



Sri Lanka National Spatial Data Infrastructure

*Supporting Sustainable National
and Local Development*

POLICY, GOVERNANCE AND STANDARDS STUDY

**Volume 1 of 3
Policy Framework**

**FINAL REPORT
24 November, 2016**



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Prepared for

**Information and Communications
Technology Authority (ICTA)**

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EXECUTIVE SUMMARY

This report summarizes the Governance Framework and Procedures for the Sri Lanka National Spatial Data Infrastructure (SL-NSDI) programme. This report is one of three volumes that together comprise the “Policy, Governance and Standards” report as follows:

Vol 1 – SL-NSDI Policy Framework (current document)

Vol 2 – SL-NSDI Governance Model and Processes

Vol 3 – SL-NSDI Standards Framework Development

The development of a policy framework for the SL-NSDI must be aligned with other related policies at the national level that provide the foundation and enabling environment for more specific policies, such as those that will specifically govern geospatial information and the SL-NSDI. For the purposes of the current study, these pre-existing and proposed policies can be organized to three levels, including:

Sri Lanka National Policy Framework. This includes high level policy areas such as Freedom of Access to Government Information, Intellectual Property Rights (IPR), Privacy, Safety and Security, Freedom of Expression and others.

Sri Lanka Information and Data Policy Framework. This level is covering more specific policies relating to the coordinated development and sharing of government information. Special attention is given here to the draft National Data Sharing Policy developed by ICTA in 2013 as well as policies that are specific to selected key organizations.

SL-NSDI Policy Framework. This section addresses those policies that are specific to the SL-NSDI program. References are made to the relevant higher level relevant policy frameworks mentioned above so as to reinforce vertical alignment and consistency.

Sections 2 and 3 of this report provide a summary of the assessment that was conducted in regards to general national policies and information/data specific policies that provide context and alignment conditions that need to be reflected in the SL-NSDI policy. Section 4 provides the draft SL-NSDI policy in its entirety. Annex A and B provide extracts of the general national policies and information/data specific policies respectively and observations regarding the implications to the SL-NSDI.

List of Abbreviations and Acronyms

<i>CINTEC</i>	Council for Information Technology (CINTEC)
<i>DMC</i>	Disaster Management Centre
<i>FGDS</i>	Fundamental Geospatial Data Sets (FGDS).
<i>Geomaturity</i>	Geomaturity is a measure of the level of technical and institutional development in regards to the use of GIS technology in an organization.
<i>Geoportal</i>	Web-based portal for discovering, accessing and viewing GIS data services
<i>Geospatial Data</i>	“Geospatial data” means information that identifies the geographic location and characteristics of natural or constructed features and boundaries on the earth. This information may be derived from, among other things, remote sensing, mapping, and surveying technologies. Statistical data may be included in this definition at the discretion of the collecting agency.
<i>GIS</i>	Geographic Information System
<i>GPS</i>	Global Positioning System
<i>GSL-NSDI</i>	Global Spatial Data Infrastructure
<i>ICT</i>	Information and Communication Technologies
<i>ICTA</i>	Information and Communications Technology Authority
<i>IP</i>	Internet Protocol
<i>IT</i>	Information Technology
<i>ISO</i>	International Standards Organisation
<i>ISO/TC</i>	International Standards Organisation/Technical Committee
<i>ISP</i>	Internet Service Provider
<i>LGN</i>	Lanka Government Network
<i>National Geospatial Data Clearinghouse</i>	The "National Geospatial Data Clearinghouse" means a distributed network of geospatial data producers, managers, and users linked electronically
<i>NMP</i>	National Map Portal
<i>NSL-NSDI</i>	National Spatial Data Infrastructure. An institutional and technical framework for coordinating and sharing geospatial information across a stakeholder community.
<i>OECD</i>	Organisation for Economic Cooperation and Development
<i>OGC</i>	Open Geospatial Consortium
<i>PDF</i>	Portable Document Format
<i>RDBMS</i>	Relational Data Base Management System
<i>RTI</i>	Right To Information
<i>SDD</i>	Spatial Data Dictionary
<i>SDE</i>	Spatial Data Engine
<i>SL-NSDI</i>	Spatial Data Infrastructure
<i>SL-NSDI</i>	Sri Lanka National Spatial Data Infrastructure" (SL-NSDI) means the technology, policies, standards, and human resources necessary to

	acquire, process, store, distribute, and improve utilization of geospatial data
<i>SME</i>	Subject Matter Expert
<i>SOA</i>	Service Oriented Architecture
<i>TOR</i>	Terms of Reference
<i>UN</i>	United Nations
<i>VGI</i>	Volunteered Geographic Information
<i>WofG</i>	Whole of Government
<i>WFS</i>	Web Feature Service
<i>WMS</i>	Web Map Service
<i>XML</i> –	eXtensible Markup Language

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1 INTRODUCTION

This report represents the “Policy Framework” component of the “Policy, Governance and Standards Study” portion of the Sri Lanka National Spatial Data Infrastructure (Sri Lanka NSDI) program which is currently underway. This is one of several components being carried out by different teams in a series of parallel and overlapping activities that are intended to expedite the planning, design and development of the foundation program and system for the Sri Lanka NSDI.

The ICTA has developed a conceptual model for the NSDI as represented in the following figure:

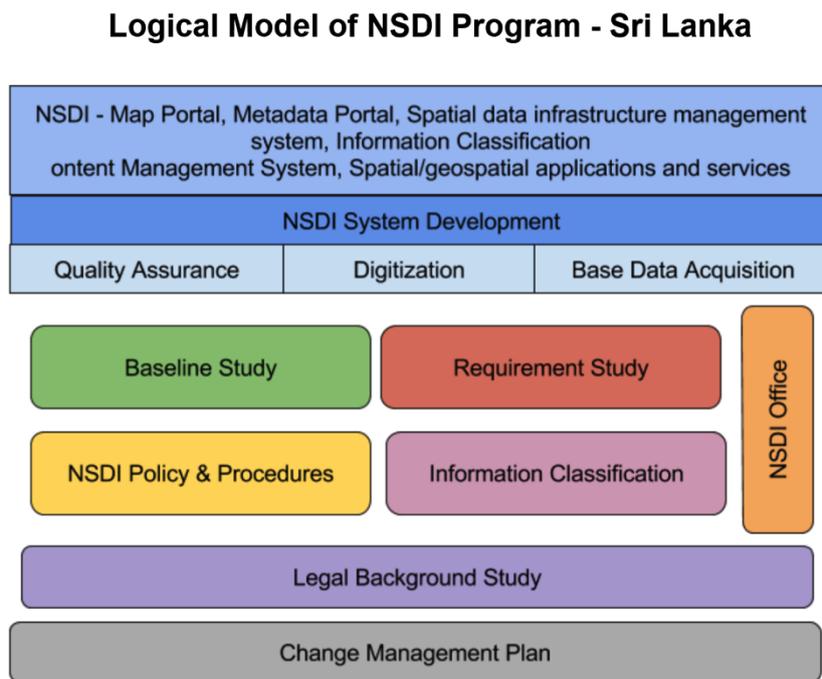


Figure 1 - Logical Model of Sri Lanka NSDI Program

The individual efforts and their interdependencies as defined by the ICTA are illustrated in the following figure. The position of this Policy, Governance and Standards Study (Policies and Procedures) is highlighted in the diagram.

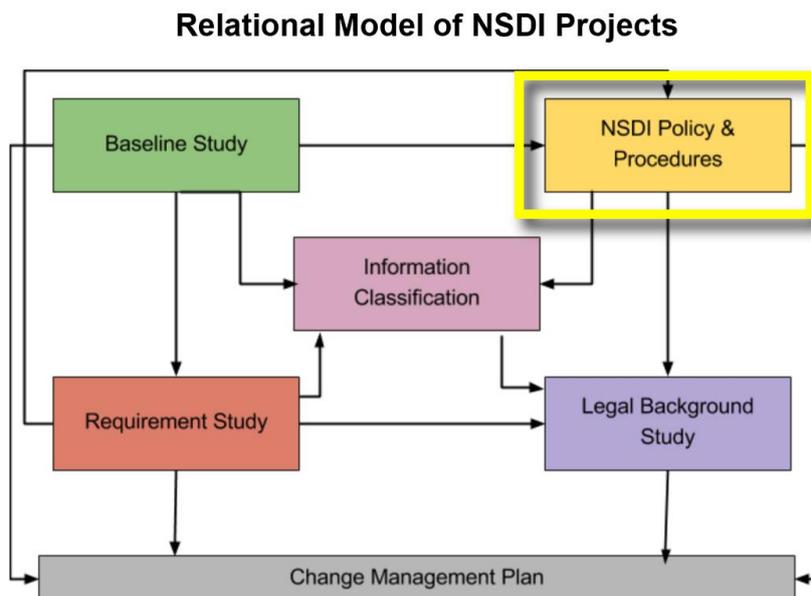


Figure 2 – Relationship Model of NSDI Projects

1.1 Background and Current Situation

With the aims of improving optimum use of spatial data across the government and making effective evidence based decisions, Information and Communication Technology Agency of Sri Lanka (ICTA) is in the process of implementing a National Spatial Data Infrastructure (NSDI) program, in collaboration with stakeholder institutions. NSDI has been identified as one of the key initiatives identified under the National Digital Policy of the Government of Sri Lanka; “Digitalization of the Economy”. ICTA has obtained the service of this Consultant (individual) to carry out a requirement study to define in detail the system requirements, related specifications, conduct information classification, system prototype model and the implementation approach.

The Government of Sri Lanka has spatial information collected by various government departments. Spatial information technology skills are highly developed in some of the government institutions and the systems used to collect this information are also advanced. Usage of spatial information across government institutions in a collaborative manner is in significance with respect to the service provisioning and decision making process. Further, spatial information is not able to be easily shared between organizations at the present time; nor is it accessible to the broader community.

Spatial data sets are collected by a number of government organizations to support conducting of an organization's business and not with other agencies' needs in mind. These data are managed in closed systems and this has created a multitude of information silos. Currently, data collected by organizations is not accessible. It is difficult to know what information is available and where it is held. This has led to several organizations collecting the same information because they are unaware that the information already exists.

Organizations across the government sector recognize that current processes are inefficient and that more cooperation across the sector is required. However, existing data sharing policies are restricting collaboration. There is a significant paper trail of agreements that need to be processed before data sets can be transferred from one organization to another. Manual data sharing procedures contribute to delay in sharing, and the effort required to manually integrate updates from one agency to another is labour intensive and time consuming. The NSDI program has been conceived to address these issues and facilitate a process of standardizing and streamlining the development and sharing of geospatial data across government and other sectors of Sri Lanka society.

1.2 Major Components of the Study Work Program

Accomplishing the general and specific goals and objectives for this activity requires a comprehensive and systematic approach. A work program for addressing the development of the SL-NSDI Policy, Governance and Standards component was previously defined, comprising three interdependent implementation tracks intended to address the scope as defined in the EOI. These tracks are designed to build on the results of the Baseline Study and Requirements Assessment efforts and have been documented in three volumes, as follows:

- Volume 1 – SL-NSDI Policy Framework
- Volume 2 – SL-NSDI Governance Model and Processes
- Volume 3 – SL-NSDI Standards Framework

The tracks were carried out as parallel activities, with incorporation of as-needed interdependencies and coordination among them and with parallel related activities being carried out by others, as illustrated previously in Figure 1. The current report addresses **Volume 1 – SL-NSDI Policy Framework**.

1.3 Policy Framework Structure

The development of a policy framework for the SL-NSDI must be aligned with other related policies at the national level that provide the foundation and enabling environment for more specific policies, such as those that will specifically govern geospatial information and the SL-NSDI. For the purposes of the current study, these pre-existing and proposed policies can be organized to three levels, including:

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SL-NSDI Policy Framework. This section addresses those policies that are specific to the SL-NSDI program. References are made to the relevant higher level relevant policy frameworks mentioned above so as to reinforce vertical alignment and consistency.

Sections 2 and 3 of this report provide a summary of the assessment that was conducted in regards to general national policies and information/data specific policies that provide context and alignment conditions that need to be reflected in the SL-NSDI policy. Section 4 provides the draft SL-NSDI policy in its entirety. Annex A and B provide extracts of the general national policies and information/data specific policies respectively and observations regarding the implications to the SL-NSDI.

2 SRI LANKA NATIONAL POLICY CONTEXT

The context of national policies that will enable and provide the context that will influence the form, specifications and functions of specific policies that will need to be developed to support the SL-NSDI covers a range of topics as outlined in the sections following. Each policy instrument listed below is summarized, including the identification of specific clauses that may have special reference to geospatial information and the SL-NSDI.

2.1 Constitution of the Democratic Socialist Republic of Sri Lanka

The Constitution of Sri Lanka guarantees the right of access to information in Article 14A thereof acknowledging that there exists a need to foster a culture of transparency and accountability in public authorities by giving effect to the right of access to information and thereby promote a society in which the people of Sri Lanka would be able to more fully participate in public life through combating corruption and promoting accountability and good governance. Specific provisions that have relevance to the SL-NSDI are outlined in Annex A. Essentially the Constitution provides a solid foundation and enabling framework for ensuring public access to government information. It also outlines the conditions for restricting access to data.

2.2 Right To Information Act, No. 12 of 2016

Right to Information Act, No. 12 of 2016¹, Certified on 04th August, 2016, is an Act to “...provide for the right of access to information; to specify grounds on which access may be denied; to establish the Right To Information Commission; to appoint information officers; to set out the procedure and for matters connected therewith or incidental thereto”. The Act further states “...the Constitution guarantees the right of access to information in Article 14A thereof and there exists a need to foster a culture of transparency and accountability in public authorities by giving effect to the right of access to information and thereby promote a society in which the people of Sri Lanka would be able to more fully participate in public life through combating corruption and promoting accountability and good governance.”

This Act sets the specific foundation for public access to government information. In its definition of what constitutes “information”, the Act specifically identifies “map” as one of the forms, among many other that may have a geographic reference and are therefore interpreted to be included in the definition. Specific provisions that have relevance to the SL-NSDI are outlined in Annex A. Findings from the review of the Act that are most applicable to the framing of the SL-NSDI policy framework are extracted and assessed in Annex A. the findings of that assessment are summarized below:

¹ Right to Information Act, No. 12 of 2016, Published as a Supplement to Part II of the Gazette of the Democratic Socialist Republic of Sri Lanka of August 05, 2016.

Under the definition of “information” the Act specifically identifies “map” as one of the referenced applicable information materials. Therefore, it can be interpreted that all geospatial data is included in the Act;

Subject to provisions, every citizen has the right to access government information; If any law or regulation does not agree, this Act will prevail. The Act clearly states that it guarantees the ability of any citizen to access government information as a fundamental right under the Constitution. The provision that this Act will prevail against any law or regulation that does not agree suggests will require special attention when interpreting various Ministry policies and lower level regulations that have been developed in regards to the dissemination of geospatial information.

Data access is not to compromise privacy, national safety and security, international relations, economy, legal agreements, selected political processes or intellectual property rights. The Act clearly spells out those conditions under which information should be restricted.

Access to data will not be unreasonably denied. The Act emphasizes the importance of public data access and stresses the duty of public servants to support this right. It also provides criteria and a process for appeal when any request has been denied.

In some cases, access may be given to partial data or information that is not exempted from being disclosed. The Act acknowledges that in any given data file there may be parts of the information that require restricted access, but that in such cases if the sensitive information can be excluded and the remainder can serve the purposes of the requestor, then such non-restricted information should be provided.

Every public authority is responsible for the effective management of the information they need for their work. This provision acknowledges that government entities are responsible for accurate record keeping in regards to their information assets and transactions. This should apply to the maintenance of geospatial information that they collect and/or record in the conduct of their business.

Records should be preserved in an electronic form. The Act acknowledges that in today’s modern world it is more effective and efficient to maintain data and information in an electronic, rather than manual form.

Historic records should be preserved for future reference. The 10 year timeframe in the Act seems most relevant to paper records rather than digital. This provision should be revisited for the purposes of geospatial information, the historical reference of which may be significant for longer term trend analysis in support of policy, planning and decision making purposes.

