Concept Note
on
National Geospatial Policy [NGP 2016]

Chapter 1
Introduction

1.1 Title

Taking into consideration the increasing growth of use of geospatial data, products, services and solutions, Government of India herebypromulgates a comprehensive "National Geospatial Policy [NGP] – 2016" to empower people through geospatial technologies.

1.2 Preamble

Geospatial data is important in the context of national development. The technologies that provide geospatial data related to surveying, remote sensing, aerial surveys, photogrammetry, geodesy, global navigation satellite systems [GNSS], geographic information systems [GIS], mobile phones/devices, Web Mapping Services (WMS), Location Based Services (LBS), Radio Frequency Identification (RFID), UAVs, data classification analysis and modeling. Many types of geoinformation is being collected, analyzed, visualized, used and distributed all over the country in connection with planning, design, implementation, evaluation and monitoring of various developmental projects. The ever increasing importance of the geospatial information necessitates appropriate guidelines in terms of a national policy to guarantee data availability, accessibility, quality and in consonance with the imperatives of national security including intellectual property rights. The adoption of NGP is felt essential for smooth application of Geospatial Data and Technologies for preparing implementation plans and making efficient decisions along scientific lines towards successful delivery of benefits of various governmental programmes and schemes.

1.3 Background

The purpose of this policy is to promote in a planned and comprehensive manner the overall measures and policies to advance the utilization of geospatial technology, scope and application. It is imperative to promote utilization of geospatial technology and tools in all relevant developmental programs to gain in terms of both superior state of the art technologies as well as economic and social benefits for improved quality of life.

1.4 Scope and Applicability

1.4.1 Principles on which the policy is evolved

- Geospatial data of any resolution being disseminated through agencies and service providers, both internationally and nationally be treated as unclassified and made available and accessible by Indian Mapping and imaging agencies.
- Gospatial data and information be made available in both human readable and machine readable form over web and mobile platforms in an obligatory and time bound output oriented manner, without compromising national security.
- Enable promotion, adoption and implementation of emerging / state of the art technologies for data acquisition, product generation, solutions and services based on geospatial data.

- A framework to facilitate and exchange of geospatial data amongst geospatial data stakeholders for implementation of policies, standards and technology through periodically updated **National Geospatial Frame [NGF]** and **National Image Frame [NIF]** by ensuring open standards based seamless interoperable geospatial data.
- A level playing field for both government and private sectors for ease of business and proactively engaging them in various spheres of geospatial domain.
- Availability of any geospatial data collected through public funded mechanism at no cost to all users.

1.4.2 Applicability

The Policy applies to all geospatial data created, generated and collected using public funds provided by Central and State Governments and International donor organizations, directly or through authorized agencies.

This policy addresses geospatial data in all forms including but not limited to points, lines, polygons, and complex geographic features over the ground, underground and marine environment. It additionally encompasses original and interpreted geospatial data covering geospatial data operations in the context of data life cycle phases, viz., (1) planning, (2) collection and acquisition, (3) processing and documentation, (4) storage and access, and (5) maintenance and retirement. It covers all products, solutions, and services using geospatial data.

1.5 Definitions

- *Attribute*: descriptive information about the properties of events, features, or entities associated with a location, such as the ownership of a parcel of land, or the population of a neighborhood, or the wind speed and direction over a point on the ground.
- *Cadastre*: the map of ownership and boundaries of land parcels.
- *Cartography*: the study and practice of making maps.
- *Datum*: a definition of the origin, orientation, and scale of the coordinate system and its tie to Earth.
- *Geocoding*: assignment of alphanumeric codes or coordinates to geographically referenced data. Examples include the two-letter country codes, or the coordinates of a residence computed from its address.
- *Geographic Information System* (GIS): a digital database in which information is stored by its spatial coordinate system, which allows for data input, storage, retrieval, management, transformation, analysis, reporting, and other activities. GIS is often envisioned as a process as much as a physical entity for data.
- *Geoprocessing:* includes earth imaging (aerial photography and satellite-based earth images)
- *Geospatial data*: information that identifies the geographic location and characteristics of natural and constructed features and boundaries on Earth.
- *Global Positioning System* (GPS): a navigation system supported by a constellation of satellites placed in orbit. The satellites transmit precise microwave signals that enable GPS receivers to determine their location, speed, and direction.
- *Hydrography*: the charting and description of bodies of water.
- *LIDAR*: acronym for Light Detection and Ranging, a remote sensing technique that uses laser pulses to determine elevation with high accuracy, usually from an aerial survey.
- *Map*: a two-dimensional visual portrayal of geospatial data. The map is not the data itself.
- *Metadata*: information about the quality, content, condition, and other characteristics of data.

