SURVEY OF THE KATHMANDU BHAIRAHAWA CORRIDOR

October 2013

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Executive Summary

This report provides key results from the survey of the border crossing time of the trucks as they cross Nepal-India border in Bhairahawa and arrive at Nagdhunga (Kathmandu). The survey took place from October 8, 2013 in Belahiya (in Bhairahawa, Nepal)-Sunauli (in India) and was conducted for three working days.

We found that the presence of border (both at Indian side and Nepal side) delays the transportation time by 3 hours, 10 minutes (190 minutes). This delay estimate includes the total of times spent processing all paper works in Indian custom and Nepalese custom yard. If one assumes that the clearing time for vehicles arriving from Indian custom offices are independent of clearing time in custom yard in Nepal, then the standard deviation for the border crossing time is 1 hour, 41 minutes(i.e. 101 minutes). The average delay during our survey carried out in June was 4 hours 32 minutes (240 minutes) and corresponding standard deviation was 124.16 minutes (2 hours, 4 minutes). During our current survey period, the trucks on average took 14 hours 10 minutes (with standard deviation being 5 hours, 23 minutes). The corresponding number in June was 44 hours 4 minutes (standard deviation: 40 hours 20 minutes). The surprising difference can be attributed to less data points this time, which biased data in favour of fast arriving vehicles.

One striking fact from our study is the relationship of the total time spent by trucks inside custom yard and the time spent doing actual custom related work. If we sum the average time for initial verification, inspection, bank payment and transloading, it turns out to be about 183 minutes. The average time spent by a truck inside the custom yard is actually 166 minutes (when calculated using total time inside yard for all trucks). This should not come as a surprise as many trucks either parallelly transload the goods or do not transload at all. The corresponding numbers for June survey were 235.5 minutes and 240 minutes. When compared to Birgunj, where almost 75% of the total time inside custom yard is spent doing nothing, Bhairahawa's custom 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 Bhairahawa border. To do so precisely, we also needed to estimate time spent by trucks inside Bhairahawa custom yard while going through different custom processes. We also estimated time needed for the trucks to travel from Bhairahawa to Nagdhunga.

SECTION 1

Bhairahawa Custom Office

Bhairahawa custom office, located about 276 kilometres in the west from Kathmandu, is the 2nd most important revenue collection centre of the Nepalese government. According to a recent report by Department of Customs, Rs 102.04 (i.e. 22% nation's total revenue) is collected by the customs. Bhairahawa custom office alone collected Rs.12.74 billion (12.5% of total custom revenue) in financial year (FY) 2068/69 (Notice that Nepal uses Bikram Sambat as its official year. Bikram Sambat is about 56 years 8 months and 15 days ahead of Anno Domino (AD). Financial year in Nepal begins from the first day of the fourth month of the year, which is approximately July 15th). The custom office seems to be growing lately: it achieved 100.72% of the total target in FY 2068/69, by June, when we were conducting our first survey there; it had already collected Rs.7.18 billion in the first 11 months of this financial year against the target of Rs 5.57 billion for this year. The custom estimates that out of this growth in the revenue collection, price increase accounted for about Rs 14 million only, and the rest were the real growth. To collect this much revenue, the custom had to process 77,217 single administrative document (SAD) submitted by the importers.

The presiding custom officer is also given some legal authority in Nepal, in accordance with the Custom Act (2064BS). Police often presents the culprits in the cases of smugglings, petty smugglings (such as illegal transfer of one or two livestock's across the border) and any infractions related to customs directly to the locally presiding custom officer. The officer uses his paralegal power to decide these cases and this happens almost regularly. We saw such instances when we were there as well. Bhairahawa custom saw 508 cases registered in FY 2068/69, out of which 482 were cleared, showing relative speed in adjudging cases compared to Nepalese courts which are notoriously slow. Custom office also promptly auctions off goods that are either not claimed or illegally imported. In FY 2068/69, for example, 394 cases registered ended up in being auctioned. Such auctions are conducted by public bidding, with the highest bidder taking the goods by paying his own bid amount. Legally, the next higher level after the custom officer, for appealing against the decisions, is *Rajashwa Nyayadhikaran*, but in some cases, the cases are also taken directly to the Supreme Court.

Given the importance of Bhairahawa custom, the custom premise has 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 custom office by the head quarter and also enabled fast 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 easier).

The custom agency coordinates and coexists with many governmental agencies, the list of which is given at the final paragraph of this chapter. The department of Custom runs a lab in Tripureshwar (Kathmandu) which is mainly assigned the task of identifying chemical compositions of the imported goods when necessary. There are three quarantine offices here in Bhairahawa -for livestock, plants and processed food items. Plant and livestock quarantines are very close to, but outside, the custom yard. Processed food items quarantine is about 8 KM to the North from the custom which is one of the contributors of delay for customs clearance (see attached map for the location of all three quarantines).

During office hours, the main custom office and custom yard both are reasonably crowded. The custom yard was paved long ago and most of the paved area inside the yard currently looks as if it has never been paved. It becomes watery and muddy during the rainy season. There is a cafeteria for workers and officers of custom, but is not big enough to manage all of them effectively. There are many cafeterias outside the customs yard, therefore, unlike in Birgunj custom yard, where workers, in particular automobile workers, often sit right inside the custom yard and cook their food, the workers here go outside and eat their food in those cafeterias.

The name of Bhairahawa is named after the Hindu deity Bhairava. It is an old, and an important city, as nearby Lumbini, the birthplace of Lord Buddha, has the evidence of being inhabited at least since the last 3000 years.

The area of the municipality is 36.02 square kilometre. The main bazaar of the city is 3.5 kilometres from the border. The population of the municipality is 163,483 as per census report of 2011AD.It is the major town of Nepal and is also famous for being the gateway to Lumbini. On the other side of the India Nepal border is Sunauli. Sunauli is in itself a nondescript city, but in about 8 kilometres from there, a relatively major city of Nautanwa is reached. There is a narrow gauge branch of Indian Railways which links Nautanwa with other parts of India. The passenger trains are not regular there. It takes about two hours from Nautanwa to reach Gorakhpur, a major Indian city. Bhairahawa is 793 kilometres away from New Delhi and 926 kilometres away from Kolkata.

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

The currently used Bhairahawa custom was established in 2013 BS (1956AD). The area of the custom is 4-1-0-5 (4 bigah, 1 kattha, 0.5 dhur). The Bhairahawa custom area, however, has a very important history. The British government in India declared war on Nepal in 1813AD, after Nepalese side didn't accede to its demand that the custom inspectors are allowed to collect revenue from there. The war went on for almost two years, culminating on Sugauli Treaty of 1815, which provided foundation to Nepal's relationship with former British India and later independent India.

There are several agencies inside or near the custom office which affect the custom 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 the custom officers on whether a good being imported is in the prohibited list (such as CITES list). The narcotic division is mainly handled by Nepal Police, though there is a call for it to be treated as a separate unit. Two quarantines, livestock quarantine and plant quarantine, are close to but outside the yard of the custom. 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 the clearance by the quarantine is one week if the goods are to be tested at Kathmandu. About 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

The trade of Nepal was limited to India and Tibet in ancient time. During the British Raj, Nepal was reluctant to have any kind of relationship with the southern neighbor, and most of the merchandise goods were traded with the northern neighbor (Tibet) with whom it was more of a 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. In those days there was no system of price declaration by the traders. This practice prevailed until 1945. The customs officials used to inspect and value the goods as per their discretion. Different valuation practices were used in different parts of the country. There was no uniformity in the valuation of similar goods in different places. In Rana regime, 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 single government directive known as single *Sawal* was introduced. First time, the declaration of goods in customs points by the importer was started under it. Under the provision of Trade Treaty in 1950, Nepal would get refund of Indian excise levied on goods imported to Nepal directly from Indian manufacturers. The importers would declare the value of goods. They would submit the invoice to the customs. The customs officials would verify the prices of goods taking the references of other similar goods between India and Nepal. It can be said the new era of rule of law in Nepalese context. Tariff board and customs commission office was established in 1957. It has been further systematized after the introduction of Customs Act, 1962. The valuation declaration system was started as per the act. Valuation booklet was prepared and record keeping system was started.

The most recent laws that govern the management of custom include Financial Ordinance, 2005 and 2006 , Financial Bill 2006 and Custom Act, 2007.

The valuation methods for the base of custom tariffs described in Custom 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, custom 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 a major such provision is as delineated in Duty Refundable Procedure(DRP) in the trade with India. Whenever imports are made on DRP basis, the importers should pay lower tariff in the custom because the excise duty which they pay in India is deducted when tariff is calculated. The custom gets refund of such duty in total from India. To claim the lower rate for DRP imports, the customs require that the importers submit (a) Packing list (b)Invoice (c) Permission letter from govt. agency and (d) DRP form. As per the agreement, importers get such rebate if goods are imported through 24 customs including Bhairahawa custom.

