are either paid (by logisticians) or forced (by pirates) into carrying tiger parts from one location to the other. Evidence from interviews suggest that, smugglers are only connected to their recruiters (local logisticians or pirates) and will not know the identity of the people higher up in the trafficking network. This is similar to the behavior used by drug traffickers who try to transport their consignments with fewer intermediaries and smaller shipments in a discrete manner (Reuter & Kleiman, 1986). Crime investigators suggest that wildlife smugglers often use similar methods as drug traffickers (Warchol et al., 2003; Uhm, 2012). Interview data suggests that tiger parts are carried out of the forest using paddleboats that are used by poachers or local people engaged by pirates, especially after dark to reduce the risk of exposure. As evidence suggests, pirates will need to rely on assistance from local people to transport tiger parts to the local logistician. Repeated victimization into carrying out such activities leads to a breakdown of morals and self-control. A breakdown of morals and self-control can foster beliefs that crime is acceptable and hence lead to delinquency (Agnew, et al., 2002). Also, if people successfully complete a particular type of crime, they will acquire direct knowledge about the implication and consequences of their act and based on their experience can take future crime-involvement decisions (Clarke & Cornish, 1985).

Internationally, smugglers of wildlife have been stopped at airports with birds strapped to their legs and reptiles in the luggage (Schneider, 2012). Between 2001 and 2010, 7,835 illegal shipments of wildlife were recorded and 95% of the wildlife products seized were carried in 'personal luggage, parcels, freight loads or vehicles' (Uhm, 2016). Poachers arrested in the Sariska Tiger Reserve in India had confessed of wrapping

skins in plastic bags before transporting them outside the forest (EIA & WPSI, 2006). The modus operandi of smugglers who carry tiger parts outside the village vary significantly. In the Satkhira range, tiger parts are carried out using various methods (e.g. goods laden trucks, personal luggage, body wrapping, etc.), similar to how smugglers in the illegal wildlife trade operates around the world. Third party transportations such as vegetable and fish laden trucks, passenger busses and ships are preferred modes of transport to smuggle tiger parts outside of the village because these methods are least likely to be checked. In China, smugglers of tiger parts from neighboring countries were found to use similar techniques, as they used ambulances, gas, ice and fish transportation trucks to smuggle tiger parts into the country (van Song, 2008). However, many of the villages adjacent to the Sundarbans do not have the roads that can be used by large transportation vehicles. Hence, in such places motorcycles will be used initially to transport the tiger parts to a suitable location outside the village from where it is carried out to the non-local logistician. Therefore, evidence from interviews suggest that interactions with pirates lead local people to become involved with smuggling tiger parts out of forests while local logisticians create opportunities for people to earn money by playing a role in the trafficking process.

7.2.4. Third Parties

Third parties are the owners of different modes of transport used by logisticians or smugglers to smuggle tiger parts outside the village area without their knowledge. As a result, their owners are secondary stakeholders who have low influence and interest in facilitating the trafficking process. These modes of transport can include goods laden trucks, passenger buses or boats, and cargo ships. Transport companies unwillingly become intermediaries in the trafficking process due to lack of awareness among employees, corruption, weak law enforcement and inadequate detection mechanisms (TRAPS, 2015). In particular, an international river port upstream of the Sundarbans has gradually been receiving significant amount of ship traffic (The Independent, 2019 March 2). Apart from having a significant impact on the flora and fauna of the forest and the marine ecosystem, increased activity of ships through the forest increases the opportunity to smuggle tiger parts to other countries (Khan et al., 2018). However, due to the lack of enforcement infrastructure, it will be very difficult to stop the use of such transports in carrying out tiger parts from the Satkhira range.

7.2.5. Government Colluders

Although, local communities living adjacent to the Sundarbans still follow a traditional way of life with culturally embedded social institutions, formal institutions greatly influence their relationship with the forest. These formal institutions include the elected local government, political actors and members of different law enforcement agencies. These actors are secondary stakeholders in the trafficking process who will have a high influence but low interest in the trafficking process. This is because when members of these formal institutions become involved in corruption, it facilitates wildlife trafficking and creates further scope for corruption that becomes detrimental for nature conservation (Wyatt et al., 2018). This can happen in different ways such as through patronage, bribery, diplomatic cover and permit abuse (Wyatt & Cao, 2015). Other factors that include economic, organizational and structural deficiencies can motivate those in charge of protecting wildlife to become involved in corrupt practices (Wyatt et al., 2018). In the Bangladesh Sundarbans, forest guards are underpaid (economic), underequipped (structural) and lack adequate training in carrying out their duties (organizational) compared to members of other law enforcement agencies working around the Sundarbans. In the case of other law enforcement agencies, factors include more

economic considerations rather than organizational or structural deficiencies. This is because other law enforcement agencies do not have the mandate to protect the Sundarbans, but rather to stop crime from taking place. Hence, they become involved with collecting money from people who go to collect resources from the forest when the opportunity arises.

Low levels of political stability and high levels of corruption is often associated with poaching of protected species (Gossmann, 2009). In addition, corruption among public sector actors greatly facilitates wildlife trafficking (Wyatt et al., 2018). In Bangladesh, local government and political actors can directly influence trafficking. Evidence from interviews revealed that these people can be consumers themselves or compel members from their groups to obtain tiger parts, which they would offer as gifts to senior members within their ranks. In 2016, INTERPOL submitted a report to the Government of Bangladesh citing the involvement of a member of parliament, a local government chairman (leader of rural administrative unit) and members of law enforcement in charge of border control (BDR) as being involved in a network that smuggles tiger parts from the Satkhira range to India (Mahmud, 2016, July 26).

7.3. ORGANIZATION OF GROUPS INVOLVED IN TRAFFICKING TIGER PARTS

Research into the organization of criminal groups suggests that there are key differences that separate groups that operate in the illegal realm, which includes organizational structure, division of labor/specialization, process of recruitment and promotion, communication, rules and adaptability (Benson & Decker, 2010; Gimenez-Salinas Framis, 2011). Researchers of criminal groups also suggest that criminal groups can be differentiated based on their degree of organization and centrality of key actors and may not always fit into a particular categories (Morselli, 2009). In the case of criminal groups as opposed to criminal organizations, individuals are likely to engage in illegal activity often with shifting alliances and without considering themselves as members of a criminal group (UNODC, 2002). The success of a criminal network depends on the individual characteristics and skills of the actors involved in the network (UNODC, 2002). In such criminal networks, some actors will operate as central nodes who carry more weight in terms of their influence in the network compared to other actors in the network (UNODC, 2002).

Findings from this research suggest that criminal groups engaged in the trafficking of tiger parts in Bangladesh Sundarbans are similar to the ‘core group’ typology of criminal groups. Interview results suggest that the trade follows a horizontal structure with non-local logistician and the local logistician forming the ‘core group’ in charge of recruiting a limited number of individuals with specific skills such as poachers/pirates/processors and smugglers into the trafficking process. Evidence from interviews also suggest that these groups take shape strictly for making money and that relationships between individuals involved in the network are also based on trust and mutual understanding. Small group size also allows for maintaining internal discipline. Though the network follows a flat structure, it also operates based on a superordinate and subordinate mechanism and uses formal communication methods, similar to criminal organizations. However, it lacks other features of a criminal organization such as use of violence, high levels of internal discipline and promotions based on a merit system (Benson & Decker, 2010). Unlike complex organized criminal organizations, central nodes are unlikely to have a high degree of authority over the decision making process of other actors in the network (Benson & Decker, 2010). Rather, once intermediate actors know their roles they will carry out their work more autonomously, a characteristic of criminal networks rather than complex criminal organizations (Benson & Decker, 2010). Every actor has

specific tasks in the network that is supervised by logisticians. Though the network, to some extent, takes an organizational form, it cannot be compared to a criminal organization because of the ad-hoc nature of how the trade operates in Bangladesh Sundarbans. Actors such as processors and smugglers are likely to be opportunistic, who do it to complement their legit incomes. In addition, the lack in arrests of repeating offenders may point to the fact that the trade operates in an ad-hoc manner. Since a limited number of individuals, who are tightly structured based on personal loyalties and trust, are involved in the trafficking network of tiger parts in the Satkhira range, it allows the intermediaries to evade arrests, leverage individual social networks and facilitate the trade from the Sundarbans to outside areas of even across international borders (UNODC, 2002).

The trade network of tiger parts from the Bangladesh Sundarbans can be compared to the network organization followed in the Ciel network, which was a small narcotic importing network based in Montreal, Canada (Morselli, 2009). In his analysis of the Ciel network, Morselli (2009) suggests that though the Canadian law enforcement agencies considered the Ceil narcotics trafficking network to follow a hierarchical structure, it could also be viewed as only a partnership between two actors. Hence according to Morselli's (2009) analysis of the data on the Ceil member relationships, the Ceil network was a partnership between a 'ring leader' who had connections to upperworld actors (e.g. airport officials) and a 'lieutenant' who was in charge of ensuring that drugs were successfully carried across borders by 'drug mules'. In this was the 'lieutenant' had insulated the 'ring leader' from the activities of actors lower down in the network (e.g. drug mules). This is similar to the partnership that is shared by the non-local logistician and the local logistician, where the latter contributes considerably to the network. Morselli (2009) also analyzed of the Ciel network using a partnership model, and suggests criminal enterprises are likely to prefer flexibility over strict governance structures and does not always have to take 'a form beyond short or long-term partnership' (Morselli, 2009, pp.55). His analysis suggests that the Ciel network was based not only on partnership and resource sharing between the central actors (ringleader and lieutenant), but also with other lower-level actors (drug mules). Such type of networks operate in the context of low-levels of law enforcement and risk of arrest and allows the network to operate with a limited number of tiger parts (Wong, 2015b). In the Satkhira range, findings show that law enforcement still relies on tip-offs to arrest intermediaries, which only arises when there is disagreement related to profit sharing between the involved parties and therefore depends on chance. Hence, the low level of perceived risk among intermediaries and limited demand for tiger pelts allows such a network to operate successfully from the Satkhira range.

7.4. MEASURES TO DETER INTERMEDIARIES

People decide to commit crimes when there is a motivation and a suitable situation present for it, or in other words based on the rewards that is obtainable against the risks of failure (Clarke, 2016). Even people who are relatively disposed to crime can choose to avoid committing crime if the situational circumstances are unfavorable (Wikström et al., 2018). The objective of situational crime prevention (SCP) measures are to create the unfavorable circumstances and deter crime from taking place (Clarke, 2016). SCP mechanisms are used to alter the physical and sometimes the immediate social environment in which crime is likely to take place (Kurland et al., 2017). SCP techniques aim to reduce opportunities for criminal behavior using five crime reducing mechanisms: (1) increasing the effort to commit crime; (2) reducing the reward from crime; (3) making it riskier to commit crime (Clarke, 2009), (4) reducing provocations (Wortley, 2001), and (5) removing excuses (Homel & Clarke, 1997). In light of wildlife crime, SCP techniques have already

been suggested by criminologists to reduce poaching of elephants (Lemieux & Clarke, 2009), rhinos (Eloff & Lemieux, 2014), tigers (Kim & Clarke 2014) and parrots (Pires & Clarke, 2011).

In order to design SCP interventions and make it more difficult to commit a crime, it is helpful to understand the steps involved in carrying out the specific form of crime (Clarke, 2016). This is because being able to identify the decisions taken by an offender when committing a crime can help to design measures that can influence the immediate settings in which crime takes place (Cornish & Clarke, 2013). Therefore, crime scripts for actors involved in the trafficking process (See Annex I) provided useful insights to support the SCP measures suggested below (See Table 6). Research findings suggest that in order to reduce the opportunities for actors to carry out activities in the trafficking process, a holistic set of measures are required. Specific prevention measures were identified using the data collected through interviews with three groups of interviewees which was then categorized according to the SCP categories and techniques. The following section discusses the findings in light of extant literature on compliance with conservation rules, intelligence led policing, wildlife crimes, alternative livelihoods etc. in more detail.

Table 6: Overview of prevention measures according to SCP category and techniques based on the research findings.

SCP Category	SCP Technique	Prevention Measure
Increasing effort	Control access to facilities	Monitoring forest resource collectors
	Screening exits	Improving patrolling strategies
Increasing risks	Strengthen formal surveillance	Developing a wildlife intelligence unit to investigate trafficking
	Assist natural surveillance	Develop informer networks in local communities
		Use dedicated hotlines for tourists to report wildlife crime
Reducing Rewards	Deny benefits	Increasing legal and judicial capacity to fight wildlife crimes
Reduce provocations	Reduce frustration and stress	Create sustainable alternative livelihoods
		Improving benefits and capacity of forest guards
	Neutralize peer pressure	Anti-piracy, amnesty & rehabilitation initiative for pirates
Remove excuses	Alert conscience	Awareness creation in the local communities towards compliance

7.4.1. Increasing effort for intermediaries to carry out trafficking activities

Monitoring Forest Resource Collectors

Monitoring the amount of resources collected by permit holders can be an effective way for the local forest department office to detect people involved with tiger poaching. Crime scripts of processors and smugglers revealed that poaching groups and smugglers use permits to enter the forest. As they use BLC permits, they will also need to return their permits with evidence of the amount of resources they collected within the time set in the permit. Self-reporting systems have large incentives for underreporting and such bias may be difficult to control (Blank & Gavin, 2009). Hence, in case of such self-reporting systems, it is important to have a properly designed recording system that can document the quantities of resources collected (Gavin et al., 2010). In the Sundarbans, resource collectors can be required to bring their takes to specified landings where direct observations can be made to check self-reports to reduce bias. Though the possibility of making such direct observations will allow the forest department officers to calculate subsequent seasonal harvest quotas more effectively, it will require a significant amount of resources in terms of human resource, logistics and infrastructure for the forest department to implement. Therefore, implementing such a project is likely to take years of effort and financial resources by the forest department, the latter of which is always in short supply. Even if such a system can be implemented, another concern will be that poachers can collect resources from other resource collectors to increase their catch size before they report it to authorities. Therefore relying solely on formal institutional arrangements to monitor illicit activity by resource collectors may not be practically feasible.

Taking cues from Ostrom's (1990) 4th principle for collective action that deals with monitoring resource use in order to effectively enforce rules, it can be suggested that local communities can also be involved in detecting and reporting illegal activity inside the forest. Monitoring resource collection is an important aspect in solving social dilemmas in natural resource management problems (Ostrom, 1990). In the community based natural resource management paradigm, collective strategies to manage a resource is preferred because individual strategies tend to lead to suboptimal outcomes (Ostrom, 1998; Lise, 2000). Developing a community based monitoring system that allows resource collectors to report illegal activity inside the forest also has the potential to raise awareness about conservation issues and create pride among local community members and encourage them to take part in protection and conservation efforts (Danielsen, et al., 2005; Holck, 2008). Researchers suggest that costs can be kept low in monitoring resource use as it is often a by-product of particular ways in managing a resource (Ostrom, 1990; Trawick, 2001). Since resource collectors in the Sundarbans spend days at a time inside the forest collecting resources, they are most likely the first group of actors to detect illegal activity inside the forest and would incur little to no cost doing it. However, an issue of contention will remain whether resource collectors would provide such information willingly without an express incentive for doing so. Research suggests that monitoring systems that employ local people to report on the state of natural resources cannot sustain if the monitoring work does not benefit them in some way (Agrawal & Yadama, 1997; Poulsen & Luanglath, 2005). A research carried out in Nepal on two types of forest management systems concluded that supervision of monitors led to better forest health compared to the system where supervision was lax (Gautam & Shivakoti, 2005). Hence, there needs to be some type of accountability mechanism for the monitors (resource collectors) by the forest department officers as monitors are unlikely to benefit directly from tiger conservation. Possible ways resource collectors can report illegal activity to forest department officers is through lodging a complaint to the local forest office during their time in the forest or informing forest

guards or the SMART patrolling units when they cross paths inside the forest. Therefore incentivizing resource collectors to provide information about suspicious activity inside the forest and ensuring accountability is likely to increase the effort of poachers who enter the forest disguised as resource collectors.

Improving Patrolling Strategies

In the Bangladesh Sundarbans, patrolling using the spatial monitoring and reporting tool (SMART) by the forest department has already created a sense of dread among illegal resource collectors (people without permits). These teams operate throughout the month and spend considerable amount of time patrolling the forest. During their patrols, they collect data on illegal activity inside the forest and randomly check documentation of resource collectors. However, the vastness of the Sundarbans is a limiting factor in light of the existing work force and resources available for patrolling the Sundarbans forest. In order to get around this problem of inadequate human resource to cover vast areas, another system that has been successfully applied in protected areas around the world is the ‘Protection Assistant for Wildlife Security’ (PAWS) (Yang et al., 2014). PAWS is an application that is based on game theoretic analysis that uses models of human behavior and domain features of the protected area to suggest randomized patrol routes that can be used by conservation officials to plan patrolling activities to prevent wildlife crimes (Fang et al., 2017). It is based on the idea that there are two players, the defender (patrolling agency) whose interest is to stop poachers, while the second player the attacker (poachers/pirates) wants to set up snares and capture wildlife while avoiding the defenders. The idea behind randomizing patrol routes is to increase the probability of detecting poaching activity, which would not be possible if deterministic (non-random) routes are used. PAWS uses an evidence based mathematical model and provides patrol routes that offer maximum protection to wildlife (Fang et al., 2017). In order for such a system to work, it is important to model poacher behavior using data from confessions as well as illegal activity collected through patrolling (e.g. snares and poisoned baits found on a trail) and using terrain data (domain features) (Fang et al., 2017). Though it is not possible to delve deeper into the mechanics of the PAWS system due to the brevity of this research topic, such a system has the potential to use algorithms and techniques in computer science to make the most efficient use of patrolling resources and interfere with trafficking activities.