It should be clear what information is available from each organization and how to access it. The Act refers to a centralized “Data Register” where information about data can be referenced. This appears consistent with the notion of a “metadata catalog” that is a standard component of any NSDI. Further investigation and assessment will be required for how to most effectively align the SL-NSDI metadata catalog with the central Data Register called for by the Act.

The membership of the Commission does not include any professionals that are likely to have a background in geospatial information specifically. A Right to Information Commission is called for in the Act to oversee the implementation of the Act. The Commission comprises representatives from different organizations as specified in the Act. It is unlikely that these representatives will have any direct knowledge or background regarding geospatial data, which may affect their ability to fully consider the implications of any issues or decisions where this is involved. This issue will require further investigation to ensure that the geospatial topic is fully understood and acknowledged within the Information Commission;

Right to Information Commission responsible to oversee the implementation of the Act, including compliance. The Act assigns to the Commission certain responsibilities and powers for overseeing the implementation of the Act, and compliance with its provisions. It may be desirable to align the oversight and compliance monitoring of any policies, regulations and standards associated with the SL-NSDI with these powers.

The Commission can recommend reform measures for any public authority. This may be construed to include “geomaturity” reforms as may be promoted by the SL-NSDI in the future. This will be particularly important for ensuring that government organizations that are acknowledged as the designated custodian for fundamental geospatial data sets (FGDS) required by the rest of the community have the capacity and capability to fulfill this important responsibility.

The Commission has the power to approve the levy of fees for provision of government data. Presumably this power is exercised in acknowledgement of the other provisions in the Act. In general, the Act emphasizes the provision of information to the public for free, but there are several references to the charging of fees, for which the Commission has oversight and decision powers.

The Commission has the power to compel information access in accordance with the Act, and to hear grievances where access has been denied. The Commission can also dictate the form that information must be provided in. The Commission is the deciding authority in the provision of data and hearing of grievances where access has been denied.

Information Officers are to be appointed within each public authority to hear information request appeals. It will be important that the SL-NSDI Technical Committee

representative from each of the involved organizations is either assigned to be the Information Officer for their organization, or a systematic, formal procedure is put in place to ensure alignment and communications with whomever is playing this role.

In absence of an appointed officer, the Head or CEO of the authority is responsible for carrying out this duty. Likewise the representative member of the SL-NSDI Executive Committee will need to be directly involved in this duty in absence of an appointed officer.

Information Officers are required to take every effort to fulfill citizen requests for information, written or oral, free of charge. Information officers will be responsible for ensuring that information requests from citizens are fulfilled. Since the requirements for logging, responding to, fulfilling and documenting requests are likely to be similar across all organizations it may make sense that a common Request for Information platform is established to be used by all government organizations. This same platform could also support requests for geospatial information from individual agencies or from the SL-NSDI coordination office.

Citizens requesting information need to provide as much detail concerning the request as possible, but are not obliged to explain the reason for the request. Most citizens will not know how to specify the geospatial information needed to answer a particular need. Experience suggests that by providing the public with a geoportal that allows them search for, view and navigate common geospatial data themes this can greatly assist information requesters in determining what specific information is available to meet their need. In most cases, simply viewing this information online will be sufficient to resolve the need. In other cases it may be necessary to print out or download data, depending on what the requester wants to do with the information. These requirements should be carefully considered in determining the specifications for the SL-NSDI geoportal.

Specific time limits for responding to a request for information are established. With well-defined data sharing policies and agreements in place, the SL-NSDI should be able to avoid any response delays. With online access to commonly needed data via a geoportal, the SL-NSDI can help to directly accommodate most requests for information, saving time for both the government and the public and greatly aid in complying with response time limits.

The Act implies that physical copies of the information must be provided upon request. Web map and feature services will likely be able to satisfy many uses, however it may also be required to allow information to be downloaded by the public.

SL-NSDI geoportal and associated data repository will comprise information that is being provided by multiple custodian organizations. This can be construed to be “third party” information, therefore all Service Level Agreements (SLA’s) and/or associated data licenses dictating the terms and conditions of use should be aligned with this part of the Act.

The Act provides for criteria and process for appeals against a refusal for provision of public information. This mechanism should be reflected in the SL-NSDI request for information process.

Any regulations written to apply the provisions of this Act must be published in the Gazette and ultimately approved by the Parliament. The implementation of SL-NSDI policies will require the development and deployment of various instruments for doing so, including various regulations that will need to be approved by Parliament. If there are related regulations in place now at the organization level that have not been previously approved by Parliament, this provision and its applicability to existing regulations may need to be further explored.

The Commission is authorized to make rules regarding fees for the provision of information. The Commission has the right to make rules and decisions regarding fees for the provision of data. This is applicable to geospatial data and thus standard operating procedures for the establishment of fee schedules will need to be reviewed and approved by the Commission.

2.3 Intellectual Property Act, No. 36 of 2003

The Intellectual Property Act, No. 36 of 2003 (IPA) is intended to “...provide for the law relating to intellectual property and for an efficient procedure for the registration, control and administration thereof”. Findings from a review of this Act that have significant relevance to the shaping of the SL-NSDI policy framework are outlined below:

Section 6 (1) clearly identifies geospatial information as works that can be subject to copyright.

PART II, Chapter I, Sec. 6 (1) - illustrations, maps, plans, sketches and three dimensional works relative to geography, topography, architecture or science.

The Act does not clearly include or exclude the holding of copyright by government agencies. In regards to copyright ownership, the following provisions identify authors as:

PART II, Chapter I, Sec. 5

- “author” means the physical person who has created the work ;
- “collective work” means a work created by two or more physical persons at the initiative and under the direction of a physical person or legal entity, with the understanding that it will be disclosed by the latter person or entity under his or its own name and that the identity of the contributing physical persons will not be indicated ;

The assignment of economic rights related to a copyright are further defined as the following:

PART II, Chapter I

14. (1) Subject to the provisions of subsections (2), (3), (4) and (5), of this section, the author who created the work shall be the original owner of economic rights.

(2) In respect of a work of joint authorship, the co- authors shall be the original owners of the economic rights. If, however, a work of joint authorship consists of parts that can

be used separately and the author of each part can be identified, the author of each part shall be the original owner of the economic rights in respect of the part that he has created.

(3) In respect of a collective work, the physical person or legal entity at the initiative, and under the direction, of whom or which the work has been created shall be the original owner of the economic rights.

(4) In respect of a work created by an author employed by a physical person or legal entity in the course of his employment, the original owner of the economic rights shall, unless provided otherwise by way of a contract, be the employer. If the work is created pursuant to a commission, the original owner of economic rights shall be, unless otherwise provided in a contract, the person who commissioned the work.

Findings from the review of the Act that are most applicable to the framing of the SL-NSDI policy framework include the following:

Geospatial information is clearly defined as a “work” that can be subject to intellectual property right provisions and protected by copyright. The Act specifically lists illustrations, maps, plans, sketches and three dimensional works relative to geography, topography, architecture or science “works”.

The Act does not specifically address the role of a government agency as a copyright owner. It does however describe the assignment of economic rights to an employer, where collective or individual works are created in the course of employment.

It appears that any government copyright on geospatial data would need to be governed both by the Right To Information Commission (rights and limitations on access) and the Director General for Intellectual Property Rights (copyright registration and protection).

3 SRI LANKA INFORMATION AND DATA POLICY CONTEXT

The previous section outlines general existing national policies that will enable and/or influence the shaping of some aspect of the policy framework for the SL-NSDI. This section addresses the information and data policies that are either existing or under development that will have a direct bearing on the SL-NSDI.

3.1 Information and Communication Technology Act, No. 27 of 2003

ICTA was established under the Information and Communication Technology Act, No. 27 of 2003 (ICT Act) and strengthened by the ICT Amendment Act No. 33 of 2008. ICTA is functioning under the Ministry of Telecommunication and Digital Infrastructure. The main thrust of ICTA is to set ICT policy as well as guide and direct national ICT development

activities.² The stated purpose of the Act is “An Act to provide for the establishment of the National Committee on Information and Communications Technology of Sri Lanka; to provide for the setting out of a national policy on information and communication technology and for the preparation of an Action Plan; to provide for the appointment of a task force for information and communication technology; to provide for the establishment of the Information and Communication Technology Agency of Sri Lanka charged with the implementation of the nation policy in both the public and private sectors; and to provide for matters connected therewith or incidental thereto”.³

Annex A, Section 3 includes an assessment of those clauses and terms of the ICT Act that have significant implications for the SL-NSDI. The following summarizes the findings of that assessment:

Need to determine the implied relationship between the ICT Task Force, the National Committee on Information and Communication, the RTI Commission and the SL-NSDI Executive Committee. The Information and Communications Technology Act and the Rights To Information Act have significant interdependencies and prescribed involvement of the Cabinet, executives and managers in decision making processes. The addition of an SL-NSDI Executive Committee may also overlap with these other bodies, therefore it may be desirable to explore alignment or integration among these bodies to the extent possible;

There is presently no prescribed high-level representative on the Committee that is likely to have background and knowledge about geospatial data and information. The Act specifies the members of the National Committee on Information and Communications Technology of Sri Lanka, but there is no evidence that any of these participants will have a background in geospatial technologies. This issue may require further investigation to ensure that geospatial-related matters are given due consideration in the decision processes of the Committee.

ICTA was set up as a government owned company and tasked to support the Task Force and Committee. This has some equivalency to the suggested role of the NSDI Coordination Office to support the SL-NSDI Executive Committee as a secretariat function and should be considered in the design of the governance structure for the SL-NSDI.

The Minister is assigned to issue direction and guidelines, on “action plan as have been approved by the Cabinet of Ministers”. This indicates that for strategic matters associated

²

[https://en.wikipedia.org/wiki/Information_and_Communication_Technology_Agency_\(Sri_Lanka\)#Establishment](https://en.wikipedia.org/wiki/Information_and_Communication_Technology_Agency_(Sri_Lanka)#Establishment)

³ Parliament of the Democratic Socialist Republic of Sri Lanka, Information and Communication Technology Act, No. 27 of 2003.

with the National Policy on Information and Communication Technology that the strategic direction is established by the Cabinet.

3.2 National Data Sharing Policy (Draft)

In 2012 the ICTA engaged with four Ministries to explore requirements for policies to support the optimal development and use of data and information across the government and Sri Lanka society as a whole. The findings of this initial effort were then used as input to the development of a “National Data Sharing Policy”, the first draft of which was completed in 2013. This material was originally intended to be processed as an independent policy statement for adoption by the Cabinet as an annexure to the ICTA eGovernment Policy. Due to timing issues it was decided to postpone the formal processing of the National Data Sharing Policy and it remains in draft form today.

In principle, this proposed data sharing policy further extends the intent of the Right to Information Act, No. 12 of 2016 (RTI) to a more specific level of detail. However, since this draft policy was produced at least three years prior to the RTI, it will be important to ensure that it is aligned and consistent with the adopted Act. An additional consideration is the Sri Lanka Spatial Data Infrastructure Framework report that was published in July, 2014. That report contains useful “Guiding Principles” that are worth considering for the further refinement of the draft National Data Sharing Policy.

The refinement of the draft National Data Sharing Policy is not within the scope of the current SL-NSDI policy development effort. However, given the breadth and detail of coverage of that policy and its applicability to the SL-NSDI initiative, an attempt has been made here to comment on those elements that are most relevant to the SL-NSDI and to suggest refinements where these can be aligned with and supportive of the SL-NSDI policy framework. Annex B includes sections that have been extracted from the draft National Data Sharing Policy, along with suggested refinements and comments on implications of selected clauses in regards to the SL-NSDI policy framework. The following provides a compiled summary of the findings of that assessment:

The draft Policy makes reference to data sharing principles that are addressed in more detail in the RTI Act, No. 12 2016. These included transparency, protection of intellectual property, and other matters. Any refinement to the National Data Sharing Policy should include a thorough review and reconciliation and alignment of both principles and details between these two instruments.

The ownership of intellectual property rights within government is an important topic that is treated inconsistently across various relevant documents and requires further study. The draft National Data Sharing Policy suggests that “departments” own intellectual property rights. This differs from the World Bank “National Spatial Data

Framework (2014)” report which suggests that such rights should rest with the Government of Sri Lanka that in turn assigns custodianship of specific data to an agency, as described in the following excerpt from that report:

The principle of custodianship is that the government assigns, to an agency, certain rights and responsibilities for the collection and management of spatial information on behalf of the community. The rights and responsibilities include the right to set marketing conditions for the information and responsibilities regarding the maintenance and quality of the information. It also ensures accessibility of the information and provides a recognised contact point for the distribution, transfer and sharing of the information.

The overriding philosophy associated with custodianship is that **custodians manage spatial information as trustees for the community to enable its integration with other spatial data**. An example of the Custodianship Policy is included in Annexure 1.

Guiding Principles for Custodianship

- **Trusteeship:** Custodians do not ‘own’ data but hold it in trusteeship on behalf of the community.
- **Standard Setting:** Custodians, in consultation with Stakeholder community and users, are responsible for defining appropriate standards and proposing them for ratification.
- **Maintenance of Information:** Data custodians must maintain plans for information collection, conversion and maintenance in consultation with other government institutions and the user community.
- **Authoritative Source:** The custodian is the authoritative source for the spatial dataset in its care and is recognised as the preferred supplier of this information.
- **Accountability:** The custodian is accountable for the integrity of the data in its care.
- **Maintain Access:** The custodian must maintain access to the spatial datasets in its care at the highest level for all users.
- **Safeguard Rights:** Externally provided spatial information, intellectual property rights and copyright associated with data must be safeguarded
- **Obligations:** Spatial data are compliant with statutory and non-statutory obligations relevant to its business.
- **Data Ownership:** Clear identification of data ownership (metadata) and use of memorandum of understanding or licence agreement are used to effectively manage the legal rights over data exploitation, distribution, use and destruction.⁴

The RTI Act 2016 is not specific in regards to government IPR, however it does assign all powers for final decisions regarding access to information to the Right To Information Commission. This is an important distinction that will require careful consideration. The vesting of IPR for fundamental geospatial data sets (FGDS) in the national government and decision making for rights to access that information, including any special terms or fees associated with such access can avoid any one organization deciding unilaterally whether or not they will make their information available without due process.

⁴ National Spatial Data Infrastructure Framework, Government of Sri Lanka, June 2014

The Intellectual Property Act, No. 36 of 2003 does not explicitly include or exclude a government agency as the owner of protected copyright, however it does specify that the economic rights for collective or individual works that are created as part of an employment situation are the property of the employer, as follows:

14. (1) Subject to the provisions of subsections (2), (3),(4) and (5), of this section, the author who created the work shall be the original owner of economic rights.

(3) In respect of a collective work, the physical person or legal entity at the initiative, and under the direction, of whom or which the work has been created shall be the original owner of the economic rights.

(4) In respect of a work created by an author employed by a physical person or legal entity in the course of his employment, the original owner of the economic rights shall, unless provided otherwise by way of a contract, be the employer. If the work is created pursuant to a commission, the original owner of economic rights shall be, unless otherwise provided in a contract, the person who commissioned the work.⁵

The draft Policy has general reference to the protection of “data privacy” (seemingly referring to personal information, but explicit in this regard). This same topic is addressed in the RTI Act 2016 as follows:

5. (1) Subject to the provisions of subsection (2) a request under this Act for access to information shall be refused, where–

(a) the information relates to personal information the disclosure of which has no relationship to any public activity or interest, or which would cause unwarranted invasion of the privacy of the individual unless the larger public interest justifies the disclosure of such information or the person concerned has consented in writing to such disclosure;

The draft Policy makes reference to consistency with the ICTA Lankan Interoperability Framework (LIFe). This framework was initiated by ICTA to provide a mechanism to ensure the adoption of principles that will support data interoperability across government. The development of the LIFe framework is being incrementally developed and currently addresses the following domains that are most relevant to the SL-NSDI:

- Development Project Co-ordination (Foreign Funded);
- Interoperability Data Standards for the LAND Domain.

