

EXECUTIVE SUMMARY

Tax collection	In 2010-11, the collection of taxes on Motor vehicles which stood at ` 2,550.02 crore, had increased by 30 <i>per cent</i> over the previous year which was attributed by the Department to increase in registration of vehicles by about 10 <i>per cent</i> .
Cost of collection	We noticed that the percentage of Cost of collection to the Gross collection was lower than the all India average percentage for the years 2008-09 to 2010-11.
Internal Audit Wing	<p>The Internal Audit Wing is functioning in the Department. Internal audit was completed for about 82 <i>per cent</i> of the Offices selected. As per the information furnished by the Department, we noticed that the statistics of number of observations raised, settled and pending with money value thereof looked incorrect.</p> <p>We recommend the Department initiate remedial action for reconciliation of figures and follow up on pending Internal Audit objections.</p>
Insignificant recovery by the Department of observations pointed out by us in earlier years	During the period 2006-07 to 2010-11, we had, through our Audit Reports pointed out non/short levy, non/short realisation of revenue amounting to ` 5.59 crore. Of these, the Government/Department had accepted audit observations involving ` 4.97 crore and had since recovered only ` 94.25 lakh. The recovery made by the Department is only 18 <i>per cent</i> of the amount involved in the total accepted cases.
Results of audit conducted by us in 2010-11	<p>We conducted a test check of the records of 53 offices of the Transport Department during the year 2010-11, which revealed under-assessments of tax and other irregularities involving ` 9.66 crore in 194 cases. Of these, the Department accepted 72 cases involving ` 1.45 crore.</p> <p>We also conducted a Performance Audit on “Computerisation in Transport Department” the findings of which are featured in this chapter.</p>
What we have highlighted in this Chapter	We noticed that Smart cards for Registration of Vehicles (RCs) and Driving Licenses was introduced w.e.f November 2009 with ‘VAHAN’ and ‘SARATHI’ being implemented in all 54 RTOs/ARTOs of the State. The Department has not evolved, documented and circulated policies relating to IT implementation. No clear demarcation of duties/responsibilities between the

	<p>Department and the NIC, have been documented with reference to ensuring system reliability and integrity. Even though the Computerisation has been implemented in all the RTOs as of November 2009, registration of transport vehicles except for Bangalore City was not routed through VAHAN. Software modules such as Surrender, Demand, Collection and Balance, Departmental Statutory Authority Cases were not being utilised by the Department. The Software application did not provide for mapping of certain business activities of the Department like jurisdiction of the RTOs, prompt for demand of tax on change of ownership of Government vehicle to individual owner, fee for advance registration mark, refund of tax etc. Digitisation and porting of legacy data was not completed even as of November 2011 and work outside Bangalore was not given any priority; junk/redundant data had been ported into the present system as no clean up exercise was envisaged and done before porting the legacy data, thereby rendering the database incomplete and unreliable.</p> <p>We noticed on comparison of data of NOC/CC module with tax collection module data of three RTOs that in 147 instances NOC/CC were issued even though there were arrears of tax from those vehicles. The Department did not have a clearly documented and approved policy statement comprehensively covering all aspects of logical security. The system permitted the same user to be given permission for various processes in any activity.</p> <p>We found from the SARATHI database of issued licenses of six RTOs that in 718 instances one person (identified by name, father's name and date of birth) has been issued with two or more licenses (bearing different license numbers).</p>
<p>Our conclusion</p>	<p>The Department needs to gear up its activities and implement the computerisation in all the RTOs in respect of all its activities to meet its e-governance objectives. The Department should improve the Internal control systems including strengthening of Internal audit so that weaknesses in the system are addressed and omissions of the nature detected by us are avoided in future.</p> <p>It also needs to initiate immediate action to recover the non-realisation, undercharge of tax, etc pointed out by us, more so in those cases where it has accepted our contention.</p>

CHAPTER-IV: TAXES ON MOTOR VEHICLES

4.1 Tax administration

The provisions of the Karnataka Motor Vehicle Taxation (KMVT) Act, 1957 and rules made thereunder govern the levy and collection of taxes on motor vehicles. The levy of taxes on motor vehicles is administered by the Transport Department headed by the Commissioner for Transport who is assisted by Joint Commissioners of Transport. There are 55 Regional Transport Offices (RTOs)/Assistant Regional Transport Offices (ARTOs) and 15 check posts in the State.

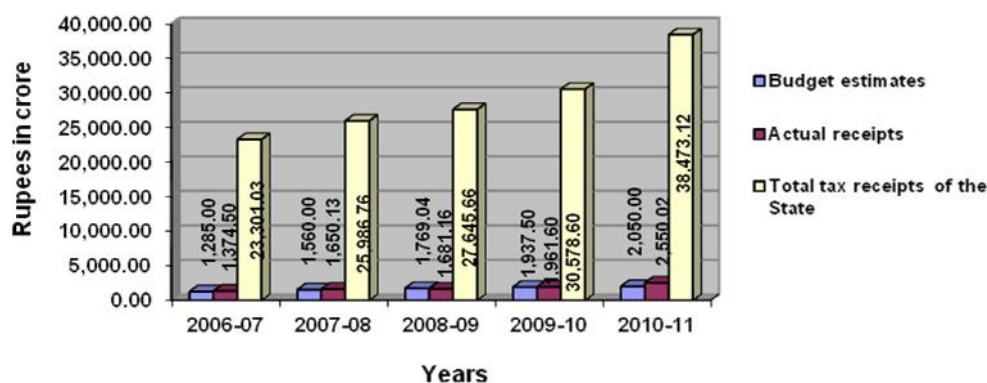
4.2 Trend of receipts

Budget Estimates (BEs) and actual receipts from taxes on motor vehicles during the years 2006-07 to 2010-11 along with the total tax receipts during the same period is exhibited in the following table and graphs.

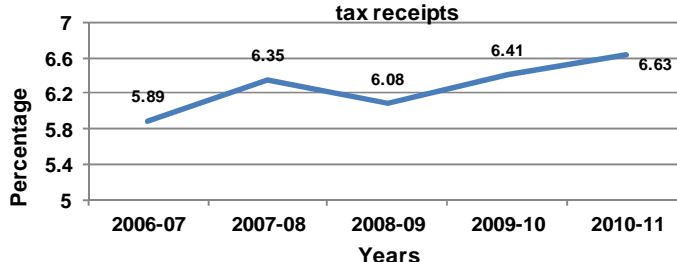
(in crore)

Year	Budget estimates	Actual receipts	Variation excess(+)/shortfall(-)	Percentage of variation	Total tax receipts of the State	Percentage of actual receipts vis-à-vis total tax receipts
2006-07	1,285.00	1,374.50	(+) 89.50	(+) 6.96	23,301.03	5.89
2007-08	1,560.00	1,650.13	(+) 90.13	(+) 5.78	25,986.76	6.35
2008-09	1,769.04	1,681.16	(-) 87.88	(-) 4.97	27,645.66	6.08
2009-10	1,937.50	1,961.60	(+) 24.10	(+) 1.24	30,578.60	6.41
2010-11	2,050.00	2,550.02	(+) 500.02	(+) 24.39	38,473.12	6.63

Graph 1 : Budget estimates, Actual receipts and Total tax receipts



Graph 2: Percentage of Actual receipts vis-à-vis Total tax receipts



It is seen from the table that the revenue realisation in 2010-11 was 24 per cent more than the BEs and 30 per cent more than the previous year. The Department reported (November 2011) that the increase in revenue was due to increase in registration of vehicles by about 9 to 10 per cent.

4.3 Cost of collection

The gross collection of taxes on motor vehicles, expenditure incurred on collection and the percentage of such expenditure to gross collection during the years 2008-09, 2009-10 and 2010-11 along with the relevant all India average percentage of expenditure on collection to gross collection for the respective preceding years were as follows:

Year	Gross collection	Expenditure on collection	Percentage of cost of collection to gross collection	All India average percentage for the preceding year
	(` in crore)			
2008-09	1,682.90	34.84	2.04	2.58
2009-10	1,962.62	36.35 ¹	1.85	2.93
2010-11	2,551.40	41.45	1.62	3.07

As seen from the above, the percentage of Cost of collection to the Gross collection was lower than the all India average percentage for all the three years.

