## **CHAPTER-III**

#### PERFORMANCE AUDIT

## WATER RESOURCES DEPARTMENT

# 3.1 Performance Audit of Tillari Irrigation Project

The Tillari Irrigation Project is a joint venture of Government of Maharashtra and Government of Goa, across Tillari river in Sindudurg District of Maharashtra. It was taken up in 1986 to provide irrigation to 23,654 hectares of land (16,978 ha in Goa and 6,676 ha in Maharashtra). A review of its implementation disclosed that the project scheduled for completion in 1995-96 had not been completed and is now scheduled to be completed only in 2009. Meanwhile the project cost has increased from Rs 217.22 crore in 1987-88 to Rs 952.54 crore in 2003 coupled with decrease in command area in Goa from 16,978 to 14,521 ha. An irrigation potential of only 860 ha had been created, out of which 253 ha only has so far been utilized. Some of the significant points noticed are as below:-

#### **Highlights**

➤ The project commenced in 1986 for creating potential to irrigate 16,978 ha in Goa by 1995-96 had not been completed even after 21 years and incurring expenditure of Rs 509.31 crore. The delay is attributable to inadequate funding by Government of Goa and delay in decision making on mid term assessment of the project.

(*Paragraph 3.1.6*)

The project cost estimated at Rs 217.22 crore in 1987-88 in which Goa's share was Rs 161.18 crore, was revised to Rs 952.54 crore in 2003 in which Goa's share cost was Rs 698.97 crore implying a cost over run of Rs 537.79 crore (334 per cent).

(*Paragraph 3.1.6.2*)

➤ There was delay in payment of Goa's share of expenditure, to Government of Maharashtra leading to delay in completion of the project.

(*Paragraph 3.1.6.3*)

Against the envisaged irrigation command of 16,978 ha, the command area actually available for irrigation was only 14,521 ha.

(*Paragraph 3.1.6.4*)

➤ Construction of conduit canal at a cost of Rs 51.44 crore was uneconomical due to reduction in command area to 1,695 ha which is further likely to go down due to increased habitation in Calangute.

(Paragraph 3.1.7.1)

#### 3.1.1 Introduction

The Tillari Irrigation Project (Project) is an Inter-State Project of Maharashtra and Goa Governments across Tillari river. The project envisages to irrigate 23,654 hectares (ha) out of which 6,676 ha is in Maharashtra and 16,978 ha in Goa, covering 33 villages in Sawantwadi taluka of Maharashtra and 73 villages in Pernem, Bardez and Bicholim Talukas of Goa. In addition to irrigation water, the project is also to provide (41.90 Mcum) water for industries and (15.40 Mcum) for drinking purposes per year, to be utilized in Pernem, Bicholim and Bardez Talukas of Goa.

The main components of the projects are:-

- I (a) Main earthern dam of 1,035 metres in length and 72.55 metres height to impound 462.17 Mcum water
  - (b) A gated pick up weir having length of 265 metres, at Terwanmedhe village
  - (c) Saddle spillway Masonry dam with a length of 278.50 metres
  - (d) Irrigation cum Power Outlet tunnel
- II Canal systems in Maharashtra and Goa State
  - (a) Left Bank Main Canal (LBMC) having a length of 18.799 kms in Maharashtra and 37.425 kms in Goa with a command area of 1,698 and 11,971 ha respectively.
  - (b) Right Bank Main Canal (RBMC) having a length of 24.692 kms in Maharashtra and 23.755 kms in Goa with a command area of 4,978 and 5,007 ha respectively.
  - (c) A link canal of 3.53 kms to link LBMC with RBMC for augmenting the discharge of RBMC.

#### 3.1.2 Organizational structure

The Chief Engineer, Irrigation Department, was in charge of the project up to April 2000. He was assisted by a Superintending Engineer in the Circle Office, besides Executive Engineers of three works divisions. The Goa Tillari Irrigation Development Corporation (GTIDC) formed in May 2000, to make a special provision for mobilization of resources for speedy completion of the project, is now responsible for execution of the project. The GTIDC is headed by a Managing Director in the rank of Chief Engineer and is assisted by a Superintending Engineer, three Executive Engineers and a Special Land Acquisition Officer.

## 3.1.3 Audit Objectives

The review was conducted with a view to assess whether:

- the project works were properly planned, for fulfillment of the objectives;
- the financial resources were available as per requirement and were used for intended purposes;
- execution of works was economical and efficient and
- proper and effective internal controls were in place.

## 3.1.4 Scope of Audit and Methodology

The review covered the works executed and expenditure incurred on the project by Government of Goa (GoG) for a period of seven years from 2000-01 to 2006-07. The review was conducted during April to June 2007 by test check of records maintained by the Chief Engineer (Water Resources Department), Managing Director, GTIDC, Circle Office, all three divisions of the Corporation and Special Land Acquisition Officer for the project.

An entry conference was held in April 2007 with the Managing Director, GTIDC alongwith other officers of the Corporation to brief them about audit objectives. The audit findings were discussed with Secretary, Water Resources Department in July 2007. The views of the Department have been taken into account while finalising the review.

# **Audit Findings**

## 3.1.5 Financial Management

3.1.5.1 The project consists of headworks and main canal works in Maharashtra and canal networks in Goa. While the canal networks in Goa are to be executed and financed by Goa State, the headworks in Maharashtra are to be executed by Government of Maharashtra (GoM) with Government of Goa contributing 73.3 per cent of the cost.

The cost of common portion of canal is to be shared by both the States on the basis of actual quantum of water to be utilized by the respective States.

The Project was funded by the Government through its budget outlay. The Government had incurred expenditure of Rs 183.47 crore on the project up to 1999-2000. In order to mobilize resources for speedy completion of the project, the Government established the GTIDC in May 2000. The financial requirements of the Corporation were met from the funds received from Central Loan Assistance (CLA) under Accelerated Irrigation Benefit Programme (AIBP), issue of GTIDC Bonds, term loan from other Government

 $<sup>^{\</sup>scriptscriptstyle{\infty}}$  Division VI, VII and VIII

Corporations and contribution from Water Resources Department from its Annual Budget outlay. The project was delayed due to inadequate funding as described at para 3.1.6 below.

Budget provision vis-a-vis expenditure incurred on the project by the Corporation during 2000-07 was as under:-

(Rupees in crore)

	Fund	Funds received /raised				Expenditure on			
Year	Contributions From GoG/CLA Released By GoG	Bonds raised	Loans	Total	Canal works in Goa	Amount advanced to GoM	Total	Excess (+) Savings (-)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
2000-01	35.47	50.00	-	85.47	17.47	54.50	71.97	(-) 13.50	
2001-02	33.30	-	20.00	53.30	19.11	43.00	62.11	(+) 8.81	
2002-03	8.50	-	-	8.50	14.46	-	14.46	(+) 5.96	
2003-04	5.24	-	-	5.24	6.17	-	6.17	(+) 0.93	
2004-05	12.00	-	-	12.00	8.80	-	8.80	(-) 3.20	
2005-06	65.00	-	-	65.00	17.57	50.00	67.57	(+) 2.57	
2006-07	131.91	-	1	131.91	44.69	50.07	94.76	(-) 37.15	
Total	291.42	50.00	20.00	361.42	128.27	197.57	325.84	(-) 35.58	

As against Rs 361.42 crore available with GTIDC during 2000-01 to 2006-07, expenditure incurred was Rs 325.84 crore leaving an unspent balance of Rs 35.58 crore as of March 2007.

## 3.1.6 Planning

Though the construction of the main dam of the Project started in March 1986 and canal work in Goa started in 1988, the formal agreement between the two States for implementation of the project was signed only in April 1990. The project clearance from Central Water Commission was received in March 1990. The investment clearance from the Planning Commission and environmental clearance from Ministry of Environment and Forest for the project was received in March 2000. The project initially scheduled to be completed by 1995-96 is now proposed to be completed only in 2009. The initial cost estimate of Rs 217.22 crore has now risen to Rs 952.54 crore after two revisions (1996 and 2003), in which the share of expenditure by GoG is Rs 698.97 crore. The Government spent Rs 509.31 crore on this project as of March 2007.

#### **3.1.6.1** *Time overrun*

The head works in Maharashtra started in March 1986 and canal works in Goa in 1988. The project was expected to be completed by 1995-96. As of June 2007, the earthwork of main earthern dam is fully completed and 70 *per cent* of pitching work is completed. The pick-up weir, the non over-flow section of the saddle spillway and the canal works in Maharashtra have also been completed. In Goa, out of 37.425 kms, LBMC has been completed up to

21.440 kms and against 23.755 kms RBMC has been completed up to 21.138 kms as of June 2007.

In order to complete the project by 1995-96, as envisaged, the Technical Advisory Committee of the Planning Commission had suggested that funding level between Rs 25 crore and Rs 35 crore per year should be maintained by the State Government for seven years up to 1995-96. However funds provided by the Government for this period during 1989-90 to 1995-96 ranged between Rs 6.39 crore and Rs 22.90 crore only (total Rs 112.06 crore in seven years), resulting in slowing down the progress of work. Further, the funds spent for the project during 1996-97 to 1999-2000 were Rs 49.67 crore only, whereas Rs 59.25 crore available under Irrigation were surrendered during this period.