- *Orthoimagery*: digital or digitized aerial photographs or images in which the pixels are geometrically rectified and geographically referenced, often including details about topography and names. The rectified orthoimage is free of geometric distortions that are part of the original photograph or image.
- *Polygon*: a feature in GIS used to represent areas (versus a point, or a line). A polygon is defined by the lines that make up its boundary, and a point inside its boundary for identification.
- *Spatial data:* are digital data that relate people, things, and phenomena to a point, area, or volume on or near the earth's surface.
- *Geospatial services*: refers to geoprocessing services available to other software processes via a network (usually the Web)
- *Surveying:* the process of colleting basic "raw" data in a systematic manner either on the ground or aerial (and other) platforms and using specific instruments (like Total Station, GPS devices, Ground Penetrating Radars (GPR), Lidars, Imaging Camera etc) or by enumeration/inventory/tabulation of different arameters (like population, consumers, market etc)
- *Topographic Maps*: the nation-wide topographic maps that are generated by Survey of India and which authoritatively depict the national/state/district and other boundaries, elevation and physical features at an appropriate scale
- *Thematic Maps*: the specialised maps that depict some theme – say, forests, landuse, soils, land degradation etc or GIS-derived maps of any feature

1.6 Objective of the Geospatial Policy

- To provide guidelines and standards regarding the creation, management, access, sharing and dissemination of geospatial data, information, mechanism for quality assured products, services & solutions and knowledge to enable commercial, academic, and nonprofit organizations and all levels of government and industry to more effectively:
    - geospatial governance
    - empower people and serve the public
    - inclusive economic growth
    - sustainable management of natural resources
    - prepare for and respond to emergencies / disasters
    - advancement of geospatial science and engineering

The policy cover surveying, remote sensing, aerial surveys, geodesy, mapping, projections, datums, satellite navigation positioning systems, geographic information systems [GIS], Web and mobile based Services, Location Based Services (LBS), Radio Frequency Identification (RFID),Unmanned Airborne Vehicles (UAVs), data classification analysis and modeling.

Chapter 2
Geospatial Data Engineering – Planning, Collection, Processing, Storage and Maintenance

Need to utilize geospatial data, maps for proper planning, development, management and delivery of various services.

2.1 Data Planning Phase

2.1.1 Investment planning phase

Geospatial data that is collected, acquired, or managed in conjunction with public funds or a program or project must post the metadata

Quality assurance project plans

The agency working on geospatial data must ensure that geospatial information operations comply with all procedures and standards to meet design objectives and produce documented results or products of known quality.

a. Data sensitivity

Sensitivity of geospatial data in accordance with the prevailing Acts, Policies and regulations of the country

b. Geospatial data accuracy

Geospatial data planning shall adhere to standards in designing data collections that will enable data sharing and promote secondary data use, quality information, and otherwise support the NSDI.

c. Geospatial Meta data standards

Metadata Standards, which addresses the naming and description of both metadata and geospatial features and needs to be harmonized as an international standard through the International Organization for Standardization (ISO) or OGC (Open Geospatial Consortium) or BIS (Bureauof Indian Standard). As more data producers in the public and private sectors follow the standard, the following benefits accrue:

- Interoperability of the data sets
- Easier Data maintenance
- Reduced Data errors

d. Geospatial Data market place

All geospatial data collected or proposed for acquisition must be posted on a common Geospatial Data portal as defined under the policy.

