SCHOOL AND MASS EDUCATION DEPARTMENT

[illegible] IT audit of e-Sishu maintained by Odisha Primary Education Programme Authority (OPEPA)

Highlights

- **The development of EPIS and GIS without adequate requirement analysis led to its discontinuance and non-use.**

{Paragraph [illegible]}

- **Annual updation of child records in CTS database by unauthorised backend query and by patching the old down procedure led to unreliability of data for planning purposes.**

{Paragraph [illegible]}

[illegible] Introduction

Odisha Primary Education Programme Authority (OPEPA) functioning under the School and Mass Education Department (SMED) is the State Implementing Society (SIS) for overseeing the successful implementation of Sarva Shiksha Abhiyan (SSA), a national flagship programme in the State to achieve the goals of Universal Elementary Education (UEE). For implementation of programme, various data were to be collected, computerised and compiled in a systematic process for effective planning and progress monitoring.

OPEPA implemented IT system of e-Sishu Project consisting of sub-systems *viz.*, Child Tracking System (CTS), Geographical Information System (GIS) and Education Personnel Information System (EPIS) during [illegible] to track each child, minimise/eliminate duplicate and fake enrolments, formulation of plans for future entrant to the education system with infrastructure development of each child based on his/her achievement to ensure quality education.

[illegible] Need for conducting follow up Audit

Implementation of IT system of e-Sishu Project of OPEPA was audited for the period [illegible] and mention was made in Paragraph [illegible] of CAG's Report (Civil) for the year ended March [illegible] on Government of Odisha that CTS failed due to defective software and absence of supervision and monitoring in implementation of project and EPIS and GIS remained incomplete due to faulty planning.

This Audit in the nature of follow up was conducted with the objective to assess whether recommendations in earlier Audit Report on development and maintenance of IT systems (EPIS, GIS and CTS) including information security were adopted adequately and effectively during [illegible] to ensure achievement of universal elementary education under SSA. Audit was conducted with test check

RI UHFRUGV RI 23(3$ HLJKW 'LVWULFW 3URMHFW &RRUGLQDWRUV '3&V HLJKW %ORFN (GXFDWLRQ 2IILFHUV %(2V %ORFN 5HVRXUFH &HQWUH &RRUGLQDWRUV %5&&V DQG 6FKRROV FRYHULQJ WKH SHULRG IURP 7KH LQWHJULW\ DXWKHQWLFLW\ DQG UHOLDELOLW\ RI GDWD LQ UHVSHFW RI ,7 V\VWHPV ZHUH DQDO\VHG XVLQJ 6WUXFWXUHG 4XHU\ /DQJXDJH 64/ ,QWHUDFWLYH 'DWD ([WUDFWLRQ DQG $QDO\VLV ,'($ 7KH ILQGLQJV ZHUH GLVFXVVHG ZLWK &RPPLVVLRQHU FXP 6HFUHWDU\ RI WKH 'HSDUWPHQW ZKR LV DOVR WKH 6WDWH 3URMHFW 'LUHFWRU RI 23(3$ LQ $XJXVW DQG UHVSRQVHV RI WKH 'HSDUWPHQW ZHUH FRQVLGHUHG DQG VXLWDEO\ LQFRUSRUDWHG LQ WKH 5HSRUW $XGLW WDFNHG WKH GHYHORSPHQW RQ IROORZLQJ UHFRPPHQGDWLRQV

- *$G KRF* DSSURDFK LQ WKH SODQQLQJ RI FRPSXWHULVDWLRQ HIIRUWV VKRXOG EH DYRLGHG
- 8QLTXH &KLOG ,' VKRXOG EH DOORWWHG IRU HDFK FKLOG IRU WKHLU LGHQWLILFDWLRQ
- ,QSXW DQG YDOLGDWLRQ FRQWUROV VKRXOG EH EXLOW LQ WR HQVXUH FRPSOHWHQHVV DQG FRUUHFWQHVV RI WKH GDWD
- ,QLWLDWLYHV VKRXOG EH WDNHQ DW GLVWULFW OHYHO IRU SURPSW SHULRGLF DQG UHJXODU XSGDWLRQ RI GDWDEDVH

$XGLW ILQGLQJV

,PSOHPHQWDWLRQ RI (3,6 *,6 VXEV\VWHPV

'HVSLWH UHFRPPHQGDWLRQ PDGH LQ WKH HDUOLHU $XGLW 5HSRUW *DG KRF* DSSURDFK LQ SODQQLQJ RI FRPSXWHULVDWLRQ FRQWLQXHG ZKLFK UHVXOWHG LQ IDLOXUH DQG GLVFRQWLQXDQFH RI ZHE EDVHG (3,6 DQG GHYHORSPHQW RI LQFRPSOHWH DQG XQUHOLDEOH *,6

'XULQJ 23(3$ UHGHVLJQHG DQ HDUOLHU DSSOLFDWLRQ *LH* 'LVWULFW ,QVSHFWRU RI 6FKRRO 6RIWZDUH ',66 LQWR D ZHE EDVHG FHQWUDOLVHG (3,6 VRIWZDUH WR DGGUHVV GHILFLHQFLHV LQ WKH ',66 DQG DGGLWLRQDO IXQFWLRQDO UHTXLUHPHQW RI 'LVWULFW 3URMHFW 2IILFHV '32V 23(3$ DQG WKH 'LUHFWRUDWH RI (OHPHQWDU\ (GXFDWLRQ '((IRU PRQLWRULQJ DQG VXSHUYLVLRQ DW HDFK VXFK OHYHOV %HVLGHV 23(3$ SODQQHG LPSOHPHQWDWLRQ RI D *36 EDVHG *,6 VRIWZDUH IRU PDSSLQJ RI DOO HGXFDWLRQDO LQVWLWXWLRQV RI WKH 6WDWH DQG FUHDWLRQ RI LQIUDVWUXFWXUH GDWDEDVH WR EH XVHG DV D GHFLVLRQ VXSSRUW V\VWHP WRRO IRU WRS PDQDJHPHQW HQVXULQJ TXDOLW\ HGXFDWLRQ

,PSOHPHQWDWLRQ RI (3,6

23(3$ LPSOHPHQWHG (3,6 LQ ZLWK WKH REMHFWLYHV RI FRPSXWHULVDWLRQ RI SHUVRQQHO LQIRUPDWLRQ SHQVLRQ DQG JUDWXLW\ SD\ UROO WUHDVXU\ WUDQVDFWLRQ DQG OHJDO PDWWHUV LQ UHVSHFW RI DOO HPSOR\HHV WHDFKHUV DQG 6KLNVKD 6DKD\DNV 66V XQGHU '((DQG 23(3$ 7KH GDWDEDVH IURP HDFK 'LVWULFW ,QVSHFWRU ', RI 6FKRRO DQG %'2 ZDV WR EH FXPXODWHG DW UHVSHFWLYH '32 WKURXJK &'V '9'V ZKLFK

ZRXOGEHIXUWKHUV\QFKURQLVHGWR6WDWHVHUYHUDW23(3$WKURXJK96$7 FRQQHFWLYLW\IRURQOLQHFHQWUDOLVHGPRQLWRULQJDQGUHSRUWLQJ

,'&2/6RIWZDUH/LPLWHG,6/D*RYHUQPHQWDJHQF\ZDVDVVLJQHG-XO WKHUHVSRQVLELOLW\IRUVXFFHVVIXOLPSOHPHQWDWLRQRI(3,6DWSURMHFWFRVWRIC ODNK ZLWKWKHVWLSXODWLRQIRUFRPSOHWLRQZLWKLQVL[PRQWKV

