



ABSTRACT

Tamil Nadu Health Systems Project - Phase I - Implementation of Comprehensive Health Management Information System in secondary level hospitals in the State - Expenditure sanctioned - Orders issued.

HEALTH AND FAMILY WELFARE (EAP1/1) DEPARTMENT

G.O.(2D) No.87

Dated 29.7.2008:
Thiruvallur Aandu 2039,
Aadi 14.

Read

1. G.O.(2D) No.68, Health and Family Welfare Department, dated 29.08.2005.

Read also

2. From the Project Director, Tamil Nadu Health Systems Project, Letter No.2272 / HSP/ E1 / 2008, dated 26.5.2008.

ORDER:

In the Government order first read above, the Government accorded sanction for hiring of a consultancy firm to develop and implement web based Health Management Information Systems (HMIS) for all the secondary care hospitals in the State at a total cost of Rs.500 lakh. Accordingly, M/S. Tata Consultancy Services (TCS) has been contracted to develop the software and to implement Hospital Management Information System which includes Hospital Management System (HMS) and Hospital Management Information System.

2. Considering that the target area includes 270 Government Hospitals and 20 Primary Health Centers, the Project Director, Tamil Nadu Health Systems Project, has proposed in the letter second read above that the implementation of Hospital Management Information System may be done in three phases as follows:-

I. Pilot :

- 5 hospitals in 3 districts (2+2+1)
- Office of the Joint Director of Health Services (JDHS) in 3 districts
- Tamil Nadu Health Systems Project (Location for Development and testing of software)
- Director of Medical and Rural Health Services Office (for Monitoring and early acceptance of the system)

II. Phase I

- 5 districts – 36 hospitals – (in Phase I Districts where civil works have been completed)
- 1 computer with accessories for all Hospitals (excluding 41 hospitals that are otherwise being covered) to make the Hospital Management Information System or Hospital Management System functional as a grid through all Government Hospitals
- All Offices of Joint Director of Health Services
- 5 PHCs (in the selected districts)

III. Phase II

- 24 districts – 230 hospitals (HMS)
- 15 PHCs (in the selected districts)

3 (i). The Project Director, Tamil Nadu Health Systems Project has further stated that the Health Management System is at the institution level (hospital and PHC). This effort will involve procurement for

- a) Provision of LAN (cabling etc) within the selected hospitals in the district
- b) Computers with Peripherals (with UPS or Generator backup)
- c) Consumables
- d) Internet connectivity at Data Centre and Hospitals (as the application is a web-enabled application) with backup i.e broadband can be backed up by ISDN or normal dial up connection
- e) Change Management Agencies
- f) Software and Tools to monitor Server performance, maintenance and security e.g. Firewall, Anti Virus etc.

(ii). The Health Management Information System application (which is web-based) will network all the hospitals (270) and the PHC's – initially 20 in number (Later, all PHC's will be provided with the same application but that is outside the scope of this Project.) To facilitate, there are other aspects of the procurement and infrastructure required such as:

- a) Data Center with all required facilities (Power backup and adequate environment control) to house the servers. (the ELCOT data center is suitable for this and has already been inspected)
- b) Double back-up for Internet connectivity at each hospital
- c) Infrastructure requirements for the Administrator and the team + Monitoring and Evaluation Cell (M & E cell)

The phased deployment coupled with the unique and specialized nature of each activity will determine the procurement procedure. With this background, the procurement plan is detailed below:

This phase is planned for thirty six hospitals – All five districts that formed part of phase 1 of civil works are to be included in phase 1. The civil works have been completed in several hospitals and are nearing completion in others and the infrastructure can be cabled, 5 JDHS Offices are being included in this phase.

- a) Assessing the nodes required and their placement will be completed within the deadlines listed in the Activity Chart.
- b) An assessment of the LAN cabling that requires to be done in each hospital and estimates (with Bill of Materials) will be prepared. Deadlines listed in the Roll-out plan will be adhered to.
- c) As Tamil Nadu State Wide Area Network (TNSWAN) has been commissioned – all the above hospitals will be linked to TNSWAN from the last Point of Presence (POP) incurring minimum expenditure to secure Internet connectivity. The connectivity work will be carried out by BSNL. Initial discussions have already been held with BSNL and the quantum of costs will vary for each hospital. The work on securing Internet connectivity will begin from the pilot phase itself. Additionally, V-Sat provision is being considered and initial discussions have been held so as to ensure that Internet connectivity is not disturbed and there is the definite possibility of back-up.

