

SURVEY OF THE KATHMANDU - BHAIRAHAWA CORRIDOR



March 2014

This report has been produced for Evidence on Demand with the assistance of the UK Department for International Development (DFID) contracted through the Climate, Environment, Infrastructure and Livelihoods Professional Evidence and Applied Knowledge Services (CEIL PEAKS) programme, jointly managed by DAI (which incorporates HTSPE Limited) and IMC Worldwide Limited.

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DOI:http://dx.doi.org/10.12774/eod_cr.march2014

First published June 2015
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Executive Summary

This report provides key results from a survey of the border crossing time of trucks crossing the Nepal-India border from Bhairahawa and arriving in Nagdhunga (Kathmandu). The survey took place in Belahiya (Bhairahawa, Nepal) and Sunauli (India) over seven working days, commencing on 14 March 2014.

It was concluded that the presence of the border controls delays the transportation time by 3 hours, 12 minutes (192 minutes). This includes the total time spent processing paperwork in both the Indian and Nepalese customs. If we assume clearing time for a vehicle in the Indian customs office is independent of that in Nepalese customs office, then the standard deviation for the border crossing time is 94.63 minutes. Once released from Bhairahawa customs yard, trucks took an average of 3 days, 21 hours and 46 minutes to reach Kathmandu (with a standard deviation of 2 days, 21 hours and 11 minutes).

Over the last three surveys, the number of border crossings has remained stable. In fact, the difference in total average border crossing time reported in the October survey and this survey was 2 minutes: a statistically insignificant figure. Other tasks carried out in the customs yard were also found to have showed little variation, including the average times taken for initial verification, inspection, transloading and receipt of payment. However, in contrast, the volume of arrivals from Bhairahawa to Kathmandu has fluctuated widely and during the last survey, the average time taken was only 14 hours 10 minutes.

One striking fact from our study is the relationship between the total time spent by trucks inside the customs yard and the time spent doing actual customs-related work. In October, the sum total of the average time for initial verification, inspection, bank payment and transloading was approximately 183 minutes. The average time spent by each truck inside the customs yard was actually 166 minutes (calculated using total time inside yard for all trucks), though this does not surprise as many trucks either parallel transload the goods or don't transload at all. The corresponding figures for the June survey were 235.5 minutes and 240 minutes respectively, and similar trends were also found in our current survey. When compared with Birgunj customs, where almost 75% of the total time inside customs yard has little purpose, Bhairahawa's customs seems to be working quite efficiently.



Objective of our Study

The objective of the present study was to estimate the border crossing times for vehicles coming from India to Nepal via the border at Bhairahawa. In order to do this effectively, we were required to estimate the time spent by trucks inside Bhairahawa customs yard while undergoing various customs processes. In addition, we estimated the time taken for trucks travelling from Bhairahawa to Nagdhunga.



SECTION 1

Bhairahawa Customs Office

Bhairahawa customs office, located about 276 kilometers in the west from Kathmandu, is the second most important revenue collection center of the Nepalese government. According to a recent report by the Department of Customs (DOC), 22% of the nation's total national revenue (approx. Rupees 102 billion) is collected through customs. Bhairahawa customs office alone collected Rs.12.74 billion (12.5% of total customs revenue) in the financial year (FY) 2068/69 Bikram Sambat.¹

The Nepalese customs revenue has seen an increase in recent months: by June, 100.72% of the total target for FY 2068/69BS had been achieved. Furthermore, during our initial survey it emerged that Rs 7.18 billion had already been collected in the first 11 months of this FY, far exceeding the year's total target of Rs 5.57 billion. The DOC estimates that within this growth in revenue collection, price increase accounts for around Rs 14 million only, with real growth accounting for the remainder. To collect this amount in revenue, customs had to process 77,217 single administrative documents (SAD) submitted by the importers.

In accordance with the Customs Act (2064BS), the presiding customs officer is also given some legal authority in Nepal.. Police often present the accused in the cases of smuggling, petty smuggling (such as illegal transfer of one or two livestock across the border) and any infractions related to customs directly to the presiding customs officer in the local customs office. The officer uses his paralegal power to decide these cases which frequently occur. Such instances were witnessed during our visit. Bhairahawa customs saw 508 cases registered in FY 2068/69BS, out of which 482 were cleared, and showed relative speed in adjudging cases compared to the Nepalese courts which are notoriously slow. The customs office also auctions off goods that are either unclaimed or illegally imported. In FY 2068/69BS, for example, there were 394 registered cases of goods being auctioned. Such auctions are conducted by public bidding, with the highest bidder taking the goods by paying his own bid amount (as opposed to Vickrey auction, for example). For appealing decisions, the higher legal authority after the customs officer is *Rajashwa Nyayadhikaran*, but some cases may also be taken directly to the Supreme Court.

Given the importance of Bhairahawa customs, the customs premises have been regularly targeted for the upgrade in recent years. It is equipped with the facilities of ASYCUDA, Wide Area Network(WAN) (which has enabled the real time monitoring of the customs office by headquarters and also enabled quick decision making), Broker Module (to computerize the single administrative document submission by the agent) and Selectivity Module (to ensure that decision making regarding the categories of imported goods is made easier).

The customs agency coordinates and coexists with many governmental agencies, the list of which is given at the final paragraph of this chapter. The Department of Customs runs a lab on the ground floor of its central office in Tripureshwar (Kathmandu) which is mainly

¹ (NB. Nepal uses Bikram Sambat(BS) as its official year, which is approximately 56 years 8 months and 15 days ahead of Anno Domino(AD). The financial year in Nepal begins from the first day of the fourth month of the year; the approximate equivalent to 15 July. Throughout this report, unless a year is followed by BS, it should be understood in the format AD).



assigned the task of identifying chemical compositions of the imported goods, when necessary. There are three quarantine offices in Bhairahawa, for livestock, plants and processed food items. Plant and livestock quarantines are located very close to the customs yard, while the quarantine for processed food items is about 8 kilometers to the north of customs. The distance involved contributes to the delay in custom clearance **(please see attached map for the location of all three quarantines)**.

During office hours, both the main customs office and customs yard are reasonably crowded. Although paved over a long time ago, the customs yard becomes muddy and waterlogged during the rainy season and is in need of reconstruction. There is a cafeteria for workers and officers of customs, but it is not big enough to cater for all potential customers effectively. There are many cafeterias outside of the customs yard, which are popular with the workers, unlike in Birgunj customs yard where staff, in particular automobile workers, often sit right inside the customs yard and cook their food.

Bhairahawa is named after the Hindu deity Bhairava. It is an old and an important city, and nearby Lumbini, the birthplace of Buddha, dates back at least 3000 years. An ongoing major archaeological expedition, led by Durham University professor Robin Coningham, is taking place nearby to establish the age of old settlements and the role of Buddhism in the area.

The area of the municipality is 36.02 square kilometers. The main bazaar of the city is 3.5 kilometers from the border and the population stands at 163,483 as per the census report of 2011AD. Bhairahawa is the major town of Nepal and is known as the gateway to Lumbini.

On the other side of the India-Nepal border is Sunauli, a relatively small city located 8 kilometers from the larger city of Nautanwa. There is a narrow gauge branch of Indian Railways which links Nautanwa with other parts of India, but passenger trains are not regular. Nautanwa is approximately two hours' drive from Gorakhpur, a major Indian city, whilst Bhairahawa is 793 kilometers from New Delhi and 926 kilometers from Kolkata.

There are thirteen wards (the most elementary administrative division) in the Siddharthanagar municipality, the official name for the municipality that includes city of Bhairahawa. The city was upgraded to the status of municipality from village development committee (VDC) in 1990, as a result of a recent growth in population. Lumbini is only 25 km away to the west of Siddharthanagar.

Bhairahawa customs were established in 2013 BS (1956), over an area the size of 4-1-0-5 (4 bigah, 1 kattha, 0.5 dhur). The area itself has a very important history. In 1813, the East India Company declared war on Nepal after the Nepalese refused to accede to demands that the customs inspectors be allowed to collect revenue from there. The war continued for almost two years, culminating in the Sugauli Treaty of 1815, which provided a foundation for Nepal's relationship with former British India and, later, independent India.

There are several agencies inside or near the customs office which affect the customs clearance process. They include *Rajashwa Gashti Toli* (Revenue Collection Squad), *Janapath Prahari* (Nepal Police), *Rajaswa Anusandhan* (Revenue Investigation Bureau), *Rashtriya Anusandhan* (National Investigation Bureau), District Administrative Office, and three quarantines (plant quarantine, livestock quarantine and food quarantine) related to the Ministry of Agricultural development (plant, livestock and food). There is also a branch of the Ministry of Forest that advises customs officers on whether goods being imported are included in the prohibited list (such as CITES list). The narcotic division is mainly handled by Nepal Police, though there are calls for it to be treated as a separate unit. Two quarantines - livestock quarantine and plant quarantine - are close to, but outside, the customs yard and plant quarantine has its own laboratory. As per information provided by the chief of the office, the average time taken for clearance, conditional on the quarantine office being



consulted, is about 2 hours. The maximum time taken for quarantine clearance is one week if the goods are to be tested at Kathmandu. Approximately 95% of imported goods get clearance from this quarantine within two hours and rest within one week.



SECTION 2

A brief note on how customs work

In ancient times, Nepalese trade was limited to India and Tibet. During the time of the British Raj in India, Nepal was reluctant to have any kind of relationship with its southern neighbor and chose to trade more with Tibet in the north, with whom Nepal could be a more dominant partner.. A specific tariff rate was fixed on goods traded with Tibet, but both fixed duties and ad valorem rate were used on the goods traded with India. Until 1945, there was no system of price declaration by the traders and customs officials used to inspect and value the goods as per their discretion. As such, different valuation practices were used in different parts of the country and there was no uniformity in the valuation of similar goods.

During the Rana regime (1846-1950), the government directives which were known as *Sanads/Istihars* were taken as a base for valuation and tariffs. In 1945, the previous *Sanads* were removed and a government directive known as single *Sawal* was introduced, implementing for the first time in Nepalese history the declaration of goods in customs points by the importer. Under the provision of the Trade Treaty between Nepal and India in 1950, Nepal would get refunds of Indian excise levied on goods imported to Nepal directly from Indian manufacturers. Importers would declare the value of goods and submit the invoice to customs, where officials would verify the prices of goods using the references of other similar goods between India and Nepal. It can be said to have paved the way for a new era of rule of law within the Nepalese context. The tariff board and customs commission office was established in 1957, and was further systematized following the introduction of the Customs Act in 1962. The valuation declaration system was implemented as per the act, and included the introduction of the Valuation booklet and the start of an official record keeping system.

