

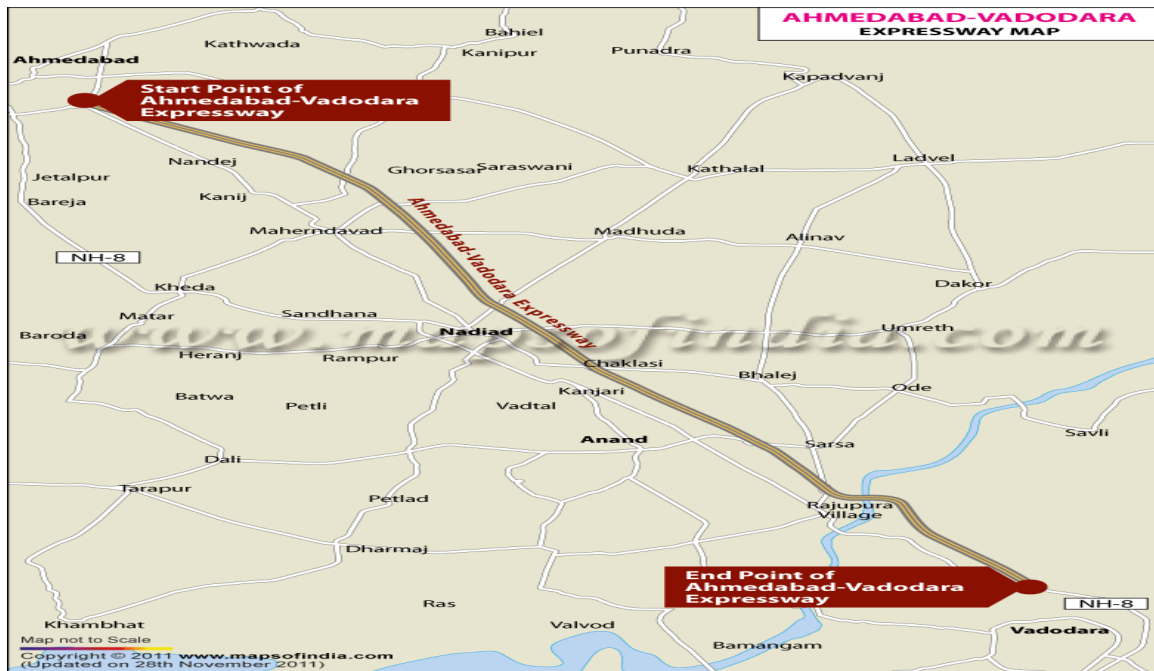
Chapter Three

A Comparative Study of Three Selected Highways/Expressways

In order to understand the execution methodology and functioning of different tolled highways under the control of NHAI and states and to have a comparative perspective three projects as mentioned in chapter one, were selected. The study was carried out broadly within following parameters-

- i) Operational Speed i.e. Time range required to cross the toll gate and number of vehicles passing through the toll gate in a specified period say 15 minutes (measured actually on site)
- ii) Traffic Density i.e. number of vehicles of different categories, using the toll plaza during a specified period of one month
- iii) Toll Collection from various categories of vehicles for a specified period of one month.
- iv) Number of dominant category vehicles vis-à-vis toll collection from that category
- v) Relative contribution of CJV category to the total toll collection.

3.1: Ahmedabad- Vadodara Mahatma Gandhi Expressway:



Ahmedabad-Vadodara Expressway has been developed by NHA under National Highway Development Project (NHDP) Phase Von Design Build Finance Operate Transfer (DBFOT) Tollbasis. The project comprises two parts as under-

1. 102.30 km long new six lanes Ahmedabad-Vadodara section of National Highway-8 (NH-8). This highway has only two toll plazas between Ahmedabad and Vadodara, located at Radhvanaj (Khoda) and Vasad.
2. Improvement of existing 93.302 km Ahmedabad-Vadodara Expressway called National Express-1 (NE-1) connecting Ahmedabad- Vadodara via Nadia and Anand. This was the originally four lane highway and up gradation to six-lane was taken up in this

project. NE-1 has five toll plazas between Ahmedabad and Vadodara. The location of toll plazas and the section lengths are shown in the Table 3, below.