2.2 Data Collection and acquisition phase

2.2.1 Collection

a. Geo-referenced point data

Agencies are required to collect geo-referenced coordinates or derived, and appropriately documented for entities or areas of interest across the country

b. Geographic area boundaries

Geographic area boundaries are to be collected and appropriately documented according the existing standards in vogue in the country.

c. Geospatial data accuracy

The geospatial data must be accurate enough for utilization of high level geospatial information as per the standards prescribed

2.2.2 Acquisition

Geospatial data that is acquired by government departments, geospatial institutions, contractors, vendors etc. must comply with all procedures and standards applicable to those data

2.2.3 Initial Data Documentation

Initial documentation of geospatial metadata may be accomplished during the collection and acquisition phase to provide information on the steps and methods followed in acquiring the geospatial information.

2.2.4 Coordination

Appropriate coordination of geospatial data collection activities across the departments / institutions is to be ensured the purpose of reducing duplication, and increasing the opportunity for secondary data uses.

2.3 Data processing and final documentation phase

The data processing phase, including methods used during the phase, must be adequately documented per applicable standards

2.3.1 Data Processing

Geospatial data managed within departments / agencies etc must conform to data exchange protocols if any, and applicable data standards as defined by the policy.

2.3.2 Geospatial Data Documentation

Documentation of geospatial metadata needs to be prepared for all geospatial data elements entered into databases by offices and/or agents that originate or modify geospatial data

2.4 Data storage and access phase

This phase is characterized by the transmission of geospatial data and subsequent storage within an Enterprise Architecture framework.

2.4.1. Geospatial Data phase

Geospatial data that accompanies regular programmatic reporting will typically be received by the portal prior to data storage or archiving. The portal will provide methods to validate the source and integrity of the data sets received from reporting entities and direct the data to initial processing for final storage locations. Geospatial Data managers for primary data collections need to ensure the following:

a. Screening and correction

Department shall screen information from all sources for compliance with this Policy. If the data submitted is found to be noncompliant, it shall be returned to the originator for correction

b. Data access phase

Access will be provided to all the geospatial data as per the three mechanisms mentioned under this policy.

2.5 Data maintenance

a. General responsibility

Departments are responsible for all for geospatial data maintenance and decisions regarding ultimate retention and disposal.

b. Geospatial data Archival

Geospatial data records in the form of coverages, tables, files, in both hard copy and electronic format for the purpose of records management. Data disposition for archiving must comply with the program under which the data was collected.

Chapter 3
Geospatial data Integration and Management

3.1 Service of public utility

For the purpose of this policy, services of public utility include all data and information created, generated, collected and archived using public funds provided by Central Government& State Governments funds and also International donor organizations, directly or through authorized agencies by various Departments/ Organizations/Agencies, public authorities and Autonomous bodies.

3.2 Access of geospatial data by line departments, local bodies, public authorities, public and private agencies and general public

Every line department, local body, public authority, public and private agency should have access to the geo-spatial data, geo-spatial map and geo-spatial application through access control to access, utilize, update their spatial as well as attribute data. Every line department, local body, public authority, public and private agency may, download both geospatial and attribute data in various forms, such as portable document format and the like for their internal use and application free of cost or subject to payment of charge, if any. The Government should allow controlled access of the geo-spatial data, geo-spatial map and geo-spatial application to the public in general, private individual, public and private agencies subject to the rules made under this policy.

The Government is authorised to classify the geo-spatial data, geo-sptatial map, geo-spatial application into the categories of restricted and unrestricted and allow access to the data classified as unrestricted in accordance with the rules made under this Act, to the public in general, private individual, public and private agencies.

The Government should abide by the policies, guidelines, rules, regulations, etc of the Government of India, made from time to time regarding display of information in public domain, to private individual, public and private agencies, and the like.