The most recent laws governing the management of customs include the Financial Ordinance, 2005 and 2006, the Financial Bill 2006 and the Customs Act, 2007.

The valuation methods for the base of customs tariffs described in the Customs Act, 2007 are as follows:

1. Valuation based on the transaction price;
2. Valuation based on identical goods;
3. Valuation based on similar goods;
4. Computed Method for valuation;
5. Deductive Method for valuation and;
6. Fall Back Method

If the valuation according to method #1 could not be calculated, customs officials go to method #2. If that is also not possible, then they go to #3, and so on to #4, #5 and #6. This ordering is lexicographic and must be done only if the prior method is not possible.

The valuation is often affected by provisions outlined in bilateral (and multilateral) treaties. An example of such a major provision is as delineated in the Duty Refundable Procedure (DRP) in the trade with India. Whenever imports are made on DRP basis, the importers should pay lower tariff in customs because the excise duty paid in India is deducted when a tariff is calculated. Customs get a refund of such duty in full from India. To claim the lower



rate for DRP imports, customs require that the importers submit (a) Packing list (b) Invoice (c) Permission letter from a relevant government agency and (d) DRP form. As per the agreement, importers should import through 24 customs, including Bhairahawa, to receive a rebate.

Some goods go through an Indemnity bond (in bond) process primarily to address the concern over leakage by India. These goods are imported against convertible currency from the third country (i.e. not India) and normally importers making a commitment to bring these goods to Nepal and India hold bonds for them. The Nepalese customs requires (a) packing list (b) invoice (c) permission for import from government agencies (d) in-bond form (e) *Bibini* (foreign currency exchange approval form) and other related banking documents. In India, no tariff is levied on goods exported to Nepal against foreign currency.

Imports other than in-bond and DRP are considered local purchases. They require fewer documents for clearance, namely (a) packing list, (b) invoice and (c) permission for import from government agencies.

The Customs Act also delineates the kind of trade that can happen at the border, for example only commercial banks are allowed to import gold (limited to 15 kgs per day). Only goods that are produced in India can be imported from India, and similarly Nepal can export to India only the goods produced in Nepal (goods imported to Nepal from third countries cannot be exported to India). However, imported goods can be re-exported to other countries (excluding India) without any physical transformation. In this case, the importers should submit an application form along with other documents to the customs. Customs ask the importers for a deposit of chargeable duties if they intend to export goods after some time. They must re-export such goods within six months from the date of importation, upon which they receive 90% of their deposit of chargeable duties back.

If an importer states valid reasons and requests that customs carry out the inspection of the goods outside of the yard or at a place other than customs, officers may, with the approval from Director General of the Department of Customs, do so. In this case, the importer must pay Rs.1000 per consignment and arrange a vehicle if required.

Pass book facilities can be provided by some designated customs offices to the industries which have not acquired a bonded warehouse. In general, bonded warehouses are approved by the DOC for storing raw materials, auxiliary goods and packing goods, with the expectation that finished goods are exported within 11 months from the date of import. Such industries should deposit cash of chargeable duty on imported goods and cash. Bhairahawa customs is one of the customs authorized to avail such facilities to the customers.

The regional office of livestock quarantine is located near the customs. However, apart from a very basic laboratory it has only limited facilities. A shed is located in the customs yard near to the warehouse, where livestock can be kept for checks. The main laboratory belonging to the quarantine office is in Kathmandu and the nearest regional lab is at Pokhara. It takes an average of around 6-7 days to receive a report from central lab, if needed..

There are no separate food quarantine facilities in Bhairahawa customs, however, the Regional Food Technology and Quality Control Office has taken responsibility for carrying out the functions of food quarantine. This office remains closed on Saturday, and is located about 8km to the north of customs. Both the distance and limited opening contribute to delays in the customs clearance process.



Besides these, there are other sources of delay for the importers. One such delay is the need to obtain approval (an Import Permit) to import the following goods with the following agencies:

- (a) Permit from Ministry of Finance, Department of Inland Revenue for import of alcohols
- (b) Approval from Ministry of Commerce and Supplies, Department of Commerce for import of poppy seed
- (c) Approval of Ministry of Environment, Science and Technology for the import of old clothes, metals, plastic goods, second hand machines by the trading firms
- (d) Approval of Ministry of Environment, Science and Technology for the import of gas and other restricted materials affecting the ozone layer
- (e) Approval from Ministry of Commerce and Supplies, Department of Commerce for the import of raw wool
- (f) Approval from Ministry of Health and Population, Department of Drug Administration for the import of drugs
- (g) Approval from Nepal Readymade Garment Association for the import of fabrics (raw materials) from India against convertible FCY
- (h) Approval of Ministry of Agriculture and Co-operative, Department of Food and Technology and Quality Control for the import of the following food items: (a) Milk and powdered milk (b) Raw and refined edible oil and (c) Processed drinking water
- (i) Approval of Ministry of Agriculture and Co-operative, Department of Food and Technology and Quality Control for the import of fruit and water based non-alcoholic, fruit juice and beverages
- (j) Approval of Ministry of Commerce and Supplies, Department of Commerce for the import of furnace oil and light viscosity oil, not to exceed the prescribed quantity

Similarly, approvals are required from the related departments for less commonly traded items such as those of archeological value, goods used in the hydropower and movie industries, aircraft parts, ICT items, and duty- free goods for foreign diplomats etc. Roughly 50 government agencies are authorized to issue such permits.



SECTION 3

Methodology

As in past surveys, the surveyors were placed at the following sites: Indian inland area (at the end of the queue in Indian side of customs), Indian customs, the Nepalese borderline, entry point of the Nepalese customs yard, at various points inside the customs yard (so as to capture the information on initial verification time, inspection time, import charge payment time and transloading time), at the exit of the yard, and in Nagdhunga (Kathmandu). As such, the surveyors were able to capture accurate information on the timing of trucks arriving and passing through the Indian customs en route to Nepal.

Each surveyor was asked to write down the vehicle number passing through the post they were stationed at. Inside the Nepalese customs yard, where many trucks, usually with Indian number plates, were transloaded to other trucks with Nepalese number plates, the surveyors were asked to note the number plates of the new trucks. Note that in the absence of such information, we wouldn't be able to calculate the total hours taken by the trucks to reach Nagdhunga (Kathmandu) from Sunauli, or to calculate the total time spent inside the yard.

There is a warehouse in the customs area owned by Nepal Intermodel Transportation Development Board (NITDB). Located on the western side of the yard, the warehouse was full of goods and was active throughout the survey period. There are two open sheds in the yard; one is generally used for retail goods and the other for high volume goods. Bhairahawa customs seem relatively well organized in comparison to Birgunj customs: there is an inspection office in the first yard and there is a shed assigned for quarantine where livestock are kept for thorough checking.

Many trucks store their goods in the warehouse if these are not being immediately released (further details can be found in the section "Clearance process in the yard of Bhairahawa Customs"). Due to the relatively short duration of our survey period and since these goods generally take a long time to be released; we have not been able to accurately capture the total time spent by these goods inside the customs yard. When possible, we have tried to capture the data on the trucks offloading their goods in the warehouse but the absence of detailed information lends a downward bias to our total estimate of the yard time.

3.1 Clearance process in the yard of Bhairawa Customs

This chapter provides detailed information on how the clearance process works in the Bhairahawa customs yard.

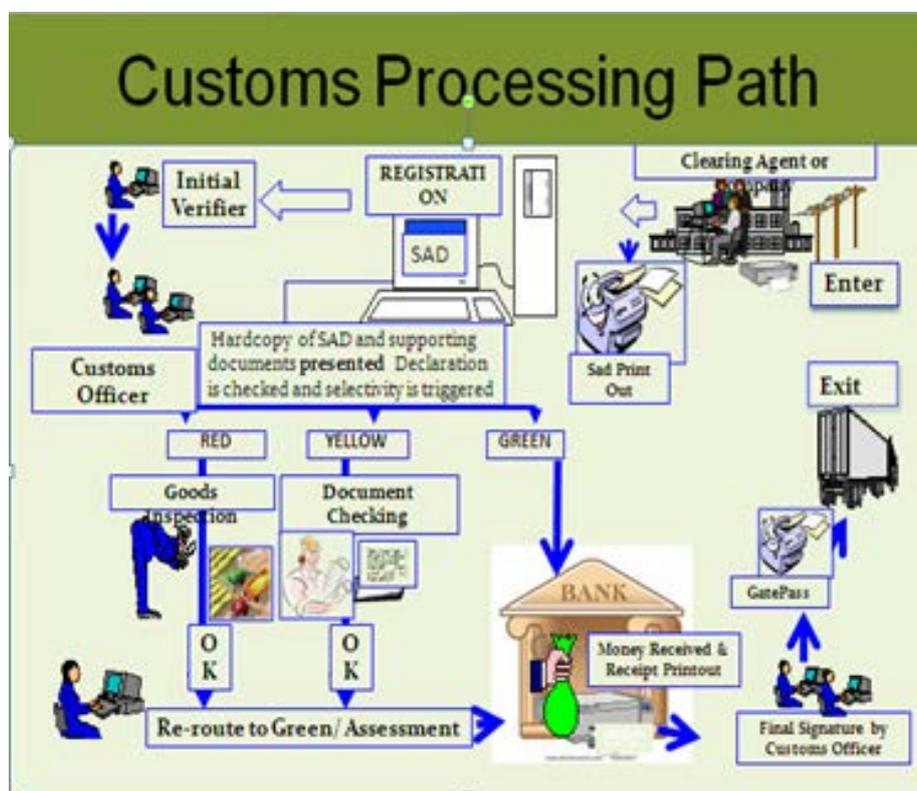
Figure (1) below provides details for the whole customs process inside the Bhairahawa Customs Yard. In summary, the processes are given as follows:

- First, the agents or their representatives should fill all required information in the ASYCUDA system on the computer. The agents are provided the password to operate this system and if the password is misused, agents are held responsible. There is a separate room for the agents to print declaration forms, known as pragyapan patra in Nepali language. They include details of the importer, exporter, financial institutions, mode of payment, transportation, tax amount and total value as

per invoice. The agents may complete these documents before the truck arrives in the yard and many choose to do so.