4.4 Impact of Audit Reports

During the last five years, through our Audit Reports, we had pointed out non/short levy of tax with revenue implication of ` 5.59 crore in 16 paragraphs. Of these, the Government/Department had accepted audit observations involving ` 4.97 crore in 15 paragraphs and had since recovered ` 94.25 lakh. The details are shown in the following table:

(` in lakh)

Year of Audit Report	Paragraphs included		Paragraphs accepted		Amount recovered	
	Number	Amount	Number	Amount ²	Number	Amount ²
2006-07	03	199.82	03	191.81	02	0.24
2007-08	04	139.61	04	138.51	02	15.90
2008-09	04	135.39	04	135.39	04	57.65
2009-10	02	19.54	02	4.58	02	4.30
2010-11	03	64.32	02	26.60	02	16.16
Total	16	558.68	15	496.89	12	94.25

As seen from the above table, the recovery made by the Department is only 18.47 per cent of the amount involved in the total accepted cases.

We recommend that the Government take measures to ensure expeditious recovery of revenue in respect of the accepted cases.

¹ Indicates non-plan expenditure only. Plan expenditure for 2009-10 was ` 0.46 crore.
² Indicates the amount of acceptance and recovery in respect of individual cases included in the respective paragraphs.

4.5 Working of Internal Audit Wing

The Internal Audit Wing (IAW) is functioning in the Transport Department since 1960. As against the sanctioned post of eight First Division Assistants and one Accounts Superintendent for Internal audit, two posts of First Division Assistants were vacant.

As per the information furnished by the Department, out of 72 offices due for audit during 2010-11, 59 (82 *per cent*) were audited. Year-wise details of the number of objections raised, settled and pending along with tax effect, as furnished by the Department are as under:

(` in lakh)

Year	Observations raised		Observations settled		Objections pending	
	Number of cases	Amount	Number of cases	Amount	Number of cases	Amount
Upto 2006-07	183	104.56	658	105.69	-	-
2007-08	352	154.85	564	108.51	-	46.34
2008-09	9	7.17	2	576.00	7	7.16
2009-10	15	9.18	-	-	15	9.18
2010-11	75	29.45	75	13.64	1,217	256.96

As seen from the above, the number of paragraphs and amount do not tally. We had recommended earlier in 2009-10 that remedial action may be taken for reconciliation of figures and for speedy clearance of old objections. However, the discrepancy in figures continued during 2010-11 also.

We recommend that the Department accord due importance for follow up on internal audit.

4.6 Results of audit

Test check of records of 53 offices of the Transport Department, conducted during the year 2010-11, disclosed underassessment of tax and other irregularities amounting to ` 9.66 crore in 195 cases, which fall under the following categories:

(` in crore)

Sl. No.	Category	Number of cases	Amount
1.	Computerisation of Transport Department (A Performance audit)	01	-
2.	Short levy of tax on fleet owners	02	3.81
3.	Non-levy of tax on grant of special permits	16	2.66
4.	Non/short levy of quarterly tax	48	1.76
5.	Non-levy of part 'B' tax	04	0.51
6.	Non/short levy of lifetime tax	11	0.19
7.	Non/short levy of tax on violation of condition of surrender	05	0.08
8.	Non-levy of fee on registration with fancy numbers	11	0.07
9.	Other irregularities	97	0.58
	Total	195	9.66

During the year 2010-11, the Department accepted under-assessments of tax of ` 1.45 crore in 72 cases pointed out during the year. The Department also recovered ` 5.26 crore in 110 cases pointed out in earlier years.

After the issue of a draft paragraph, the Department reported (June 2011) recovery of the entire amount of ` 21.64 lakh revenue due.

A Performance audit on **Computerisation of Transport Department** and few illustrative cases involving ` 64.32 lakh are mentioned in the succeeding paragraphs.

4.7 A Performance Audit on “Computerisation of Transport Department”

Highlights

Smart cards for Registration of Vehicles (RCs) and Driving Licenses was introduced w.e.f. November 2009 with Computerisation through VAHAN and SARATHI, in all 54 RTOs/ARTOs of the State.

(Paragraph 4.7.6)

The Department has not evolved, documented and circulated policies relating to IT implementation. No clear demarcation of duties/responsibilities between the Department and the National Informatics Centre (NIC), have been documented with reference to ensuring system reliability and integrity.

(Paragraphs 4.7.8.1 & 4.7.8.2)

Even though the Computerisation has been implemented in all the RTOs as of November 2009, the activities of the Department with respect to transport vehicles were not routed through VAHAN. Smart Card RCs for transport vehicles were being issued only in 5 RTOs in Bangalore from 1 May 2010. Modules of the software such as Surrender, Demand, Collection and Balance, Departmental Statutory Authority Cases were not being utilised by the Department.

(Paragraph 4.7.8.3)

The Software application did not provide for mapping of certain business activities of the Department like jurisdiction of the RTOs, prompt for demand of tax on change of ownership of Government vehicle to individual owner, fee for advance registration mark, refund of tax etc.

(Paragraph 4.7.9)

Digitisation and porting of legacy data was not completed even as of November 2011 and work outside Bangalore was not given any priority; junk/redundant data had been ported into the present system as no clean up exercise was envisaged and done before porting the legacy data, thereby rendering the database incomplete and unreliable.

(Paragraph 4.7.10.1)

Analysis of database of VAHAN has revealed invalid/redundant data. For example, there were duplication of Permit Numbers in 80 cases in three RTOs, in 795 cases same engine numbers were found against different vehicle in the database of six RTOs, Insurance Details were not captured in 11,732 cases in database of eight RTOS, no sale value has been captured in 1,456 cases and in

1,342 cases there is invalid sale amount for Non-Transport Vehicles. Invalid data in fields related to determination of quarterly tax such as floor area, wheelbase was also noticed.

(Paragraph 4.7.11)

There was difference in the lifetime tax (LTT) payable as per Sale Value of vehicles and tax actually paid as per database as noticed in six RTOs and 3,632 vehicles, which was confirmed by us in physical check of records in 20 cases involving short levy of tax of ` 64,417.

(Paragraph 4.7.12.1)

We noticed on comparison of data of NOC/CC module with tax collection module data of three RTOs that in 147 instances, NOC/CC were issued even though there were arrears of tax from those vehicles.

(Paragraph 4.7.12.6)

The Department did not have a clearly documented and approved policy statement comprehensively covering all aspects of logical security. The system permitted the same user to be given permission for various processes in any activity.

(Paragraph 4.7.13.1)

We found from the database of issued licences of six RTOs that in 718 instances one person (identified by name, father's name and date of birth) has been issued with two or more licences (bearing different licence numbers).

(Paragraph 4.7.15)

4.7.1 Introduction

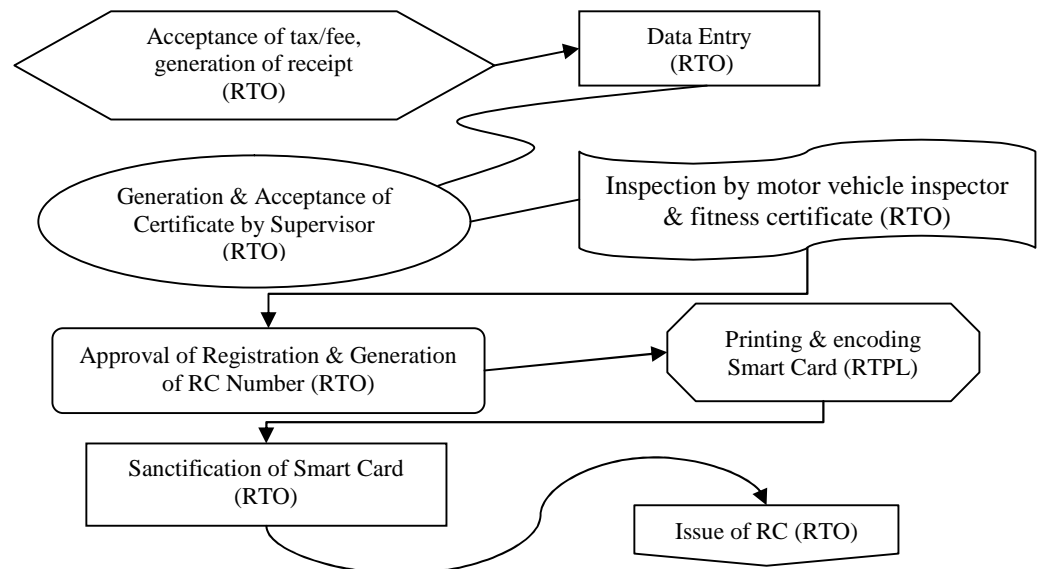
Road Transport is a concurrent subject under Indian Constitution. Legislation and coordination of road transport among States is done by the Central Government and the implementation of the various provisions of the Motor Vehicles Act is done by the States. With a view to creating a National database of registration, driving licenses, national permits etc to serve as a reliable planning tool both for the Central and State Governments and as part of National e-governance programme, the Ministry of Road Transport and Highways (MoRTH) entrusted the development of standardised software to the National Informatics Centre (NIC) in 2002. Accordingly, the following softwares were developed by NIC:

VAHAN: An application for registration of vehicles and road tax clearance by the RTA/RTO. It helps the Department to register vehicle, collect tax, issue various certificate and permits and record fitness of vehicles.