Some goods go through Indemnity bond (in bond) process primarily to address the concern on leakage by India. These goods are imported against convertible currency from third country (i.e. not India). Normally importers make commitment to bring these goods to Nepal and India keeps some bond for them. The Nepalese custom 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 less documents for clearance, namely (a) packing list, (b) invoice and (c) permission for import from government agencies.

Custom Act also delineates the kind of trade that can happen in the border. For example, only commercial banks are allowed to import the gold (limited to 15 kgs per day).Only those goods that are produced in India can be imported from India, and similarly Nepal can export to India only the goods produced in Nepal. The goods imported to Nepal from third countries cannot be exported to India. Only the goods produced in Nepal can be exported to India. But imported goods can be re-exported to other countries except India even without physical change. In that case, the importers should submit application form along with other documents to the custom. Custom asks the importers for 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 reason/s and requests the custom to carry out the inspection of the goods outside the custom or other places other than the custom, the custom officers may, with the approval from Director General of Department of Customs, do so. The importers should pay Rs.1000 per consignment and arrange vehicle if required.

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

The regional office of livestock quarantine is located near the custom. However, it does not have its own laboratory, except for a very basic kind one. The main laboratory belonging to the quarantine office is installed at Tripureshwor (Kathmandu) and , in addition, a regional lab is at the regional office at Pokhara. It takes about 6-7 days to receive the report from central lab if needed. It has its shed located in the yard of custom near the warehouse. The livestock's are kept there for checking.

There is no separate food quarantine in Bhairahawa custom. However, Regional Food Technology and Quality Control Office has taken the responsibility to carry out the functions of food quarantine. This office remains closed on Saturday, and is about 8 KM far to the North from the custom. The fact that this is so far from the custom and remains closed on Saturday also contribute to the delay in custom clearance process.

Besides these, there are other sources of delay for the importers. For example, they have to obtain approval (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 effecting 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 exceeding the prescribed quantity.

Similarly, approvals are required for less traded items such as those of archaeological values, goods used for hydropower industries or movies, aircrafts part, ICT items, duty free goods for foreign diplomats etc. from the related departments. About 50 government agencies are entitled to issue such permits.

SECTION 3

Methodology

Like in June, the surveyors were placed at the following sites: Indian inland area (at the end of the queue in Indian side of custom), Indian custom, Nepalese borderline, entry point of the Nepalese custom yard, at different points inside custom 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). The surveyors were able to capture the information on the timing of trucks arriving and passing through the Indian custom en route to Nepal.

Each surveyor was asked to write down the vehicle number passing through the post they were stationed in. In the post (inside Nepalese custom yard) where trucks (usually, of Indian number plates) are transloaded to another trucks (usually of Nepalese number plates), the surveyors were asked to note the number 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 custom area owned by Nepal Intermodel Transportation Development Board (NITDB). The warehouse was full of goods and it was active during the survey period. The warehouse is located to the Western side of the yard. There are two open sheds in the yard; one is generally used for retail goods and other for big volume goods. The custom seems systematic in comparison to Birgunj custom. There is an inspection office of customs in the first yard. Similarly there is a shed assigned to livestock quarantine where livestock are kept for thorough checking.

Many trucks store their goods (the details are in the section "Clearance process in the yard of Bhairahawa Custom") in the warehouse if these are not being immediately released. Since these goods generally take a long time to be released, we are in general not able to capture the total time spent by these goods inside the custom yard because of the short duration of our survey period. When possible, we tried to capture the information about the trucks offloading their goods in the warehouse. Clearly, not having information on these goods downward biases our total estimate of the yard time.

SECTION 4

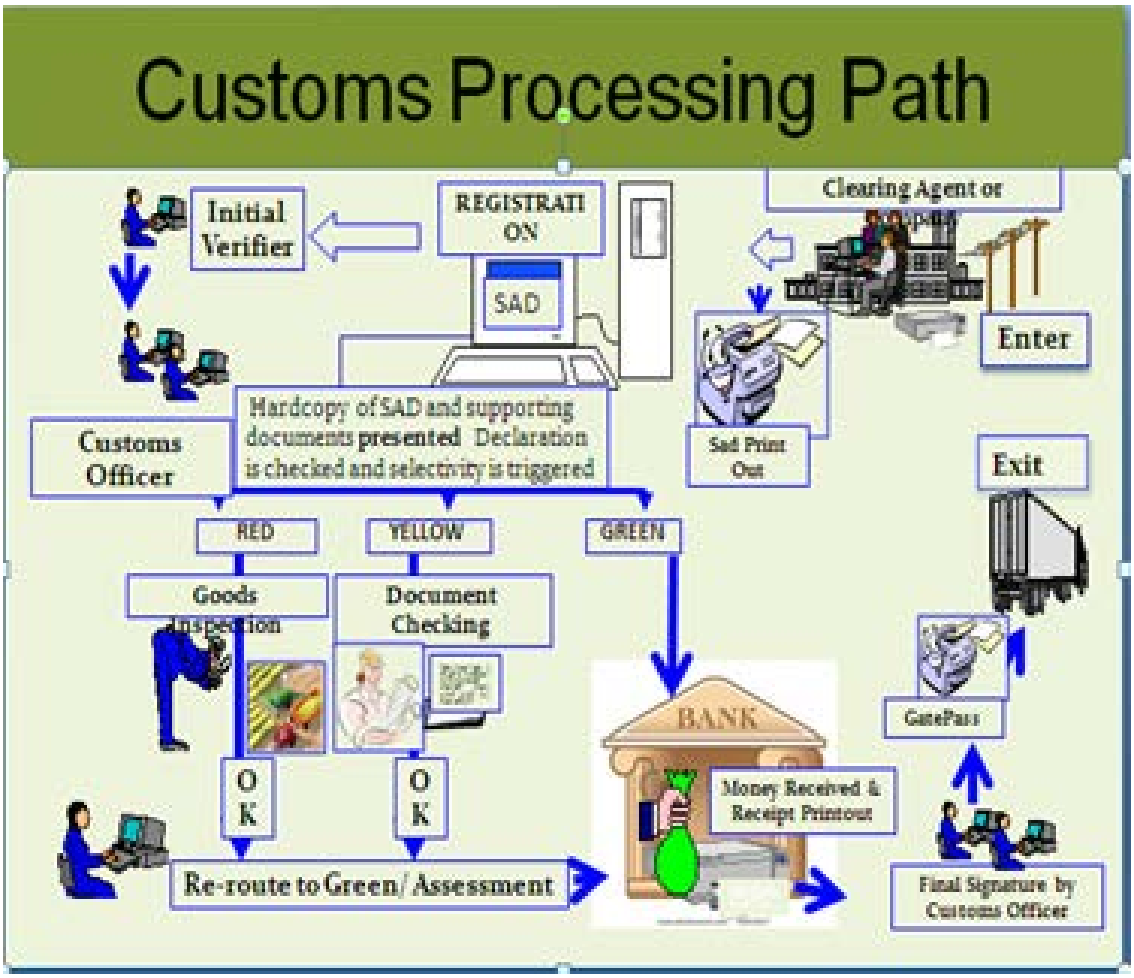
Clearance Process in the Yard of Bhairahawa Custom

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

Figure (1) below provides the detail of the whole process inside the Bhairahawa Custom Yard. In summary, the processes are given as follows:

- First, the agents or their representatives should fill all required information in ASYCUDA system in the computer. The agents are provided the password to operate this system. If the password is misused, the agents are responsible. There is a room separated to the agents where they use computers for printing declaration forms, known as *pragyapan patra* in native language. It includes details of importer, exporter, financial institutions, mode of payment, transportation, tax amount, total value as per invoice etc. The agents may fill these documents even before the truck arrives in the yard and, in fact, many of them do so.
- The application is registered automatically in the custom 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 red channel, for documentations examination through yellow channel; release goods through post clearance audit(PCA) through blue channel and release goods without having examination through 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). Inspection process may also involve one of the three quarantine agencies (plant, livestock or processed food). If the officers are satisfied after verification, they sign on the documents, otherwise goods are kept in the yard for rechecking.
- Once the verification is made and custom tariff assessment is provided by the inspectors, the importer/agent should pay the custom tariffs at the counter of Rastriya Banijya Bank, at the conclusion of which they receive the certificate of payment.
- The importer/agent should submit SAD, tax receipt, commercial invoice and transportation document to the custom. 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 custom to exit.