- The application is registered automatically in the customs and noted by the officers. Two copies of SADs are printed out and submitted with other documents to the concerned officers.
- The selectivity module in ASYCUDA directs the Examination Channels to the goods arriving in the customs office for inspection and release.
- Based on the declaration form registered in the computer, the goods are directed to one of the four channels: for physical examination through the red channel, for documentations examination through the yellow channel; release goods through post clearance audit (PCA) through the blue channel and release goods without any examination through the green channel. The basis for such categorization is risk on revenue, trade, goods and other activities.
- Goods marked for inspections are then subjected to the inspections (see below for further clarification of this process), which may also involve one of the three quarantine agencies (plant, livestock or processed food). If the officers are satisfied following verification checks, they sign the documents; otherwise goods are kept in the yard for rechecking.
- Once the verification is made and customs tariff assessment is provided by the inspectors, the importer/agent should pay the customs tariffs at the counter of Rastriya Banijya Bank, following which they receive a certificate of payment.
- The importer/agent should submit SAD, tax receipt, commercial invoice and transportation document to the customs. If the presiding chief inspection officer on duty is satisfied, he/she will sign in the documents.
- On the basis of the signed documents, the vehicles are released.
- The vehicles should submit the gate pass to the exit gate of the customs to exit.

Figure 1 Schematic Representation of the processing path in Bhairahawa Customs)





Bhairahawa customs remains open on a Saturday, which is a holiday in Nepal. The official closing time on Saturday is 12.30 PM but the office remains operational until around 3.30 PM due to the high workload. The local office of Rastriya Banijya Bank works in time with the customs, however only one counter of Rastriya Banijya Bank is open on a Saturday and all other counters remain closed. As such, many importers cannot obtain the release of vehicles due to a lack of funds and other related documents. It was observed that the vehicles from the Indian side were still coming to the customs yard after they had closed on Saturday.

Indian customs also remain open on Sunday, despite the holiday there. Following discussion with the Indian customs officials, they do not have their own yard for inspecting vehicles and generally do not check the goods in the customs area. When they have to carry out checks, they do it on the side of the road beside the Indian border.

Finally, the customs office also has an additional post inspection system in place. There exists an office, *Bhansar Jaachpaas Parikshan Karyalaya* (Customs Clearance Inspection Office (CCIO)), established in 2064BS (2007AD), which has the authority to go to the warehouse of the importer and inspect the goods, as well as compare the price given in the SAD with the international market rate and in the case of any discrepancies, initiate action against the importer. The agency can do this at any time within 4 years of the import date, if it finds evidence of false representation regarding the characteristics related to imports. If CCIO asks an importer to bring the necessary documents and clarify their transaction, they have to travel to the office of CCIO in Kathmandu and explain their transaction to the relevant officer. It is of great inconvenience to the importers who are not from Kathmandu (for example from places like Nepalgunj) and customs officers agree that there is an urgent need for a CCIO office in places like Birgunj and Bhairahawa, since they handle the majority of imports. As such, CCIO may also contribute to the delay associated with border crossing, but we have been unable to address this during this survey.

3.2 The Warehouse inside the Customs Yard

There is, as explained earlier, one warehouse owned by NITDB. It has the capacity of 3,000 metric tons and is located to the western side of the yard. During our survey, the warehouse was full of goods. There is no charge for storing goods in the warehouse for one day. For goods kept from 2 to 8 days, the charge is Rs.96.679 per ton, for the goods kept from 9 to 30 days, the charge is NPR 128 per ton and NPR 193 per ton thereafter. Currently, the charges escalate by 10% every two years. According to the staff, the internal evaluation shows that on average goods are kept there for 6 days, though this can range from 1-15 days. The main reasons for unloading and keeping the goods in the warehouse are (a) not having the documents ready to clear customs and (b) an unwillingness or incapability of the importers to clear the goods on time due to not having funds for clearance. Generally goods which originate in a third country (that is, besides India) are imported through a letter of credit (LC), and the importers can take more time than initially expected to collect documents from the bank in which their LC was opened.

There is a separate place inside customs to keep the goods which require further checks. This area is known as *litigation*, and can also be used to hold any goods which are expected to be auctioned off.

The warehouse plays an important role in calculating the total customs yard duration for trucks. As explained previously, the warehouse omission from our data puts a downward bias on the estimate for total time inside the yard. At a minimum, the nature of goods stored is unknown (though computer hardware were seen), and the average period of storage in



the warehouse was not calculated. Furthermore, almost every truck carries goods that require 20-30 SAD documents to be fulfilled and many of these trucks are owned by transporters, with each truck generally carrying goods belonging to many petty importers. When asked, the local authorities declared it unlikely that some of the goods carried by the trucks are stored in the warehouse, while others go through the inspection process directly. However, a better understanding of when these goods are released and who claims them, and the identification of sources of delay related to the goods stocked inside the warehouse, may clarify our understanding of the border crossing process further.

3.3 Transloading Inside the Yard

A number of goods are carried to the Nepalese border by Indian trucks and are later loaded in Nepalese trucks from inside the yard. Indian vehicles plying the Nepalese border is actually a very politically sensitive issue, and leftist political parties regularly condemn such free travel. Nepalese truckers also complain that while they are asked to pay a hefty bond if they want to go to Kolkata and take Nepalese goods, Indian trucks are allowed easier access to markets in Nepal. There is also a surplus of trucks inside Nepal, and truck owners are somewhat resentful of Indian trucks in Nepal.

At the customs in Bhairahawa, many vehicles arriving from India at the yard have Indian number plates. Once these vehicles and the goods they are carrying are checked and cleared by customs officials, some of them leave for different destinations in Nepal, while others transfer goods to Nepali Trucks/vehicles for transit. The following reasons for and against transloading to Nepalese trucks were given:

- (a) Some Indian vehicles are very large in size and cannot easily pass through mountainous roads, thereby necessitating the transloading of these trucks if the final destinations are in the mountains of Nepal.
- (b) Indian vehicles wishing to ply Nepal must adhere to the following policies: (i) if the trucks are empty, a fee of Rs 800.00 per day (plus 13% VAT) must be paid. After that, they must pay Rs 1000.00 per day (plus 13% VAT). In a given calendar year, these trucks can enter Nepal for a maximum of 30 days. (ii) if the trucks are loaded, they can travel free of cost for the first 72 hours. Thereafter, they must pay Rs 800.00 plus VAT (13%) per day. The maximum 30 day constraint is also applicable to them. (iii) Small vehicles, such as cars, must pay Rs 400.00 per day (plus 13% VAT) and are also subjected to the maximum 30 days constraint. These policies can make it more profitable to transload, rather than to continue from the customs yard, especially if the weather or political climate introduces uncertainty regarding the total expected transportation time within Nepal.
- (c) Indian vehicles carrying fragile goods may choose not to transload to Nepalese trucks in order to minimize the potential damage caused by such intervention. Many Indian vehicles are also seen carrying goods to Rupandehi (surrounding areas of customs) and thereafter change the goods to either Nepalese trucks or deposit them in the warehouse, as they perceive that it is not beneficial to change the vehicles from customs.

Up until about fifteen years ago, all goods used to be unloaded and kept in the yard for thorough verification by customs' officers and the goods were arranged as per the types of cargo. All goods were checked by the officers using the documents as reference, made possible as the volume of trade was much lower at this time. However, the increase in imports from countries such as China has made such detailed checking almost impossible and it is now more typical to see the inspectors checking sample goods, rather than going through the goods in detail.



It is also observed that, while many trucks customarily go through customs and enter the complicated process of having to check everything, other trucks, mainly those carrying iron, cement, clinker and oil pass through directly without entering the yard.

3.4 The Role of Agents

As noted above, the first step inside the customs yard involves the agents who prepare documents on behalf of the importers. Nepal's experience with customs agents is relatively new: measures were taken circa 1962 towards officially recognizing agents, but the initiative was quickly terminated. In fact until 1997, there were no agents in customs, and importer's representatives holding power of attorney took care of the work currently being carried out by customs agents. After soliciting applications from the general public, the government appointed 240 customs agents in 1997 and implemented a new system under which only licensed agents could operate in border controls. Full training was provided and three years later a further 247 agents were recruited, though many of these were found to be lacking in necessary skills (including computer literacy, which is increasingly relevant to the job role). At present, there are approximately 250 active agents across the country, 56 of who are actively involved in the clearing process of goods in Bhairahawa customs. Among these employees, many have now left as they did not receive sufficient work or because the changing nature of the job meant that they were unable to meet the requirements. Paperwork was initially completed by hand but agents are now expected to be fully computer literate and adept at using Broker's Module and Single Goods Entry System. Such advanced technical requirements may also be responsible for the attrition observed in a number of agents.

Customs agents have their own national organization: *Nepal Bhansar Agent Mahasangh* (Nepal Customs Agent Federation), with branches in almost all the customs offices, including Bhairahawa. The federation's stated goal is to be intermediary between the customs administration and the agents, and to let agents know about any future changes in customs rules and regulation. In cooperation with the customs department, the organization also trains agents on the use of new software being adopted by customs offices.

3.5 A Note on Method Used to Estimate Inspection Time inside the Yard

A brief explanation on the methods used to calculate the inspection time spent in Bhairahawa customs yard is provided below.

Upon entering the yard from the Indian side, there is an inspection department in the first shed encountered which also contains a head office. The non-officers inspect the goods in the open shed before they are generally carried out by small, non-motorized vehicles to supply the market area near to the customs office. As these vehicles do not have any truck number attached to them, they have not been included in the survey data.

Goods passing through the second shed (the inspection area) are then loaded in the trucks which service different parts of the country. Although many of the customs activities start by 9.30 AM, the inspection of goods does not begin before 2 PM daily. However, goods were observed thoroughly by officials and the number of trucks observed in the yard was manageable. On occasion, all goods are unloaded and checked, but more generally a sample is collected for inspection. Four inspectors were present at customs throughout the period of our survey. In Bhairahawa our surveyors were able to capture the time of inspection directly, unlike in Birgunj customs where this was not possible.



With the help of customs officers, we were able to implement a system in which agents shared a copy of the submitted SAD to our surveyors during the initial verification process, allowing the number of trucks to be monitored more easily. Once submitted, the SADs were divided into green, blue, yellow and red channels by the customs software, which also records the time taken for initial verification. Records taken by the two surveyors were verified at the end of day, when necessary, by the coordinator who had the access to customs software.

To calculate the time spend accessing funds, data collectors were posted inside the bank and tasked with capturing the time taken by customers to make tariff payments and the time taken to make complete payment. The difference between these two times was calculated as the time required to pay the tariff at the bank and this time should therefore be correlated with the length of bank queue during those periods. Unlike in Birgunj, it was observed that customers did not need to queue to pay the tariff in Bhairahawa. The main reasons for this were: (1) there were a sufficient number of tellers in the bank who could quickly process the payment of customs tariffs; (2) the number of customers using Bhairahawa is lower than that of Birgunj customs.

Similarly, surveyors were placed at the sight of transloading and so the times taken were recorded by observation.

3.6 Report on Timing

The surveyors were placed in different locations to capture data, as detailed below:

- 01: Surveyors were stationed in front of the Indian customs at Sunauli and were required to be at the end of the queue at all times.
- 02: The surveyors were stationed at the Indo-Nepal border, near the Indian customs office.