SARATHI: An application for issue of learners licence, permanent driving licence, conductor's licence and driving school licence.

These softwares also provided for issue of Registration Certificates (RC) and Driving Licenses (DL) in electronic form – SMART Cards. Besides, a Data Transformation Service (DTS) was developed by NIC State unit for transferring VAHAN and SARATHI from Transport Commissioner's office to a Central database and ensuring data security. M/s Rosemerta Technologies Pvt. Ltd. (RTPL) is entrusted with the work of printing and encoding of smart cards.

The processes involved in the system are summarised below



4.7.2 Audit Objectives

We undertook the present review with a view to examine whether:

- The implementation of the system followed a planned programme and customisation of the modules was in accordance with specific requirements of the Department;

- Proper application controls existed in the system to ensure the integrity of data;
- All third party issues are administered to ensure adequate delivery of services;
- Authorisation procedures, access control and privileges established in the applications were adequate;
- Adequate security controls and disaster recovery plan existed; and
- Adequacy of system established for mapping of business rules with provisions in the application.

4.7.3 Audit scope and methodology

The Performance Audit covered the working of the Department after the implementation of computerisation in June 2009. We analysed records and data in respect of eight³ RTOs relating to the period from June 2009 to August 2011 using Computer Aided Audit Techniques (CAAT) during the period from July 2011 to November 2011. Controls were also evaluated by feeding test data through application windows. Results of analysis were cross verified with physical records available in the field offices.

4.7.4 Audit criteria

The provisions of the following Acts and Rules were used as criteria:

- Motor Vehicles Act, 1988 (MV Act),
- Central Motor Vehicles Rules, 1989 (CMV Rules),
- Karnataka Motor Vehicles Taxation Act, 1957 (KMVT Act),
- Karnataka Motor Vehicles Taxation Rules, 1959 (KMVT Rules),
- Concession agreement dated 25 February 2009 between Government of Karnataka and M/s RTPL, Mumbai, and
- Best practices followed for IT implementation.

4.7.5 Acknowledgement

We acknowledge the co-operation of the Transport Department, the State NIC team engaged in the implementation of the Systems and the staff of RTOs visited, in providing necessary information and records for audit including access to Systems. We held an Entry conference with the Principal Secretary, Transport Department in August 2011, wherein the Scope of audit, Methodology and Audit objectives were explained. We also discussed the audit findings with the State NIC in December 2011. The Exit Conference was held with the Principal Secretary, Transport Department in January 2012 and views of the Government/Department and NIC are incorporated in the relevant paragraphs.

³ RTO Indiranagar, RTO Koramangala, RTO Yashwantpur, RTO Tumkur, RTO Chamarajnagar, RTO Ramanagara, RTO Mangalore and RTO Dharwad.

4.7.6 Status of VAHAN, SARATHI and RTA application software

The Government of Karnataka (GoK) computerised the operations in the Office of the Commissioner and five Regional Transport Offices (RTOs) in Bangalore as early as in 2000-01 and eight⁴ other RTOs in the State during the period 2002-05 along with a central vehicle database established in the Office of the Commissioner of Transport. The software was developed by the NIC and the hardware was being maintained by the Department. The areas computerised covered vehicle registration, issue of DLs and permits and tax collection.

The State Level Empowered Committee on e-Governance projects in November 2006 approved the proposal of the Transport Department (TD) to computerise all the 54 RTOs/ARTOs and nine supervisory offices (Deputy Commissioner's offices) in the State by implementing the VAHAN and SARATHI applications. For issue of permits and for check-post operations, the Department also got developed from NIC a separate software application called 'RTA software'.

Accordingly, GoK issued order (GO) on 23 April 2007 to implement VAHAN and SARATHI and issue Smart cards for DL and RC under a Public Private Partnership (PPP) scheme. The GoK entered into a concession agreement for "Implementation of Computerised Service Delivery Systems at Transport Offices in Karnataka" with M/s Rosemerta Technologies Pvt. Ltd. (RTPL) in February 2009. M/s RTPL completed the work of computerisation in November 2009 and commenced issue of smart cards for DLs and RCs in a phased manner in all the 54 RTOs/ARTOs.

The GO stipulated that the private vendor would supply and maintain computer hardware, software, UPS, associated peripherals and would establish support infrastructure such as server room, electrical fittings, furniture, generators, etc. The private vendor would also be responsible for backlog data entry of existing vehicle registration and driving licenses, issue of smart cards at all the RTOs/ARTOs, technical consultants at all the offices, training to Transport Department employees, periodic supply of consumables. The private vendor is permitted to collect ` 49 each for issue/renewal of DL and ` 63 for issue of each RC directly from the applicant.

4.7.7 Database Architecture/State-National Registers

The database has been created at the RTO level in a distributed pattern with each RTO having two servers, one active and one back up in the same premises. There is no lateral connectivity across the RTOs and one RTO cannot access information from the database of other RTOs. However, for the purpose of maintaining a State Register and National Register of licences and registration certificates, limited upward connectivity has been provided to a central server in NIC, State HQ in Bangalore. The central server captures data from each RTO through Virtual Private Network (VPN) on broadband by using Oracle Database Integrator (ODI) and replicates them in the server as separate and distinct databases for each RTO. This constituted the State

⁴ Belgaum, Chitradurga, Dharwad, Gulbarga, Mandya, Mangalore, Mysore and Tumkur

Consolidated Register (SCR), where each RTO database remains independent and separate at NIC State HQ. The data from SCR is converted/ aggregated and transferred to the State Register which is maintained in a separate server with the NIC state HQ at Bangalore. The National Register database has been established in Hyderabad which will capture and store the aggregated data from all the State servers. Data transfer to different registers is an automatic and scheduled activity.

Audit Findings

VAHAN application Software

4.7.8 Planning and Implementation

4.7.8.1 Deficiencies noticed in formulation of IT Policies

The project documents of computerisation of the Department envisages to achieve better monitoring of tax collection and renewal of registration and licences, implementation of web applications for online services to the public, provision of reliable Management Information System (MIS), networking of all offices for sharing of data to the enforcement wing of the TD, making available data to the Police and other Departments for investigation of crimes and better traffic control and planning and ultimately converting the offices of the Department into a paperless office.

However, we observed the following deficiencies in the strategic planning and implementation:

- The Department has not evolved, documented and circulated policies relating to data security and classification, custody of IT assets, network security and for its dealing with third party service providers including NIC and M/s RTPL.
- The Department has not formulated policies which are sufficient to ensure data accuracy, integrity and reliability.
- Policies relating to business continuity and disaster recovery also need to be drawn up and implemented.
- The Department has not drawn up a staffing and recruitment policy to ensure that competent personnel are always available to support IT functions.

The Department reported in December 2011 that an annual e-governance Action Plan was prepared and furnished to the e-Governance Department, Government of Karnataka. Further, a proposal to create IT posts in the Department has been submitted to Administration Branch. Regarding policies relating to data security, the Department has stated that certain guidelines/circulars have been prepared and issued to subordinate offices and that respective RTOs have been nominated custodian of IT Assets. However, the documented policies were not made available to us though called for in July 2011.

