National Data Sharing and Accessibility Policy-2012 (NDSAP-2012)

Department of Science & Technology

Ministry of science & Technology

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1. Preamble

1.1 Asset and value potentials of data are widely recognized at all levels. Data collected or developed through public investments, when made publicly available and maintained over time, their potential value could be more fully realized. There has been an increasing demand by the community, that such data collected with the deployment of public funds should be made more readily available to all, for enabling rational debate, better decision making and use in meeting civil society needs. Principle 10 of the United Nations Declaration on Environment and Development (Rio de janeiro, June 1992), stated

> ***"……..each individual shall have appropriate access to information concerning the environment that is held by public authorities ……. and the opportunity to participate in the decision making process. States shall facilitate and encourage public awareness and participation by making information widely available."***

Section 4(2) of the Right to Information Act, 2005 reads

> ***"It shall be a constant endeavor of every public authority to take steps in accordance with the requirements of clause (b) of sub-section (1) to provide as much information suo motu to the public at regular intervals through various means of communication, including internet, so that the public have minimum resort to the use of this Act to obtain information"***

1.2 The principles on which data sharing and accessibility need to be based include: Openness, Flexibility, Transparency, Legal Conformity, Protection of Intellectual Property, Formal Responsibility, Professionalism, Standards, *Interoperability, Quality, Security, Efficiency, Accountability, Sustainability and Privacy.*

1.3 A large quantum of data generated using public funds by various organizations and institutions in the country remains inaccessible to civil society, although most of such data may be non-sensitive in nature and could be used by public for scientific, economic and developmental purposes. The National Data Sharing and Accessibility Policy (NDSAP) is designed so as to apply to all sharable non-sensitive data available either in digital or analog forms but generated using public funds by various Ministries / Departments /Subordinate offices / organizations / agencies of Government of India. The NDSAP policy is

designed to promote data sharing and enable access to Government of India owned data for national planning and development.

2. Definitions

2.1 **Data-** Data means a representation of information, numerical compilations and observations, documents, facts, maps, images, charts, tables and figures, concepts in digital and/or analog form.

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

2.3 **Data Generation -** Initial generation / collection of data or subsequent addition of data to the same specification.

2.4 **Data set -** A named collection of logically related features including processed data or information.

2.5 Geospatial Data – All data which is geographically referenced

2.6 **Information –** Processed data

2.7 **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 know quality.

28 **Negative list –** Non sharable data as declared by the departments / organizations

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

2.10 **Sensitive data -**Sensitive data as defined in various Acts and rules of the Government of India.

2.11 **Sharable data**- Those data not covered under the scope of negative list and non-sensitive in nature

2.12 **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.

3. Need for the Policy

Evidence-based Planning of socio-economic development processes rely on quality data. There is a general need to facilitate sharing and utilization of the large amount of data generated and residing among the entities of the Government of India. This would call for a policy to leverage these data assets which are disparate. The current regime of data management does not enable open sharing of Government owned data with other arms of the government nor does it expect proactive disclosure of sharable data available with data owners. Such regimes could lead to duplication of efforts and loss of efficiency of planning of activities focused on national development. Efficient sharing of data among data owners and inter and intra governmental agencies and with public calls for data standards and interoperable systems. Hence, National Data Sharing and Access Policy aims to provide an enabling provision and platform for providing proactive and open access to the data generated through public funds available with various departments / organizations of Government of India.

4. Objectives

The objective of this policy is to facilitate the access to Government of India owned shareable data and information in both human readable and machine readable forms through a network all over the country in a proactive and periodically updatable manner, within the framework of various related policies, Acts and rules of Government of India, thereby permitting a wider accessibility and use of public data and information.

5. Scope of this Policy

The National Data Sharing and Accessibility Policy will apply to all data and information created, generated, collected and archived using public funds provided by Government of India directly or through authorized agencies by various Ministries / Departments /Organizations / Agencies and Autonomous bodies.

6. Benefits of the data sharing policy

6.1 **Maximising use**: Ready access to government owned data will enable more extensive use of a valuable public resource for the benefit of the community.

6.2 **Avoiding duplication**: By sharing data the need for separate bodies to collect the same data will be avoided resulting in significant cost savings in data collection.

6.3 **Maximised integration**: By adopting common standards for the collection and transfer of data, integration of individual data sets may be feasible.

6.4 Ownership information: The identification of owners for the principal data sets provide information to users to identify those responsible for implementation of prioritized data collection programs and development of data standards.

