OPEN DATA
READINESS ASSESSMENT
TAJIKISTAN

Executive Summary

It is widely believed that Open Government Data (OGD) policies can lead to greater transparency, accountability and citizen engagement. It is also believed that they can foster government efficiency, better public service delivery and better policy by evidence-based decision-making. This can not only support the Country's Development and leverage Good Governance goals, but also save tax money. In addition to these benefits OGD might unwheel potentials for innovation, creation of jobs and economic growth. This case study aims to explore these assumptions in the context of Tajikistan, by analysing the conditions and context.

Tajikistan is a presidential republic consisting of four provinces. Almost immediately after independence, Tajikistan was plunged into a civil war that ended in 1997. Tajikistan is officially a republic, and holds elections for the Presidency and Parliament. It is, however, a Dominant-party system, where the People's Democratic Party of Tajikistan routinely has a vast majority in Parliament.

The Government of Tajikistan is facing significant challenges. These include but are not limited to a weak economy, high levels of unemployment, returning migrant workers, and little foreign investments. In addition armed conflicts, and terrorism in neighboring countries and issues with trafficking of drugs and arms represent real threats to the Government. This makes it unlikely that Open Data will become a high priority. On the other hand, there is a window of opportunity: Open Data can help the Government as a means to inform better, thus evidence-based, decision-making. The Government is in the process of drafting its new National Development Strategy for 2016-2020. At the same time the Government is under pressure to justify its decisions and policies to address these challenges. There is a chance to build Open Data into the NDS and align it with the National E-Government Strategy. Introduced like this the vertical structure of the Government could be introduced effectively as a top-down mandate.

However a successful national Open Data initiative in Tajikistan would require:

1. Strong political commitment from top-level Government for a multi-stakeholder process and the formation of a Open Data Expert Group to draft the initial Open Data Action Plan and lead the process towards a National Open Data Strategy.
2. A strong collaborative attitude between Government Agencies, civil society and the business and developer community.
3. Clear guidance and top-down mandate on the interpretation and application of the existing framework of laws concerning access to information and clear terms of conditions for reuse. This includes the rationalization and removal of existing practice of denying access with reference to the Law of state secrecy.
4. Securing sufficient funding for this process and the design and implementation of successful Open Data pilot projects, that are needed to showcase the possible positive benefits of Open Data within the context of Tajikistan. Including a broad program for capacity building within middle-layer of Government officials.

The outcome of this assessment contains both the overall assessment and a list of recommended actions. Both aim to inform the work of the new Open Data Expert Group that may drive the creation of an Open Data National Action Plan, oversee the design and implementation of the pilot projects and guide an open and inclusive process towards a long term National Open Data Strategy and its implementation.

This is a diagnostic and planning tool, it is not a measurement tool. This tool is intended to provide diagnostics and recommendations for action based on existing good practice elsewhere, but it is not a prescription for Open Data, nor is it a formal evaluation exercise. The output of any diagnostic, even following the guidance in this tool, needs to be carefully and critically considered in the context of the particular circumstances in which it has been made.

Using the tool will not guarantee a successful and sustainable Open Data program on its own; implementation is crucial to ensure success. The purpose of the tool is to provide a plan for action for an Open Data program, as well as initiating a robust and consultative dialogue among relevant stakeholders. In that sense, use of this tool is the beginning of a process and not the end or result of a process. This tool is a 'living' document and will be subject to continuous updating and revision based on experience from actual practice. In addition, other means of assessing readiness for Open Data are available, and this tool is not necessarily the only, or always the most appropriate, in all particular circumstances.

Methodology

This "Open Data Readiness Assessment" was prepared for the Government of Tajikistan. It is the product of a joint team of experts representing the World Bank, the Open Society Institute and Open Knowledge.

The purpose of this assessment is to assist the Government in diagnosing what actions the Government could consider in order to establish an Open Data initiative. This means more than just launching an Open Data portal for publishing data in one place or issuing a policy. An Open Data initiative involves addressing both the supply and the reuse of Open Data, as well as other aspects such as skills development, financing for the Government's Open Data agenda and targeted innovation financing linked to Open Data.