3URMHFW*RYHUQDQFH

$VSHUHVWDEOLVKHGEHVWSUDFWLFHVIRULPSOHPHQWDWLRQRIDQ\,7SURMHFWWKDW DGGUHVVHVFRUHEXVLQHVVSURFHVVHVRIDQHQWLW\WKHUHVKRXOGEHDQ,7VWHHULQJ FRPPLWWHHZLWKUHSUHVHQWDWLRQRIWRSVWDNHKROGHUVWRRYHUVHHLWVRYHUDOOGLUHFWLRQ

Diagram depicting the data synchronisation process (executed every month) in Web Based EPIS for centralised reporting system

State Project Office
OPEPA
Offline EPIS
Web Based EPIS centralized Reporting
Internet
VSAT
Satellite
VSAT
Web Based EPIS
Offline EPIS
District Project Office
Offline EPIS
DI of Schools
Offline EPIS
BDOs
Offline EPIS
ULBs

Data of **DEE** and **OPEPA** were to be uploaded to the system by OPEPA through the Web Based EPIS

$YHU\VPDOODSHUWXUHWHUPLQDO96$7XVHGLQZLGHDUHDQHWZRUNDVDFRPPXQLFDWLRQ PHGLXP

&XVWRPLVDWLRQRIH[LVWLQJVRIWZDUHC ODNK'HYHORSPHQWRIZHEEDVHGDSSOLFDWLRQDQG LQWHJUDWLRQZLWKH[LVWLQJ23(3$SRUWDOC ODNK,PSOHPHQWDWLRQIRULQGLYLGXDOVLWH C ODNK%DFNORJGDWDHQWU\C ODNK6NLOOHGPDQSRZHUDW',2IILFHVC ODNK DQGPDLQWHQDQFHIRURQH\HDUC ODNK of the IT initiatives (Clause [illegible] of the Memorandum of Association of OPEPA) also stipulated that State Project Director (SPD) shall constitute a Steering Group for development and implementation of the project.

Audit noticed that SPD did not form a Steering Group prior to the development and implementation of EPIS in [illegible]. During implementation of EPIS, when problems like errors in the software, non-installation of EPIS in different field offices, etc. were noticed, a Steering Committee[illegible] was formed in November [illegible]. This committee met only once and was chaired by Deputy General Manager (DGM), Systems of IDCOL Software Limited (ISL), the vendor for the project instead of being chaired by administrative authority from OPEPA. The low level of involvement of OPEPA management in project implementation clearly indicated lack of project ownership by the entity rendering the project development directionless.

During discussion (August [illegible]), Commissioner-cum-Secretary agreed that head of administrative entity should head the committee to monitor the development and implementation of EPIS which would be taken into account in future.

Inadequate requirement analysis

A software named 'BETAN'[illegible] was in use from [illegible] in [illegible] Blocks of the State for generation of pay bills of the employees and teachers. The State Government in General Administration (GA) Department had also initiated the process of development (May [illegible]) of Human Resource Management System (HRMS) with the objective to enable electronic establishments of all departments to carry out personnel management transactions like recruitment, promotions, transfers, leave, trainings, deputations, court cases, pension, pay roll processing, etc. through a web based system.

Without considering the usability of HRMS and BETAN, the OPEPA awarded (July [illegible]) the work of development of yet another similar software EPIS to address similar HR functionalities like payroll, pension, court cases. The objective of EPIS also included tracking of school level vacancies, teacher rationalisation and management of transfer and postings. The EPIS aimed to cover [illegible][illegible] locations which included [illegible] blocks by redesigning earlier abandoned DISS.

We noted that during implementation stages, there was inadequate involvement or direction by OPEPA management. As a result, out of the [illegible] targeted locations, EPIS could not be implemented in [illegible] blocks as BETAN was successfully

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[illegible] Assistant Director MIS, OPEPA, Programmer SPO, Programmer Angul, District Inspector of Schools, Khordha, Data Entry Operator, K Nagar, Establishment Officer DEE and Manager Executive TQM.

[illegible] A software developed by Odisha Computer Application Centre relating to payroll management system of Panchayat Raj Department, Government of Odisha

[illegible] DIs [illegible], Blocks [illegible], ULBs [illegible], DPOs [illegible], DEE and SPO [illegible]

UXQQLQJ□WKHUH DQG 23(3$□KDG WR UHGXFH□1RYHP EHU□□□□□WKH FRYHUDJH IURP□□□□□ WR□□□□ORFDWLRQV H[FOXGLQJ□□□□□ORFDWLRQV□□□□□EORFNV DQG□□□8/%V□□□

&KHFN RI□UHFRUGV RI□VDP SOHG GLVWULFW UHYHDOHG□WKDW DOO'32V ZHUH QRW XVLQJ□(3,6□□ 7KH□'32V ZHUH P DLQO\□UXQQLQJ□ZLWK□FRQWUDFWXDO HP SOR\HHV DQG□WKHLU SD\UROO□ UHFRUGV ZHUH EHLQJ□JHQHUDWHG DQG□P DLQWDLQHG□WKURXJK□([FHO VKHHWV□$IWHU XVLQJ□ (3,6□XS□WR 0DUFK□□□□□□'',RI□VFKRROV DOVR GLVFRQWLQXHG WKH VDP H DQG DGRSWHG WKH□ +50 6□ZKLFK□ZDV P DGH P DQGDWRU\□IRU DOO'''2V□IURP□$SULO□□□□□□7KLV DOVR□ LQGLFDWHG□LQDGHTXDWH□UHTXLUHP HQWDQDO\VLV EHIRUH□WDNLQJ□XS□WKH□SURMHFW ZKLFK□ UHVXOWHG LQ□UHGXFWLRQ RI□VFRSH P LGZD\□GXULQJ□LP SOHP HQWDWLRQ DQG GLVFRQWLQXDQFH□ RI□(3,6□LQ'32V DQG'',V□□

'XULQJ□GLVFXVVLRQ□$XJXVW□□□□□□&RP P LVVLRQHU FXP□6HFUHWDU\□DGP LWWHG ODSVH RI□ SODQQLQJ□RQ□WKH SDUW RI□23(3$□DQG□VWDWHG□$XJXVW□□□□□WKDW (3,6□ZDV EHLQJ□ XVHG LQ 6WDWH 3URMHFW 2IILFH□632□DQG'((□%XW WKH IDFW UHP DLQHG WKDW WKH EDVLF□ REMHFWLYH□RI□(3,6□YL]□WUDFNLQJ□RI□VFKRRO OHYHO YDFDQFLHV□FRXUW FDVHV□WHDFKHU□ UDWLRQDOL]DWLRQ□WUDQVIHU DQG SRVWLQJ□FRXOG QRW EH P HW□

3URMHFW P RQLWRULQJ□□3D\P HQW WR YHQGRU ZLWKRXW GHYHORSP HQW RI□FRQWUDFWHG□ P RGXOH□

:HE□EDVHG (3,6□ZDV WR VHUYH DV DQ HIIHFWLYH RQOLQH +XP DQ 5HVRXUFH,QIRUP DWLRQ□ 6\VWHP□□+5,6□□IRU FHQWUDOL]HG□P RQLWRULQJ□DQG□UHSRUWLQJ□WRRO IRU□WKH GHFLVLRQ□ VXSSRUW V\VWHP□LQ□WUDFNLQJ□YDFDQFLHV DQG FDSDFLW\ P DSSLQJ□DW YDULRXV ORFDWLRQV□ 2QH RI□WKH REMHFWLYHV RI□(3,6□ZDV WR□KHOS□LQ□WUDQVIHU DQG□GHSXWDWLRQ□UHODWHG□ GHFLVLRQV□