4. The Project Director, Tamil Nadu Health Systems Project has reported that the Software Requirement specifications have been worked out and signed with TCS, that TCS has now completed preparation of OP Registration module, IP Registration module and casualty Registration module, that the User Acceptance testing has been completed and that these applications are now being implemented in the pilot hospitals from the beginning of May, 2006.

5. The Project Director, Tamil Nadu Health Systems Project has also informed that each district will benefit from a Change Management Agency that will manage change within the hospital scenario. The purpose of this arrangement is to ensure that the changes in style of functioning are done in such a manner that are learnt and found acceptable to all the staff in the hospitals concerned. It is important to underline the fact that this is a new initiative to ensure that acceptance is guaranteed within the hospital. That the change management agency will play a key role in training of health care providers and actively involve themselves in health functionaries being accustomed to computers. The Change Management Agency will be hired by following the World Bank procurement procedures by the Project Director, Tamil Nadu Health Systems Project for the pilot.

6. The Project Director, Tamil Nadu Health Systems Project has proposed to procure the hardware components, consumables and services as per the quantity worked out following approved World Bank procurement procedures at a non-recurring expenditure of Rs.5,01,84,000/- and a recurring expenditure of Rs.43,29,850/-.

7. The activity of establishment of web based Health Management Information System in all secondary care hospitals and some Primary Health Centres is an approved activity by the World Bank and included in Component III subcomponent 1 (i) in the project implementation plan. The expenditure involved in this proposals is reimbursable by the World Bank

8. The Project Director Tamil Nadu Health Systems Project has therefore placed a proposal before the State Empowered Committee to procure hardware components, consumables and services as per the quantities worked out so as to ensure timely execution of the project and adequate time for handholding and change management for implementation of phase I of Health Management Information Systems. The State Empowered Committee has approved the proposal. The Project Director has requested the Government to issue orders in the matter.

9. The Government have examined the proposal of the Project Director, Tamil Nadu Health Systems Project and have decided to accept it. Accordingly the Government issue the following orders:

(i) The Project Director, Tamil Nadu Health Systems Project, is permitted to implement Phase I of the comprehensive web based Health Management Information Systems in 36 hospitals in 5 districts, 5 PHCs, as detailed in the Annexure I to this order and in 26 office of the Joint Director of Medical and Rural Health Services except the office of the Joint Director of Medical and Rural Health Services, Kancheepuram, Kanyakumari and Vellore,

(ii) Sanction is accorded for incurring a non recurring expenditure of Rs.5,01,84,000/- (Rupees Five crore one lakh and eighty four thousand only), and an annual recurring expenditure of Rs.43,29,850/- (Rupees Forty three lakh twenty nine thousand and eight hundred and fifty only), as detailed in the Annexure II to this order towards establishment of comprehensive web based Health Management Information System in secondary care hospitals and 20 designated PHCs.

10. The expenditure sanctioned in para 9 (ii) above, shall be debited to the following head of account:

"2210 -Medical and Public Health - 80. General - 004. Health Statistics and Evaluation - Schemes in the Eleventh Five Year Plan - II. State Plan - PB, Procurement through Tamil Nadu Medical Services Corporation for Building Capacity to strengthen Health Management Information System.

(Rupees in lakh)

05. Office Expenses

05. Furniture

(DPC 2210 80 004 PB 0556)

27.87

08. Advertisement and Publicity

01. Advertisement Charges 4.00
(DPC 2210 80 004 PB 0814)

19. Machinery and Equipment

01. Purchase 44.00
(DPC 2210 80 004 PB 1911)

24. Materials and Supplies

(DPC 2210 80 004 PB 249) 83.50

76. Computer and Accessories

01. Purchase 384.47
(DPC 2210 80 004 PB 7611)

02. Maintenance

(DPC 2210 80 004 PB 7620)

21.30
545.14 5,23.84
21.30

11. The Project Director, Tamil Nadu Health Systems Project is permitted to procure the required hardware through the Tamil Nadu Medical Services Corporation. The amount sanctioned in para 9 (ii) above towards furniture, advertisement, consumables LAN connectivity, purchase of computers and AMC shall not be paid in cash but credited to the following head of account:- "K deposits and Advances - (b) deposits not bearing interest - 8443 - 00 - Civil Deposits - 800 - Other Deposits - CE. Deposits of Tamil Nadu Medical Services Corporation limited (DPC 8443 - 00 - 800 - CE - 000H - Receipts) by a crossed cheque in favour of the Managing Director, Tamil Nadu Medical Services Corporation towards procurement of the hardware as per list, quantity and specifications to be provided by the Project Director, Tamil Nadu Health Systems Project by following World Bank Procurement Procedures and supply the above stores as per the list to be provided by the Project Director, Tamil Nadu Health Systems Project to the Chief Medical Officers/Hospital Superintendents of the project hospitals and to settle the account with the Project Director, Tamil Nadu Health Systems Project.