Another measure to increase the effort of poacher groups is to station forest department or law enforcement boats during nighttime near the confluence of canals used to enter or exit the forest. This is because analysis of crime scripts of smugglers show that poachers or smugglers used by pirates transport tiger parts outside the forest using paddleboats after dark through these canals. Concentrating efforts directed towards areas preferred by poachers can increase apprehension or decrease the time to report on poaching activity (Gore, 2017). Though the confluence of canals exiting from the Sundarbans cannot be considered to be crime ‘hot-spots’, they are the only means through which tiger parts can be carried to the village. Therefore, by stationing monitoring boats at the confluence of specific canals and continuing patrolling in the other canals by the SMART patrolling team will make it difficult for poachers or smugglers to travel out of the forest with tiger parts at night. Frontline law enforcement presence is one the most effective mechanisms to reduce poaching and wildlife crimes (Hilborn et al., 2006). Poaching activity and lack of resources supporting law enforcement and park management is positively correlated (Jachmann & Billiouw, 1997; Hillborn et al., 2016). In other words, greater patrolling effort will increase the risk of encounters with violators and hence may lead to a reduction in poaching activity by poachers (Leader-Williams & Milner-Gulland, 1993; Jachmann, 2008). In the Luangwa Valley located in Zambia, it was found that heavily patrolled areas had

reduction in poaching incidents and poacher camps and led to a greater abundance of elephants and slower decline in rhino numbers (Leader-Williams et al., 1990).

7.4.2. Increasing risks for intermediaries to complete trafficking activities

Developing a Wildlife Intelligence Unit to Investigate Trafficking

Developing surveillance mechanisms can go a long way in stopping wildlife crimes before it takes place. Use of sophisticated and intelligence-led operations are required to make it more difficult for criminal organizations to carry out trade in tiger parts (EIA & WPSI, 2006). In the Sundarbans, this can be done by *strengthening formal surveillance* and *assisting natural surveillance* around the village setting of the Sundarbans. Strengthening formal surveillance will require developing an intelligence unit that deals with data collection, collation, analysis and dissemination of actionable intelligence to different law enforcement agencies to identify offenders and disrupt or prevent criminal activities (Ratcliffe, 2016). It is important to have trained personnel in this unit who can carry out criminal evidence and intelligence gathering along with criminal investigations (Moreto, 2015). Such methods are based on the concept of intelligence led policing (ILP), which is built on the idea that law enforcement should utilize techniques of information gathering and crime analysis to make objective decisions in policing activities (Ratcliffe, 2016). The philosophy behind ILP does not seek to replace traditional forms of policing but rather act as supplemental tool for law enforcement administrators to efficiently allocate resources in order to identify and address offenders and crime hot spots (Ratcliffe, 2016).

In general, evaluations studies of the effectiveness of ILP processes used by law enforcement agencies have been far and few (Moreto, et al., 2017). In one such evaluation it was found that though it took time for law enforcement personnel's attitude to change towards using such a system, most participants of the study considered the system to be an effective process to share information (Ratcliffe & Guidetti, 2008). Another study carried out among different law enforcement agencies in USA, revealed that the adoption of ILP processes were not fully implemented (Carter et al., 2014). Issues related to weak implementation can often be traced to a disconnect between analytical product and its use by field officers (Cope, 2004). This is likely to occur when the intelligence reports are considered to be predictions rather than probabilities of likely outcomes by field officers, which may lead to a feeling of uselessness regarding the information (Cope, 2004). Another factor that can play into the lack of confidence on the intelligence reports by field officers is the discrepancy in the skills of the analyst in carrying out in-depth analyses of the crime data rather than just organizing and collating the data and generating reports (Innes et al., 2005; Kringen et al., 2017). Hence, trained data analysts will be a central element to the proper functioning of such a unit (Moreto, 2015).

In most cases when wildlife contraband is seized, only lower level actors like poachers and smugglers are arrested, which does not change the incentive structure for committing such crimes (Akella & Allan, 2011). Rather, if such contraband is allowed to move along the supply chain, albeit in a controlled manner moving from harvesters to consumers, and collecting evidence along the way can truly have an impact in dismantling such organized trafficking groups (WCO, 2011). Hence, such a frontline intelligence unit will need to collaborate with other law enforcement units by sharing intelligence. An important issue to consider when establishing intra-agency cooperation is the issue of trust between the different agencies (Moreto et al., 2014). Thus, coordination and clearly defined protocols for the collaborative process needs to be agreed upon from its inception (Moreto, 2015). In order to minimize tiger poaching in the Sundarbans, the

Bangladesh Tiger Action Plan 2018-2027 already has provisions to institute such a unit within the forest department as a midterm goal (2021-2023) (Khan et al., 2018). Therefore, issues raised and discussed above would be beneficial during the planning phase of such a unit to enable it to operate efficiently.

Develop Informer Networks in Local Communities

Formalized methods of collecting intelligence from communities to address wildlife crime is a relatively recent development in many countries (Moreto et al., 2017). Local communities that live close to wildlife are well placed in terms of detecting, reporting and helping to prevent the illegal trade in wildlife (Biggs et al., 2017). Crime script analysis of actors directly involved in the trafficking process of tiger parts in the Satkhira range show that recruitment of intermediaries take place covertly and based on friendly connections, which makes such network difficult to detect by outsiders. However, findings from this research also suggests that local people living in the adjacent villages of the Sundarbans are best positioned to provide information related to poaching and trafficking activities in their communities to authorities. Thus, developing and maintaining information networks at the village level outside the protected area is crucial to improve the effectiveness of law enforcement strategies inside protected areas (Jachmann, 2008; Stokes, 2010). A study that explored the perceptions of frontline rangers in Uganda towards crime intelligence operations in five study locations, including airport staff and park rangers, found that information related to illegal activity in the protected area collected from the local community was of central importance for rangers to devise their intelligence led strategies (Moreto et al., 2017). Information gathering by rangers included collecting information from members of the communities living in close to the park by just socializing (e.g. drinking alcohol) with them in public places and forming personal connections as well as through more personal informants that were part of a ranger's 'intelligence network' (Moreto et al., 2017). Park rangers considered the latter source to be of crucial importance as it helped them to '*have someone in there who is [working] with UWA*' (Moreto et al., 2017). The study also found that airport officials relied heavily on informants to detect trafficking activity in airports (Moreto et al., 2017).

Crime script analysis for processors show that poachers/processors will actively seek out information from local forest resource collectors, especially honey collectors. The reason honey collectors are likely to be approached is because they spend days walking inside the forest looking for beehives to harvest. As a result, honey collectors have the highest likelihood of encountering tiger activity inside the forest and have a better idea of tiger movement compared to other resource collectors in the area. Hence, recruiting members for the local informer network from resource collector will create the scope to gain potential information about individuals likely to be involved with poaching or trafficking activity. Also, these members can help to provide information about poacher activity (e.g. snares, poisoned baits, etc.) to law enforcement and patrolling staff that can then be used to improve patrolling strategies. However, recruiting informants from local communities will be challenging as local people would likely not want to provide information about activities of other members of their own community, especially when their relationship with the law enforcement agency in charge of protecting the protected area is poor (Wilkie et al., 2016; Travers, 2017). Evidence from interviews suggest similar connotations in the communities living adjacent to the Sundarbans. Thus, the first step in such a recruitment process should be to improve the relationship between the members of the formal intelligence agency and the local people from the community (Travers, 2017).

In order to develop such community based intelligence networks, it will also be important to find people who are motivated to help in tiger conservation efforts. It is assumed that if handlers know what motivates

individuals to become informants then it becomes easier to manage informants much more effectively (Lee, 1993). Some of the common motivations of informants who are involved in helping law enforcement with drug trafficking cases are fear, revenge, money, repentance and altruism (Lee, 1993). In case of developing an informant network using resource collectors and villagers living adjacent to the Satkhira range of Sundarbans, it is important to identify the particular set of motivations that will encourage local people to help stop trafficking by providing covert information about community members involved in trafficking activities. Findings from this research suggest that at least three factors can motivate local people to assist park officials with covert information about trafficking activities, which are anonymity, money and altruism. Using techniques to protect the identity of informants is a crucial factor in establishing a reputation of trust between the two parties and can form the basis on which future informants can be recruited (Williams & Guess, 1981). Evidence from interviews from this research suggest that protecting the informer's identity should be a priority, so that informers can stay anonymous and work effectively from within the community. Local people who will act as informers against other community members will put themselves at risk of physical retaliation as well as social ostracism (Travers, 2017). As a result, it is advised that direct interaction between handlers and informants should be kept at a minimum (Travers, 2017). Therefore, the intelligence agency gathering information from local informants will need to ensure that personal information related to informer's identity remain strictly confidential and that informers are able to provide information anonymously (Travers, 2017). Secondly, informants should receive some type of reimbursement for providing the information and taking the risk to operate as informers. Without any reimbursement, it is hard to imagine why local people would want to play a part in assisting the law enforcement agency. To develop effective informant networks, providing monetary rewards for actionable intelligence is a common practice by law enforcement agencies (Kash, 2002; Travers, 2017). Such a anonymous reward based system is used in Thap Lan National Park, the second largest national park in Thailand, where anonymous informers can use dedicated hotlines to report illegal activities, which if leads to arrests allows informers to receive USD \$ 200 and in case of successful prosecution USD \$1,000 through their mobile phones (Global Conservation, n.d.; Travers, 2017). Even though people would expect to receive some sort of benefits from providing covert information, they may also do it on feelings based on altruism and an honest desire to protect tigers in the Sundarbans.

Ensuring these conditions will provide the necessary environment in which informants have the confidence and willingness to provide information related to trafficking activities in their area. Unfortunately, the existing relationship between local people and law enforcement agency officers is not expected to be conducive enough to develop such a type of relationship. Findings suggest that there is a general feeling of mistrust and distress among local communities towards law enforcement agencies stemming from instances of harassment by a limited number of police officials. The existing method for collecting information related to wildlife crimes from local communities living adjacent to the Sundarbans is ad-hoc and depends to some extent on VTRT group members providing information voluntarily to WildTeam field officers who then passes the information to their senior managers of the organization, who then pass the information to the relevant law enforcement authorities. Evidence from interviews suggest that VTRT members are more comfortable to share covert information directly with WildTeam officers rather than law enforcement agencies, because they feel that information passed via WildTeam to law enforcement agencies creates a layer insurance which protects their identity. As a result, in order to gain the trust of local community members it will be beneficial to institute an intelligence unit operating as handlers of informers and one that is an administratively separate from mainstream law enforcement agencies. Using evidence from the

Ugandan case, a crucial aspect will be for members of such a formal unit to socialize with local community groups and gain the trust of community members. Bonds between the handler and informants are likely to be based on ‘contingent ties’, which are perceptual bonds not necessarily strong or weak but rather based on situational circumstances (Jacobs, 1997). Such bonds will depend on the ‘time invested, emotional intensity, intimacy level and reciprocal services provided between the two parties’ (Granovetter, 1973 as cited in Jacobs, 1997). Thus, handler and informer relationships undergo change organically through the passage of time and by working together (Jacob, 1997). Hence, the formal intelligence unit investigating wildlife crimes will need to focus on building relationships and assuring informants that their identities will be protected from the greater law enforcement community as well as general members of the local community.

Therefore, in order to develop a reliable network of trustworthy informants from the local community, the formal intelligence unit will first need to develop a positive relationship with the community members. While developing rapport with the local communities, individuals from these communities who are willing to play the role of informers will need to be identified based on their motivations. Also instituting a local informer network will require attention to the mechanism through which information will be gathered and reimbursement will be shared with informants, and how informer privacy and safety will be ensured.

Use Dedicated Hotlines for Tourists to Report Wildlife Crime

Another way to assist compliance with forest laws and rules would be to use tourists to provide information about suspected illegal activity inside the forest during their time in the forest. Annually, an estimated 120,000 tourists travel to the Sundarbans (The Daily Star, 2017). Some of these tourists opt for tours that allow them to spend a couple of nights on boats inside the forest. Since smuggling of tiger parts happens mostly after dark, these tourist boats can act as informers for the authorities. A similar tactic is used by New South Wales national park management in Australia, where tourists are provided a list of things that are illegal and are asked to report suspicious and illegal activity inside the park to a phone number (NSW National Parks website, 2019). Such a system is likely to be effective only when there is an efficient reporting system in place. Findings suggest that using a list of dedicated phone numbers is necessary, as otherwise lists have to be periodically replaced when law enforcement personnel are transferred. Also, the dedicated phone numbers on the list should be of area specific law enforcement and local forest offices so that response times can be minimized. Tourists should also be provided instructions once they have boarded the vessel about the step-by-step process they should follow when making such phone calls. In this way, a hierarchical phone tree structure can enable accountability among field staff.

However, involving tourists into reporting crime is likely to entail low enthusiasm in reporting crime due to reasons such as spending holiday time giving detailed reports to law enforcement and threat of facing adverse consequences from offenders (Mawby, 2000; Weaver, 2013). It will also require developing training modules for boat tour operators as well as provide them training on how to engage tourists about this specific task. In addition, for the implementation of such a reporting system will require a collaboration between the Bangladesh Tourism Board, the Forest Department, the Tour Operators Association of Bangladesh and all the boat tour owners operating in the Sundarbans. After implementation, the functioning of the reporting system will need to be evaluated periodically to ensure that the system is running effectively. As a result, it is important the evaluation process is developed during the design phase of such a crime

reporting system. Therefore, though the notion of using tourists is a novel idea, significant amount of effort and resources are likely to be needed to make it functional.

7.4.3. Reducing rewards that actors involved in trafficking expect to obtain

Increasing Legal and Judicial Capacity to Fight Wildlife Crimes

Lack of enforcement and conviction in wildlife crime incidents often entails complex factors such as lack of funding and political will to follow through in its implementation, inadequate infrastructure and education, corruption and lack of informed judges (Schmidt, 2004; Wellsmith, 2011). Though the main aim of any legislation is to regulate certain behavior of people, without proper enforcement, laws and rules are unlikely to have any effect in achieving their objectives. Under resourcing that manifests into insufficient training for prosecutors, enforcement agency and judicial staff is likely to be a crucial cause for the ineffective enforcement of legislation and sentencing (Wellsmith, 2011). Other complaints include judges not taking wildlife crime seriously, which can be attributed to the low number of wildlife crime cases brought up to prosecution and relatively low levels of punishment given to offenders (Wellsmith, 2011; Akella & Cannon, 2017). Evidence from interviews suggests that similar conditions exist in Bangladesh when it comes to the prosecution of offenders accused of illegal wildlife trade.

In Bangladesh, tigers are protected by law and unlawfully killing this species is considered a criminal offence with differentiated jail terms and fines depending on whether the accused person is a poacher, seller or smuggler as well as whether he or she is a repeat offender. Wildlife crime cases in Bangladesh start their proceeding from the lowest courts and judges in these lower courts often have low expertise in dealing with wildlife crimes and may sometimes require forensic evidence that takes time to arrange due to lack of such facilities in the country. This leads to a longer judicial process that provides the scope to poachers and their groups to gather resources, sometimes by killing more tigers and bribing ‘higher officials’ to get acquittals (Saif, 2016). In addition, tiger poaching cases receive less priority compared to other types of cases in the court system (Saif, 2016). Likewise, findings from this research support the fact that poachers and traffickers are often acquitted due to the inexperience of government lawyers against experienced lawyers hired by the backers of the accused.

According to Saif (2016), a recommendation by judges in a national dialogue suggested that the judicial system need to have a separate wing to deal with crimes related to wildlife and the environment to speed up the disposal of such cases in a justified manner. On the other end, the ability of prosecution lawyers also plays a vital role in convicting people accused of trafficking crimes. To overcome this lack of expertise, Saif (2016) suggested that well-funded NGOs along with the Ministry of Environment and Forests can support hiring specialist lawyers to prosecute people accused of these crimes. Such collaboration between governments and NGOs have been successful to convict poachers and traffickers involved in wildlife crime and reduce the theft of natural resources in Congo (PALF). However, when specialist roles are created through training and skills development for prosecutors, under-resourcing and marginalization can lead to lower pay and therefore make such jobs unattractive (Wellsmith, 2011). Nevertheless, a holistic solution is necessary to halt wildlife crime using a variety of measures that can be expected to lead to higher prosecution rates for offenders and deliver a signal of caution to future offenders. These solutions should include making resources available for training and skill development for wildlife law enforcement and prosecution officers, coupled with improved techniques of intelligence gathering and evidence reporting,

as well as increasing awareness about the seriousness of wildlife crimes within judicial communities (Wellsmith, 2011; Akella & Cannon, 2017). It is important to note that the Bangladesh Tiger Action Plan 2018-2027 already has a medium term objective (2021-2023) to improve the prosecution rate of poaching and trade in tiger parts by integrating different measures.