The World Bank Open Data Readiness Assessment Framework uses an "ecosystem" approach to Open Data, meaning it is designed to look at the larger environment for Open Data – "supply" side issues like the policy/legal framework, data existing within Government and infrastructure (including standards) as well as "demand" side issues like citizen engagement mechanisms and existing demand for Government data among user communities (such as developers, the media and Government Agencies).

This Assessment evaluates readiness based on eight dimensions considered essential for an Open Data initiative that builds a sustainable Open Data Ecosystem. Its recommendations assume that an Open Data initiative will address various aspects of an Open Data Ecosystem.

The readiness assessment is intended to be action-oriented. For each dimension, it proposes a set of actions that can form the basis of an Open Data Action Plan. The recommendations and actions proposed are based on global best practices while also incorporating the needs and experiences of the Government of Tajikistan to date. Within each dimension, the assessment considers a set of primary questions, and for each, notes evidence that favors or disfavors readiness.

The evaluation of each dimension and primary question is color-coded:

- Green (G)   means there is clear evidence of readiness
- Yellow (Y)   means that evidence of readiness is less clear
- Red (R)   means there is evidence for absence of readiness
- Grey (O)   means insufficient information to assess readiness

When addressing a particular question, evidence of readiness has a "+" sign. Evidence against readiness has a "-" sign. Evidence that has mixed implications or neither favors nor weighs against readiness has an "o" sign. Not all evidence is weighed equally when determining the overall color indicator for a given primary question. Certain factors may weigh more heavily when deciding readiness status.

Acknowledgements

Contents

Objectives of the Assessment

In general an Open Data Readiness Assessment aims to provide a general overview of where the starting points for Open Data in a country are. In this case the ODRA takes a more practical approach by suggesting specific actions that would be required for the development of a national Open Data strategy and the implementation of possible pilots projects. Specifically it aims to identify where Government, civil society, businesses and the developer community could work together to move Open Data forwards, as well as learn along the way on how to extend Open Data across the whole of Government.

Therefore each section of the Assessment lists a number of proposed actions that range from more generic to the highly practical, and where possible suggests a specific Agency, or non-government actor to take the lead.

Open data, as Tim Berners-Lee stated when talking about how to do Open Data well, starts from the top down, starts from the bottom up, and starts from the middle outwards. The actions suggested in this assessment are aimed at making sure those three levels are connected and mutually reinforcing. Only by connecting the efforts on all three levels, will it be possible to move forward with some speed, while keeping the needed resources at a minimum.

Disclaimer: The analysis and recommendations in this Open Data Readiness Assessment are based on information and opinions collected from interviews undertaken and materials provided by the government and other local stakeholders during this study. This Open Data Readiness Assessment is not based on detailed, legal due diligence and does not constitute legal advice. Accordingly, no inference should be drawn as to the completeness, adequacy, accuracy or suitability of the underlying

assessment of, or recommendations or any actions that might be undertaken resulting therefrom, regarding the enabling policy, legal or regulatory framework (including institutional aspects thereof) for Open Data in the country.

1. Government Commitment

<u>Importance: Very High</u>

<u>Context</u>: Open Data Programs require the implementation of change - often including legal, institutional, technological and cultural changes - and may affect stakeholders both inside and outside of Government. Thus focused, strong, sustained, political/senior leadership is critical to helping a Government overcome resistance and inertia of all kinds, to helping incentivize actors to make the necessary changes in a timely and effective manner and to achieving the desired objectives and benefits of an Open Data Program.

Questions asked in the assessment

1.1. To what extent is there visible political leadership of Open Data/Open Government? (Importance: Very High)

+ Various Ministries and Agencies have expressed interest in and support for Open Data, including the ICT Center of the Executive Office of the President of Tajikistan, Ministry of Economic Development and Trade, Ministry of Finance, Ministry of Transport, Ministry of Education and Science, Ministry of Health and Social Protection of Population, the Statistics Agency under the President of Tajikistan, the National Legislation Center under the President of Tajikistan, the National Testing Center under the President of Tajikistan, and the State Registry Service.
- Awareness of what Open Data is and its potential is generally very low, and often confound with the provision of e-Government services, while at the same time general understanding of the basic concepts of Open Data is limited.
- The Government is highly centralized and vertical and is unfamiliar with open collaborative processes, it is also known for tight "message control" and unwillingness to admit mistakes outside of direct political control.
- Interviewees for this assessment reported a common tendency to self-censorship in media. Moreover there are issues of blocking of websites actively practiced since October 2010, as reported by the Association of ISPs and IT companies[1]. It has become a measure to restrict access to unwanted content.