The SL-NSDI standards and standard development and management processes should align with the LIFe program parameters.

The draft Act suggests that data sharing between agencies be facilitated through an MoU/MoA agreement, but does not acknowledge the potential role of a central facilitator such as will be required for the SL-NSDI. The draft Act may be further qualified to read the following to acknowledge the curated federation of data such as will be the case with the SL-NSDI:

⁵ Government of Sri Lanka, Intellectual Property Act, No. 36 of 2003

“MoU/MoA with different departments, *or with one organization acting as an authorized facilitator for data sharing on behalf of multiple departments*”

The draft Policy suggests that formal responsibility for enabling and promoting data sharing to be supported by every organization. The SL-NSDI will provide the framework of central and distributed nodes that will streamline and support compliance with this provision across the community of stakeholders.

Accountability of completeness and correctness of data is stated in the draft Policy to be the responsibility of each custodian department. Data accuracy is relative to its purpose. This statement needs to be further qualified to indicate that accuracy and completeness needs to first be appropriate to meet the needs of the data custodian in conducting their business and secondly to meet the needs of the stakeholder community as defined through a structured, collaborative process involving the key stakeholders for each data topic. In the context of the SL-NSDI this will include FGDS standards and the governance and processes by which they are defined and maintained over time.

Each custodian department is to “make all efforts to share the data through technically and operationally efficient mechanisms”. The SL-NSDI geoportal environment will help to streamline the data sharing process. This of course assumes that each designated FGDS data custodian will ensure that they have the capacity to effectively develop and manage the geospatial data under their care in a GIS or GIS-ready form.

All data is to be made available in a “machine readable” form that the data can be “manipulated, reprocessed, visualized, mashed up with other data”. The SL-NSDI data content and format standards will be fully compliant with the dissemination of data in a form that can be effectively manipulated and analyzed by others.

The draft Policy provides statements regarding the charging of fees that are not entirely aligned with the RTI Act 2016. According to the draft Policy, “All data, metadata and statistical products declared as official statistics shall be FREE to ALL Users or applicable cost shall not be more than the recovery amount to cover reproduction or distribution costs”. Furthermore, it states that “Data which has to be shared under restricted and authorized access may be shared at a price decided by the government department or agency which is the owner of the data as per the policies of the government of Sri Lanka. The owner agency is the one which has created, generated or collected the data. All such costs must be communicated and published on websites; bulletin boards etc by concerned government departments in advance.” (emphasis added). The RTI Act 2016 has specific and detailed provisions for deciding what data is restricted and in making final decisions about pricing of any fees for government data. These provisions will need to be referenced and the language aligned in the refinement of the draft Policy.

Departments “owning” data are required to adopt best practices for the maintenance of data quality, integrity and authenticity. The matter of “owner” versus “custodian” needs be clarified. Otherwise the statement is appropriate but should probably be associated with an earlier statement addressing the responsibility of departments to ensure the quality and accuracy of data captured. Such provisions will also need to be reflected in the Service Level Agreements that are to be committed by each SL-NSDI designated FGDS custodian.

The draft Policy provides a comprehensive framework for the classification of data and services. This framework is quite complete and suitable for application to the SL-NSDI FGDS data.

The “Legal Framework” of the draft Policy outlines provisions “to prevent misuse of data and assure security, integrity and confidentiality of data”. This includes definition of “Data Custodianship” which is not consistent with the notion of “data ownership” by departments as described in other parts of the draft Policy. This topic will need to be reconciled. Other provisions in this section are generally in alignment with the RTI Act 2016, however in most cases the Act is more detailed and specific.

The “Technical Framework” of the draft Policy outlines provisions “to enable and facilitate data sharing within the government and with citizens”. This section makes general statements about a platform for data sharing and reference to compliance with the ICTA Information Security Policy. There is reference to the need to create a “clear policy for controls related to Confidentiality, Availability and Integrity (CAI) of the data”, but provisions addressing these factors are not presently included in the draft Policy. A draft guideline for the creation of a security policy is mentioned in Annexure 3 to the draft Policy.

Departments shall deliver services through electronic mediums providing single-point access to information assets and applications published by given departments. All sharable data shall be available through the e-delivery channels for enabling rational debate, better decision making and use of civil society. How this is to be accomplished is not mentioned in the draft Policy, however in regards to FGDS this matter is central to the SL-NSDI program.

The system design shall be scalable, flexible, and facilitate extraction of data in multiple formats and for a range of uses as internal and external needs change, including potential uses not accounted for in the original design. The data shall be consistent with existing policies of departments and must use standards in order to promote data interoperability and openness. This policy mandates the use of LIFe while defining the departmental policy for interoperability (one of the components of the data sharing policy). This provision will be supported technically by the SL-NSDI.

Records Digitization and Migration - A considerable amount of data with government still resides in manual records, files etc. which are not easily and uniformly accessible to all. Hence digitization of all government data is a key step towards creating an open data environment. A recommended step during the process of data sharing policy is to determine if a parallel programme to digitize data may be taken up. Such a program would be helpful in sharing information currently existing in manual form or proprietary formats (in legacy systems). The SL-NSDI can make significant contributions to the digital transformation of stakeholder organizations. Access to the SL-NSDI data repository can provide a significant benefit to each stakeholder, but only if they have the internal capacity to access and use this information, and to maintain their own information in a digital format.

The Operational Framework section describes a generic process for digital transformation of an enterprise. It is unclear why this is included within a policy document. In any case the processes for the implementation of the SL-NSDI and the development of “Geomaturity” capacity within each of the stakeholder organizations are in alignment with the process described.

The Policy outlines a framework for data sharing. Governance to ensure data sharing is described fully within the RTI Act, 2016.

4 SL-NSDI POLICY

With the aims of improving optimum use of spatial data across the government and making effective evidence based decisions, the Government of Sri Lanka is in the process of implementing a National Spatial Data Infrastructure (NSDI) program, in collaboration with stakeholder institutions. NSDI has been identified as one of the critical matters to support national development.

The following provides a formulation of the policy for the establishment and carrying out of the SL-NSDI. This has been developed in reference to existing and proposed national information policies in Sri Lanka as well as several international NSDI policies in other countries, with adaptation where required to the situation in Sri Lanka.

4.1 Preamble

Geographic information is critical to promote sustainable development in Sri Lanka, diversify and grow the economy, improve the stewardship of natural resources, protect the environment and optimize development investment.

GIS has become an indispensable tool for managing and using spatial information at the local, regional, and national levels. Many organizations need the same information, but in Sri Lanka there was previously no formalized structure for the effective coordination and sharing of these

data, and information has been essentially "locked up" within sector-focused ministries and institutions. The Sri Lanka National Spatial Data Infrastructure (SL-NSDI) provides a framework of standards, policies, data, procedures, and technology to support the effective coordination and dissemination of spatial information.

4.2 Authorization

This policy has been developed in alignment with the following existing and proposed national policy frameworks:

- Constitution of the Democratic Socialist Republic of Sri Lanka;
- Right To Information Act, No. 12 of 2016;
- Intellectual Property Act, No. 36 of 2003;
- Information and Communication Technology Act, No. 27 of 2003;
- National Data Sharing Policy (draft under development).

There are many aspects of the proposed National Data Sharing Policy that have significant implications for the sharing and dissemination of government data and information across Sri Lanka, inclusive of geospatial data and information. This Policy was developed in 2013 but not yet formally adopted. The SL-NSDI Policy proposed in this document is highly dependent upon the National Data Sharing Policy, therefore it is strongly advised that a parallel effort be undertaken to refine and complete that Policy, in consultation with the appropriate government organization representatives. This will allow these two separate but highly related policies to be processed in parallel through the formal national policy adoption process.

4.3 SL-NSDI Business Perspective

The SL-NSDI is to be established as a permanent function in government and serving the entire Sri Lankan Society according to certain fundamental principles and objectives:

- (a) **Sharing Fundamental Geospatial Data.** The SL-NSDI Program shall develop and maintain a spatial enabling environment including operational frameworks, procedures, tools, support functions and collaboration platforms designed to support the identification of common spatial data across government entities that needs to be shared among other government organizations and other non-government entities (private sector, education and research institutions, civil society, general public) to support the respective business requirements. The SL-NSDI program will develop, maintain and operate an environment that facilitates and coordinates spatial data acquisition and sharing across the program stakeholders considering security requirements and relevant access controls;
- (b) The SL-NSDI program stakeholder entity, through collaboration with the SL-NSDI program, in its capacity as a data custodian will coordinate on the common spatial data acquisition, management and dissemination processes aligning with the geospatial business requirements from other stakeholders. The stakeholder entity, in its capacity as

a spatial data and services consumer, will comply with the SL-NSDI program policies and controls governed through the program agreements framework. Any related works outsourced by a stakeholder entity will also be carried out in compliance with the relevant program policies and controls;

- (c) Geospatially Enabled Government Operations and Services. The SL-NSDI Program shall develop and maintain a spatial enabling environment including operational frameworks, procedures, tools, support functions and collaboration platforms designed to support the respective government organizations to spatially empower, enhance and innovate business functions covering operations, services and decision-making. Each SL-NSDI program stakeholder entity will, in collaboration with the SL-NSDI program steward (GeoCentre), identify all business functions across the entity that generate or utilize spatial data as well as functions that can be optimized and enhanced through the utilization of geospatial data and technology. Each organization will develop and share with the SL-NSDI program plans for and progress on adopting and utilizing spatial data and technology within the organization. The stakeholder entity will maximize the utilization of the SL-NSDI program support services and common spatial services to optimize investments and expedite adoption.
- (d) Cross government operations and value chains. Government entity business operations encompass business functions that focus on internal functions and processing to fulfill the entity mandated objectives as well as outward facing business functions that focus on delivering services. Similar to the identified need for sharing common information across government entities there are significant operations and services that cross the boundaries of two or more entities to fulfill common business requirements. These cross-government operations constitute value chains where more than one entity is required to contribute to the fulfillment of the operation or service. This class of business operations requires focused attention from the perspective of spatial data, technology and integration needs. The SL-NSDI Program shall, in collaboration with the stakeholder organizations, identify, and evaluate the geospatial requirements for cross-government value chains. The SL-NSDI program, in collaboration with the concerned stakeholders, will coordinate on the common spatial data requirements, common spatial tools, and integration requirements that will have a positive impact on optimizing and enhancing the operations and services. The SL-NSDI program stakeholder entities shall collaborate with the SL-NSDI program to identify and evaluate cross-government value chains and the needs for spatial data and technology, and will also coordinate on designing the required enhancement solutions and tools and will fulfill the agreed on roles and responsibilities in that respect. The SL-NSDI program stakeholder entity will collaborate with the SL-NSDI program on tracking and monitoring the implementation of the solutions to address the identified cross-government value chains and on tracking and monitoring utilization performance.
- (e) Support Coordinated Sustainable Development Investment. The SL-NSDI shall provide a comprehensive repository of information that can be used to more effectively plan, prioritize and manage sustainable development investment across all sectors. By “de-

risking” investments with better information, the Government of Sri Lanka will be able to both prepare project proposals more effectively and quickly. This will also help to attract a broader and more diverse range of investors and investment options including institutions, sovereign wealth funds and the private sector that might not otherwise invest in less qualified projects. Well considered climate resilient low carbon development project portfolios will also be important in attracting desirable “triple-bottom-line” investors who are looking for positive social and environmental returns on investment, in addition to financial returns.

- (f) **Decision Support.** Organizational performance is directly correlated to decision making and decision effectiveness. Effectiveness is also attributed to organization frameworks that enable informed and timely decision making practices. Government entities having complex structures and inter-related business functions and operations need to maintain accurate and concurrent information that can be accessed and evaluated in a timely manner by decision makers supported by advanced decision support systems. The geospatial dimension to information has become an integral component to almost all information that is required to manage government business. Leveraging geospatial data and spatial technology to build advanced geospatially enabled decision support systems empowers decision makers at various levels within an organization and will ultimately enhance the overall organizational performance of government organizations in Sri Lanka.
- (g) **Customer Centric.** The SL-NSDI program ultimately contributes to enhancing and innovating government operations and services. The utilization of these geospatially enabled products and services by the various end users and the satisfaction that these products and services both address their needs and improves their quality of life is a primary indicator to achieving the goals of the program. A customer-centric approach, whether these customers are users within government entities or consumers of government services, means focusing on the needs and requirements of the various end users and catering for their needs.

4.4 Executive Branch Leadership

The Cabinet will approve the establishment of the Sri Lanka National Spatial Data Infrastructure (SL-NSDI) Executive Committee to be chaired by the Prime Minister, or his/her appointed representative. The Cabinet will likewise designate units of government and their Ministers to participate in the SL-NSDI Executive Committee.

Note: The more detailed form, function and membership for the Executive Committee and other governance groupings has been defined in the Policy, Governance and Standards Study report, Volume 2 of 3 – Governance Model and Processes.

Furthermore, the Executive Committee is to establish the SL-NSDI GeoCentre, which will act as the Secretariat supporting and acting at the direction of the Executive Committee and will be

responsible for carrying out the daily activities required to operate, facilitate, promote and support the development and management of the SL-NSDI.

- (a) Executive branch departments and other government organizations ("organizations") that have a primary interest in the development of the SL-NSDI are designated by the Cabinet to join the Executive Committee;
- (b) Each member agency shall ensure that its representative on the Executive Committee holds a policy-level position;
- (c) The Executive Committee shall seek to involve Provincial, local, and other government organizations in the development and implementation of the initiatives contained in this order;
- (d) The Executive Committee shall establish an SL-NSDI Technical Committee comprising technical representatives from each of the member organizations;
- (e) The Executive Committee shall utilize the expertise of academia, the private sector, professional societies, civil society, and others as necessary to aid in the development and implementation of the objectives of this policy. This is to be accomplished through Working Groups and Special Interest Groups that will be formulated and assigned to address specific and general topics on a periodic basis.