:H QRWLFHG WKDW GDWD ZDV WUDQVP LWWHG LQ &'V E\□WKH'LVWULFW WR 23(3$□LQVWHDG RI□ V\QFKURQLVDWLRQ□WKURXJK□WKH ZHE□DSSOLFDWLRQ□□7R DQ□DXGLW TXHU\□WR□IXUQLVK□WKH□ ZHE□DSSOLFDWLRQ RI□(3,6□IRU YHULILFDWLRQ□23(3$□SURGXFHG□D'9'□FRQWDLQLQJ□ VRP H UHSRUW ILOHV DQG□GDWD□SHUWDLQLQJ□WR.KRUGKD'LVWULFW ZKLFK GLG QRW FRQWDLQ□ WKH LQWHQGHG ZHE□DSSOLFDWLRQ DV HQYLVDJHG LQ□WKH SURMHFW SURSRVDO□7KLV LQGLFDWHG□ WKDW WKH P RGXOH ZDV QRW GHYHORSHG□□

%XW 23(3$□SDLG□$XJXVW□□□□±0 D\□□□□□`□□□□□ODNK□ZKLFK□LQFOXGHG ZHE□ EDVHG DSSOLFDWLRQ FRVW RI`□□□□□□ODNK□ZLWKRXW YHULI\LQJ□WKH GHOLYHUDEOHV□□□

7KXV□GXH WR QRQ GHYHORSP HQW RI□WKH ZHE□P RGXOH□23(3$□FRXOG QRW DFKLHYH WKH□ HQYLVDJHG REMHFWLYHV RI□(3,6□LH□□VXSHUYLVLRQ DQG□P RQLWRULQJ□WKURXJK FHQWUDOL]HG□ UHSRUWLQJ□V\VWHP□IRU GHFLVLRQ VXSSRUW□

'XULQJ□GLVFXVVLRQ□&RP P LVVLRQHU FXP□6HFUHWDU\□VWDWHG WKDW 23(3$□VKRXOG VKDUH□ HYLGHQFH RI□H[LVWHQFH RI□P RGXOH WR $XGLW LI DYDLODEOH□+RZHYHU WKH VDP H ZDV QRW VKRZQ WR $XGLW 6HSWHP EHU□□□□□

7KXV□GXH WR□SRRU SURMHFW SODQQLQJ□□RZQHUVKLS□DQG□P RQLWRULQJ□RI□23(3$□ZHE□ EDVHG□(3,6□VRIWZDUH□FRXOG□QRW EH□GHYHORSHG□DQG□LP SOHP HQWDWLRQ□RI□WKH□ FXVWRP LVHG YHUVLRQ RI□(3,6□IDLOHG LQ VSLWH RI□H[SHQGLWXUH RI`□□□□□□ODNK□□

[illegible] Implementation of Geographical Information System (GIS)

OPEPA decided ([illegible]) to develop a statewide Global Positioning System (GPS) based Geographical Information System (GIS) software with all key educational infrastructure details with photographs to act as a decision support system tool for the top management of OPEPA for speedy and accurate decision on providing infrastructure (*i.e.* school buildings, toilets, drinking water facilities, etc.) to ensure quality education. Despite spending ₹ [illegible] crore on the project, OPEPA failed to achieve the objectives for reasons detailed under:

Data quality

A key element of the project was to create a database having locational information and available amenities in schools in Odisha. The work was awarded to OCCL (the vendor) in April [illegible] to create the infrastructural database within three months. OCCL submitted data in December [illegible] to OPEPA. Several errors in the database related to school type, class range of schools, mismatch or non-availability of photographs etc. were noticed by SPD (OPEPA). OCCL resubmitted the data (March [illegible]) but with similar errors. The entire data on GIS submitted by OCCL was to be scrutinised and payment was to be released against the quality of work done. A project evaluation committee evaluated the claim of OCCL in March [illegible]. It was revealed that the committee only verified the total number of schools *vis-à-vis* the actual number of schools surveyed against which both photographs as well as GPS readings were present without examining other errors. The final payment was released (April [illegible]) to the vendor based on the verification report submitted by the committee. The committee, however, left a gap in ensuring the quality of data as submitted by OCCL during final verification.

Analysis of data by Audit pertaining to phase I work revealed the following errors:

- Out of [illegible] records of schools crucial errors like schools having duplicate longitude and latitude, missing photographs, duplicate photographs, etc. were noticed in [illegible] schools ([illegible] *percent*). Such kind of errors would lead to misleading information to the top management in taking decisions on provision of new schools, infrastructure facilities to the required schools. As an instance, some of the errors are illustrated below:

Illustration [illegible]: Different schools having same longitude and latitude

Name of the District	School Name	Latitude	Longitude
Ganjam	Konphulla PS	[illegible]	[illegible]
Ganjam	Kuttmbari PS	[illegible]	[illegible]
Ganjam	Sialingi PS	[illegible]	[illegible]
Ganjam	Tabudia PS	[illegible]	[illegible]

,OOXVWUDWLRQ□□□□□□6FKRROVKDYLQJ□PLVVLQJ□SKRWRJUDSKV□

1DPH□ RI□WKH□ 'LVWULFW	**6FKRRO1DPH□**	**3KRWRJUDSK□□□**	**0LVVLQJ□ 3KRWRJUDSK□□□**	**0LVVLQJ□ 3KRWRJUDSK□□□**
$QJXO□	6DUDZDWL6KLVKX□ 0DQGLU□	,0*B□□□□□□	1XOO□	1XOO□
$QJXO□	'□$9□3XEOLF□6FKRRO□	,0*B□□□□□□	1XOO□	1XOO□
$QJXO□	1LJDPDQDQGD,QVWLWXWH□ RI□(GXFDWLRQ□	,0*B□□□□□□	1XOO□	1XOO□

,OOXVWUDWLRQ□□□□□□6FKRROVZKHUHWKHSKRWRJUDSKVZHUHGXSOLFDWHGDJDLQVWGLIIHUHQW VFKRROV□

1DPHRI□ WKH□ 'LVWULFW	**6FKRRO1DPH□**	**3KRWRJUDSK□□□**	**3KRWRJUDSK□□□**	**3KRWRJUDSK□□□**
$QJXO□	'DODEKHUDVKL66□	3□,0*B□□□□	3□,0*B□□□□□	3□,0*B□□□□□
$QJXO□	%UXWL36□	3□,0*B□□□□	3□,0*B□□□□□	3□,0*B□□□□□
$QJXO□	7HQWROL66□	,0*B□□□□□□	,0*B□□□□J□	,0*B□□□□J□
$QJXO□	1XDVKL36□	,0*B□□□□□□	,0*B□□□□J□	,0*B□□□□J□

*□ 2&&/□KDG□WR□VXSSO\□WKUHH□SKRWRJUDSKV□IURP□HDFK□VFKRRO□7KLV□PHDQW VXEPLVVLRQ□RI□□□□□□□□□□SKRWRJUDSKV□LQ□UHVSHFWRI□□□□□□□□VFKRROV□DFURVV□ 2GLVKD□%XWDXGLWQRWHG□WKDWRQO\□□□□*SHUFHQW*SKRWRJUDSKVZHUHXSORDGHG□□

&KDUW□□□□□□'HWDLOVRI□SKRWRJUDSKVUHTXLUHG□YLVDYLV□
SKRWRJUDSKVVXSSOLHGE\□2&&/
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■ 3KRWRJUDSKVXSORDGHGDQGXVDEOH
■ 3KRWRJUDSKVVKRUWVXSSOLHG
■ 3KRWRJUDSKVXSORDGHGDQGXQXVDEOH