7.4.4. Reducing provocations that tempt or incite actors to facilitate trafficking activities

Create Sustainable Alternative Livelihoods

Creating livelihood opportunities for local people is often used as a tool for reducing local threats to species and habitats (Roe et al., 2015). Generally, alternative livelihood interventions are grouped into three types: alternative resource, alternative occupations and alternative method of exploitation (Roe et al., 2015). Among these, the most used method is ‘alternative occupation’, in which beneficiaries are given alternative means of earning an income that does not rely on the natural resource (Roe et al., 2015). A review of projects promoting alternative livelihoods suggests that in most cases, such projects are dependent on achieving a conservation outcome while a lower number of projects were found to be independent of achieving any conservation outcomes (Roe et al., 2015). An important aspect that needs consideration when providing livelihood opportunities for villagers living around the Sundarbans is to select beneficiaries based on their socio-economic conditions. Research carried out to understand the economic dependence of households living around the Bangladesh Sundarbans found that the income mix of lower and middle-income households had a higher relative forest income compared to higher income households (Abdullah et al., 2016). The study also identified that those households which lack land ownership, livestock ownership, capital assets and access to fish farming or non-farm (e.g handicrafts, etc.) and off-farm (e.g. wages and salaries) incomes were more dependent on forest resource collection for income generation (Abdullah et al., 2016). Findings from this research reveals that poverty is often the key factor that makes people become involved with trafficking activity. Since households living adjacent to the Bangladesh Sundarbans are among the poorest in Bangladesh, it will be very difficult to reduce trafficking activities without addressing such socio-economic conditions. Therefore focusing alternative livelihood intervention efforts on people who have the poorest socio-economic conditions in a Sundarbans community may yield favorable results in terms of alleviating conditions for people becoming involved in trafficking activity.

Creating income-generating opportunities that depends on the continued existence of the resource is expected to lead to a change in the local communities’ attitude towards resource conservation (Huisman & van Erp, 2013; Biggs et al., 2017). Alternatively, decoupling strategies that reduce livelihood dependency on forests can also have a positive impact on reducing poaching incidence on local wildlife (Roe et al., 2015). Following the theory of change suggested by the Biggs et al., (2017), only supporting local communities with income generating opportunities will not yield desirable results. This is because people who depend on natural resources typically engage in a diverse range of livelihood activities, and any newly introduced opportunity may become a part of that mix (Brown, 2003; Roe et al., 2015). Therefore, along with alternative livelihood interventions other measures that include both normative and regulatory components need to be included (Roe et al., 2015). Therefore, by strengthening disincentives for illegal behavior through more effective enforcement and patrolling strategies, which can include community engagement in enforcement, carrying out awareness and outreach activities (normative component) and setting restrictions on resource collection (regulatory component) can bring more effective results (Rahman & Begum, 2011; Biggs et al., 2017).

Improving Benefits and Capacity of Forest Guards

There is a need to improve the capacity and benefits that forest guards receive. The Sundarbans is a dangerous place for forest guards as is evident from the dozens of casualties in the last few decades (The Daily Star, 2017). In light of the danger, the compensation that forest guards and officers receive is among the lowest for government employees in Bangladesh (George, 2017). Findings from this research reveal that some forest guards may connive with forest resource collectors and allow illegal activity in exchange of money to supplement their low salaries. In addition to low salary, the riskiness of the job and lack of resources and benefits (e.g. equipment, fuel, annual leaves etc.) have a demoralizing effect and decreases job satisfaction (Moreto et al., 2014). As a result, socio-economic and institutional aspects of low ranking forest officers and guards along with lack of training and remoteness of the Sundarbans as a working location plays a part in compelling them into illegal means of earning. Another factor that exacerbate this process results from lax in day-to-day supervision of field officers' conduct by senior officers. Forest guards are known to transgress their responsibilities through exercising autonomy beyond their responsibilities when they feel that they are not being monitored (Moreto et al., 2014). In addition, forest guards living in such remote locations are known to become involved in low-level corruption and may justify their guilt by highlighting the difficult conditions that they have to work in (Moreto et al., 2014). Therefore, the mix of these factors compel some guards to become corrupt and collude with poachers, which in turn reduces their legitimacy and trustworthiness as authority figures to villagers (Moreto et al., 2014; Stern, 2008). Alleviating or minimizing these concerns can provide the incentives for forest guards to carry out their duties more professionally and with honesty. Also, upgrading the forest guards into a uniform service (e.g. army, border guards, etc.) and building internal capacity that focuses on organizational capacity and leadership is expected to have an positive impact on their motivation towards their work (Moreto et al., 2014)

Anti-piracy, Amnesty & Rehabilitation Initiative for Pirates

Pirates are groups of local people or displaced outsiders who organized themselves into armed groups to control territories inside the Sundarbans forest. Although their main source of income is coercing money from forest resource collectors (money payments or ransom), they are often alleged to be the main threat to the deer and tiger populations in the Sundarbans (Aziz et al., 2017; Saif, 2016). Pirates can have both a direct and indirect effect on tiger populations. Since they live inside the forest, it is in their best interest to kill tigers when they find one due to personal safety. The indirect effect they may have is through exacerbating poverty among local community members by kidnapping and demanding exorbitant amounts of ransom that can provide the impetus for local people to become involved in trafficking to recuperate the costs of the ransom. In 2018, the Bangladesh Government took steps to solve the problem of pirates in the Sundarbans and provided a one-time opportunity for pirates to surrender and receive an amnesty for their crimes along with rehabilitation support from government agencies. According to reports, around 274 pirates of 29 gangs surrendered 404 firearms and 19,153 rounds of bullets over the years to law enforcement authorities (Molla, 2018). The success of government initiative largely depended on a carrot and stick approach. Before the amnesty programme, pirates were and still are, ruthlessly hunted down by an elite law enforcement agency of the country. Therefore, when the opportunity to surrender was provided to pirates, many of the larger groups had surrendered their guns and ammunition in exchange for the amnesty as well as approximately 1,000 Euros in local currency, a mobile telephone and assistance from government agencies to settle down into an ordinary lifestyle (Roy, 2018).

Findings from this research suggests that though community members living around the Satkhira range of Sundarbans expressed some relief due to the surrender of pirates, they still suggested that there are some smaller groups operating inside the forest. Some of these groups are made of pirates who took the amnesty but later reorganized themselves and started operating as pirates again. Various factors and motivations such as ‘unfulfilled expectations about political or economic gain, friendship, social status, exciting experiences, etc.’ have been cited in literature that lead people to join or leave such criminal groups (Gjelsvik & Bjørgo, 2012). On the other hand, factors that influence the process of leaving such criminal groups can be numerous and complex and often include ‘duration in the group, group character, group role, status and experiences, and ties to other group members and people outside the group’ (Horgan, 2009; Gjelsvik & Bjørgo, 2012). Though it was not possible to identify the key factors that led people to leave or re-join piracy activity in Bangladesh, it was possible to identify that social ties are a key component in their engagement or disengagement in piracy activity. Literature on understanding criminal careers suggest that social ties play a role in the process of joining or disengaging from terrorist organizations or organized crime groups (Horgan, 2009; Gjelsvik & Bjørgo, 2012). Research has found that when individuals join a stigmatized community they are likely to cut ties with the mainstream society, which later leads to difficulty of being accepted back into the community due to stigma and social rejection (Maruna, 2001). This may also be the case for ex-pirates in Bangladesh, as reports into the Government’s reintegration programme reveal that after their surrender, ex-pirates along with their families were ostracized from their communities to a point where the children of pirates were labelled as ‘pirate’s daughter’ and wives were no longer provided with employment opportunities in the community (Roy, 2018). Therefore, it can be assumed that such disenfranchisement of family members by the community people can have a detrimental effect on a pirate’s reintegration into the community.

In understanding the motivations for locals to engage in piracy in Somalia, researchers found that one determining factor that acts as a barrier to engagement in piracy activity is the objection from family members (Gjelsvik & Bjørgo, 2012). Hence, family members of pirates are crucial factor in disengaging or discouraging people from becoming involved in piracy. Also managing community social relationships is an important factor to create the scope for ex-pirates to reintegrate into the community with minimal social stigma being attached to such individuals. Since Bangladesh is a majority Muslim country, religious sentiments can also be used to influence local people against engaging in piracy. Such a scheme was successful in the Somalian context, where local imams (religious leaders) played an important role in spreading the message that piracy is *haram* (forbidden by Islamic law) in the local communities, which was believed to have promoted disengagement and discouragement from pirating activities (Gjelsvik & Bjørgo, 2012). Therefore, only deterrence through surveillance and law enforcement operations is not a sustainable and efficient solution when it comes to reducing piracy (Bueger, et al., 2011). Rather a more holistic approach should be taken, one that incorporates both ‘hard’ and ‘soft’ measures to deter local people from becoming involved in piracy.

7.4.5. Removing excuses that local people can use to rationalize their actions

Awareness Creation in the Local Communities towards Compliance

Non-compliance with conservation rules is considered as one of the largest forms of illegal activities in the world (Arias, 2015). Studies have found that though increased awareness activities can lead to support for environmental protection, it does not have a dramatic effect on changing patterns of personal behavior

(Leiserowitz et al., 2005; McKenzie-Mohr et al., 2011). Rather, social scientists believe motivation drives individuals to change their behavior (Schultz, 2011). Therefore, efforts to educate people to raise awareness about an issue requires the use of motivational elements judged as a reason for action (Schultz, 2011). In order for such messages to succeed, they should also be focused on specific and achievable actions related to aspects of environmental protection that deals with self-interest, social responsibility and self-transcendent values for them to succeed (Schultz, 2011; Stern, 2000).

At the village level, creating awareness among local communities about the laws and penalties for killing and trafficking is an important way to alert conscience and ensure compliance (Kurland et al., 2017). Compliance is often divided into two approaches, the regulatory approach (laws, rules and enforcement) and normative approach (personal morality, moral development, social influences, procedural fairness) (Kahler & Gore, 2012). The normative approach can be used to increase compliance by carrying out awareness campaigns and educating local people about the benefits conservation brings to them (Kahler & Gore, 2012). When complemented by the regulatory approach, this can have an even higher effect in reaching the conservation goals (Kurland et al., 2017). A study in Tanzania, which studied the determinants of compliance of a Joint Forest Management project, found that by using both normative and regulatory approaches, it was possible to reduce bush-meat hunting by 79% (Nielsen & Meilby, 2013).

In Bangladesh, WildTeam, a conservation NGO, has been carrying out awareness creation campaigns with the aim to alter the behavior of local communities living in adjacent villages of the Sundarbans. Findings from this research reveal that such awareness creation activities have been successful in increasing the awareness of local people towards the impact of their activities on the forest as well as about the penalties meted out in the law. Findings also revealed that compared to 7 to 8 years ago when wild animals would be killed if they entered the village setting, local people are now more likely to seek assistance from VTRT groups to return wild animals that stray into villages. Also, a decisive aspect that surfaced during inquiry into reasons for change in local people's attitude towards the forest revealed that large and devastating cyclonic events in the last 12 years have had a significant impact on people's perception of the importance of the Sundarbans for the continued existence of these local communities. Since non-compliance with conservation rules is often a result of the interaction of numerous factors, a carrot and stick approach is likely to lead to an optimal outcome (Gavin et al., 2010; Kahler & Gore, 2012).

7.5. TOWARDS AN INTEGRATED APPROACH TO DETER INTERMEDIARIES IN THE TRAFFICKING OF TIGER PARTS

The different measures to deter trafficking activity in the Satkhira range discussed above reveals that implementing specific strategies in isolation would not yield optimal results. Rather an integrated approach is required that focuses on developing interventions together, based on the complementarity between different strategies suggested above. For example, outreach programmes that focus on creating awareness about environmentally sustainable practices as well penalties for non-compliance should be accompanied by stricter law enforcement to enable compliance. As a result, patrolling strategies will need to be improved so that locals feel that they will not be able to get away by committing an offence in the forest. In improving patrolling strategies, the use of technology can be an effective way for forest guards and officers to conduct their patrols. However when installing new technology, adequate training to use such technology has to be ensured to derive effective results from its use. Often implementing costly technology and spending money to train forest guards is unlikely to go well with the morale of forest guards

who lack necessities to carry out their job effectively (e.g. boots, guns) (Moreto et al., 2014). Providing technology in these circumstances without addressing more immediate needs of forest guards (e.g. risk compensation, equipment, etc.) is unlikely to bring desired results. Hence, before the adoption of costly technology, improving the working conditions of guards should be the priority. Though the application of technology in patrolling will bring benefits to deter poachers and other intermediaries by making it more difficult to carry out their work, involving local resource collectors will also be important to gather information about trafficking activities from within the village. Forest resource collectors will need to be aware of what to look for to help in detecting illegal activity when they are in the forest. Therefore, along with messages that include motivational elements, awareness campaigns should also provide information to local resource collectors that highlight the type of illegal activities and how to detect them. Tourists travelling to the Sundarbans can also be educated in detecting similar types of activities when they are in the forest. However to make it easier for tourists to provide information to the relevant authorities, a detailed reporting system needs to be developed.

Developing these strategies into field interventions will require collaboration between different government agencies (forest department, law enforcement agencies and tourism boards), non-government agencies as well as local community leaders and general members. Apart from such collaboration, funding such a diverse set of interventions will inevitably require different stakeholders to pool financial resources from both government (taxes) and non-government sources (donor funds). Given that, Bangladesh is a developing country with low priority to nature conservation, financial resources from the State will be limited unless there is change in the political will towards greater efforts for nature conservation. Hence, funding these interventions will require attracting conservation and development partners and donors willing to support the Bangladesh government's initiative to double the tiger population in the Sundarbans by 2027 (Khan et al., 2018). Elsewhere around the world, conservation partners and donors are already supporting to improve the effort to stop wildlife trafficking in different countries in South East Asia. For example, the German development agency GIZ has supported more than 20 countries in Africa and Asia to improve the capacity of national police, customs and judiciary to better identify wildlife consignments and prosecute wildlife traffickers in those countries (GIZ, 2018). More recently, the British Embassy in Bangkok funded Freeland an NGO to train rangers of five protected areas across the Dong Phrayayen-Khao Yai World Heritage site as well as officials from protected areas of Laos and Cambodia to develop their capacity to stop wildlife trafficking (The Asean Post, 2019; Freeland, 2019). Therefore, it is envisaged that seeking financial and technical support from conservation partners and NGOs will be necessary to implement strategies that reduce threats to the tiger population in the Bangladesh Sundarbans.

7.6. RESEARCH LIMITATIONS

Researching hidden populations and crime always comes with its sets of challenges (Uhm, 2016). The results of this research was based on accounts of people who had varied levels of knowledge about the trafficking process of tiger parts from the Bangladesh Sundarbans. Due to the sensitive nature of the research topic, it was not possible to choose a randomized sampling strategy for selecting interviewees. As a result, Group A (VTRT) and Group B (ex-intermediary) interviewees were pre-selected from people known to the research assistant. Though purposive/convenience and snowball sampling does not allow for generalizing results, I felt that responses I received from the interviewees reached a saturation point for many of the similar topics that I discussed with every group. Also this process of selecting interviewees did leave the possibility that interviewees were briefed about how to respond to particular questions or behave

during the interview process. However, during the interview process I felt that interviewees were providing me with information that they thought to be accurate, because I had received conflicting information that would not have been the case if interviewees would have been parroting learned responses. I felt that people were honestly responding to my questions as interviewees had their own opinions on how to reduce trafficking of tiger parts in their areas and improve the efforts for tiger conservation in the Sundarbans. Also by interviewing different groups of people and asking questions about the same topic did help me to identify some inconsistencies in responses among groups. These inconsistencies were generally related to forest resource use, tiger behavior and the role of law enforcement in the Sundarbans. I believe that these inconsistencies stemmed from personal agendas that specific people had and made them portray an incident in a favorable or unfavorable way.

Another limitation of this research was the inability to choose interviewees from a broader range of people, such as people previously involved with piracy, wildlife crime offenders (people in prisons) and law enforcement officers involved in deterring trafficking. In case of the first two groups of people, gaining access to them was the primary challenge, as such people were beyond my reach as a researcher. Gaining access to the third group of people was also not possible because of lack of prior acquaintance, as law enforcement officers were very unlikely to divulge details of their operations to researchers without prior acquaintance. Due to my research topic, I felt that if I had approached law enforcement officers without going through personal connections it would have been detrimental to the research process, as they may have interjected unfavorably. Another shortcoming was not being able to use court data from cases involved in tiger poaching and smuggling to enhance intermediary crime scripts and script analysis. Collecting information about the process of criminal acts through interviews has potential bias from distortions of the subject's perspective that can arise from a lapse in time (Porter, 2008). Since archival court data goes through several rounds of scrutiny, using such data in developing in the crime scripts for the intermediaries would have allowed depicting a more holistic picture of sequence of actions of some of the intermediaries.