1.2. To what extent is there an established political leadership and governance model for policy and implementation of programs across multiple institutions or across government as a whole? (Importance: High)

+ The ICT Center of the Executive Office of the President of Tajikistan is appointed as the coordinator of the implementation of the national e-Government strategy in Tajikistan.
+ A Government wide e-Government working group has been established that aims at providing cross-government consistency in the implementation of the national e-Governance policy. All stakeholders that participated in the ORDA action planning agreed that a similar working group should be initiated for Open Data.
+ The ICT Center which is experienced in cross-government program implementation is positioned

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[1] Youtube is blocked again in Tajikistan. http://www.ispa.tj/

+ to be the leading institution for an Open Data initiative.
+ The Government of Tajikistan is organized in a very central and vertical way, with the Executive Office of the President at a key position. This structure allows for policies and programs to be introduced top down. This way a future Open Data policy could be introduced very efficiently.
○ The Committee on Local Development under the President of Tajikistan is established[2] to promote reforms in the local Government system, coordinate activities of the local executive bodies of the state authority and local bodies of self-regulation, facilitate smooth development of country's regions. The Committee has not been formed yet. Its first chairman was appointed in the beginning of March 2015.
- There are established processes for the exchange of information between the Central Government and the District Governments. However there is little practice of exchange and collaboration between District Governments with each other horizontally. Local Governments appear to be almost left on their own, with very little exchange and collaboration to other parts of the Government.

1.3. What existing political activities or plans are relevant to Open Data? (Importance: Medium)

+ The Government of Tajikistan considers e-Government as pivotal mechanism in improving public services delivery with potential to mitigate bureaucracy and corruption and strengthen participation[3]: "It allows electronic delivery of a wide range of public services to citizens in time and good quality so that undesirable elements like bureaucracy and corruption are gradually eliminated. At the same time it strengthens interactive relationship between society and state authority, which is one of the vital pillars of civil society." According to the United Nations' E-Government Development Index (EGDI)[4] Tajikistan ranked 129th of 193 countries.
+ The Government of Tajikistan is planning to develop new long-term National Development Strategy for the period 2016-2030 (NDS). The first mid-term strategy within this NDS will be developed for the period of 2016-2020. The Ministry of Economic Development and Trade of the Republic of Tajikistan (MEDT) is responsible and the coordinating Government Agency in this process. UNDP Tajikistan provides support to the Government to formulate this development concept. Interviewees for this assessment reported that this is an opportunity to write Open Data as a means for Sustainable Development into the NDS.
○ There are programs across Ministries of the Central Government to digitize Government information and processes and build digital databases. There is not enough information on Digitization programs on the District Government level. Local Governments appear to remain paper based at the moment.
- Tajikistan was accepted as candidate to join the Extractive Industries Transparency Initiative (EITI)[5] on February 26, 2013, with respective commitments to transparency and accountability. On August 31, 2012, President Emomali Rahmonov signed Decree No. 449 which commits Tajikistan to EITI implementation "for the purposes of improvement of the governance methods in the extractive industries, improvement of the investment climate in the country, strengthening fight against corruption, encouragement of the civil society to control the budgetary receipts

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[2] President (2013). Decree of the President of the Republic of Tajikistan #12 from November 19, 2013 on the State Authority's Executive Bodies Structure Improvement, Retrieved April 17, 2015 from http://president.tj/ru/node/5654
[3] President (2012). The annual message to the Majlisi Oli of the Republic of Tajikistan, April 20, 2012, http://www.prezident.tj/en/node/1085
[4] UNPAN (2014). e-Government Development Index, retrieved April 15, 2015 from http://unpan3.un.org/egovkb/Reports/UN-E-Government-Survey-2014
[5] Extractive Industries Transparency Initiative (EITI), retrieved January 20, 2015 from https://eiti.org

from the activities connected with development of natural resources"[6]. However, Tajikistan's status as candidate is suspended due to delay in delivery of the first report, expected on February 26, 2015. The next report deadline is due to the end of 2015.