7KLV□UHVXOWHG□LQ□VKRUWVXSSO\□RI□□□□*SHUFHQW*SKRWRJUDSKV□E\□2&&/□□7KH□ DEVHQFHRI□SKRWRJUDSKVZRXOGOHDGWR□QRQ□LGHQWLILFDWLRQ□RI□WKHVFKRRODQGWKH□ DFWXDOFRQGLWLRQ□RI□WKHVFKRROEXLOGLQJ□URRPV□WRLOHWVDQGLWVVXUURXQGLQJVIRU□ IXUWKHUSURYLVLRQ□RI□DPHQLWLHV□□

*□ 7KH□VFKRRO□SKRWRJUDSKV□ZHUH□VDYHG□LQ□WKH□GLVNV□LQ□IROGHUV□QDPHG□DV□ FRUUHVSRQGLQJ□EORFN□FRGH□7KHQDPHVRI□WKHILOHVDUHVWRUHG□LQWKHGDWDEDVH□ ILHOG□□7KURXJK□WKLV□OLQN□*LH*□□ILOHQDPH□RI□WKH□LPDJH□□WKH□V\VWHP□FRXOG□ UHWULHYHWKHLPDJHRI□WKHVFKRRO□:HQRWLFHGWKDWWKHUHZHUHLQFRUUHFWLPDJH□ ILOHQDPHVLQ□WKHGDWDEDVHZKLFK□ZRXOGQRWIHWFK□WKHOLQNHGLPDJHILOHV□□

> thereby only [illegible] photographs were tagged to schools rendering [illegible] photographs without use.

Thus, the development of error prone and incomplete GIS software which could not be put to use for planning and decision purposes because of the unreliability of the data rendered expenditure of ₹ [illegible] crore infructuous.

During discussion (August [illegible]), Commissioner cum Secretary stated that the payment was released to OPEPA on the basis of recommendations of technical committee.

But committee had representation from OPEPA and it should have recommended for release of payment after addressing accuracy and completeness of the deliverables provided by OCCL.

Revival of phase II proposal despite erroneous database

In the circumstances of problems of data reliability and usability of GIS, it was decided in [illegible] not to go ahead with phase II of the project. However, on the basis of communication received from M/s GeoInfotech Limited (December [illegible]), the earlier proposal of phase II work for development of web based GIS system was arbitrarily revived (January [illegible]). While OPEPA engaged in identifying the appropriate vendor for developing web based GIS, the Ministry of Housing and Urban Poverty Alleviation (GoI) identified [illegible] proprietors who dealt in GIS software. OPEPA, however, awarded the work of project implementation to GeoInfotech in March [illegible] which was one of the vendors of OCCL during phase I work. The work was split into five works[illegible] and awarded to GeoInfotech for ₹ [illegible] lakh without inviting open tender/tender on the ground of single source procurement and without exploring possibility of other eligible vendors.

The GIS application was to be developed with existing database with OPEPA developed by OCCL during phase I work which contained errors in longitude, latitude, infrastructure, photographs etc. which has been discussed in the foregoing paragraph. GeoInfotech was to complete the works within six months from the date of work order. The application software on GIS was installed in the server at OPEPA and tested in August [illegible]. The phase II work stated to have been completed by GeoInfotech was deficient as the locational data of schools (longitude and latitude) was incorrect and the developed web based GIS system lacked provision of habitation based analysis which was a basic requirement of GIS to get the information on habitations which was needed for planning further schooling facilities.

During discussion (August [illegible]), Commissioner cum Secretary asked OPEPA to furnish justification that this web based GIS software acquired by OPEPA was

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[illegible] ArcGIS Server Standard Edition (₹ [illegible] lakh), ArcGIS ArcEditor (₹ [illegible] lakh), Application development with dual language portal (₹ [illegible] lakh), Data migration and installation, testing etc. (₹ [illegible] lakh), Printing of maps and placement of technical expert (₹ [illegible] lakh).

the only software available in the market. OPEPA, however could not furnish the justification as of September [illegible].

[illegible] Implementation of Child Tracking System (CTS)

A database of all children of [illegible] years with their name, age, sex, caste, educational status, reasons for not attending school and other indicators was developed on the basis of data collected through household survey during Orissa Child Census [illegible]. This database was loaded in the State database server and district servers. The objective was to develop an online CTS wherein the current status of each child would be available in the web. The CTS validation and updating process was adopted to update changes of the class, education progress indicators (percentage of marks secured in the annual examination), school dropout of schools and new admissions of the children for the years [illegible] and [illegible]. Thereafter, another child survey was conducted during [illegible] and the child data was subsequently updated for the years [illegible] and [illegible].

Audit noticed the following deficiencies:

[illegible] Non-allotment of Unique Child ID

Due to non-allotment of Unique Child ID to each child for their identification as recommended in earlier Audit Report, objective of continuous tracking of each child for educational and economic status could not be achieved.

OPEPA developed a child database (CTS) containing child information like child name, guardian, village, school, class, date of birth, annual attendance, marks secured etc. after conducting a door to door survey during [illegible]. Under CTS, each child was to be provided with unique child code to track his/her educational and socio-economic status. The database was updated every year up to [illegible] until introduction of Right to Education Act, [illegible]. Tracking the status of a child is possible only through adoption of unique child ID. OPEPA claimed that it had adopted the recommendation made in this regard in the Audit Report of Comptroller and Auditor General of India.

The child database was built during [illegible] and this was again validated in [illegible]. Accordingly, [illegible] crore child IDs were allotted to all the children of [illegible] to [illegible] years of age. In subsequent years ([illegible]), CTS updation was done for the children of [illegible] to [illegible] years age group. Hence, during the years [illegible] to [illegible], the chances of identification of new children would be meagre against whom new child IDs were allotted. But it was observed that [illegible] lakh new child IDs were allotted during [illegible]. There were [illegible] crore codes in respect of all district found allotted during [illegible] as depicted in the chart below:

7KH FUHDWLRQ RI QHZ ,'V ZDV VL]HDEOH IURP WR 7KLV LV EHFDXVH LQVWHDG RI XVLQJ XQLTXH ,' GXULQJ XSGDWLRQ FKLOGUHQ WUDQVIHUUHG IURP RQH VFKRRO WR DQRWKHU ZHUH DOORWWHG ,'V DIUHVK ,Q WKLV SURFHVV WKH VDPH FKLOG ZDV DOORWWHG GLIIHUHQW ,'V LQ GLIIHUHQW \HDUV ZKHQ KH LV WUDQVIHUUHG WR QHZ VFKRRO 'DWDEDVH DQDO\VLV UHYHDOHG WKDW LQ WKH \HDU WKH QXPEHU RI FKLOG UHFRUGV ZDV ODNK RXW RI ZKLFK RQO\ ODNK FKLOGUHQ KDYH FRQVLVWHQW FRGH DFURVV SUHYLRXV \HDUV 7KHUHIRUH WKH SHUIRUPDQFH WUDFNLQJ DFURVV SUHYLRXV \HDUV ZDV QRW SRVVLEOH DJDLQVW ODNK FKLOGUHQ ZKLFK LV PRUH WKDQ *SHU FHQW* RI WKH FKLOG SRSXODWLRQ