4.7.8.2 Inadequacies in Third Party Management

NIC is responsible for supply of the software and for solving software related problems in all the offices across the State. On registration of vehicles in accordance with provisions of the MV Act and CMV Rules by the Department, access to the relevant data in VAHAN is provided to M/s RTPL for printing and issuing of smart card. Similarly, on certifying an applicant for licence by the Department, necessary entries are made in the SARATHI and access is provided to M/s RTPL for printing and issue of Smart Card. In this connection, we noticed the following:

- Information System Audit is an important detective and corrective control for ensuring the adequacy of all data integrity and security related controls. Periodic IS Audit by a qualified third party auditor is part of the best practices followed in the industry as also national or international standards for adoption of Information Technology. Even after two years of implementation, independent IS audit by a third party has neither been arranged nor envisaged. The Department accepted the same.
- The role of NIC with reference to the maintenance of VAHAN has not been defined. A Memorandum of understanding was entered with NIC by the Ministry of Road Transport and Highways, Government of India at the national level for the mission mode project to be implemented by the State Governments. However, there was no clear demarcation of duties/responsibilities between the Department and NIC, with reference to ensuring systems reliability and integrity.

4.7.8.3 Non/under utilisation of VAHAN

As of November 2011, 21.97 lakh RC and 22.45 lakh Smart card based DLs have been issued. RC Smart cards in respect of transport vehicles were being issued only in five RTOs in Bangalore from 1 May 2010. Issue of RC Smart cards for transport vehicles in other RTOs and collection of taxes in respect of transport vehicles through VAHAN had not commenced (December 2011).

We noticed that many of the modules like Surrender of vehicles, Demand Collection and Balance, Department Statutory Authority cases were not being used even as of November 2011.

The State NIC stated that the Department is required to prepare a task and targets document containing various activities related to effective implementation in all the RTOs.

4.7.9 Mapping of Business Rules

The Department is mainly concerned with regulation of the use of motor vehicles in the State and collection of tax on motor vehicles in accordance with the provisions of the Acts and Rules. The various provisions of the Acts and Rules and other relevant regulations prescribe procedures for activities like registration, tax collection and tax refunds. The VAHAN application system does not incorporate business rules relevant to certain activities of the RTOs. This limits its usefulness and encourages dependency on parallel manual procedures. We noticed non-mapping of rules in the following areas:

4.7.9.1 Jurisdictional organisation of RTOs

As per Section 40 of the MV Act, every owner of a motor vehicle shall cause the vehicle to be registered by a registering authority in whose jurisdiction he has the residence or place of business where the vehicle is normally kept. Accordingly, the RTOs have been assigned jurisdiction over specific areas.

other applications to the concerned RTOs.

For instance, we verified the details of address from the registration databases of two RTOs⁵ and noticed 17 cases of registration which belonged to the jurisdictional area of other RTOs.

After we pointed out, the Department stated (December 2011) that this requires accurate identification and notification of areas and that the suggestion will be considered in consultation with the Government and NIC.

4.7.9.2 Transfer of ownership of Government vehicles

Under Rule 57 of the CMV Rules, the person who has acquired or purchased a motor vehicle at a public auction, conducted by or on behalf of the Central/State Government, shall make an application within 30 days of taking possession of the vehicle, to the registering authority who shall record the entries of transfer of ownership of the vehicle. In Karnataka, vehicles owned by Government Departments are exempted from payment of motor vehicle tax and are assigned registration number of a specified series. When the ownership of the vehicle changes to a new owner other than a Government Department, it shall be assigned a new registration number of any other series. The new owner is required to pay the tax based on the category and the class of the vehicle.

instance of a vehicle transferred from State Government to individual owner which had escaped payment of tax in RTO, Tumkur.

We observed that the VAHAN has not been supported with the master data of jurisdiction of each RTO based on Postal Index Number code to enable the system to process the application for registration of the vehicles whose owners are residing in the jurisdiction of the concerned RTO and disallow and redirect

We noticed that on recording transfer of ownership of a Government vehicle to an owner other than a Government Department, VAHAN does not prompt for assigning a new registration number to the vehicle and for levy and collection of the tax due. Even after the changes are effected in the owner status and change in registration number, the system fails to prompt for demand and collection of tax.

We noticed from the databases analysed 15 instances of such re-assignments in three RTOs⁶ where no further information on payment of tax was available. On field verification of these cases, we found one

⁵ Bangalore (East) and Bangalore (North)

⁶ Bangalore Central, Bangalore North and Tumkur

The Department reported that provision has been made to demand tax when a Government vehicle is transferred to an individual owner and referred the matter to NIC for further information. The State NIC stated that the transfer of ownership of Government vehicle is to be adopted through reassignment option of VAHAN software for changing the vehicle registration number and then apply for transfer of ownership.

The Department may therefore in coordination with NIC take necessary action for existing and future cases accordingly.

4.7.9.3 Advance reservation of registration number

Under Rule 46-A of the KMV Rules, any person who desires to reserve any registration mark may apply in advance to the concerned registering authority, who shall, on receipt of the application and the prescribed fee, reserve registration mark applied for in favour of the applicant. The fee for reservation of advance registration mark within the range of one thousand registration marks from the first registration mark or the registration mark last assigned in the serial order is ` 6,000 for two wheelers, ` 20,000 for light motor vehicles (both transport and non-transport) and ` 30,000 for other vehicles. Fee of ` 25,000 for two wheelers and ` 75,000 for light motor vehicles is leviable for reservation of any registration mark within the range of one thousand registration marks from the next series of the series which is in

Under the KMV Rules, registration mark is assigned to motor vehicles by registering authorities in a serial order on payment of registration fee, after inspection of the vehicle, approval for registration and entry of data into system. The front end trial with test data and analysis of data of the registration module revealed the following:

- The date of approval of the registration is not captured in the database. Comparison of the registration number and the date of registration vis-à-vis the series in operation on those dates revealed 168 instances in five RTOs⁷ where registration numbers assigned were not in seriatim. Since the date of

approval was not being recorded in the database/system, the chances of manipulation by delaying the approval for registration till such time as the number of the vehicle owner's choice comes up in natural order cannot be ruled out. The Department therefore stands to lose out on revenue of fees for 'choice' numbers.

After this was pointed out by us, the Department and the project co-coordinator (NIC) stated that the VAHAN system has a provision of generating the registration number automatically based on the order of the applications received on a particular day. However, FIFO (First-In-First-Out) method of clearing transaction is not enabled, but can be enabled based on the need of the Department.

⁷ Bangalore Central, Bangalore East, Bangalore North, Tumkur and Ramanagara

4.7.9.4 Demand for tax on expiry of exemption period

The KMVT Act prescribes levy of lifetime tax in respect of motor cars, omnibuses and private service vehicles. The Government exempted electric vehicles from payment of tax for a period of five years from the date of registration.

We noticed that though the registration of electric vehicles was done by giving the exempted status, the system does not prompt for collection of tax on expiry of exempted period.

4.7.9.5 Refund of tax

As per Section 7 of the KMVT Act, the registered owner who has paid lifetime tax on a vehicle shall be entitled to a refund of tax at the rate specified in Part C, Part CC, Part C1 to C5 in the case of removal of the vehicle to any other State on transfer of ownership or change in address or cancellation of registration mark on account of scrapping of such vehicle due to accidents or other causes.

We observed that the refund activity has not been incorporated in the application system and refunds are processed manually.

After we pointed out, the Department stated that request was made to the NIC in respect of facility for computation of refund of tax. The NIC also agreed that the refund provision is not currently available in VAHAN. However, the same

can be incorporated based on the functional requirement of the Department.

4.7.9.6 Transfer of records to newly created RTO on change of jurisdiction of RTO

We noticed that the system does not have specific mechanisms incorporating all the modalities involved in the transfer of entire information pertaining to vehicles that are transferred to the jurisdiction of other RTOs as a result of formation of new RTOs or reorganization of jurisdiction of RTOs. In the absence of a specific, documented and standardised procedure for the same, this task is addressed in an adhoc manner.

We observed, for instance, that in RTO Indiranagar, a list of cases which were transferred to the jurisdiction of RTO, K.R.Puram based on jurisdiction was uploaded to the NOC module of VAHAN application system. This resulted in transfer of control of the vehicles to the new RTO without transfer of history data of the vehicle to the concerned new RTO.

