The Odisha Gazette

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SCIENCE & TECHNOLOGY DEPARTMENT

RESOLUTION

The 22nd August, 2015

ODISHA STATE DATA POLICY-2015

1.0. PREAMBLE :

Recognizing the potential utility and importance of a large quantity of data generated using public funds by the Government Departments, organizations and institutions of the State for good governance and that the data collected or developed through public investments when maintained over a period of time and made publicly available, its value could be more fully realized,

Taking into consideration that most of such created data remains inaccessible to common citizen although most of such data may be unrestricted and not sensitive in nature and also that most of such data, specifically spatial data, generated at different State Government Departments do not have compatibility due to lack of common standards and non-interoperability,

Noting that Government of India has issued the "National Data Sharing and Accessibility Policy (NDSAP)" vide Gazette of India Notification No.II, Part 1, Sec 1 on 17th March 2012, National Map Policy (2005) and "Remote Sensing Data Policy (RSDP-2001 and 2011)" to spell out sharing principles of information generated using public funds,

Considering that Government of Odisha is embarking upon establishment of "Odisha Spatial Data Infrastructure(OSDI)",in the line of National Spatial Data Infrastructure(NSDI)" created vide SMP/25/003/05 Dated 13th June,2006 of Department of Science & Technology, Government of India,

Realizing that the State data policy needs to be based on principles like Non-Redundancy, Openness, Flexibility Standards, Interoperability, Quality, Efficiency, Accountability, Intellectual Property Right (IPR) and Right to Information,

The Government of Odisha adopts the "Odisha State Data Policy (OSDP)", in the line of NDSAP, to facilitate easy access and sharing of such Government owned data, in open format, for supporting sustainable and inclusive governance and effective planning, implementation and monitoring of developmental programmes, managing and mitigating disasters and scientific research aiding informed decisions, for public good.

2.0. DEFINITIONS:

1. **Cloud Technology:** Internet based computing in which large groups of configurable remote servers are networked to allow sharing of centralized data storage, data processing tasks and on-demand access to computing resources.

2. **Data:** A representation of information, numerical compilations and observations, documents, facts, maps, images, charts, tables and figures, concepts in digital and / or analog form like ground, aerial, satellite, etc.

3. **Data Archive:** A place where machine-readable data are acquired, manipulated, documented and distributed to others for further analysis and consumption.

4. **Data Generation:** It may be categorized into primary data acquisition, satellite and aerial by designated agencies and secondary data collection under the same specification (refers to modification or addition to the primary/initial data sets) through ground survey/data acquisition.

5. **Dataset :** A named collection of logically related features including processed data or information.

6. **Geospatial Data :** All data which is geographically referenced.

7. **Information :** Processed data.

8. **Metadata :** The information that describes the data source and the time, place and conditions under which the data were created. Metadata informs the user of who, when, what, where, why and how data were generated. Metadata allows the data to be traced to a known origin and known quality.

9. **Non shareable(negative) Data :** The data designated by departments which cannot be shared.

10. **Open Geospatial Consortium :** The Open Geospatial Consortium (OGC) is an international industry consortium of companies, government agencies and universities participating in a consensus process to develop publicity available interface standards.OGC Standards support interoperable solution that "geo-enable" the web, wireless and location-based services & mainstream IT.

11. **Restricted Data :** Data which are accessible only through a prescribed process of registration and authorization by respective departments/ organizations.

12. **Sensitive Data :** Sensitive Data as defined in various Acts and Rules of the Government of India.

13. **Shareable Data :** Those data not covered under the scope of non shareable list.

14. **Standards :** Any application that embeds data handling functions (e.g., data collection, management, transfer, integration, publication etc.) and operates on data in a manner that complies with data format and data syntax specifications produced and maintained by open, standards bodies. Standards are technical documents that detail interfaces or encodings.

15. **GNSS (Global Navigation Satellite System) :** It is a satellite system that allows precise position fixing and navigation anywhere in the world. Several GNSS systems are currently operational: the United States' Global Positioning System (GPS) and the Russian Federation's Global Orbiting Navigation Satellite System (GLONASS). Others in the process of achieving operational status are: the European 'Galileo', Chinese 'BeiDou' and the Indian 'IRNSS'.