4.5 Establishment of an SL-NSDI GeoCentre

The Prime Minister, through the Executive Committee, will establish the SL-NSDI GeoCentre to operate, facilitate, promote and support the development and management of the SL-NSDI. Initial functions to be supported by the GeoCentre include:

- (a) Establishing a National Geospatial Data Clearinghouse (National Clearinghouse). The Executive Committee, through the GeoCentre, and in consultation with, as appropriate, provincial, local, and other government organizations and other affected parties, shall take steps to establish an electronic National Geospatial Data Clearinghouse ("Clearinghouse") for the SL-NSDI. The Clearinghouse shall be compatible with the ICTA eGovernment Infrastructure to enable integration with that effort;
- (b) Establishing the SL-NSDI Technical Committee. The GeoCentre will be responsible to facilitate a process for the formation and operations of a SL-NSDI Technical Committee. The members of the Executive Committee will be responsible to assign one senior staff to act as primary technical representative from each organization, with an additional senior staff assigned as backup. The general function of the Technical Committee will be to hold periodic meetings, facilitated by the GeoCentre, to confer on technical issues that are of common interest across the stakeholder community. It will be chaired by the Head of the GeoCentre;
- (c) Assignment of Data Custodianship. The Centre will immediately undertake a process to facilitate the establishment and formalization of custodianship for every Fundamental Geospatial Data Set (FGDS) layer. Custodianship will be determined through a systematic consultative process. Custodian responsibilities will be clearly defined in a Service Level Agreement (SLA) between the Custodian organization and the Executive Committee. Once executed, it will be the responsibility of the Custodian organization to comply with the terms of this agreement and the responsibility of the National Clearinghouse to monitor such compliance and report status to the Executive Committee on a periodic basis;

- (d) Standardization of Data and Documentation. Each designated FGDS Custodian agency shall participate in a consultative process, coordinated by the GeoCentre, to standardize the content and form of data they will be responsible for contributing to the Clearinghouse. This will also include the provision and maintenance of descriptive information about each FGDS in the form of standardized “metatdata” that will be used to populate the Clearinghouse metadata catalog;
- (e) Establishing a National Geoportal and Data Services. The GeoCentre will be responsible for the development and management of a National Geoportal to support access and utilization of the data resources contained in the National Clearinghouse. The Executive Committee, through the GeoCentre will establish data security measures and conditions of access in alignment with national policies and laws. The Centre will publish web mapping data services according to the directives of the Executive Committee;
- (f) Establishing Application Services. The GeoCentre will be responsible for the development and management of common application services. The Centre, in consultation with the Technical Committee will identify, develop, deploy and manage common application modules where such modules can be developed once and then support multiple applications within the stakeholder entities.
- (g) Establishing Technology Infrastructure. The SL-NSDI program will involve the development and delivery of a variety of services beyond data sharing. The Executive Committee, through the GeoCentre will facilitate a process to ensure that the technology infrastructure of the Central Node at the Centre and the Organization Nodes within each participating organization is established and maintained in a form that will optimize the use of geospatial data and tools across government.
- (h) Development and updating of Strategic and Annual Plans. The Executive Committee, through the Coordination Office will be responsible for the development and management of both Strategic Plans that shall be updated on a three-year basis and Annual operating plans that will be developed every year. Strategic plan updates will suggest course changes for the program based on an evolving context and an expanding stakeholder community and its associated requirements. Annual plans will address scope, resourcing and budgeting for both operational costs and capital investments required in the subsequent year.
- (i) Government Use of the Clearinghouse. The Executive Committee will adopt, through the GeoCentre, internal procedures to ensure that each organization accesses the Clearinghouse before any expenditure of government funds to collect or produce new geospatial data, to determine whether the information has already been collected by others, or whether cooperative efforts to obtain the data are possible. This is inclusive of both government of Sri Lanka funding as well as external loans or grants from International Finance Institutions, foundations or aid organizations;
- (j) Promoting Geo-maturity and Capacity Building. Optimizing the investment in SL-NSDI requires that each FGDS custodian or user of the platform has the internal technical and institutional capacity to use it effectively. “GeoMaturity” refers to a measure for determining the readiness of an organization to leverage spatial data and

technology in executing business operations and provision of services. GeoMaturity measures readiness with respect to enterprise alignment, infrastructure, resource management and data management as well usage in operations and products and services. The Executive Committee, through the GeoCentre will undertake a bi-annual process to measure the geo-maturity level and rate of improvement within each participating organization;

- (k) Community Outreach and Communications. The SL-NSDI program ultimately serves and impacts a wide spectrum of beneficiaries crossing the government sectors, non-government sectors, private sector and the public. The program activities and achievements are dependent on the program stakeholders' collaborative sharing of information and adoption of spatial data and technology to empower operations and services as well as the utilization and consumption of information and services by the community. The GeoCentre will be responsible for establishing and implementing an effective outreach and communication function to orchestrate building awareness, knowledge and collaboration to secure the efficient execution of the SL-NSDI program activities and realization of the program goals and objectives. Outreach and communications will address both national and international perspectives; the national perspective ensures that the SL-NSDI is visible and appreciated by decision makers and the general public; while the international focus provides channels for mutual understanding and sharing of ideas and best practices across the broader SDI communities nationally, regionally and internationally;
- (l) Special Interest Groups (SIG's). The Centre will support the establishment and support to Special Interest Groups. As opposed to Working Groups that are formed to complete a specific task, Special Interest Groups represent the voluntary association of various communities of practice that share common requirements and needs. SIG's will surface and discuss topics of mutual interest and communicate requirements and recommendations to the GeoCentre.
- (m) Funding. The Executive Committee shall provide funding for the Clearinghouse to cover the development and management of the Clearinghouse, Geoportal platform and any other services and duties as may be assigned to it. Government organizations shall continue to fund their respective programs that collect and produce geospatial data; such data is then to be made part of the Clearinghouse for wider accessibility.

4.6 Standards Activities

The adoption of data and other standards are important to maintain interoperability across government systems, to better align and streamline government functions and fundamentally improve delivery of services to the public;

- (a) General Coordination Center Responsibility. The SL-NSDI GeoCentre will facilitate a process for the development and implementation of standards, in consultation with National, Provincial and local government authorities, the private and academic sectors, and, to the extent feasible, the international community;
- (b) Role of Standards Working Groups. For each FGDS theme or other standard, the GeoCentre will convene a Working Group comprising representatives from those

stakeholder organizations with an interest in each specific standard. The Centre will consult with the SL-NSDI Technical Committee to identify those organizations that need to be represented in each Working Group. The Centre will then draft a terms of reference (TOR) outlining the standard to be developed, the process for doing so, a schedule for its completion and the roles and responsibilities of the Working Group members.

- (c) **Standards for Which Agencies Have Specific Responsibilities.** Agencies assigned FGDS custodian responsibilities for data categories by the Executive Committee shall develop, in cooperation with the Coordination Center and Working Groups, standards for those data categories, so as to ensure that the data produced by all organizations are compatible.
- (d) **Other Standards.** The GeoCentre may from time to time identify and develop, through its member agencies, and to the extent permitted by law, other standards necessary to achieve the objectives of this policy. The GeoCentre will promote the use of such standards and, as appropriate, such standards shall be submitted to the ICTA for consideration as national information processing standards. Those standards shall apply to geospatial data as defined in this policy;
- (e) **Organization Adherence to Standards.** Government organizations collecting or producing geospatial data, either directly or indirectly (e.g. through grants, partnerships, or contracts with other entities), shall ensure, prior to obligating funds for such activities, that data will be collected in a manner that meets all relevant standards adopted through the GeoCentre process;
- (f) **Standards Change Management.** The GeoCentre will be responsible to monitor requested changes to any adopted standards, and to facilitate a systematic change management process in consultation with affected stakeholders.

4.7 National Digital Geospatial Data Framework

- (a) In consultation with the SL-NSDI Technical Committee, the GeoCentre shall submit a plan and schedule to the Executive Committee for completing the initial implementation of a national Fundamental Geospatial Data Set (FGDS) framework ("framework") and for establishing a process of ongoing data maintenance. The framework shall include geospatial data that are significant, in the determination of the Executive Committee, to a broad variety of users within any geographic area or nationwide.
- (b) **Partnerships for Data Acquisition.** The Executive Committee, with the support of the GeoCentre, shall develop, to the extent permitted by law, strategies for maximizing cooperative participatory efforts with Provincial and local governments, the private sector, and other non-federal organizations to share costs and improve efficiencies of acquiring geospatial data consistent with this order.

4.8 Technology Infrastructure Activities

The SL-NSDI technological infrastructure includes all those elements and processes needed to establish, use and maintain both central and distributed nodes.

- (a) Government Computing Infrastructure. The SL-NSDI will leverage the existing and future government-wide computing infrastructure. This will include the implementation of the geoportal and data repository within the Lanka Government Cloud and connectivity through the government-wide network.
- (b) Central Node. The GeoCentre is responsible for establishing and maintaining all the computing infrastructure and software required for the Geoportal, management of the data repository, data and application services. It will also require additional computing infrastructure, software and technical staff capacity to support all the other functions assigned to the Centre including decision support, special projects, technical capacity building and the management and processing of requests for information and technical help desk;
- (c) The Executive Committee, through the GeoCentre may elect to enter into government-wide software and hardware purchasing agreements where such agreements will materially benefit the participating organizations and result in a significant net-benefit and lower overall cost to the government;
- (d) Distributed Node. Each organization wishing to access and utilize the SL-NSDI resources will need to maintain the technology infrastructure needed to support internal operations as well as connectivity to and utilization of the resources available through the Central Node.

4.9 SL-NSDI Controls

The SL-NSDI program is a government wide program that involves a large number of stakeholders and requires high levels of collaboration, commitment and compliance to the program governing legislation, policies, agreements and procedures. The following controls shall be established and maintained to ensure the efficient program operation guidelines are sustained towards achieving the SL-NSDI objectives and overall Government goals:

- (a) Geo-Legal Activities. The geo-legal framework is one facet of the government e-laws, corresponding policies, guidelines and legislations approved by the Sri Lanka Cabinet and promulgated by the SL-NSDI Program. The SL-NSDI Program shall research and develop recommendations to spatially enable e-laws towards strengthening the SL-NSDI legislative framework in the Country. The program shall also develop policies, guidelines, procedures and other tools towards supporting the geo-legal framework and

its implementation across the stakeholder entities and the community. The stakeholder entities shall participate and contribute to the development and implementation of the SL-NSDI legislative framework and tools.

- (b) **Agreements.** The SL-NSDI Program, facilitated by the GeoCentre shall develop, adopt and disseminate a comprehensive framework for agreements with the stakeholder entities supported by tools, guidelines and procedures. The agreements shall include, but are not limited to, the following: entities’ membership agreements/MOUs, that provide an umbrella for all aspects of collaboration and coordination between the SL-NSDI Program and the stakeholder entities; Service Level Agreements for licensors and Licensing agreements for licensees/ licensors to streamline access and sharing of commonly needed spatial information and related services among the stakeholder entities, 3rd party contractors, consultants and the general public.
- (c) **Compliance & Enforcement.** Compliance with this SL-NSDI Policy is mandatory. All involved Sri Lanka Government personnel and Service Providers must comply with the roles, responsibilities and policy controls set forth in this document to fulfill the Sri Lanka Government vision and the SL-NSDI program to empower the government and society with access to spatial information and spatially enabled services. Monitoring and enforcement of the SL-NSDI policy is the responsibility of each Sri Lanka Government organization. The GeoCentre shall, during its early implementation stage and in consultation with the SL-NSDI Technical Committee, develop a comprehensive compliance framework including timelines and escalation procedures. This is to be submitted to the SL-NSDI Executive Committee for review and approval. Once approved, the overall compliance with the SL-NSDI Policy will be monitored and managed by the GeoCentre. Non-conformance will be managed and escalated to the Executive Committee for advice and resolution according to defined compliance management procedures.
- (d) While compliance with the SL-NSDI Policy is considered mandatory for the Sri Lanka Government organizations, the remaining SL-NSDI stakeholder entities including academia, businesses, civil society organizations and others shall coordinate with the SL-NSDI Executive Committee, through the GeoCentre for effective alignment, as appropriate, where agreement to the terms of the SL-NSDI policy forms a pre-requisite to their membership in the SL-NSDI Community.
- (e) **Performance.** Performance management is essential to monitor and measure the progress of the SL-NSDI program activities in addition to measuring the impact of the program services on overall government operations and services. A comprehensive performance framework to be developed by the GeoCentre will support decision makers in addressing program issues and provide support towards advancing program initiatives. Such performance framework should address both the advancement of GIS development and utilization within each organization as well as the impacts on the efficiency and effectiveness of government programs. Using such framework,

stakeholder government entities will be able to provide performance feedback on SL-NSDI related practices and impact on business operations and services.

- (f) The SL-NSDI program shall identify, develop and maintain a comprehensive performance management framework based on international sound practices and focusing on Return On Investment (ROI) covering tangible and intangible benefits, and supported by guidelines, procedures and tools. This framework shall support an enhanced program monitoring approach built on linking the program activities and investments to efficiencies in operations and services across government while providing a comprehensive view to decision makers. The performance management framework will focus on both internal SL-NSDI goals and activities while linking to external stakeholder operations and services that use and utilize the program products and services.
- (g) The performance management framework shall also support cross-government value chain solutions and services identifying and integrating Key Performance Indicators (KPIs) for all activities contributing the overall operation or service KPI. This will further optimize and direct investments towards activities that positively impact the targeted goals.
- (h) The SL-NSDI stakeholder entities shall collaborate with the SL-NSDI program on developing the performance management framework and will take appropriate measures to adopt and apply the framework and tools towards supporting internal operations, services and decision support processes. The stakeholder entity will provide periodical and as needed performance feedback on SL-NSDI related topics.
- (i) Spatial Investment Optimization. The SL-NSDI program objectives include introducing efficiencies and optimization across government operations and services. Efficiencies addressing tangible and intangible benefits will also include a financial element that relates to optimized government expenditure and increased ROI. The SL-NSDI program activities will consider the investment, cost optimization and saving element in spatial related practices across government organizations. The SL-NSDI program shall, in collaboration with the program stakeholders, develop and implement practices towards expenditure efficiencies including:
 - Assess and develop common shared spatial services that address entity requirements and can be deployed through a common platform to be consumed by all stakeholders.
 - Develop joint projects alignment and coordination activities to reduce redundancy and maximize the benefits from investing spatial related projects across the stakeholder community in Sri Lanka.
 - Develop SL-NSDI program budget review procedures for spatial projects, or spatial components in projects, as part of the Projects Coordination and Alignment framework.

- Develop institutional agreements and initiatives for common SL-NSDI services that optimize government expenditure on common requirements related to spatial data, tools and services.
- Study, evaluate and recommend possible cost sharing and cost recovery models where consumers of a particular service will consume a service against a set fee, in line with this policy and the National Data Sharing Policy. Service-based-costing models will also allow for the sustainability and development of the service and the introduction of other related services for the community.

4.10 Roles and Responsibilities

The development, management and support of the SL-NSDI involves a community initiative, directed by an Executive Committee and supported by a GeoCentre. Table 1 presents a summary of all the major SL-NSDI activities to be carried out. As indicated in the table, selected lead organizations will facilitate and directly support the initiative while others will act as participants. The approach to organizing these functions and processes involved is further described in the “Policy, Governance and Standards Study – Governance Framework” report.

Table 1 - Allocation of SL-NSDI Support Functions

NSDI COORDINATION CATEGORY	NSDI COORDINATION FUNCTION	ORG A	ORG B	ORG C	ORG D
Executive Stakeholder Representation and Oversight	Represent the interests and executive perspective of participating stakeholder organizations				
Executive Stakeholder Representation and Oversight	Jointly assess and make recommendations to Cabinet regarding relevant policies, regulations and programs				
Executive Stakeholder Representation and Oversight	Provide executive championship in support of the SL-NSDI program				
Executive Stakeholder Representation and Oversight	Overseeing coordination of geospatial investment management				
Executive Stakeholder Representation and Oversight	Promoting agency compliance with SL-NSDI standards and responsibilities				
Executive Stakeholder Representation and Oversight	Promoting the allocation of agency resources to fulfill the responsibilities of effective spatial data collection, production, and stewardship				
Executive Stakeholder Representation and Oversight	Ensuring the communication of key national geospatial activities within the agency and with the greater SL-NSDI stakeholder community				
Executive Stakeholder Representation and Oversight	Appointing an agency technical representative and alternate to serve on the Technical Committee of the SL-NSDI				
Executive Stakeholder Representation and Oversight	Appointing representatives to lead or serve on working groups				

Executive Stakeholder Representation and Oversight	Promoting the benefits of coordinating and partnering among government agencies in the development of the SL-NSDI within the member's agency				
Executive Stakeholder Representation and Oversight	Serving as a champion for the use, value, and benefits of geospatial information in decision making and in the business of government				
Executive Stakeholder Representation and Oversight	Collaborating with the member's agency IT and/or GIS manager to ensure that the agency leverages its cumulative geospatial information investments to benefit agency-wide business processes and services				
Technical Stakeholder Representation and Oversight	Support SL-NSDI executive committee members in the formation and analysis of pertinent policy matters for those aspects that are of a technical nature				
Technical Stakeholder Representation and Oversight	Support the SL-NSDI in identifying and carrying out cross-agency coordination				
Technical Stakeholder Representation and Oversight	Lead the coordination of technical issues across the SL-NSDI community				
Technical Stakeholder Representation and Oversight	Work closely with the SL-NSDI coordination office to develop and promote common standards and interoperability guidelines, including participation in Topical Working Groups when needed				
Technical Stakeholder Representation and Oversight	Participate in evaluating cross-agency business processes and applications where spatial information is concerned				
Technical Stakeholder Representation and Oversight	Participate in the development and promotion of common quality assurance and quality control specifications, methods and tools				
Technical Stakeholder Representation and Oversight	Participate in the development and adoption of framework data standards and specifications				
Technical Stakeholder Representation and Oversight	Participate in SL-NSDI data clearinghouse development and operations performance monitoring and provide feedback regarding potential improvements to the SL-NSDI executive committee on a regular basis				
Technical Stakeholder Representation and Oversight	Promote and support technical staff training and professional development where this will support strengthening of the SL-NSDI framework, including the participation and contribution of individual agencies				
Program Administration and Management	Oversee and administer the functioning of the SL-NSDI coordination and support unit				
Program Administration and Management	Organize and provide secretariat support to the executive and technical stakeholder representation committees				
Program Administration and Management	Promote the SL-NSDI in various local and international meetings and conferences				