2 3(3$ GLG QRW XSGDWH WKH FKLOG GDWDEDVH GXULQJ GXH WR GHOD\HG VRIWZDUH PRGLILFDWLRQ SURFHVV LQ WXQH ZLWK 57($FW ,W FUHDWHG DQRWKHU VRIWZDUH EDVHG RQ 57(UHTXLUHPHQW GXULQJ DW D FRVW RI C ODNK ,Q WKH QHZ VRIWZDUH QHZ IXQFWLRQDOLWLHV LQ WXQH WR 57($FW ZHUH DGGHG DQG WKH IXQFWLRQDOLWLHV OLNH SURYLVLRQ RI XQLTXH FKLOG ,' LQIRUPDWLRQ RQ DSSHDUDQFH LQ DQQXDO H[DPLQDWLRQ PDUNV VHFXUHG HWF ZHUH UHPRYHG 7KH FRGLQJ SDWWHUQ LQ UHVSHFW RI YLOODJHV VFKRROV DQG FKLOGUHQ ZHUH FKDQJHG DQG WKH QHZ GDWDEDVH ORVW WKH OLQN WR WKH HDUOLHU GDWDEDVHV RI WR

:H IXUWKHU QRWLFHG WKDW GXH WR LPSURSHU UHODWLRQDO LQWHJULW\ FRQVWUDLQWV LPSRVHG LQWR WKH GDWDEDVH GHVLJQV WKHUH ZHUH PXOWLSOH FKLOG QDPHV PDSSHG WR VLQJOH FKLOG ,' 7KHUH ZHUH VXFK FDVHV LQ DQG FDVHV LQ GDWDEDVHV

7KXV ZLWKRXW D XQLTXH FKLOG ,' 2 3(3$ IDLOHG WR WUDFN HDFK FKLOG IRU HGXFDWLRQDO VWDWXV RQ DQ DQQXDO EDVLV WKHUHE\ GHIHDWLQJ WKH REMHFWLYH RI LPSOHPHQWDWLRQ RI WKH VRIWZDUH 'HVSLWH WKH UHFRPPHQGDWLRQV PDGH LQ WKH HDUOLHU $XGLW 5HSRUW VXFK LUUHJXODULWLHV QRW RQO\ SHUVLVWHG EXW WKH PDWWHU ZDV QRW ORRNHG LQWR ZKLOH PDNLQJ PRGLILFDWLRQ WR WKH &76 LQ

'XULQJ GLVFXVVLRQ $XJXVW &RPPLVVLRQHU FXP 6HFUHWDU\ FRQVHQWHG WR WKH SURSRVDO RI 23(3$ IRU PDSSLQJ WKH FKLOG GDWD RI DQG PDQXDOO\ 7KH IDFW UHPDLQHG WKDW XQLTXH FKLOG ,' KDV QRW EHHQ DGRSWHG VLQFH

:HDN DSSOLFDWLRQ FRQWUROV DIIHFWLQJ GDWD TXDOLW

'HVSLWH UHFRPPHQGDWLRQV PDGH LQ HDUOLHU $XGLW 5HSRUWV WR EXLOG LQSXW DQG YDOLGDWLRQ FRQWUROV WR HQVXUH FRPSOHWHQHVV DQG FRUUHFWQHVV RI GDWD WKH VDPH LUUHJXODULWLHV FRQWLQXHG GXH WR ZKLFK GDWD UHPDLQHG XQUHOLDEOH LQDFFXUDWH DQG IDLOHG HYHU\ SXUSRVH RI WUDFNLQJ HDFK FKLOG¶V HGXFDWLRQ

$QDO\VLV RI GDWDEDVH UHYHDOHG WKDW WKHUH ZHUH LQFRQVLVWHQW GDWD LQ WKH GDWDEDVH DV EHORZ

L **$EVHQFH RI UDQJH FKHFN** :H IRXQG WKDW WKHUH ZDV QR DJH OHYHO YDOLGDWLRQ LQ WKH ILHOG FDSWXULQJ WKH GDWD *LH* WKH FODVV DWWHQGHG E\ WKH FKLOG 7KLV UHVXOWHG LQ HUURQHRXV GDWD FDSWXUH DFURVV WKH \HDUV FKHFNHG LQ $XGLW 7KHVH HUURUV ZHUH QRWHG WR WKH H[WHQW IURP FDVHV RI WR FDVHV LQ

6LPLODU YDOLGDWLRQ FRQWUROV ZHUH ODFNLQJ IRU ILOOLQJ FKLOG FDWHJRU\ 6& 67 2%& 2WKHUV PRWKHU WRQJXH EDVHG RQ ODQJXDJH VSRNHQ LQ WKH 6WDWH UHJLRQ UHDVRQ IRU VFKRRO GURSRXW HWF OHDGLQJ WR XQUHOLDEOH GDWD DQG ZURQJ PDQDJHPHQW LQIRUPDWLRQ IRU SODQQLQJ

LL **(UURQHRXV GDWD W\SH GHILQLWLRQ RI FHUWDLQ LPSRUWDQW ILHOGV** 7KH QDPH RI WKH FKLOG DQG SDUHQW LQ WKH GDWDEDVH VKRXOG QRW FRQWDLQ QXPEHUV VSHFLDO FKDUDFWHUV HWF DV SUHVHQFH RI VXFK ZRXOG OHDG WR PLVLQIRUPDWLRQ 7KHUH ZHUH UHFRUGV RI GDWDEDVH DQG UHFRUGV RI GDWDEDVH ZKHUH WKH QDPHV RI FKLOG DQG SDUHQW FRQWDLQHG QXPEHUV WKHUHE\ FRPSURPLVLQJ WKH LQWHJULW\ RI WKH GDWD DYDLODEOH LQ WKH VRIWZDUH

LLL **1RQUHIHUHQWLDO LQWHJULW\ FKHFN** $XGLW QRWLFHG WKDW WKH GDWD HQWU\ VFUHHQ DFFHSWHG FKLOG¶V YLOODJH FRGHV ZKLFK ZDV QRW YDOLGDWHG E\ WKH YLOODJH PDVWHU GDWD 7KLV UHQGHUHG FKLOG UHFRUGV RI DQG UHFRUGV RI ZLWKRXW DQ\ YLOODJH 7KXV WKH FKLOG SRSXODWLRQ UHSRUW DJDLQVW VXFK YLOODJHV ZRXOG PLVOHDG WKH SODQQLQJ IRU LQIUDVWUXFWXUH ,QVWDQFHV RI VXFK FDVHV DUH DV IROORZV

,OOXVWUDWLRQ

&KLOG ,'	**9LOODJH &RGH**	**5HPDUNV**
' % &	' % * 9	1RW DYDLODEOH LQ YLOODJH
' &	' % * 9	GR
' % &	' % * 9	GR
' % &	' % * 9	GR
' % &	' % * 9	GR

$OO WKHVH FRGHV GLG QRW H[LVW LQ YLOODJH PDVWHU WDEOH

Similar design problem was also noticed in case of school codes. There were [illegible] and [illegible] child records in the [illegible] and [illegible] databases respectively where school codes did not match with the school master table. These children were not considered in the school wise child enrolment reports.

During discussion (August [illegible]) the OPEPA stated that the database is to be rechecked again. They added that the validation for religion code was giving problem in different browsers. The fact remained that the CTS still contained errors.

[illegible] Duplicate child records in CTS database

As per GoI instructions, system of village education registers (VERs) was introduced at village level to track all children from [illegible] years since [illegible]. The VERs were to be maintained by the Village Education Committees (VECs). One of the purposes of such survey was to eliminate ghost children whose names appear in more than one school. But Head Masters/VECs who were responsible for updating VERs did not make regular updation for which OPEPA introduced e-VER System after conducting a fresh household survey (Child Census [illegible]) at a cost of ₹ [illegible] crore. This database was validated in [illegible] at a cost of ₹ [illegible] crore. It was updated in subsequent years up to [illegible] except for the year [illegible].