3.0. OBJECTIVES :

The basic objectives of Odisha State Data Policy are:—

(i) to facilitate storage as well as convenient and efficient access of data and its information in machine and human readable formats on the web portal in a standard and interoperable mechanism based on the SaaS version of Open Government Data (OGD) Platform.

(ii) to facilitate a common protocol of updated data access and sharing of data with versions(or regression data as changes)in an integrated, automated, proactive and periodic manner.

(iii) to facilitate broad use of all data and information including standardized geospatial datasets in planning, implementation and monitoring developmental programmes, disasters mitigation and scientific researches.

(iv) to facilitate the accessibility of authentic data and information to all the stakeholders through a electronic network within the framework of various related Policies, Acts and Rules of Government of Odisha and Government of India made from time to time with a view to empower the citizen.

(v) to facilitate the timely availability of reliable geospatial data for the development, security and response in disaster management situations , in the State.

4.0.   NEED FOR ODISHA STATE DATA POLICY :

The equitable, productive and sustainable developmental planning as well as good and inclusive governance need quality and authentic updated data and information. Different stakeholders of the State Government have been generating large quantity of different forms of data and information with public funds. But this activity, most of the times, creates redundant data generated utilizing public money, time and human resources because of lack of information about such data and openness in sharing the datasets between different Government Departments and stakeholders. General public also seem to be deprived of accessing Government owned data from the concerned department although most of such data may be non-sensitive in nature and shareable, because State Government departments do not generally publish catalogue or metadata of available data. Sharing of relevant data is imperative to facilitate effective and transparent governance. Further, due to lack of proper standards and interoperability of the data and information, interdepartmental sharing of such data and information become difficult and ineffective, apart from its access and use by common citizen.

Hence, there is a great need to evolve a protocol to facilitate easy accessibility, effective sharing and efficient utilization of the large amount of data generated and stored in disparate mode among the different entities of the State Government. There is a need for both independent dedicated data enterprise system in different Government departments as well as need to share critical and relevant information across the Departments with a central repository to make integrated data set available for informed decision making. This calls for adoption of a data policy in the state which conceptualize provisions for proper data management methods, defining data standards and processes for providing proactive and open access to such data.

5.0.   SCOPE OF THE POLICY :

The "Odisha State Data Policy" shall apply to all data and information created, generated, collected and achieved using public funds provided by Government of Odisha, Central Government funds and also International donor organizations, directly or through authorized agencies by various Departments/ Organizations/Agencies and Autonomous bodies of the Odisha State. All such data shall be stored and maintained in a State of the art RDBMS , with adequate data management / security and with systems and procedures in place for access and use by all stakeholders in the State.

6.0. BENEFITS OF STATE DATA POLICY:

The entailed benefits of Odisha State Data Policy are as follow:—

6.1 Avoiding data redundancy: By sharing data the practice of different State Government department/organizations collecting the same data will be avoided, resulting in significant savings in data costs and time.

6.2 Open information on data ownership: The preparation of data catalogue/metadata (data about data) by each Government Department will identify the ownership of the principal datasets (or mapping of data sets) to users and enable information about available datasets.

6.3 Maximizing use: Ready access to Government owned data using valuable public resource will enable more extensive use of data generated for the benefit of the citizens of the State.

6.4 Maximized integration: By adopting open standards for creation, generation, storage and transformation the data can be made interoperable making integration of individual datasets feasible for holistic planning.

6.5 Decision Support Systems Generation: Timely availability of reliable interoperable data and information will facilitate in building/developing effective decision support systems needed in development planning, managing assets, improving socio-economic conditions, controlling and managing disasters, strengthening/hardening internal security of the State etc.

6.6 Equity of access: A more open and transparent data policy will ensure better access of data and information to all *bona fide* users in the State.

7.0. DATA CLASSIFICATION:

Different types of data sets generated both in spatial and non-spatial form, are held by different departments.