Program Administration and Management	Develop and disseminate information regarding the SL-NSDI through multiple channels				
Program Administration and Management	Lead the periodic refresh of the SL-NSDI Strategic Plan				
Program Administration and Management	Prepare annual operating plans and budgets for the SL-NSDI coordination and support unit (s)				
Program Administration and Management	Administer technical staff recruitment, training and retention program				
Program Administration and Management	Develop, recommend and maintain SL-NSDI strategies and policies in coordination with Executive and Technical Committees				
Program Administration and Management	Develop and maintain Security Operations Plan				
Program Administration and Management	Research proposed initiatives and present the research for Executive and Technical Committees review and consideration				
Program Administration and Management	Develop and maintain SL-NSDI program performance monitoring and management				
Program Administration and Management	Provide periodical reporting and monitoring to the Executive Committee and ensure that the SL-NSDI member agencies and working groups report the same based on the set forth service level agreements				
Program Administration and Management	Conduct Return On Investment analysis, monitor and report progress over time				
Program Administration and Management	Develop and maintain GIS Roadmap framework and support, facilitate, and oversee the Enterprise GIS roadmap development within the Stakeholder Entities				
Program Administration and Management	Promote and support common training program needs throughout the stakeholder community				
Program Administration and Management	Coordinate data security and setting of data publisher and user rights, in alignment with service level agreements				
Program Administration and Management	Assist Technical and Working groups in cross-agency coordination, business process reconciliation, and related matters				
Program Administration and Management	Monitor fundamental geospatial data set (FGDS) acquisition projects and maintenance activities, including the maintenance of metadata by custodian agencies				
	Promote and develop strategic public/private/institutional partnerships				
Technical Infrastructure Management and Operations	Maintain SL-NSDI Geospatial Portal and Data Clearinghouse				

Technical Infrastructure Management and Operations	Develop and manage/maintain catalog of data and application services (metadata)				
Technical Infrastructure Management and Operations	Develop and maintain common application services				
Technical Infrastructure Management and Operations	Conduct user support services including administration of user access privileges, record and manage requests for information (RFI's), and user help desk				
Technical Infrastructure Management and Operations	Manage computing infrastructure (hardware, network, software)				
Technical Infrastructure Management and Operations	Administration of the common data repository				
Technical Infrastructure Management and Operations	Manage execution of data owner service level agreements (SLA's) at the operational level, monitor performance and report same to Unit management				
Technical Infrastructure Management and Operations	Support Working Groups in the development of fundamental geospatial data set data models				
Technical Infrastructure Management and Operations	Support GIS technology planning for the Unit				
Technical Infrastructure Management and Operations	Promote adoption and enforcement of quality assurance and quality control measures in all fundamental geospatial data set (FGDS) acquisition efforts				
Technical Infrastructure Management and Operations	Administer acquisition and licensing of data for which there is no other logical custodian				
Technical Infrastructure Management and Operations	Participate in FGDS configuration management, in partnership with custodian agencies and in consultation with affected stakeholders				
Technical Infrastructure Management and Operations	Provide general oversight for FGDS data development and maintenance in the SL-NSDI Community, via data projects alignment and/or special projects				
Technical Infrastructure Management and Operations	Develop common standards and guidelines in consultation with the appropriate stakeholder groups				
Technical Infrastructure Management and Operations	Participate in the development and adoption of common geospatial content data standards, in partnership with custodian agencies and in consultation with stakeholder agencies				
Technical Infrastructure Management and Operations	Promote and support the development of value-add services by the private and institutional sectors				
Technical Infrastructure Management and Operations	Promote and support the geospatial-enabling of online e-Government services				
Technical Infrastructure Management and Operations	Promote adoption and enforcement of quality assurance and quality control measures in all application service development efforts				

Technical Infrastructure Management and Operations	Conduct incident management				
Technical Infrastructure Management and Operations	Conduct change and configuration management				
Technical Infrastructure Management and Operations	Conduction SL-NSDI asset management				
Technical Infrastructure Management and Operations	Conduct release management				
Technical Infrastructure Management and Operations	Provide basic as-needed technical and analytical support to the participating stakeholder agencies based on sound system and database design, spatial analytical procedures, cartographic design and programming practices				
Stakeholder Engagement and Support	Support stakeholder community organization and governance. Identify and strengthen community development and engagement activities to meet evolving requirements				
Stakeholder Engagement and Support	Monitor geospatial system and database development across the stakeholder community and identify needs for program coordination and alignment				
Stakeholder Engagement and Support	Monitor compliance with agreed Standard Operating Procedures (SOP's) and Rules of Engagement among the stakeholder community				
Stakeholder Engagement and Support	Develop and coordinate strategies for the development and dissemination of capacity building tools and methods				
Stakeholder Engagement and Support	Support the development, publishing and dissemination of common SL-NSDI standards for use by the stakeholder community				
Stakeholder Engagement and Support	Support the maintenance of the SL-NSDI Master Plan				
Stakeholder Engagement and Support	Develop and manage the community outreach and communications activities of the SL-NSDI program				
Stakeholder Engagement and Support	Identify and manage key opportunities for publicizing the progress and achievements of the SL-NSDI program, including the SL-NSDI website, geospatial portal, special events, seminars, exhibitions, conferences and other channels				
Stakeholder Engagement and Support	Monitor and report on organization "GeoMaturity"				
Stakeholder Engagement and Support	Establish and support ties with SDI related regional and international initiatives as well as bilateral collaboration and experience sharing with other national SDI programs				
Stakeholder Engagement and Support	Develop, implement and maintain public outreach and communications program to increase awareness among interested groups (academia, private sector, public).				

Stakeholder Engagement and Support	Maintain close communications and proactive working relationship with all SL-NSDI stakeholder organizations				
Stakeholder Engagement and Support	Formalize, institutionalize, and extend SI-NSDI activities among existing stakeholders				
Stakeholder Engagement and Support	Expand the SL-NSDI community through a well articulated community involvement strategy based on identified priorities				
Stakeholder Engagement and Support	Work on strategies for developing and disseminating SL-NSDI capacity building tools and methods in the government Entities and their integration with e-government services				
Special Projects and Decision Support	Provide periodic and as-needed decision support products and services to the leadership on a regular basis (CEO's, Ministers, Cabinet)				
Special Projects and Decision Support	Provide special project support to entities on an as-needed basis (may require service fees or other financial arrangement)				
Special Projects and Decision Support	Maintain specialized facilities and expertise that can be accessed on an as-needed basis by other entities (e.g. very large scale plotter, drone survey service, specialized GPS equipment, etc.)				

ANNEX A – NATIONAL POLICY ASSESSMENT

There are two policy instruments at the national level that provide the primary overall guidance within which the SL-NSDI policies must be framed. These include:

- Constitution of the Democratic Socialist Republic of Sri Lanka, and
- Right to Information Act.

The below provides extracted passages from these instruments that have relevance to the SL-NSDI along with characterization of their implications for the SL-NSDI policy framework. The latter has been compiled and summarized in the main body of this report.

1.0 Constitution of the Democratic Socialist Republic of Sri Lanka

The Constitution of Sri Lanka guarantees the right of access to information in Article 14A thereof acknowledging that there exists a need to foster a culture of transparency and accountability in public authorities by giving effect to the right of access to information and thereby promote a society in which the people of Sri Lanka would be able to more fully participate in public life through combating corruption and promoting accountability and good governance. Specific provisions that have relevance to the SL-NSDI are referenced below:⁶

14A. Right of Access to Information:

- (1) Every citizen shall have the right of access to any information as provided for by law, being information that is required for the exercise or protection of a citizen's right held by:-
 - (a) the State, a Ministry or any Government Department or any statutory body established or created by or under any law;
 - (b) any Ministry of a Minister of the Board of Ministers of a Province or any Department or any statutory body established or created by a statute of a Provincial Council;
 - (c) any local authority; and
 - (d) any other person, who is in possession of such information relating to any institution referred to in sub-paragraphs (a) (b) or (c) of this paragraph.
- (2) No restrictions shall be placed on the right declared and recognized by this Article, other than such restrictions prescribed by law as are necessary in a democratic society, in the interests of national security, territorial integrity or public safety, for the prevention of disorder or crime, for the protection of health or morals and of the reputation or the rights of others, privacy, prevention of contempt of court, protection of parliamentary privilege, for preventing the disclosure of information communicated in confidence, or for maintaining the authority and impartiality of the judiciary.
- (3) In this Article, "citizen" includes a body whether incorporated or unincorporated, if not less than three-fourths of the members of such body are citizens.

⁶ The Constitution of the Democratic Socialist Republic of Sri Lanka, (as amended up to 15th May, 2015), Revised Edition 2015, Published by the Parliament Secretariat

Implications for SL-NSDI

- *Provides foundation enabling framework for ensuring public access to government information;*
- *Outlines the conditions for restricting access to data;*

2.0 Right To Information Act, No. 12 of 2016

Right to Information Act, No. 12 of 2016⁷, Certified on 04th August, 2016, is an Act to “...provide for the right of access to information; to specify grounds on which access may be denied; to establish the Right To Information Commission; to appoint information officers; to set out the procedure and for matters connected therewith or incidental thereto”. The Act further states “...the Constitution guarantees the right of access to information in Article 14A thereof and there exists a need to foster a culture of transparency and accountability in public authorities by giving effect to the right of access to information and thereby promote a society in which the people of Sri Lanka would be able to more fully participate in public life through combating corruption and promoting accountability and good governance.”

This Act sets the foundation for public access to government information. By definition, “map” is a specifically acknowledged form of government data and information that must comply with the provisions of the Act. Specific provisions that have relevance to the SL-NSDI are referenced below:

PART I - APPLICATION OF THE PROVISIONS OF THE ACT

3. (1) Subject to the provisions of section 5 of this Act, every citizen shall have a right of access to information which is in the possession, custody or control of a public authority
4. The provisions of this Act shall have effect notwithstanding anything to the contrary in any other written law and accordingly in the event of any inconsistency or conflict between the provisions of this Act and such other written law, the provisions of this Act shall prevail.

Implications for SL-NSDI

- *Subject to provisions, every citizen has the right to access government information;*
- *If any law or regulation does not agree, this Act will prevail*

PART II - DENIAL OF ACCESS TO INFORMATION

5. (1) Subject to the provisions of subsection (2) a request under this Act for access to information shall be refused, where—
 - a. the information relates to personal information the disclosure of which has no relationship to any public activity or interest, or which would cause

⁷ Right to Information Act, No. 12 of 2016, Published as a Supplement to Part II of the Gazette of the Democratic Socialist Republic of Sri Lanka of August 05, 2016.

- unwarranted invasion of the privacy of the individual unless the larger public interest justifies the disclosure of such information or the person concerned has consented in writing to such disclosure;
- b. disclosure of such information–
 - i. would undermine the defence of the State or its territorial integrity or national security;
 - ii. would be or is likely to be seriously prejudicial to Sri Lanka’s relations with any State, or in relation to international agreements or obligations under international law, where such information was given by or obtained in confidence;
 - c. the disclosure of such information would cause serious prejudice to the economy of Sri Lanka by disclosing prematurely decisions to change or continue government economic or financial policies relating to-
 - i. exchange rates or the control of overseas exchange transactions;
 - ii. the regulation of banking or credit;
 - iii. taxation;
 - iv. the stability, control and adjustment of prices of goods and services, rents and other costs and rates of wages, salaries and other income; or
 - v. the entering into of overseas trade agreements;
 - d. information, including commercial confidence, trade secrets or intellectual property, protected under the Intellectual Property Act, No. 36 of 2003, the disclosure of which would harm the competitive position of a third party, unless the public authority is satisfied that larger public interest warrants the disclosure of such information;
 - e. the information could lead to the disclosure of any medical records relating to any person, unless such person has consented in writing to such disclosure;
 - f. the information consist of any communication, between a professional and a public authority to whom such professional provides services, which is not permitted to be disclosed under any written law, including any communication between the Attorney General or any officer assisting the Attorney General in the performance of his duties and a public authority;
 - g. the information is required to be kept confidential by reason of the existence of a fiduciary relationship;
 - h. the disclosure of such information would-
 - i. cause grave prejudice to the prevention or detection of any crime or the apprehension or prosecution of offenders; or
 - ii. expose the identity of a confidential source of information in relation to law enforcement or national security, to be ascertained;
 - i. subject to the provisions of section 29(2)(c), the information has been supplied in confidence to the public authority concerned by a third party and the third party does not consent to its disclosure;
 - j. the disclosure of such information would be in contempt of court or prejudicial to the maintenance of the authority and impartiality of the judiciary;
 - k. the disclosure of such information would infringe the privileges of Parliament or of a Provincial Council as provided by Law;
 - l. disclosure of the information would harm the integrity of an examination being conducted by the Department of Examination or a Higher Educational Institution;

- m. the information is of a cabinet memorandum in relation to which a decision has not been taken; or
- n. the information relates to an election conducted by the Commissioner of Elections which is required by the relevant election laws to be kept confidential.

Implications for SL-NSDI

- ***Data access is not to compromise privacy, national safety and security, international relations, economy, legal agreements, selected political processes or intellectual property rights.***

(2) Notwithstanding the provisions of subsection (1), a request for information shall not be refused on any of the grounds referred to therein, other than the grounds referred to in paragraphs (a), (b), (d), (e), (f), (g), (h) and (j) of that subsection, if the information requested for is over ten years old.

(3) Any information relating to any overseas trade agreement referred to in subsection (1) (c) (v) of this section, where the negotiations have not concluded even after a lapse of ten years shall not be disclosed.

(4) Notwithstanding the provisions of subsection (1), a request for information shall not be refused where the public interest in disclosing the information outweighs the harm that would result from its disclosure.

(5) An information officer may seek the advice of the Commission, with regard to an issue connected with the grant of access to any information which is exempted from being disclosed under subsection (1), and the commission may as expeditiously as possible and in any event give its advice within fourteen days.

(6) Where a request for information is refused on any of the grounds referred to in section 5, access shall nevertheless be given to that part of any record or document which contains any information that is not exempted from being disclosed under that section, and which can reasonably be severed from any part that contains information exempted from being disclosed.

Implications for SL-NSDI

- ***Access to data will not be unreasonably denied***
- ***In some cases, access may be given to partial data or information that is not exempted from being disclosed.***

PART III – DUTIES OF MINISTERS AND PUBLIC AUTHORITIES

7. (1) It shall be the duty of every public authority to maintain all its records duly catalogued and indexed in such form as is consistent with its operational

requirements which would facilitate the right of access to information as provided for in this Act.

- (2) In discharging its obligations under subsection (1), every public authority shall comply with any direction given by the Commission under section 14(h).
- (3) All records being maintained by every public authority, shall be preserved–
 - (a) in the case of those records already in existence on the date of coming into operation of this Act, for a period of not less than ten years from the date of coming into operation of this Act; and
- (4) No record or information which is the subject matter of a request made under this Act, shall be destroyed during the pendency of such request or any appeal or judicial proceeding relating to such request.
- (5) Notwithstanding the provisions of subsection (2), every public authority shall endeavor to preserve all its records in electronic format within a reasonable time, subject to the availability of resources.

Implications for SL-NSDI

- *Every public authority is responsible for the effective management of the information they need for their work*
- *Records should be preserved in an electronic form.*
- *Historic records should be preserved for future reference. The 10 year timeframe in the Act seems most relevant to paper records rather than digital. This provision should be revisited for the purposes of geospatial information, the historical reference of which may be significant for longer term trend analysis in support of policy, planning and decision making purposes.*

8. It shall be the duty of every Minister to whom any subject has been assigned to publish biannually before the thirtieth of June and thirty first of December respectively of each year, a report in such form as shall be determined by the Commission as would enable a citizen to exercise the right of access to information granted under section 3 of this Act.

iv. the details of facilities available to citizens for obtaining information;

Implications for SL-NSDI

- *It should be clear what information is available from each organization and how to access it*

PART IV - ESTABLISHMENT OF THE RIGHT TO INFORMATION COMMISSION

11. (1) There shall be established for the purposes of this Act, a body called the Right to Information Commission (in this Act referred to as the “Commission”).
- (2) The Commission shall by the name assigned to it by subsection (1), be a body corporate with perpetual succession and a common seal and may sue and be sued in its corporate name.