Analysis of above child databases revealed that in case of [illegible] lakh children, key identifiers like name, date of birth, guardian name and village code was exactly the same indicating data redundancy. This also indicated possibility of ghost children in schools. The presence of ghost instances had direct implication on Government exchequer in so far as mid day meal, free text book, uniform, etc. are concerned besides wrong reporting of total figures impacting the planning.

Chart 3.6.3 : Chart showing the existence of duplicate child records in the database (in Nos)

7KHVH GXSOLFDWHV ZHUH GXH WR SUHVHQFH RI D FKLOG UHFRUG LQ PRUH WKDQ RQH VFKRRO FODVV GDWD HQWU\ HUURUV DQG VRIWZDUH SUREOHPV OLNH DEVHQFH RI YDOLGDWLRQ 7KLV OHG WR LQFRUUHFW &76 UHSRUWLQJ RQ JURVV HQUROPHQW UDWLR DQG QHW HQUROPHQW UDWLR ZKLFK DUH XVHG DV YLWDO SDUDPHWHUV IRU VFKHPH SODQQLQJ

' XULQJ GLVFXVVLRQ $ XJXVW &RPPLVVLRQHU FXP 6HFUHWDU\ DJUHHG DQG VWDWHG WKDW WKLV ZRXOG EH WDNHQ FDUH RI E\ IODJJLQJ GXSOLFDWH FKLOG UHFRUGV EDVHG RQ QDPH RI WKH FKLOG SDUHQWV QDPH GDWH RI ELUWK DQG YLOODJH LQ WKH VRIWZDUH IURP

,UUHJXODU XSGDWLRQ RI &76 GDWD

' HVSLWH UHFRPPHQGDWLRQ PDGH LQ HDUOLHU $ XGLW 5HSRUWV WR WDNH LQLWLDWLYHV DW GLVWULFW OHYHO IRU SURPSW SHULRGLF DQG UHJXODU XSGDWLRQ RI GDWDEDVH VXFK LUUHJXODU XSGDWLRQ FRQWLQXHG OHDGLQJ WR GDWDEDVH EHFRPLQJ XQUHOLDEOH DQG LQFRUUHFW

' DWD XSGDWLRQ WR &76 ZDV DQ DQQXDO SURFHVV 7KH FKLOG UHFRUGV RI WKH HDUOLHU \HDU ZHUH SULQWHG E\ WKH ' 32 VLQ VSHFLILHG IRUPDWV YLOODJH ZLVH VFKRRO ZLVH IURP WKH V\VWHP DQG GLVWULEXWHG WR WKH 9(& RI HDFK YLOODJH DORQJ ZLWK EODQN IRUPDWV WKURXJK WKH UHVSHFWLYH %ORFN 5HVRXUFH &HQWUH &RRUGLQDWRU %5&& &OXVWHU 5HVRXUFH &HQWUH &RRUGLQDWRU &5&& 7KHVH SULQWHG UHFRUGV ZHUH YDOLGDWHG E\ HQXPHUDWRUV +HDGPDVWHUV WHDFKHUV IURP PDQXDO DWWHQGDQFH UHFRUGV DGPLVVLRQ UHJLVWHUV IRU LQ VFKRRO FKLOGUHQ DQG IURP KRXVH VXUYH\ LQ FDVH RI FKLOGUHQ ZKR ZHUH RXW RI VFKRRO WUDQVIHUUHG WR RWKHU VFKRROV ,Q FDVH ZKHUH D FKLOG ZDV LQ WKH OLVW EXW ZDV QRW LQ WKH VFKRRO DWWHQGDQFH UHJLVWHU WKH HQXPHUDWRU PDUNHG WKH FKLOG UHFRUG DV GHOHWHG WUDQVIHUUHG WR RWKHU VFKRRO RXW RI VFKRRO HWF DV WKH FDVH PD\ EH DQG DJDLQVW H[LVWLQJ FKLOGUHQ XSGDWHG WKH FODVV RI WKH FKLOG SHUFHQWDJH RI PDUNV VHFXUHG QXPEHU RI DWWHQGDQFHV HWF LQ WKH IRUPDW 7KH YDOLGDWLRQ SURFHVV ZDV UHYLHZHG E\ WKH &5&&V %5&&V 7KHVH YDOLGDWHG PDQXDO UHFRUGV ZHUH VHQW WR WKH ' 32 ZKHUH GDWD IURP WKHVH UHFRUGV ZHUH HQWHUHG LQWR WKH &76 7KH GLVWULFW WKHQ VHQW WKLV GDWD WR VWDWH IRU FRQVROLGDWLRQ 7KH QHWZRUN DGPLQLVWUDWRU DQG SURJUDPPHU RI WKH 6WDWH 3URMHFW 2IILFH XVHG WR FRQVROLGDWH WKH GDWD LQ WKH 6WDWH VHUYHU)RU WKLV MRE WKH 2 3(3$ SDLG `  SHU FKLOG WR HQXPHUDWRUV IRU GDWD FROOHFWLRQ DQG ` SHU FKLOG IRU GDWD HQWU\ IRU WKH \HDUV DQG

)RUP D ± ,Q 6FKRRO &KLOGUHQ DQG)RUP E ± 1HZ FKLOGUHQ LQ VFKRRO EODQN IRUP

)RUP D ± 2XW RI 6FKRRO &KLOGUHQ)RUP E ± 1HZ RXW RI VFKRRO FKLOGUHQ EODQN IRUP

State Project Director
CTS database
Data consolidation and Report generation
MIS OPEPA
Software and Master data
Updated new Database
District Project Coordinators
CTS database
Generation of PDF through CTSVU S/2
Programmer MIS of DPC
Data entry by DEOs at DPC Office or DE House
Form 1(a), 1(b), 2(a), 2(b)
Form 1(a), 1(b), 2(a), 2(b)
Block/Clusters/Schools/Villages
Data validation by Enumerators at school point and villages

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$ XGLWREVHUYHG□WKDWWKLV□HQWLUH□GDWD□XSGDWLRQ□SURFHVV□Z DV□FRP SURP LVHG□GXULQJ□ □□□□Z KLFK□UHVXOWHG□LQ□XQUHOLDEOH□LQIRUP DWLRQ□LQ□WKH□&7 6 □GDWDEDVH□□

***□ ' DWD□XSGDWLRQ□XVLQJ□EDFNHQG□VFULSWV□EDVHG□RQ□H[LVWLQJ□GDWD□**7 KH□ &7 6 □DSSOLFDWLRQ□Z DV□GHVLJQHG□LQ□D□P DQQHU□WKDW□HYHU\□GDWD□HQWU\□□ XSGDWLRQ□E\□XVHU□Z RXOG□WULJJHU□WKH□FDSWXUH□RI□H[DFW□WLP H□RI□FUHDWLRQ□□ XSGDWLRQ□RI□UHFRUG□XS□WR□P LOOLVHFRQG□OHYHO□LQWR□WKH□GDWDEDVH□□