The non-spatial data, is mostly produced by a statistical system consists of derived statistics, i.e. crop yield and acreage by Directorate of Economics and Statistics, databases from census and surveys. The geospatial data, however, primarily consists of satellite images, aerial photos, topographic maps, thematic maps, maps generated through GIS analysis, GPS/DGPS derived maps, ground based layers also and crowd sourced data. In such a system, it becomes important to maintain standards in respect of metadata, data formats and access policy along with linking to its attribute data. All other Government Departments also have large data which will be made available on the public domain through website.

8.0. TYPES OF DATA ACCESS :

It would be incumbent upon all the Government Departments to allow access to and sharing of all the data generated by them using government fund, subject to following data access structure:—

8.1 Open Access:

Access to data generated from public funding should be easy, timely, user friendly and web based without any process of registration/ authorization.

8.2 Registered Access:

Datasets which are accessible only through a prescribed process of registration/ authorization by respective departments/ organizations will be available to the recognized institutions/ organization/ public users, through defined procedures.

8.3 Restricted Access:

Data declared as restricted under Government of India/Government of Odisha relevant policies will be accessible only through proper authorization.

All Departments will prepare and publish on their website the list of all data held by them. Further, any data designated as non-shareable (negative data) must be notified and published separately on their website within three months of notification of State Data Policy. However, such classification of non-sharable data would be subject to the approval by the State Level Steering Committee and also to be periodically reviewed by the State Level Steering Committee.

All the spatial data would be stored in the open, WGS-84 datum with WGS-84 spheroid format along with all its attribute data to facilitate easy access and sharing of such data.

It would be incumbent upon all the concerned Departments to maintain and update and standardize such data in a periodic manner to facilitate easy and uninterrupted access to these data by all the Government Departments and *bona fide* users as per the conditions laid down under the data policy.

9.0. PRICING :

The data policy enjoins upon mandatory sharing of all sharable data by the Government Departments. Pricing of data, mostly arising out of value addition to the existing data, if any, will be decided by the respective data owner department in a rational manner and as per Government of Odisha/Government of India policies. All Departments will forma Data Dissemination Cell (DDC) for sharing and publishing data on to the web portal. All Departments will upload the pricing of data under registered and restricted

access within three months of notification of the policy, subject to approval of the pricing by the State Level Steering Committee. A broad set of parameters would be standardized and provided as guidelines for the use of data owners.

10.0. LEGAL FRAMEWORK :

Data and information will remain property of the concerned Department / Organization/ Agencies/ Autonomous bodies which collected them and reside in their IT enabled facility for sharing and providing access. Access to data and information under this policy will not be in violation of any Act and Rules of Government of Odisha and Government of India. Legal framework of this policy will be within the various Acts and Rules of Government of India and Government of Odisha covering the data. Any data acquired from the Government Departments would not be used or its interpretation in pursuing legal proceedings of any kind in the Court of law under any legal prosecution.

11.0. SHARING AND ACCESS PROTOCOLS:

To facilitate easy access and sharing of data, a State of the art data warehouse , data archive with Online Analytical Processing (OLAP) capabilities and Open Application Protocol Interface is needed. To cater this need and for appropriate/uniformmanagement of non-spatial/geospatial data contents of all the Departments, Odisha Spatial Data Infrastructure (Odisha-SDI) would be formed. The Odisha Spatial Data Infrastructure would be the integrated repository of data of various Departments/ Organizations/ Agencies/ Autonomous bodies as a part of State service delivery gateway. The utilities of Odisha Data Centre and Odisha State Wide Area Network (OSWAN) will be the basis of achieving the mandated objectives of the policy.

The main features of the data warehouse would include.

(a) User friendly interface.

(b) Dynamic/ Pull down menus.

(c) Complete Metadata

(d) Search based Report.

(e) Cyber secured web access

(f) Bulletin board

(g) Parametric and Dynamic report in exportable format.

12.0. IMPLEMENTATION MECHANISM :

(a) All State Government Departments will store their datasets at State Data Centre as a backup storage.

(b) The Science & Technology Department will be nodal department and Odisha Space Applications Centre (ODSAC) will be the nodal agency for implementation of this policy.