Due to inadequate provision of funds and consequent slow progress of works, the project is likely to be completed by 2009, leading to a time overrun of more than a decade

Due to the Government decision (July 2002) to stop the canal works in Goa pending mid term rapid survey and assessment of the project, no payments were released to Maharashtra during 2002-05 and expenditure of Rs 29.43 crore only was incurred on canal works in Goa during this period and therefore, the project was further delayed. The rapid survey report submitted (December 2002) by the Consultant Centre for Development, Planning and Research (CDPR) indicated considerable reduction in command area (6,407 ha) due to factors such as fragmented and scattered land parcels, area proposed for deletion/deferment on account of technical and social factors etc. The total water requirement of Goa was assessed at 245.63 Mcum against 455 Mcum as earlier determined. Consultant also suggested construction of canal and distribution network upto 26 kms of LBMC and up to 19 kms of RBMC. The Government did not accept the report and decided (December 2002) to have an actual visual survey of the command area available under each canal, distributory and branch canal, by the officials of the Corporation. The actual command area available as reported by the officials after survey was 14,521 ha. Further the Government also felt that the project in Bardez was not worth taking up considering the cost involved and directed (February 2003) the Chief Engineer (WRD) to work out the correct figures. This was not complied with and the Government neither pursued the issue further nor took any decision till September 2005. Delay in taking decision on the report for three years also led to the delay in execution of project. The project is scheduled to be completed by 2009. Thus, there would be delay of 13 years.

The Department stated (September 2007) that adequate funds could not be provided as suggested by the Planning Commission taking into account the overall position of the State Budget outlay for irrigation sector. The reply is not tenable as the Water Resources Department had surrendered Rs 105.86 crore during 2001-07. The Department also accepted that all works had stopped/slowed down between July 2002 and September 2005.

#### 3.1.6.2 Cost overrun

The estimate of the project (Rs 217.22 crore) approved by Central Water Commission in March 1990, was further revised in 1996 to Rs 525.59 crore and in January 2003 to Rs 952.54 crore. The share cost of Goa was Rs 698.97 crore. Since there is considerable cost escalation, the Project authorities

The cost overrun amounted to Rs 537.79 crore (334 per cent) decided (April 2007) to revise the cost further, based on 2006-07 rates. The revised estimate was under preparation (September 2007). The table below shows the details of revision in cost of the project.

Approval date	Base Year/ RSR/GSR	Total project cost	Goa's share	Cost overrun
			(Rupees in crore)	
1990	1987-88	217.22	161.18	-
1996	1993-94	525.59	376.66	215.48
2003	2000-01	952.54	698.97	537.79

The cost overrun of the project would be Rs 537.79 crore (334 *per cent*), taking into account Goa's share of Rs 161.18 crore in the estimated cost of Rs 217.22 crore in 1990. Further, the cost may go up in view of further revision under preparation.

#### 3.1.6.3 Delay in payment of share cost to Maharashtra

The agreement (April 1990) entered into between the GoM and GoG envisages sharing of cost of the project headworks based on the projected gross utilization of water in both the States, which was worked out in the ratio of 26.70: 73.30, subject to final adjustments. The cost of the common portion of the main canals is also to be shared on the basis of cumec (cubic meter per second) kilometers apportionable for the requirement of each state. Cost of rest of the main canal, branches and distributaries serving exclusively one State was to be met by that State alone.

The agreement also provides that both the States shall provide adequate funds yearly as per their respective shares for the project to ensure that the project is executed as per time schedule and completed within the stipulated period.

The total expenditure incurred on common works on which share is to be paid was Rs 552.69 crore, as of March 2007. Against the share cost of Rs 405.12 crore the GTIDC has paid Rs 309.55 crore only and Rs 95.57 crore was outstanding as of March 2007. The Government of Goa did not release any funds during 2002-05, consequent to the decision of the Government to review the project to determine the exact command area, resulting in backlog in payment to Maharashtra.

While accepting the above statement, the Department stated (September 2007) that agreed funds were not released to GoM as adequate funds were not available with GoG. The reply of the Department is not tenable as Rs 28.83 crore were surrendered by Water Resources Department during 2002-05.

#### 3.1.6.4 Reduction in command area

The project envisaged to irrigate an area of 16,978 ha in Goa and 6,676 ha in Maharashtra, and also provided for an annual supply of 57.3 Mcum of drinking and industrial water to North Goa. However, on a proposal from

Delay in payment of Goa's share of expenditure to GoM resulted in delay in completion of the project

Against the envisaged irrigation command of 16,978 ha, the command area actually available for irrigation was only 14,521 ha

<sup>•</sup> includes cost of cement supplied-Rs 4.02 crore

GTIDC, the Government approved (September 2005) the revised command area of 14,521 ha as surveyed by the GTIDC. Due to increased tourism activities in the coastal areas the command area is likely to get further reduced and therefore taking up of the last stretch of LBMC was uneconomical as pointed out in para 3.1.7.1 below. The Department stated (September 2007) that the excess water due to reduction in command area can be utilized for non-irrigation purpose. Thus the intended purpose of irrigation of more area is not being fully achieved.

# 3.1.7 Implementation

#### 3.1.7.1 Uneconomical expenditure on tail end of LBMC

There was a reduction in command area leading to uneconomical expenditure on tail end of LBMC

The Left Bank Main Canal of the Project in Goa takes off at Dodamarg and runs for a length of 37.425 kms, with its tail end at Calangute. This canal originally envisaged to irrigate 11,971 ha area in Bardez and Bicholim Talukas. On a review survey conducted (December 2002) by the Corporation, the actual command area was re-assessed to 10,268 ha. The earthwork of canal was completed up to 27.700 kms and balance work was scheduled to be completed by May 2007.

The Managing Director of the Corporation technically sanctioned (May 2006) construction of an RCC Conduit canal from Chainage 28.970 kms to 37.425 kms (tail end).

The work estimated to cost Rs 36.87 crore based on GSR 2004 cost, was awarded (January 2007) to M/s Ketan Constructions for Rs 51.44 crore (13.58 *per cent* above the justified cost of Rs 45.29 crore based on prevailing market rates) to be completed by April 2008. An amount of Rs 10.04 crore has been paid for this work so far (October 2007).

It was noticed that the conduit had been designed for a discharge of 3.00 cumees to cater to a command area of 1980 ha in Moira, Guirim, Bastora and Calangute villages, through Bastora and Calangute distributaries, which take off at the end of the conduit. As per the survey conducted by the Corporation (December 2002), the command area actually available under Calangute and Bastora distributaries was only 1,695 ha (831 ha under Bastora distributory and 864 ha under Calangute distributory). Based on the tendered cost of the conduit canal (Rs 51.44 crore), the cost per ha command would be Rs 3.00 lakh (approximately) which is very high compared to Rs 19,110 per ha estimated as per the original project cost. Taking up of this canal stretch at an exhorbitant cost of Rs 51.44 crore, to serve a reduced command area of 1,695 ha, which may get further reduced due to increased habitation in this coastal area, was not economical. The CDPR in their mid term rapid survey had also recommended to defer the construction of the LBMC beyond 26.32 kms, as the command area to be served by this canal stretch was coastal belt where conversion of agricultural land to non-agricultural use was taking place, due to concentration of local population and on account of tourism related activities. Thus, this uneconomical expenditure liability was avoidable.

The Department stated (September 2007) that as it was originally planned to cover the villages of Anjuna, Calangute and Bastora, it was not advisable to delete any of this area available and the tail end pressure conduit could not be avoided. Thus, the purpose of taking up the mid term review was not served as the Government planned to execute the project as per original plan. The fact remains that the uneconomical expenditure liability was avoidable.

#### 3.1.7.2 Deviation in quantities involving huge expenditure

Huge expenditure was incurred due to deviation in quantities

The Executive Engineer, Division VII, invited (January 2001) tenders for construction of acquaduct from Chainage 11.910 kms to Chainage 12.390 kms of Right Bank Main Canal at Casarvanem, estimated to cost Rs 2.44 crore at 1997 GSR. Only one agency M/s Aditya Constructions Company quoted After negotiations by the Managing Director of the Rs 3.81 crore. Corporation, the negotiated offer of Rs 3.44 crore was accepted and work order was issued (April 2001). The work was completed (May 2003) at a cost of Rs 4.11 crore.

It was noticed that there was huge deviation in quantities on earthwork in excavation, RCC in foundation, columns, bracing, brackets, high yield strength re-inforcement which were high quoted items (except the item earthwork in excavation) as detailed below:-

Item	Unit	Estimated quantity	Quantity executed	<b>Excess</b> quantity	Excess amount (Rupees in lakh)
Earthwork in excavation	Cubic metre	17,940	32,904	14,964	20.95
RCC in foundation	Cubic metre	2,213	2,532	319	11.16
RCC work for columns, bracing, brackets	Cubic metre	732	963	231	11.55
High Yield strength reinforcement	Kg	3,25,500	4,21,230	95,730	26.80
TOTAL					70.46

The huge variations in quantities occurred mainly due to increase in depth of foundation of piers and change in structural design of the acquaduct. The deviations in quantities were approved and the expenditure involved on execution of these deviated quantities amounted to Rs 70.46 lakh. Department stated (September 2007) that the change in design resulting in deviation in quantities was to be adopted during execution to avoid any failure in future. The fact remains that inadequate design planning in the initial stage resulted in execution of excess quantities at a cost of Rs 70.46 lakh.

#### 3.1.7.3 Extra liability due to delay in land acquisition

Non acquiring the land In order to take up the command area development network of Sal distributory, to bring part of the area under irrigation, the Corporation invited (June 2005) tenders for the work of "Construction of Direct Water Course 1L, 2L, 3R and 4L at Latambarcem and Sal village", at an estimated cost of Rs 57.57 lakh. In response a single tender for Rs 62.13 lakh was received

well in advance of tendering resulted in retendering and consequent extra liability of Rs 16.93 lakh

(August 2005). After negotiations, the negotiated offer of Rs 60.43 lakh was approved (23 September 2005) by the Managing Director. The Corporation did not issue the work order even within the extended period of validity of tender (18 August 2006) as the same was to be issued only when land required for execution of the work was available.