The State NIC accepted the possibility of incorporating a mechanism of transfer of records on change of jurisdiction provided such jurisdiction is defined on standard parameters like Postal Index Number (PIN) Code or Ward Number.

4.7.10 Data accuracy

4.7.10.1 Digitisation and porting of legacy data

Introduction of VAHAN and SARATHI application systems in the RTOs necessitated digitisation of all the existing manual records and porting of the legacy data from the database of previous software modules of registration, permits, licences etc.

4.7.10.1.1 The agreement with M/s RTPL stipulated nine months period from the date of agreement (25 February 2009) within which to complete the digitisation of manual records in all RTOs and obtaining of 'Data Entry Completion Certificate' from all RTOs and submission of the same to the Transport Department. We observed that the agreement does not provide a penal clause for non-completion of digitisation of legacy data within the stipulated period. We noticed that M/s RTPL has not submitted 'Data Entry Completion Certificates' in respect of any of the RTOs as of October 2011.

The details of number of RCs required to be digitised, actually digitised as of October 2011, RCs yet to digitised and percentage of RCs digitised in the test checked eight RTOs were as under:

RTO	RCs issued as on 31 March 2007	Details of legacy data available in the database pertaining to period upto 31 March 2007	Difference	Percentage of RCs digitised
Bangalore East	580610	579467	1143	99.80
Bangalore North	417801	484686	-66885	116.01
Bangalore Central	377296	327929	49367	86.92
Tumkur	166163	1698	164465	1.02
Ramanagara	41983	12038	29945	28.67
Chamarajanagar	45530	3142	42388	6.90
Mangalore	228868	435	228433	0.19
Dharwad	243744	128797	114947	52.84

It would be seen from the above that digitisation work has not been given due importance in the RTOs outside Bangalore district. Data analysis of the legacy data revealed records with redundant, invalid or incomplete data. The 66,885 records in excess of actual RCs digitised in Bangalore North indicate the possibility of entry of Junk/redundant records.

The Department agreed that there is no penalty clause for non-completion of entry of legacy data and that the same is still under progress and not been completed. The RTOs will furnish completion certificates after the completion of all legacy records.

4.7.10.1.2 Porting of data from the database of earlier software to the VAHAN and SARATHI database was entrusted to NIC. Out of 13 RTOs which had database in earlier software, the legacy data has been ported into the database of VAHAN only in respect of five RTOs in Bangalore. In the offices where the porting has been completed, it has been done without proper planning and checks to ensure that only relevant, accurate, reliable data are imported. As a result, in the three offices test checked (Bangalore Central, Bangalore East and Bangalore North), the legacy data that is processed by the application systems has several data inconsistencies as illustrated below:

- Name of vehicle owners were not captured in 2,756 cases and addresses were not captured in 5,928 cases.
- In 636 cases irrational dates of registration (like 01/0101900) were shown. This was at variance with the manufacturing year mentioned in the database.
- Owner names were mentioned as "CC issued to such and such office" and were still retained in the registration database in 3,492 cases.
- Duplicate chassis numbers were recorded in 73 cases and duplicate engine numbers were recorded in 10,683 cases.
- Seating capacity of vehicles (having codes relevant to two wheelers) were recorded as ranging from 3 to 125 in 1,408 cases. We noticed that many of these vehicles are four wheelers for which the vehicle codes of two wheelers have been wrongly assigned.
- Irrational Manufacturing Years like 9585, 2200 etc were shown in 47 cases and invalid registration numbers like "00KA043313" were captured in five cases.
- In 18 cases of migrated vehicles where new registration marks were assigned, the reassignment database had the same number for old and new numbers.
- In 4,236 cases though vehicles migrated from other States were already assigned new registration number in Karnataka, the database of registered vehicles still retained records with old registration number. Further, of these, there were 3,276 records with the respective newly assigned number also in the database of registered vehicles. This resulted in inflated number of registered vehicles in the database and vehicle records with incorrect registration number.
- There were gaps in tax collection data in respect of 1,732 vehicles in the RTOs test checked. This is possibly due to the failure of records relating to collection of quarterly taxes for transport vehicles accounted through earlier software to port into VAHAN database.

After we pointed out these, the Department stated that the matter has been referred to NIC for further information and that replies would be furnished in due course after examination of details. The State NIC opined that such inconsistency in the data was due to absence of a clean up exercise which should have been undertaken by the Department prior to porting into the current database. During the exit conference, while accepting views of audit, Department stated that action would be taken to address the problem.

4.7.11 Incomplete/invalid data

Our analysis of the database of VAHAN has revealed the following invalid/redundant data:

4.7.11.1 Duplication of Permit Numbers: The process of issue and renewal of permits is carried out through the RTA software and the VAHAN database captures the details of permits like date of issue, permit number, validity, renewal date etc.

In 80 cases in three RTOs⁸, the permit number issued to two different vehicles owned by different persons were the same. These permits were owned and renewed simultaneously by the owners. However, verification of manual records revealed that these were due to data entry errors committed during renewal of permits.

The State NIC has agreed to look into specific cases of duplication.

4.7.11.2 Duplication of chassis number and engine numbers: The chassis number and engine number of each registered vehicle shall be unique to that vehicle. The same control should also be embedded in the information system for effective management of the vehicles database.

We noticed that the field for engine number was not ensured for unique data in respect of each vehicle. We noticed that 795 cases of same engine numbers were found against two different vehicle numbers in the databases of six RTOs⁹. In instances where registration proceedings initiated for a vehicle was left incomplete with an inward number and proper registration number was assigned in the second attempt through backlog channel with slightly modified chassis number instead of completing the registration process by updating the original entries made, duplication of engine number resulted. In RTO, Koramangala, for 83 duplicate engine numbers, two or more RC smart cards have been generated and sanctified with different registration numbers. We noticed that in these cases, the only difference in data was a 'dot' suffixed for the chassis number. We sought for the physical records relating to the RC smart cards in respect of the above 83 cases for verification out of which records were made available in one case. We noticed that the registration numbers were for two different vehicles owned by different persons for which data entered was the same.

Though there were application controls to ensure unique chassis number, instances of bypassing the existing control by altering the chassis number slightly such as inserting space or additional character/s to make the system accept the entry were noticed. In cases of reassignment of registration marks to vehicles migrated from other States also, system was made to accept chassis number which was already existing with the old registration number. Thus, the system was incapable of identifying and tracing the history of a vehicle even within the same RTO, which is an essential feature particularly to prevent registration of stolen vehicles, parts etc.

In addition, the integrity not only of the database of vehicles but of the State and National register is also compromised in having multiple entries pertaining to the same vehicle. It was possible, for example, to trace both the duplicate instances of the same vehicle to the National Register access provided at the website <https://vahan.nic.in/nrservices>. It is thus clear that the necessary filters are not established in the data mining operation that draws data of vehicles to the National Register.

This also points to the absence of adequate organisational supervisory controls regarding reporting of the difficulties in the application software by the users

⁸ Bangalore Central, Bangalore East and Bangalore North

⁹ RTOs Bangalore Central, Bangalore East, Bangalore North, Tumkur, Chamarajanagar and Dharwad

at various levels to top management for technical solution instead of resorting to bypassing methods.

After we pointed out this, the Department stated that circular has been issued to RTOs regarding entry of correct data and that the matter was referred to NIC. It was also mentioned that sufficient training has been given to the Departmental staff. During the exit conference, the Department agreed to discuss the issue with the NIC to sort out the problems.

We recommend that the Department impart sufficient training and create awareness in the staff. The Department may also issue specific instructions to the data entry personnel to make sure that back log channel is not to be invoked to complete a current transaction that was initiated through the proper channel.

4.7.11.3 Presence of unapproved cases of registration of vehicles in the database: At the time of new registration, a vehicle is initially assigned an inward number. This number is required to be replaced by the Registration number finally to be assigned to the vehicle.

We noticed in the database of the six RTOs test checked that 8,639 inward numbers have not been replaced by the Registration numbers finally allotted to the vehicles. The age-wise analysis of the cases apparently pending approval in the system database is given below:

RTO	Inward number		Total
	Up to 2009	in 2010	
Bangalore Central	222	256	478
Bangalore East	131	47	178
Bangalore North	208	74	282
Tumkur	25	79	104
Mangalore	16	4	20
Dharwad	7,516	61	7,577
Total	8,118	521	8,639

This indicates absence of the required policies and controls by which entries that have not been approved are deleted after a prescribed period. We test checked 10 cases of unapproved inward numbers on the National Portal and found that these records existed in the National Register.