7.7. RECOMMENDATIONS FOR RESEARCHERS OF ILLEGAL WILDLIFE TRADE

Researchers interested in studying illegal trade of wildlife are likely to face different challenges throughout the research process. It was therefore crucial for me to spend a significant amount of time during the planning phase to anticipate and remove barriers that I would face later on. A major constraint in carrying out research with hidden populations (e.g. traffickers, organized gang members, etc.) is related to gaining access to these populations (Uhm, 2018). In order to gain access to interviewees willing to talk to me about the illegal trade I had to use the help of a person (my research assistant) who would give me access to such people. During my data collection, some interviewees told me that they were sharing what they knew about the illegal trade in tiger parts in their areas only because I approached them through my research assistant. Many of them told me, they felt safe about telling me what they knew about illegal trade because they trusted my research assistant and had the confidence that things they say to me will not become detrimental for them. Therefore, carrying out research on illegal activities and gaining access to these populations in short period of time, requires the help of someone who is from the community or someone the community respects and trusts.

Along with gaining access, it was important for me to create an environment in which research subjects felt confident to talk openly about what they knew of the illegal trade in tiger parts. Carrying out my interviews

on a boat, in the middle of the river provided that privacy. Even then, my research assistant and I agreed that he would sit on the top deck and keep a watch out for people passing on paddleboats close to our boat while I carried out the interview on the deck below. When he felt it necessary, he would call out my name and I would change the questions to things unrelated to trafficking and poaching when people were passing by close to our boat and peering in to see what was happening inside. Without the privacy of the boat, it would have been very difficult to create the atmosphere for interviewees to feel free to disclose sensitive information without fear of repercussion from those involved in illegal activity. Also I asked my interviewees not to disclose the particulars of our discussion with people they known to ensure their personal security.

I felt it crucial to build rapport with my interviewees as soon as they came on the boat. Before starting the interview and as part of taking informed consent, I explained to each interviewee that I will not be using their personal information for my research and asked them not to mention names of people who they think were involved with trafficking or poaching. I started the interview process by asking (Group A and Group B) interviewees general questions such as inquiring about their experiences of encountering tigers in the forest and about their work in the forest. I felt that spending enough time and allowing interviewees to open up at the beginning of the interview made them feel relaxed and excited, which created the opportunity for a livelier discussion and a sense of ease for the interviewees in answering my questions.

Activities related to trafficking often take place in locations that are economically weak, underdeveloped and have low levels of law enforcement, which in turn enables criminal groups to prosper (Bovenkerk, 1998; Wong, 2015b). I felt that due to the nature of my research topic it was necessary for me to keep a low profile by not divulging the true nature of my visit to the Sundarbans to everyone I met in the field. Except for my interviewees, research assistant, boatman I did not explain the full extent of my research objective to people I met in the field. Such an approach was necessary to ensure the personal safety of myself as well as the people helping me with my research.

8. CONCLUSION

Around the world, researchers have taken various approaches in studying intermediaries in the illegal wildlife trade. Some of these studies include focusing on corruption and the role of government colluders (Wyatt et al., 2018), the organization of traders in traditional medicine using tiger parts (Wong, 2015b) as well as more in-depth overviews of the smugglers, poachers and traders of different wildlife across different countries (Uhm, 2016). In case of tigers of the Bangladesh Sundarbans, there has been research to identify types of poachers and their motivations (Saif, 2016), techniques used by tiger poachers (Aziz et al., 2017) and measures to detect illegal activity inside the forest (Hossain et al., 2018). However, there has been no research on identifying the different roles of intermediaries play in the trafficking process of tiger parts from the Bangladesh Sundarbans.

This research was carried out in the Satkhira range of Bangladesh Sundarbans to understand the different roles, group organization and effect of intermediaries on local communities, and identify prevention measures to reduce the opportunity for identified intermediaries in carrying out their activities in the trafficking process of tiger parts. Two general research questions, comprising six specific research questions were used to meet the objective of this research. The first research question strived to understand the roles of different intermediaries in facilitating the trafficking process based on type of intermediary, their sequence of activities, their effect on opportunities for local people's involvement in trafficking activities and their organization as a criminal group. Through answering these questions, it was possible to identify that five different types of intermediaries are involved in the trafficking process of tiger parts in Bangladesh Sundarbans. Among them, three types of intermediaries were directly involved in facilitating the illegal trade in tiger parts (logisticians, processors, smugglers) and two were indirectly involved (third parties and government colluders). I found that the role of a logistician was shared between a non-local person and a local person due to the difficulty of a non-local person to gain access to tiger killers. Both these actors (non-local logistician and local logistician) formed the 'core group' of the trafficking process, while other actors (processors and smugglers) were recruited as opportunistic members who had specific roles and would disband once a particular order was met. Earning money was the principal motivation for people becoming involved with trafficking activities. However, trust also plays a crucial role in the recruitment process and family members or friends are often recruited to carry out particular tasks. My findings also indicate that the trafficking network has a horizontal structure that operates as a network of people who are connected to each other through another intermediate actor albeit using formal methods of communication like organized criminal groups. This structure protects the identity of higher-level actors (non-local logistician) from exposure in the event that lower-level actors in the trafficking process (poachers, smugglers) are arrested.

I also found evidence that the trade in tiger parts from the Sundarbans is predominantly demand driven, since tiger killers (poachers and pirates) would not have the necessary connections to the larger international criminal syndicates involved in wildlife trade or national consumers who demand tiger pelts. Though pirates are known to store tiger parts for sale when the opportunity arises, they are unlikely to be connected to the international organized criminal groups involved in the trade of tiger parts. Also in light of the recent surrender of large pirate groups, any possibility of a pirate driven supply trade of tigers is even more implausible. Based on evidence, most of the demand is generated from abroad and reaches the local area through the non-local logistician. However, there is also likely a smaller national demand for tiger pelts

used for home furnishing purposes. These national consumers of tiger pelts are people who hold significant influence and power in the country, and visitors to their homes are of equally high profile, which allows them a status of impunity from detection. Though combatting such a demand driven trade will inevitably require a holistic and concerted effort to educate consumers, criminalizing the purchase of tiger parts and successfully identifying and prosecuting illegal wildlife syndicate leaders, will also take a lot of time, resources and collaboration between different countries. Conversely, focusing resources on making it more difficult and risky for people to acquire tiger parts from tiger range countries will increase the costs for intermediaries involved in the trafficking of tiger parts. As a result, focusing prevention initiatives on both spectrums of the market for tiger parts is required to reduce the rate at which wild populations of tigers are being eradicated from their range countries.

The second research question focused on identifying the most appropriate prevention measures that would reduce the opportunities for intermediaries to carry out their activities in the trafficking process in the Satkhira range. Based on findings from this research and literature on compliance with conservation rules, intelligence led policing, wildlife crimes, alternative livelihoods, etc., I was able to identify ten different measures that could reduce opportunities for intermediaries and deter local people from becoming involved in the trafficking process. Some of these measures have an overarching role in deterring most types of intermediaries (e.g. wildlife intelligence unit, local informer networks, awareness creation) while others would be more focused on deterring specific types of intermediaries (e.g. dedicated hotlines for tourists, creating sustainable alternative livelihoods). It is important to note that some of these measures are complimentary to each other and requires their implementation to be in a sequence, so that pressing underlying issues are first addressed that would allow subsequent measures to be more effective. Though findings from this research may hold relevance for other forest ranges of the Sundarbans, caution must be used when generalizing findings to other ranges. This is because local people (and intermediaries) living in different forest Ranges will have a nuanced situational context compared to the Satkhira range of the Sundarbans. Such changes in situational aspects can arise from both the moral norms of the people in that area, the perceived moral norms of the setting and motivations and opportunities for poaching that exists in those areas. Therefore, caution is advised before making comparisons of findings of this research with other forest ranges.

Addressing both natural and societal issues related to wildlife trafficking requires the integration of concepts, theories and frameworks from different disciplines (Gore, 2011). In particular, a relatively new paradigm known as ‘conservation criminology’ suggests that to overcome limitations of tackling wildlife trafficking, theories from natural resource management, risk and decision science and criminology should be used to inform on-the ground interventions (Gore, 2017). Though criminological theories have developed over hundreds of years with the aim to ‘study, understand and prevent crime’, they have only recently been used in the study of crimes against nature (Gore, 2017). The conceptual framework used in this research was based on an integration of concepts and theories developed within conservation (typologies of intermediaries), criminology (SAT) and crime science (Crime Scripts and SCP) that enabled understanding the trafficking process of tiger parts in the Satkhira range in a detailed manner. The intention was to use these concepts and theories as a primer to analyze and understand the different aspects of the research questions rather than using the findings of this research to develop the different theories and frameworks used in this research. Also being able to suggest prevention measures, using an inductive approach was likely to have a higher degree of acceptance among the stakeholders. Future research into minimizing the threats to the wild tiger population of the Sundarbans can explore the feasibility of each of

the measures put forward by this research by analyzing those using appropriate theories from the other foundational fields of conservation criminology (natural resource management and risk and decisions science). Some of the methods that can be used in future research will depend on the subject matter and can include a combination of participatory research methods (e.g. to identify alternative livelihoods), quantitative methods (e.g. to quantify costs and benefits to implement measures) as well as qualitative interviews (e.g. to identify prevalent issues involved in implementing a prevention measure).

Addressing a complex issue such as wildlife trafficking using only traditional techniques of law enforcement or site security for protected area management will not be enough. Since a small number of individuals in the local communities drives poaching and trafficking activities, very little progress will be made if local communities living adjacent to the Sundarbans forest are not involved in the mix of strategies to deter intermediaries. Along with developing measures to influence situational factors at the local level, efforts should also be made to achieve long-term benefits towards forest conservation. One such way would be to integrate environmental education courses in local schools that focus on teaching children about the different aspects of the Sundarbans ecosystem. Such an initiative is expected to improve moral standing of the future generations through cognitive nurturing and lead to a generational shift in attitudes toward ways in which the Sundarbans is exploited. In conclusion, since the outcomes of this research is aligned with some of the strategic actions planned as mid-term goals under the Bangladesh Tiger Action Plan 2018-2027, an upshot of this research is that the findings of this research can facilitate process of development of concrete interventions under the plan to protect and conserve the tigers of the Bangladesh Sundarbans.

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ANNEX I – CRIME SCRIPTS SUMMARY

Table 5: Crime script summary for key intermediaries in the trafficking of tiger parts. The numbers for each scene represents the sequence of action that follows in that scene

	Preparation	Pre-activity	Activity	Post activity
Non-local logistician	1) Receive demand for tiger parts from international trader or national consumer 2) Contact/recruit a person from the local community near the Sundarbans	1) Travel to the local area near the Sundarbans and meet local contact, or, pretend as a tourist and collect information about locals involved in illegal activities like deer poaching, woodcutting, etc.	1) Identify and recruit local logistician 2) Provide money in installments to local logistician 3) Continue communication with local logistician 4) Collect tiger parts from the local logistician outside the village	1) Deliver tiger parts to next actors in the supply chain
Local Logistician	1)None	1) Agree on a price for tiger parts with non-local logistician 2) Fix payment method and other logistical matters with non-local logistician	1) Find people willing to kill tigers or contact pirates for tiger parts 2) Agree on a price of the tiger parts 3) Provide logistical support to poacher/pirates 4) Collect tiger parts from poachers/pirates 5) Transport tiger parts from village to non-local logistician or hire a trusted person to collect and carry tiger parts to non-local logistician	1) Collect full payment from non-local logistician

Processors	<ul style="list-style-type: none"> 1) Purchase knives, sharpening tools, salt and food for a couple of days 2) Collect information from forest resource collectors about tiger activity (especially honey collectors) 3) Owner of the boat collects BLC pass from the Forest Department 	<ul style="list-style-type: none"> 1) Set out for the forest on a paddle boat 2) Find a suitable location to enter the forest based on prior information or seeing fresh pugmarks 	<ul style="list-style-type: none"> 1) Skin the tiger and use salt to preserve it 2) Bury the body and bones inside the forest 3) Package the skin 4) Contact the local logistician to fix a suitable location to transfer skins 5) Carry skins using boat to near the village at night 	<ul style="list-style-type: none"> 1) Hand over tiger parts to local logistician
Smugglers known to pirates	<ul style="list-style-type: none"> 1) Collect BLC pass 	<ul style="list-style-type: none"> 1) Communicate with pirates about suitable local to meet and transfer tiger parts 2) Find at least one other person to accompany to the forest 	<ul style="list-style-type: none"> 1) Use paddle boats to enter the forest and meet pirates 2) Meet pirates and collect parcel 3) Carry parcel to designated location and handover to chosen person 	<ul style="list-style-type: none"> 1) Collect payment from pirates
Smugglers coerced by pirates	<ul style="list-style-type: none"> 1) None 	<ul style="list-style-type: none"> 1) None 	<ul style="list-style-type: none"> 1) Carry members of pirate groups to their desired location 2) Carry members back to pirate group hideout 	<ul style="list-style-type: none"> 1) Collect other members of the fishing group and exit scene
Smugglers hired by local logisticians	<ul style="list-style-type: none"> 1) Borrow motorcycle (if they don't own one) 	<ul style="list-style-type: none"> 1) Collect partial payment from local logistician for transporting parts 2) Arrange transportation (own or hired) from the village to the pre-determined destination of non-local logistician/local logisticians choosing 	<ul style="list-style-type: none"> 1) Collect tiger parts from poachers/pirates or local logistician 2) Conceal and carry tiger parts from the village to destination 3) Hand over tiger parts to the non-local logistician or their agent at destination 	<ul style="list-style-type: none"> 1) Return to village 2) Collect full payment from local logistician

ANNEX II: INTERVIEW GUIDE (ENGLISH)

Interview Guides for Group A – Village Tiger Response Team/Community Patrol Group Members

Instruction for Introduction:

Assalamualaikum/Adab, **my name is Abrar and I am from Dhaka.** I am currently a Masters student studying in Holland/Netherlands. **To complete my degree, I have to carry out a research project** that will provide me with the **opportunity to learn how to do academic research.** For my research, **I am interested to learn about trafficking and why people become involved with trafficking of tiger parts.** I would like to assure you that **anything that we discuss is strictly confidential. I will NOT be using the names and the location/address** of the people I will be interviewing for my research. I will also **NOT be using any personal details** that can be used to identify my interviewees. Also, I will **NOT be using your responses for any other reason other than for my research** and you can rest assured that your personal details will not be shared with anyone else. **I strongly believe that your opinion on this matter will help me** understand the why people become involved in such activities and the trafficking process in general. **If you feel uncomfortable or would like to stop or take a pause, please feel free to stop the interview at any point of the conversation.**

Introductory questions:

- How many years have you been living in this village?
 - Why did you decide to become a VTRT/CPG member?
 - How many times have you seen a tiger in the forest?
 - How many tigers do you think there are in this area?
 - How many tigers do you think were killed in the forest in the last 5 years in this range?
1. What are the roles of intermediaries in the trafficking of tiger parts in the Satkhira range of the Bangladesh Sundarbans?
 - a. What are the types of intermediaries that facilitate the trafficking process in the Satkhira range?

Objective: To identify the different intermediaries based on their roles in the trafficking process

Main interview question: What do you know about people who are involved in trafficking tiger parts (Skins/Bones) from Shyamnagar?

Aspect: How many different types of people are involved in trafficking tiger parts from this area? **(Logistician, processor, specialized smuggler, govt. colluder, third party)**

Aspect: Which actors are involved in the Skins trade?

Aspect: Which actors are involved in the Bones trade?

Aspect: Who are the main actors in the trafficking process? (Skins/Bones)

- b. What are the sequence of activities carried out by each intermediary during the trafficking process in the Satkhira range?

Objective: To develop crime scripts for each identified intermediary in the trafficking process.

Main interview question: How do commercial buyers get tiger parts from this area?

Aspect: What is the routine buyers follow to gain access to tiger parts?

Aspect: How is demand communicated to tiger killers?

Aspect: What skills are necessary for buyers to carry out their activities?

Aspect: What physical equipment (if any) are necessary for buyers to carry out their activities?

Aspect: What information is necessary for buyers to carry out their activities?

Aspect: What specific activities do buyers carry out in the trafficking process?

Aspect: How much time do buyers need before they can get the tiger parts?

Aspect: How much money do buyers pay to get tiger parts? (Skin/Bones)

Aspect: Are buyers involved in aggregating tiger parts?

Aspect: Are buyers involved in helping to move tiger parts out of the Sundarbans?

Aspect: Do buyers provide other logistical support to tiger killers?

Aspect: Which local factors encourage buyers to carry out their activities at the village level?

Aspect: What are the perceived risk for buyers getting caught?

Aspect: What are the rewards for buyers not getting caught?

Aspect: What is the costs (fines/imprisonment) of buyers getting caught?

Aspect: What steps do buyers take after acquiring the products?

Aspect: Who are the next people in the supply chain?

Main interview question: How does the processing of tiger parts take place in this area?

Aspect: What type of people are involved in processing tiger parts for commercial trade?