As there was no response for tenders re-invited in December 2006 and January 2007 from the eligible class of contractors, the Corporation invited tenders again in February 2007 from the next lower category. Of the two tenders received (March 2007), the lowest negotiated offer of M/s Sunrise Constructions for Rs 77.36 lakh was accepted and the agency was asked (April 2007) to take possession of the site and commence the work. The work was in progress (October 2007).

Audit scrutiny revealed that the proposal for acquisition of the land required for this work was submitted to the Deputy Collector, Panaji only in July 2005, and the possession of land was taken only in July 2007. Thus, the failure of the Corporation, in acquiring the land well in advance of tendering, resulted in re-tendering and acceptance of tender at a higher cost and consequent extra liability of Rs 16.93 lakh. The Department did not specify the reasons for delay in acquiring the land well in advance of tendering.

## 3.1.7.4 Avoidable expenditure of Rs 19.29 lakh due to retendering

The Executive Engineer, Works Division VIII, tendered (October 2005) the work of "providing and laying cement concrete lining from Chainage 21.160 kms to 24.030 kms of LBMC" estimated to cost Rs 1.48 crore. Since there was no response, the work was tendered again in November 2005. A single tender for Rs 1.85 crore was received (December 2005). Though negotiations were held and the tenderer brought down his offer to Rs 1.60 crore, the tender was rejected (March 2006) by the tender committee as the agency refused to reduce the rates further and the Corporation retendered (April 2006) the work. Of the two offers received, the lowest offer of Rs 1.81 crore of the same agency was negotiated (May 2006) and the negotiated offer of Rs 1.79 crore was accepted (July 2006) and work order was issued (August 2006). The work was yet to be completed and expenditure incurred so far was Rs 1.25 crore (October 2007).

Thus non acceptance of previous offer for Rs 1.60 crore, and retendering and acceptance of the offer of Rs 1.79 crore, resulted in avoidable expenditure of Rs 19 lakh, as also delay in taking up the work.

The Department stated (September 2007) that it was a normal practice not to accept single tender except in emergent cases/high quoted tender and the rejection of this tender was made to protect the interest of the Government and the decision was taken collectively. The reply is not tenable as single offers had been accepted earlier and also there was no offer during call of tender on first occasion.

#### 3.1.7.5 Benefit cost ratio

As per the initial project report, the benefit cost ratio of the project was 2.50. Due to time and cost overrun and revision of the project cost at Rs 952.54 crore in 2003 the benefit cost ratio has come down to 1.55. In view of further revision under preparation coupled with reduction in command area, the benefit cost ratio would go down further below the norm of 1.50. The Department contended that revised benefit cost ratio would be around 2.00. Even then it would be less than the initial project benefit ratio of 2.50.

#### 3.1.7.6 Irrigation potential underutilized

Irrigation potential was underutilized due to delay in taking up command area development works

The project was taken up in March 1986 for creating irrigation potential to irrigate 16,978 ha of land in Goa by 1995-96. The command area has since been reduced to 14,521 ha. Though the project was yet to be completed fully (June 2007), water was released for the first time in the RBMC in December 2001 from the tail race release at Terwanmedhe pickup weir. The canal work of LBMC up to 13.240 kms was completed and water was also released through LBMC in February 2006. Irrigation potential of only 860 ha had been created of which only 253 ha (29 per cent of created irrigation potential) could be utilized so far (June 2007). The under utilization was mainly on account of delay in taking up Command Area Development (CAD) works in the irrigation command area as a result of the project work coming to a standstill for three years due to review of the project. It was noticed that survey works for five micro distribution networks were awarded only in July to December 2006 and the final reports in respect of these works were yet to be submitted. Delay in submission of reports will lead to further delay in taking up CAD works and consequent utilization of command area, where water is already available for irrigation. The CAD works are now scheduled to be completed by 2009.

The Department stated (September 2007) that various activities related to CAD were in full swing and all efforts would be made to create the potential as planned and brought under utilisation.

## 3.1.7.7 Drinking water

The first stage of gorge filling of the main dam was completed in May 2003 and 84.08 Mcum water was impounded in the reservoir during 2003-05. After completion of second stage of gorge filling up to River Level (RL) 118.55 meter in April 2006, the storage of 126.29 Mcum was achieved. Though the project envisaged supply of 57.3 Mcum water per year for drinking and industrial purposes in Goa, the water drawn and utilized for drinking purpose in Goa was 5.00 Mcum only during 2003-07, despite availability of water. Audit scrutiny showed that this was because the canal for carrying the water to the treatment plant were not fully completed till December 2005. Even after completion of canals, full utilization could not be done as the Assonora water treatment plant's capacity augmentation has not been completed (August 2007). The Department stated (September 2007) that full quantum of water would be utilized in future.

#### 3.1.8 Internal control

#### 3.1.8.1 Internal inspection of subordinate offices

The GTIDC comprised of the office of the Managing Director, Superintending Engineers' office, three Works Divisions, Special Land Acquisition Officer and Deputy Director of Agriculture. The Accounts Section of the Managing Director's office is headed by the Chief Accounts and Finance Officer (CA&FO). Though the internal inspection of the subordinate offices was required to be conducted by the CA&FO, internal inspection of the Divisions/sub-ordinate offices was not conducted at all.

The Department agreed to carry out the internal inspection from 2007-08 onwards without furnishing any reasons for non compliance up to 2006-07.

## 3.1.8.2 Delay in conducting bank reconciliation

Bank reconciliation was not carried out regularly at the end of each month in respect of Divisional offices It was noticed that monthly bank reconciliation of balances in the bank as per the cash book and the bank pass books was not being done regularly at the end of each month in respect of Divisional offices. The reconciliation for the year was however done at the time of finalization of the accounts. As a result there was unreconciled amount of Rs 4.65 lakh (Rs 3.80 lakh-Division VIII and Rs 0.85 lakh-Division VII) as at the end of 31 March 2005. Further reconciliation for the years 2005-06 and 2006-07 could not be verified pending finalization of account. The Department did not furnish any reasons for failure in conducting the bank reconciliation so far but agreed to carry out the same regularly in future.

#### 3.1.9 Monitoring

In pursuance of the Inter-state agreement finalized (April 1990) between the Governments of Goa and Maharashtra, a Standing Committee for co-ordinating execution of the project and its operation and maintenance and a Control Board for overall supervision, detailed investigation, design and construction of the project and operation and maintenance thereof were constituted in September 1990. The Standing Committee and the Control Board were required to meet not less than once in three months and atleast once in a year respectively. During the last 16 years, the Committee has met only eleven times and the Board met only twice (in 1995 and 2000). Though the Control Board was set up to sort out the problems concerning various aspects of the project, no meeting of the Board has been held after 2000 and issues such as rate of Establishment Tools and Plants charges, employment of Project Affected Persons of the project were pending.

The Department replied (September 2007) that efforts would be made to hold regular meetings.

#### 3.1.10 Conclusion

The initial cost of the project amounting to Rs 217.22 crore at 1987-88 rate, has gone up to Rs 952.54 crore in 2003 due to delay in execution of the project for 11 years. The delay was mainly due to non-funding of the project by GoG as required from time to time since commencement of the project. The cost overrun of the project amounted to Rs 537.79 crore. Construction of the tail end of left bank main canal in a length of 8.4 kms at a high cost of Rs 51.44 crore was uneconomical and avoidable. Irrigation potential created could not be utilized fully as command area works were delayed. As against 57.3 Mcum per year drinking water envisaged in the project, water drawn and utilized for drinking in Goa was 5.00 Mcum during 2003-07 (9 per cent) despite availability of water.

## 3.1.11 Recommendations

- ❖ Government should ensure financial commitment and its timely release for completion of the project by 2009 as envisaged.
- ❖ Command area development works should be completed in a time bound manner to avail full benefit of the project.
- ❖ Government should ensure optimum utilization of available drinking water.

#### WOMEN AND CHILD DEVELOPMENT DEPARTMENT

# 3.2 Working of Women and Child Development Department

Women and Child Development Department was established for overall development of Children through Integrated Child Development Services (ICDS), providing better facilities to women and children in difficult circumstances, providing care, protection, shelter and security to destitute, orphans and children in conflict with law and overall development of adolescent girls. The achievement of these objectives was hampered due to inadequate infrastructural facilities, inadequate visits to Anganwadis by supervisory and health staff and failure to create the desired level of awareness among public.

#### Highlights

The Department failed to utilize 66 *per cent* of the budgeted capital expenditure resulting in non-creation of infrastructure facilities.

(*Paragraph 3.2.6.1*)

There was overall shortfall in providing supplementary nutrition to the extent of 27 per cent to pregnant and lactating women and 65 per cent to children. Further the calorie and protein levels of the food stuffs distributed were below the standard prescribed by the Central Government in majority of Anganwadis checked by Food and Nutrition Board.

(*Paragraph 3.2.7.1*)

Anganwadis were not established in 17 village panchayats depriving around nine *per cent* of the Village Panchayats of the benefits of the scheme.

(*Paragraph 3.2.7.7*)

➤ Of the total 1,012 Anganwadis, only nine are functioning in own buildings. In respect of 901 Anganwadis, toilets and drinking water facilities were not available.

(Paragraph 3.2.7.8)

The shortfall in visits by CDPOs to Anganwadis ranged from 83 per cent to 88 per cent.

(*Paragraph 3.2.7.6*)

➤ Due to delay in preparation of action plan of activities by more than two years, State Commission for Children constituted in July 2004, did not carry out any major activities.