14. The duties and functions of the Commission shall be, to –
- (a) monitor the performance and ensure the due compliance by public authorities, of the duties cast on them under this Act;
 - (b) make recommendations for reform both of a general nature and those in regard to any specific public authority;
 - (c) issue guidelines based on reasonableness, for determining fees to be levied by public authorities for the release of any information under this Act;
 - (d) prescribe the circumstances in which information may be provided by an information officer, without the payment of a fee;
 - (e) prescribe the fee Schedule based on the principle of proactive disclosure, in regard to providing information;
 - (f) co-operate with or undertake training activities for public officials on the effective implementation of the provisions of this Act;
 - (g) publicise the requirements of this Act and the rights of individuals under the Act;
 - (h) issue guidelines for the proper record management for public authorities.

Implications for SL-NSDI

- *The membership of the Commission does not include any professionals that are likely to have a background in geospatial information specifically. This issue will require further investigation to ensure that the geospatial topic is fully understood and acknowledged within the Information Commission;*
- *Right to Information Commission responsible to oversee the implementation of the Act, including compliance;*
- *The Commission can recommend reform measures for any public authority. This may be construed to include “geomaturity” reforms as promoted by the SL-NSDI in the future.*
- *The Commission has the power to approve the levy of fees for provision of government data. Presumably this power is exercised in acknowledgement of the other provisions in the Act.*

15. For the purpose of performing its duties and discharging of its functions under this Act, the Commission shall have the power-
- a. to hold inquiries and require any person to appear before it;
 - b. to examine such person under oath or affirmation and require such person where necessary to produce any information which is in that person’s possession, provided that the information which is exempted from disclosure under section 5 shall be examined in confidence;
 - c. to inspect any information held by a public authority, including any information denied by a public authority under the provisions of this Act;
 - d. to direct a public authority to provide information, in a particular form;
 - e. to direct a public authority to publish any information withheld by a public authority from the public, subject to the provisions of section 5;
 - f. to hear and determine any appeals made to it by any aggrieved person under section 32; and
 - g. to direct a public authority or any relevant information officer of the authority to reimburse fees charged from a citizen due to any information

requested for not been provided in time.

Implications for SL-NSDI

- *The Commission has the power to compel information access in accordance with the Act, and to hear grievances where access has been denied;*
- *The Commission can also dictate the form that information must be provided in.*

PART V - APPOINTMENT OF INFORMATION OFFICERS AND PROCEDURE FOR GAINING ACCESS TO INFORMATION

23. (1) (a) Every public authority shall for the purpose of giving effect to the provisions of this Act, appoint, within three months of the date of coming into operation of this Act, one or more officers as information officers of such public authority and a designated officer to hear appeals.

(b) Until such time that an information officer is appointed under paragraph (a) the Head or Chief Executive Officer of the public authority shall be deemed to be the information officer of such public authority, for the purposes of this Act.

(2) Every information officer shall deal with requests for information made to the public authority of which he or she has been appointed its information officer, and render all necessary assistance to any citizen making such request to obtain the information.

(3) The Information Officer may seek the assistance of any other officer as he or she may consider necessary, for the proper discharge of the duty imposed on him under this Act, and where assistance is sought from any such officer, it shall be the duty of such officer to provide the required assistance

Implications for SL-NSDI

- *Information Officers are to be appointed within each public authority to hear information request appeals;*
- *In absence of an appointed officer, the Head or CEO of the authority is responsible for carrying out this duty;*
- *The role of SL-NSDI Executive and Technical Committee members relative to this function will need to be explored.*

24. (1) Any citizen who is desirous of obtaining any information under this Act shall make a request in writing to the appropriate information officer, specifying the particulars of the information requested for:

Provided that where any citizen making a request under this subsection is unable due to any reason to make such request in writing, such citizen shall be entitled to make the request orally and it shall be the duty of the appropriate information officer to reduce such request to writing on behalf of the citizen.

(2) Where a citizen –

- (a) wishes to make a request to a public authority; or
- (b) has made a request to a public authority which does not comply with the requirements of this Act,

the information officer concerned shall take all necessary steps to assist the citizen, free of charge, to make the request in a manner that complies with this Act.

(3) On receipt of a request, an information officer shall immediately provide a written acknowledgement of the request to the citizen.

(4) Where an information officer is able to provide an immediate response to a citizen making a request and such response is to the satisfaction of the requester, the information officer shall make and retain a record of the request and the response thereto.

(5) A citizen making a request for information shall:–

provide such details concerning the information requested as is reasonably necessary to enable the information officer to identify the information;

- (a) identify the nature of the form and language in which the citizen prefers access;
- (b) where the citizen making the request believes that the information is necessary to safeguard the life or liberty of a person, include a statement to that effect, including the basis for that belief; and
- (c) not be required to give any reason for requesting the information or any other personal details except those that may be necessary for contacting him or her.

Implications for SL-NSDI

- ***Information Officers are required to take every effort to fulfill citizen requests for information, written or oral, free of charge;***
- ***Citizens requesting information need to provide as much detail concerning the request as possible, but are not obliged to explain the reason for the request.***

25. (1) An information officer shall, as expeditiously as possible and in any case within fourteen working days of the receipt of a request under section 24, make a decision either to provide the information requested for on the payment of a fee determined in accordance with the fee schedule referred to in section 14(e) or to reject the request on any one or more of the grounds referred to in section 5 of this Act, and shall forthwith communicate such decision to the citizen who made the request.

(2) Where a decision is made to provide the information requested for, access to such information shall be granted within fourteen days of arriving at such decision.

(3) Where the request for information concerns the life and personal liberty of the citizen, the response to it shall be made within forty-eight hours of the receipt of the request.

(4) Notwithstanding the requirement made for the payment of a fee under subsection (1), the Commission may specify the circumstances in which information may be provided by an information officer, without the payment of a fee.

(5) The period of fourteen days referred to in subsection (2) for providing access to information may be extended for a further period of not more than twenty one days where-

(a) the request is for a large number of records and providing the information within fourteen days would unreasonably interfere with the activities of the public authority concerned; or

(b) the request requires a search for records in, or collection of records from, an office of the public authority not situated in the same city, town or location as the office of the information officer that cannot reasonably be completed within the fourteen days.

(6) Where a period for providing information is to be extended for any of the circumstances referred to in subsection (5), the information officer shall, as soon as reasonably possible, but in any case within fourteen days, notify the citizen concerned of such fact giving the following reasons:—

(a) the period of the extension; and

(b) reasons for the extension.

(7) A citizen who is dissatisfied with the reasons given under subsection (6) may lodge an appeal with the designated officer.

Implications for SL-NSDI

- *Specific time limits for responding to a request for information are established;*
- *With well-defined data sharing policies and agreements in place, the SL-NSDI should be able to avoid any response delays;*
- *With online access to commonly needed data, the SL-NSDI can help to avoid many request for information, saving time for both the government and the public.*

26. (1) Every public authority shall display in a conspicuous place within the official premises and on a website of such public Authority if any, a notice specifying—

(a) contact details of the Commission and the members of the Commission;

(b) contact details of the information officer;

(c) contact details of the designated officer;

(d) fees to be charged for obtaining any information from such public Authority.

(2) The fee referred to in subsection (1)(d), shall be determined in accordance with the fee scheduled formulated by the Commission under section 14(e).

Implications for SL-NSDI

- *Specific time limits for responding to a request for information are established;*
- *With well-defined data sharing policies and agreements in place, the SL-NSDI should be able to avoid any response delays;*
- *With online access to commonly needed data, the SL-NSDI can help to avoid many request for information, saving time for both the government and the public.*

27. (1) Where decision has been made to grant a request for information, such information shall be provided in the form in which it is requested for, unless the information officer is of the view that providing the information in the form requested for would not be detrimental to the

safety or preservation of the relevant document or record in respect of which the request was made.

(2) Where an information officer is unable to provide the information in the manner requested for, it shall be the duty of such officer to consult the citizen and render all possible assistance to the citizen to determine an appropriate alternative means of providing access to the information and to facilitate compliance with such request.

(3) Subject to the provisions of subsection (1), a citizen, whose request for information has been granted, is entitled to:–

- (a) inspect relevant work, documents, records;
- (b) take notes, extracts or certified copies of documents or records;
- (c) take certified samples of material;
- (d) obtain information in the form of diskettes, floppies, tapes, video cassettes or any other electronic mode or through printouts where such information is stored in a computer or in any other device.

Implications for SL-NSDI

- ***SL-NSDI geoportals can help to provide public access to geospatial information;***
- ***The Act implies that physical copies of the information must be provided upon request. Web map and feature services will likely be able to satisfy many uses, however it may also be required to allow information to be downloaded by the public.***

28. Where a request for information is refused by an information officer, such officer shall specify the following information in the communication to be sent under section 25(1), to the citizen who made the request–

- (a) the grounds on which such request is refused; and
- (b) the period within which and the person to whom an appeal against such refusal may be preferred under section 32 of this Act.

29. (1) Where a request made to an information officer by any citizen to disclose information which relates to, or has been supplied by a third party and such information has been treated as confidential at the time the information was supplied, the information officer shall, within one week of the receipt of such request, invite such third party by notice issued in writing, to make representation for or against such disclosure, within seven days of the receipt of the notice.

(2) An information officer shall be required in making his decision on any request made for the disclosure of information which relates to or has been supplied by a third party, to take into consideration the representations made by such third party under subsection (1), and shall, where the third party–

- (a) does not respond to the notice, disclose information requested for;
- (b) responds to the notice and agrees to the disclosure of the information requested for, disclose such information;
- (c) responds to the notice and refuses to the disclosure of the information requested for, deny access to the information requested for;

Provided however, the Commission may on the application made in that behalf by the citizen making the request, direct the disclosure of the information in question notwithstanding any objections raised by such third party against its disclosure, where the release of the information concerned demonstrably outweighs the private interest in non disclosure.

Implications for SL-NSDI

- *SL-NSDI geoportal and associated data repository will comprise information that is being provided by multiple custodian organizations. This can be construed to be “third party” information, therefore all Service Level Agreements (SLA’s) and/or associated data licenses dictating the terms and conditions of use should be aligned with this part of the Act.*

PART VI – APPEALS AGAINST REJECTIONS

31. (1) Any citizen who is aggrieved as a result of–
- (a) refusing a request made for information;
 - (b) refusing access to the information on the ground that such information is exempted from being granted under section 5;
 - (c) non- compliance with time frames specified by this Act;
 - (d) granting of incomplete, misleading or false information;
 - (e) charging an excessive fees;
 - (f) the refusal of the information officer to provide information in the form requested; or
 - (g) the citizen requesting having reasonable grounds to believe that information has been deformed, destroyed or misplaced to prevent such citizen from having access to the information,

may, prefer an appeal to the designated officer within fourteen days of the refusal, act or date of becoming aware of the grounds on which the appeal is sought to be made, as the case may be:

Implications for SL-NSDI

- *The Act provides for criteria and process for appeals against a refusal for provision of public information. This mechanism should be reflected in the SL-NSDI request for information process.*

PART VII – GENERAL

41. (1) The Minister may in consultation with the Commission make regulations in respect of all matters required by this Act to be prescribed or in respect of which regulations are necessary to be made in order to give effect to the principles and provisions of this Act.

(2) Every regulation made under subsection (1) shall be published in the Gazette and shall come into operation on the date of such publication or on such later date as may be specified in the regulation.

(3) Every regulation made under subsection (1) shall, forthwith after its publication in the Gazette be brought before Parliament for approval and any regulation which is not so approved

shall be deemed to be rescinded as from the date of such disapproval but without prejudice to anything previously done thereunder.

(4) The date on which any regulation is deemed to be so rescinded shall be published in the Gazette.

42. (1) The Commission may make rules concerning any of the following matters:-
- (a) the form and manner in which appeals may be made to the Commission;
 - (b) the procedure for holding inquiries;
 - (c) fee schedule in respect of providing information;
 - (d) the format of the reports to be prepared under section 10.

(2) No rule made under this section shall have effect until it is approved by the Minister and notification of such approval is published in the Gazette.

Implications for SL-NSDI

- *Any regulations written to apply the provisions of this Act must be published in the Gazette and ultimately approved by the Parliament;*
- *The Commission is authorized to make rules regarding fees for the provision of information.*

43. In this Act, unless the context otherwise requires—

“information” includes any material which is recorded in, in any form including records, documents, memos, emails, opinions, advices, press releases, circulars, orders, log books, contracts, reports, papers, samples, models, correspondence, memorandum, draft legislation, book, plan, map, drawing, diagram, pictorial or graphic work, photograph, film, microfilm, sound recording, video tape, machine readable record, computer records and other documentary material, regardless of its physical form or character and any copy thereof;

“information officer” means an information officer appointed under section 23 of this Act;

Implications for SL-NSDI

- *Under the definition of “information” the Act specifically identifies “map” as one of the referenced applicable materials. Therefore it can be expected that all geospatial data is included in the Act;*

3.0 Information and Communication Technology Act , No. 27 of 2003

The following lists those clauses and terms within the Information and Communication Technology Act , No. 27 of 2003 that have special implications for the SL-NSDI. Each listed clause or group of related clauses is followed by comments summarizing these implications:

[Certified on 09th September, 2003] L.D.—O. 7/2003.

AN ACT TO PROVIDE FOR THE ESTABLISHMENT OF THE NATIONAL COMMITTEE ON INFORMATION AND COMMUNICATION TECHNOLOGY OF SRI LANKA ; TO PROVIDE FOR THE SETTING OUT OF A NATIONAL POLICY ON INFORMATION AND COMMUNICATION TECHNOLOGY AND FOR THE PREPARATION OF AN ACTION PLAN ; TO PROVIDE FOR THE APPOINTMENT OF A TASK FORCE FOR INFORMATION AND COMMUNICATION TECHNOLOGY; TO PROVIDE FOR THE ESTABLISHMENT OF THE INFORMATION AND COMMUNICATION TECHNOLOGY AGENCY OF SRI LANKA CHARGED WITH THE IMPLEMENTATION OF THE NATIONAL POLICY IN BOTH THE PUBLIC AND PRIVATE SECTORS ; AND TO PROVIDE FOR MATTERS CONNECTED THEREWITH OR INCIDENTAL THERETO.

PART I - NATIONAL POLICY AND ACTION PLAN ON INFORMATION AND COMMUNICATION TECHNOLOGY

2. The Cabinet of Ministers shall from time to time, having regard to the interests of the industry, approve the National Policy Framework in relation to Information and Communication Technology.

National Policy on Information and Communication Technology to be approved by the Cabinet of Ministers.

Appointment of Task Force on Information and Communication Technology.
Functions of the Task Force.

3. (1) In order to ensure the proper implementation of the Information and communication Technology Policy formulated under section 2, within Sri Lanka, the Cabinet of Ministers shall appoint a Task Force on Information and Communication Technology (hereinafter referred to as the “Task Force”) consisting of not more than twenty members. One of the members so appointed shall be appointed as the Chairman of the Task Force.

(2) The members of the Task Force shall be chosen from among persons who have expertise in the fields of information and communication technology, telecommunications, law, business and finance.

4. The functions of the Task Force shall be—

(a) to prepare an action plan in accordance with the National Policy on Information and Communication Technology ;

- (b) to co-ordinate the implementation of the National Policy on Information and Communication Technology and the action plan in both the government sector and the private sector and facilitate the implementation of the same ;
- (c) to supervise the implementation of the National Policy on Information and Communication Technology and the action plan and where necessary issue directions from time to time to the implementing agencies ;
- (d) to draw up plans identifying the manner in which Information and Communication Technology can be made popular within Sri Lanka ;
- (e) to identify, develop and cause to be adopted standards of international renown for human resources development, products, services, markets and transactions in their application to the field of Information and Communication Technology ; and
- (f) recommend where necessary the making of regulations to give effect to the provisions of the Act.