3.2.1 Common criteria for data help justify consortia of users pooling and aligning their geospatial information and geospatial software procurements and maintenance.

a. **<u>Data Quality</u>**

Similar data is being collected and maintained for different purposes by different professions. The result is a great deal of similar information that may not be known to others, and/or may not be maintained to support multiple uses. Differences in accuracy, currency, resolution, and semantics all complicate the sharing and reuse of information. Any opportunity for multiple organizations to share the costs of data can result in lower costs for all.

(i) Data required by various agencies need to be identified.

(ii) Data should be complete and consistent and updated on a regular basis as stipulated.

(iii) Data accuracy both positional and attribute should be ensured and accuracy stated.

b. <u>Data Sharing</u>

The policy developed should provide for different access scenarios that address the needs of citizens, corporations and governments for security, privacy, freedom of information, commerce, and intellectual property protection.

(i) Data should be classified as sharable and non-sharable (Negative). Open sharing of sharable data should be permitted

(ii) 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. However, such classification of non-sharable data would be subject to the approval by the Empowered Committee and also to be periodically reviewed by the Implementation Committee.

(iii) Organizations should be able to share, coordinate, and communicate key concepts between departments within an organization or between separate organizations using GIS as the central geospatial data infrastructure.

(iv) Metadata and metadata servers enable users to integrate data from multiple sources, organizations, and formats.

c. <u>Data Access</u>

(i) Could be open, registered or restricted as per data classification.

(ii) Open source data should be available to all users.

(iii) For restricted data, all agencies should have access rights and should be responsible for security of access control.

3.2.2 Types of Access

a. Open Access data

Access to data generated from public funding should be easy, timely, user-friendly and web-based without any process of registration / authorization. The public can download data and view all data permitted by the concerned department, with the right to fair use.

b. 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. The users are required to register their names through the web and then download the information needed using the user name and password provided to them at the time of registration. In case a fee is prescribed by the department the payment needs to be made through the payment gateway before accessing data.

Two types of access is proposed under the registered access

- Automatic registered access
- Authorized registered access

Automatic registered access:-Under this a user needs to fill in the details of registration and an automatic user id / password is generated for use. In this no authorization is given but the id is generated automatically.

Authorized registered access*:*-Under this class the registration is done after duly verifying the details submitted by the user. This could be for a limited period or for select datasets as required.

c. Restricted Access

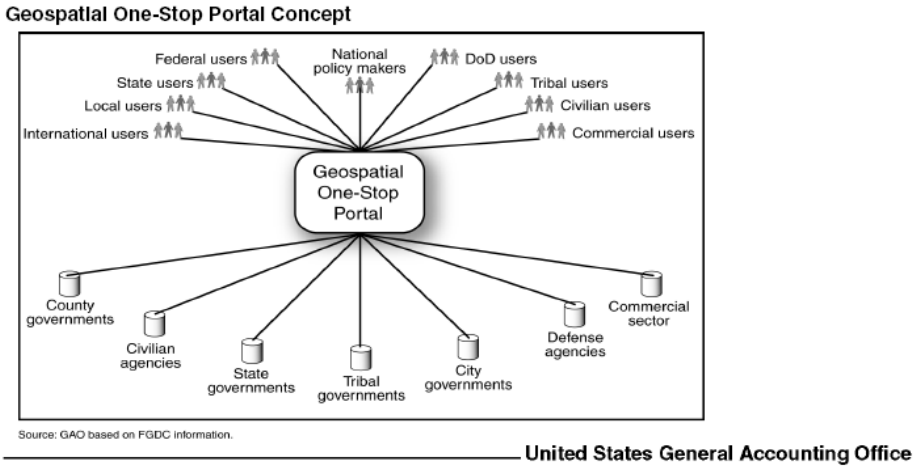
Data declared as restricted, by Government of India policies, will be accessible only through and under authorization.

3.3 Technological Aspects

(i) Support platform-independent solutions implemented in heterogeneous environments, composed of different server hardware, operating systems, networks, databases, development tools and desktop/Web/mobile clients.
(ii) Use open GIS standards for common applications.
(iii) Access through Web services using common standards protocols.
(iv) Create a geospatial data infrastructure for distribution of networked data stores and applications including multiagency and multi organization participation. Distributed multivendor GIS services can be dynamically integrated into applications using the interoperable standards.
(v) Facilitate a hybrid approach, comprising of indigenous technology to ensure that processes remain update with emerging technologies.