1.4. How does the wider political context of the country help or hinder Open Data? (Importance: High)

+ The wider political context is one of modernization and promotion of economic growth. Efforts on public administration reform, digitization and e-Governance are elements of this process.

○ The Government of Tajikistan is facing severe problems. These include but are not limited to a weak economy, high levels of unemployment, returning migrant workers, little foreign investments and a bureaucracy and tax system that makes it particularly difficult to start new businesses. In addition armed conflicts and terrorism in neighboring countries like Afghanistan and issues with trafficking of drugs and arms represent real threats to the Government.

○ The Agency for State Financial Control and Fight with Corruption of the Republic of Tajikistan was established in January 2007[7]. Objectives of the Agency are prevention, suppression and disclosure of the corrupted offenses, investigation of offenses as well as conducting state financial control. To strengthen on-going reforms of the state management system the Chamber of Accountants was established in December 2011[8] based on the Law of Tajikistan on Chamber of Accountants of Tajikistan. The Chamber is the supreme body of financial control. It aims to promote legality, transparency, efficiency and effectiveness of the public fund and property management. Experts interviewed for this assessment stated that there might be an overlap of responsibilities between these two Agencies.

○ The Coalition of NGOs "Transparency for Development"[9] in 2015 developed an alternative to the intermediary report of the Government of Tajikistan on Anti-Corruption Reforms in Tajikistan. This shadow report, developed within the monitoring of the Istanbul Anti-Corruption Action Plan of the Anti-Corruption Network for Eastern Europe and Central Asia[10], was submitted to the OECD ACN Meeting in March 2015. The main findings of a shadow report on Anti-Corruption Reforms in Tajikistan are (1) existing capability of the civil society to assess the Anti-Corruption Action plan of the Government of Tajikistan; (2) that the Government of Tajikistan implemented four completely and 12 partly out of 17 anti-corruption recommendations of the previous report; (3) a new option to address challenges of access to information, citizens engagement and public procurement.

○ In 2014, Tajikistan ranked 133rd of 187 countries on the Human Development Index (HDI)[11], the National Human Development Report 2014 states: "the Republic of Tajikistan has also participated in global efforts to achieve targets set by the Millennium Development Goals (MDGs) by consistently striving to improve its development indicators. However, the situation in terms of achieving MDG progress can be characterized as inconsistent and includes both

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[6] Tajikistan's President: EITI will improve the governance of our natural resources, November 13, 2012
https://eiti.org/news/tajikistan-s-president-eiti-will-improve-governance-our-natural-resources
[7] President (2007). The Agency for State Financial Control and Fight with Corruption was established by the Decree of the President of Tajikistan No. 143 of January 10, 2007.
[8] President (2011). Decree of the President of Tajikistan No. 1173 of December 12, 2011 on "Establishment of the Chamber of Accountants of the Republic of Tajikistan". Retrieved April 20, 2015 from
[9] Transparency for Development (2015). Coalition of NGOs established in August 2011. It now unites 31 organizations of the civil society.
[10] ANT (2014) Istanbul Anti-Corruption Action Plan country reports, retrieved April 20, 2015 from
http://www.oecd.org/corruption/acn/istanbulactionplancountryreports.htm
[11] UNDP (2014). Human Development Index (HDI), retrieved April 15, 2015 from
http://hdr.undp.org/en/content/human-development-index-hdi

apparent achievements (reduction of poverty, infant mortality, achieving universal secondary education) and ongoing urgent problems (maternal mortality, gender inequality at decision-making levels, and degradation of ecosystems).[12]"

○ Tajikistan also ranks low on many of the international social and economic indicators. In 2009 47.2% of the population lived in poverty (World Bank).

- Legal provisions criminalize corruption and its various forms including bribery, active or passive, money laundering and fraud. Leaders of Government routinely speak out against corruption. However, this rhetoric is rarely accompanied by action. Yet corruption is still high, and impunity is widespread. Tajikistan scores 23 out of 100 (rank position 152 from 175 countries) in the Corruption Perceptions Index 2014[13] by Transparency International.

- In the Open Budget Index (OBI) 2012 Report[14] Tajikistan scores 17 out of 100 points, concluding that "Tajikistan provides scant information to the public in its budget documents during the year."