(c) A "State Data Steering Committee (SDSC)"for taking up policy level issues will be constituted under the chairmanship of the Chief Secretary to Government of Odisha with Chief Executive, ODSAC as the Member Secretary- Convener, comprising of Secretary rank officials of the State Government, experts having experience and qualifications in the field of RS/GIS & IT as well as representatives from industries and intelligentsia.

(d) A "State Data Executive Committee (SDEC)" under the Chairmanship of Principal Secretary, Science & Technology Department with Chief Executive, as the Member Secretary-*cum*-Convener and officials from Government Departments and experts from RS/GIS/IT and industries as members will be constituted to facilitate day to day issues in implementation of mandates of Odisha State Data Policy.

(e) A dedicated Project Management Unit(PMU)would be formed to assist the SDEC.The PMU is to carry out various activities relating to data standardization, interoperability and sharing, to manage the open government data forum and to provide technical advice and hand holding support to Departments with respect to preparation of datasets, contribution of datasets, explanation of metadata and technically, data provenance, feedback management, etc. keeping ownership(through digital signature) and access/operational information tagged with each stage of publishing data. The PMU will create action plan for regular release of datasets on the data portal and will monitor and manage the open data programme of the departments as per OSDP.The PMU is to be constituted by scientists from ODSAC and IT specialists from OCAC & State Data Centre.

(f) All Departments would form a Data Dissemination Cell for sharing ,publishing and standardization of their data. Any recommendation of the Committees shall be put to SDEC through the PMU.

(g) All sharable standard databases will be made available on as-is-where-is basis.

(h) All the spatial data would be standardized in an open, standard and interoperable format in due course.

(i) Detailed implementation guidelines including the technology, standards and quality checking of data and metadata and its sharing with the Government Departments and *bona fide* users would be brought out by ODSAC, Department of Science & Technology in coordination with Dept. of Information & Technology, Government of Odisha.

(j) All the data users who are accessing/ using the data shall acknowledge the owner Departments/ Organizations/ Agencies/ Autonomous bodies in all forms of publications.

(k) All Departments/ Organizations/ Agencies/ Autonomous bodies will upload all the data and information available with them with guidance to its access and sharing on their portal/website and the State Service Delivery Gateway/ State portal within three months of the notification of the policy. The SDSC will be the final authority to decide the classification of data into open, registered and restricted categories, apart from declaration of any non-sharable (negative) data.

(l) Odisha Sampad, the present geo portal of ODSAC and Odisha Spatial Data Infrastructure (OSDI) in future will have the metadata and will be accessed from the portals of the owner departments. The citizen centric application software of Government, cadastral level spatial and non spatial information, National Population Register census ,Adhar, Bhulekh, National Sample Survey Organisation and all other relevant software operating in the Government framework will be linked to Odisha Sampad /OSDI. Odisha Sampad /OSDI will have a citizen centric user interface for public. The contents of Odisha Sampad/OSDI will be enriched through crowd sourcing technique.

(m) Uniform names for all types of administrative units and natural units would be adopted using the standard codes adopted by Panchayati Raj/Housing & Urban Development Departments of Government of Odisha for updation of the contents of Odisha Sampad/OSDI.

(n) OSDI is to be the repository of all non-spatial and spatial database, its metadata and associated non-spatial data of the State. It will be established at State Data Centre(SDC),Department of Information Technology, Government of Odisha having organic linkages with the SDC as the bandwidth, gateway to internet, infrastructure facility, security enabling devices like firewall ,IPSEC, IDS, etc. are already available at its site.

(o) Under OSDI, all the spatial data, non-spatial data and metadata available at ODSAC will be stored in the standard database format in the GIS server placed at SDC and the database of Government Departments will be available in their own GIS servers. The GIS servers of Government

departments will be connected to the GIS server of OSDI through Odisha State Wide Area Network (OSWAN) / National Knowledge Network (NKN) and there will be a compliant data sharing mechanism for flow of data to users through OSDI in a common format. An Automated mechanism of software will be in place for mapping and integrating heterogeneous spatial data sets into common formats. Thus physical transfer data will be avoided.