12. The Project Director, Tamil Nadu Health Systems Project is permitted to enter into contract with BSNL for the required connectivity for Tamil Nadu State Wide Area Network, Point of Presence (POP) and make payment as per the fixed rates.

13. The Project Director, Tamil Nadu Health Systems Project is permitted to contract the change management agency by following prescribed World Bank procurement procedures for pilot and phase I.

14. The Project Director, Tamil Nadu Health Systems Project is permitted to contract an agency / agencies for LAN connectivity with in the institution by following approved World Bank procurement procedures.

~~15. The Project Director, Tamil Nadu Health Systems Project is permitted to procure the required computer consumables and distribute the same to the hospitals concerned.~~

16. The Project Director, Tamil Nadu Health Systems Project is permitted to have flexibility based upon the pilot, to modify the number of items or packages to be procured, number of change management agencies to be contracted, agencies for LAN connectivity to be contracted, provision of computers etc., the quantity of consumables to the institutions / offices, with in the components without exceeding the total amount sanctioned.

17. Necessary additional funds towards LAN connectivity, connection to TNSWAN, furniture, consumables and AMC for the hardware will be provided in Revised Estimate / Final Modified Appropriation 2008-2009. Pending provision of such funds, the Project Director, Tamil Nadu Health Systems Project, is permitted to incur the above mentioned expenditure. The Project Director, Tamil Nadu Health Systems Project, is requested to include the above expenditure while sending Revised Estimate / Final Modified Appropriation 2008-2009 proposals to Government in Finance Department without fail. This expenditure does not constitute an item of new service. However this may be brought to the notice of the Legislature by specific inclusion in the Supplementary Estimates 2008 - 2009.

18. This order issues with the concurrence of the State Empowered Committee constituted in G.O.Ms.No.28, Health and Family Welfare, dated.28.2.2005 and the concurrence of Finance Department vide its U.O. No.270 / DS(AR) / Health I / 2008. dated 25.7.2008 and Additional Sanction Ledger No.472 (Four hundred and seventy two).

(BY ORDER OF THE GOVERNOR)

V.K. SUBBURAJ
PRINCIPAL SECRETARY TO GOVERNMENT

To

The Project Director, Tamil Nadu Health Systems Project, Chennai- 6.
The Director Medical and Rural Health Services, Chennai - 6
The Director of Public Health and Preventive Medicine, Chennai - 6
The Director of Medical Education, Chennai - 10
The Mission Director, National Rural Health Mission, Chennai - 6
The Managing Director, Tamil Nadu Medical Services Corporation, Chennai - 8
The Principal Accountant General (A&E), Chennai - 18.
The Principal Accountant General (Audit I), Chennai -18.
The Pay and Accounts Officer (South), Chennai -35
The Joint Director of Medical and Rural Health Services, all districts except Kancheepuram, Kanyakumari and Vellore.

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Copy to:

The Secretary to Government of India, Ministry of Health and Family Welfare,
New Delhi - 11.

The Country Director - India, The World Bank, New Delhi Office, 70, Lodhi Estate,
New Delhi - 3.

The Secretary to Government to Chief Minister, Chennai - 9.

The Personal Assistant to Minister for Health, Chennai - 9.

The Personal Assistant to Minister for Finance, Chennai - 9.

The Finance (Health / BG-II / BG-I) Department, Chennai - 9.

/FORWARDED / BY ORDER /

On 10/10/01
SECTION OFFICER



Annexure - IList of HospitalsI. 36 Secondary Care HospitalsDharmapuri District

1. Head Quarters Hospital, Dharmapuri
2. Government Hospital, Harur
3. Government Hospital, Palacode
4. Government Hospital, Pennagaram
5. Government Hospital, Pappireddipatti

Krishnagiri District

1. Head Quarters Hospital, Krishnagiri
2. Government Hospital, Denkanikottai
3. Government Hospital, Hosur
4. Government Hospital, Pochampalli
5. Government Hospital, Uthangarai
6. Government Hospital, Mathur

Kanyakumari District

1. Government Hospital, Boothapandy
2. Government Hospital, Kuzhithurai
3. Government Hospital, Arumanai
4. Government Hospital, Kanyakumari
5. Government Hospital, Karingal
6. Government Hospital, Kulasekaram
7. Government Hospital, Senanvilai