- Tajikistan does not meet the Minimum Eligibility Criteria[15] of the Open Government Partnership. In 2014 Tajikistan earned 6 out of 16 possible points for its performance in the four critical areas of Open Government (see Table below). 75%, i.e. 12 points, are required to be eligible to join OGP. Critical areas are Budget Transparency, Asset Disclosure and Citizen Engagement.

Budget Transparency	Score	Access to Information	Score	Asset Disclosure (Law)	Asset Disclosure (Public Access)	Score	Citizen Engagement (EIU CL Score)	Score	Total Score	Total Possible Points	Share of Total Points
0	0	law	4	Yes	No	2	1.47	0	6	16	0.375

Assessment on the 1st dimension: Senior leadership

Question area	Importance	Assessment Rating	Commentary
Political Leadership	Very High	Yellow/ Red	High-level Government representatives have expressed interest and support for the introduction of an Open Data initiative. However the country does not meet the Eligibility Criteria of the OGP and other minimal international standards (e.g. on Access to Information, Anti-Corruption, Asset Disclosure and Budget Transparency), and where it has made specific promises, has failed to keep them (see EITI). High levels of corruption at all layers of Government might present

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[12] UNDP (2014). National Human Development Report 2014
http://www.tj.undp.org/content/tajikistan/en/home/library/human_development/Access_to_resources_for_human_development/
[13] Transparency International (2014). Corruption Perceptions Index, retrieved January 20, 2015 from
http://www.transparency.org/cpi2014
[14] OBP (2012). Tajikistan OBI 2012 Report, retrieved April 15, 2015 from
http://internationalbudget.org/wp-content/uploads/OBI2012-TajikistanCS-English.pdf
[15] OGP (2014). OGP Minimum Eligibility Criteria, retrieved April 15, 2015 from
http://www.opengovpartnership.org/how-it-works/eligibility-criteria and
https://docs.google.com/spreadsheets/d/16-PAbHIoZ5X0kSnCVlLln2t3WqpNvDGqgGC7deCK4qc/edit#

			resistance against the introduction of an Open Data initiative.
Political Structure	High	Yellow	The ICT Center under the Presidential Administration of Tajikistan is experienced in coordinating cross-government programs and oversees the implementation of the National e-Government Strategy. The ICT Center seems to be well established and able to function as a coordinator of an Open Data initiative. At the same time the ICT Center has limited capacities and would require proper resources to be able to coordinate a cross-government Open Data initiative. Supported with the necessary political top-level commitment a top-down introduction of Open Data policies appear applicable.
Existing Activities	Medium	Yellow	Although there are no explicit Open Data or Open Government commitments or programs, there is an opportunity to introduce Open Data into the National Development Strategy (NDS), with a focus on improving Government efficiency and better public service delivery as means to meet its National Development Goals. Open Data can actually also play a role in the country's formulation of the post 2015 Sustainable Development Goals (SDG). Open Data policies should also be aligned with the the National e-Government Strategy.
Wider Context	High	Red	The Government of Tajikistan is facing severe problems. This makes it likely that Open Data will not become a high priority. On the other hand, the Government could introduce an Open Data Initiative as a means to improve data management and sharing within Government, with the goal to create better, thus evidence-based decision making. This might be a trigger as the Government is under pressure to justify its policies and measures to address the challenges mentioned above.
Overall	Very High	Yellow/ Red	Sufficient leadership commitment established at the top-level of Government (Presidential Administration), while at the level of the executive branch more sensitization is needed. Not all measures to improve accountability and mitigate corruption are effective, some remain rhetoric or fall behind commitments. Although Open Data is being promoted, it is not yet widely understood.

Recommended Actions

Ref	Action	Responsibility	Timescale	Comments
A1.0 1	Initiation of expert group	ICT Center	M1	Initiation of a multi-stakeholder process to become the main driver of the OGD initiative by leading discussions on the findings of the ODRA and set relevant and realistic goals, for implementation of pilots and policy design.
A1.0 2	Develop and approve action plan	Expert group	M1-2	Establish S.M.A.R.T. goals and realistic actions to achieve these goals. The action plan is the result of the multi-stakeholder process driven by the ODEG.
A1.0 3	Introduce Open Data into National Development Strategy	Ministry of Economic Development and Trade	M2-6	Establish formal representation OGD experts in the NDS drafting process, to ensure that improving availability of high quality Open Data is defined as a priority within the NDS. Introduce Open Data as a means to improve data management and sharing within Government, with the goal to improve policy by better, thus evidence-based decision making to help the Government meeting its main development goals (and SDGs).
A1.0 4	Government sensitization	Expert group	M1-6	Fostering sensitization and commitment from top-level political leaders and middle-level civil servants, to increase buy-in across Government Agencies.
A1.0 5	Supporting "Open Data champions"	Expert group	M1-6	Identifying and supporting "Open Data champions" in public administration who can promote and drive the OGD agenda and function as multipliers.
A1.0 6	Public top-level commitment	Presidential Administration	M2-3	Public statement from the President to promote Open Data as a means for Good