The difference in times given at these two locations (01-02) shows the time taken for a vehicle to clear Indian customs, inclusive of waiting time.

- 03: The surveyors were posted at the entry gate of the Nepalese customs.

Notice that the difference between 03 and 02 shows the time taken for a vehicle to reach the yard from the Indo-Nepal border after clearing the Indian customs.

- 04: Surveyors were stationed at the SAD submission office in Bhairahawa customs, in order to capture information about the time of submission.

The difference between 04 and 03 shows the time taken for a truck to submit the SAD after they enter the yard, however not all trucks/vehicles correlate with each other as agents generally submit the SADs in advance when the trucks are on the way to Nepal, but not yet inside the yard, for faster customs clearance.

- 05: Surveyors were located at the customs office where segregation of vehicles into different categories (initial verification) takes place.

The difference between 05 and 04 shows the time taken for initial verification.

- 06: Surveyors were situated inside the inspection yard, allowing them to record data on both the entry and departure times.



The difference between these two times shows the time taken for the inspection in customs.

- 07: Surveyors were stationed in the bank and recorded the times of when the individual began to queue and when the payment transaction was completed.

The difference of these two times shows the time taken for tax payment in the bank.

- 08: Surveyors were posted at the transloading place in the yard and recorded the beginning and end times of trans-loading, indicating the time taken to complete the transloading process.
- 09: Surveyors stood at the exit gate of Bhairahawa customs and recorded the data of the vehicles leaving the yard and those coming directly from India without entering the yard.

The difference between 09 and 07, and 09 and 02 show the time taken for a vehicle to leave the yard after tax payment at bank and the whole time spent in the yard (conditional on the vehicles leaving the yard) respectively.

The results from our survey are reported in this section.

Table 1 at the end of the report provides summary statistics about the total number of trucks surveyed. The number has visibly increased compared with the past (unlike the last survey which was conducted over 3 days, and the numbers at all posts were more than half of what we had reported in June). This increase is somewhat predictable however as the number of trucks increases during the festival season.

Further detail is provided below:

a) Time Spent in Indian Customs queue

A truck arriving at the Indian customs spent on average 20.08 minutes, with the standard deviation being 13.79. Many trucks took only 1 minute to pass through the customs and the maximum time recorded during this survey was 109 minutes. The median time taken was 18 minutes, and these figures have remained stable over the last three surveys. The distribution is right skewed, with the long tail in the right, and is similar to what we observed in the previous surveys. (Figure 1a)

In the October survey, the average time taken by trucks to reach the Indo-Nepal gate from the end of the queue on the Indian side was 21.41 minutes, with a standard deviation of 15.72 minutes. The maximum time taken by a truck during the survey period was 128 minutes, and the minimum was 1 minute. The median time was 20 minutes. These numbers are slightly less than those reported in June, when the corresponding average time was 28.3 minutes, with a standard deviation of 20.6 minutes. The median truck took only 25 minutes to cover this distance. The distributions are very similar in both June and October: right skewed, with long tail in the right (Figure 1b and 1c).

The times reported are similar in all three surveys.

The Indian customs depot is very small, and occupies a space befitting a small tea stall. Staff often seem to be in a hurry to let the trucks through as the highway in front of the customs office is fairly narrow, and any long queue would likely cause nuisance to the local business community. When it comes to export-related procedure, the customs office seems to be operating very efficiently. In conversation with the chief of customs, he emphasized how they actively try to minimize the waiting time on the Indian side.



Mathematically, the system is a typical M/G/1 queue process. It is believed that the approximation of total waiting time in the system and average number of trucks waiting for service is possible by assuming a poisson arrival process for trucks, exponential service time at the customs depot and one queue (M/M/1). However, this calculation process isn't currently being pursued as modeling these systems requires additional time and is beyond the remit of our currently assigned task.

b) From Indian customs office to Nepal Border (virtually same as the entry gate of Bhairahawa customs)

Trucks arrived at the customs yard from Indian customs office within an average of 3.04 minutes, a figure similar throughout all the surveys carried out so far. The standard deviation is 2.86 minutes, with a minimum time of 1 minute and maximum time of 16 minutes. The median time was 3 minutes. Furthermore, the distribution of the travel time was identical to the distribution found out during the October survey (Figure 2a).

In October it was found that trucks arrived at the customs yard, on average, within 3.11 minutes of leaving Indian customs, with the standard deviation being 2.71. The maximum and minimum times taken were 15 minutes and 1 minute respectively. The median truck took 2 minutes. The corresponding number for June survey was 3.3 minutes, with the standard deviation of such time duration being 2.7 minutes. The median arrival time in June was 3 minutes. The distribution of such arrival has varied slightly in this survey (figure 2b) when compared with June (2c). In June it was smooth, right skewed and had a long tail to the right.

c) Initial Verification inside yard

Two components of initial time verification inside the yard were calculated: time for submission of SAD after vehicles enter the yard, and the actual time to make a decision on SAD once it has been submitted.

During the current survey, the average time taken by the trucks for submission of SAD from the moment they entered the yard was 106.48, with the standard deviation being 79.85. The minimum recorded time for this was 3 minutes, the maximum time was 447 minutes and the median time was 78.5 minutes. The distribution is relatively smooth and single peaked, unlike in the past two surveys where we noted some indications of double-peakedness (figure 3a).

During the survey carried out in October, the average time taken by trucks for submission of SAD after entering the yard was 88.67 minutes, with standard deviation being 67.4 minutes. The minimum recorded time was 34 minutes, and maximum recorded time was 347 minutes. The median truck took 72 minutes. During the June survey, it took 123.1 minutes on average for the trucks to complete their SAD submission. The median time was 96 minutes and the standard deviation was 93.3 minutes. The distributions are relatively similar: right skewed and almost two peaks (see figure 3b and 3c).

The initial verification itself was relatively swift. The average time taken was 4.16, with the standard deviation being 2.52. Minimum recorded time for this was 1 minute and the maximum was 13 minutes. The median time was 4 minutes. During the October survey, the average time for initial verification was 5.78 minutes, with standard deviation being 5.53 minutes. The maximum time taken for verification was 60 minutes and minimum was 2 minutes. The median verification time was 5 minutes. In June, the numbers were virtually indistinguishable. The average time was 5.9 minutes, with standard deviation being 6.9 minutes. Minimum time taken was 1 minute and the maximum time taken was 75 minutes. As figure 4a and 4b shows, the distribution looks almost the same for both survey periods.



As previously discussed, measuring the time for initial verification is generally one of the most complex tasks. The agents may file the SAD before the trucks arrive in the yard, or they may not use the facility inside the yard to file the report. They fill the SAD early to avoid the parking charge inside the yard and expedite the time spent there (however, in practice, we found that most of the agents fill the forms when the truck is already in the yard or are about to arrive inside the yard.). Agents normally use a room inside the yard to fill out the document and print it. This office generally opens long before inspectors arrive at their office. The task is further complicated by the fact that one agent may fill out the form for many trucks. Trucks are also varied by the types of goods they carry: since the transporters may be carrying different types of goods for different owners, some trucks may have only one type of good, whereas other trucks may have several types of goods. It is natural to expect a lot of variation in the time for this process.

d) Inspection inside the customs yard

It was found that the inspection time has fallen by almost 50% since the last two surveys (which had identical inspection times), and that the distribution of this inspection time has also varied. On average, it took 7.99 minutes for the inspection, with the standard deviation being 4 minutes. The minimum time was 2 minutes and the maximum was 20 minutes. The median time was merely 6 minutes. A large reduction can be seen in the maximum time as well, with the distribution given in figure 5a.

During the October survey period, the average time for inspection inside the customs yard was 14.29 minutes, with standard deviation being 13.6 minutes. The median truck took 11 minutes. The minimum time required for inspection was 5 minutes, and maximum time was 100 minutes. The corresponding average time for June was 13.75 minutes, with the standard deviation given by 11.8 minutes with the median time given by 11 minutes. The distribution (Figure 5b) is slightly skewed to the right. The distributions of October and June (5c) are similar again.

Goods awaiting inspection are placed in the shed, which is generally occupied during the day, but customs office staff seems to be there almost all working hours. Goods appear to be dispatched quickly following inspection.

e) Payment of tariff in the bank

On average, each truck spent 9.85 minutes paying the tariff in the bank, with a standard deviation of 11.58 minutes. The median time taken was 6 minutes. The minimum recorded time was 1 minutes and the maximum was 69 minutes. The distribution for the time spent in the bank was identical to that reported in June. Most of the mass were near origin, but some trucks took a long time, and hence there was a long right tail. The average time is stable in all three surveys.

During the October survey, the average time for payment in the bank was 10.35 minutes, with the standard deviation being 7.42 minutes. The median time was 8 minutes. The minimum and maximum recorded times were 1 and 27 minutes. While the mean time for this survey was similar to the previous survey, there were some very long delays in the bank in the June survey, and hence the distribution in June had a long tail. (See figure 7a and 7b). The average time in June was 9.3 minutes with the standard deviation of 14.7 minutes. The maximum time there was 190 minutes. Notice that this includes only the time spent in the queue inside the bank, where our surveyors were located. The median time for this process was 7 minutes. The time distribution is right skewed, and has a long tail, indicating occasional rush hour at the bank office. The rush at the bank was generally observed at around 4PM.



f) Transloading time

The transloading time has been remarkably similar in all three surveys. The average time during this survey is 63.9 minutes, with the standard deviation being 36.9 minutes. The minimum time for this was 14 minutes and the maximum recorded time was 283 minutes. The median time recorded for transloading was 58 minutes. The distribution is almost log normal, and is similar to the distribution recorded before (figure 7a).

During the October survey period, the average transloading time was 65.8 minutes and the standard deviation was 40.56. These figures are almost the same as ones for June. In June, the average was 73.6 minutes, with a standard deviation of 40.9 minutes. The distributions are also similar (see figure 7b and 7c) but the skewness is slightly different. The minimum time recorded for transloading in the current survey was 9 minutes. It was 10 minutes in June. The maximum was 214 minutes in current survey and it was 190 minutes in June. The median transloading time was 57.5 minutes during the current survey and 69 minutes during June survey. The average times reported are almost half the times observed in Birgunj customs yard. The time distribution looks similar to log normal.