(*Paragraph 3.2.8*)

➤ Only 120 cases were disposed of out of 1,215 cases registered between July 1997 and March 2007 with the State Commission for Women.

(*Paragraph 3.2.10*)

Yashasvini scheme is yet to take off as intended even though five years have passed since its introduction.

(*Paragraph 3.2.11*)

#### 3.2.1 Introduction

The Women and Child Development Department (W&CDD) was created in 1997 and is responsible for (i) Overall development of children (0-6 years) through Integrated Child Development Services (ICDS), (ii) Providing better facilities to women and children in difficult circumstances, (iii) Providing care, protection, shelter and security to destitute, orphans and children in conflict with law and (iv) Overall development of adolescent girls. To achieve these objectives the Department implemented a number of schemes for children and women during the period 2002-03 to 2006-07.

# 3.2.2 Organizational Set-up

The Secretary, Women & Child Development Department is the administrative head of the Department. The day-to-day functioning is looked after by the Director of W&CDD who is responsible for budgeting and implementation of various schemes and programmes of the Department. The Secretary is assisted by:-

- Programme Officer (ICDS programme)
- Superintendent -cum-Probation Officer for Apna Ghar
- Superintendent (Protective Home) for women and
- Social Welfare Officer for sanction of grants.

The strength of the regular employees as on 31 March 2007 was 135.

There are also two independent Commissions: (a) State Commission for Women and (b) State Commission for Children, headed by Member Secretaries. Their expenditure is financed through grants from the Department.

## 3.2.3 Audit objectives

Audit objectives were to assess whether:

- The Department has implemented all the schemes related to women and child development launched by Central/State Governments and covered all eligible beneficiaries of the State;
- The schemes were implemented economically, efficiently, effectively;
- The manpower conformed to norms and whether shortages in manpower, if any, had affected the performance adversely, and
- The internal audit existed and functioned effectively.

## 3.2.4 Scope of Audit and Methodology

Audit covered a period of five years from 2002-03 to 2006-07. Records maintained by the Director of Women & Child Development Department, Five Project Officers (out of 11) situated in Pernem, Bicholim, Bardez, Salcete and Quepem, Superintendent-cum-Probation Officer, Apna Ghar at Merces, Superintendent of Protection Home-cum-Reception Centre at Merces, State Commission for Children, Panaji and State Commission for Women, Panaji were test checked in Audit during March 2007 to June 2007.

The audit objectives were discussed in the entry conference with the senior officers of the Department. The audit process included discussion with the officers of the department, collection of data through examination of records and their analysis. The exit conference was held in July 2007 with the Secretary (W&CDD) to discuss the audit findings.

# 3.2.5 Audit findings

The Department implemented the developmental programmes/schemes for children and women. Audit findings covering financial management and the programmes/schemes are stated below.

#### 3.2.6 Financial Management

#### 3.2.6.1 The Budget Provision and Expenditure incurred by the Department

The budget provision and expenditure incurred by the Department during 2002-03 to 2006-07 were as shown below.

(Rupees in crore)

Year	Revenue			Capital			Loans		
	B.P.	Exp.	(+) <b>E</b> x	B.P.	Exp.	(+) <b>E</b> x	B.P.	Exp.	(+) <b>E</b> x
			(-) Sav			(-) Sav			(-) Sav
2002-03	14.78	12.48	(-) 2.30	0.39	0.36	(-) 0.03	-	-	-
2003-04	17.59	13.13	(-) 4.46	0.30	0.25	(-) 0.05	0.22	-	(-) 0.22
2004-05	19.74	14.05	(-) 5.69	0.30	0.09	(-) 0.21	0.30	-	(-) 0.30
2005-06	19.63	15.20	(-) 4.43	0.75	0.00	(-) 0.75	0.02	-	(-) 0.02
2006-07	18.23	16.01	(-) 2.22	1.50	0.41	(-) 1.09	0.02	-	(-) 0.02
Total	89.97	70.87	(-) 1 <b>9.10</b>	3.24	1.11	(-) 2.13	0.56	-	(-) 0.56

B.P. - Budget Provision, Exp-Expenditure, Ex-Excess, Sav-Savings

The savings of Rs 19.10 crore under Revenue Head occurred due to non-filling up of vacant posts, over projection of medical and LTC requirement, non-conducting of regular training programmes and non-implementation/partial implementation of certain schemes by the Department. The savings of Rs 2.13 crore under Capital Head was due to non-taking up of construction of Anganwadi Centres and other works as proposed in the budget. The savings under loans was due to non-implementation of "Yashasvini" scheme.

High percentage of savings under Revenue (21 per cent), Capital (66 per cent) and loans (100 per cent) during 2002-07 indicated poor planning and monitoring by the Department. The Department agreed that they did not utilise 66 per cent of capital budget resulting in non creation of infrastructure.

#### 3.2.6.2 Reimbursement of Expenditure by Government of India (GoI)

Out of revenue expenditure of Rs 70.87 crore incurred during 2002-07 on ICDS and other Departmental Schemes by W&CDD, GoI reimbursed Rs 26.80 crore as per prescribed norms.

#### 3.2.6.3 Delay in receipt of Utilization Certificates from Grantees

- ➤ The State Social Welfare Board (SSWB), established in Goa in 1963, is a central autonomous body under the Ministry of Social Welfare, which provides grants to registered institutions/self help groups in the State of Goa for women and child related schemes. The Department sanctions 50 per cent maintenance grants to the SSWB every year as per the pattern of assistance approved by the Government. During 2002-03 to 2006-07, the State Government released grants of Rs 48.44 lakh to the SSWB. The SSWB has not furnished the utilization certificates for the entire amount to the Director of Accounts (August 2007); despite this, the Department continued to release grants to the SSWB every year.
- The Department had sanctioned maintenance grant of Rs 40 lakh to the State Commission for Women during 2004-05, utilization certificates for Rs 33.97 lakh only have been furnished leaving a balance of Rs 6.03 lakh (August 2007).
- ➤ The Department sanctioned grant of Rs 20 lakh (in two installments of Rs 10 lakh each) to State Commission for Children during 2006-07. The Commission has not furnished the utilization certificates for Rs 13.22 lakh (June 2007).

## 3.2.7 Implementation of ICDS

The Integrated Child Development Services (ICDS), started in 1975-76, is a centrally sponsored scheme to improve maternal and child health.

ICDS has six components viz. (i) Supplementary Nutrition Programme (ii) Immunization (iii) Health Check up (iv) Referral Services (v) Nutrition and Health Education and (vi) Non-formal pre-school Education. Beneficiaries under the scheme include expectant and nursing mothers, women in the age group of 15 to 45 years (for nutrition and health education) and children up to the age of six years.

The Programme Officer (ICDS) heads the ICDS scheme in the State of Goa. The programme is implemented through 11 Child Development Project Officers (CDPOs) who were assisted by Mukhyasevikas (47), Anganwadi

workers (AWs) (1,010), Anganwadi helpers (AHs) (999) and support staff. The expenditure incurred on the above scheme during 2002-03 to 2006-07 was Rs 63.02 crore which was 87 *per cent* of total expenditure of the Department. The salary of AWs and AHs to the extent of Rs 1,000 and Rs 500 per month respectively is reimbursed by the Central Government. The State Government additionally contributed Rs 2,000 and Rs 1,000 per month respectively (September 2003). Hence the enhanced salaries of AWs/AHs from September 2003 were Rs 3,000 and Rs 1,500 per month respectively. There were 1,012 Anganwadis in the State as of March 2007.

# 3.2.7.1 Supplementary Nutrition Programme (SNP) Shortfall in achievement of Targets in the State of Goa

The objective of the SNP is to bridge the protein energy gap between recommended dietary allowance and average dietary intake of children and women by providing supplementary feeding for 300 days in a year. The Department supplies cooked food of 100 gms for children (3-6 age group) per day, having 300 calories and 8-10 gms of proteins six days in a week and packed food (2 kgs per month) for pregnant and lactating women and children up to the age of 3 years.

The food packets are delivered to the beneficiaries through 1,012 Anganwadi Centres. The details of distribution of foodstuff to pregnant and lactating mothers and children in the age group of 0-6 years during 2002-03 to 2006-07 are as under:

## Distribution of foodstuff to Pregnant and Lactating Women

Supplementary Nutrition was not availed by 27 per cent of pregnant, lactating mothers and 65 per cent of children

Year	Total Population of Pregnant /Lactating Women within the Projects in Goa	No. of Beneficiaries to whom food packets supplied	Shortfall	Percentage of Shortfall
2002-03	11,753	8,393	3,360	29
2003-04	11,013	7,893	3,120	28
2004-05	12,476	8,950	3,526	28
2005-06	12,733	9,075	3,658	29
2006-07	12,985	9,952	3,033	23
Total	60,960	44,263	16,697	27

Such as khichdi, rava shira, usal, ladu consisting of wheat, rice, dal, moong, rava, ghee, sugar, jaggery etc.

Consisting of rice, wheat, moong, green peas, rava, etc.

Children	0-6	years
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Year	Total Population of	No.	of Benefici	Short-	Percentage	
	Children (0-6 yrs) within the Projects in Goa	0-3 years	3-6 years	Total	fall	of Shortfall
2002-03	1,02,608	20,644	16,294	36,938	65,670	64
2003-04	1,05,074	19,889	16,981	36,870	68,204	65
2004-05	1,05,970	20,384	17,003	37,387	68,583	65
2005-06	1,07,145	20,517	16,629	37,146	69,999	65
2006-07	1,09,045	22,372	16,766	39,138	69,907	64
Total	5,29,842	1,03,806	83,673	1,87,479	3,42,363	65

The Department stated that though the scheme was universalized, the high and middle class income group families did not avail the benefit of the scheme.