3.4Geospatial portal

Globally accepted standards for cataloging geospatial data and geospatial processing services would be developed / adopted if already present.



3.5 Data Delivery

(i) Unclassified data should be readily available to all.

Review of Security Restrictions

(i) Data available in open market may be made available for access to all. However, agencies should decide on its exploitation depending upon nature of task.

Chapter 4
Roles and Responsibilities

4.1 Empowerment

For the purpose of creating, updating, managing, disseminating and sharing the geospatial information, geospatial map, geospatial system, geospatial portal of various departments, an empowered body will be constituted after the notification of the policy.

4.2 Roles and Responsibilities

4.2.1 General Responsibility

The ownership of the data would remain with the concerned Department/ Agency/organization/Autonomous Body/Public Authority and would be responsible for geospatial data maintenance and decisions regarding ultimate retention and disposal.

4.3 Implementation guidelines / Mechanism

Data should be provided in the standard formats that are needed by the designated communities and in exchange formats to facilitate interchange between archives. Many data repositories require knowledge of the identity of those requesting data. For this reason it is desirable to enable automatic user authentication and authorization.

a. Simple architecture: The data access architecture should be simple to implement

b. Use of standards: The data access system should rely on standards. Examples of standards are :

- HTML
- OGC standards,
- OPeNDAP,
- CEOS OpenSearch

4.4 Appellate authority

For the implementation of the policy a well defined Institutional Mechanism for enabling the same including Sharing & Access Protocols is to be instituted which includes a national high power implementation committee as well as a Steering Committee.

a. **Duties of the Appellate Authority / National High power Implementation committee**

a. to monitor the geospatial systems created under this policy
b. terms and conditions including service charges, fees and cost governing the sharing and accessing of geospatial data, geospatial maps, geospatial applications, geospatial portal, geospatial systems by the line departments, local bodies, public authorities, public and private agencies rendering services of public utility.
c. Effective monitoring of the various applications and utilities of the data infrastructure
d. The safety code pertaining to geospatial system
e. Fix liability and accountability in case of breach of safety code by the line departments, local bodies, public authorities, public and private agencies rendering services of public utility, the public or its respective responsible officers.

f. Enforcement and implementation of policy and plan for development of geospatial system and its further application and utilization
g. Act as adjudicating authority in case of dispute governing sharing accessing, application and updation of the data infrastructure between or among the various line departments, local bodies, pubic authorities, public and private agencies, rendering the services.
h. Act as a disciplinary body in case of violation of any of the provisions of the policy.

b. Powers to appoint supporting administrative officers, consultants, experts, advisors, etc.

The authority may as and when required appoint such officers, consultants, experts and advisors of the respective fields, including administration, information technology, legal, finance and the like to assist it to fulfill the obligations of this policy. The tenure and other allowances will be decided by the authority.

c. Committees or implementation and oversight

1 NGP Implementation Committee

To develop and design collection, access, management, sharing and effective utilization of geospatial data a Committee to oversee the implementation mechanism is to be constituted as under:

- Co-Chaired by Secretary DST and DOS
- Four technical experts
- Member Secretary from DST – **Head NSDI**

2. NGP Steering Committee

To enable coordination between various Government departments / agencies and to promote and coordinate access to and sharing of spatial data the Steering Committee (SC) is to be constituted. It is suggested that the committee may have the following members:

- Chaired by a former Secretary level officer of Government of India (GOI)
- 4 Technical experts to be members of the committee
- One officer of the level Joint Secretary in GOI as Secretary

4.5 Service level agreement or other agreement with the line department, local bodies

- Enter into service level agreements or other agreements with any line department, local body, public authority, public and private agency rendering services of public utility.
- May authorize the line departments, local bodies, public authorities, public and private agencies to have access through secured password and the like to the geo-spatial data, geo-spatial map, geospatial portal, geo-spatial system, geo-spatial applications of their respective data assets, to use and update to enhance its value and utility.
- Every line department, local body, public authority, public and private agency shall update the attribute data on real time regular basis. In case of failure, the Regulatory Authority shall be entitled to take action against defaulting officials and /or line department, local body, public authority, public and private agency in the manner provided in the regulations.