Figure 1 Schematic Representation of the processing path in Bhairahawa Custom



Bhairahawa custom's closing time on Saturday is 12.30 PM but the customs remains operational till 3.30 due to the work load. The local office of Rastriya Banijya Bank also follows the time of the custom. However, during the weekend (Saturday), only one counter of Rastriya Banijya Bank is open and all other counters remain closed, and hence many importers cannot obtain the release of their vehicles due to the lack of fund and other documents. It was observed that the vehicles from Indian side were coming to the yard of the custom even after the closure of customs after 12.30 PM on Saturday. Indian custom remains open even on Sunday even though Sunday is the holiday there. As per discussion with the Indian custom officials, they do not have yard for checking. They generally do not check the goods in custom area. Whenever they have to check them, they do it on the road inside India.

Finally, the custom office also has an additional post inspection system in place. There exists an office, *Bhansar Jaachpaas Parikshan Karyalaya* (Custom Clearance Inspection Office(CCIO)), established in 2064BS (i.e. 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 if found any discrepancies, initiate action against the importer. The agency can initiate action against the importer until 4 years of the import date, if it finds they falsely represented the characteristics related to their import. 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 (say from places like Nepalgunj). The custom officers also believe that there is an urgent need of a CCIO

office in places like Birgunj and Bhairahawa, since they handle most of the import. CCIO may also be causing a lot of delay associated with border crossing, which we haven't been able to capture in this survey.

SECTION 5

The Warehouse inside the Custom Yard

There is, as explained earlier, one warehouse owned by NITDB. It has the capacity of 3,000 metric tons. It is located at 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 year. According to the staff, the internal evaluation shows that on average goods are kept there for 6 days, and range generally from 1-15 days. The main reasons for unloading and keeping the goods in the warehouse are (a) not having the documents for clearing the custom ready and (b)unwillingness/incapability of the importers to clear the goods on time due to not having fund for clearance . Generally goods which are originated in third country (that is, besides India) are imported through letter of credit (LC), therefore the importers sometimes end up having to take some additional days than they initially expected to collect documents from the bank in which their LC was opened.

There is a separate place inside the customs to keep the goods which should be judged by the customs officials. The place is known as litigation. The goods which are expected to be auctioned off are also kept there until the goods are sold on bidding.

The warehouse plays an important role in calculating the total custom yard duration for trucks. In general, as explained already, their omission biases our estimate for total time inside the yard downwards. At the minimum, we still don't know the nature of goods stored (we saw mainly computer hardware, for example) there, and the average period of their storage in the warehouse. Furthermore, almost every truck carries goods that require 20-30 SAD documents to be fulfilled. In particular, many of these trucks are owned by transporters, and each truck generally carries goods belonging to many petty importers. We asked the local authorities if it is likely that some of the goods carried by the trucks are stored in the warehouse, while others go through the inspection process directly, and we were told that such cases are unlikely. However, precisely understanding when these goods are released and who claim them, and identification of sources of delay related to the goods stocked inside the warehouse may clarify our understanding of the border crossing process further.

SECTION 6

Transloading Inside the Yard

Some goods are carried to Nepalese border by Indian trucks and are later loaded in Nepalese trucks right inside the yard. Indians vehicles plying inside 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 bring Nepalese goods, Indian trucks are allowed easier access inside Nepal. There is also an oversupply of trucks inside Nepal, and truck owners are always bitter about seeing Indian trucks inside Nepal.

In Bhairahawa custom, many vehicles arriving from India at the yard have Indian number plates. Once these vehicles and the goods they are carrying are checked by custom officials and are provided permission to leave, some of them leave for the different destinations of Nepal, while others transfer the goods to Nepali Trucks/vehicles. We found the following reasons for transloading to Nepalese trucks from the custom:

(a) Some Indian vehicles are very huge in sizes which do not pass through mountainous roads, necessitating transloading of these trucks if the final destinations are areas in the mountains of Nepal.

(b) The following is the policy regarding the charge to be paid by the Indian vehicles if they are to ply in Nepal: (i) if the trucks are empty, they need to pay Rs 800.00 per day (plus 13% VAT). After that, they have to pay Rs 1000.00 per day (plus 13% VAT). However, in a given calendar year, these trucks can enter Nepal at most 30 days. (ii) if the trucks are loaded, they can travel free of cost for the first 72 hours. Thereafter, they have to pay Rs 800.00 plus VAT (13%) per day. Maximum day constraint is applicable to them as well. (iii) Small vehicles such as cars have to pay Rs 400.00 per day (plus 13% VAT) and they are also subjected to the maximum 30 days constraint. These policies sometimes make it profitable to transload, rather than carry on from the custom yard, especially if the weather or political climate introduce uncertainty in total expected transportation time within Nepal.

(c) Indian vehicles carrying brittle, damageable goods may not choose to transload to Nepalese items to minimizing the damage due to such intervention.

However, many Indian vehicles are also seen carrying goods to Rupandehi (surrounding areas of custom) and thereafter change the goods to either Nepalese trucks or deposit it in the warehouse, as they perceive that it is not beneficial to change the vehicles from custom.

Historically, until about fifteen years ago, all goods used to be unloaded and kept in the yard for thorough verification from custom' officers and the goods were arranged as per the types. All goods were checked by the officers as per the documents. It was possible to do so those days due to the total volume of trade being low. However, increase in imports from countries such as China has made such detailed checking almost impossible lately. Now, it is more typical to see the inspectors checking sample goods, rather than going thoroughly over all goods.

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

SECTION 7

The Role of Agents

As noted above, the first step inside the custom yard involves the agents who prepare the documents on behalf of importers. Nepal's experience with custom agents is relatively new. Even though some steps towards officially recognizing agents began circa 1962, it was quickly terminated. Until 1997, there were no agents in the custom, and people with power of attorney from the importers took care of the work currently being carried out by the custom agents. In 1997, the government first appointed 240 custom agents, after soliciting applications from general public, and initiated a new system under which those other than licensed custom agents were not allowed to do the work of custom agents. These agents were also provided necessary training. Three years after that, 247 more agent licenses were again issued. However, many of these agents were found lacking in necessary skills (in particular, computer literacy which is now a must to function as an agent). Currently, there are said to be about 250 active agents in the whole country. Out of them, 56 agents are actively involving in clearing process of goods in Bhairahawa custom. Many of the agents left the work either because they couldn't find sufficient works or because they couldn't work efficiently as the nature of their work has changed. Initially, these agents filled papers using their own hand, but now they are expected to be computer literate, and be adept at using Broker's Module and Single Goods Entry System. Such technical demand also may have caused some of the attrition observed in the total number of agents.

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

SECTION 8

A Note on Method used to Estimate Inspection Time Inside the Yard

We provide a brief explanation of how we estimated the time inside the Bhairahawa custom yard here.

There is an inspection department in the first shed immediately after the trucks enter the yard from Indian side. A room has been made there to run the department where non officers used to live for inspection. The inspection process of the custom appears organized, especially when compared to Birgunj custom. The non-officers inspect the goods lying on the open shed and, in general, such goods are carried out by small vehicles and non motorable vehicles and are intended to be supplied to the market area not very far from the custom office. Therefore, in our survey, we ignored them as these vehicles don't have any truck number attached to them. However, the goods in the second shed (i.e. the inspection area) are loaded in the trucks which go to different parts of the country. Although many of the custom activities start by 9.30 AM, the inspection of second shed starts at 2 PM daily. The number of trucks we observed in the yard is manageable by the customs officials working there. It was observed that the goods were inspected thoroughly in the second shed. In Bhairahawa, our surveyors were able to capture the time of inspection directly which was not possible in Birgunj custom. Sometimes, all the goods of the trucks are unloaded and checked thoroughly by the custom inspectors, but generally, they collect samples and inspect it. There were 4 inspectors in the customs at each time during the period of our survey.

With the help of the custom officers, we were able to make a system in which agents shared a copy of submitted SAD to our surveyors during the initial verification process, from which our surveyors could read the number of truck off easily. After the SADs are submitted, they are divided in to green, blue, yellow and red channel by the custom software. This time has been also recorded to know the exact time taken for initial verification. The records taken by these two surveyors were verified at the end of day, when necessary, by the coordinator who had the access to the custom software.

Regarding the calculation of the time spent inside the bank, our surveyors were placed inside the bank. They were asked to capture time of customers coming for tariff payment and payment complete time. The difference in these two times was calculated as time required paying the tariff at the bank and this time should be correlated with the queue length at the bank during those periods. It was observed that, unlike in Birgunj, the customers did not need to wait in queue to pay the tariff in Bhairahawa. The main reasons are: (1) there were many tellers in the bank who could manage the payment of custom tariff fast; (2) the number of customers is lower than those in Birgunj custom.

Similarly, calculation of transloading time was carried out by observation. We placed surveyors right at the spot of transloading vehicle.