As in June and October, we find that it takes twice as long to transload a good in Birgunj as opposed to Bhairahawa. There is not a priori any reason for the transloading time to be one half that of Birgunj. During the follow up visit to the two customs in June, it was deduced that several factors could have contributed to this discrepancy. The first may just be the contagion effect of the disarray resulting from the poor service and procedures carried out at Birgunj customs. The second possibility is probably more subtle. Upon talking to the loaders in Birgunj, it became apparent that there is some sort of Union which gives guidance on who can load a particular truck. While the impact of unions on efficiency of working is a debatable topic, (see a comprehensive work on unions by Richard Freeman and James Medoff (1985), "What do unions do?"), we suspect the unions could be a cause of such delay. Conversations with customs officials and truckers confirmed our suspicion, but since they were not very fond of loaders' unions, their opinion may be seen to be biased. In Bhairahawa, there was no evidence of such a union.

g) Time taken to exit the yard

The total yard time recorded during this period was similar to the one recorded during the October survey. The average recorded time was 169.8 minutes (2 hours, 50 minutes). The standard deviation was 93.58 minutes and minimum and maximum recorded times were 23 minutes and 472 minutes (7 hours, 52 minutes) respectively. The median truck took 153 minutes (2 hours, 33 minutes) to exit the yard. The distribution is given in figure 8a; it is not double peaked as it was during the last survey.

During the October survey, the total time taken for the vehicles to exit the yard after they enter it was, on average, 165 minutes, with the standard deviation being 100 minutes. The median time was 181 minutes. The minimum time was 28 minutes, and the maximum recorded time was 454 minutes. The average number during the June survey was 240.9 minutes (4 hours). The standard deviation was 122.4 minutes. Additionally, the median time was 219 minutes. The distribution is almost double peaked in current survey (8b) whereas it was almost single peaked with a long tail (see Figure 8c).

As discussed in a previously submitted report of Bhairahawa customs, if a customs is working efficiently we should be able to see double peaked time distribution for total yard time. However, despite the seemingly efficient functioning of Bhairahawa customs, double peaked distribution was not found during June and this survey as well. However, we were able to see some of the double peakedness during October's survey.



h) Time to go from Customs Yard to Nagdhunga (Kathmandu)

The average recorded time for a truck to arrive at Nagdhunga from Bhairahawa was 5626.35 minutes (3 days, 21 hours, 46 minutes). We collected data at Thankot for 10 days (as opposed to the normal 7 days) because taking data for only 7 days would record only those trucks that arrive in Kathmandu in quick time. In October, we were able to match very little data as it was only gathered over a period of three days. The standard deviations were 4151.6 minutes, minimum time was 626 minutes and maximum time was 12992 minutes (9 days, 0 hours, 32 minutes). The median recorded time was 5305 minutes. The distribution is given in figure 9a. It appears to be slightly double peaked, with an almost normal shape.

During the October survey, the average time for the trucks to arrive from exit point of the customs yard to the entry point of Kathmandu (Nagdhunga, Thankot) is 14 hours, 10 minutes (850 minutes). The standard deviation is 323 minutes, and the median truck took 731 minutes (12 hours 11 minutes). The minimum time taken was 9 hours, 55 minutes (595 minutes), and maximum time taken was 27 hours, 14 minutes (1634 minutes). It was a drastic reduction from our survey last time in which average time taken was 1 day, 20 hours, 33 minutes (2642.7 minutes). The standard deviation was 2420.7 minutes (1 day, 16 hours, 20 minutes). The median truck had taken 1737 minutes (1 day, 4 hours, 57 minutes). The distribution was right skewed with long tail and has an almost log normal shape.

During the October survey, we were able to match very few trucks (possibly because the festival was already in full swing). Two days after our survey was completed in Bhairahawa, data collection was stopped at Nagdhunga because of the festival. It has been concluded that three-day surveys are generally inadequate to capture the time taken for long distance travel.

The poor condition of the road between Naubise to Nagdhunga was noted during this survey, with vehicles reporting traffic blockade for about 4-6 hours. However, the road between Narayanghat and Mugling seems better than what it was during the last two surveys. During June survey period, the road condition from Bhairahawa to Narayanghat was excellent, except in Daunne hills where vehicles moved very slowly for 15 kilometers in extremely tortuous road. The road was relatively bad in Narayanghat-Mugling section, in particular about 10 kilometers between Juggedhi and Dasdhungha was under construction. Furthermore, 7 kilometers stretch between Jalbire and Mugling was very narrow, and precariously situated above the deep Narayani river. Many drivers spend the night in small motels along the Narayanghat Mugling stretch. The highway was narrow and in a decrepit condition on the Naubise-Nagdhunga (15 kilometers) stretch, and was under construction in at least two places during the survey period.

The road condition was not very poor during October and was reported to be similar to that observed during June period.

3.7 Problems Faced During the Execution of the Project

No problems were encountered during the execution of this phase of the project. We were provided a very cordial welcome by all the staff in the Bhairahawa customs office, as well as in Indian customs. In particular, we thank the local Member of Parliament Dipak Bohara, all the Customs officers in Bhairahawa, Managing Director of Nepal Intermodel, Ravi Parekh, police inspector Mohan Bahadur Khad and others who have been extremely helpful. We also received help from the heads of all quarantine sections. The customs officer on the Indian side (Salman) was also very courteous and extended us a warm welcome, providing us with help whenever it was needed.



Site Code	Total vehicle
Nautanawa (Indian Border)	2769
Nepal Border	3007
Entry point of Yard	2406
Agent's Office of SAD Submission	1570
Initial Verification	1391
Inspection Site	160
Bank	1917
Transloading	277
Nagdhunga	5935

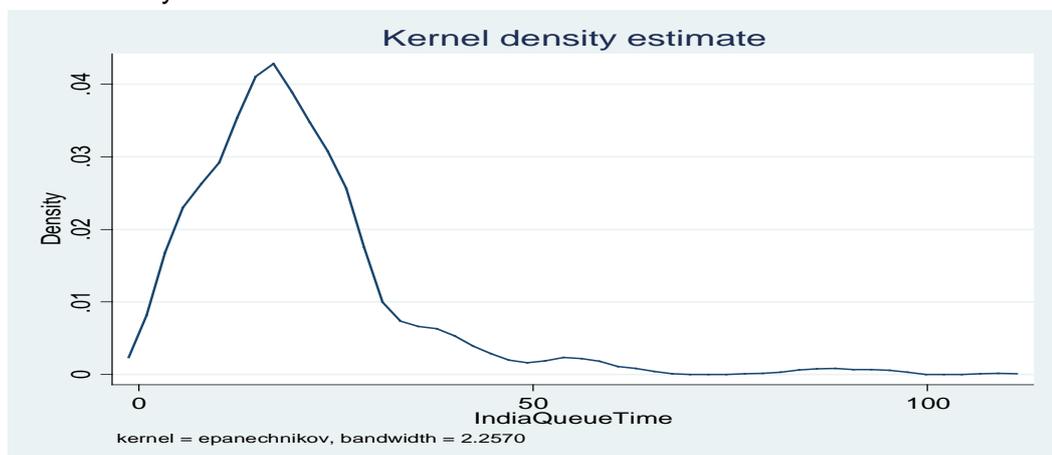
Table 1 Total Number of Observations in the Posts

Variable	Mean(in Minutes)	Standard Deviation (in Minutes)	Min	Max
Total Time In India Customs Queue	20.08(21.41)[28.3]	13.79(15.72)[20.6]	1(1)[1]	109(128)[99]
From India Customs Office to Nepal Border (Yard Entry Point)	3.04(3.11)[3.3]	2.86(2.71)[2.7]	1(1)[1]	16(15)[24]
Yard Entry- SAD submission time	106.48(88.67)[123.1]	79.85(67.05)[93.3]	3(14)[1]	447(347)[383]
Time For Initial Verification	4.16(5.78)[5.9]	2.52(5.53)[6.9]	1(2)[1]	13(60)[75]
Inspection Time	7.99(14.29)[13.7]	4(13.61)[11.8]	2(4)[2]	20(114)[89]
Bank payment Time	9.85(10.35)[9.3]	11.58(7.42)[14.7]	1(1)[1]	69(27)[190]
Transloading Time	63.90(65.89)[73.6]	36.92(40.56)[40.9]	14(9)[10]	283(214)[190]
Total Yard Time	169.8(165.9)[240.9]	93.58(100.2)[122.4]	23(28)[24]	472(454)[635]
Bhairahawa To Kathmandu Time	5626.35(850.1)[2642.7]	4151.60(323.18)[2420.7]	626(595)[577]	12992(1634)[11946]

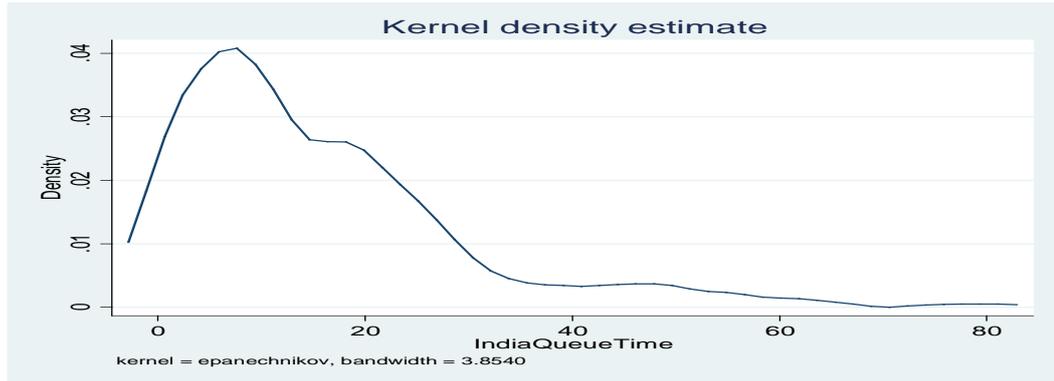
Table 2 Summary Statistics of Time Required (Numbers in parenthesis are corresponding data from October Survey and the numbers in bracket are corresponding data from the March Survey, where applicable)