Aspect: What is the role of tanneries in processing tiger skin?

Aspect: How do processors gain access to tiger parts?

Aspect: Do buyers provide any logistical support to Processors?

Aspect: What skills are necessary to process tiger parts for trade? (Skins/Bones)

Aspect: What physical equipment is necessary to carry out tanning activities?

Aspect: What types of information is necessary for these people to carry out their activities?

Aspect: What do processors do when processing Skins?

Aspect: What do processors when processing bones?

Aspect: How much time do processor spend in processing tiger parts? (Skin/Bones)

Aspect: How much money do processors spend in getting tiger parts? (Skin/Bones)

Aspect: Which (social/situational) factors encourage processors to carry out illegal activities?

Aspect: What are the rewards of not getting caught?

Aspect: What is their perceived risk of getting caught?

Aspect: What is the costs (fines/imprisonment) of getting caught?

Aspect: What do processors do after finishing processing the products?

Aspect: Who are the next people that processors give the tiger parts to?

Main interview question: How are tiger parts transported from the this area?

Aspect: What modes of transport are used?

Aspect: Where are they transported? (Which cities?)

Aspect: Which types of people are involved in transporting products? (Skins/Bones)

Aspect: What type of skills do these people possess? (Skins/Bones)

Aspect: What physical equipment is necessary to carry out their activities?

Aspect: What types of information is necessary for people who transport tiger parts? (Skin/Bone)

Aspect: Where are parts transported to from Satkhira range, Sundarbans? (Skins/Bones)

Aspect: How are tiger parts transported outside the country? (Skin/Bones)

Aspect: What specific activities do transporters carry out to transport tiger parts?

Aspect: What time of day are transporters most likely to transport?

Aspect: How much time do transporters put into transporting tiger parts?

Aspect: How much money do transporters spend in transporting tiger parts? (Skin/Bones)

Aspect: Do buyers help to move products to other cities?

Aspect: Do buyers provide other logistical support to transporters?

Aspect: How does transportation differ for Skins and Bones when transporting outside country?

Aspect: Which (Social/situational) factors encourage transporters to carry out illegal activities?

Aspect: What are the rewards of not getting caught?

Aspect: What is their perceived risk of getting caught?

Aspect: What is the costs (fines/imprisonment) of getting caught?

Main interview question: What is the role of different government officials in the trafficking of tiger parts in your area?

Aspect: Which government officials are involved in the trade? (FD guards, Law enforcement, Local politicians, Customs, etc.)

Aspect: What are their roles in the trafficking process?

c. How do these activities influence the personal and social conditions of local communities and facilitate the trafficking process in the Satkhira range?

Objective 1: To determine which intermediary activities affect criminal propensity (morals and self-control) of local people

Objective 2: To identify which intermediary activities creates a criminogenic setting for trafficking

Main Interview Question: What is your opinion about the local people's view towards tiger conservation? (Morals)

Aspect: How important is tiger conservation for local people in your area? Why?

Aspect: Do you think local people want to have tigers in the forest? Why?

Aspect: How likely are local people to halt trafficking activities if they know it is happening around them?

Aspect: What factors influence people to get involved in trafficking activities?

Aspect: Which intermediaries play the most influencing role to attract local people into trafficking activities (poaching, processing, transporting, etc.)?

Aspect: How do they influence people?

Aspect: Do you think local people can be used to stop trafficking in your area? If yes, How?

Main interview question: What is your opinion of local people and their involvement in trafficking activities? (Self-Control)

Aspect: How likely are local people to get involved in the trafficking of tiger parts?

Aspect: How are local people exposed to the trafficking activities?

Aspect: How likely are local people to abstain from trafficking opportunities?

Aspect: Which activities of intermediaries attract local people to get involved in trafficking activities?

Main interview question: Which factors do local people consider before becoming involved in trafficking activities? (Self-selection)

Aspect: Which trafficking activities are local people most likely to get involved in? Why?

Aspect: Which group of local people (forest resource collectors, farmers, local elites, etc.) are most likely to get involved in trafficking activities? Why?

Aspect: What makes people decide to become involved in trafficking activities?

Main interview question: How do the law and order mechanisms (laws, police, etc.) affect the opportunities of trafficking in your village? (criminogenic setting)

Aspect: How effective is the law enforcement in deterring trafficking in your village?

Aspect: What is the likelihood of someone involved in the trafficking activities getting caught?

Aspect: Do you think people are afraid of getting caught?

Aspect: What happens if a local villager (who is not a tiger killer) gets caught?

Aspect: Do you think there is community support for people involved in trafficking? Why?

Aspect: Which intermediaries and their activities creates the platform for people to get involved in the trafficking trade?

2. What prevention strategies are most likely to deter intermediaries involved in the trafficking process of tiger parts in the Satkhira range?
 - a. Which situational crime prevention techniques are appropriate to deter intermediaries during the trafficking of tiger parts in Satkhira range?

Objective: Identify intermediary specific SCP techniques to deter trafficking.
 - b. Who are the key stakeholders capable of facilitating the appropriate situational crime prevention strategies in the Satkhira range?

Objective: Identify stakeholders who can be engaged to deter intermediaries from the trafficking of tiger parts.

Main Interview question: What are the enforcement mechanisms currently in place to stop trafficking for wildlife?

Aspect: How effective are laws to stop people from wildlife crimes (poaching, trafficking, etc.)?

Aspect: How effective is SMART patrolling for combatting trafficking?

Aspect: What about FD Guards role in combatting trafficking?

Aspect: What about judicial capacity to deal with poaching and illegal trade cases?

Main interview question: What measures can deter buyers of tiger parts?

Aspect: How do you think buyers can be prevented from buying tiger parts?

Aspect: Which agencies can play a role in stopping buyers from buying tiger parts?

Aspect: Who are the other stakeholders that needs to be engaged to prevent buyers?

Aspect: What are the challenges in preventing buyers from buying tiger parts?

Main interview question: What measures can prevent processors of tiger parts?

Aspect: How do you think buyers can be prevented from buying tiger parts?

Aspect: Which agencies can play a role in stopping buyers from buying tiger parts?

Aspect: Who are the other stakeholders that needs to be engaged to prevent buyers?

Aspect: What are the challenges in preventing buyers from buying tiger parts?

Main interview question: What can be some measures to prevent transporters of tiger parts?

Aspect: How do you think buyers can be prevented from buying tiger parts?

Aspect: Which agencies can play a role in stopping buyers from buying tiger parts?

Aspect: Who are the other stakeholders that needs to be engaged to prevent buyers?

Aspect: What are the challenges in preventing buyers from buying tiger parts?

- **Instructions for the ending**

That is the end of the interview. Thank you for responding to all the questions and I hope you enjoyed it as much as I did. Now it's your turn to ask me any questions that you may have.

If that is it, then I would like to thank you again and hope you have a great day. If you have any questions you can get in touch with me through email or phone.

Interview Guides for Group B – Ex-Intermediaries

Instruction for Introduction:

Assalamualaikum/Adab, **my name is Abrar and I am from Dhaka.** I am currently a Masters student studying in Holland/Netherlands. **To complete my degree, I have to carry out a research project** that will provide me with the **opportunity to learn how to do academic research.** For my research, I am interested to learn about trafficking and why people become involved with trafficking of tiger parts. I would like to assure you that **anything that we discuss is strictly confidential. I will NOT be using the names and the location/address** of the people I will be interviewing for my research. I will also **NOT be using any personal details** that can be used to identify my interviewees. Also, I will **NOT be using your responses for any other reason other than for my research** and you can rest assured that your personal details will not be shared with anyone else. **I strongly believe that your opinion on this matter will help me** understand the trafficking process and why people become involved in such activities. **If you feel uncomfortable or would like to stop or take a pause, please feel free to stop the interview at any point of the conversation.**

Introductory questions

- What was your experience the first time you were involved in killing a tiger?
 - What reasons made you become involved in tiger killing?
 - How did you become involved?
 - Back then, were you afraid that you will get caught and go to jail?
1. What are the roles of intermediaries in the trafficking of tiger parts in the Satkhira range of the Bangladesh Sundarbans?
 - a. What are the types of intermediaries that facilitate the trafficking process in the Satkhira range?

Objective: To identify the different intermediaries based on their roles in the trafficking process

Main interview question: How many different people do you think are involved in the entire trafficking process?

Aspect: How do people who trade skins operate?

Aspect: How do people who trade in bones operate?

Aspect: How many hands do tiger skins pass before they move out of the country?

Aspect: How many hands do tiger bones pass before they move out of the country?

Aspect: What type of people buy tiger skins?

Aspect: What type of people buy tiger bones?

Aspect: Who do you think are the most important people in the trafficking process?

- b. What are the sequence of activities carried out by each intermediary during the trafficking process in the Satkhira range?

Objective: To develop crime scripts for each identified intermediary in the trafficking process.

Main interview question: Can you tell me what you know about the people who demand tiger parts for commercial trade?

Aspect: How many different types of people demand tiger parts?

Aspect: How difficult is it for buyers to find the tiger parts they are looking for?

Aspect: Do you think buyers feel scared of getting caught?

Aspect: How do buyers get in touch with people who kill tigers?

Aspect: How much do buyers pay for skins currently?

Aspect: How much do buyers pay for bones currently?

Aspect: How is the payment made?

Aspect: Can you describe the step-by-step process buyers follow from ordering to receiving tiger parts?

Aspect: How much time do buyers have to wait after they start looking for parts to the time when they get the parts?

Aspect: Do people who kill tigers receive any support from the buyers?

Aspect: Are buyers involved in aggregating parts?

Main interview question: How is the processing of tiger parts carried out?

Aspect: Do tanneries play a role in processing tiger parts? If Yes, Where are they located?

Aspect: What type of people are involved in processing tiger skins?

Aspect: What type of people are involved in processing tiger bones?

Aspect: What skills are necessary to process tiger skins?

Aspect: What skills are necessary to process tiger bones?

Aspect: Do you think bones are processed after buyers receive them?

Aspect: How do processors receive skins to process?

Aspect: What do they do with the tiger skin after receiving it and before giving it to someone else?

Aspect: Who are the people that receive the tiger skins from processors?

Aspect: Where is the most likely place tiger skins processed?

Aspect: Where is the most likely place tiger bone processed?

Aspect: How much money do processors of tiger skins and bones take for their service?

Main interview question: How are tiger parts transported outside of this area (Sundarbans)?

Aspect: What type of people transport tiger parts?

Aspect: How are tiger skins transported?

Aspect: How are tiger bones transported?

Aspect: What skills are necessary to transport tiger skins?

Aspect: What skills are necessary to transport tiger bones?

Aspect: What physical equipment (if any) are required for transporting Skins and Bones?

Aspect: What modes of transport are used to transport Skins and Bones?

Aspect: How are Skins and Bones smuggled out of the country?

Aspect: How much money transporters make to making a delivery?

Aspect: How much time to transporters spend in making a delivery?

Aspect: What do transporters do after they receive a tiger product until they hand it over to the next person?

Aspect: Who are the next people that they give the tiger parts to?

Aspect: What do transporters do after delivering the products to the next actor in the trade?

Aspect: Do these (next) actors help the transporter in anyway?

Aspect: Do you think people who transport are afraid of getting caught?

Aspect: What are the costs (fines/imprisonment) of getting caught?

Main interview question: What is your opinion on the role of government officials in the trafficking process?

Aspect: Which government officials are key in facilitating the trade?

Aspect: Why do you think their role is so important for the trade to sustain?

- c. How do these activities influence the personal and social conditions of local communities and facilitate the trafficking process in the Satkhira range?

Objective 1: To determine which intermediary activities affect criminal propensity (morals and self-control) of local people

Objective 2: To identify which intermediary activities creates a criminogenic setting for trafficking

Main Interview Question: What is your opinion about the local people's view towards tiger conservation? (Morals)

Aspect: How important is tiger conservation for local people in your area? Why?

Aspect: Do you think local people want to have tigers in the forest? Why?

Aspect: How likely are local people to halt trafficking activities if they know it is happening around them?

Aspect: What factors influence people to get involved in trafficking activities?

Aspect: Which intermediaries play the most influencing role to attract local people into trafficking activities (poaching, processing, transporting, etc.)?

Aspect: How do they influence people?

Main interview question: What is your opinion of local people and their involvement in trafficking activities? (Self-Control)

Aspect: How likely are local people to get involved in the trafficking of tiger parts?

Aspect: How are local people exposed to the trafficking activities?

Aspect: How likely are local people to abstain from trafficking opportunities?

Aspect: Which activities of intermediaries attract local people to get involved in trafficking activities?

Main interview question: Which factors do local people consider before becoming involved in trafficking activities? (Self-selection)

Aspect: Which trafficking activities are local people most likely to get involved in? Why? (self-selection)

Aspect: Which group of local people (forest resource collectors, farmers, local elites, etc.) are most likely to get involved in trafficking activities? Why?

Aspect: What makes people decide to become involved in trafficking activities?

Main interview question: How do the law and order mechanisms (laws, police, etc.) affect the opportunities of trafficking in your village? (criminogenic setting)

Aspect: How effective is the law enforcement in deterring trafficking in your village?

Aspect: What is the likelihood of someone involved in the trafficking activities getting caught?

Aspect: Do you think people are afraid of getting caught?

Aspect: What happens if a local villager involved with trafficking gets caught?

Aspect: Do you think there is community support for people involved in trafficking?

Aspect: Why do you think this way?

Aspect: Which intermediaries and their activities creates the platform for people to get involved in the trafficking trade?

- **Instructions for the ending**

That is the end of the interview. **Thank you** for responding to all the questions and **I hope you enjoyed it** as much as I did. Now **it's your turn to ask me any questions** that you may have.

If that is it, then I would **like to thank you again** and hope you have a great day. **If you have any questions you can get in touch with me through my phone number.**

Interview Guides for Group C – Domain Experts and Academics

Instruction for Introduction:

Assalamualaikum/Adab, my name is Abrar and I am second-year Masters student of Forest and Nature Conservation at Wageningen University in the Netherlands. To complete my degree, I have to carry out a thesis project. For my research, I am interested to study the trafficking process of tiger parts and why people become involved with trafficking activities specifically from the Satkhira range of Bangladesh Sundarbans. I would like to assure you that **anything that we discuss is strictly confidential. I will NOT be using the names and the location/address** of the people I will be interviewing for my research. I will also **NOT be using any personal details** that can be used to identify my interviewees. Also, I will **NOT be using your responses for any other reason other than for my research** and you can be assured that your personal details will not be shared with anyone else. **I strongly believe that your opinion on this matter will help me** understand the trafficking process and why people become involved in such activities. **If you feel uncomfortable or would like to stop or take a pause, please feel free to stop the interview** at any point of the conversation.

Introductory questions

- How long have you been engaged with tiger conservation?
 - What would you say is your expertise related to tiger conservation?
 - How big on an issue is trafficking in tiger parts in Bangladesh?
 - Where do you think trafficking happens the most and why?
3. What are the roles of intermediaries in the trafficking of tiger parts in the Satkhira range of the Bangladesh Sundarbans?

- d. What are the types of intermediaries that facilitate the trafficking process in the Satkhira range?

Objective: To identify the different intermediaries based on their roles in the trafficking process

Main Interview Question: What types of people are involved in the trafficking of tiger parts from the Satkhira range of Sundarbans?

Aspect: What are their roles? (**Logistician, specialized smuggler, govt. colluder, third party, processor**)

Aspect: How many hands do tiger skins pass before they are smuggled out of the country?

Aspect: How many hands do tiger bones pass before they are smuggled out of the country?

Aspect: Which actors are central in facilitating the trafficking process?

Aspect: What is the difference between actors involved in the Skins trade and the Bones trade?

- e. What are the sequence of activities carried out by each intermediary during the trafficking process in the Satkhira range?

Objective: To develop crime scripts for each identified intermediary in the trafficking process

Main Interview Question: How are tiger parts ordered in the Satkhira range?

Aspect: Is the market supply driven (tiger killers) or demand driven (traders/consumers)?

Aspect: How does the ordering process differ for Skins and Bones?

Main interview question: What do you know about people who buy tiger parts (Skins/Bones)?

Aspect: What is the difference between buyers of Skins and Bones?

Aspect: How do buyers gain access to tiger killers?

Aspect: How is demand communicated to tiger killers?

Aspect: What type of skills do buyers possess?

Aspect: What physical equipment (if any) are necessary for buyers to carry out their activities?

Aspect: What types of information is necessary for buyers to carry out their activities?

Aspect: What specific activities do buyers carry out in the trafficking process?

Aspect: How much time do buyers put into acquiring tiger parts?

Aspect: How much money do buyers spend in getting tiger parts? (Skin/Bones)

Aspect: Are buyers involved in aggregating tiger parts?

Aspect: Are buyers involved in helping to move tiger parts out of the Sundarbans?

Aspect: Do buyers provide other logistical support to tiger killers?

Aspect: Which (social/situational) factors encourage buyers to carry out their activities?

Aspect: What are the rewards for buyers not getting caught?

Aspect: What is their perceived risk for buyers getting caught?

Aspect: What is the costs (fines/imprisonment) of buyers getting caught?