SECTION 9

Report on Timing

We arranged our surveyors in different locations to capture the records as mentioned below:

01: The surveyors stationed right in front of Indian custom at Sunauli. These surveyors had to be at the end of the queue at all times there.

02: The surveyors were stationed right at the Indo-Nepal border, near India custom.

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

03: The surveyors were kept at the entry gate of the custom of Nepal.

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 India border.

04: The Surveyors were stationed at the SAD submission place in Bhairahawa custom. They captured 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. But all trucks/vehicles do not match with each other because agents generally submit the SADs even if the trucks are on the way to Nepal, but not yet inside the yard, for fast custom clearance

05: The surveyors were located at the custom office where segregation of vehicles into different categories (initial verification) taken place.

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

06: The Surveyors were kept at the inspection yard. They recorded data on both the starting and ending times.

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

07: The surveyors were stationed in at the bank. They recorded the data on when the individual began to stand in the queue and when he finished paying off.

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

08: The surveyors were kept at the transloading place in the yard and recorded data of beginning and ending times of trans-loading.

The difference of both times indicates the time taken for trans-loading.

09: The surveyors stood at the exit gate of Bhairahawa custom and recorded the data of vehicles both coming out of the yard and coming directly from India without entering in the yard.

The difference between 09 and o7, and 09 and 02 show the time taken for a vehicle to leave the yard after tax payment at bank and whole time taken in the yard (conditional on the vehicles coming out of 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 increased appreciably compared to the past (unlike the last survey, it was 3 days long survey, but number at all posts were more than half of what we had reported in June). This is again predictable as the number of trucks increases during the festival season.

We discuss them in detail below:

(a) From Sunauli Custom, India to Indo-Nepal gate

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

The Indian custom depot is very small, and occupies a space befitting a small tea stall. The staffs there look very friendly, and seem to be in a hurry to let the trucks go. The highway in front of the custom office is a narrow highway, and any long queue there is likely to cause nuisance to the local business community. When it comes to the export related procedure, the custom office seems to be operating very efficiently. The custom chief there was a friendly person, and he emphasized how they try to minimize the waiting time in Indian side in our conversation.

Mathematically, the system is a typical M/G/1 queue process, and we believe, without providing any proof, that approximation of total waiting time in the system and average number of trucks waiting for service is possible by assuming poisson arrival process for trucks, exponential service time at the custom depot and one queue (M/M/1). However, we have not pursued any calculation in this direction right now as modelling these systems requires additional time and this is out of our currently assigned task.

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

On average trucks arrive at custom yard within 3.11 minutes, the standard deviation being 2.71. The maximum time taken was 15 minutes and minimum time taken was 1 minute. 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 is slightly different this time (figure 2a) than in June (2b). In June, it was smooth; right skewed and had a long tail to the right.

(c) Initial Verification inside yard

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

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 our 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 distribution is relatively similar: right skewed and has almost two peaks (see figure 3a and 3b).

The initial verification itself was relatively swift. 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 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 of different owners, some trucks may have only one type of goods, where as other trucks may have several types of goods. It is natural to expect a lot of variation in the time for this process.

(e) Inspection inside the custom yard

The average time for inspection inside the custom 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 6a) is slightly skewed to the right. The distribution is again similar.

The custom seems really efficient during this process, compared to Birgunj custom, for example. Goods for the inspection are put in the shed, which is generally occupied during the day time, but the custom office staffs seem to be there almost all of the official time. They seem to dispatch the goods waiting for inspection very quickly.

(f) Payment of tariff in the bank

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 really long delays in the bank in the June survey, and hence the distribution in June had a really 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.

(g) Transloading time

The average transloading time was 65.8 minutes and the standard deviation is 40.56. These numbers are almost same as the ones we got in June. In June the average was 73.6 minutes, with the standard deviation of 40.9 minutes. The distributions are also similar (see figure 8a and 8b) but the skew-ness is slightly different. The minimum time recorded for transloading was 9 minutes in current survey. 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 custom yard. The time distribution looks similar to log normal.

Like in June, surprisingly, we find that it takes twice as much time in Birgunj to transload a good as it takes in Bhairahawa. There is no a priori any reason for the transloading time to be one half that of Birgunj. In our follow up visit of the two customs in June, we realized that there are several sources that might have contributed to this discrepancy. The first reason may be just the contagion effect of overall state of disarray that Birgunj custom seems to be in, when it comes to managing the crowd inside the custom. The second reason is probably more subtle. Upon talking to the loaders in Birgunj, we realized they have some sort of union there, and the union almost guides who can load a particular truck. While the impact of unions on efficiency of working is debatable, (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. Our conversation with custom officials and truckers confirmed our suspicion, but since they were not very fond of loaders’ union, their opinion could be biased. In Bhairahawa, we did not see such a union.

(h) Time taken to exit the yard

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 (9a) where as it was almost single peaked with a long tail (see Figure 9b).

As discussed in our previously sent report (of Bhairahawa custom), if a custom is working efficiently, we should be able to see double peaked time distribution for total yard time. However, despite seemingly efficient functioning of Bhairahawa custom, we were not able to get double peaked distribution during June. However, we were able to see some of the double peaked-ness that we have now come to expect from an efficient custom.

(i) Time to go from Custom Yard to Nagdhunga (Kathmandu)

The average time for the trucks to arrive from exit point of the custom 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 almost log normal shape.

However, we wouldn't read too much into the last data (of Bhairahawa to Kathmandu). We were able to match very few trucks (probably because festival was already in full swing?). Two days after our survey was over in Bhairahawa, we stopped collecting data at Nagdhunga because of the festival. 3 days long surveys are generally inadequate to capture the time of long distance travel in our opinion.

During June survey period, the road condition from Bhairahawa to Narayanghat was excellent, except in Daunne hills where vehicles moved very slowly for 15 kilometres in extremely tortuous road. The road was relatively bad in Narayanghat-Mugling section, in particular about 10 kilometres between Jugedi and Dasdhungha was under construction. Furthermore, 7 kilometres stretch between Jalbire and Mugling was very narrow, and precariously situated above deep Narayani River. Many drivers used spend night in small motels in Narayanghat Mugling stretch. The highway was narrow and in a decrepit condition in Naubise-Nagdhunga (15 kilometres) stretch, and was under construction in at least two places during the survey period.

Interestingly, the road conditions were not very difficult during this time as well. Because of the festival and congestions, we expected there to be a delay. Of course, drivers could drive fast and rush home for the Dashain festival as well and thus leading to lessened travel time. We believe we need to look at more data to understand the precise travel time.

SECTION 10

Problems Faced during the Execution of the Project

We did not face any problem this time.

Custom officers and all other officers in Nepalese side helped us in carrying out the survey. Custom officer in Bhairahawa, Managing Director of Nepal Intermodel, Ravi Parekh, police inspector, Mohan Bahadur Khad and others were extremely helpful. We also received help from the heads of all quarantines. The custom officer in Indian side (Salman) was also very courteous and extended us warm welcome and helped us whenever we asked for any help.

Site Code	Total vehicle
Nautanawa (Indian Border)	872
Nepal Border	953
Entry point of Yard	280
Agent's Office of SAD Submission	284
Initial Verification	291
Inspection Site	583
Bank	699
Transloading	88
Nagdhunga	1426

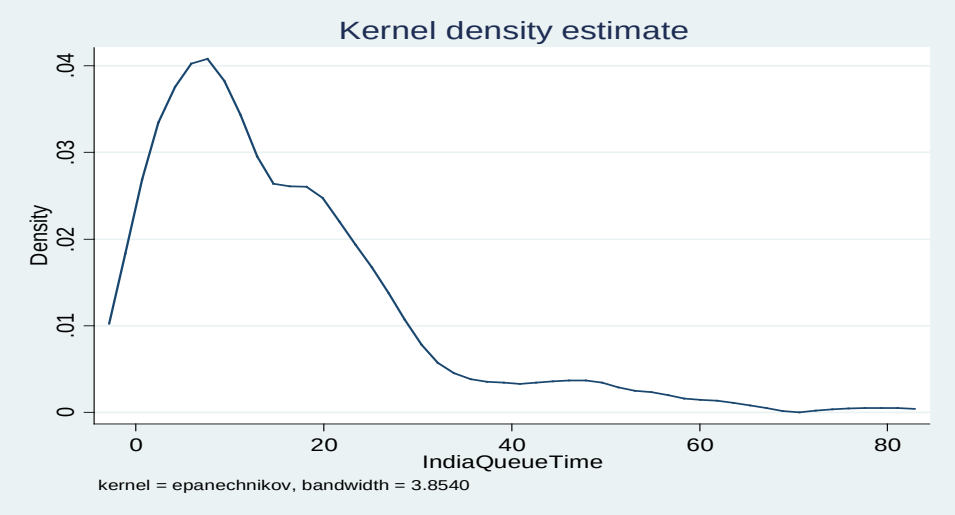
Table 1 Total Number of Observations in the Posts