Table 3: Toll Plaza Locations

Sl No.	Location Name	Section Length(In kms)
1	Ahmedabad	3.8
2.	Auda Ring Road	40
3.	Nadiad	15
4.	Anand	29
5.	Vadodara	7

Source: Discussion with NHAI officials

As stated above, both these highways have been considered and treated, jointly, as one project only. Such arrangements where a new road construction work is clubbed with an up gradation work of existing road, called sweetener, in business parlance, was an innovative government initiative to attract private investment in road construction sector which faced drastic fund crunch during 2008-09 to 2011-12. The sweetener effect is called so, because, per km up gradation work costs much less than the, per km new construction work but the revenue generation through toll collection is at the same rate and for the same concession period for both the roads. In other words at the cost of construction of one road (plus some repairs on old road), the concessionaire is authorized to collect toll on two roads.

This project was awarded to M/s IRB Infrastructures Developers Limited on 25/07/2011 by following the competitive bidding in line with government policy. The

concession period for the project was envisaged as 25 years based on traffic forecast study.

A comparative assessment of estimated project cost and revenue generation forecast showed that the project would generate more revenues than the total project cost and hence NHAI decided to call the bids based on Premium rather than the general practice of VGF, adopted for Greenfield projects. The excess revenue generation was largely attributed to the sweetener effect, as discussed above.

Following are the salient features²² of the project:

1. Mode of financing - **BOT(Toll)**
2. Basis of selecting the successful bidder- **Maximum Premium**
3. Estimated project cost- **INR 2125.24 Cr**
4. Premium quoted by the successful bidder- **INR 348 Cr per annum**
5. Successful Bidder- **M/s IRB Infrastructures Developers Limited**
6. Name of the Concessionaire (SPV by the original bidder to execute, operate & maintain the project)- **M/s IRB Ahmedabad Vadodara Super Express Tollway Pvt. Ltd**
7. Total Project Cost to the Concessionaire- **INR 4880 Cr**
8. Model Concession Agreement(MCA) date- **24/07/2011**
9. Date of Commercial Operation- **For NE-1- 01/01/2013 & for NH-8- 06/12/2015.**
10. Concession period – **25 years i.e. up to 23/07/2036**
11. Number of toll plazas on NE-1- **5**

²² Data obtained from NHAI PIU Ahmedabad

12. Number of toll plazas on NH-8- **2**

Performance of the Toll Plaza:

As stated above, the project comprises of two highways NE-1 and NH-8. NE-1 has five toll plazas between Ahmedabad and Vadodara and NH-8 has two toll plazas between Ahmedabad and Vadodara. Due to paucity of time the study for actual performance of the toll plaza near Ahmedabad on NE-1 with the location name CTM Ahmedabad was carried out. The following methodology was adopted to collect the data.

- (i) By actually counting the vehicles passing through the particular gate of the toll plaza during a period of fifteen minutes.
- (ii) Similarly time taken by a vehicle was actually measured by the researcher on the site for around forty five minutes to generate a sample data for five vehicles of each category and with different mode of payments.
- (iii) The personnel working on the toll plaza were asked questions of specific problems being faced by them.

The highlights of the performance of the plaza are enumerated as under-

- 1. Total number of lanes- **5**
- 2. Number of Cash lanes- **3**
- 3. Number of ETC lane-**1**
- 4. Number of VIP lane (Toll free)-**1**
- 5. This toll plaza had the facility to charge toll either of one section of the highway or even up to all five sections at one point.