$ □FRP SDULVRQ□EHWZ HHQ□GDWH□RI□FUHDWLRQ□RI□FKLOG□GDWD□RI□□□□□□DQG□WKDW□ RI□□□□□□□UHYHDOHG□WKDW□WLP H□RI□FUHDWLRQ□RI□D□FKLOG□UHFRUG□RI□□□□□□Z DV□ H[DFWO\□VDP H□LQ□WKH□FRUUHVSRQGLQJ□UHFRUG□RI□□□□□□Z KLOH□\HDU□SRUWLRQ□RI□ FUHDWLRQ□GDWH□RI□□□□□□Z DV□LQFUHDVHG□E\□RQH□IURP □WKDW□RI□□□□□□□LQ□ UHVSHFW□RI□□□□GLVWULFW□DQG□E\□WZ R□LQ□FDVH□RI□RQH□GLVWULFW□* DQMDP □□LQ□ □□□□□□□□□□□□□*SHUFHQW*□FDVHV□RXW□RI□□□□□□□□□□□□□UHFRUGV□DV□GHWDLOHG□LQ□ ***$SSHQGL[*** □□□□□□$ Q□LOOXVWUDWLRQ□RI□VXFK□FDVHV□LV□DV□EHORZ □□

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,OOXVWUDWLRQ□□□□□□ **6DPSOH□□FDVHVRI□%KDQGDUD'LVWULFWZKHUHWLPHVSRUWLRQ□ RI□WKH□GDWH□RI□FUHDWLRQ□RI□UHFRUGVZHUHVDPHDORQJ□ZLWK□ PDUNVDQGDWWHQGDQFHRI□DFKLOG□GXULQJ□WKH□\HDUV□□□□□ DQG□□□□□UHVSHFWLYHO\□**

&KLOG,'□	'DWDRI□□□□□□				'DWDRI□□□□□□			
	'DWHWLPHRI□&UHDWLRQRI□UHFRUG□	&ODVV□	0DUNV□VHFXUHG□	$WWHQGDQFH□	'DWHWLPHRI□FUHDWLRQRI□UHFRUG□	&ODVV□	0DUNV□VHFXUHG□	$WWHQGDQFH□
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$VLOOXVWUDWHGDERYH□LWLVHYLGHQWWKDWWKHGDWDXSGDWLRQ□SURFHVVZDV□GRQHE\□UXQQLQJ□EDFNHQG□SURFHGXUHVRQ□WKH□H[LVWLQJ□GDWD□&ODVVRI□HDFK□FKLOG□GXULQJ□□□□□ZDVLQFUHDVHGE\□RQHLQ□□□□□ZKHUHDVPDUNV□VHFXUHGDQGWRWDODWWHQGDQFHVDJDLQVWHDFK□FKLOG□UHPDLQHG□VDPHLQ□ERWK□WKH□\HDUV□7KXV□□□□□□□□□□□□□□□*SHUFHQW*□FKLOG□UHFRUGVZHUH□FRSLHG□IURP□□□□□□WR□□□□□□GDWDEDVHVZLWKRXWXSGDWLQJ□WKH□VDPH□WKURXJK□WKH□GHILQHG□GDWD□HQWU\□SURFHVVDWGLVWULFWOHYHO□

*□ **1RQHZ□FKLOG□FRGHVJHQHUDWHG**□7KH□HQXPHUDWRUV□UHTXLUHG□WR□FROOHFW□WKH□FKLOGUHQ□GDWD□IURP□VFKRROV□DQG□YLOODJHV□UHJDUGLQJ□FKLOGUHQ□DGPLWWHG□IRU□ILUVWWLPH□LQ□VFKRRO□DQG□QHZO\□LGHQWLILHG□RXWRI□VFKRRO□LQ□IRUP□□□E□DQG□IRUP□□□E□UHVSHFWLYHO\□:KLOH□HQWHULQJ□WKHVH□GDWD□LQWR□WKH□GDWDEDVH□QHZ□FKLOG□,'VDUH□JHQHUDWHG□E\□WKH□V\VWHP□)RU□WKH□\HDUV□□□□□□DQG□□□□□□□□□□□□□□□□□□□□□□DQG□□□□□□□□□□QHZ□FKLOG□,'V□ZHUH□IRXQG□FUHDWHG□UHVSHFWLYHO\□

of records of [illegible] against each such child was exactly the same in the target tables *i.e.* [illegible] and [illegible] tables respectively.

Evidence of such copying of records *i.e.* record creation date was also tampered with.

To an audit query to furnish the annual CTS data DVDs submitted by the district during [illegible] to State for consolidation, the SPD stated that all these DVDs got damaged and could not be furnished to audit.

From the above it can be noticed that by passing the updating process, data were entered into the database by manipulating data from [illegible] to [illegible]. This unauthorised updation can be ascertainable in [illegible] when maximum copying of records was observed in [illegible] district and payment of ₹ [illegible] lakh was made towards data entry and data collection. This included payment of ₹ [illegible] lakh[illegible] to the extent of data updated through backend query.

Such irregular updation made the databases unreliable and incorrect which indicated that there was no supervision on the quality of data in the CTS database. This had also affected the rollout of one of the projects *i.e.* planning, rendering the database unusable.

During discussion (August [illegible]), Commissioner-cum-Secretary expressed deep concern over such activities which damaged reputation of the project and enquired from OPEPA the basis on which payment on data entry was made. Reply from Government has not been received (August [illegible]).

[illegible] *Inaccurate information to stakeholders*

As per Para [illegible] of Guidelines[illegible] for Indian Government Websites, each and every bit of content published on a Government website should be verified and checked thoroughly as the public expect nothing less than authentic and accurate information from a credible source such as an official Government website. Incorrect report will not only mislead the stakeholders but will also affect the use of information for decision making processes.

Analysis of the citizen centric report revealed inconsistencies/discrepancies in total figure among district, blocks and gram panchayat level report regarding child population, child enrolment, out of school children, dropout, teachers' strength, etc. For example, the following 'Report on Total Child Population' showed the child population of Angul block as [illegible] in the district report

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[illegible] [illegible] child records at the rate of ₹ [illegible]

[illegible] Prepared by the Department of Administrative Reforms and Public Grievances in association with Department of Information Technology and National Informatics Centre (NIC).

Z KHUHDV WKH WRWDO FKLOG SRSXODWLRQ RI DOO WKH * 3V LQ $ QJXO EORFN VKRZ HG □□□□□□□ LQ WKH EORFN UHSRUW DV GHSLFWHG EHORZ □□

, OOXVWUDWLRQ □□□□□□

District Report with Anugul District selection

2007-08 | ANGUL | ALL Block/ULB | ALL GP/Ward | ALL Village
All Categories | All Religions | ALL Gender | ALL Types | View

DISTRICT LEVEL REPORT ON CHILDREN OF ALL CATEGORY, ALL RELIGION, ALL GENDER AND ALL TYPE CHILDREN

SL NO.	Block Code	Block Name	Age(6-11)	Age(11-14)	Age(Above 14)	Total
1	1A	ANGUL	19,531	7,908	2,614	30053
2	1a	ANGUL NAC	3,049	1,272	251	4572
3	1B	ATHAMALLIK	14,666	5,842	1,867	22375
4	1b	ATHAMALLIK NAC	1,098	564	173	1835
5	1C	BANARPAL	19,055	7,410	2,057	28522
6	1D	CHHENDIPADA	21,192	8,252	2,569	32013
7	1E	KANIHA	17,382	6,906	2,057	26345
8	1F	KISHORENAGAR	12,388	5,230	1,675	19293
9	1G	PALLAHARA	17,176	6,213	2,345	25734
10	1H	TALCHER	16,864	7,432	1,793	26089
11	1c	TALCHER MPL	4,813	2,090	443	7346
		Total	1,47,214	59,119	17,844	2,24,177

Source from : CTS

Block Report with Anugul Block selection

2007-08 | ANGUL | ANGUL | ALL GP/Ward | ALL Village
All Categories | All Religions | ALL Gender | ALL Types | View