The Inward numbers continue to be present in the National Register, so whether the vehicle is registered or not is not known.

A certain delay in the completion of transaction being inevitable, the application system as well as the data mining procedure for updation of National Register should have sufficient controls to check such entries.

4.7.11.4 Insurance Details: Insurance details like cover note number, date from and upto which the policy is valid, etc were not captured in 11,732 cases in the databases of the eight RTOs test checked. Also, 1,009 records have the same covering note issued by the same insurance company being recorded against more than one vehicle. In 29,285 cases even RC smart cards do not contain information on insurance like insurance company name, cover policy

number, validity period etc. This would indicate that the system has no controls to ensure input of essential information.

4.7.11.5 Invalid Sale Amount for Non-Transport Vehicles: We noticed from the database that in respect of 1,456 non-transport vehicles (cars/two wheelers), which have been registered after the introduction of VAHAN, sale value has not been captured. In 1,342 other cases, the sale amount field has captured random values like '999', '9999'.

4.7.11.6 Invalid data in fields related to determination of quarterly tax: Under the KMVT Act, quarterly tax is levied based on the laden weight for goods vehicles. Passenger transport vehicles are liable to tax at the specified rate depending on floor area, seating capacity, etc. The nature of permit obtained by the owner of the transport vehicle is also a critical data in determining the tax liability. Capturing accurate data for these fields was critical for VAHAN as a reliable and effective information system.

Our analysis of the database revealed the following:

- In 21 cases of Private Service Vehicles/Omnibuses registered through VAHAN, floor area was not captured.
- The wheel base field accepts values in either centimetres or millimetres resulting in a range of wheelbase values from one to 17170 in RTO, Bangalore Central, one to 31500 in RTO, Bangalore East and one to 13250 in RTO, Bangalore North. This defeats the efficacy of the software in limiting the seating capacity in accordance with the provisions of the KMV Rules, as also in ensuring correct fixation of quarterly tax payable by the vehicle owner.

The Department stated that the matter has been referred to NIC for information. The NIC has agreed to examine the cases. Further report is awaited.

4.7.12 Ineffectiveness of system in preventing leakage of revenue

4.7.12.1 Levy of lifetime tax

At the time of payment of fee for registration of non-transport vehicles, the tax collection module of VAHAN accepts entry of data into the sale value field and calculates lifetime tax which would be collected and a receipt is issued. However, the sale value entered through tax collection module is not updated in the registration record of that vehicle, but it requires the case worker to re-enter the same.

This design weakness along with absence of supervisory controls facilitates possible entry of lower sale value at the time of tax collection and subsequently to enter the correct amount for registration certificate. Data analysis revealed variation in amount of tax calculated on sale value recorded in the database and the amount of tax actually paid to the extent of ` 16.59 crore in 3,632 cases in six RTOs¹⁰. On examination of physical records in 279 cases at these RTOs to verify the correctness of the tax calculated on the sale

¹⁰ Bangalore Central, Bangalore East, Bangalore North, Ramanagara, Mangalore and Dharwad

value, we noticed actual short levy of tax of ` 64,417 in 20 cases. The Department has not responded on recovery of taxes on these vehicles which have been registered with incorrect sale value.

After we pointed out this, the NIC has reported that the issue was discussed with the Department and the option of changing the sale amount in the registration record by the case worker during data entry after tax payment has been disabled. It was also agreed to provide a facility to approving authority for automatic checking of tax collected in comparison with sales invoice entered by the treasury/registration clerk.

4.7.12.2 Under the KMVT Act and Rules made thereunder, transport vehicles are liable to pay tax for each quarter in advance. Accordingly, demand for tax due is to be created in each RTO in respect of all the transport vehicles registered in that Office (home RTO). Vehicle owners are permitted to pay tax in any RTO in the State. The tax paid by the vehicle owners are collected through “Tax Collection” module of VAHAN and accounted for receipts of the RTO.

The application system also provides a “manual tax or fee collection” module to enter details of tax paid at other RTOs such as challan number, date, period for which tax is paid, RTO at which payment has been made etc. to enable the home RTO to collect tax for subsequent periods.

Our cross verification of “Tax Module” table and “Manual tax or fee collection module” revealed that the details of tax paid recorded in the “Manual tax or fee collection” module are not found in the “Tax Module” table. Thus, in absence of the complete details, in the “Tax Module” table the amount of tax and fees due from a vehicle cannot be ascertained.

We further noticed that though the Manual Tax module was designed to record the details of the taxes paid by a vehicle owner at the RTOs other than the RTO in which he was registered, it was incorrectly being used by the parent RTO itself. We noticed 317 such instances in three RTOs.

The system that permits settlement of arrears based on details of tax paid at other RTOs should have adequate controls by which the veracity of such payments can be ensured. We observed that the system does not incorporate any control by which these transactions may be supervised, verified or reconciled as below:

- As the RTOs have not been networked, the payment of tax in other RTOs in the State cannot be accounted against the tax demand in the home RTO on real time basis. As a result demand position would remain overstated/unreconciled when taxes were paid in other than home RTOs.
- The tax collection module at the time of payment of quarterly tax of a vehicle in the home RTO alerts the case worker regarding the arrears position of tax from that vehicle. However, if the owner of the vehicle pays tax for any quarter/year in a RTO other than the home RTO, the system accepts the payment and issues receipt.
- There were no system controls to ensure the authenticity of the entries made through “manual tax or fee collection” module. As there is no

method of cross verification with the other RTOs where the payment is actually made and the home RTO where the vehicle is registered. We noticed 13 instances where “manual tax or fee collection” was recorded at RTO, Indiranagar but the same were not traceable to the tax collection database of the RTO, Indiranagar.

- The Department has standardised the format for receipt number having two characters followed by seven digits. This format was not adopted in the database structure to validate entries to this field of this module. As a result a record can be generated with any random entry to the field.

These weaknesses in design is a potential risk which permits transactions to be carried out without collection of revenue due to Government and compromises the effectiveness of VAHAN as an accounting system in preventing leakage of revenue.

After we pointed out these, the Department stated that the matter has been referred to the NIC for further comments. Final reply has not been received.

We recommend that the Department may consider sharing the tax payment database backup with the concerned RTOs periodically. Also, since the databases of all RTOs are being uploaded into the SCR on a daily basis, possibility of establishing reconciliation among the RTOs and disseminating of differences to concerned RTOs may be considered.

4.7.12.3 Mode of tax payment–Inadequate integration between Registration and Taxation Modules

In the VAHAN system, registration module assigns code for mode of tax payment for each vehicle based on class of the vehicle, eligibility of owner etc to facilitate tax collection module to levy and collect the applicable tax or to allow eligible exemption. Our analysis of these fields in the RC database and testing of the front end with test data revealed the following:

- Under the KMVT Act, though tax exemption is admissible only to Government vehicles, it was also possible to assign exempted status to other owners at the time of data entry. We noticed that in the database in 389 records, exempted status was shown against individual owners liable for lifetime tax.
- We noticed from Tax Module “Taxation Table” that though the vehicle owners of 191 vehicles were paying tax either annually or quarterly but these were recorded as life time tax payers in the Registration Module in “Owners Table”. Thus correct position of tax due against the owners of vehicles was not ascertainable.
- In seven cases where vehicles were registered under annual tax option they had made LTT payment.

The Department stated that the matter has been referred to the NIC for further comments.

4.7.12.4 Clearance of tax

The VAHAN application system offers the facility to clear tax in respect of vehicles for specific periods. The tax clearance module is independent of tax payment modules in as much as it provides clearance for periods for which there is no evidence for payment of tax in either the tax module or the manual tax payment module.

The reasons for providing such a facility has not been documented and not made available to us. An effective information system would provide for processing of all legitimate transactions of the organisation through proper front end channel and any difficulty/error in processing of information shall have adequate trouble shooting techniques. Any arrangements/facilities provided to by-pass the workflow and complete the transaction would make the system vulnerable to misuse. The databases of RTO Bangalore Central, Bangalore East and Bangalore North where transport operations were initiated in May 2010, there are 1,080 instances where tax has been cleared for periods after June 2010 for vehicles though payments for the same are not represented in either tax module or manual tax module.