The Department does not have any record to substantiate this claim or the data to show that all needy families were being covered.

As per GoI guidelines food stuff supplied to pregnant and lactating mothers, children of 0-6 years under SNP should contain 300-500 calories and protein of 8-25 gm per day. The details are as under:-

Beneficiaries	Calories (cal)	Protein (gm)	
Children below 3 years	300	8-10	
Children 3-6 years	300	8-10	
Severely malnourished children on medical advice after health check-up	Double of above		
Pregnant and lactating mothers	500	20-25	

Calorie and
Protein contents of
food stuff provided
to beneficiaries
were below the
prescribed norms

Monthly reports submitted by the demonstration officer, Food and Nutrition Board (F&NB) Porvorim, Ministry of W&CDD, GoI after inspecting the foodstuff supplied by CDPOs to AWs under SNP showed that out of 71 samples checked by the board in 71 AWs of eight\* talukas during October 2005 to February 2007 the calorie content in 49 samples was found to be below 300. Similarly, in 24 samples protein content was found to be below 8 gm. This shows that the department was not maintaining required calorie/protein content in the food supplied to the beneficiaries at all the times. The Department stated (September 2007) that the protein and calorie content could not be met on account of the limited cost per beneficiary and further stated that on enhancement of the cost of SNP for children and women, the protein and calorie content is now maintained as per the norms of the scheme.

<sup>\*</sup> Tiswadi, Bardez, Pernem, Ponda, Bicholim, Quepem, Salcete, Marmugao

#### 3.2.7.2 Immunization

Immunization of pregnant women and infants protects children from six vaccine preventable diseases - poliomyelitis, diphtheria, pertusis, tetanus, tuberculosis and measles. These are major preventable causes of child mortality, disability and morbidity. Immunization of pregnant women against tetanus also reduces maternal and neonatal mortality. This service is delivered by the Ministry of Health and Family Welfare under its Reproductive Child Health (RCH) programme. In addition, the Iron and Vitamin 'A' supplementation to children and pregnant women is done under the RCH programme.

According to the statistics available in the Directorate of Health Services, all the children, including pregnant/lactating mothers in Goa were covered under the above scheme during the period 1998-99 to 2006-07 and showing cent *per cent* achievement under the programme.

Audit scrutiny revealed that 32,109 beneficiaries of five test checked CDPOs were not given Vitamin A dose, Iron and Folic acid tablets during April 2006 to June 2007 as Directorate of Health Services had not supplied vitamin A doses/tablets during above period due to shortage. The Department agreed that the shortfall was due to non-receipt of the material.

#### 3.2.7.3 Health check up Programme neglected

This component includes health check-up of children less than six years of age, antenatal care of expectant mothers and postnatal care of nursing mothers. These services are provided by the auxiliary nursing mid-wife (ANM), medical officers incharge of health sub-centres and primary health centres. Health services include regular health checkup, immunization, management of malnutrition, treatment of diarrhoea, deworming and distribution of simple medicines, etc.

The details of health check-up carried out on the expectant women, nursing mothers and children of 0–6 years of age in Anganwadis under five CDPOs during 2002-07 are given below:-

Expectant	Women and	Nursing	Women
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Year	Population of expectant and nursing mothers	Beneficiaries under- taken health check-up	Percentage of Beneficiaries
2002-03	5,941	314	5
2003-04	6,065	224	4
2004-05	6,806	866	13
2005-06	6,857	281	4
2006-07	7,158	164	2
Total	32,827	1,849	6

Children 0-6 years

Year	Total population of children (0-6 years) within five projects in Goa	Beneficiaries	Percentage of Beneficiaries
2002-03	30,735	3,125	10
2003-04	33,152	2,550	8
2004-05	32,021	9,074	28
2005-06	33,113	9,689	29
2006-07	33,463	7,128	21
Total	1,62,484	31,566	19

Audit scrutiny revealed that the Doctors were not visiting the Anganwadis regularly, i.e., out of 506 Anganwadis in five test checked CDPOs, doctors visits per year ranged from 155 to 383 Anganwadis during 2002-07 due to which the health check up programme was neglected. The Department attributed the reason to non-availability of doctors in Health Centres and also stated that due to sound financial position, expectant women, nursing mothers and children preferred to go to private practitioners. But the fact remains that the Department did not have the consolidated record of the number of such expectant women, nursing mothers and children who did not need these benefits to substantiate that those left out were of high income group.

#### 3.2.7.4 Nutrition and Health Education

Nutrition and Health Education (NHE) is a key element forming part of Behaviour Change Communication (BCC) strategy. This helps the long term goal of capacity-building of women especially in the age group of 15-45 years so that they can look after their own health nutrition and development needs as well as that of their children and families. As per GoI guidelines each Anganwadi worker has to organize one demonstration programme in each Anganwadi in a month and one exhibition or seminar in a year so that women members of age group 15-45 years could avail the benefits of the programme. The details (the consolidated figures) such as number of nutrition programmes held and number of women participated during 2002-03 to 2006-07 were not available with the Department. However audit scrutiny of records in five test checked CDPOs revealed the following details of programmes/exhibitions held during 2002-07.

Year	No. of Anganw- adis in operation	No. of NHEs programme required @ 12 per year	No. of program- mes held	Short- fall	Percentage of shortfall	No. of seminars/ exhibitions held	Excess (+) Shortfall (-)	Percentage of shortfall	No. of Women partici- pated
2002-03	506	6,072	3,138	(-) 2,934	48	165	(-) 341	67	64,044
2003-04	506	6,072	3,468	(-) 2,604	43	2	(-) 504	100	68,500
2004-05	506	6,072	3,804	(-) 2,268	37	78	(-) 428	85	67,152
2005-06	506	6,072	3,416	(-) 2,656	44	37	(-) 469	93	67,445
2006-07	506	6,072	3,427	(-) 2,645	44	64	(-) 442	87	56,828

There was a shortfall in achievement of programmes during 2002-07 ranging from 37 to 48 *per cent* and seminar from 67 to 100 *per cent* in the five test checked CDPOs. As a result of this the required degree of awareness was not created amongst beneficiaries.

#### 3.2.7.5 Non-formal Pre-School Education

This component in the Anganwadi is directed towards providing and ensuring a natural, joyful and stimulating environment with emphasis on necessary input for optimal growth and development for 3-6 years old children. It also contributes to the universalisation of primary education by providing necessary preparation for primary schooling and offering substitute care to younger siblings thus freeing the older ones especially girls to attend the schools. Audit scrutiny revealed that the Department did not have consolidated figures of targeted population of children of 3-6 years for the period 2002-03 to 2006-07. The beneficiaries who availed the benefits reported to GoI is given below:

Year	Beneficiaries
2002-03	16,386
2003-04	17,074
2004-05	17,065
2005-06	16,952
2006-07	15,598
Total	83,075

In the absence of the target beneficiaries, the achievement of the scheme during 2002-03 to 2006-07 could not be ascertained in audit. Also the figures of beneficiaries under SNP for the same age group is lower than figure reported for beneficiaries attending in the pre school education which indicates that data available with the Department may not be very reliable. However only 27 *per cent* children actually attended Anganwadis during 2002-03 to 2006-07 in the five test checked CDPOs.

The Department stated that parents preferred to send their children to Shishu Vatikas and private schools operating in those areas. However, the Department did not have the consolidated records of the number of such children who did not need these benefits.

#### 3.2.7.6 Inadequate visits by the CDPOs to Anganwadis

As per GoI guidelines each CDPO has to visit Anganwadis for 18 days in a month to ensure proper functioning of the AWs. The position of AWs visited/not visited by the five test checked CDPOs during 2003-07 is given below:

Name of CDPO	No. of AWs functioning	2002-03		2003-04		2004-05		2005-06		2006-07	
		Visited	Not visited								
Bardez	132	10	122	15	117	16	116	15	117	17	115
Bicholim	87	23	64	27	60	28	59	9	78	21	66
Pernem	64	9	55	11	53	11	53	16	48	11	53
Salcete	157	6	151	12	145	12	145	10	147	15	142
Quepem	66	13	53	17	49	19	47	12	54	10	56
Total	506	61	445	82	424	86	420	62	444	74	432

83 to 88 per cent AWs were not visited by CDPOs even once during 2003-07 It would be evident from the above table that 420 (83 per cent) to 445 (88 per cent) of AWs were not visited by the CDPOs even once in a year during 2003-07. CDPOs stated (June 2007) that the shortfall of the visits was due to workload in CDPOs. The reply is not tenable as the visit to AWs is a core function of CDPOs and therefore, the guideline must have been fixed taking into account the workload. Further no reports are prepared by the CDPOs for their visits made to Anganwadis, as a result audit could not ascertain instructions/suggestions made to Anganwadis to improve the performance of the schemes. The Department stated (September 2007) that apart from the work of visiting children homes, orphanages, etc., CDPOs were entrusted with the additional works of attending hospital management committee, beggars committee, etc., and hence there was shortfall. The reply is not tenable as the CDPOs are provided with the vehicles and could have covered those AWs which were not visited even once in a year as stated above.

#### 3.2.7.7 Shortfall in establishment of Anganwadis

The ICDS envisaged establishment of one Rural/Urban Project for every one lakh of people and one tribal project for every 0.35 lakh tribal population under each project. An Anganwadi was to be formed for area covering 700 to 1,000 population depending on whether the area was Tribal (700) or Non-Tribal (1,000). The Population of Goa as per 2001 Census was 13.47 lakh, out of which as per GoI Notification (2003), 11.85 lakh was non-tribal population and 1.62 lakh tribal population. Hence, Goa should have 11 projects for non tribal population and five projects for tribal population against which only 11 CDPOs are functioning. Similarly 231 and 1,185 Anganwadis were required for tribal and non tribal population respectively against which 1,012 are functioning. Thus, there was a shortfall of 404 Anganwadis. However the sanctioned strength of Anganwadis in Goa is only 1,216 against which 1,012 Anganwadis are functioning.