- Every line department, local body, public authority, public and private agency rendering services of public utility shall mandatorily use geo-spatial data, geo-spatial map, geo-spatial application, geo-spatial system, geo-spatial portal.
- Every person or government employee authorised to access geo-spatial data, geo-spatial map, geo-spatial portal, geo-spatial system, geo-spatial application may use his respective Digital Structure, secured password or the like while using, updating and administrating the same.
- It shall be mandatory for all such departments, local bodies and public authorities to establish a paperless regime, to the extent possible in terms with the policy of e-governance as envisaged under the information Technology Act, 2000 (21 of 2000).

4.6 Pricing of Shared Geospatial Data

Government institutions / agencies are mandated to make geospatial data available to all other government institutions / agencies at no cost. Pricing of data will be decided by the respective data owner Department in a rational manner. Department will form a Data Dissemination Cell (DDC) for sharing and publishing data on their web portal.

4.7 Capacity building

Facilitate capacity building as well provide mechanism for advance training in areas that may also include real time, operational, multi-sensor big data handling common/interoperable application software.

Chapter 5

Security and Safeguards

5.1 Licensing

The following legal aspects are to be addressed in the policy: (i) IPR / Copyright and neighboring rights, (ii) Data Protection, (iii) Confidentiality/ Data privacy, (iv) Competition Law, (v) Licensing, (vi) Consumer protection / fitness for purpose, (vii) Product and services liability, (viii) Censorship and other information content related issues, (ix) Health and safety legislation, and (x) Patent law – especially as GIS systems become more complex.

Data and information will remain property of the concerned department / organization/ Agencies/ Autonomous bodies/Public Authority 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 India. Legal framework of this policy will be within the various Acts and Rules of Government of India 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.

5.2 IT Act incorporation into the policy

An Act to provide legal recognition for the transactions carried our by means of electronic data interchange and other means of electronic communication, commonly referred to as "Electronic Commerce", which involve the use of alternatives to paper based methods of communication and storage of information , to facilitate electronic filings of documents with the Government agencies.

5.3 Partnerships with Industries

Formation of a public-private partnership to harness industry, academic and other government participation on relevant issues may help develop harmonize the various issue in interoperability of geospatial data among the government and industry and help in technical solution building.

5.4 Budget provision

For effective implementation of this Policy it is expected to incur expenditures for both data owners and data managers for data conversion, data refinement, data storage, quality up gradation, etc. Appropriate budgetary provisions and support for data management for each department/organization would be made by the Government.

Chapter 6

Miscellaneous

6.1Application and utility of geospatial data

To create, update, manage, standardize, disseminate, and share the geo-spatial data, maps and geo-spatial systems, applications, portal of land revenue records, public utilities including roads, water, sewerage, electricity, gas, agriculture, irrigation, soil survey, ground water resources, mines & geology, Forest, telecommunication/internet (including Fibre grid) services, property details, schools, hospitals, police etc. This GIS data will be utilized by various Departments, Corporations, Boards of the Government of India including the urban local bodies, public or private agencies, citizens etc to use and update the Geo-spatial data, by establishing a regulatory authority and for proper co-ordinated planning and development of country.

The portal under this policy will emerge as a single gateway for integrated view of information across all state agencies for local level planning. This will facilitate a single window service to citizens to increase the efficiency and productivity of all department/agencies such as Agriculture, Medical & Health, Law Order & Police, Energy & Utilities, Revenue & Commercial Taxes, Water & Waste water, Environment & Forestry. It will further support to develop and maintain up-to-date geospatial and non-geospatial datasets for dissemination of right information to the right people (including govt. agencies, NGOs, SGHs, RWAs, private sector and citizens) at right time for faster analysis and decision making.