6. Toll rates applicable- **As per NH (Toll) rules 2008**
7. The average time taken per vehicle to pass through cash lane varied from **5 seconds to 40 seconds** and the same for ETC lane was **3 to 4 seconds**
8. The traffic flow was moderate and uniform from 0800 hrs to 2100 hrs but increased between 2200hrs to 0700 hrs due to opening of the entry for heavy vehicles.
9. Total number of vehicles passed through the toll plaza in a period of 30 minutes (between 1600 hrs to 1630 hrs) - **189** out of which only **6** had RFID tag for ETC.
10. Total RFID tags commercially called FASTag, sold at the plaza between April 16 to date of study, i.e. 21/02/2017 were only **263**
11. Mostly the RFID tags were found installed only on the commercial vehicles.
12. ETC lane was found having operational difficulties. The RFID tags installed on the vehicles were not detected by the reader properly resulting in incorrect readings and stoppage of vehicles and consequent payments in cash by the vehicle users thereby defeating the purpose of ETC system.
13. The main reason of this erratic functioning, as explained by the site engineer of the concessionaire was the multiple tags put on the vehicles for various purpose like RTO check post, dealers identification, fleet owners own tags and even by residential societies for the security in the residential complex. Due to multiple tags on the vehicle the RFID reader for ETC was unable to clearly identify the relevant tag and hence gave erratic response due to which the toll fee was not deducted from the OBU and the users were forced to pay in cash.
14. The operation of the toll plaza as reported by the concessionaire personnel has been peaceful with no major incident of violence.

15. The users preferred upgraded to six-lane NE-1 over the parallel running new six-lane NH-8, despite the fact that NE-1 had five toll plazas and NH-8 has only two toll plazas.

16. The main reasons attributed to this trend are higher toll charges on NH-8 compared to NE-1. NH (Toll Rates) rules 2008 as amended in 2012 provide charging higher rates for extra structures like bridge, underpass, bypass etc., above a certain threshold value (INR 15 Cr). NH-8 having more number of such structures, the toll fee is more on NH-8.

Traffic Census and Toll Collection:

Table 4, below indicates the total number of vehicles of various category and toll collection from each category on the toll plaza.

Table 4: Traffic density & Toll Collection in one month

Category of Vehicles	No of Vehicles	Toll Collection (RsCrore)
Car/Jeep/Van	228885	2.02
LCV	17590	0.32
Truck	1842	0.05
Bus	26822	0.72
MAV-1	2961	0.13

MAV-2	4631	0.28
Total		3.52

Source: Monthly Progress Reports submitted by Concessionaire to NHAI

Issue of deficit toll collection vis-à-vis concessionaire’s projected targets:

The concessionaire has approached NHAI for deferment of premium payment vide application bearing no. IAVSET/BD/14 dated 25th March 2014 on the grounds of shortfall in revenue collection, consequent to large number of vehicles having been granted exemption from paying toll. As a result the concessionaire is currently facing severe financial stress and has requested NHAI to invoke the relevant clause of the MCA whereby the concessionaire can be granted financial relaxation in the situation of financial stress such as prevailing at present. Accordingly the concessionaire has been allowed a deferment of payment of monthly premium, within the provisions of the MCA. Interestingly, on one hand the concessionaire is being compensated for revenue deficit due to exemption of certain category of vehicles and on other hand seeking relaxation of premium payment to NHAI due to shortfall of traffic as against the initial traffic forecast. This dual benefit is extended to the concessionaire within MCA provisions whereby the disbursements from Escrow Account maintained for the project, follow a waterfall mechanism (See Box 3).

Box 3

Escrow Account:

The Concessionaire within 60 days from the date of the Agreement opens and establishes the Escrow Account with a Bank (the “Escrow Bank”) and all funds constituting the Financing Package for meeting the Total Project Cost shall be credited to such Escrow Account. During Operations Period all Fees collected by the Concessionaire from the users of the Project Highway shall be exclusively deposited therein. In addition, all Fees collected by NHAI in exercise of its rights under this Agreement during the Concession Period and all disbursements or payments by NHAI pursuant hereto shall also, subject to the rights of deductions and appropriations therefrom of NHAI under this Agreement, be deposited by NHAI in the Escrow Account.