Figure 2 Density Estimate for the time spent queuing in Indian customs

a) Current Survey



b) September-October survey



c) June Survey

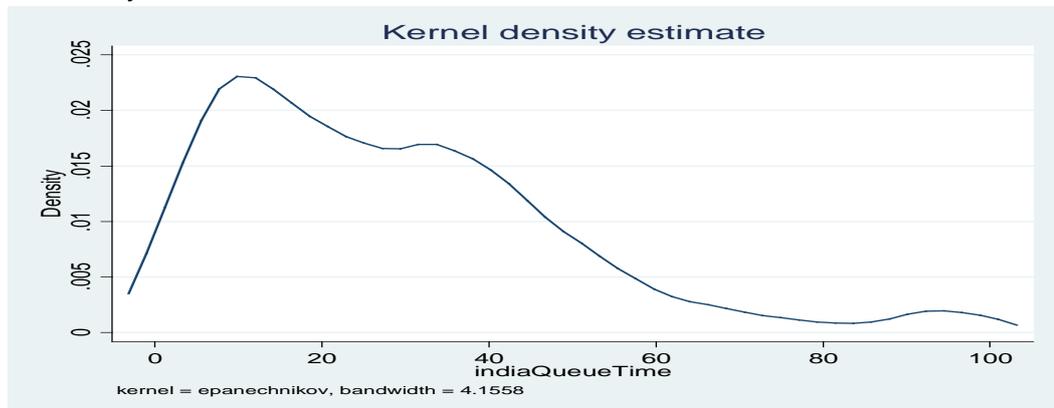
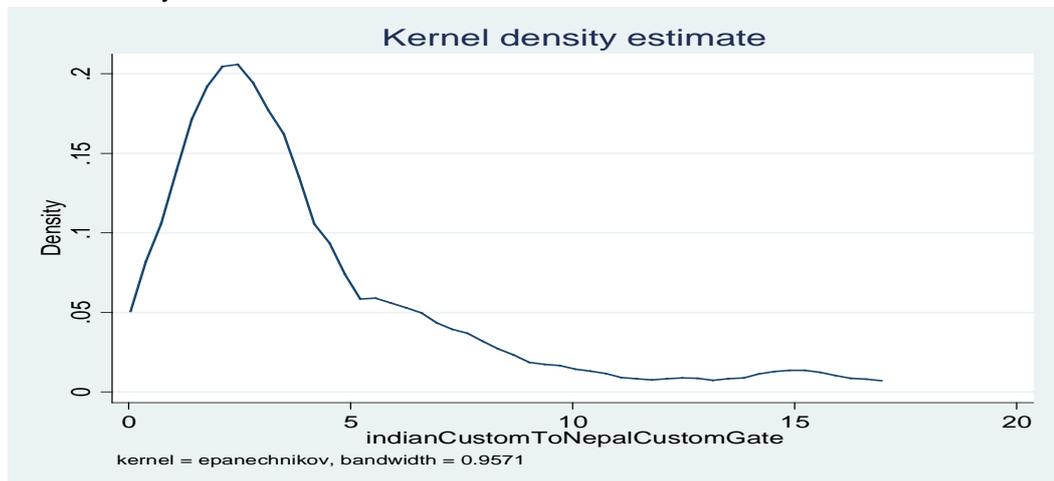
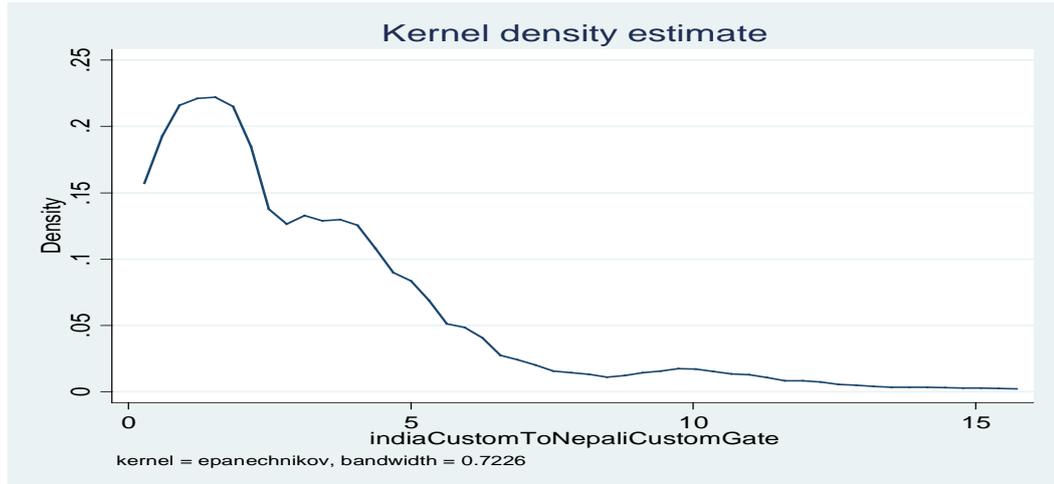


Figure 3 Kernel Density of time to arrive at customs yard from Indian customs.

d) Current Survey



e) October survey



f) June survey

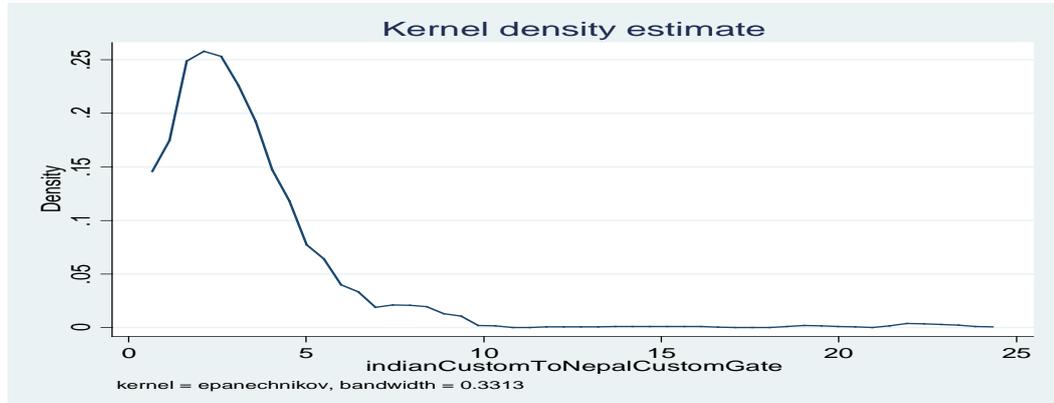
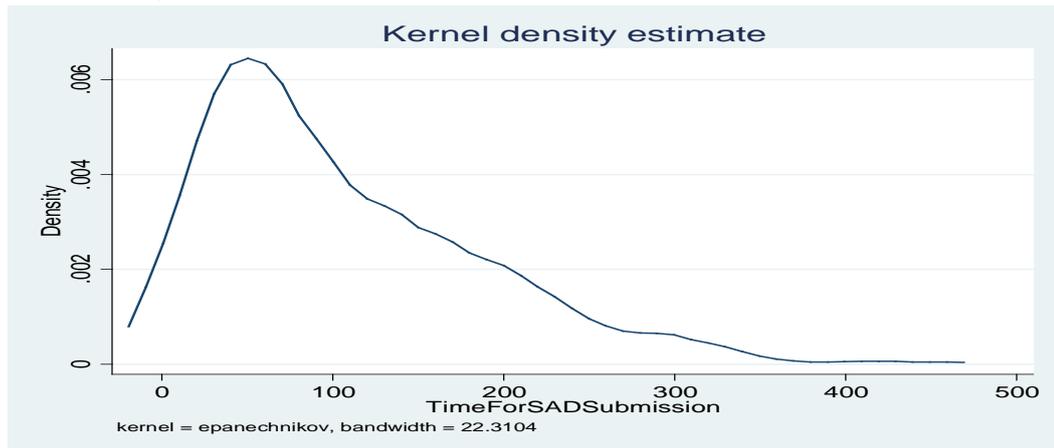
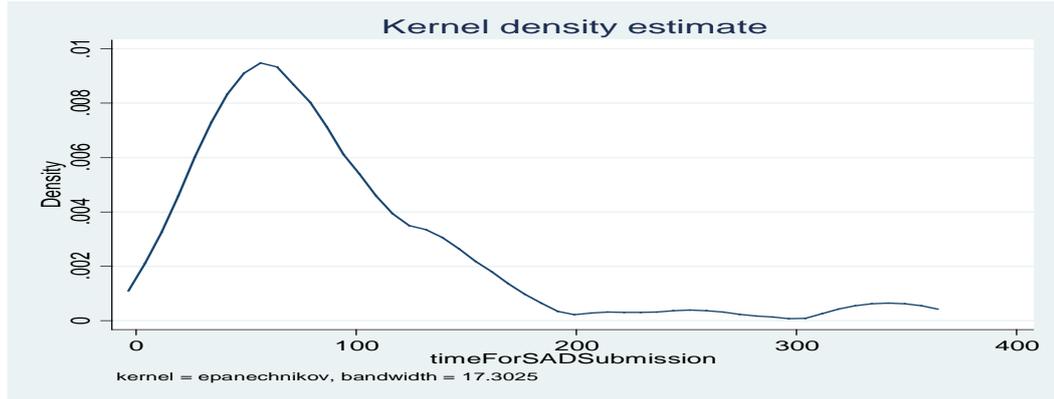


Figure 4 Time for submitting SAD after the trucks enter the yard

a) Current survey



b) October Survey



c) June survey

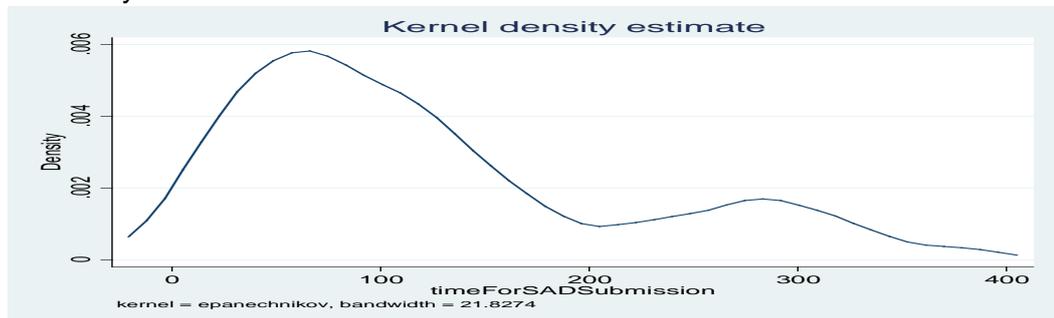
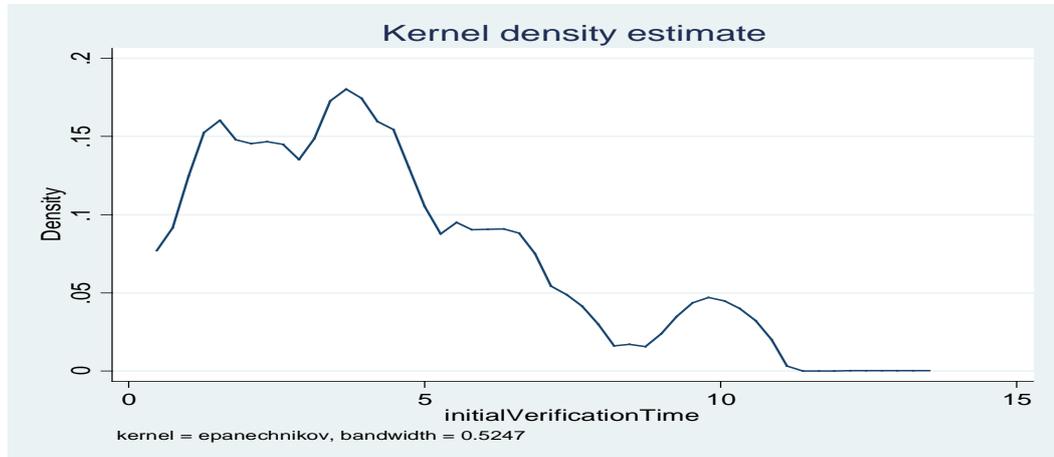