(p) High performance and reliable communication networks like SANS, Wireless networks(e.g. Wi-Fi, WiMAX, sensor networks, etc.) and data intensive computing technologies like cloud computing, Big Data, open source technology and Internet of Things(IOT) will be utilized in creating data repository, efficient data handling and delivery as and when available in due course.

(q) All metadata will follow standards and will minimally contain adequate information on proper citation, access, contact information and discovery. Complete information including methods, structure, semantics and quality control/ assurance is expected for most datasets.

(r) Metadata relating to geospatial datasets would contain information on scale, projection, datum, resolution and date of acquisition of sources like satellite image/ aerial photos, etc.

(s) Government will design and position a suitable budgetary incentive system for data owners for increasing open access to the shareable data.

(t) The Departments will take care that the softwares used in creating and generating geospatial data and information in future need to comply Open Geospatial Consortium (OGC) standards.

(u) It will be ensured that inter connectivity of all the departments be made through OSWAN.

(v) The State Data Centre (SDC) will be used by Departments for hosting their data as well as citizen centric and other e-Governance applications.

(w) It would be incumbent upon all the Government Departments/ and its Agencies to utilize the geospatial data sets for coordinated planning, management and delivery of the various services rendered as a part of their administrative and statutory functions.

13.0. CONSTITUTION OF COMMITTEES:

13.1. STATE DATA STEERING COMMITTEE (SDSC) :

To oversee the implementation and coordination between various Government Departments and to promote and coordinate access to and sharing of non-spatial and spatial data in the Sate and its efficient application in planning process, the State Data Steering Committee (SDSC) is constituted with the following members.

(i)   Chief Secretary to Government of Odisha   …   Chairman

(ii)   Addl. Chief Secretary and Development … Member Commissioner, Government of Odisha.

(iii)   Addl. Chief Secretary, Revenue & Disaster … Member Management Department, Government of Odisha.

(iv)   Principal Secretary, Rural Development … Member Department, Government of Odisha.

(v)   Principal Secretary, Water Resources … Member Department, Government of Odisha.

(vi)   Principal Secretary, Forest & Environment … Member Department, Government of Odisha.

(vii)   Commissioner-*cum*-Secretary, Housing & Urban … Member Development Department, Government of Odisha

(viii)   Principal Secretary, Science & Technology … Member Department, Government of Odisha.

(ix)   Commissioner-*cum*-Secretary, Information … Member Technology Department, Government of Odisha

(x)   Chief Executive Officer, National Spatial Data … Member Infrastructure, Government of India.

(xi)   Director, Survey of India, Bhubaneswar   …   Member

(xii)   Director, NIC, Bhubaneswar, Odisha.   …   Member

(xiii)   General Manager, Regional Remote Sensing … Member Service Centre—East, Department of Space, Government of India.

(xiv)   Director, Indian Institute of Technology, … Member Bhubaneswar.

(xv)	Director, Indian Institute of Information Technology, Bhubaneswar.	…	Member
(xvi)	Director, National Natural Resources Management System, Indian Space Research Organisation, Department of Space.	…	Member
(xvii)	Director, IMD, Bhubaneswar Director, Economics and Statistics, Government of Odisha.	…	Member
(xviii)	Representative from Geo-Spatial Industry	…	Member
(xix)	Chief Executive, Odisha Space Applications Centre.	…	Convener-*cum-*Member Secretary

On and from such date and term as may be decided by SDSC in addition the SDSC,can appoint 5 (five) experts having experience and qualification in the fields related to RS, GIS and related areas.

Mandate of SDSC shall be:—

1. to advise various Government Department as regards to the use of data and information in the developmental planning of the State.

2. to formulate policies/ guidelines regarding classification and use of data and information in the planning process, disaster mitigation and scientific research of the State.

3. to promote and facilitate sharing of data and information among various State Government Departments and other users with policy formation and implementation focus on development and sustainable use of geospatial database.

4. to review and monitor the implementation of data sharing and accessibility related plans of various line Departments.

5. to guide in development and establishment of a Odisha Spatial Data Infrastructure (OSDI) in the line of National Spatial Data Infrastructure (NSDI) of Government of India.