Aspect: What steps do buyers take after acquiring the products?

Aspect: Who are the next people in the supply chain?

Main interview question: What do you know about the processing of tiger parts in the Sathkhira range?

Aspect: How does the processing differ for Skins and Bones?

Aspect: What type of people are involved in processing tiger parts for commercial trade?

Aspect: Do buyers help to move the products to the Processors?

Aspect: How do processors gain access to tiger parts?

Aspect: Do buyers provide any logistical support to Processors?

Aspect: What skills are necessary to process tiger parts for trade? (Skins/Bones)

Aspect: What physical equipment is necessary to carry out their activities?

Aspect: What types of information is necessary for these people to carry out their activities?

Aspect: What are the specific activities of processing tiger skins?

Aspect: What are the specific activities of processing tiger Bones?

Aspect: How much time do processor put into getting tiger parts? (Skin/Bones)

Aspect: How much money do processors spend in getting tiger parts? (Skin/Bones)

Aspect: Which (social/situational) factors encourage processors to carry out illegal activities?

Aspect: What are the rewards of not getting caught?

Aspect: What is their perceived risk of getting caught?

Aspect: What is the costs (fines/imprisonment) of getting caught?

Aspect: What steps do processors take after processing the products for illegal trade?

Aspect: Who are the next people in the supply chain?

Main interview question: How are tiger parts transported from the Sundarbans?

Aspect: What modes of transport are used?

Aspect: Which types of people are involved in transporting products? (Skins/Bones)

Aspect: What type of skills do these people possess? (Skins/Bones)

Aspect: What physical equipment is necessary to carry out their activities?

Aspect: What types of information is necessary for people who transport tiger parts? (Skin/Bone)

Aspect: Where are parts transported to from Satkhira range, Sundarbans? (Skins/Bones)

Aspect: How are tiger parts transported outside the country? (Skin/Bones)

Aspect: What specific activities do transporters carry out to transport tiger parts?

Aspect: What time of day are transporters most likely to transport?

Aspect: How much time do transporters put into transporting tiger parts?

Aspect: How much money do transporters spend in transporting tiger parts? (Skin/Bones)

Aspect: Do buyers help to move products to other cities?

Aspect: Do buyers provide other logistical support to transporters?

Aspect: How does transportation differ for Skins and Bones when transporting outside country?

Aspect: Which (Social/situational) factors encourage transporters to carry out illegal activities?

Aspect: What are the rewards of not getting caught?

Aspect: What is their perceived risk of getting caught?

Aspect: What is the costs (fines/imprisonment) of getting caught?

- f. How do these activities influence the personal and social conditions of local communities and facilitate the trafficking process in the Satkhira range?
 - Objective 1: To determine which intermediary activities affect criminal propensity (morals and self-control) of local people
 - Objective 2: To identify which intermediary activities creates a criminogenic setting for trafficking

Main interview question: Which intermediary and their activities affects local people's morals and self-control related to trafficking tiger parts?

Aspect: How likely are local people from Satkhira range to become involved in trafficking?

Aspect: Why do local people become involved in tiger parts trafficking?

Aspect: Do you think local people want to become involved in trafficking?

Main interview question: Which intermediary activities creates the scope to become involved in trafficking?

Aspect: How do local people become exposed to trafficking activities?

Aspect: What is the perception of risk of getting caught?

Aspect: What is the likelihood of getting caught?

4. What prevention strategies are most likely to deter intermediaries involved in the trafficking process of tiger parts in the Satkhira range?
 - c. Which situational crime prevention techniques are appropriate to deter intermediaries during the trafficking of tiger parts in Satkhira range?
 - Objective: Identify intermediary specific SCP techniques to deter trafficking.

- d. Who are the key stakeholders capable of facilitating the appropriate situational crime prevention strategies in the Satkhira range?

Objective: Identify stakeholders who can be engaged to deter intermediaries from the trafficking of tiger parts.

Main Interview question: What are the enforcement mechanisms currently in place to stop trafficking for wildlife?

Aspect: How effective are laws to stop people from wildlife crimes (poaching, trafficking, etc.)?

Aspect: How effective is SMART patrolling for combatting trafficking?

Aspect: What about FD Guards role in combatting trafficking?

Aspect: What about judicial capacity to deal with poaching and illegal trade cases?

Main interview question: What measures can deter buyers of tiger parts?

Aspect: What agency has the responsibility to deter buyers?

Aspect: What powers are available to this agency to enforce this activity?

Aspect: What legislation governs the activities related to buying tiger parts?

Aspect: Who are the other stakeholders that needs to be engaged to prevent buyers?

Aspect: What are the challenges in making this possible?

Main interview question: What measures to prevent processors of tiger parts?

Aspect: What agency has the responsibility to deter processors?

Aspect: What powers are available to this agency to deter processors?

Aspect: What legislation governs the activities related to processing tiger parts?

Aspect: Who are the other stakeholders that needs to be engaged to prevent processors?

Aspect: What are the challenges in making this possible?

Main interview question: What can be some measures to prevent transporters of tiger parts?

Aspect: What agency has the responsibility to deter transporters?

Aspect: What powers are available to this agency to deter transporters?

Aspect: What legislation governs activities related to transporting tiger parts?

Aspect: Who are the other stakeholders that needs to be engaged to prevent processors?

Aspect: What are the challenges in making this possible?

- **Instructions for the ending**

That is the end of the interview. **Thank you** for responding to all the questions and **I hope you enjoyed it** as much as I did. Now **it's your turn to ask me any questions** that you may have.

If that is it, then I would **like to thank you again** and hope you have a great day. **If you have any questions you can get in touch with me through email or phone**. And if you are interested in the outcome of the research I can send you the report on your email.

ANNEX III: INTERVIEW GUIDE (BANGLA)

Interview Guides for Group A – VTRT

Instruction for Introduction:

আসসালামুয়ালায়েন।/আদাব, আমার নাম আব্বার এবং আমি ঢাকা থেকে এসেছি। আমি বর্তমানে হল্যান্ডে ম,এ, ডিগ্রিতে পড়ছি। আমার ম,এ ডিগ্রি শেষ করতে আমাকে একটা গবেষণার কাজ করতে হবে যাতে আমি গবেষণা করাটা শিখতে পারি। আমার গবেষণার জন্য আমি জানতে ছাই কেন ও কিভাবে মানুষ বাঘের অংশ পাচারের সাথে জড়িয়ে যায় এবং এই পাচার প্রক্রিয়া কিভাবে কাজ করে।

আমি আপনাকে আশ্বস্তও করতে চাই যে আমাদের মধ্যে যা কিছু নিয়ে আজকে কথা হবে, সবকিছুই আমি সম্পূর্ণ ভাবে গোপন রাখবো। আমি আমার গবেষণায় যদের সাথে কথা বলবো তাদের কারো নাম, তাদের এলাকার নাম বা অন্য কোন সনাক্ত করার মত তথ্য ব্যবহার করবো না। এছাড়াও আমার প্রশ্নের উত্তরগুলি আমি অন্য কোন মানুষের সাথে আমি শেয়ার করবো না।

আমি দ্রিহ ভাবে বিষাস করি যে আপনার মতামত আমাকে বুজতে সাহায্য করবে কেন মানুষ পাচার প্রক্রিয়াতে জড়িয়ে যায় এবং পাচার প্রক্রিয়া কিভাবে কাজ করে।

আলোচনার কোন সময় যদি আপনার অস্থিতিকর অনুভব করেন, অথবা একটু বিরতি নিতে চান, অবশ্যই আমাকে বলবেন এবং আমরা আলোচনা থামিয়ে দেব।

Introductory questions:

- আপনি কতো বছর ধরে এই এলাকায় থাকেন?
- আপনি কি কারণে ভিটিআরটি / সিপিজি সদস্য হতে সিদ্ধান্ত নিলেন?
- আপনি বন মধ্যে কতবার বাঘ দেখেছেন?

১। আপনার মতে এই এলাকার মানুষদের বাঘ সংরক্ষনের উপর মত কি?

- আপনার এলাকার মানুষ বনে কি বাঘ থাকুক চায়?
- স্থানীয় লোকজনের কাছে বাঘ সংরক্ষন কতটুকু গুরুত্বপূর্ণ? কেন গুরুত্বপূর্ণ?
- স্থানীয় মানুষ কি পাচার প্রক্রিয়া ঠেকানর চেষ্টা করবে যদি জানতে পারে ওদের আশেপাশে তা ঘটছে?
- আপনার মতে স্থানীয় মানুষকে পাচার প্রক্রিয়া ঠেকাতে কিভাবে সংযুক্ত করা যায়?

২। আপনার মতে, স্থানীয় মানুষের পাচার প্রক্রিয়ায় কিভাবে জড়িয়ে যায়?

- স্থানিও মানুষের পাচার প্রক্রিয়ায় জরার শস্তবনা কত টুকু?

- স্তানিও মানুষ পাচার প্রক্রিয়া থেকে নিজেকে দুরে রাখার সসম্বভনা কতটুকু?
- স্তানিয় মানুষদের কোন জিনিশ গুলো আকর্ষিত করে পাচার প্রক্রিয়ায় জড়িত হবার জন্য?
- পাচার প্রক্রিয়ায় অন্য মানুষদের কোন কাজ গুলো স্তানিয় লকদের উৎসাহিত করে পাচার প্রক্রিয়ায় জরাত?

৩। স্তানিয় মানুষরা কোন কারণ গুলো চিন্তা করে পাচার প্রক্রিয়ায় জরিযে যায়?

- পাচার প্রক্রিয়ায় কোন কাজ গুলতে স্তানিয় মানুষদের জরিযে যাবার সম্বভনা বেশি?
- কোন কারণ গুলোর জন্য মানুষ পাচার প্রক্রিয়া জরানর সিদ্ধান্ত নেয়?

৪। শ্যামনগর থেকে বাঘ অংশ (স্কিনস / হাড়) পাচার করার প্রক্রিয়ার সাথে জড়িত মানুষদের সম্পর্কে আপনি কি জানেন?

- বাঘ অংশ পাচার প্রক্রিয়ায় কি কি ধরনের মানুষ জরিত?
- এদের মধ্যে কোন মানুষ গুলো চামড়া বেবশার সাথে জরিত?
- এদের মধ্যে কোন মানুষ গুলো হাড় বেবশার সাথে জরিত?
- আপনার মতে, কোন মানুষ গুলো পাচার প্রক্রিয়ায় সবচেয়ে বড় ভূমিকা রাখে?

৫। এই এলাকা থেকে, বাঘের চামড়া ও হাড়ের ক্রেতার কিভাবে বাঘের অংশ সংগ্রহ করে?

- ক্রেতার তাদের চাহিদা বাঘ শিকারিদের কাছে কিভাবে জানায়?
- বাঘ শিকারিদের কাছে চাহিদা জানানর পরে ক্রেতাদের কত সময় অপেক্ষা করতে হয় বাঘের অংশ হাতে পেতে?
- ক্রেতার বাঘের অংশ পেতে কত টাকা খরচ করতে হয়?
- ক্রেতাদের কাজ করতে কি কি ধরনের দক্ষতা প্রয়োজন থাকা দরকার?
- ক্রেতাদের কাজ করতে কি কি ধরনের শরঞ্জাম প্রয়োজন হয়?
- ক্রেতাদের কাজ করতে কি কি ধরনের তথ্য প্রয়োজন হয়?
- পাচার প্রক্রিয়ায়, ক্রেতাদের প্রথম থেকে শেষ পর্যন্ত ধাপে ধাপে কি করে?
- ক্রেতার বাঘের অংশ একত্রিত করতে কি সাহায্য করে?
- ক্রেতার বাঘের অংশ পরিবহন করতে কি সাহায্য করে?
- ক্রেতার কি বাঘ শিকারিদের অন্য কোন যৌক্তিক সাহায্য করে?
- ক্রেতার ধরা পরার কি কি ধরনের ঝুঁকি অনুভব করে?
- বাঘ শিকারিরা ক্রেতাদের ফরমাশ/চাহিদা অনুযায়ী কি বাঘ শিকারির করে, নাকি বাঘ মেরে তারপর তারপর ক্রেতাদের খুজে?
- যদি ধরা পরে, ক্রেতাদের কি জরিমানা/কারাদণ্ড হয়?

- ধরা না পরলে, ক্রেতাদের লাভ কি?
- কি ধরনের স্থানীয় পরিস্থিতি ক্রেতাদের উৎসাহিত করে তাদের কারজকালাপ চালাতে?
- বাঘের অংশ হাতে পাবার পর ক্রেতারা কি করে?
- ক্রেতাদের পর পাচার প্রকিয়ায় কারা আছে?

৬। এই অঙ্কলে, বাঘের চামড়া ও হাড় কিভাবে প্রক্রিয়াকরন করা হয়?

- প্রক্রিয়াকরণকারিরা কি ক্রেতাদের থেকে কোন যৌক্তিক সাহায্য পায়?
- প্রক্রিয়াকরণকারিরা বাঘের চামড়া ও হাড় কিভাবে পায়?
- কোন ধরনের মানুষ প্রক্রিয়াকরনের সাথে জরিত?
- বাঘের চামড়া প্রক্রিয়াকরনে tannery রা কি ভূমিকা রাখে?
- প্রক্রিয়াকরণকারিরা কাজ করতে কি কি ধরনের দক্ষতা প্রয়োজন?
- প্রক্রিয়াকরণকারিরা কাজ করতে কি কি ধরনের শরঞ্জাম প্রয়োজন হয়?
- প্রক্রিয়াকরণকারিরা কাজ করতে কি কি ধরনের তথ্য প্রয়োজন হয়?
- বাঘের চামড়া প্রক্রিয়াকরণ করতে কি করতে হয়?
- বাঘের চামড়া প্রক্রিয়াকরনে কত সময় প্রয়োজন হয়?
- বাঘের চামড়া প্রক্রিয়াকরনে কত টাকা খরচ হয়?
- বাঘের হাড় প্রক্রিয়াকরনে কি করতে হয়?
- বাঘের হাড় প্রক্রিয়াকরনে কত সময় প্রয়োজন হয়?
- বাঘের হাড় প্রক্রিয়াকরনে কত টাকা খরচ হয়?
- প্রক্রিয়াকরনের সাথে জরিত মানুষ দের লাভ কি?
- প্রক্রিয়াকরণের সাথে জরিত মানুষদের ধরা পরার ভয় কতটুকু?
- প্রক্রিয়াকরনের সাথে জরিত মানুষ ধরা পরলে তাদের কি জরিমানা/কারাদণ্ড হয়?
- কাজ সম্পূর্ণ হলে, প্রক্রিয়াকরণকারিরা চামড়া ও হাড় নিয়ে কি করে?
- প্রক্রিয়াকরণকারিদের থেকে চামড়া ও হাড় কার কাছে যায়?

৭। বাঘের চামড়া ও হাড় এই এলাকা থেকে কি ভাবে বাহিরে পরিবহন হয়?

- কি ধরনের পরিবহন ব্যবহার করা হয়?
- দিনের কোন সময় পরিবহন করার সবচেয়ে বেশি সম্ভবনা থাকে?
- এখান থেকে চামড়া ও হাড় কোন সহর গুলোতে যায়?
- কি ধরনের মানুষ চামড়া ও হাড় পরিবহনের সাথে জরিত?
- চামড়া ও হাড় পরিবহন করতে কি ধরনের শরঞ্জাম প্রয়োজন পরে?
- চামড়া ও হাড় পরিবহণ করতে কি ধরনের তথ্য প্রয়োজন হয়?
- আপনার মতে, বাঘের চামড়া ও হাড় দেশের বাহিরে কিভাবে পরিবহন করা হয়?
- বাঘের চামড়া ও হাড় পরিবহন করতে কি কি পদক্ষেপ নেয়া প্রয়োজন?
- প্রক্রিয়াকরণকারিরা কত সময় বেয় করে পরিবহন করতে?

- প্রক্রিয়াকরণকারিরা কত টাকা খরচ করে চামড়া ও হাড় পরিবহণ করতে?
- ক্রেতারা কি কোন সাহায্য করে চামড়া ও হাড় অন্য সহরে পরিবহন করতে?
- কোন কারণ গুলো চামড়া ও হাড় পরিবহণ করতে উৎসাহিত করে?
- পরিবহনের সাথে জরিত মানুষদের মূল লাভ কি?
- পরিবহনের সাথে জরিত মানুষদের ধরা পরার ভয় কতটুকু?
- পরিবহণের সাথে জরিত মানুষ ধরা পরলে তাদের কি জরিমানা/কারাদণ্ড হয়?

৯। এই এলাকায় কোন পদ্ধতি গুলো পাচার এর সুযোগ প্রভাহিত করে?

- এই এলাকায় পাচার টেকাতে আইন স্রিঙ্খলা বাহিনি কতটুকু সফল?
- পাচার এর সাথে জরিত বেক্তিদের ধরা পরার সম্ভবনা কতটুকু?
- আপনার মতে, এই এলাকায় পাচার এর সাথে জরিত লকদের ধরা খাওয়ার কি ভয় আছে?
- পাচারকারীদের কি স্থানিয় ভাবে সমর্থন আছে?