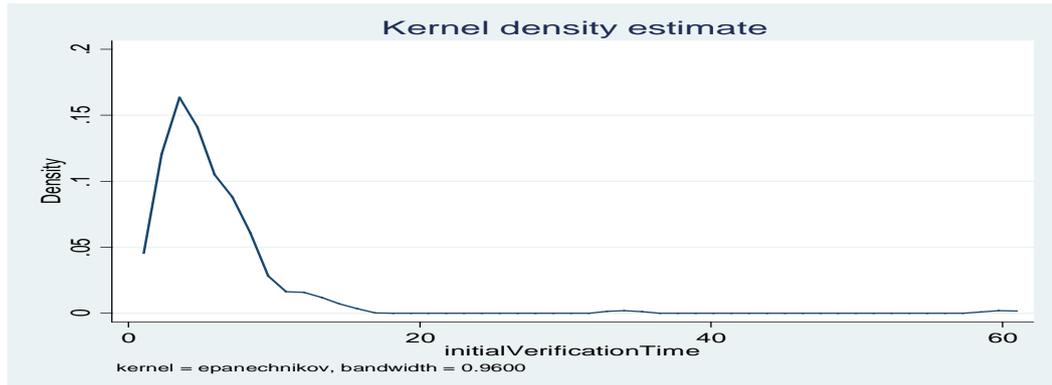
Figure 5 Time for Initial Verification after SAD submission

a) Current survey





b) October Survey



c) June survey

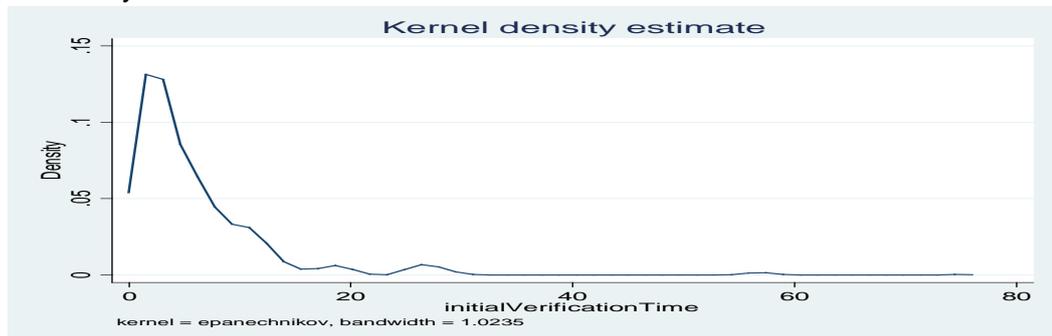
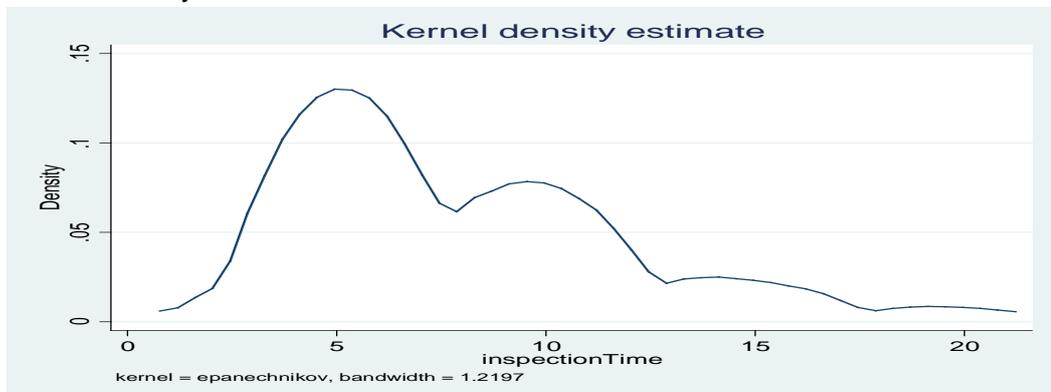
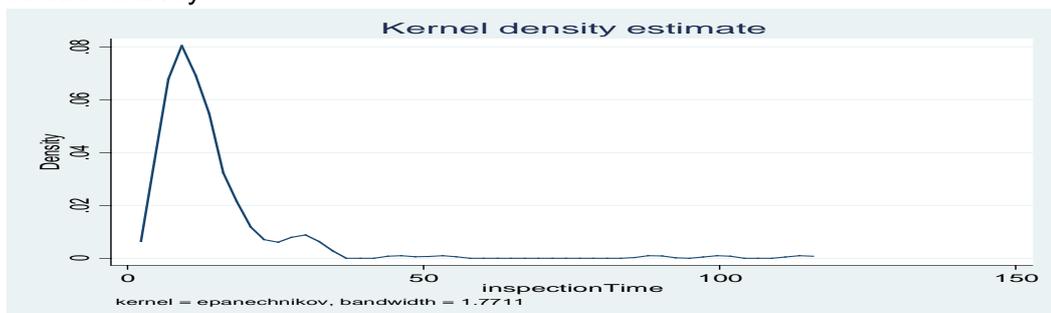


Figure 6 Inspection Time

a) Current Survey



b) October Survey



c) June Survey

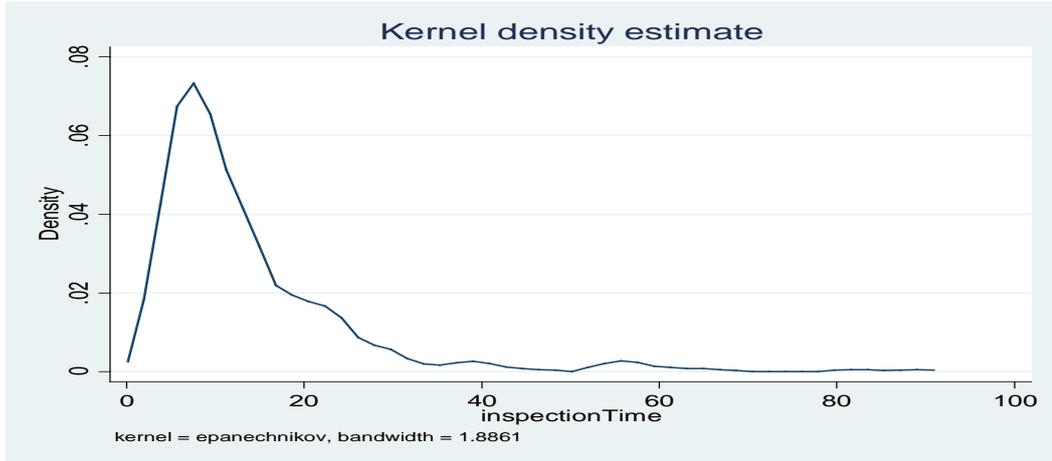
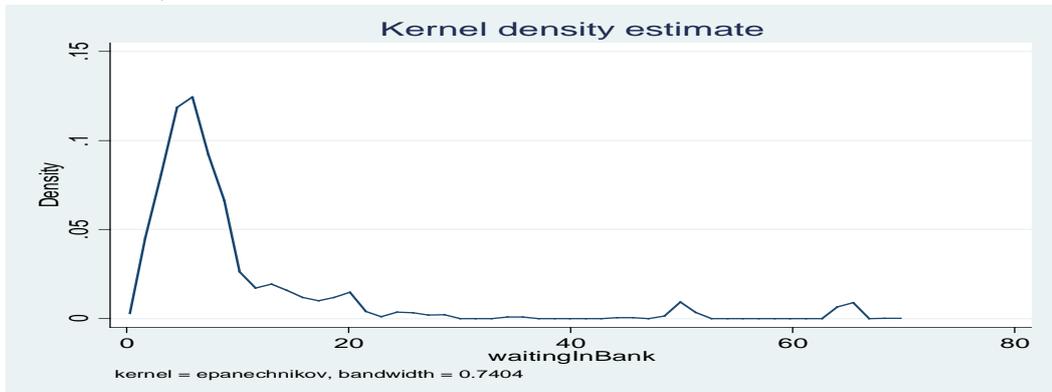
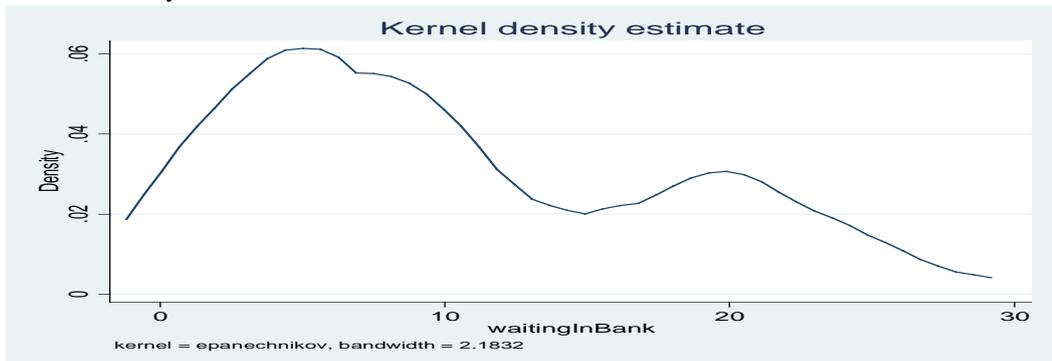