6.2 Existing policy scenarios

The wide availability of satellite data and digital forms of map information through networks had rendered the erstwhile policies in many countries of restricting map information to citizens obsolete. The mass markets for spatial information has become a reality and this trend is only likely to grow. There had been explosive growth of actors involved in the generation and use of geospatial information, often spread in different regions and different legal jurisdictions.

India has 5 different policies in position which pertain to different aspects of geospatial data as on date:

- A National Map Policy (2005) defines the scope, distribution and liberalized access of digital Survey of India (SOI) topographic maps to user groups without jeopardizing national security.

- A Civil Aviation Requirement (CAR) was issued in 2012 detailing procedure for issuance of flight clearances for agencies undertaking aerial photography, geophysical surveys, cloud seeding etc.

- A Remote Sensing Data Policy (RSDP (2001 and 2011) defining the distribution process of satellite images to different category of users.

- The Delhi Geographical Spatial Data Infrastructure (Management, Control, Administration, Security and Safety), Act, 2011 defining the mandatory sharing, accessing and utilisation of Delhi Geo-Spatial Data.

- A National Data Sharing and Accessibility Policy-2012 (NDSAP-2012) providing an enabling provision and platform for proactive and open access to the data generated through public funds available with various departments / organizations of Government of India.

National Map Policy – 2005

National Map Policy-2005 outlines the tenets by which digital map data of SOI are distributed and made available and now SOI has plans for generating and making available 1:10k large scale maps for the country. SOI has outlined an operating procedures for implementing the NMP-2005 which pertain to screening for border areas, user's use-case etc and also noted that the restriction zone has been revised to just 50kms on international border/J&K and NE areas. The concept of two series topographic maps: one, for defence forces and another for civilian purposes as Open Series Maps was introduced. Content details, accuracy, frameworks/ projections/datum were "separated out" so that the civilian maps do not impinge on "security considerations". SOI was identified to implement this and create the operating processes for this Policy. A timeline commitment by SOI to make regularly (define regularly) updated topographic maps available for the nation and also to broad-base MAPPING to include generic mapping needs of country as against just TOPOGRAPHIC MAPS and to, in a larger context, to involve users/industries/citizens as part of transparent and participatory policy defining / updating process.

Remote Sensing Policy 2011

RSDP-2011 (for which DOS is the nodal agency) defines the regulations for acquisition, dissemination of satellite images through NRSC. ISRO/DOS had positioned a RSDP-2001 which governed how satellite images were acquired and distributed from 2001 onwards and the recent RSDP-2011 now allowed even 1m images to be dissemination to users. The RSDP-2001 and RSDP-2011 embeds the concept of a High Resolution Image Clearance Committee to address the need of various users for 1m images. RSDP-2011 clearly states the process of access of Indian and foreign satellite images from NRSC as single-window mechanism for distribution.

CAR, 2010 for Aerial Photography

In the Aerial Survey CAR-2010, a single window clearance system has been promulgated through DGCA for all aerial survey tasks. This is a major departure for aerial surveys – earlier which meant multiple application process has now become one-application and once clearance covering all aspects. It is now the DGCAs responsibility to obtain internal approvals/clearances of various ministries and determine a "collective" clearance for the application.

National Data Sharing and Accessibility Policy[NDSAP] 2012

The NDSAP, 2012 is designed to promote data sharing and enable access to Government of India owned data for national planning and development The Policy is to apply to all data and information created, generated, collected and archived using public funds provided by Government of India directly or through authorised agencies by various Ministries/Departments/Organisations/Agencies and Autonomous bodies.

Information Technology Act, 2000 and it's amendments

The Information Technology Act, 2000 also aims to provide for the legal framework so that legal sanctity is accorded to all electronic records and other activities carried out by electronic means. The Act states that unless otherwise agreed, an acceptance of contract may be expressed by electronic means of communication and the same shall have legal validity and enforceability.

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