১০। এখন কোন পদ্ধতি গুলো পাচার বন্ধ করতে কাজে লাগানো হচ্ছে?

- বন আইন কতটুকু ফলপ্রসূ বন্যপ্রাণী অপরাধ থামাতে?
- SMART patrolling কতটুকু ফলপ্রসূ পাচারকারীদের বাঁধা দিতে?
- পাছারকারিদের বাঁধা দিতে FD Guards এর ভূমিকা কি?

১১। আপনার মতে কি করলে বাঘের অংশ ক্রেতাদের বাঁধা দেওয়া যাবে?

- কোন সংস্থাগুল ক্রেতাদের বাদা দিতে ভূমিকা রাখতে পারে?
- ক্রেতাদের বাঁধা দিতে আরও কোন ধরনের মানুষকে যুক্ত করা প্রয়োজন?
- ক্রেতাদের বাঁধা দিতে চলেঞ্জ গুলো কি কি?

১২। আপনার মতে কি করলে বাঘের চামড়া ও হাড় প্রক্রিয়াকরণকারিদের বাঁধা দেওয়া যাবে?

- কি কি পদক্ষেপ নিলে প্র প্রক্রিয়াকরণকারিদের বাঁধা দেওয়া যাবে?
- কোন সংস্থাগুল প্রক্রিয়াকরণকারিদের বাদা দিতে ভূমিকা রাখতে পারে?
- প্রক্রিয়াকরণকারিদের বাঁধা দিতে আরও কোন ধরনের মানুষকে যুক্ত করা প্রয়োজন?
- প্রক্রিয়াকরণকারিদের বাঁধা দিতে চলেঞ্জ গুলো কি কি?

১৩। আপনার মতে কি করলে বাঘের চামড়া ও হাড় পরিবহণের সাথে জড়িত মানুষদের বাঁধা দেওয়া যাবে?

- কি কি পদক্ষেপ নিলে পরিবহণকারীদের বাঁধা দেওয়া যাবে?
- কোন সংস্থাগুলি পরিবহণকারীদের বাদা দিতে ভূমিকা রাখতে পারে?
- পরিবহণকারীদের বাঁধা দিতে আরও কোন ধরনের মানুষকে যুক্ত করা প্রয়োজন?
- পরিবহণকারীদের বাঁধা দিতে চলেঞ্জ গুলো কি কি?

১৪। আপনার এলাকায় **বাঘের পাচারের সাথে সরকারী কর্মকর্তাদের ভূমিকা কী?**

- আপনার মতে কোন সরকারি সংস্থা লোকজন পাচারের সাথে জড়িত?
 - পাচার প্রক্রিয়ায় তাদের ভূমিকা কি?
- **Instructions for the ending**

এটাই আমার শেষ প্রশ্ন ছিল। আপনাকে অনেক ধন্যবাদ আপনার মূল্যবান মতামত ও আমাকে এত সময় দেবার জন্য। এবার আপনি আমাকে যে কোন কিছু নিয়ে প্রশ্ন করতে পারেন।

আপনার যদি আর কিছু বলার না থাকে, তাহলে আমি আপনাকে আবার ধন্যবাদ দিয়ে আজকের আলোচনা শেষ করতে চাই এবং আশা করি আপনার বাকি দিনটা শুভ কাটুক। আপনার যদি আরও কোন প্রশ্ন থাকে, আপনি আমার সাথে আমার ফোনে যোগাযোগ করতে পাড়েন।

Interview Guides for Group B – Ex-Intermediaries

Instruction for Introduction:

আসসালামুয়ালায়েন।/আদাব, আমার নাম আব্বার এবং আমি ঢাকা থেকে এসেছি। আমি বর্তমানে হল্যান্ডে ম,এ, ডিগ্রিতে পড়ছি। আমার ম,এ ডিগ্রি শেষ করতে আমাকে একটা গবেষণার কাজ করতে হবে যাতে আমি গবেষণা করাটা শিখতে পারি। আমার গবেষণার জন্য আমি জানতে চাই কেন ও কিভাবে মানুষ বাঘের অংশ পাচারের সাথে জড়িয়ে যায় এবং এই পাচার প্রক্রিয়া কিভাবে কাজ করে।

আমি আপনাকে আশ্বস্তও করতে চাই যে আমাদের মধ্যে যা কিছু নিয়ে আজকে কথা হবে, সবকিছুই আমি সম্পূর্ণ ভাবে গোপন রাখবো। আমি আমার গবেষণায় যাদের সাথে কথা বলবো তাদের কারো নাম, তাদের এলাকার নাম বা অন্য কোন সনাক্ত করার মত তথ্য ব্যবহার করবো না। এছাড়াও আমার প্রশ্নের উত্তরগুলি আমি অন্য কোন মানুষের সাথে আমি শেয়ার করবো না।

আমি খুব দ্রুত ভাবে বিশ্বাস করি যে আপনার মতামত আমাকে বুজতে সাহায্য করবে কেন মানুষ পাচার প্রক্রিয়াতে জড়িয়ে যায় এবং পাচার প্রক্রিয়া কিভাবে কাজ করে।

আলোচনার কোন সময় যদি আপনার অস্থিতিকর অনুভব করেন, অথবা একটু বিরতি নিতে চান, অবশ্যই আমাকে বলবেন এবং আমরা আলোচনা থামিয়ে দেব।

Introductory questions

- বাঘ মারার সাথে কি ভাবে লিপ্ত হন?
- বাঘ মারার সাথে যখন প্রথম বার লিপ্ত হন তখন আপনার অনুভূতি কি ছিল?
- কি কারণ গুলির জন্য বাঘ মারার সাথে লিপ্ত হন?
- তখন কি আপনার ধরা পরার বা জেইল এ যাবার ভয় ছিল?

১। পুরো পাচার প্রক্রিয়ায় কয় ধরনের মানুষ জড়িত?

- বাঘের চামড়া যারা বেছা-কেনা করে তারা কিভাবে তাদের কাজ পরিচালনা করে?
- বাঘের হাড় যারা বেছা-কেনা করে তারা কিভাবে কাজ পরিচালনা করে?
- কি কি ধরনের মানুষ বাঘের চামড়া কিনে?
- কি কি ধরনের মানুষ বাঘের হাড় কিনে?
- আপনার মতে, পুরো পাচার প্রক্রিয়ায় কোন ধরনের মানুষ গুলো সবচেয়ে গুরুত্বপূর্ণ ভূমিকা পালন করে?

২। বেছা-কেনা বা ব্যবসার জন্য যারা বাঘের অংশ সন্ধান করে, তাদের বেপারে আপনি কি জানেন?

- আপানার মতে ক্রেতারা কি ধরা পরার ভয় পায়?
- এই লেয়াকায় ক্রেতাদের বাঘের অংশ পেতে কতটা কষ্ট/পরিশ্রম করতে হয়?
- বাঘ শিকারীদের সাথে ক্রেতারা কিভাবে যোগাযোগ করে?
- বাঘ শিকারিরা কি বাঘ মেরে তারপর ক্রেতাদের খুজে বিক্রি করে, নাকি ক্রেতাদের ফরমাশ/আদেশ পাবার পর বাঘ শিকার করে?
- আপনি কি জানেন বর্তমানে বাঘের চামড়া কত দামে বিক্রি হয়?
- আপনি কি জানেন বর্তমানে বাঘের হাড় কত দামে বিক্রি হয়?
- চামড়া ও হাড়ের জন্য শিকারীদের সাথে টাকা-পয়সার লেনদেনটা কিভাবে হয়?
- বাঘের চামড়া হাতে পেতে ক্রেতারা ধাপে ধাপে কি করে? দয়া করে একটু ব্যাখ্যা করুন।
- ক্রেতাদের কতোটুকু সময় অপেক্ষা করতে হয় বাঘের অংশ হাতে পেতে?
- বাঘ শিকারিরা তাদের কাজ করতে কি ক্রেতাদের থেকে কোন সাহায্য পায়?
- ক্রেতারা কি বাঘের অংশ আকত্রিত করে বা অন্য কয়েও কে সাহায্য করে?

৩। বাঘের চামড়া প্রক্রিয়াকরন কি ভাবে হয়?

- বাঘের চামড়া প্রক্রিয়াকরণ কথায় হয়?
- বাঘের চামড়া যারা প্রক্রিয়া করন করে, তারা চামড়াটা কিভাবে পায়?
- কোন ধরনের মানুষ বাঘের চামড়া প্রক্রিয়াকরনের সাথে জড়িত?
- ট্যানারি গুলো কি বাঘের চামড়া প্রক্রিয়াকরনের সাথে জড়িত? এই ট্যানারি গুলো কথায় অভিস্তিত?
- বাঘের চামড়া প্রক্রিয়াকরন করতে কি ধরনের দক্ষতা প্রয়োজন?
- বাঘের চামড়া প্রক্রিয়াকরন করতে কি ধরনের সরঞ্জাম প্রয়োজন?
- বাঘের চামড়া প্রক্রিয়াকরণ করতে কতো টাকা প্রয়োজন?
- শুরু থেকে শেষ পর্যন্ত বাঘের চামড়া প্রক্রিয়াকরনটা কি ভাবে হয়? দয়া করে ধাপে ধাপে ব্যাখ্যা করেন।
- প্রক্রিয়াকরনকারীদের পর বাঘের চামড়া টা কার কাছে যায়?
- বাঘের হাড় প্রক্রিয়াকরণ মূলত কথায় হয়?
- কোন ধরনের মানুষ বাঘের হাড় প্রক্রিয়াকরনের সাথে জড়িত?
- বাঘের হাড় প্রক্রিয়াকরন করতে কি ধরনের দক্ষতা প্রয়োজন?
- বাঘের হাড় প্রক্রিয়াকরন করতে কি ধরনের সরঞ্জাম প্রয়োজন?
- বাঘের হাড় যারা প্রক্রিয়াকরন করে তারা কতো টাকা নেয়?
- ক্রেতারা বাঘের হাড় কেনার পর ওটাকে কি আরও প্রক্রিয়াকরন করে?

৪। বাঘের চামড়া ও হাড় কিভাবে সাতক্ষিরা থেকে বাহিরে নিয়ে যাওয়া হয়?

- বাঘের চামড়া কি ধরনের মানুষ পরিবহণ করে?
- বাঘের চামড়া কিভাবে পরিবহণ করে?
- বাঘের চামড়া পরিবহণ করতে কি ধরনের দক্ষতা প্রয়োজন?
- বাঘের চামড়া পরিবহণ করতে কি ধরনের সরঞ্জাম প্রয়োজন?
- বাঘের হাড় কি ধরনের মানুষ পরিবহণ করে?
- বাঘের হাড় কিভাবে পরিবহণ করে?
- বাঘের হাড় পরিবহণ করতে কি ধরনের দক্ষতা প্রয়োজন?
- বাঘের হাড় পরিবহণ করতে কি ধরনের সরঞ্জাম প্রয়োজন?
- পরিবহণকারিরা কতো টাকা নেয় বাঘের অংশ পরিবহণ করতে?
- পরিবহণকারিরা কতো সময় বেয় করে বাঘের অংশ পরিবহণ করতে?
- বাঘের চামড়া ও হাড় পরিবহণ করতে ধাপে ধাপে কি করতে হয়?
- পরিবহণকারিদের থেকে বাঘের চামড়া ও হাড় কে নেয়?
- যারা পরিবহণকারীদের থেকে চামড়া ও হাড় নেয় তারা কি পরিবহণকারীদের কোন ভাবে সাহায্য করে?
- আপনার মতে কি পরিবহণকারিরা কি ধরা পাবার ভয়ে থাকে?
- যদি ধরা পরে তাহলে তাদের কি জরিমানা হয়?

৫। আপনার মতে সরকারি কর্মকর্তাদের পাচার প্রক্রিয়ায় ভূমিকা কি?

- কোন ধরনের সরকারি কর্মকর্তারা পাচার প্রক্রিয়া সহজতা করে?
- আপনার কি মনে হয় তাদের ভূমিকা গুরুত্বপূর্ণ এই পাচার প্রক্রিয়া বজায় রাখতে?

৬। আপনার মতে এই এলাকার মানুষদের বাঘ সংরক্ষনের উপর মত কি?

- আপনার এলাকার মানুষ বনে কি বাঘ থাকুক চায়?
- স্থানীয় লোকজনের কাছে বাঘ সংরক্ষন কতটুকু গুরুত্বপূর্ণ? কেন গুরুত্বপূর্ণ?
- স্থানীয় মানুষ কি পাচার প্রক্রিয়া ঠেকানর চেষ্টা করবে যদি জানতে পারে ওদের আশেপাশে তা ঘটছে?
- আপনার মতে স্থানীয় মানুষকে পাচার প্রক্রিয়া ঠেকাতে কিভাবে সংযুক্ত করা যায়?

৭। আপনার মতে, স্থানীয় মানুষের পাচার প্রক্রিয়ায় কিভাবে জড়িয়ে যায়?

- স্থানিও মানুষের পাচার প্রক্রিয়ায় জরার শস্তবনা কত টুকু?
- স্থানিও মানুষ পাচার প্রক্রিয়া থেকে নিজেদে দুরে রাখার সসম্ভবনা কতটুকু?

- স্তানিয় মানুষদের কোন জিনিশ গুলো আকর্ষিত করে পাচার প্রক্রিয়ায় জড়িত হবার জন্য?
- পাচার প্রক্রিয়ায় অন্য মানুষদের কোন কাজ গুলো স্তানিয় লকদের উৎসাহিত করে পাচার প্রক্রিয়ায় জরতে?

৮। স্তানিয় মানুষরা কোন কারণ গুলো চিন্তা করে পাচার প্রক্রিয়ায় জরিয়ে যায়?

- পাচার প্রক্রিয়ার কোন কাজ গুলতে স্তানিয় মানুষদের জরিয়ে যাবার সম্ভবনা বেশি?
- কোন ধরনের স্তানিয় মানুষ পাচার প্রক্রিয়ার সাথে জরানর সম্ভবনা বেশি?
- কোন কারণ গুলোর জন্য মানুষ পাচার প্রক্রিয়া জরানর সিদ্ধান্ত নেয়?

৯। এই এলাকায় কোন পদ্ধতি গুলো পাচার এর সুযোগ প্রভাহিত করে?

- এই এলাকায় আইন স্রিঙ্খলা বাহিনি কতটুকু সফল পাচার টেকাতে?
- পাচার এর সাথে জরিত বেক্তিদের ধরা পরার সম্ভবনা কতটুকু?
- আপনার মতে, এই এলাকায় পাচার এর সাথে জরিত লকদের ধরা খাওয়ার কি ভয় আছে?
- পাচারের সাথে জড়িত কেও ধরা পরলে তাদের কি হয়?
- পাচারকারীদের কি স্তানিয় ভাবে সমর্থন আছে? আপনি কেন এটা মনে করেন?
- পাচারের সাথে জড়িত কোন মানুষগুল বা তাদের কোন কর্মকাণ্ড গুলো স্তানিয় মানুষকে পাচার প্রক্রিয়ার সাথে জরতে উৎসাহিত করে?