Figure 7 Bank Time (Time to pay at the bank inside the yard)

a) Current Survey



b) October Survey



c) June survey

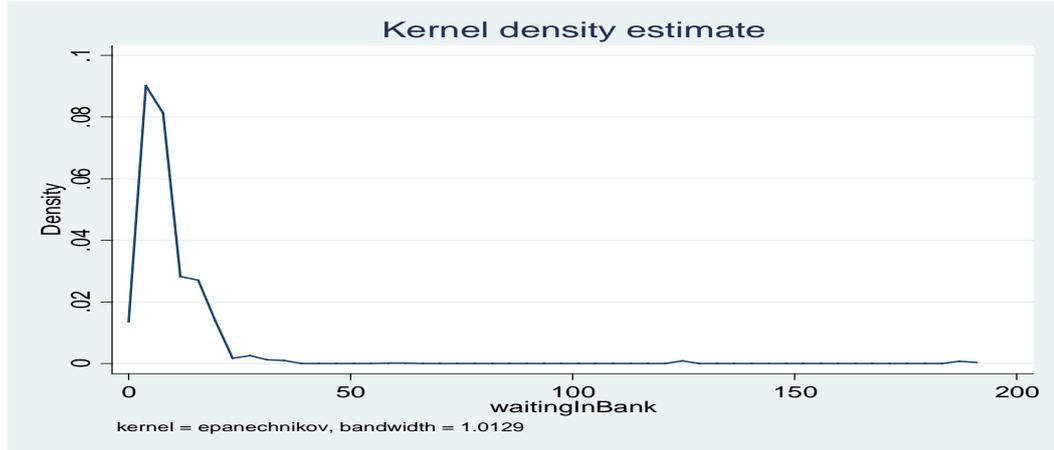
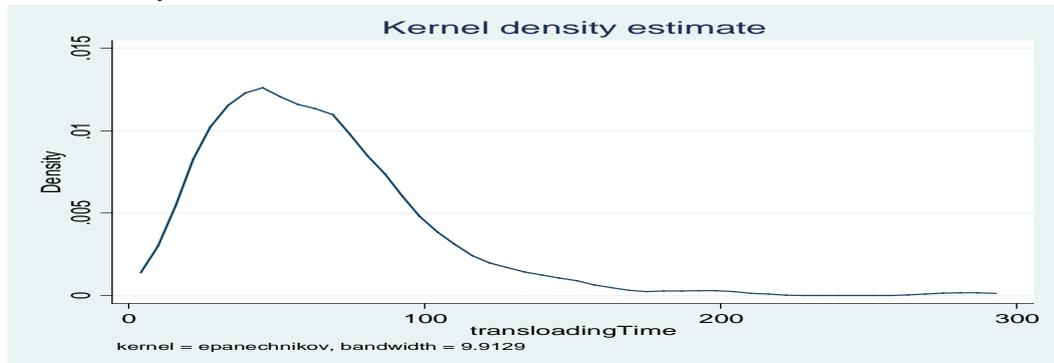
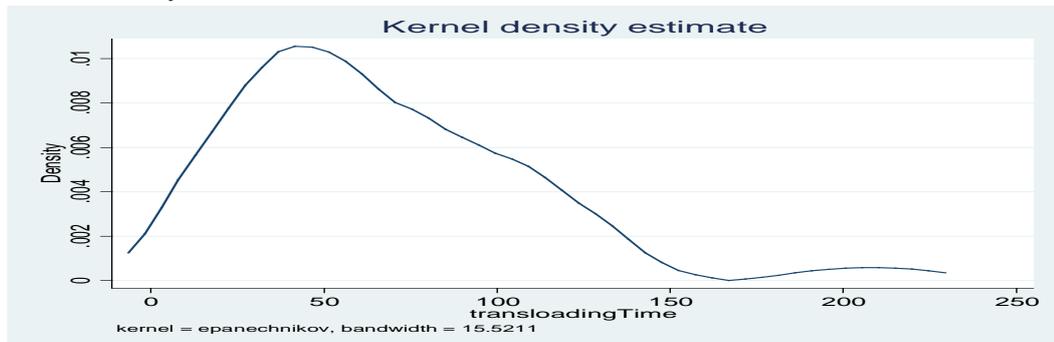


Figure 8 Transloading time inside the yard

a) Current survey



b) October Survey



c) June survey

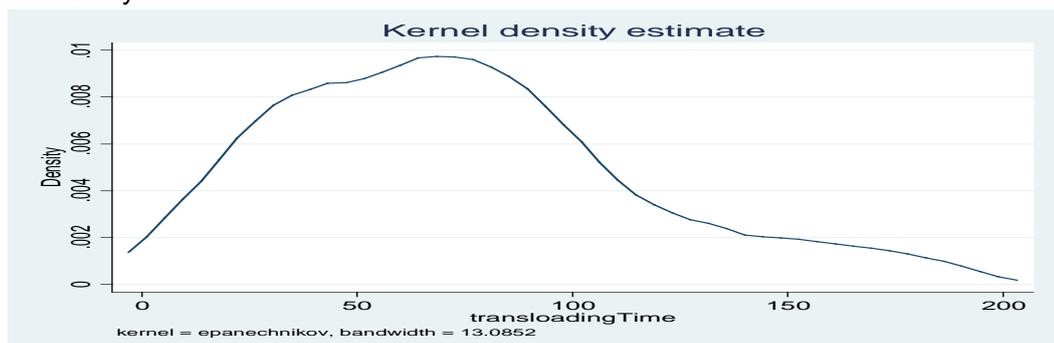
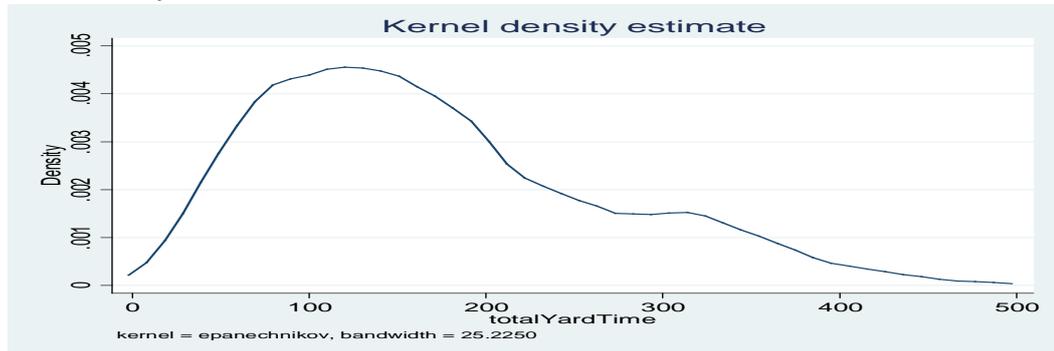
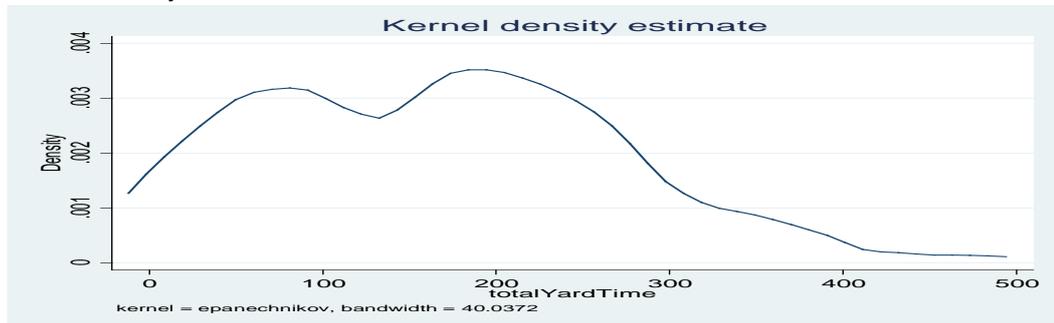


Figure 9 Total Time inside the Yard

a) Current survey



b) October Survey



c) June survey

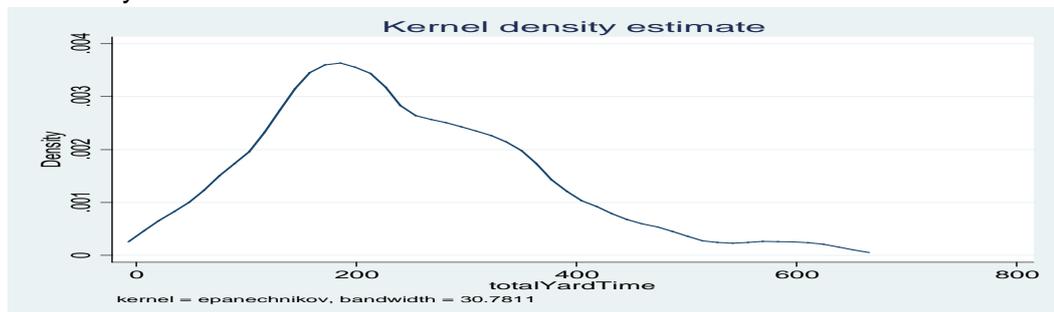
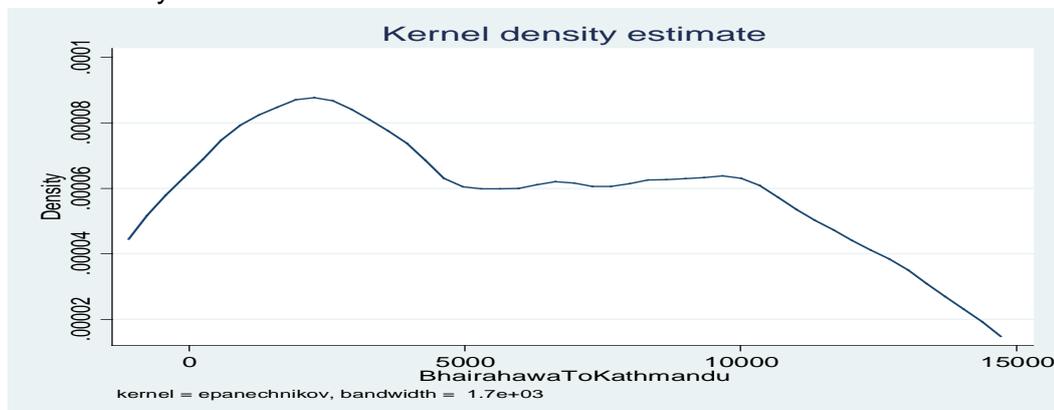
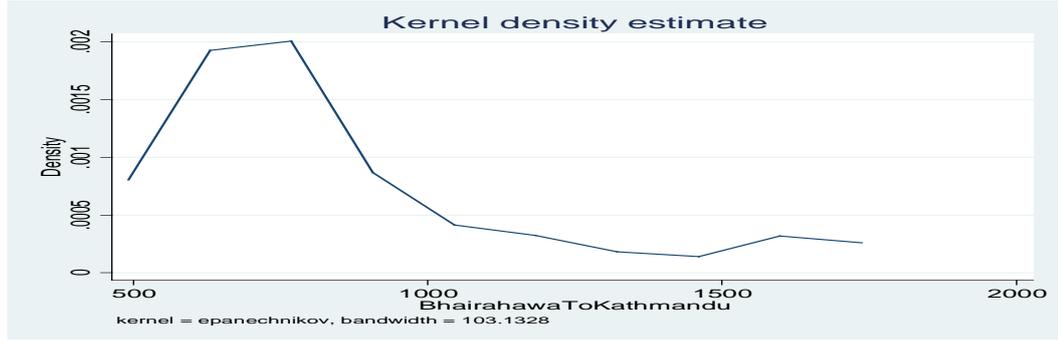


Figure 10 Time from Bhairahawa to Kathmandu

a) Current survey



b) October Survey



c) June survey