Variable	Mean(in Minutes)	Standard Deviation (in Minutes)	Min	Max
Total Time In India Custom Queue	21.41[28.3]	15.72[20.6]	1[1]	128[99]
From India Custom Office to Nepal Border (Yard Entry Point)	3.11[3.3]	2.71[2.7]	1[1]	15[24]
Yard Entry- SAD submission time	88.67[123.1]	67.05[93.3]	14[1]	347[383]
Time For Initial Verification	5.78[5.9]	5.53[6.9]	2[1]	60[75]
Inspection Time	14.29[13.7]	13.61[11.8]	4[2]	114[89]
Bank payment Time	10.35[9.3]	7.42[14.7]	1[1]	27[190]
Transloading Time	65.89[73.6]	40.56[40.9]	9[10]	214[190]
Total Yard Time	165.9[240.9]	100.2[122.4]	28[24]	454[635]
Bhairahawa To Kathmandu Time	850.1[2642.7]	323.18[2420.7]	595[577]	1634[11946]

Table 2 Summary Statistics of Time Required (Numbers in parenthesis are mean from March Survey, where applicable)

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

(a) Current survey



EVIDENCE ON DEMAND
CLIMATE & ENVIRONMENT
INFRASTRUCTURE | LIVELIHOODS

(b) June survey

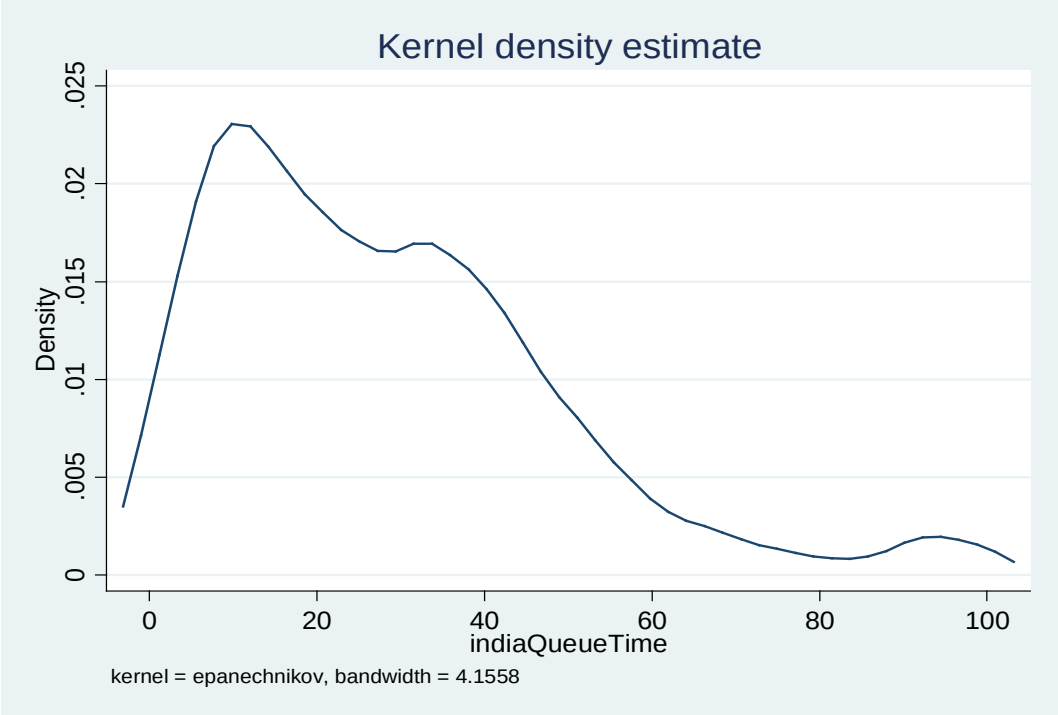
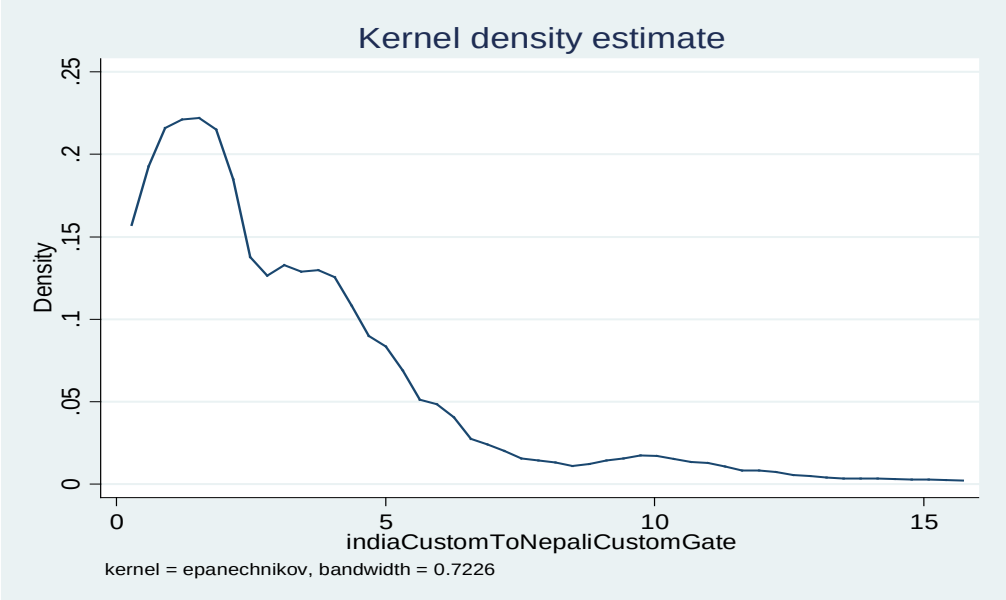


Figure 3 Kernel Density of time to arrive at custom yard from Indian custom.

(a) October survey



(b) June survey

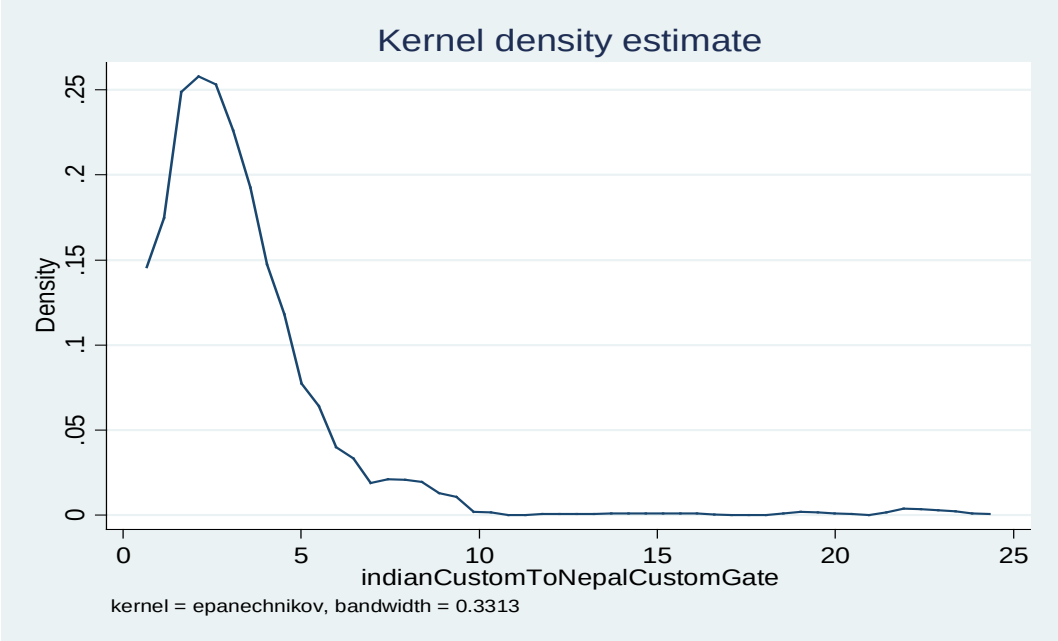
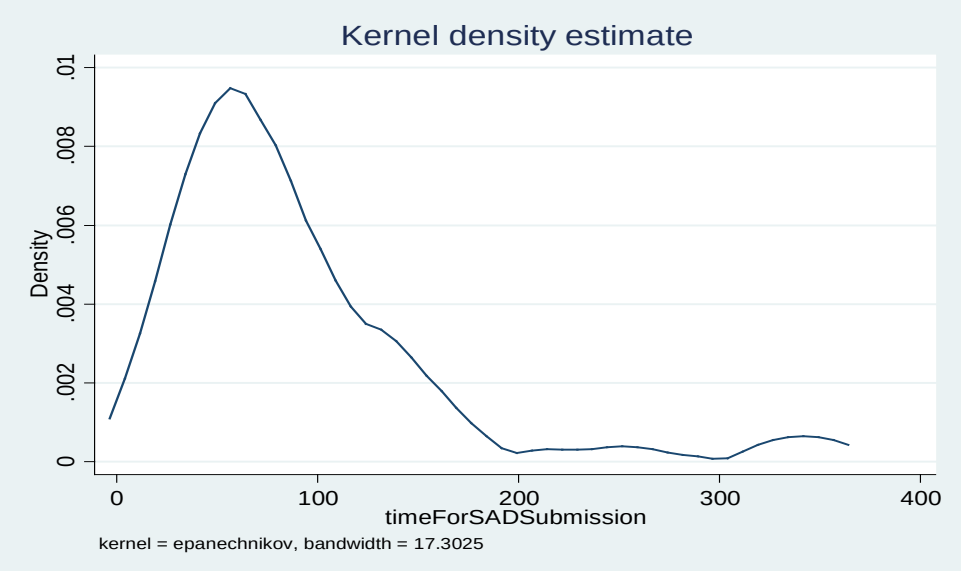