BLOCK/ULB LEVEL REPORT ON CHILDREN OF ALL CATEGORY, ALL RELIGION, ALL GENDER AND ALL TYPE CHILDREN

SL NO.	GP Code	GP Name	Age(6-11)	Age(11-14)	Age(Above 14)	Total
1	1A01	Angarabandha	573	234	7	881
2	1A02	Antulia	702	288	9	1087
3	1A03	Badakantakul	741	340	14	1226
29	1A29	Saradhapur	381	113	28	522
30	1A30	Tainsi	701	174	66	941
31	1A31	Talagarh	462	192	81	735
32	1A32	Tikarapada	823	94	29	946
		Total	19,852	7,852	2,640	30,344

Source from : CTS

6 LP LODU GLVFUHSDQFLHV LQ RWKHU UHSRUWV DUH GHWDLOHG LQ *$ SSHQGL[* □□□□□□□ ' XH WR HUURUV LQ GDWD DQG VRIWZ DUH RI H6 LVKX FRXSOHG Z LWK LQFRKHUHQW FRQVROLGDWLRQ RI GLVWULFW GDWD LQ 6 WDWH VHUYHU UHSRUWLQJ V\ VWHP JHQHUDWHG LQFRQVLVWHQW DQG XQUHOLDEOH UHSRUW Z KLFK FRXOG QRW EH XVHG IRU SODQQLQJ * XLGHOLQHV IRUP DQDJLQJ JRYHUQP HQW Z HEVLWH Z HUH QRW IROORZ HG DV WKH FRQWHQW RI VLWH KDG EHFRP H XQUHOLDEOH GXH WR SUHVHQFH RI LQFRQVLVWHQW LQIRUP DWLRQ $ W WKH LQVWDQFH RI DXGLW WKH HUURUV LQ WKH UHSRUW Z HUH UHFWLILHG E\ 2 3(3$ $ XJXVW □□□□□

' XULQJ GLVFXVVLRQ $ XJXVW □□□□□ WKH 2 3(3$ DJUHHG WKDW HUURUV Z DV GXH WR GHOD\ LQ FRQVROLGDWLRQ RI LQIRUP DWLRQ □□

□□□□□ *%DFNXS DQG VHFXULW\ FRQWURO*

, QIRUP DWLRQ EDFNXS DQG VHFXULW\ SROLF\ VKRXOG VWDWH P DQDJHP HQW V FRP P LWP HQW DQG VHW RXW RUJDQLVDWLRQ6 V DSSURDFK WR P DQDJLQJ LQIRUP DWLRQ VHFXULW\ LQ RUGHU WR DFKLHYH JRDOV RI WKH RUJDQLVDWLRQ , QIRUP DWLRQ VHFXULW\ SROLF\ P D\ EH GRFXP HQWHG DQG FRP P XQLFDWHG WKURXJKRXW WKH RUJDQLVDWLRQ WR XVHUV LQ D IRUP WKDW LV DFFHVVLEOH DQG XQGHUVWDQGDEOH WR WKH LQWHQGHG UHDGHU □□

OPEPA, however, had failed in framing security and backup policy and to document it properly, which had made the IT systems and assets vulnerable to security risk as discussed below:

- In OPEPA, no information security policy document existed to protect valuable IT assets. Data and backup policy were not documented and maintained at OPEPA. Databases were manually backed up to a different folder in the same server weekly, and then copied to external hard disk which should have been avoided as backups kept in the same server could lead to non-restoration in case of disaster. System inspection also revealed that the scheduler for backup was not activated. Network administrator explained that due to lack of space in the server, scheduler could not be activated as it would create large number of backup files and thus backups were manually made and copied to an external hard disk weekly. Documented backup testing procedures and the backup hard disk however was not shown to Audit. Backups had not been kept in a geographical distant place and were not regularly tested and monitored.

- Servers were connected to internet through a firewall but default setting of the server and firewall were not changed after installation of live systems making the systems vulnerable to external attacks as these were in Demilitarised Zone (DMZ). Default user (*i.e.* ‘administrator’) was not disabled in all the servers and there were continuous attempts from an external IP using ‘administrator’ as user name to log into the servers (application and database) which were an attempt to hack the systems. Firewall logs were not monitored.

- At application level, the access audit logs of the server intended for accountability of authorised transactions were not monitored. CS/CMS application did not capture access audit logs as the table to capture such logs contained no records for monitoring purpose. This indicated that the application had no provision to save access logs.

- There was a proxy server but Audit noticed that its location over the LAN was inappropriate as systems over LAN accessed the internet through the DHCP server and bypassed the proxy server. This made systems vulnerable to malware and Trojan attacks as no content filtering could be enforced in proxy server. Traffic could not be monitored as internet was available to users directly through DHCP.

Internet
STPI
Switch
Firewall
Proxy server
Switch
Wireless Access Point
OPEPA LAN
DHCP server
GIS database and application server
Inappropriate Internet sharing
Demilitarized Zone
CTS/CMS/Asset Managements/Pvt. School Mgt. Sys / database server/ Web server

- OPEPA had designed network and server architecture to maintain various application systems. The servers were housed in an enclosed room without fire extinguisher.

Due to absence of appropriate backup and security policies, IT systems and datasets were prone to security risks.

During discussion (August [illegible]), the Commissioner cum Secretary accepted the facts.

[illegible] Conclusion

The recommendations made in the Paragraph [illegible] of CAG's Report (Civil) for the year ended March [illegible] were accepted by the Odisha Primary Education Programme Authority (OPEPA). On a follow-up audit, we found that these recommendations, which were totally pertinent, were not carried out. Three sub-systems (EPIS, GIS and CTS) under the eSishu project were reviewed. We found that the scope of implementation of EPIS got severely curtailed and its primary objectives like vacancy tracking of teachers remain unfulfilled. The GIS software contained errors like wrong depiction of location, missing photographs, etc. which inhibited habitation based analysis and rendered the GIS unfit for use by the top management of OPEPA. In case of the CTS, we found that the unique child was not addressed and not even adopted in the application upgraded during [illegible]. Thus objective of CTS to track each child for educational and economic status could

QRWEHDFKLHYHG□)XUWKHU□ZHIRXQGD□JURVV□GHYLDWLRQ□IURP□ODLG□GRZQ□SURFHVV□RI□ DQQXDO□GDWD□XSGDWLRQ□IRU□ZKLFK□IXQGV□ZHUH□DOORWWHG□DQG□VSHQW□6LJQLILFDQW SURSRUWLRQ□RI□□□□*SHUFHQW*□RI□FKLOG□UHFRUGV□ZDV□XSGDWHG□UXQQLQJ□EDFNHQG□VFULSWV WKHUHE\□YLWLDWLQJ□WKH□SURFHVV□DQG□UHQGHULQJ□WKH□WRWDO□LQIRUPDWLRQ□XQUHOLDEOH□DQG□ LQIUXFWXRXV□7KHUH□ZHUH□DOVR□GHILFLHQFLHV□QRWHG□LQ□WKH□VHFXULW\□DQG□EDFNXS□ SURFHGXUH□7KXV□WKH□NH\□REMHFWLYHV□RI□H6LNVKD□V\VWHP□WR□WUDFN□HDFK□FKLOG□ PLQLPLVH□GXSOLFDWH□WDNH□HQUROPHQW□DQG□IRUPXODWLRQ□RI□SODQV□WR□SURYLGH□TXDOLW\□ HGXFDWLRQ□UHPDLQHG□ODUJHO\□XQIXOILOOHG□

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1HZ'HOKL□ **□□□6KDVKL.DQW6KDUPD□**

7KH□ **&RPSWUROOHU□DQG□$XGLWRU*HQHUDO□RI□,QGLD□**

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