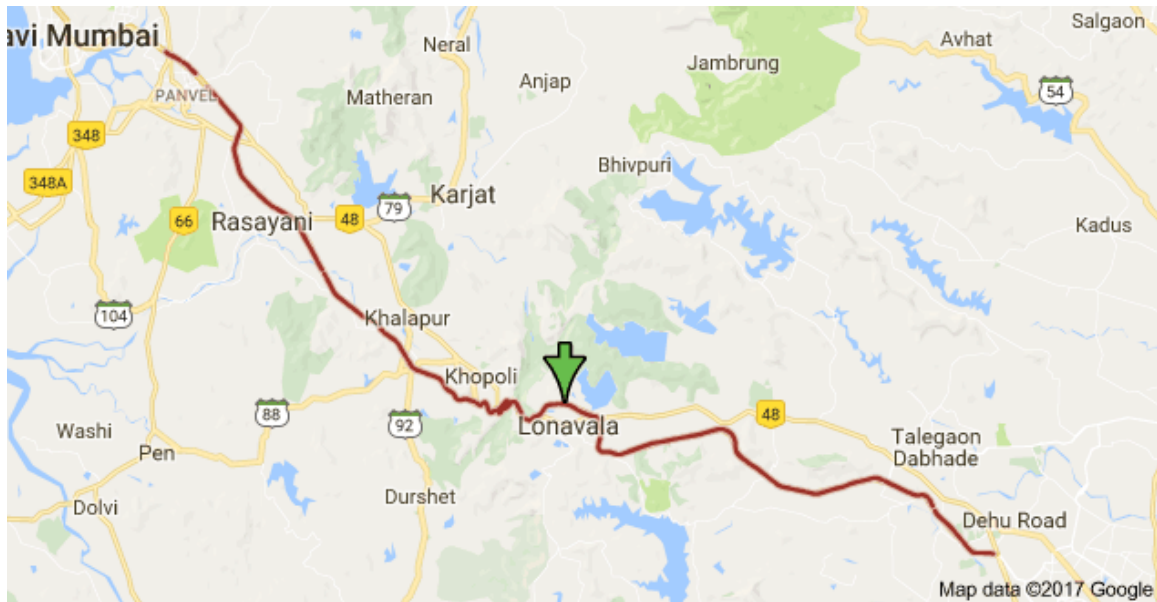
Water Fall Mechanism:

The Concessionaire shall give, at the time of the opening of the Escrow Account, irrevocable instructions by way of an Escrow Agreement substantially to the Escrow Bank instructing, inter alia, that the deposits into the Escrow Account be appropriated in the following order every month.

- (a) All taxes due and payable by the Concessionaire;
- (b) All expenses in connection with and relevant to the Construction of Project Highway by way of payment to the EPC Contractor and such other persons as may be specified in the Financing Documents.
- (c) O&M Expenses including Fees collection expenses incurred by the Concessionaire directly or through O&M Contractor and/or Tolling Contractor, if any, subject to the items and ceiling in respect thereof as set forth in the Financing Documents but not exceeding 1/12 (one twelfth) of the annual liability on this account.
- (d) The whole or part of the expense on repair work or O&M Expense including Fees collection expenses incurred by NHAI on account of exercise of any of its rights under this Agreement provided NHAI certifies to the Escrow Bank that NHAI had incurred such expenses in accordance with the provisions of this Agreement.
- (e) All Concession Fees and any Negative Grant due to NHAI from the Concessionaire under this Agreement.
- (f) Monthly proportionate provision of Debt Service Payments due in an Accounting Year and payment of Debt Service Payments in the month when due.
- (g) Any payments and Damages due and payable by the Concessionaire to

NHAI pursuant to this Agreement, including repayment of Revenue Shortfall Loans and
(h) Balance in accordance with the instructions of the Concessionaire.