6. to make available OSDI through SMAC (Social, Mobile, Analytics and Cloud).

7. to use the eco-system of service providers and rising technical base of talented users with mobile and social connections.

8. to spread awareness in the community ranging from developers researchers to people from start-ups and industries.

9. to take up all such acts and deeds that may be necessary, beneficial or otherwise desirable to achieve the objectives of Odisha State Data Policy and Odisha SDI.

13.2. STATE DATA EXECUTIVE COMMITTEE (SDEC):

To develop and design collection, access, management, sharing and effective utilization of the non-spatial/ spatial data in the State, a State Data Executive Committee (SDEC) is constituted comprising of following members.

(i)	Principal Secretary, Science & Technology, Government of Odisha	…	Chairman
(ii)	Special Secretary, Information Technology, Government of Odisha	…	Member
(iii)	Chief Executive, Odisha Computer Application Centre	…	Member
(iv)	Director, Agriculture, Government of Odisha	…	Member
(v)	Director, Odisha Watershed Development Mission	…	Member
(vi)	Project Manager, Odisha State Data Centre	…	Member
(vii)	Chief Executive, Chilika Development Authority	…	Member
(viii)	Director, Geological Survey of India, Bhubaneswar	…	Member
(ix)	Engineer-in Chief, Project Planning, Water Resource, Government of Odisha	…	Member
(x)	Senior Technical Director, National Informatics Centre, Bhubaneswar	…	Member
(xi)	Representative of NRSC Data Centre, National Remote Sensing Centre, Indian Space Research Organisation, Hyderabad	…	Member
(xii)	Chief General Manager, Odisha State Disaster Management Authority	…	Member
(xiii)	Senior Scientist(SDI),Science &Technology Government of West Bengal/Karnataka	…	Member

(xiv)	Director, Economics and Statistics, Government of Odisha	… Member
	Director, Town Planning, Government of Odisha	…
(xv)	Representative from Geo-Spatial Industry	… Member
(xvi)	Chief Executive, Odisha Space Applications Centre	Convener-*cum-* Member Secretary

In addition, the SDEC may appoint five (05) experts having experience and qualifications in the field of remote sensing, GIS and related fields.

Functions of SDEC should be,

1. to define the architectural framework and protocols of data sharing and ensure implementation of proper data types, standards and data implementation and sharing matrix and develop guidelines for security and safety of such data sets.

2. to constitute technical sub-committees to achieve the objectives of the State Data Policy.

3. to define and formulate rules and procedures under the policy.

4. to aid and advice to the SDSC on any technical matter related to or concerned with the State Data Policy

5. to advice the SDSC on expanding the scope of the State Data Policy.

6. to undertake activities to simulate innovations related to data access mechanism in the State.

7. to propose a cadre based service of IT professionals to assist individual department in sorting standardizing, managing, categorizing and publishing the data sets.

8. to take up all such acts and deeds that may be necessary, beneficial or otherwise desirable to achieve the objectives of State Data Policy.

14.0. BUDGET PROVISIONS:

The implementation of Odisha State Data Policy is expected to entail expenditures for both data owners and data managers for data conversion, data refinement, data storage, quality upgradation, etc. Appropriate budgetary provisions and support for data management for each department/organization would be made by the Government.

15.0.   CONCLUSION:

The State Data Policy is formulated with a mandate of using Government owned data and information in the interest of concern citizens of the State. In the line this policy, various departments will be promoted to share data and information with each other and other stakeholders including common citizen thus enhancing sustainable and productive use of the data sets in planning process of the State. The State Data Policy will provide greater scope for unified decision making in the State.

Using this policy, Government of Odisha will strive to form one umbrella under which users can be able to access all data and information as per their requirements.

The scope and objectives of this policy may be expanded and enriched in future, as the data management technologies and procedures are changing day-by-day in the society.

<div align="center">ORDER</div>

Ordered that the Resolution be published in the *Odisha Ga*zette and copies thereof   be forwarded to concerned Departments of Government of India, all Departments of Government, all Heads of Departments, all Public Sector Undertakings.

By Order of the Governor

C.J.VENUGOPAL

Principal Secretary to Government

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