Figure 4 Time for submitting SAD after the trucks enter the yard

(a) Current survey



(b) June survey

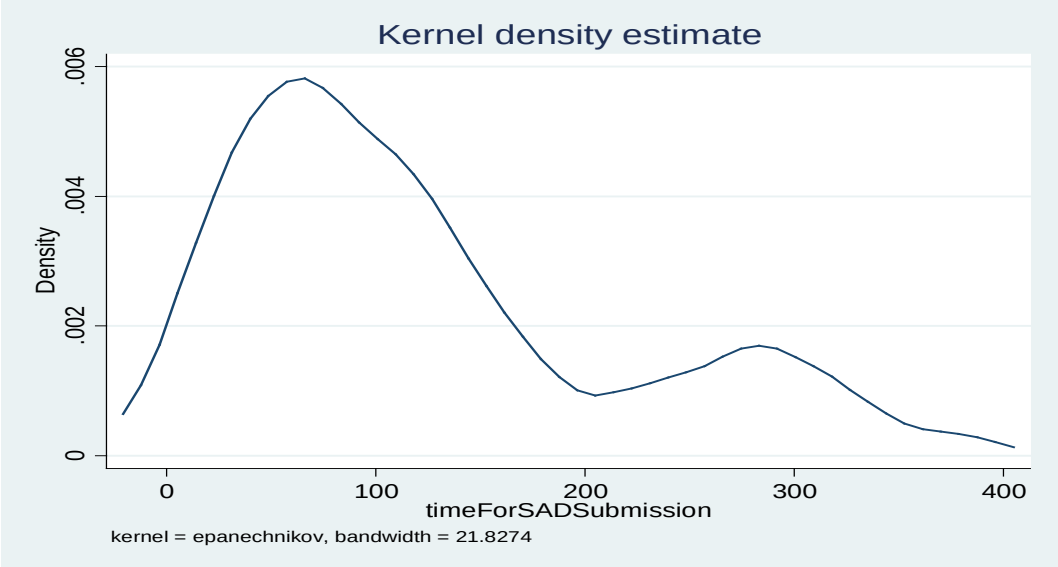
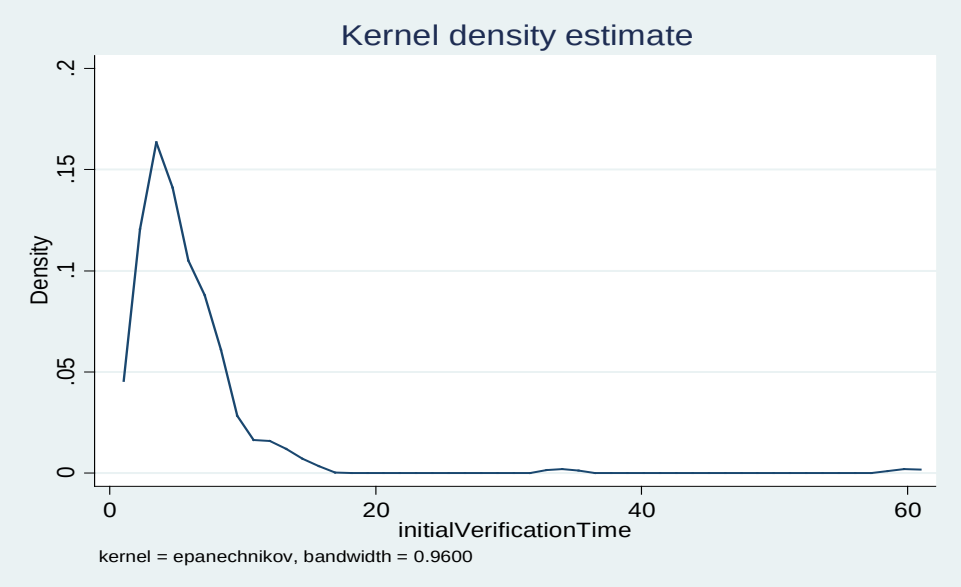


Figure 5 Time for Initial Verification after SAD submission

(a) Current survey



(b) June survey

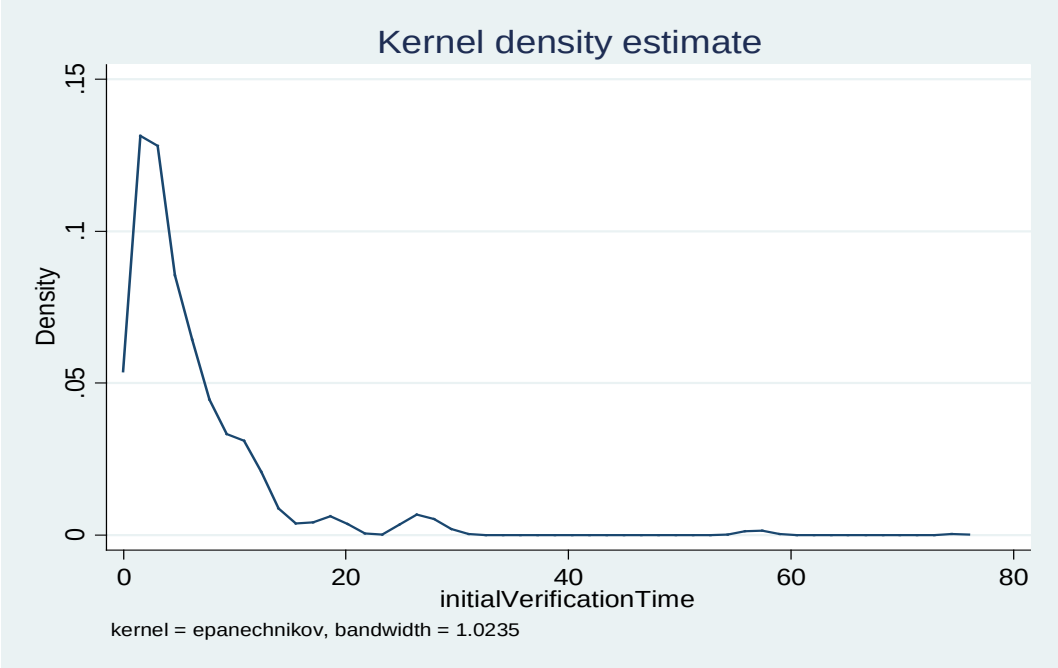
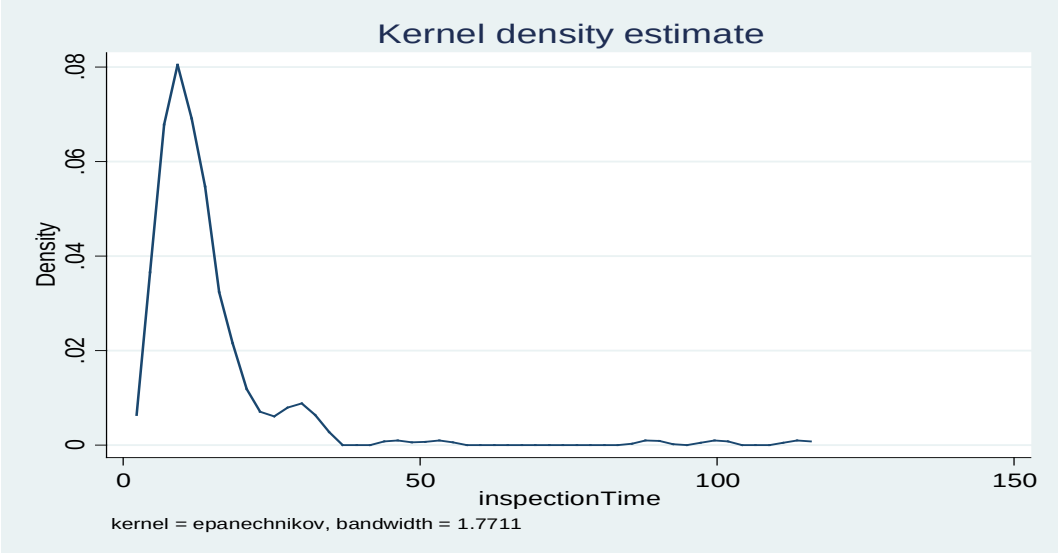