3.2: Study of Mumbai-Pune Expressway



Government of Maharashtra (GOM) decided to develop a Greenfield project of Mumbai- Pune Expressway (MPEW) on BOT (Toll) basis and issued the Government Order (GR) to that effect on 5th December 1997. The official name of the project is **YashwantraoChavan Mumbai Pune Expressway (YCEW)** and is India's first six lane access controlled tolled expressway. The total length of the expressway is 94.5 km starting at Kalamboli (near Panvel) on Mumbai side and ending at Dehu Road near Pune. This expressway was conceived with a view to divert the traffic from the existing

Mumbai- Pune section of NH-4, connecting Mumbai to Chennai. The original Mumbai-Pune stretch had become very congested causing great inconvenience to the travellers and hence the construction of this expressway was envisaged. The project was entrusted to Maharashtra State Road Development Corporation (MSRDC), a wholly owned company of Government of Maharashtra. MSRDC was allowed to collect toll for 30 years. The construction work was awarded to four contractors for four different sections of the new expressway only. Besides that the tunnel works and widening of Khandala and Lonavala-Khandala existing bypasses were separately awarded to other contractors for faster execution of the project. The tunnel work was given to Konkan Railways as deposit work. The details²³ of section lengths, tender costs and the contractors etc for various sections are shown in Annexure-2.

Salient Features of the Project:

1. Mode of Funding- **BOT**
2. Process of selection of Private Agency- **National Competitive Bidding for EPC contractors**
3. Selection Criteria- **Techno-commercial bids**
4. Successful bidder- **Refer Annexure 2**
5. Basis of selection-**L-1 (Lowest bidder for respective section)**
6. Total Project Cost (TPC)- **INR 2136.00 Cr**
7. Construction period- **Two years**

²³ Available on MSRDC website as seen on 22/02/2017

8. Concession period- **30 years**
9. Appointed date- **01/05/1998**
10. Concessionaire for O&M (SPV)–**MHAISKAR Infrastructure Private Ltd, A subsidiary of IRB Infrastructure Developers Ltd.**

Performance of the Toll Plaza:

There are total four toll plazas (two main plazas and two exit plazas) on either side of the expressway. The main plazas are located on Khalapur on Mumbai side and Talegaon on Pune side. And Shendong and Khushgaon toll plazas are exit plazas near Khandala and Lonavala bypasses, respectively.

The toll rates applicable for the expressway are as per Government of Maharashtra Notification Letter no. PSP 2000/CR-106(II)/Road-8, dated 9th August 2004. The notification provides for revision of these rates after every three years. The rates as notified are at variance and higher than the provisions of National Highways Fee (Determination of Rates and Collection) Rules, 2008.

Due to limited time availability the site study of only one toll plaza located at Talegaon could be carried out adopting the same methodology as for Ahmedabad-Vadodara Expressway. Following are the details of the findings of the study-

1. Total no of lanes on either side-**9**
2. No. of ETC lanes-**9 (mixed with cash lane)**
3. Vehicles passing per 30 minutes on upside i.e. going towards Mumbai-**90**
4. Vehicles passing per 30 minutes on down side i.e. coming towards Pune-**70**

5. Time taken per vehicle to pass through Lane with cash payment-**3 sec to 120 sec**
6. Time taken per vehicle to pass through Lane with card payment-**14 sec to 28 sec**
7. Time taken per vehicle to pass through Lane with Smart Card payment- **3 to 5 seconds**
8. Time taken per vehicle to pass through Lane with RFID tag- **2 to 3 seconds**
9. Number of vehicles with RFID tags in 30 minutes- **7**

Table 5, below shows, total number of vehicles of different category and toll collection crossing the Talegaon Toll Plaza, in the month of **April 2016**.

Table 5: Vehicle density and toll collection

Vehicle Type	No of Vehicles	Toll Collection Rs. Crore
Car/Jeep/Van	1016494	9.1
LCV	141079	1.6
2 Axle Truck	70629	1.4
Bus	83509	2.4
3 Axle Truck	44971	1.8
Multi Axle Truck/ Mobile Crane etc	42550	2.6
Total	1399232	18.9

Source: Monthly Report by Concessionaire

Operational Issues:

During the discussion with the concessionaire personnel employed at the toll plaza, it was found that operating the plaza is generally hassle free barring some occasionally isolated incidents of arguments with the users mainly the government officials who insist for free passage though not allowed by any Government Orders.