Theni District

1. Head Quarters Hospital, Periyakulam
2. Government Hospital, Andipatti
3. Government Hospital, Bodinaickanur
4. Government Hospital, Uthamapalayam
5. Government Hospital, Chinnamanur
6. Government Hospital, Cumbum

Pudukottai District

1. Head Quarters Hospital, Pudukottai
2. Government Hospital, Alangudi
3. Government Hospital, Annavasal
4. Government Hospital, Aranthangi
5. Government Hospital, Avudayarkoil
6. Government Hospital, Gandarvakottai
7. Government Hospital, Illupur
8. Government Hospital, Keeranur
9. Government Hospital, Thirumayam
10. Government Hospital, Manamelgudi
11. Government Hospital, Valayapatti
12. Government Hospital, Thirukokarnam

II Primary Health Centres

1. Saidapel HUD - 5 Primary Health Centres

V.K.SUBBURAJ
PRINCIPAL SECRETARY TO GOVERNMENT

/ TRUE COPY /

B. J. Anand
SECTION OFFICER

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Annexure - IIa. Non Recurring CostI. Computers with Peripherals

S. No	Item	Numbers	Cost (in Rs.)	Total Cost Involved (in Rs.)
1	Computers for HMS / HMIS : 540 (15 computers per hospital for 36 hospitals in 5 districts) + 30 (6 computers per PHC for 5 PHCs) + 130 (5 computers per Office for 26 JDHS Offices) + 229 (1 computer per GH for HMIS in 229 Hospitals in which HMS will be established in Phase II)	929	20,000	1,85,80,000
2	Bar Code Readers	493	5,000	24,65,000
3	Bar Code Printers (2 per hospital + 1 per PHC)	77	15,000	11,55,000
4	80 Columns Dot Matrix Printers 216 (6 per GH for 36 GH in 5 districts) + 10 (2 per PHC in 5 PHCs)	226	12,000	27,12,000
5	Online UPS for HMS / HMIS 36 (for 36 Hospitals) + 5 (for 5 PHCs)	41	1,50,000	61,50,000
6	A low end UPS Capable of supporting one computer for 229 Hospitals in which HMS will be in Phase II	229	5,000	11,45,000
7	Printers for 265 Hospitals - excluding not covered in Phase I	265	16,000	42,40,000
	Total			3,64,47,000

II. LAN

S. No	Item	Total Cost Involved (in Rs.)
1	LAN connectivity within each Hospital	50,00,000
2	LAN Connection for each Joint Director of Health Services office in identified districts	6,50,000
3	LAN Connection within PHCs identified	5,00,000
	Total	61,50,000

III. Connectivity

S. No	Item	Numbers	Cost (in Rs.)	Total Cost Involved (in Rs. approx)	Remarks
1	Connection to the TNSWAN POP	44 (36 Hospitals + 3 Offices of JDHS + 5 PHCs)	1,00,000 (approximate average)	44,00,000	Will be done by BSNL through TNSWAN

IV. Advertisement cost

Sl. No	Activity	Cost (in Rs)
1	Advertisement cost for computers etc., for phase I	4,00,000

V. Computer Furniture

Sl. No	Item	Unit cost (in Rs)	Total cost (in Rs.)
1	Set of Computer table and chair for 929 sets	Rs. 3000 per set for 929 sets sets Rs.3000 x 929	27,87,000

Abstract of Non recurring cost

S. No	Activity	Total cost (in Rs)
1	Computers with peripherals	3,64,47,000
2	LAN connectivity	61,50,000
3	Connectivity to TNSWAN POP	44,00,000
5	Advertisement cost	4,00,000
6	Cost of computer furniture	27,87,000
	Total	5,01,84,000

b. Recurring costI. Consumables

Sl. No	Item	Numbers (Out patients per year)	Cost (in Rs.) (approx)	Total Cost Involved (in Rs.)
1	Bar Code Stickers	1,00,00,000	2 paise per sticker	2,00,000
2	Papers	1,00,00,000	10 paise per sheet	10,00,000
3	Cartridge	1,00,00,000	10 paise per sheet	10,00,000
	Total			22,00,000

II. Annual Maintenance Contract

Sl. No	Activity	Unit cost (in Rs)	Total cost (in Rs.)
1	Annual maintenance contract @ 5 % of purchase value of hardware	42597000 x 5 %	21,29,850

Abstract of Recurring cost

S. No	Activity	Total cost (in Rs)
1	Consumables for phase I	22,00,000
2	AMC for all hardware installed @ 5 % of hardware cost	21,29,850
	Total	43,29,850

V.K.SUBBURAJ
PRINCIPAL SECRETARY TO GOVERNMENT

/ TRUE COPY /

Oni Jnson
SECTION OFFICER

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