The Department stated that the matter has been referred to the NIC for further comments and that the latest VAHAN version (1.3.45 prime) has incorporated biometric control to prevent misuse of this provision.

4.7.12.5 Past Arrears not cleared with current acceptance of taxes

Data analysis also revealed that in respect of 87 vehicles in two RTOs¹¹ though there were arrears of tax for earlier periods ranging from less than a month to more than a year, tax for subsequent periods were accepted, without clearance of past arrears.

The DCB module integrated with VAHAN does not capture such instances where intervening periods are in default. This points to imperfect design of the DCB, affecting the dependability of the demand position as presented by it.

Our test check of records at the field offices, however, failed to reveal any instance of actual escapement either since the missing payments was collected manually or records pertaining to payment were not ported into the database.

The Department stated that specific instances were referred to NIC for clarification. The NIC explained that such gaps in tax payment data might be due to failure on the part of the Department to update payment records in the previous application system prior to porting into the present system in May 2010. The explanation does not, however, account for tax gaps that have occurred after May 2010.

4.7.12.6 Issue of No Objection Certificate/Clearance Certificate

Under the CMVT Act and Rules made thereunder, vehicles migrating from one State to another shall obtain a No Objection Certificate (NOC) from the parent RTO and produce the same before the RTO of the migrated State for registration in that State. Similarly for a vehicle migrating from one RTO to another within the State due to change of address or ownership, a Clearance Certificate (CC) is required to be obtained. The NOC/CC certifies the vehicle

¹¹ Bangalore Central and Bangalore North

with regard to tax paid, clearance of offences booked against the vehicle, if any, etc.

We noticed on comparison of data of NOC/CC module with tax collection module data of three RTOs¹² that in 147 instances NOC/CC were issued even though there were arrears of tax from those vehicles.

The Department stated that the matter was referred to the NIC for further information and that specific cases will be separately replied to by the RTO concerned. Reply of the concerned RTOs has not been received (January 2012).

4.7.13 Data Safety and Security

4.7.13.1 Information System Security

Logical Access Controls

We made the following observations in connection with the logical access controls present in the VAHAN application system.

4.7.13.1.1 The RTO is the designated system administrator at the unit level. However, the Department has not formulated a comprehensive Security Policy Document outlining the procedural issues and other details relatable to logical access controls, approved at the highest level and distributed at the level of all users.

4.7.13.1.2 The designation based assignment of roles prevailing in the Department is not built into the system as a result of which it is possible to assign even supervisory roles to non-supervisory staff.

We noticed in RTO, Bangalore (East) that the privilege for clearance of fitness certificate was assigned to a Clerk and also the Inspector of Motor Vehicles who is the competent authority under the CMV Rules for issue of fitness certificate.

4.7.13.1.3 The Department has assigned different privileges to different people. However, front end analysis of application system showed that the same user could be given permissions for various processes in an activity like:

Registration: data entry, superintendent approval and approval of registration.

Backlog data: Backlog data entry and back log approval.

Fitness certificate: Data entry and approval for fitness certificate etc.

4.7.13.1.4 As per International guidelines for adoption of information technologies like COBIT (Control Objectives for Information and related Technologies), the computerised entity has to formulate controls for password setting, password change etc. We noticed that the VAHAN application system does not incorporate controls in relation to password setting, change etc. Front end analysis revealed that the system does not require passwords to adhere to a minimum length of at least eight characters with a combination of alphanumeric and special characters. The system does not prompt for change of password after a specified period of time. There is also no provision to

¹² Bangalore Central, Bangalore East and Bangalore North

effect lockout after a specified number of failed login attempts. The system also permits the assignment of username itself as password.

The Department stated that the matter has been referred to NIC for further details/reply. The NIC agreed that the matter of strengthening of passwords will be addressed in consultation with the Department.

4.7.13.2 Audit Trail

A standard audit trail provides for recording and monitoring of database activity. The NIC team during discussion has affirmed the existence of audit trails at the level of the RDBMS (Relational Database Management System), application system and database table level triggers for audit purpose. However, the same has not been made available to audit and hence its adequacy could not be ascertained.

4.7.13.3 Backlog data entry module

Digitisation of legacy data is provided with separate backlog data entry module by which data finds its way to the database of the system. In the interest of data security, entry of legacy data should be done, completed and closed under close supervision. After the completion of the task, the backlog data entry module should be disabled permanently. Otherwise, the back log channel is a vulnerability that can be used to create manipulated records that do not exist in manual form.

The backlog data entry module of the VAHAN application system requires the entry of the vehicle number. There is no input restriction in the module to disallow a RC number that is yet to be assigned by the RTO or to disallow entry of record with transaction date which is subsequent to date of computerisation. Thus, it is possible to enter a registration number ahead of its assignment by the same RTO and create an RC.

The Department stated that the matter has been referred to NIC for further details/reply. Further the Department also stated that data entered is validated by the case workers, which is a continuous process of updation whenever transactions occur. During the exit conference, Government accepted our views.

4.7.13.4 Smart Card Registration Certificates

After the introduction of VAHAN application system during July 2009, the Department was issuing RC in the form of Smart Cards. On payment of the registration fee and tax and on completion of the procedures involved in approval of registration in accordance with MV Act and CMV Rules, the registration is approved through VAHAN software. The details of registration are then recorded in a table in the VAHAN Software. Data to be printed on the RC smart cards is transferred to the card printing system as flat files. After printing and recording, the cards are 'sanctified' through digital encryption. The data in the sanctified table is recaptured in VAHAN database.

Our analysis of the data captured on approval of the registration and data captured after sanctification of cards in the VAHAN application system revealed the following mismatches:

- In 83 records in four RTOs¹³, the names of owners were spelt differently in both the tables.
- In 24 records in four RTOs¹⁴, the chassis numbers were different in the two tables.
- In 14 records in four RTOs¹⁵, the engine numbers were different in the two tables.
- In 25 cases, in RTO, Bangalore East, records from the database of sanctified cards could not be traced in the database of approved cases.
- In 42 cases, in RTO, Bangalore Central, the dates of registration of Motor Vehicles fall on holidays i.e. Sundays, second Saturdays etc.

Even though the variations are not materially significant, these nevertheless indicate the possibility of insertion/modification after approval and prior to smart card printing, probably during the flat file stage.

The Department stated that the matter has been referred to the NIC for further information. The State NIC stated that a mechanism of ‘personalisation’ where the data on the smart card is verified with respect to that of the approved entry prior to ‘sanctification’ existed in the application system and where such mismatches are there, the cards would be rejected. However, as stated above, smart cards with the mismatches have been issued.

SARATHI APPLICATION SYSTEM

Planning and Implementation

4.7.14 Inadequacies noticed in Third Party Management

On certifying an applicant for licence by the Department, necessary entries are made in the SARATHI and access is provided to M/s RTPL for printing and issue of smart card.

- The role of NIC with reference to the maintenance of SARATHI has not been defined. A Memorandum of understanding was entered with NIC by the Ministry of Road Transport and Highways, Government of India at the national level for the mission mode project to be implemented by the State Governments. However, there was no clear demarcation of duties/responsibilities between the Department and NIC, with reference to ensuring systems reliability and integrity.

Data accuracy

4.7.15 Issue of more than one Licence to the same Person

The CMV Rules stipulate that an individual should not be in possession of more than one driving licence. However, the SARATHI Application does not incorporate controls by which to ensure that the same person is not issued with

¹³ Bangalore (East), Bangalore (North), Tumkur and Chamarajanagar

¹⁴ Bangalore (East), Bangalore (North), Tumkur and Chamarajanagar

¹⁵ Bangalore (East), Bangalore (North), Tumkur and Chamarajanagar

more than one licence. The database of issued licences of six RTOs¹⁶ contain 718 instances where the same person (identified by name, father's name and date of birth) have been issued with two or more licences (bearing different licence numbers).

After we pointed out these cases, the Department referred the matter to the NIC for further information. The NIC also has agreed to look into the specific cases.