Notwithstanding the smooth running of the plaza, some news article (see box 2) of under-reporting of traffic by the concessionaire, at plazas thereby showing lesser

revenue generation, ostensibly, to claim compensation as provided in the MCA, have been published.

Box 2

The Indian Express (Pune Edition, January, 20 ,2016) published the following article-

A city-based citizens' group, Sajag Nagrik Manch, has demanded the suspension of the toll collection on the Pune-Mumbai Expressway after they came up with the data which purportedly shows that the private contractor had under-reported the Average Daily Traffic (ADT) at the four toll collection booths on the Expressway as calculated in July last year by a margin of over 50 per cent.

The NGO has been keeping a close watch on city's activities—from infrastructure to development—and has been using the Right to Information tool to expose the lapses in the administrative system.

The private contractor, Ideal Road Builders (IRB), meanwhile, has questioned the very grounds on which the SajagNagrikManch has based its argument. VivekVelankar of the Manch said , “In July 2015, the Maharashtra State Road Development Corporation (MSRDC) used the videography method to calculate the number of vehicles passing through the four toll collections booths — Khalapur, Talegaon, Kusgaon and Shedung on the Pune-Mumbai Expressway. This counting was done for a week from July 18 to 24. Activist Sanjay Shirodkar has recently accessed the data using the RTI Act. We have calculated the Average Daily Traffic (ADT) for this week. For comparison with this data, we have taken Average Daily Traffic of 31 days of traffic in July as submitted by the contractor.”

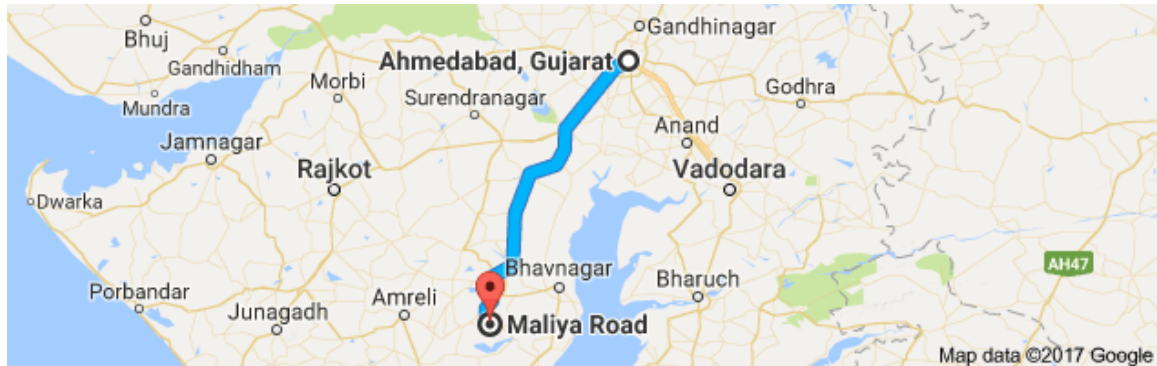
Velankar said, “If we compare these two ADTs, there is a glaring gap in the numbers given by the videographic counting and those given by the contractor. This gap is as big as 50 per cent. We demand that an inquiry be immediately constituted into this and the toll collection be suspended on Pune-Mumbai Expressway. We also demand action against MSRDC officers who had the data with them.”

There are total 42 toll plazas under MSRDA and in order to counter the efforts of under reporting of revenue figures,. With this mechanism, any information regarding toll

system all over Maharashtra State, sought by any stake holder including members of public can be made available to resolve the issues.

Since this expressway is running parallel to the Mumbai-Pune stretch of NH-4 having considerably lower toll rates, therefore most of the LCVs and HCVs prefer to travel on NH-4. There is a demand of LCV owners to exempt them from tolling on this expressway. For the time being the demand has not been acceded to but occasionally voices are raised as tolling LCVs directly affect the prices of goods being used by common people.