6.5 Better decision-making: Data and information facilitates making important decisions without incurring repetitive costs. Ready access to existing valuable data is essential for many decision making tasks such as protecting the environment, development planning, managing assets, improving living conditions, national security and controlling disasters.

6.6 Equity of access: A more open data transfer policy ensures better access to all bonafide users.

7. Data Classification

Different types of data sets generated both in geospatial and non-spatial form by different ministries /departments are to be classified as shareable data and non shareable data. The types of data produced by a statistical system consist of derived statistics like national accounts statistics, indicators like price index, data bases from census and surveys. The geospatial data however, consists primarily of satellite data, maps, etc. In such a system, it becomes important to maintain standards in respect of metadata, data layout and data access policy. All departments / ministries will prepare the negative list within six months of the notification of the policy, which will be periodically reviewed by the oversight committee.

8. Types of Access

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

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

8.3. Restricted Access

Data declared as restricted, by Government of India policies, will be accessible only through and under authorization.

9. Technology for sharing and access

A state-of-the-art data warehouse and data archive with online analytical processing (OLAP) capabilities, which includes providing, a multi-dimensional and subject oriented view of the database needs to be created. This integrated repository of data portals of various ministries / departments as a part of data.gov.in, will hold data and this repository over a period of time will also encompass data generated by various State Governments and UTs. The main features of the data warehouse need to include:

(a) User friendly interface
(b) Dynamic / pull down menus
(c) Search based Report
(d) Secured web access
(e) Bulletin board
(f) Complete Metadata
(g) Parametric and Dynamic report in exportable format

10. Legal framework

Data will remain the property of the agency/department/ ministry/ entity which collected them and reside in their IT enabled facility for sharing and providing access. Access to data under this policy will not be in violation of any Acts and rules of the Government of India in force. Legal framework of this policy will be aligned with various Acts and rules covering the data.

11. Pricing

Pricing of data, if any, would be decided by the data owners and as per the government policies. All Ministries / Departments will upload the pricing policy of the
data under registered and restricted access within three months of the notification of the policy. A broad set of parameters would be standardized and provided as guidelines for the use of data owners.

12. Implementation

a) The Department of Science & Technology serving the nodal functions of coordination and monitoring of policy through close collaboration with all Central Ministries and the Department of Information Technology by creating data.gov.in through National Informatics Centre (NIC).
b) All sharable data will be made available on ‘as-is where-is’ basis.

c) Detailed implementation guidelines including the technology and standards for data and metadata would be brought out by Department of Information Technology, Government of India.
d) All the data users who are accessing / using the data shall acknowledge the ministry / department in all forms of publications.
e) All Ministries/Departments will upload at least 5 high value data sets on data.gov.in within three months of the notification of the policy.
f) Uploading of all remaining data sets should be completed within one year
g) Thereafter, all data sets are to be uploaded regularly every quarter.
h) data.gov.in will have the metadata and data itself and will be accessed from the portals of the departments/ministries.
i) The metadata in standardized formats is to be ported on data.gov.in which enables data discovery and access through departmental portals. 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.
j) Government will design and position a suitable budgetary incentive system for data owners for increasing open access to the sharable data.
k) An oversight committee will be constituted for facilitating the implementation of the policy and its provisions thereof
l) Department of Information Technology will constitute a coordination committee for implementation.

13. Budget Provisions

The implementation of National Data Sharing and Access Policy is expected to entail expenditures for both data owners and data managers for analog to digital conversion, data refinement, data storage, quality up-gradation etc. Budgetary provisions and appropriate support for data management for each department / organization by Government of India would be necessary.

14. Conclusion

14.1 While policies provide official mandate, facilitation of optimum accessibility and usability of data by the implementers pre-suppose a trajectory of proper organisation of data, with access services and analysis tools that provide the researchers and stakeholders with added value. For data to be reused, it needs to be adequately described and linked to services that disseminate the data to other researchers and stakeholders. The current methods of storing data are as diverse as the disciplines that generate it. It is necessary to develop institutional repositories, data centers on domain and national levels that all methods of storing and sharing have to exist within the specific infrastructure to enable all users to access and use it.

14.2. National Data Sharing and Access Policy aims at the promotion of a technology-based culture of data management as well as data sharing and access. It opens up, proactively, information on available data, which could be shared with civil society for developmental purposes, their price details if any, and methods for gaining access to registered and restricted use. The policy has limited its scope to data owned by the agencies, departments/ Ministries and entities under the Government of India and forms a statement of the Government of India of its commitment to transparency and efficiency in governance. Department of Science & Technology will continue the process of evolving the policy further, keeping in tune with technological advancements and the National requirements and enrolling the State Governments.