Other implementation issues

4.7.16 Smart Card Readers

One of the objectives of computerisation of Transport Department was to enable the issue of RC and DLs in the form of Smart Cards complying with the Smart Card Operating System for Transport Application (SCOSTA) Standards. After printing of the card and encoding the smart card chip, each card is 'sanctified' before issue. Sanctification is a process by which the information recorded on the chip is digitally attested using two encryption keys allotted to the RTOs. A card without sanctification is not deemed to be authentic.

However, we noticed that the smart card readers provided to the RTOs, MVIs etc., are not technically equipped to verify whether the smart card is sanctified or not. Neither are the readers able to detect tampering with the data after sanctification, as the information of the encryption keys is not available in them.

Absence of proper detection devices can defeat the purpose of the high level of security envisioned in the process of digital attestation.

The Department stated that the matter has been referred to the NIC for further comments. The NIC has stated that the card readers can be equipped to identify non-sanctified/modified cards by use of an Endorsement Authority Card which was in the possession of the Department. Once the Endorsement Authority cards are issued to field level officers, it would enable effective monitoring of genuinity of the smart card issued by the RTOs. The Department, though in possession of the Endorsement Authority Card, has not furnished any reasons for non-issue of the same to field level officers for use.

Thus the issue of tamper proof/encrypted Smart Cards, remained unresolved and was not implemented.

4.7.17 Conclusion

Introduction of VAHAN and SARATHI application systems was undertaken with a view to improve the over all efficiency of the Transport Department and to enable better service delivery. RTOs outside Bangalore are yet to undertake registration, tax collection or issue of smart cards in respect of Transport Vehicles. The module for generating DCB has not been made operational by RTOs, arrear of tax were not being cleared while accepting

¹⁶ Bangalore Central, Bangalore East, Bangalore North, Chamarajanagar, Ramanagar and Tumkur

current taxes and NOC's were issued though arrears were pending. Other functions like surrender of motor vehicles, collection of penalties pertaining to Departmental Statutory Authority cases etc are also being done manually. In absence of networking of RTOs, a number of essential controls, like reconciliation of payments made at other offices, prevention of registration of illegally acquired vehicles at a different RTO etc could not be brought into the realm of information technology. Design weakness in VAHAN together with absence of supervisory controls enabled entry of incorrect sale value of the Vehicle in the Tax Module resulting in short levy of tax. Lack of essential input validation controls in the system and absence of supervisory controls enabled habitual bypass of system controls by data entry operators leading to accumulation of junk, invalid and redundant data in the VAHAN and SARATHI databases, in turn compromising the integrity and reliability of State Registry and National Registry of Vehicles/Licenses.

4.7.18 Recommendations

In view of the various findings detailed above, we recommend that the Department:

- **Formulate and adopt a comprehensive IT Policy encompassing aspects as technology upgradation, service delivery, staffing and security to serve as a roadmap for future development;**
- **Strengthen application controls so as to ensure better mapping of the provisions of the relevant Acts and Rules;**
- **Complete the entry of legacy data and porting of legacy database on priority in a planned and time bound manner followed by permanent disablement of the back log data entry channel;**
- **Adopt a comprehensive programme of Human Resource Development involving induction of technically qualified functionaries at various levels of Information Systems Management, providing training in the various aspects of database, network and security administration etc.;**
- **Network all the RTOs in the State to enable real time communication between them, enabling better monitoring and service delivery;**
- **Adopt more secure means of interfacing with the smart card printing software and introduce Smart Card reading devices that adopt such technology as would enable detection of absence of digital attestation, tampering with data etc.;**
- **Strengthen the security infrastructure by adoption of a well formulated security policy, introduction of logical access controls in tune with best practices, enabling of a trail of user actions etc.;**
- **Bring about such operations as the generation of the DCB, monitoring and settlement of Departmental Statutory Authority (DSA) cases etc also in the ambit of information technology; and**
- **Migration to a web based system by which the general public can gain direct access to the services offered by the Department for registration, payment of fees, taxes etc will substantially improve the effectiveness of the Department in achieving the objectives of e-Governance.**

4.8 Non-observance of provisions of the Act/Rules

The KMVT Act, 1957 and the KMVT Rules, 1957 provide as under:

- Sections 3 and 3A for levy of tax and cess on tax in respect of all vehicles suitable for use on road at the rates specified in the Schedule to the Act.
- Section 4 for payment of tax so levied to be paid in advance by the registered owners for a quarter or half year at his choice, within fifteen days from the commencement of such period.
- Section 12 for composition of offence for non-payment of tax in accordance with the provisions of the Act. The KMVT Rules provide for composition of the offence on payment of a sum at 20 per cent of the arrears of tax due.

We noticed in 22 RTOs that the above provisions were not fully followed by the concerned taxation authorities. This resulted in a number of discrepancies with short realisation of Government revenue amounting to ` 64.32 lakh. Of these, the Department accepted audit observations in respect of 392 vehicles involving ` 26.60 lakh and recovered ` 16.16 lakh in respect of 252 vehicles.

4.8.1 Non-payment of tax

17 RTOs¹⁷

Tax in respect of transport vehicles and non-transport vehicles owned by employees of Central Government, nationalised banks and Public sector undertakings is payable quarterly, half-yearly or annually at the discretion of the vehicle owner. Non-payment/short payment of tax constitutes an offence and the KMVT Rules provide for composition of the offence on payment of a sum at 20 per cent of the arrears of tax due. This shall be recovered along with arrears of tax by the taxation authority concerned.

We noticed from a test check of 'B' registers¹⁸, conducted between May 2009 and February 2011, non-payment of tax of ` 42.94 lakh in respect of 596 vehicles (308 transport and 288 non-transport) for different periods between April 2005 and May 2010. The composition amount leviable on this amounted to ` 8.59 lakh. The tax was not demanded by the concerned RTOs.

After we pointed out these cases, the Government/Department reported between April 2011 to October 2011 acceptance of the audit observations involving ` 23.10 lakh in respect of 361 vehicles and of that, recovered ` 14.34 lakh in respect of 225 vehicles. We have not received the replies in respect of the remaining 235 vehicles (January 2012).

¹⁷ Bangalore (North), Bangalore (South), Bagalkot, Bailahongal, Belgaum, Bidar, Bijapur, Chickballapur, Chickmagalur, Chitradurga, Hospet, Kolar, KGF, Mandya, Mangalore, Ramanagara and Yelahanka.

¹⁸ Registers maintained in the RTOs in which tax payments are recorded.

4.8.2 Short levy of lifetime tax

10 RTOs¹⁹

Upto 31 March 2003, the rates of lifetime tax for non-transport vehicles were fixed amounts based on the engine capacity and age of the vehicle. Thereafter, from 1 April 2003, the rates were fixed as a percentage of cost of vehicle. The provision to levy lifetime tax at rates as existed prior to 1 April 2003 in respect of vehicles which were registered prior to 1 April 2003 in other States and migrated to Karnataka after 1 April 2003 was deemed to be omitted with effect from 1 April 2007.

We noticed between May 2009 and May 2010 that 16 vehicles were converted as non-transport vehicles between May 2005 and August 2008 and 60 vehicles registered in other States were migrated between May 2007 and September 2009. As against lifetime tax of ` 24.74 lakh leviable, the taxation authorities concerned had levied tax of ` 11.94 lakh. We noticed that the taxation authorities had levied lifetime tax at pre-revised rates instead of at the rates which existed on the dates of conversion in respect of converted vehicles and at the rates as existed prior to 1 April 2003 instead of the rate which existed on the date of migration in respect of vehicles migrated after 1 April 2007. This resulted in short levy of lifetime tax of ` 12.79 lakh.

After we reported these cases to the Government in June 2011, the Government/Department reported between May 2011 and October 2011 acceptance of audit observations amounting to ` 3.50 lakh in respect of 31 vehicles and of that, recovered ` 1.82 lakh in respect of 27 vehicles in eight RTOs²⁰. We have not received the replies in respect of the remaining 45 vehicles (January 2012).

¹⁹ Belgaum, Bijapur, Chickballapura, Chickmagalur, Davanagere, Gulbarga, Karwar, KGF, Tiptur and Yadgir.

²⁰ Belgaum, Bijapur, Chickmagalur, Davanagere, Gulbarga, Karwar, KGF and Yadgir.