3.3: Study of Ahmedabad ViramgamMaliya Road Project



Government of Gujarat (GOG) initiated a project of up gradation from two-lane to four-lane of 180.703 km road stretch (comprising SH-7 & SH-12) between Ahmedabad to Viramgam and Maliya. GOG envisaged this project would establish connectivity to the largest city of Gujarat i.e. Ahmedabad and even with rest of the Gujarat with Kutch region of Gujarat having two most important ports Kandla Port Trust and Mundra Port besides Lignite & Bauxite mines. It passes through three major districts of Ahmedabad, Surendranagar and Morbi. State Road Development Corporation (GSRDC) was entrusted

with the responsibility to implement this project. On execution of this project, the distance between Ahmedabad and Kutch region has been shortened by 70 kms, which was earlier travelled through NH-8A.

Salient Features²⁴ of the Project:

1. Mode of Funding- **BOT(Toll)**
2. Process of selection of Private Agency- **National Competitive Bidding**
3. Selection Criteria- **Minimum VGF**
4. Successful bidder- **M/s L&T Ltd.**
5. Basis of selection- **Offered maximum premium instead of seeking VGF**
Concessionaire's offer- To give premium to GSRDC at the rate of 12.13% of the realizable user fee (toll) increasing 1% annually throughout the concession period.
6. Total Project Cost (TPC)- **INR 1015.36 Cr**
7. Contractor's proposed Investment- **INR 1668.68 Cr**
8. Construction period- **913 days**
9. Concession period- **22 years**
10. Appointed date- **12/10/2009**
11. Concessionaire (SPV for O&M) -**M/s Ahmedabad-MaliyaTollway Private Ltd.**

²⁴ Data taken from office note of GSRDC

Performance of Toll Plaza:

Under Gujarat state there are total 10 completed projects with total 21 toll booths. Out of these 11 are mixed type that is having facility for cash payment as well as ETC and balance are only with cash payment facility.

Table 6, below describes the location, section length and date of commercial operation of all the toll plazas installed along the highways covered in the project under study.

Table 6: Traffic Density & Toll Collection

Sr No.	Toll Plaza Location	Length of the section (In km)	Date of Commercial Operation
1	Sanand	47.500	02/09/2012
2	Near Malvan	67.000	22/11/2012
3	Near Dhirangadhra	26.138	12/04/2012
4	Near Aniyari Village	40.065	09/05/2012

Source: Office note of GSRDC

As could be seen from above there are four toll plazas all along the project length. But due to paucity of time, detailed study was carried out only on one toll plaza located at Sanand. The methodology of data collection was same as adopted for the other two plazas.

Following are the highlights of the performance of the toll plaza-

1. Toll rates are applicable within the provisions of National Highways Fee (Determination of Rates and Collection) Rules,2008.
2. There are total five toll gates each side with split location at this plaza²⁵.
3. Out of five, one was mixed that is with cash and partial ETC facility.
4. Out of the remaining four, two were cash lanes and two were free lanes.
5. Free lanes were for CJV (Car, Jeep, Van) category
6. CJV category was exempted by state government on all state run toll plazas, with effect from 15th August 2016.
7. Consequent to this exemption, the concessionaire is being compensated by the state government in terms of monthly payment equivalent to the loss of toll by counting the CJV category vehicles on daily basis.
8. The ETC gate was used to allow vehicles using local tags specific to this toll plaza only, mainly given to the commercial vehicles.
9. Time taken to cross the gate through cash line was from 4 seconds to 24 seconds. And that with ETC lane it was from 4 to 5 seconds.
10. Total vehicles passed through one free lane within duration of fifteen minutes were 51 and that through (ETC + Cash) lane were 9 only.
11. The reason for these small numbers, as told by concessionaire's employees was the lean time.
12. Therefore counting of vehicles was done on the other side being relatively busier.

²⁵ The toll gates were constructed with a split location as against the general practice of keeping in the same line. The reasons as explained by the officials are non-availability of land. The farmers/land owners refused to part with their land for construction of toll plaza at that location being a bone of contention ever since the plaza was constructed.

13. On other side number of vehicles through (ETC + Cash) lane was 92 and that of free lane for CJV category was 29 within a period of fifteen minutes.