Against 16 CDPOs required as per the norms, only 11 are functioning

Out of 189 Village Panchayats (VPs) in the State of Goa (June 2007), 17 VPs, i.e. eleven in North Goa and six in South Goa districts, covering around nine *per cent* of VPs, are not having Anganwadis. Non-availability of Anganwadis in these VPs have deprived, the population in these VPs of the benefits of

17 Village Panchayats did not have Anganwadis ICDS. The Department stated (September 2007) that care was taken to cover all the areas but some of the Anganwadis had to be closed down due to shortage of beneficiaries and low attendance of children on account of frequent mushrooming of private KGs and pre-primary schools. The reply is not tenable as the Department did not provide the details of number of AWs closed down in the State as well as in the limits of uncovered 17 VPs. The fact remains that services of Anganwadis are not available for nine *per cent* of VPs in the State.

#### **Manpower**

As on 30 June 2007, under the ICDS the total sanctioned strength of the staff was 2,144, out of which 2,119 posts were filled in and 25 posts were vacant. The vacant posts included two key posts of CDPOs.

#### 3.2.7.8 Infrastructure

#### Inadequate infrastructure facilities

According to the standards fixed by the National Institute of Public Co-operation and Child Development (NIPCCD), for efficient and smooth delivery of quality services, the Anganwadis should fulfill minimum requirements like (i) adequate space for services with no health hazards to children, (ii) space for storage, cooking and washing facilities, (iii) adequate ventilation, drainage and arrangement for disposal of garbage, and (iv) availability of toilet and drinking water facilities.

Out of 1,012 AWs, 901 are in rented buildings (without basic facilities) and 102 in other public places It was noticed that out of 1,012 Anganwadis, only nine were running in Government buildings and remaining in rented buildings (901) and other public places (102). In rented buildings of 901 Anganwadis, basic facilities like toilets and drinking water were not available. Further it was noticed that most of the Anganwadis in Goa were housed in small rooms and there were no separate rooms for cooking and storing of food stuff. Since all the activities were carried out in the same room, safety in the Anganwadis was compromised. The Department stated (September 2007) that the rent paid by the Government was not sufficient to get better accommodation and as such the Anganwadi was housed in whatever accommodation was available within the amount. The reply is not tenable as the Department could have fully utilized the allotted funds of Rs 3.24 crore during 2002-03 to 2006-07 for construction of some more Anganwadis.

#### **Buildings**

The Department has not prepared any long term plan to have Pucca Anganwadi Buildings with proper facilities. Only during 2006-07, Government accorded administrative approval and expenditure sanction for the construction of eight Anganwadis in three talukas, i.e. Ponda (five), Tiswadi (two) and Bicholim (one) at a cost of Rs 36.40 lakh. Funds to the tune of Rs 14.55 lakh and Rs 21.85 lakh were placed at the disposal of PWD

The Department has no long term plan to construct pucca Anganwadi Buildings between December 2006 and February 2007. Construction of above works had started (June 2007).

## 3.2.8 State Commission for Children

In order to create a child friendly society and to attend to child rights, child abuse etc., the State Government had enacted Goa Children Act 2003. Subsequently, Goa State Commission for Children was constituted vide Notification in July 2004 which came into existence in November 2004. The Commission consists of Chairman, three members and one member secretary looking after the day-to-day activities of the Commission. The staff is appointed by the Government. The main objectives of the Commission are as under:

- To create a child friendly society
- Spreading awareness among different groups, mobilization and dialogue with civil society on child rights
- Develop a strategy for the progressive implementation of child rights
- To ensure that children become fit citizens
- Set up mechanism to hear complaints from child victims
- Establish norms for good parenting and evolve a strategy for achieving this and
- Prepare disaggregated data on all children in Goa in terms of age, category, sex, etc.

For implementation of the above activities the Commission was required to prepare an action plan. It was noticed that even after two years of setting up of the Commission, no action plan was prepared to carry out these activities (May 2007). No major activities were carried out by the Commission, except registration of six cases (2006-07) and conducting two children's exhibitions. The Department stated (September 2007) that during the period from November 2004 to April 2006 there was no accommodation and staff as required and also financial assistance was not made available and hence it was extremely difficult to carry out action plan in absence of basic facilities required for functioning of the Children's Commission. The Department further stated that financial assistance was provided from April 2006 and action plan was drawn to commence various activities such as adoption bill, setting up of victim assistance unit, protection of the interest of children in villages, 50 per cent concession for bus fare, etc., which were awaiting approval from the Government.

# 3.2.9 Protective Home-cum-reception centre

Girls and women rescued from prostitution are lodged in Protective Homecum-reception centre. Food, shelter, care and protection are provided to them.

No major activities were carried out by the SCC during 2002-07, even after three years of existence The capacity of the protective home is 40 and average duration depends upon the individual case which ranges from 15 days to 60 days. Total 150 inmates were admitted during 2002-03 to 2006-07 in the Protective Home. There is no rehabilitation package in the scheme and the parents carry them back. The Department incurred expenditure of Rs 63.11 lakh during above period out of which Rs 45.56 lakh was on pay and allowances, Rs 3.31 lakh on diet and the balance on contingencies. The Department stated (September 2007) that the expenditure on the diet was just average because inmates stayed in the Protective Home for very short period.

#### 3.2.10 State Commission for Women

The Commission was set up in September 1996 to improve the status of women and to help them in their personal domestic life. The Commission consists of Chairman and not more than six members. The Member Secretary is in charge of the Commission and the staff is appointed by the Government. The objectives of the Commission are as under:

- Investigate, examine and recommend course of action on all matters relating to the provisions for women under the Constitution and other laws
- Present annual report to the State Government about functioning of the Commission, make reports, recommendation for improving the condition of women
- Take cases of violations relating to women with the State Government
- Review laws affecting women and give recommendations thereto
- Entertain suo moto notice on matters relating to
  - a) deprivation of women rights
  - b) protection to women
  - c) non-compliance of policy decisions aimed at mitigating hardships and ensuring welfare to women etc.

During the period 1997 to 2007, the Commission registered 1,215 cases but disposed of only 120 cases (39 cases during 2002-07). Balance 1,095 cases were still pending as on 31 March 2007. The Department attributed the slow progress in settlement of cases to non-appearance of parties. The fact remains that the purpose of establishing the Commission partly remained unfulfilled.

#### 3.2.11 Yashasvini Scheme

The State Government launched "Yashasvini" Scheme in March 2002 for the empowerment of women through socio economic programme of self help groups. The scheme provides assistance to women for starting and managing small business to gain economic independence and supplement family income.

The scheme consists of six components viz,

- To promote Self Help Groups (SHGs) for self employment by giving financial assistance of Rs one lakh to each group.
- To provide financial assistance to widows, who are not having an earning member in the family, to start business or any other selfemployment activity.
- To start self defence training programmes for women and adolescent girls at Taluka level.
- Set up a halfway home in each taluka. This will comprise homes of two to three rooms with arrangements for providing immediate and temporary shelter to four women at a time.
- A telephone hotline with toll free three digit number. A team of trained counsellers will be available round the clock to speak with the women and to offer support and guidance.
- Shelter home in Panaji.

Under the first component each SHG was entitled to a maximum interest free loan of Rs one lakh per group and Rs 5,000 per member of each group. The SHG was to arrange 10 *per cent* of their own as seed capital and 90 *per cent* to be provided as loan amount. The first component of the scheme was to be implemented by State Social Welfare Board (SSWB) and the second component of scheme by State Commission for Women (SCW). Accordingly, the Department earmarked funds of Rs 213.75 lakh under the above scheme during 2002-03 to 2006-07, out of which Rs 11.57 lakh was spent by the Board and further Rs 20 lakh sanctioned in March 2007 was not released to the beneficiaries (July 2007).

The Department has not prepared the database of SHGs so far. Further the SCW has not prepared the modalities for the second component even after completing three years of its formation. The other four components were also not started by the Government yet (June 2007). No new posts were sanctioned for the scheme and the existing staff of SSWB and SCW was to be utilized for the implementation of the scheme. Pending preparation of modalities by SCW the Department could not release the funds to SCW during 2003-04 to 2006-07 which resulted in surrender of funds of Rs 182.18 lakh. This also deprived the benefit of the scheme to the widows of weaker sections of society thereby defeating the very purpose of the scheme. The Department stated (September 2007) that the scheme was still in progress and SCW was in the process of preparing the modality to provide financial assistance to deserving widows. The reply is not tenable as the Department could have implemented the first component with the availability of funds from 2003-04 onwards and also prepared the guidelines for five other components just after the commencement of the scheme in March 2002 which would have speeded up the progress in successful implementation of this scheme.

Funds to the extent of Rs 182.18 lakh were surrendered due to nonimplementation of the five out of six components of the Yashasvini Scheme during 2002-2007

#### 3.2.12 Internal Audit

Department did not conduct internal audit for the major period As per Finance Department Circular of August 1996, the responsibility for conducting Internal Audit of the Department rests with the Director of Accounts. The Internal Audit of the Department for the period from 01 May 2004 to 31 March 2007 was not carried out by the Director of Accounts (May 2007). The Department stated (September 2007) that the Directorate of Accounts was being informed to conduct the audit.