Implications for SL-NSDI

- ***Need to determine the potential relationship between the ICT Task Force and the RTI Commission;***
- ***Need to determine the implied relationship between the ICT Task Force, the National Committee on Information and Communication and the SL-NSDI Executive Committee;***

PART II - NATIONAL COMMITTEE ON INFORMATION AND COMMUNICATION TECHNOLOGY

5. (1) There shall be a National Committee on Information and Communication Technology (hereinafter referred to as “the Committee”).

(2) The Committee shall consist of—

- (a) the Minister, who shall preside at all meetings of the Committee ;
- (b) The Minister in charge of the subject of Telecommunications ;
- (c) the Minister in charge of the subject of Education ;
- (d) the Minister in charge of the subject of Higher Education ;
- (e) the Minister in charge of the subject of Public Administration ;
- (f) such number of members in respect of each category of stakeholders, as is determined by the Cabinet of Ministers taking into consideration the needs of the Information and Communication Technology industry. Such members shall be appointed by the respective Ministers.

(3) The Committee shall be charged with the task of discussing policies, preparation of programmes and plans for Information and Communication Technology and for periodic review of its implementation.

(4) The Committee shall meet at least once in every four months.

National Committee on Information and Communication Technology.

(5) The procedure to be followed at the meetings of the Council shall be as prescribed.

(6) The Committee shall issue guidelines and directions as are necessary for implementation of the National Policy on Information and Communication Technology and the action plan, to the Task Force.

Implications for SL-NSDI

- *There is presently no prescribed high level representative on the Committee that is likely to have background and knowledge about geospatial data and information;*

PART III GENERAL - ESTABLISHMENT OF THE INFORMATION AND COMMUNICATION TECHNOLOGY AGENCY OF SRI LANKA

The information and Communication Technology Agency of Sri Lanka to assist Task Force and Committee.

6. (1) The Information and Communication Technology Agency of Sri Lanka (registered under the Companies Act, No. 17 of 1982) shall be the Executive Agency to assist the Task Force and the Committee.

(2) In addition to the powers and functions of the Agency as set out in the Memorandum and Articles of Association, the Agency shall have the following powers and functions :—

- (a) to provide all information necessary for the formulation of the National Policy on Information and Communication Technology and assist the Cabinet of Ministers and the Committee ;
- (b) to submit proposals to be included in the National Policy and action plan ;
- (c) to take all such steps as are necessary to facilitate the implementation of the National Policy and the action plans as are formulated, and to periodically monitor and review the same;
- (d) to prepare the strategy and programmes which needs to be implemented in both the government and the private sectors in keeping with the National Policy on Information and Communication Technology and the action plan;
- (e) to provide all information necessary for the formation of the National Policy on Information Technology;
- (f) to recommend to the Task Force, matters which need to be taken into consideration in the preparation of the action plan;
- (g) to submit proposals in respect of matters which needs to be included in the National Policy and action plan ; and
- (h) to prepare the strategies and programmes which need to be implemented in both the government sector and the private sector in keeping with the National Policy on Information and Communication Technology and the action plan.

Implications for SL-NSDI

- *ICTA set up as a government owned company and tasked to support the Task Force and Committee.* This has some equivalency to the suggested role of the NSDI Coordination Office to support the SL-NSDI Executive Committee as a secretariat function.

7. (1) The Minister may from time to time issue to the Agency and other respective government agencies such directions and guidelines on matters of National Policy on Information and Communication Technology and the action plan as have been approved by the Cabinet of Ministers.

(2) The Minister may from time to time issue to the Task Force such directions and guidelines relating to the manner, mode and extent of implementation, in so far as it is relevant to the implementation of the National Policy on Information and Communication Technology and the action plan, within both the public and the private sectors.

(3) It shall be the duty of the Task Force, the Agency and the relevant Ministries, government departments, statutory bodies, institutions other the agencies of the public and private sector to comply with such directions and guidelines.

Implications for SL-NSDI

- ***The Minister is assigned to issue direction and guidelines, on “action plan as have been approved by the Cabinet of Ministers”.*** This indicates that for strategic matters associated with the National Policy on Information and Communication Technology that the strategic direction is established by the Cabinet.

Regulations.

9. (1) The Minister may make regulations for the purpose of giving effect to the principles and provisions of this Act and in respect of any matter which is required or authorized by this Act to be prescribed.

(2) Subject to the provisions of subsection (1), regulations may be made in respect of all or any of the following matters:—

- (a) Codes of Conduct for the different sectors in so far as they are necessary, within the framework of the National Policy on Information and Communication Technology, for the purpose of the implementation of such policy;
- (b) the form and content of any action plan to be formulated in terms of the National Policy;
- (c) the standards of international renown for human resources development, products, services, markets and transactions in their application to the field of Information and Communication Technology ; and
- (d) the functions of the Committee.

(3) Every regulation made under subsection (1) shall be published in the Gazette and shall come into operation on the date of such publication or on such later date as may be specified in the regulation.

(4) Every regulation made under subsection (1) shall as soon as convenient be placed before Parliament for its approval. Any regulation which is not so approved shall be deemed to be disapproved with effect from the date of disapproval but without prejudice to anything previously done thereunder.

(5) Notification of the date of disapproval of any regulation shall be published in the Gazette.

10. (1) Part III of the Science and Technology Development Act, No. 11 of 1994, which provided for the establishment of the Council for Information Technology (CINTEC), is hereby repealed.

(2) All property movable and immovable which is owned by the Council for Information Technology (CINTEC) and all assets and liabilities of such Council shall with effect from the date of the coming into operation of this Act, be transferred to the Information and Communication Technology Agency of Sri Lanka which is the Executive Agency, in terms of section 6 of the Act.

(3) Notwithstanding such repeal, the Council for Information Technology (CINTEC) may carry out and conclude all matters being carried out in relation to the functions of the Council as set out in section 14 of the Science and Technology Development Act, No. 11 of 1994, until such matters are completed.

11. In the event of any inconsistency between the Sinhala and Tamil texts of this Act, the Sinhala text shall prevail.

ANNEX B – NATIONAL DATA SHARING POLICY (DRAFT) ASSESSMENT

In 2012 the ICTA engaged with four Ministries to explore requirements for policies to support the optimal development and use of data and information across the government and Sri Lanka society as a whole. The findings of this initial effort were then used as input to the development of a “National Data Sharing Policy”, the first draft of which was completed in 2013. This material was originally intended to be processed as an independent policy statement for adoption by the Cabinet as an annexure to the ICTA eGovernment Policy. Due to timing issues it was decided to postpone the formal processing of the National Data Sharing Policy and it remains in draft form today.

In principle, this proposed data sharing policy further extends the intent of the Right to Information Act, No. 12 of 2016 (RTI) to a more specific level of detail. However, since this draft policy was produced at least three years prior to the RTI, it will be important to ensure that it is aligned and consistent with the adopted Act. An additional consideration is the Sri Lanka Spatial Data Infrastructure Framework report that was published in July, 2014. That report contains useful “Guiding Principles” that are worth considering for the further refinement of the draft National Data Sharing Policy.

The refinement of the draft National Data Sharing Policy is not within the scope of the current SL-NSDI policy development effort. However, given the breadth and detail of coverage of that policy and its applicability to the SL-NSDI initiative an attempt has been made here to comment on those elements that are most relevant to the SL-NSDI and to suggest refinements where these can be aligned with and supportive of the SL-NSDI policy framework. The following sections have been extracted from the draft National Data Sharing Policy, along with suggested refinements and comments (*indicated in bold italic text*) regarding the implications of selected clauses in regards to the SL-NSDI policy framework.

5. Data Sharing Policy Framework

The following section describes the data sharing policy framework based on the global best practices and Sri Lanka Data & Service Classification frameworks.

5.1 Data Sharing Principles

Data sharing by government of Sri Lanka ministries, departments and agencies must adhere to the following principles:

Note: This section will require review and potential refinement for alignment with the RTI Act, No. 12 2016. (MS)

A. Transparency

The data sharing policy must be aimed at bringing more transparency into the departmental functions. The department shall provide for sharing of data with respect to internal working of

the department (unless specified by departmental mandate), the process for key services, contacts of important people and the escalation procedures. The department shall also provide time bound procedures for the services offered on a transparent basis.

B. Protection of Intellectual Property

The department sharing the data shall protect the Intellectual property rights of both the department and the individuals. The data sharing policy for the department shall not bypass right to preserve the IPRs (Intellectual Property Rights) for the provided dataset and any changes to IPR policies for the department mandate shall be carried out in accordance to the rules and regulations that govern the departmental operations.

Note: The statement above suggests that “departments” own intellectual property rights. This differs from the World Bank “National Spatial Data Framework (2014)” report which suggests that such rights should rest with the Government of Sri Lanka that in turn assigns custodianship of specific data to an agency, as described in the following excerpt from that report:

The principle of custodianship is that the government assigns, to an agency, certain rights and responsibilities for the collection and management of spatial information on behalf of the community. The rights and responsibilities include the right to set marketing conditions for the information and responsibilities regarding the maintenance and quality of the information. It also ensures accessibility of the information and provides a recognised contact point for the distribution, transfer and sharing of the information.

The overriding philosophy associated with custodianship is that **custodians manage spatial information as trustees for the community to enable its integration with other spatial data**. An example of the Custodianship Policy is included in Annexure 1.

Guiding Principles for Custodianship

- **Trusteeship:** Custodians do not ‘own’ data but hold it in trusteeship on behalf of the community.
- **Standard Setting:** Custodians, in consultation with Stakeholder community and users, are responsible for defining appropriate standards and proposing them for ratification.
- **Maintenance of Information:** Data custodians must maintain plans for information collection, conversion and maintenance in consultation with other government institutions and the user community.
- **Authoritative Source:** The custodian is the authoritative source for the spatial dataset in its care and is recognised as the preferred supplier of this information.
- **Accountability:** The custodian is accountable for the integrity of the data in its care.
- **Maintain Access:** The custodian must maintain access to the spatial datasets in its care

at the highest level for all users.

- **Safeguard Rights:** Externally provided spatial information, intellectual property rights and copyright associated with data must be safeguarded
- **Obligations:** Spatial data are compliant with statutory and non-statutory obligations relevant to its business.
- **Data Ownership:** Clear identification of data ownership (metadata) and use of memorandum of understanding or licence agreement are used to effectively manage the legal rights over data exploitation, distribution, use and destruction.⁸

The RTI Act 2016 is not specific in regards to government IPR, however it does assign all powers for final decisions regarding access to information to the Right To Information Commission. This is an important distinction that will require careful consideration. The vesting of IPR for fundamental geospatial data sets (FGDS) in the national government and decision making for rights to access that information, including any special terms or fees associated with such access can avoid any one organization deciding unilaterally whether or not they will make their information available without due process.

The Intellectual Property Act, No. 36 of 2003 does not explicitly include or exclude a government agency as the owner of protected copyright, however it does specify that the economic rights for collective or individual works that are created as part of an employment situation are the property of the employer, as follows:

14. (1) Subject to the provisions of subsections (2), (3),(4) and (5), of this section, the author who created the work shall be the original owner of economic rights.

(3) In respect of a collective work, the physical person or legal entity at the initiative, and under the direction, of whom or which the work has been created shall be the original owner of the economic rights.

(4) In respect of a work created by an author employed by a physical person or legal entity in the course of his employment, the original owner of the economic rights shall, unless provided otherwise by way of a contract, be the employer. If the work is created pursuant to a commission, the original owner of economic rights shall be, unless otherwise provided in a contract, the person who commissioned the work.

C. Protection of Data Privacy

Before sharing of information, the data privacy shall be considered well in advance. Currently Sri Lanka does not have any national policy on data privacy; however, consent of the information originators need to be taken before sharing their information. Similar arrangements are required for inter-departmental data sharing as well. However, data subject to privacy shall supersede the data sharing policy.

The RTI Act 2016 has specifically addressed this issue as follows:

⁸ National Spatial Data Infrastructure Framework, Government of Sri Lanka, June 2014

5. *(1) Subject to the provisions of subsection (2) a request under this Act for access to information shall be refused, where–*

(a) the information relates to personal information the disclosure of which has no relationship to any public activity or interest, or which would cause unwarranted invasion of the privacy of the individual unless the larger public interest justifies the disclosure of such information or the person concerned has consented in writing to such disclosure;

D. Interoperability and linking to LIFe

Electronic data is stored in a multitude of formats of which large number of formats is mutually undecipherable. Thus, one government department saving its documents in a proprietary format may not allow for other departments/citizen to interact efficiently with those data sources. For such reasons, certain set standards shall be used by all government departments. To support this, an interoperability framework, LIFe (Lankan Interoperability Framework) has been defined by ICTA which governs the mechanism for providing data sharing standards. The data sharing policy for department shall be compliant to LIFe to facilitate nation wise adoption of LIFe.

- *The Lankan Interoperability Framework (LIFe) currently addresses the following domains that are most relevant to the SL-NSDI:*
 - *Development Project Co-ordination (Foreign Funded);*
 - *Interoperability Data Standards for the LAND Domain.*
- *The SL-NSDI standards and standard development and management processes should align with the LIFe program parameters.*

E. Legal support and mandates

The department shall assume responsibility for supporting the data sharing through legal procedures and mandates. The department shall own the changes required to facilitate data sharing with other departments and public. The required changes may include:

- Changes for IPRs and Data Privacy
- MoU/MoA with different departments, *or with one organization acting as an authorized facilitator for data sharing on behalf of multiple departments. (MS)*

F. Formal responsibility to enable and promote data sharing

The department shall assume formal responsibility to enable and promote data sharing. To facilitate data sharing, all the necessary process, teams and supporting technology shall be setup by the department.

Note: The SL-NSDI will provide the framework of central and distributed nodes that will support compliance with this provision.

G. Accountability of completeness and correctness of data

It is important to note that completeness and correctness of data is very important, therefore all necessary steps shall be taken by the department to maintain the integrity of the data. Inaccurate open data, such as weather information may lead to catastrophic effects and therefore it is important to ensure the accuracy of data.

Note: Data accuracy is relative to its purpose. This statement needs to be further qualified to indicate that accuracy and completeness needs to first be appropriate to meet the needs of the data custodian in conducting their business and secondly to meet the needs of the stakeholder community as defined through a structured, collaborative process involving the key stakeholders for each data topic. In the context of the SL-NSDI this will include FGDS standards and the governance and processes by which they are defined and maintained over time.

H. Technical and Operational efficiency

The department shall make all efforts to share the data through technically and operationally efficient mechanisms. This shall mean that department shall make use of optimal techniques and guidelines so that data sharing does not become an additional burden on the departmental functioning. The department shall make necessary modification for optimization of processes for the seamless data exchange with minimal human effort.

The SL-NSDI geoportal environment will help to streamline the data sharing process. This of course assumes that each designated FGDS data custodian will ensure that they have the capacity to effectively develop and manage the geospatial data under their care in a GIS or GIS-ready form.

I. Machine readable formats

It may be noted that not all open standards (such as PDF) are 'machine readable' so that that the data can be manipulated, reprocessed, visualized, mashed up with other data, or even made interactive. While it is desirable to have information organized in open standards, it is also desirable for them to be in machine readable formats (such as well defined XML). In this regards the departmental policy shall mandate sharing of information in machine readable format.

The SL-NSDI data content and format standards will be fully compliant with the dissemination of data in a form that can be effectively manipulated and analyzed by others.

J. Pricing

All data, metadata and statistical products declared as official statistics shall be FREE to ALL Users or applicable cost shall not be more than the recovery amount to cover reproduction or distribution costs.

Data which has to be shared under restricted and authorized access may be shared at a price decided by the government department or agency which is the owner of the data as per the policies of the government of Sri Lanka. The owner agency is the one which has created, generated or collected the data. All such costs must be communicated and published on websites; bulletin boards etc by concerned government departments in advance.