Figure 6 Inspection Time

(a) Current Survey



(b) June Survey

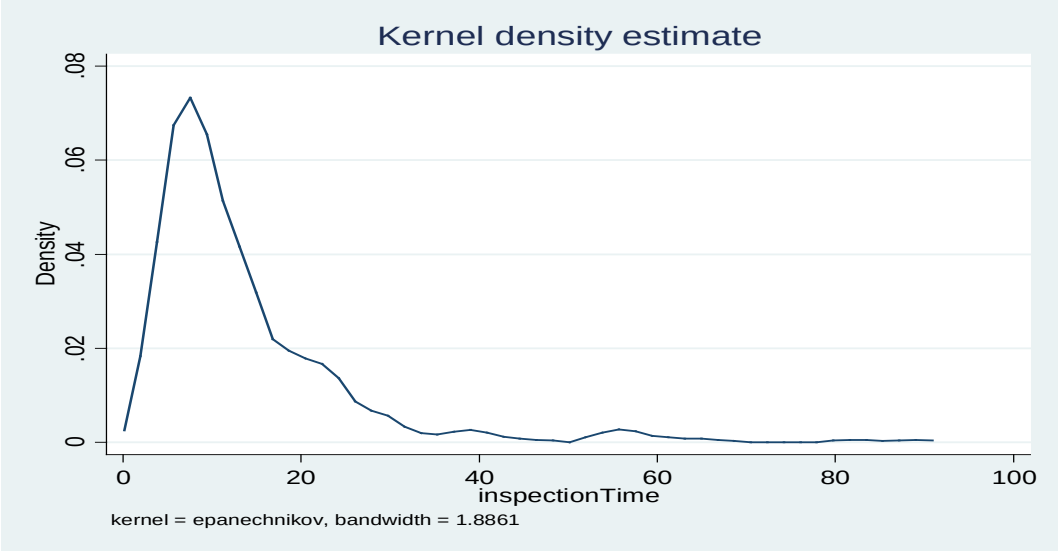
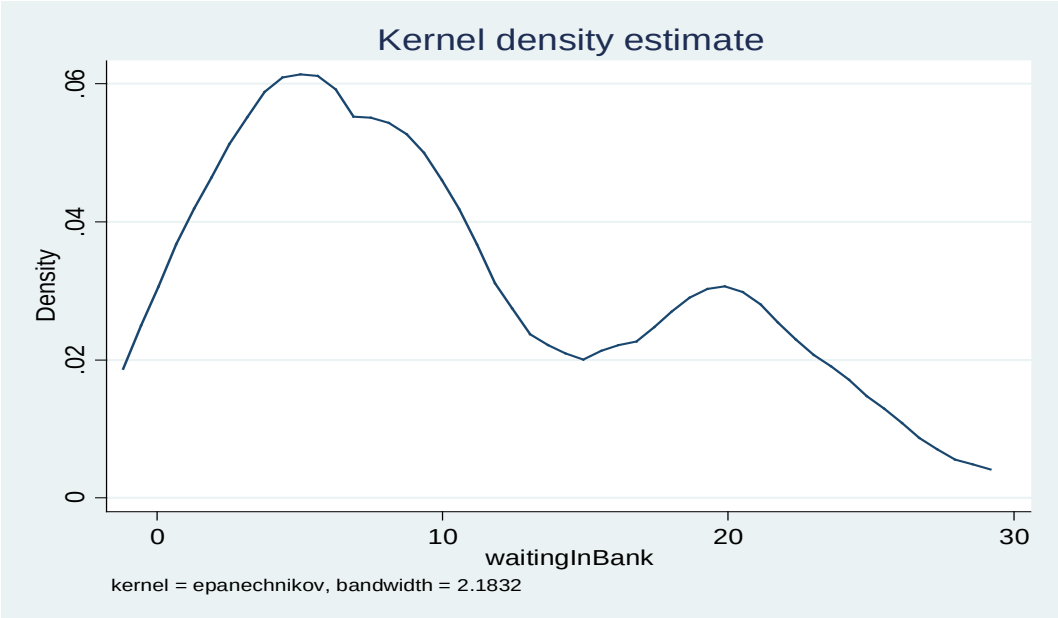


Figure 7 Bank Time (Time to pay at the bank inside the yard)

(a) Current Survey



(b) June survey

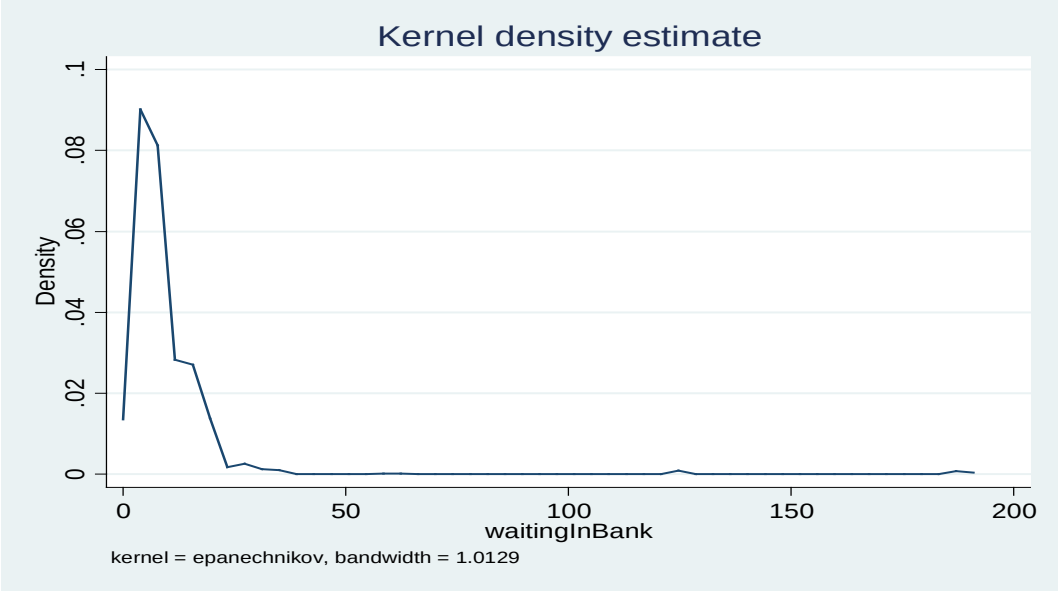
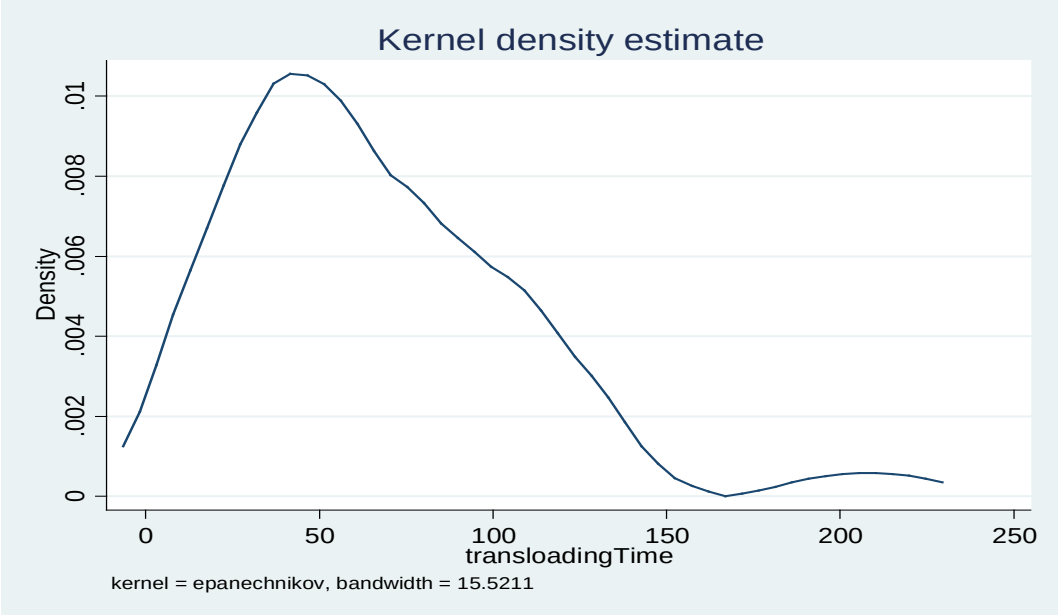