- Instructions for the ending

এটাই আমার শেষ প্রশ্ন ছিল। আপনেকে অনেক ধন্যবাদ আপনার মূল্যবান মতামত ও আমাকে এত সময় দেবার জন্য। এবার আপনে আমাকে যে কোন কিছু নিয়ে প্রশ্ন করতে পারেন।

আপনার যদি আর কিছু বলার না থাকে, তাহলে আমি আপনাকে আবার ধন্যবাদ দিয়ে আজকের আলোচনা শেষ করতে চাই এবং আশা করি আপনার বাকি দিনটা শুভ কাটুক। আপনার যদি আরও কোন প্রশ্ন থাকে, আপনি আমার সাথে আমার ফোনে যোগাযোগ করতে পাড়েন।

Interview Guides for Group C – Domain Experts and Academics

Instruction for Introduction:

আমার নাম আব্বার এবং আমি নেদারল্যান্ডসের ওয়াগেনিংগেন বিশ্ববিদ্যালয়ে বন ও প্রকৃতি সংরক্ষণের দ্বিতীয়-বছর ছাত্র। আমার ডিগ্রি সম্পন্ন করার জন্য, আমাকে থিসিস প্রকল্পের কাজ করতে হবে। আমার গবেষণার জন্য, আমি বাঘের অংশ পাচার প্রক্রিয়ার এবং কিভাবে মানুষ এই প্রক্রিয়ার সাথে জড়িয়ে যায় তা বোঝার চেষ্টা করছি, বিশেষ করে বাংলাদেশের সুন্দরবনের সাতক্ষীরা রেঞ্জ থেকে। আমি আপনাকে আশ্বস্ত করতে চাই যে আমরা যা আলোচনা করবো তা সম্পূর্ণ গোপনীয় থাকবে। আমি আমার গবেষণার জন্য যাদের সাথে সাক্ষাত্কার করব তাহাদের নাম ও অবস্থান / ঠিকানা ব্যবহার করব না। আরও আমি আমার ইন্টারভিউ জন্য আমার সাক্ষাতকারীর কোনো ব্যক্তিগত বিবরণ ব্যবহার করছি না। এছাড়াও, আমি আমার গবেষণার ব্যতীত অন্য কোন কারণে আপনার প্রতিক্রিয়াগুলি ও মতামত ব্যবহার করব না এবং আপনি নিশ্চিত হতে পারেন যে আপনার ব্যক্তিগত বিবরণ অন্য কারো জানবার সুযোগ নাই। আমি দৃঢ়ভাবে বিশ্বাস করি যে এই বিষয়ে আপনার মতামত আমাকে ট্র্যাফিকিং প্রক্রিয়া বুঝতে এবং কেন এই ধরনের ও কিভাবে এই প্রক্রিয়ার সাথে জড়িত হতে পারে তা বুঝতে সহায়তা করবে। আপনি যদি অস্বস্তিকর বোধ করেন বা থামাতে বা বিরতি নিতে চান, তবে আমাদের আলোচনার যে কোনও সময়ে সাক্ষাত্কার বন্ধ করুন।

Introductory questions

- আপনি কতদিন ধড়ে বাঘ সংরক্ষণের সঙ্গে নিযুক্ত?
- বাঘ সংরক্ষণের কোন বিষয়টি নিয়ে আপনি সবচেয়ে বেশি কাজ করেছেন?
- আপনার মতে, বাংলাদেশে বাঘের অংশে পাচারের বিষয়টি কত গুরুত্বপূর্ণ বাঘের সংরক্ষণের জন্য?
- আপনার মতে, সুন্দরবনে কোথায় পাচার সবচেয়ে বেশি ঘটে এবং কেন ঘটে?
- ১। সুন্দরবনের সাতক্ষীরা রেঞ্জ থেকে বাঘের অংশে পাচারের ক্ষেত্রে কোন ধরনের মানুষ জড়িত?
 - দেশের বাইরে পাচার হওয়ার আগে বাঘের চামড়া কতগুলি হাত পাস করে?
 - দেশের বাইরে পাচার হওয়ার আগে বাঘের হাড় কতগুলি হাত পাস করে?
 - এদের মধ্যে, পাচার প্রক্রিয়ায় কোন বেক্তিগুল মূল ভূমিকা রেখে থাকে?
 - স্কিনস ট্রেড এবং হাড়ের ট্রেড সাথে জড়িত বেক্তিগুলর মধ্যে মূল পার্থক্য গুলো কী কী?

২। সাতক্ষীরা রেঞ্জ বাঘের অংশ কিভাবে order kora হয়?

- আপনার মতে, বাঘ শিকারিরা ক্রেতাদের চাহিদা অনুযায়ী কি বাঘ শিকারির bagh shikar করে, নাকি বাঘ মেয়ে তারপর তারপর ক্রেতাদের খুঁজে?
- চামড়া এবং হাড়ের ট্রেড প্রক্রিয়ায় কোন জিনিশ গুলো ভিন্ন?

৩। বাঘের অংশ (স্কিনস / হাড়) যারা কিনে থাকে তাদের সম্পর্কে আপনি কি জানেন?

- চামড়া এবং হাড়ের ক্রেতাদের মধ্যে কি কোন পার্থক্য আছে?
- বাঘের চামড়া কিনতে ক্রেতা কত টাকা খরচ করে থাকে?
- বাঘের হাড় কিনতে ক্রেতা কত টাকা খরচ করে থাকে?
- ক্রেতার কি বাঘের অংশ একত্র করে?
- সুন্দরবনের বাইরে বাঘের অংশগুলি সরানোর জন্য ক্রেতা জড়িত?
- ক্রেতার বাঘ হত্যাকারীদের অন্যান্য যৌক্তিক সহায়তা প্রদান করবেন?
- কোন (সামাজিক / পরিস্থিতিগত) কারণে ক্রেতার তাদের ক্রিয়াকলাপগুলি চালানোর জন্য উত্সাহ পায়?
- আপনার মতে, ক্রেতা রা ধরা না পড়লে ওদের লাভ কি?
- আপনার মতে, ক্রেতার কোন বুকি গুলো কে ধরা পরার কারন মনে করে থাকে?
- ক্রেতার যদি ধরা পরে তাদের কি শাস্তি হতে পারে? (জরিমানা / কারাদন্ড)
- ক্রেতার একবার তাদের পণ্যগুলি হাতে পাবার পর শাধানরত কী করে থাকে?
- ক্রেতাদের পরে ছরাছালাস্কারি সুপ্লল্য ছেইনে কারা জরিতো?

৪। সাথখিরি রেঞ্জের বাঘের প্রক্রিয়াকরণ (প্রসেসিং) সম্পর্কে আপনি কী জানেন?

- স্কিনস এবং হাড়গুলির প্রসেসিং কিভাবে ভিন্ন?
- প্রক্রিয়াকরণের ক্ষেত্রে কোন ধরনের মানুষ জড়িত?
- ক্রেতার কি প্রসেসরদের কাছে পণ্যগুলি সরবরাহে সাহায্য করেন?
- ক্রেতার প্রসেসরদের কোন যৌক্তিক সমর্থন প্রদান?
- সাধারণত বাঘের অংশ প্রক্রিয়া/প্রসেস করার জন্য কি দক্ষতা প্রয়োজন? (স্কিনস / হাড়)
- প্রসেসরদের কাজ ঠিক ভাবে সম্পূর্ণ করার জন্য কোন সরঞ্জাম গুলো প্রয়োজন পরে?
- প্রসেসরদের কার্যক্রম চালিয়ে যাওয়ার জন্য কোন ধরনের তথ্য প্রয়োজন?
- বাঘের চামড়া প্রক্রিয়াকরণের নির্দিষ্ট কার্যক্রম কি কি?
- বাঘের হাড় প্রক্রিয়াকরণের নির্দিষ্ট কার্যক্রম কি কি?
- প্রসেসররা বাঘের চামড়া প্রসেস করতে কত টাকা খরচ করে থাকে?
- প্রসেসররা তাদের প্রক্রিয়াকরণের শেষে কী করে থাকে?
- প্রসেসরদের পর, ছরাছালাস্কারির সাপ্লাই চেনে পরবর্তী মানুষ গুলো কারা?

৫। সুন্দরবন থেকে বাঘের অংশগুলি কীভাবে বেড় হয়?

- Local interlligence is very important.
- কোন ধরনের পরিবহন ব্যবহার করা হয়?
- বাঘের চামড়া পরিবহনে কোন ধরনের মানুষ জড়িত?
- এই মানুষগুলর কি ধরণের দক্ষতা প্রয়োজন থাকে? (স্কিনস / হাড়)
- বাঘের চামড়া পরিবহনের জন্য কোন ধরনের তথ্য প্রয়োজন?
- বাঘের হাড় পরিবহনের জন্য কোন ধরনের তথ্য প্রয়োজন?
- আপনার মতে, সুন্দরবনের সাতক্ষীরা রেঞ্জ থেকে বাঘের চামড়া কোথায় নিয়ে যাওয়া হয়?
- আপনার মতে, সাতখিরা থেকে বাঘের হাড় কথায় নিয়ে যাওয়া হয়?
- আপনার মতে, বাঘের চামড়া দেশের বাইরে কি ভাবে পাচার করা হয়?
- আপনার মতে, বাঘের হাড় দেশের বাইরে কি ভাবে পাচার করা হয়?
- ট্রান্সপোর্টাররা কোন নির্দিষ্ট কাজ গুলো করে থাকে?
- ট্রান্সপোর্টাররা দিনের কোন সময় পরিবহন করে থাকে?
- বাঘের চামড়া এবং হাড় পরিবহণ করেছে কত সময় লেগে থাকে?
- বাঘের চামড়া এবং হাড় পরিবহনে কত টাকা ব্যয় করতে হয়?
- ক্রেতারা অন্যান্য শহরে পণ্য সরানোর জন্য সাহায্য করবেন?
- কোন পরিবহনের মাধ্যমে চামড়া ও হাড় দেশের বাহিরে পরিবহন করে থাকা হয়?
- পরিবহনকারীদের ধরা পড়ার ঝুঁকি কি?
- পরিবহনকারিরা ধরা পরলে তাদের শাস্তি কি (জরিমানা / কারাদন্ড)?

6. সাতক্ষীরা রেঞ্জের স্থানীয় লোকজন পাচারে জড়িত হওয়ার সম্ভাবনা কত?

- স্থানীয় মানুষ পাচার প্রকিয়াতে কেন জরিয়ে পরে?
- আপনার মতে স্থানীয় মানুষ কি পাচার প্রকিয়ায় সহজগিতা করতে ইচ্ছুক থাকে?

৭। কিভাবে স্থানীয় মানুষ পাচারের কার্যক্রমের কাছে বেপরদা (exposed) হয়?

- স্থানীয় মানুষদের ধরা পড়ার ঝুঁকি কি?
- স্থানীয় মনুষদের ধরা পড়ার সম্ভাবনা কতটুকু?

৮। বর্তমানে কোন প্রয়োগকারী সংস্থা গুলো পাচার বন্ধ করার জন্য কী korche?

- আপনার মতে, বন্যপ্রাণী শিকারের বিরুদ্ধে করা আইন কতটুকু কার্যকর?
- পাচারের রথে SMART প্যাট্রোলিং কতটা কার্যকরী?
- পাচারের রথে ফরেস্ট গার্ডসের ভূমিকা কী?
- আপনার মতে, চরাশিকারি ও পাচারকারী মোকাবেলায় বিচারিক ক্ষমতা কত টুকু দক্ষ?

৯। মূলত কোন সংস্থা গুলোর দায়িত্ব ক্রেতাদের বাধা দেওয়ার?

- এই সংস্থা গুলোর ক্রেতাদের বাধা দেয়ার ক্ষেত্রে কি ক্ষমতা দেয়া আছে?
- ক্রেতাদের প্রতিরোধে আরও কোন কোন বেক্তি/সংস্থাকে নিজুক্ত করা প্রয়োজন?
- ক্রেতাদের ঠেকাতে কোন গুলো সব চেয়ে বড় চ্যালেঞ্জ সম্ভব করতে কি?

১০। কোন পদক্ষেপ গুলো বাঘের অংশ প্রসেসকারীদের প্রতিরোধ করতে সক্ষম হবে?










































- কোন কোন সংস্থা প্রসেসারদের ধরা/বাঁধা দেয়ার দায়িত্ব আছে?
- প্রসেসারদের বাধা দেয়ার ক্ষেত্রে, এই সংস্থা গুলোর কি ক্ষমতা আছে?
- আপনি কি বলতে পারেন বাঘের অংশ প্রক্রিয়াকরনের সাথে জরিত কার্যক্রম কোন আইনের আওতায় পরে?
- প্রসেসারদের প্রতিরোধে আরও কোন কোন বেক্তি/সংস্থাকে নিজুক্ত করা প্রয়োজন?
- প্রসেসারদের ঠেকাতে কোন চ্যালেঞ্জ গুলো বড়?

১১। কোন পদক্ষেপ গুলো বাঘের অংশ পরিবহনকারীদের প্রতিরোধ করতে সক্ষম হবে?

- কোন কোন সংস্থা পরিবহনকারীদের ধরা/বাঁধা দেয়ার দায়িত্ব আছে?
- কোন কোন সংস্থা পরিবহনকারীদের ধরা/বাঁধা দেয়ার দায়িত্ব আছে?
- পরিবহনকারীদের বাধা দেয়ার ক্ষেত্রে, এই সংস্থা গুলোর কি ক্ষমতা আছে?
- আপনি কি বলতে পারেন বাঘের অংশ পরিবহনকারীদের কার্যক্রম কোন আইনের আওতায় পরে?
- পরিবহনকারীদের প্রতিরোধে আরও কোন কোন বেক্তি/সংস্থাকে নিজুক্ত করা প্রয়োজন?
- পরিবহনকারীদের ঠেকাতে কোন চ্যালেঞ্জ গুলো বড়?

ANNEX IV: CODES AND THEMES

Free Nodes

Name	Sources	References	Created On	Created By	Modified On	Modified By
 Demand Driven Trade	14	15	14-Jan-19 11:20	AA	30-Jan-19 11:31	AA
 Trust	14	33	14-Jan-19 11:22	AA	30-Jan-19 11:31	AA
 TigerKillers_Processors - Activity	14	21	14-Jan-19 12:03	AA	31-Jan-19 9:05 P	AA
 Transporters - Activity	13	21	14-Jan-19 11:46	AA	30-Jan-19 11:31	AA
 Tol - Middleman	13	26	14-Jan-19 12:57	AA	30-Jan-19 11:31	AA
 Change is Behavior	13	32	14-Jan-19 7:16 P	AA	16-Jan-19 2:12 P	AA
 After WildTeam	12	24	14-Jan-19 7:37 P	AA	16-Jan-19 2:04 P	AA
 Tol - Pirates	12	26	15-Jan-19 4:07 P	AA	16-Jan-19 2:01 P	AA
 Central Actors in the Trade	11	16	14-Jan-19 11:16	AA	30-Jan-19 11:31	AA
 Tol - Poachers	11	18	14-Jan-19 12:59	AA	16-Jan-19 2:04 P	AA
 SCP - Law Enforcement	11	21	14-Jan-19 1:12 P	AA	30-Jan-19 11:31	AA
 SCP for TigerKillers_Processors	10	18	14-Jan-19 12:44	AA	16-Jan-19 2:23 P	AA
 SCP - General	10	17	14-Jan-19 1:16 P	AA	16-Jan-19 2:31 P	AA
 Secrecy	10	17	14-Jan-19 1:59 P	AA	18-Jan-19 6:09 P	AA
 Undue Influence by Influential People	10	17	14-Jan-19 6:27 P	AA	16-Jan-19 2:21 P	AA
 Ordering Process	9	12	14-Jan-19 11:25	AA	16-Jan-19 1:59 P	AA
 TigerKillers_Processors - Post Activity	9	14	14-Jan-19 11:47	AA	16-Jan-19 2:04 P	AA
 SCP for Middlemen	9	10	14-Jan-19 1:11 P	AA	30-Jan-19 11:31	AA
 Tol - Processors	9	12	14-Jan-19 6:44 P	AA	16-Jan-19 2:12 P	AA
 Middleman - Pre-activity	8	13	14-Jan-19 12:15	AA	16-Jan-19 2:04 P	AA
 Needs to be Done to Ensure Tiger Co	8	21	14-Jan-19 12:48	AA	30-Jan-19 11:31	AA
 Before WildTeam	8	9	14-Jan-19 6:24 P	AA	15-Jan-19 2:53 P	AA
 Friend and Family Relationships	8	13	14-Jan-19 6:37 P	AA	16-Jan-19 2:12 P	AA
 Tol - Smuggler or Transporter	8	14	14-Jan-19 6:50 P	AA	16-Jan-19 2:01 P	AA
 VTRT	8	13	14-Jan-19 8:04 P	AA	16-Jan-19 2:02 P	AA
 Intelligence Networks	8	9	14-Jan-19 9:29 P	AA	29-Jan-19 12:47	AA
 Difference in Skin and Bone Trade	7	11	14-Jan-19 11:18	AA	30-Jan-19 11:31	AA
 Perception of Getting Caught by Middl	7	7	14-Jan-19 11:29	AA	16-Jan-19 2:12 P	AA
 Measures To Stop Local People from	7	17	14-Jan-19 11:54	AA	16-Jan-19 2:04 P	AA
 Transporter - Pre-Activity	7	11	14-Jan-19 12:35	AA	30-Jan-19 11:31	AA
 Challenges of Tiger Conservation No	7	22	14-Jan-19 12:50	AA	30-Jan-19 11:31	AA
 Tiger Skin Price	7	8	14-Jan-19 6:40 P	AA	30-Jan-19 11:31	AA
 Livelihood for local people	7	10	14-Jan-19 7:15 P	AA	16-Jan-19 2:01 P	AA
 SCP Stakeholders - Local Communiti	7	16	16-Jan-19 10:01	AA	16-Jan-19 2:36 P	AA
 Destination of Parts	6	6	14-Jan-19 11:35	AA	30-Jan-19 11:31	AA
 Perception of Getting Caught	6	9	14-Jan-19 11:40	AA	16-Jan-19 2:12 P	AA
 Effectiveness of Existing Mechanisms	6	12	14-Jan-19 11:52	AA	16-Jan-19 2:12 P	AA
 Trafficking Hotspots	6	6	14-Jan-19 12:01	AA	16-Jan-19 2:12 P	AA
 Tiger Killers_Processors - Pre-activity	6	7	14-Jan-19 12:02	AA	30-Jan-19 11:31	AA
 Supply Driven Trade	6	6	14-Jan-19 12:12	AA	30-Jan-19 11:31	AA
 Transporters - Post-Activity	6	6	14-Jan-19 12:33	AA	15-Jan-19 3:16 P	AA
 Time of Day Transport Occurs	6	6	14-Jan-19 6:52 P	AA	16-Jan-19 2:04 P	AA
 Natural Disasters	6	7	14-Jan-19 7:47 P	AA	16-Jan-19 2:12 P	AA
 Gaining Access to Tiger Killers	5	8	14-Jan-19 11:15	AA	16-Jan-19 1:59 P	AA