The provisions will need to specifically refer to and align with the RTI Act of 2016.

K. Maintenance of Data Quality

For ensuring the quality, integrity and authenticity of data good statistical compilation and dissemination practices must be adopted by the departments owning the data. Observance of procedures for data compilation and dissemination ensures high standards of professionalism.

Note: The department above refers to any organization/body/ministry/etc. involved in the process of data sharing as either an information provider or an information seeker.

This topic will be further elaborated and formalized in the Service Level Agreement commitments of all the designated SL-NSDI data custodians.

5.2. Data/Information classification Framework

Data classification is the first step in moving towards a data sharing paradigm. Through this framework, the data elements are identified and classified based on the sensitivity and impact of the sharing of that information. The classification model has following elements:

The major components in the framework include the following:

- Classification Levels –A Classification Level represents confidentiality rating (or security rating) that must be applied to the informational assets. Four main levels of security classification markings have been defined as part of the Information Classification framework; “Public”, “Limited Access”, “Confidential” and “Secret”.
- Dissemination Limiting Markers (DLM) – Dissemination Limitation Markers supplement the security classification system for identifying official information. DLMs are markings for information where disclosure of information may be limited or prohibited by legislation or where it may otherwise require special handling. Departments/agencies are responsible for determining the appropriate protections to be applied to information bearing DLMs. DLMs have been categorized in the following four categories: Sensitive, Sensitive: Personal, Sensitive: Legal, and Sensitive Government.
- Caveats – Caveats are warnings that specify or limit the people who can have access to the information. Use of caveats with information signifies that the information has special requirements in addition to those indicated by the protective marking. Information bearing agency specific caveats are to be re-labeled or appropriate procedures agreed up before the release or the transmission outside of that agency. The prior agreement of the originating agency—in other words, the agency that originally placed the caveat on the material—is required to remove a caveat. If the originating agency does not agree to the removal of the caveat, then the information cannot be released. The requirement to obtain agreement of the originating agency to release the material cannot be the subject of a policy exception under any circumstances. The following categories of security caveats are used: Eyes Only (EO), Permission Required (PR), When completed (WC), Do not release Until (DNRU).

Based on these elements, a framework has been defined encompassing methodology, process and necessary tools for data classification. A broad level flow diagram for the assignment of

classification ratings to data elements is mentioned in Annexure 1 for reference. For further details on how to perform data classification, please refer the “Data Classification Framework” document.

The above data/information classification framework can be used as the basis for classifying SL-NSDI data as the basis for qualifying access.

5.3. Service Classification Framework

The sharing of data is done via services and therefore a separate service classification framework has been defined based on the data classification framework. The model has also been aligned with the data sharing policy and defines the following key components.

5.3.1. Service Classification Level

Based on the type of security classification assigned, the access to the data may be regulated and limited to a selected group of individuals or operational units. While providing access it shall be noted that all government data is generated by using public funds and hence as far as possible access to the same should be unrestricted, easy, timely and user-friendly as long as the security and privacy requirements are preserved. Access provided to data held by government can be of following types.

1. Open Access

Data that may be accessible freely by any individual / agency and the access is provided without any process or registration / authorization is referred to as open data and is freely available to all.

2. Authorized Access

Access to data is restricted when data sets are accessible only through a prescribed process of registration / authorization by respective departments / organizations. Data having restricted access shall be made available to only the recognized institutions / organizations / public users, through defined procedures. The requester of such data may need to authenticate his / her identity and provide a valid reason to access the data in question by producing the correct documentation and authorizations.

3. Restricted Access

Data declared as restricted shall be accessible only through and under authorization to selected individuals or organizations based on a need to know basis.

5.3.2. Service Types

This refers to the information types being shared through the provided services. The service types are categorized into two broad categories as mentioned below:

1. Data Service

Some or all data elements within the data “Asset” can be shared depending on the derived sensitivity of the data Asset

2. Verification Only Service

Given a set of inputs, an answer as of Yes/No may be provided after the proper verifications are carried out in the source data bases.

Based on these elements, a framework has been defined encompassing a methodology, process and the necessary tools for Service classification. A broad level flow diagram for assignment of service classification based on data classification has been mentioned in Annexure 2 for reference. For further details on service classification, please refer the “Service Classification Framework” document.

Note: The above service classification framework can be used as the basis for classifying SL-NSDI data as the basis for qualifying access.

5.4. Data Sharing Framework

5.4.1. Legal Framework

Any data sharing shall happen within the legal framework of Sri Lanka, its national policies and legislation as well as the recognized international guidelines. It is imperative to prevent misuse of data and assure security, integrity and confidentiality of data. Objective of the legal framework is to ensure that the privacy, confidentiality, intellectual property rights and the associated security requirements are formally protected.

Data Custodianship

The principle of data custodianship is that the government assigns, to an agency, certain rights and responsibilities for the collection and management of data and information on behalf of the community. The rights and responsibilities include the right to set marketing conditions for the information and responsibilities regarding the maintenance and quality of the information.

Note: The above statement is in alignment with the SL-NSDI Framework (2014).

Access to data under this policy shall not be in violation of any acts and rules of the government of Sri Lanka in force. Legal framework of this policy shall be aligned with various acts and rules covering the data.

The acquiring organization/ individual shall always cite the original data source and assume all responsibilities as to the use, analysis and interpretation of the data being provided. Once data has been provided, the government of Sri Lanka and associated departments / ministers / agencies shall not vouch for any analysis performed on the data, or for the quality of the data. All data being shared must ensure compliance to guidelines for legal, security, IPR, copyrights and privacy requirements.

Memorandum of Understanding or Agreement

The data owner shall sign a MoU/MoA, to document the terms of the arrangement and treatment of the data so that confidentiality is not compromised during the process of sharing. It is suggested that Legal and privacy experts be consulted as part of the MoU/MoA process. The MoU shall consider the information security and privacy during:

- Data Storage
- Data Handing/Processing
- Data Transmission
- Data Destroy/Dispose

The SL-NSDI will include the establishment of Service Level Agreements (SLA's) outlining the responsibilities of data custodians and Data User License instruments establishing the limitations of use.

5.4.2. Technical Framework

The technology framework shall be formulated to enable and facilitate data sharing within the government and with citizens. For data to be seamlessly shared it is required that the data collection, generation, storage and transfer follows same technological standards. The consistent application of relevant standards give assurance to users and providers that the information is “fit for purpose” and implies a certain level of quality. The application of standards fosters an environment of trust and dependability across government, providing a reduction in duplication of effort and re-work. “Provide technical platform to enable creation of information in a way that supports downstream information processing and dissemination activities”

Security Framework

Departments shall create a comprehensive security framework for the protection of data assets and unauthorized usage of the information. This is extremely important to mitigate the effect of illegal usage of data that may lead to national level impact. It is therefore important to create a clear policy for controls related to Confidentiality, Availability and Integrity (CAI) of the data. A draft guideline for the creation of a security policy is mentioned in Annexure 3.

The SL-NSDI will need to align with the ICTA Information Security Policy once it has been developed.

Sharing data through e-delivery

Departments shall deliver services through electronic mediums providing single-point access to information assets and applications published by given departments. All sharable data shall be

available through the e-delivery channels for enabling rational debate, better decision making and use of civil society.

Use of machine-readable and open formats

Departments shall use machine-readable and open formats for information as it is collected or created. While information shall be collected electronically by default, machine-readable and open formats must be used in conjunction with both electronic and telephone or paper-based information collection efforts.

Build information systems to support interoperability and accessibility

The system design shall be scalable, flexible, and facilitate extraction of data in multiple formats and for a range of uses as internal and external needs change, including potential uses not accounted for in the original design. The data shall be consistent with existing policies of departments and must use standards in order to promote data interoperability and openness. This policy mandates the use of LIFe while defining the departmental policy for interoperability (one of the components of the data sharing policy).

Records Digitization and Migration

A considerable amount of data with government still resides in manual records, files etc. which are not easily and uniformly accessible to all. Hence digitization of all government data is a key step towards creating an open data environment. A recommended step during the process of data sharing policy is to determine if a parallel programme to digitize data may be taken up. Such a program would be helpful in sharing information currently existing in manual form or proprietary formats (in legacy systems).

The SL-NSDI can make significant contributions to the digital transformation of stakeholder organizations. Access to the SL-NSDI data repository can provide a significant benefit to each stakeholder, but only if they have the internal capacity to access and use this information, and to maintain their own information in a digital format.

5.4.3. Operational Framework

This section describes a generic process for digital transformation of an enterprise. It is unclear why this is included within a policy document. In any case the processes for the implementation of the SL-NSDI and the development of “Geomaturity” capacity within each of the stakeholder organizations are in alignment with the process described.

Creation of an implementation plan

Task 1 - Identification of dependencies: Once the dependencies are identified, they shall be refined ensuring that any constraints on the implementation plans are identified. There are

several key dependencies that may be taken into account, such as dependencies on existing processes and implementations and existing information systems / services or changes to them. Dependencies are required to be documented and used for determining the sequence of implementation and identifying the coordination that would be required. A study of the dependencies of groups and activities are required to create a basis for the projects to be established. Once this is done, relevant projects are examined to verify whether incremental approaches are viable.

Task 2– Determine constraints: Through this step, all constraints related to business, data, application and technology are collated and documented. This is an essential step in the overall planning and would help to identify the boundaries in which the project has to be executed.

Task 3- Identify projects for execution: The activities shall be logically grouped and prioritized based on requirements, dependencies, business benefits and the constraints within the environment. Once the packages are defined, these are grouped into portfolios and projects taking into consideration the dependencies and the strategic implementation approach.

Task 4 – Evaluate implementation: The department shall evaluate implementation strategy alternatives and select an implementation strategy. The departmental team shall explore the different methods of implementing the future transformed environment along with the associated risks, timing, duration, costs, benefits, barriers, and enablers. Once the approach and acceptance criteria for implementation have been defined, the various components of the current and planned future environments are analyzed to determine which specific actions are required to enable a successful migration and implementation plan. From this analysis, the approaches and policies that shall constitute the implementation are defined including:

- Whether to use cutover ('big bang'), pilot, parallel running or a phased or staged approach to 'go-live'
- The associated measurement criteria for the items that shall constitute the successful migration and its acceptance

A detailed implementation plan shall be made for the project which shall be the guiding document for the program management office and the implementing agencies during project execution. The implementation plan shall specify:

- Approach containing different phases for the implementation of the project,
- Implementation time frame for the complete system rollout of the project
- Standard processes to be used to measure the quality and consistency of the output

Implementation Risk management

During the planning and implementation phases of sharing data, a comprehensive approach towards risk management shall be adopted by the departments. The department shall adhere to the following process for risk management throughout the execution of the project.

Each of these steps is undertaken based on the defined framework and may often lead to the mitigation of risks; a template for this is illustrated below:

Risk ID

Risk Preliminary Risk

Mitigation Residual Risk

Effect Frequency Impact Effect Frequency Impact

The departments would create a separate risk register to manage the risks involved during the implementation of the project.

5.4.4. Change Management Framework

To develop a data sharing culture in the government officials and functionaries, a comprehensive change management initiative shall be undertaken by the departments. The change management shall not only educate people of the importance and the ways of data sharing but shall also cater to the necessary frameworks and legal aspects.

Training

To ensure a consistent application of the data sharing framework, guidelines and information management principles need to be formulated. It is also imperative that Data Sharing Champions are identified within each government department and agency. They must be given trainings on standards and frameworks. The training shall also emphasize on the benefits that would result in to both government and citizens by adopting the data sharing principles. An education program can be developed for government employees involved in the information lifecycle, such as policy developers, analysts and information custodians etc. The program would need to cover standards and practices for information management and sharing. The education plan shall also cover details about privacy, licensing and copyright, legislative requirements and technology.

Recognition and rewards

Recognition and rewards for those who actively participate in information sharing shall provide an extra stimulus for government agencies/ departments to create an open data culture in their organizations. The rewards shall recognize individuals as well as an organization's commitment towards data sharing.

Awareness Programs

Awareness about the data sharing policies of the Government of Sri Lanka, intended benefits and steps required to create an open data environment in Sri Lanka needs to be created. Information on government websites, organizing events, messages in government publications, advertisements in media can help build a sense of responsibility towards data sharing in Government employees and awareness in citizens.

A brief guideline on change management framework has been mentioned in Annexure 6 for ready reference. The departments shall make necessary modification based on departmental requirements and use for training of its employees and other stakeholders.

5.4.5. Governance Framework

Governance to ensure data sharing is described fully within the Right To Information Act, 2016.

Compliance

The department shall undertake the following steps for ensuring compliance to the data sharing policy

- A dedicated person must be designated to respond to people trying to use the data.
- A dedicated person must be designated to respond to complaints about violations of the principles.
- An administrative or judicial provision to review whether the agency has applied the principles (mentioned in section 5. 1) appropriately.

It is necessary to review the outcome of the data sharing policies created by Sri Lankan government and deliberate on the need to any updates required in the policy. The evaluation plan and appropriate tools need to meet the expectations of all stakeholders, and is vital to the success of the data sharing. There shall be a requirement for constant monitoring, reporting and reviewing of data sharing policies and principles endorsed by the government.

Details of the governance are mentioned in the sections below; under the —Monitor and Evaluate Phase.

ANNEX C – POLICY REGISTRY TEMPLATE

There are potentially a large number of policies, standards, guidelines and other directives and references all relating to information and communications technologies, data and information in Sri Lanka, inclusive of those that are directly related to the SL-NSDI. Keeping track of these instruments and ensuring that their existence and interdependence are easy to find, understand and use will become ever more important as the technology becomes more prevalent across society. At present there is no centralized listing or organized registry of these instruments and it has been identified as a matter that will need to be addressed in the near future.

The following provides a conceptual framework and template for the development of an automated registry of SL-NSDI related instruments. While this has been developed specifically within the scope of the SL-NSDI program, it is based on international sound practices and is generic enough that it could be applied across the entire range of ICTA-related resources and perhaps across all government instruments.

Several international sound practice examples were referenced in the development of the conceptual policy registry presented here. Primary references included:

Open Educational Resources (OER) Policy Registry

https://wiki.creativecommons.org/wiki/OER_Policy_Registry

National Archives of Australia

<http://www.naa.gov.au/information-management/information-governance/legislation-standards/index.aspx>

The following describes a series of information fields that could be coded into a database to create a digital policy register. For the purposes of this discussion, “policies” refers to all legislative and best practice instruments.

Policy Type. This indicates the type of policy instrument according to the following categories:

- Legislation,
- Legislative Instrument
- Standing Orders
- Records and Information Management Standards and Authorities
- Good Practice Advice and Guidelines

Requirement Category. Indicates the governance status as a requirement level.

- Mandatory - Legislation/Legislative Instruments and Standing Orders
- Required practice - Agencies must be aware of, and implement to the level required, the requirements of the relevant policy/standard/guideline
- Recommended good practice - Agencies are not obliged to comply and may adopt the advice/guidance as best suits their needs. However agencies are strongly recommended to follow, to the extent needed, the advice/guidance in these products
- Information resource - Agencies may benefit by consulting this material which may provide information on records management issues and requirements.

Policy #. Unique numeric code.

Policy Title. Official policy title.

Policy URL. Provides a link to policy document if maintained online.

Subject. Indicates the subject or topic (e.g. Freedom of Information, privacy, security, storage, cloud, preservation, disposal, standard etc).

Description. Short abstract describing the policy.

Author. Indicates the authoring person or unit.

Policy Date. Date that policy was officially adopted.

Policy Amendment Date. Indicates date a policy was officially amended.

Policy Amendment Description. Describes the nature of the amendment adopted on a certain date.

Language. Original language of the policy.

Policy Jurisdiction. Indicates the geographic or administrative jurisdiction of a policy.

Policy Institution. Indicates what institution is the responsible custodian for a particular policy.

Parent Policy. Related policy that covers broader provision that provides context to and enables the current policy.

Child Policy. Related policy that falls within the broader provision of the current policy.