A1.0 7	Top-level commitment to improve transparency, accountability and to mitigate corruption	Presidential Administration	M6-24	Top-level commitment to introduce effective policy/measures to improve transparency, accountability and to mitigate corruption. To meet the Eligibility Criteria of the OGP (and other international standards) specific measures are needed on Access to Information, Budget Transparency, Asset Disclosure and Citizen Engagement.
				Governance and Government efficiency.
A1.0 8	Top-level commitment to improve coherent implementation of laws and enhance law enforcement	Presidential Administration	M12-24	Top-level commitment to improve coherent implementation of laws and enhance law enforcement.

2. Policy/Legal Framework

<u>Importance: High</u>

Disclaimer: The preliminary analysis and recommendations in this section are based on information and opinions collected from interviews undertaken and materials provided by the government and other local stakeholders during this study. This section is not based on detailed, legal due diligence and does not constitute legal advice. Accordingly, no inference should be drawn as to the completeness, adequacy, accuracy or suitability of the underlying assessment, or recommendations, or any actions that might be undertaken resulting therefrom, regarding the enabling policy, legal or regulatory framework for Open Data in the country. It is therefore recommended that, prior to undertaking any legal action to address any legal assessment issue raised herein, a formal legal due diligence be performed by competent, locally qualified legal counsel, preferably assisted by international legal experts with relevant experience and knowledge of these areas.

<u>Context</u>: The long-term success and sustainability of an Open Data Program is greatly impacted by the policy and legal framework that exists. Open Data requires that a range of policy and legal issues be addressed – for example, with respect to the licensing of data reuse. It is important to identify at an early stage the existing policies, laws and regulations with respect to a core set of issues, and to identify actual or perceived obstacles in order that policy or legal change can be initiated early if essential.

Questions asked in the assessment

   2.1. What is the legal and policy framework for the protection of personal privacy? (Importance: Very High)

+   The protection of personal privacy is regulated by the Civil Code. An expert group consisting of representatives of Government Agencies and civil society institutions to draft the law on personal privacy is established. The initiative is supported by the Open Society Institute in Tajikistan. The idea to draft and promote the adoption of such a law got strengthened through the activities of the expert group on Open Data and drafting law on public services. The group is confident that the Law on Personal Privacy is a natural component of the Law on Public Services. This action is now part of the Action Plan to implement the e-Government Concept and supposed to be implemented by the end of 2016.

○   There is no evidence that other Government Agencies have robust safeguards to guard against release of the private information of individuals.

-   There is no Agency that specifically is in charge of managing personal privacy issues.

-   Legal norms relevant to the personal privacy are spread across different laws, for example the Law on Information, Law on Informatization, Law on Information Protection. However, there is no single system that makes implementation of this legislation very difficult.

-   The legal practice and literacy to respect and safeguard personal privacy are very poor.

2.2. What rights of access to information exist? (Importance: Very High)

+   National legislation on access to information includes the Constitution of the Republic of Tajikistan, international norms recognized by the Government of Tajikistan and the following laws subject to the majority of norms identifying permission, restriction, and prohibition might be categorized to (A) laws that permit public information accessibility (B) laws providing restricted (privileged) access to information; (C) laws prohibiting access to information, e.g. secret information, respectively.[16]

+   The institution of Ombudsmen has been strengthened with the obligation to protect the public right of Access to Information in 2014[17].

+   By law requested information should be provided within 30 days for citizens and 3 working days for journalists. However they are not always followed.

-   Though the regime provides norms for proactive disclosure of information, they are not always followed. There is an obligation for the publication of 'core public sector information' in print and online. However there is no clear definition and mandate on what information is considered as 'core' and thus must be published. As a result some Government Agencies decide on their own what information to publish.