## 3.2.13 Impact Evaluation and Conclusion

Impact of ICDS programme is seen in statistics of the State. Goa has shown increase in literacy from 75.51 per cent in 1991 to 82.01 per cent in 2001. The immunisation, according to Department, is 100 per cent. The birth rate has fallen from 17.55 in 2000 to 15.84\* in 2005. However, the infant mortality rate has shown a slight increase from 12.46 in 2000 to 14.12\* in 2005. Thus, though the overall impact has been positive, there are certain areas needing improvement. About nine per cent villages still do not have Anganwadis. Nearly 89 per cent buildings do not have water and toilet facilities. The institutional framework in the form of Commissions for Women and Children is yet to establish fully. There is scope for increase in number of beneficiaries under SNP. The Department noted (September 2007) the Impact Evaluation and Conclusion drawn by audit, for compliance.

#### 3.2.14 Recommendations

- Seventeen uncovered Village Panchayats should be provided with Anganwadis.
- A long term plan to construct independent Anganwadi buildings with toilet and drinking water facilities be prepared and implemented.
- ➤ Department should take adequate steps to ensure that the pending cases before State Commission for Women are settled expeditiously.
- ➤ Modalities for implementation of all components under Yashasvini scheme should be prepared to ensure that the scheme implementation is not further delayed and benefits reach the targeted groups.

<sup>\*</sup> Provisional

#### REVENUE DEPARTMENT

# 3.3 Computerization of Land Records and Cadastral Maps

#### Highlights

➤ In the absence of individual maps of sub-divisions/surveys and interface between Dharani and Cadastral Maps, copies of maps could not be issued to public instantaneously and public had to approach Director of Settlement and Land Records (DSLR) for maps and Mahiti Ghars or Mamlatdar offices for Records of Rights (RoR) copy separately.

(Paragraph 3.3.5.3)

Partitioning of a sub-division into two sub-divisions with larger area than the original area was possible due to faulty system design.

(*Paragraph 3.3.6.5*)

➤ Lack of input controls and validation checks resulted in incomplete and incorrect data base leading to pendency of mutation requests and mutation of properties having other rights like mortgage, general power of attorney etc.

(Paragraphs 3.3.7.1 to 3.3.7.3)

## 3.3.1 Introduction

The Government of Goa took up two schemes viz. Computerisation of Land Records (Dharani Project) and Digitisation of Cadastral Maps for automation of land records.

#### a) Dharani Project

Computerisation of Land Records, named '*Dharani*', was taken up in April 1999 and completed by November 2001 at a cost of Rs 78.90 lakh. The entire cost of the scheme was met through financial assistance from Government of India under Computerisation of Land Records scheme. The programme was developed by National Informatics Centre (NIC) with SQL¹ Server 2000 as the back end tool, Visual Basic 6.00 as the front end tool and Crystal Report-7 as the Reporting tool. It was designed to work on Windows platform. Two personal computers and one printer were procured for each Mamlatdar² office for implementation of the scheme. The data for the State was stored on a central server and updated from local servers installed in Mamlatdar offices.

The scope of work envisaged data entry of Form I and XIV<sup>3</sup> into the system to create a central database, linking of all Mamlatdar offices to the central server so that Records of Rights (RoR) could be issued from any office. The Mahiti

<sup>2</sup> Head of Taluka Revenue office.

<sup>&</sup>lt;sup>1</sup> Structured Query Language

<sup>&</sup>lt;sup>3</sup> Form I and XIV represent the basic Record of Right. Form I gives details about Owner, Tenant, Other Right Holders, Type and Area of Land, etc. Form XIV gives details about cultivators, crop, source of irrigation, etc.

Ghars<sup>4</sup> set up in January 2004 by a private agency for providing services such as issue of RoR, birth and death certificates, motor vehicle licenses, etc. to public were also to access data from central server for issue of RoR. It was also envisaged to automate mutation process.

The benefits envisaged from the computerisation were:

- Safe storage of records and space saving, better security of records by reducing the possibilities of tampering and manipulation;
- Maintenance of up-to date land records on computers accessible to land holders and administrators, including issue of RoR of any taluka at any office;
- Speeding up of the mutation process by providing required monitoring information on line:
- Promoting accuracy of records and minimizing errors;
- Availability of various statistical reports like Types of Land, Area and Ownership as and when required;

As on date (June 2007), the people are able to get the extracts of RoR of land situated in a taluka from the respective Mamlatdar office or from any of 13 Mahithi Ghars operating in Goa. The mutation process has been automated. However, the system suffers from deficient controls and the envisaged benefits are yet to be realised fully.

## b) Digitisation of Cadastral Maps

Digitisation of cadastral maps of Tiswadi taluka was taken up in August 1999 and completed in October 2001 under Centrally Sponsored Scheme of Computerisation of Land Records. On successful completion of a pilot project in Tiswadi taluka, scheme was taken up in balance ten talukas and completed in 2005. The total cost of the scheme was Rs 5.34 crore of which Rs 75 lakh was received from Central Government and the balance cost was met by the State Government. The work of digitisation of cadastral maps was entrusted to M/s Vision Labs, Hyderabad (firm) and the software used was Vision Mapmaker (VMP) on Windows platform.

The scope of the project was to create village maps using VMP software and to integrate individual land holding and survey data with computerised cadastral maps so as to ensure availability of the maps of individual survey numbers to public on request.

#### 3.3.2 Organizational Set-up

Director of Settlement and Land Records (DSLR) was the nodal Officer for implementation of both the schemes. Collectors at district level and

<sup>&</sup>lt;sup>4</sup> Kiosks set up by e-Thinx Infocom Private Limited, a private agency

Mamlatdars at the taluka level were the implementing authorities. "Talathis<sup>5</sup>" were responsible for up to date maintenance of land records within their jurisdiction under both manual as well as computerised system. The Mamlatdars supervise the work of Talathis and are the main functionaries maintaining all types of land records pertaining to a taluka. The responsibility for maintenance of the systems installed at Mamlatdar offices vested with the concerned Mamlatdar/Collector. The NIC maintains the central server at the Secretariat. DSLR maintains the systems installed in DSLR office and its five sub-divisions for cadastral maps.

# 3.3.3 Audit objectives

Audit of the scheme was done to evaluate:

- (i) Extent of Computerisation of land records and cadastral maps including their integration.
- (ii) Efficacy and effectiveness of controls relating to:
  - Planning and Organisation of computerization of land records
  - Acquisition and implementation of IT facilities
  - Delivery and support
  - Monitoring.

# 3.3.4 Scope of Audit and Methodology

The IT Audit was conducted during June – July 2007 by review of records at DSLR, working of systems (both Dharani Project, i.e. Land Records Information System (LRIS) and Digitisation of Cadastral Maps) at five Mamlatdar's offices<sup>6</sup>, Office of Director of Settlement and Land Records and three Sub-division offices<sup>7</sup> of DSLR. The audit process included:

- discussion with officials of DSLR, five Mamlatdar offices and representatives of National Informatics Centre (NIC) as well as Vision Labs (firm);
- review of files pertaining to receipt and utilisation of grants, procurement of hardware, software and related accessories.

# **Audit Findings**

A review of files, working of the system, dummy data entry and analysis of data as regards systems implemented disclosed various shortcomings as detailed below:

<sup>&</sup>lt;sup>5</sup> Official responsible for maintenance of basic data of village.

<sup>&</sup>lt;sup>6</sup> Tiswadi, Canacona, Quepem, Pernem and Bardez

<sup>&</sup>lt;sup>7</sup> Quepem, Margao and Bardez

#### 3.3.5 Planning and organization

## 3.3.5.1 Non-involvement of users

The User requirements need to be clearly defined before development and implementation of any system. However, it was observed that no such requirements were finalized and properly documented. In the absence of proper documentation, the requirement could not be updated even after five years of implementation. As a result, the system designed by NIC either did not meet the requirements fully or did not help in optimization of the benefits of computerisation as detailed in paragraph 3.3.6.

**3.3.5.2** No records were available with DSLR to indicate the testing and demonstration of working of Application software.

The Department replied (October 2007) that testing and demonstration of working of application software would be formally recorded for all subsequent projects.

#### 3.3.5.3 Interface between Dharani and Cadastral Maps

It was envisaged to integrate the data of cadastral maps with that of RoR database. Each map had more than one survey and several sub-divisions while details of each sub-division have been captured separately under RoR database. As such there was no individual map available in respect of each sub-division. At present, the individual maps were being created at the DSLR with manual intervention each time. Therefore, public could not be issued the copies of maps through Mahiti Ghars and Mamlatdar Offices where RoR were issued. The integration could have provided single window public service in respect of RoR and maps. Thus, one of the envisaged objectives i.e., easy and instantaneous availability of correct record to the public was yet to be achieved as it was taking at least three days for issue of maps. Further, since the cadastral maps had to be edited manually to prepare extract of the concerned survey number and sub-division, the system was prone to errors and was time consuming.

The Department replied (October 2007) that efforts were being made to achieve integration.

#### 3.3.6 System Design

#### **Dharani Project**

**3.3.6.1** The system design provided four digits only in respect of data entry of survey number. The data entry was done by private parties and it was certified (June–July 2000) that data entry was complete in all respects. However, later (June 2005) it was noticed that some survey numbers were having five digits and there were some difficulty in entering such data. The fact that this system deficiency was noticed after almost three years of full

implementation indicated lapse on the part of Department in communicating the user requirements and in checking the data entered into the system for completeness before certifying. Thus the data entered was also not reliable.

**3.3.6.2** Absence of provision in the system to capture the prescribed fees<sup>8</sup> for issue of forms relating to RoR resulted in manual reconciliation between RoR issued and amount collected.