Figure 8 Transloading time inside the yard

(a) Current survey



(b) June survey

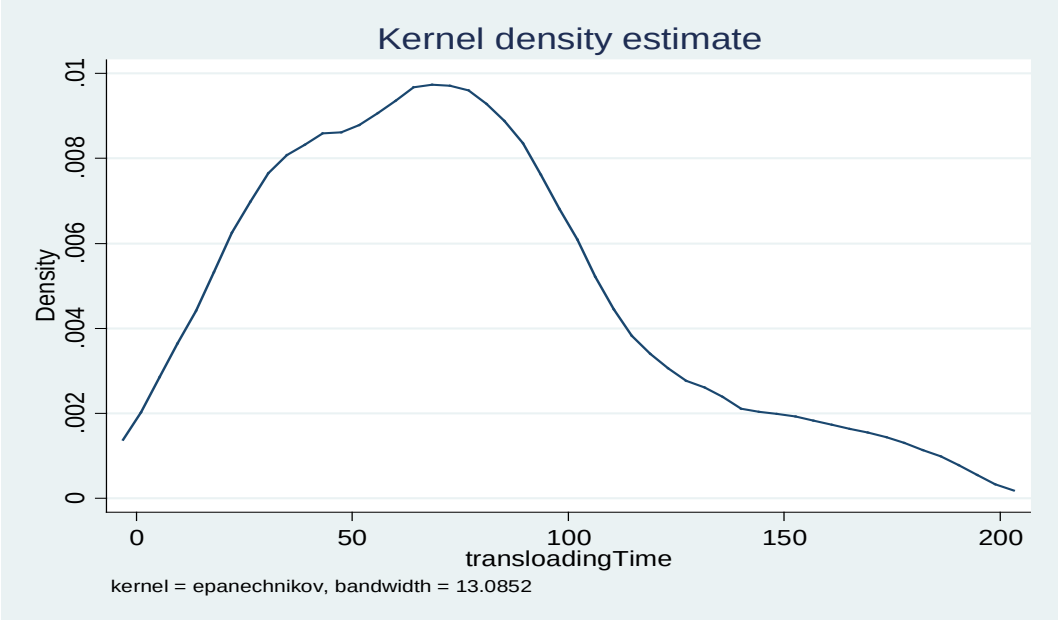
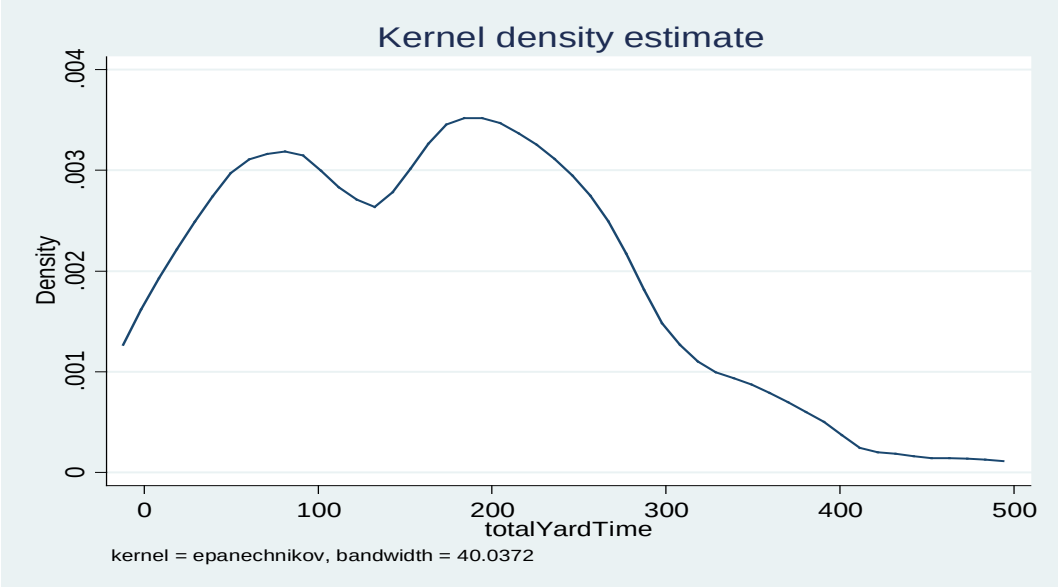


Figure 9 Total Time Inside the Yard

(a) Current survey



(b) June survey

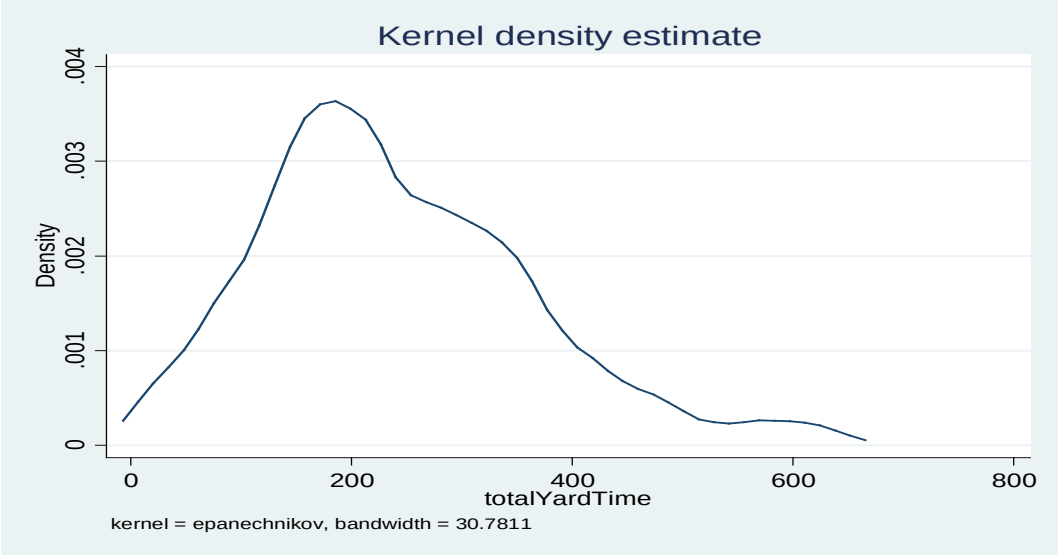
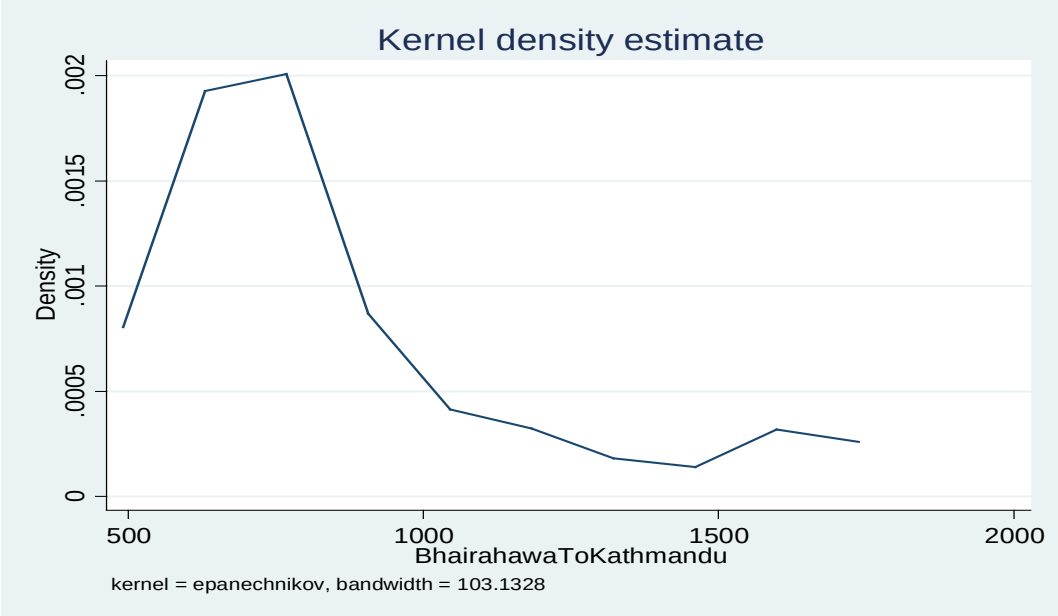


Figure 10 Time from Bhairahawa to Kathmandu

(a) Current survey



(b) June survey