Table 7, below indicates the total number of vehicles of different category and the total amount of toll collection at the toll plaza for the month of January,2017.

Similarly table 7, below indicates the total number of vehicles of different category and the total amount of toll collection at the toll plaza for the month of January, 2016 and 2017.

Table 7: Traffic Density and Toll Collection in January 2016 & 2017

Type of Vehicle	No. of Vehicle		Toll collected (in Lakhs)	
	2016	2017	2016	2017
CJV*	148717	0	97.11	0.00
LCV/LGV	27784	29578	33.93	36.47
Bus	16327	5673	53	36.03
Truck	9271	11269	19.59	23.32
MAV/OSV	81267	81341	246.47	258.63
Total	283366	127867	450.10	354.05

Source: Monthly Fee Statement by the Concessionaire

* The figures against CJV are shown zero as this category has been exempted from toll by the state government on all state highways.

As could be seen from table 7, the toll collection during January 2017 has decreased considerably despite a substantial increase in traffic density. The reason, as discussed with GSRDC officials, is that from August 15, 2016, all small cars and Government owned vehicles have been exempted from paying the toll.

The table 9, below indicates the recent position on traffic position on random days.

Table 8: Number of vehicles using toll plaza on selected days

Date	Day of the Week	No. of Total Vehicles
05.02.2017	Sunday	19806
06.02.2017	Monday	23163
09.02.2017	Thursday	24026
11.02.2017	Saturday	21940
13.02.2017	Monday	23128
16.02.2017	Thursday	23500

Source: Actual data collected from the concessionaire office at Toll Plaza.

Operational Issues:

Feedback and personal discussion with the General Manager (Operations) of the Concessionaire at the toll plaza has revealed that the toll plaza functioning is far from satisfactory and there are serious issues related with law and order. Ever since the toll collection started, the people from surrounding areas have been agitating against opening of the plaza at that location. At the toll gate people came with their vehicles and would refuse to pay the toll fee. On several occasions, the concessionaire employees were

manhandled and beaten by the local residents when insisted to pay the toll fee. The problem turned so serious that the concerned minister of Gujarat government had to intervene and eventually government had to accede to the demand of local people to waive the toll fee on all CJV (Car, Jeep and Van) category vehicles. As a Consequence, the state government is compensating the concessionaire by paying the monthly amount equivalent to the total revenue loss being incurred due to the CJV exemption. And, as a matter of fact, the concessionaire has stopped paying premium to the government from May,2014 due to insufficient revenue generation.

Interestingly the highest number of CJV category of vehicles crossing the first toll gate (located at Sanand) belong to the local farmers, particularly the Durbar community a martial caste with ferocious disposition, who bought these vehicles in large numbers from the land compensation paid to them for the land taken by government for constructing the highway and the toll plazas. This is corroborated with the fact that the daily number of CJV category vehicles entering the first gate (Sanad) is around 15000 and those entering next gate (located at Vasad) are 5000. The gates at Malvan, Dhirangadhra and Aniyari village have different problems of their own nature. Being in interior rural area, law enforcement is a serious limitation and the local people are picking fights on the slightest provocation on one pretext or the other. On more than one occasion situation has turned ugly and has resulted in death of the security personnel of the concessionaire.

The latest demand from the local people that is gaining heat is the waiver for LCV category vehicles also as many of the farmers had bought the LCVs out of the compensation money. The concessionaire employees are facing resistance on this count

also and are apprehensive about their safety and security as the local cooperation from local administration is minimal.

Besides the agitation against the toll payment, there is the safety issue that causes serious impediment in operating the highway. As a rule the stretch of the highway passing through a village is inaccessible to the pedestrians or cyclist etc. and they can cross the highway only through the assigned locations or under the flyovers but on such stretch people break the median and cross over to other side that result in accidents. Following such happenings villagers start demanding for speed breakers on the highway which is in contravention with the highway policy. At times, to diffuse the situation, high level government intervention is sought.

One more category of miscreants are the hotel owners and the petrol pump owners located on the highway who break the median and make openings for easy access to their outlets and thus jeopardize the safety of the highway users.