The Department replied (October 2007) that the web-enabled version (Dharani II) would have a full fledged accounting system with regards to issue of Form I & XIV by various agencies.

- **3.3.6.3** System did not provide for allotting unique number to identify the owner of the land so as to generate reports regarding total land held by a single person throughout the State.
- **3.3.6.4** Form XIV of RoR gives the details of cultivators, crop, source of irrigation, area irrigated, etc. On request, NIC had proposed uniform codification of season, crops, land type, etc. The same was not accepted in respect of Form XIV on the ground that the form manually was not uniform in all the villages. NIC opined that as data without standardization would be not amenable to analysis, it would be better to scan and store the source documents in electronic form instead of data entry of the same. But, the data entry regarding Form XIV has since been completed. This made the data in Form XIV totally unreliable.
- **3.3.6.5** System did not have provision to capture the balance area automatically after entering the area of the new sub-division created as a result of Partition and the same has been entered manually. The system even allowed entry of area more than the original area held. This indicated deficiency in system designing. The Department replied that this has been taken care in Dharani-II.
- **3.3.6.6** Mutations were being carried out in all the 11 Mamlatdar offices and corrections to mutations are carried out at DSLR as well as in sub-division offices. The data available in the local server at Mamlatdar offices were being uploaded to the Central server on an hourly basis. The changes made to the data in either sub-divisions or DSLR were being updated in DSLR or sub-divisions respectively through compact disks. Thus two parallel sets of data were being maintained. As Mahithi Ghars were accessing RoR data from central server and the updations were being carried out in the central server after a time gap, risk of issuing non updated RoR to the public persisted.
- **3.3.6.7** Though the User Manual prepared by NIC indicated about scanning facility in respect of documents such as applications, supporting documents like gift/sale deed, will, court order and proofs of serving notices, objections etc. for future verification purpose, the developed system did not contain such provision resulting in preservation of such information in manual hard copies.

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<sup>&</sup>lt;sup>8</sup> Rs 10 for the first sheet and Rs 5 for each additional sheet

#### Cadastral Maps Project

3.3.6.8 The cadastral maps were available in the form of plane table sheets. The extracts of cadastral maps of individual land holdings were issued by copying and modifying the relevant portion from the concerned plane table sheets. Necessary corrections are carried out in the plane table sheets in respect of approved mutations. The plane table sheet as modified by the data entry operator and further approved by the verifying officer and the certifying officer would replace the original plane table sheet in the data base. It was observed that the system had no provision for effecting corrections by verifying officer and certifying officer after the modification done by the data entry operator. In order to correct the errors, if any, the incorrect version had to be approved and then the whole exercise had to be repeated. Thus the system made approval of an incorrect version of cadastal map mandatory. This rendered the data on cadastral maps unreliable, since manual control in revising the incorrect version still existed.

The Department replied (October 2007) that instead of allowing corrections through the system, the verifying officer and certifying officer could instruct the operator to carry out the necessary corrections.

The reply is not acceptable as this would compromise the control through segregation of duties between the operator, verifying officer and certifying officer.

# 3.3.7 Input and Validation Controls

Input and validation controls over input are vital to the integrity of the system. These controls are important for preventing incorrect and fraudulent data from being fed. Adequate input and validation controls ensure that the data received for processing are genuine, complete, correct, not duplicate and properly authorised. The following deficiencies were noticed due to lack of input and validation controls:

#### **Dharani Project**

**3.3.7.1** The survey number could not be left blank. Analysis revealed that three survey numbers in Pernem Mamlatdar office and 117 sub-divisions in four talukas were indicated as '-'. As a result, mutation could not be effected in five cases received during the period from July 2003 to July 2006 as the system did not allow mutation without survey numbers.

Failure to ensure data validation through input controls resulted in merely entering the data as was in the manual system without analyzing the after effects. Thus, the mutation requests were pending as manual mutations were stopped after computerisation.

<sup>&</sup>lt;sup>9</sup> Bicholim (1), Canacona (2), Ponda (3) and Pernem (111)

**3.3.7.2** There was provision to enter the nature of rights like mortgage, general power of attorney etc. a particular person held over the property. Such properties should not be taken up for mutation like the land without rights. However, the system allowed mutation of those properties which had rights on them. Data analysis indicated that the nature of rights was not entered in 1,89,427 (98.25 per cent) out of 1,92,792 records.

#### It was noticed that

- The data relating to nature of rights in the balance cases was not uniformly codified.
- Irrelevant information was stored in the database thus reducing the usefulness of the data. For e.g., details of property such as hut, well etc. were entered in the field relating to Other Rights and Tenants.
- The names of the persons holding Other Rights were not entered in 1531 cases and the names of tenants were blank in 1078 cases thus making the data base unreliable.

The Department replied (October 2007) that necessary checks would be added in DHARANI-II.

3.3.7.3 The land was classified generally as private land, forest (Government), forest (Private), communidade land, government land, land belonging to religious institution, etc. It was observed that out of 7,94,066 records, land type was blank in 7,89,850 records (99.47 per cent). This resulted in non-availability of vital information useful for planning for various purposes such as land acquisition for Government purposes, restriction on transfer of ownership, land use, etc. For example, possibility of further mutation by the original owner in respect of land acquired by Government in July 2005 could not be ruled out since these lands were yet to be transferred in the name of the Government.

The Department replied (October 2007) that efforts would be made to update the data.

**3.3.7.4** Though the system provided for entering the details of area of cultivable land, irrigated area, un-irrigated area, source of cultivation, details of assessment and tax collected etc., the same had not been updated. Earlier in the manual system, Talathis were responsible for collection of such information. Consequently, the Government was deprived of vital data useful in decision making.

The Department replied (October 2007) that periodical updation of the data would be taken up.

#### 3.3.8 Logical and Physical access controls

**3.3.8.1** Though the logical access to the data was restricted through biometric devices using finger prints and passwords, no review of the logs was made on a regular basis.

The Department replied (October 2007) that this would be taken care in Dharani-II.

- **3.3.8.2** Though the external devices viz. CD drive and floppy drives in the computers at Mamlatdar Offices were disabled, the users could enable them thus rendering the systems prone to risk of loss/corruption of critical data through virus and malicious software.
- **3.3.8.3** The entry to EDP room was not logged. The logged on systems left unattended were vulnerable to all kinds of risks like tampering of data.

# 3.3.9 Lack of business continuity planning

**3.3.9.1** Though the software was developed by NIC and implemented in November 2001, the data and the source code were still under the custody of NIC. In the absence of qualified personnel, on line help in the system, the Department still depended on NIC. Further, no service level agreement with the NIC for confidentiality, security and availability of the data to the user has been made. Hence, the business continuity of LRIS was not ensured.

The Department replied (October 2007) that this would be taken care in Dharani-II.

**3.3.9.2** No fire safety equipments, air conditioners were provided. Further, the systems were not covered under any maintenance contract so as to facilitate regular and preventive maintenance. The Uninterrupted Power Supply systems were also found not working in five Mamlatdar offices and three sub-divisions of DSLR test checked. Thus the business continuity of the LRIS was not ensured

The Department replied (October 2007) that a proposal regarding replacement of UPS with online UPS was under consideration of the Government.

## 3.3.10 Assessment of performance and customer satisfaction

No periodical monitoring and evaluating mechanism in respect of Services delivered was available. It was observed that for issue of copies of cadastral maps, the computerised system did not reduce the time taken (three days in manual set up). No assessment of customer satisfaction was carried out. Therefore, the deficiencies in the system continued to exist.

#### 3.3.11 Other points of interest

#### Awarding of contract at extra cost - Cadastral Maps Project

The pilot project of Digitisation of cadastral maps in Tiswadi Taluka was awarded (January 2001) at the rate of Rs 2,600 per plane table sheet. On successful completion of the project, balance work in respect of ten talukas was awarded (November 2001) to the same firm at the higher rate of Rs 3,700

per plane table sheet. Awarding of balance work without negotiating with reference to the old rate resulted in extra cost of Rs 1.36 crore (at Rs 1,100 per sheet for 12,353 sheets).

The Department replied (October 2007) that about two years had already passed since the original proposal of the pilot project when extended and inflation had to be taken into consideration. Further, software had to be modified to suit the requirements of the Department and to rectify the deficiencies faced during the pilot project.

The reply is not acceptable as the software remained the same and the issue of deficiencies should have been resolved in the pilot project itself.

#### 3.3.12 Conclusion

The computerisation of land records was completed in November 2001. People can get the extracts of RoR of land situated in a taluka from the Mamlatdar office of that taluka or from any of Mahiti Ghars operating in Goa. However, the system suffers from a number of control weaknesses. The system has the risk of manipulation in mutation in the absence of details of persons holding rights on a property and allowing the mutation process to be completed even without receipt of documents. In the absence of integration between Dharani and Cadastal Maps and interlinking of data bases at root level, the benefits envisaged from computerisation (such as issue of RoR from any Mamlatdar office; issue of Maps from the Mamalatdar offices and availability of statistical reports) were yet to be realised fully and making the process of getting RoR and respective Maps a time consuming one.

#### 3.3.13 Recommendations

#### **Dharani Project:**

- Necessary controls to be built in to disallow mutation in the absence of all required documents.
- Proper controls may be built in during modification of data during the partition such that the total of areas of new sub-divisions is equal to area of land before partition.
- Data for statistical reports such as details of cultivation, tax collected etc. should be entered and updated from time to time.

## Cadastral Maps Project:

- Sub-division wise database facilitating interlinking of two databases should be created.
- Copies of maps should be made available instantaneously to people from any Mahiti Ghar or Mamlatdar office.