-   Although there is an Ombudsman, there is no clear redress procedure in the Access to Information Law, leaving only the general way of going through the courts.

-   Although the Access to Information legislation is in place since 2010, Tajikistan scores relatively low in the Global Right to Information Rating, with only 49 out of 150 possible points[18].

-   Apart from the weak RTI legislation interviewees for this assessment reported weak implementation of the law and missing law enforcement. In practice Government Agencies often refuse the right to access information granted by the law by referring to the Law of State Secrecy

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[16] (A) Law on information, Law on informatization, Law on protection of information, Law on information access right, Law on TV & Radio Broadcasting, Law on ecological information, Law on print and other mass media, Law on publishing, Law on electrical communication; (B) Law on copyrights and neighbouring rights and the other laws relevant to the Intellectual Property Rights; (C) Law on credit bureau, Law on state secret, Law on classified (state secret) registry, Law on trade secret, Law on cryptography

[17] Amendment to the Law on the Commissioner for Human Rights from May 21, 2014.

[18] Access Info (2014). Global Right to Information Rating, retrieved April 15, 2015 from http://www.rti-rating.org/view_country?country_name=Tajikistan

as a justification for their denial.
- Citizens and organizations do not experience uniformity in decisions on the provision of Government information, and regard decisions as often arbitrary.

2.3. What is the legal and policy framework for data security, data archiving and digital preservation? (Importance: High)

+ The Law on Electronic Signature has been implemented successfully since 2010[19] by the Center on Technical Protection of Information, Certification and Expertise. The Center provides services on testing and certification of technical equipment, protection of information, audit of information systems. Based on the Center's issued certificates e-Signatures are applied in the banking sector and fiscal system including the Tax Committee.
+ Data digitization in the Public Registry Office has been launched since last year as pilot project in three Republican Subordinate Districts (Hisor, Rudaki, Shahrinav) and four districts of Dushanbe (Sino, Somoni, Firdawsi, Shohmansur)[20].
- The issues of data security and the protection and security of network and systems are addressed in laws/regulations, but there are questions about the robustness of their implementation.
- There is no regulation on digital preservation.

2.4. What is the policy on the ownership and licensing of government data? (Importance: Very High)

+ The Law on Copyrights and Neighbouring Rights regulates the public sector information including intellectual property of the Government. Practical guidance to follow these rights online is provided by Decree No. 166 of April 1, 2011.
+ According to the legislation all published public information is open for use/reuse.
- Most state Agency websites do not explicitly describe reusability of public information as required by Decree No. 166 (point 10).

2.5. To what extent is government data sold by agencies? (Importance: High)

+ The Law on the Right of Access to Information guarantees access to public information free of charge. In article 15 point 3 it identifies that the "fee charged for information provision cannot exceed its reproduction cost".
+ The Government Agencies are obliged to provide public information free of charge as it is part of the public services.
- In practice there is no effective cross-government policy that prevents the sale of government-held data.

2.6. What other policies/laws exist that may have significant impact on Open Data? (Importance: High)

+ The Council of Justice with the support of GIZ has been working on development of an e-Justice

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[19] EDS (2015). State Unitary Enterprise "Center for Technical Protection of Information, Certification, and Expertise", retrieved April 20, 2015 from http://www.eds.tj/
[20] DHIS (2015). Tajikistan: Health Information System Launched Nationwide, retrieved June 06, 2015 from http://www.epos.de/news/current-news/tajikistan-health-information-system-launched-nationwide

information system since November 2014. It aims to support access of citizens to court records and to improve transparency of the justice system.

+ Civil servants are obliged to declare their income and owned property to the Tax Committee in accordance with the Government of Tajikistan Decision No.289 from August 1, 2005. This procedure is available in electronic form since January 2014[21].

○ Public procurement is managed by the Agency on Public Procurement, Goods, Works, and Services under the Government of Tajikistan[22]. However interviewees for this assessment report that the service is very limited: Neither does it provide sufficient information to track mismanagement or corruption (no information about the bidders and their bids) nor is it very helpful to local businesses to find and apply for public bids.

- The Agency for State Financial Control and Fight against Corruption of the Republic of Tajikistan was established in January 2007[23]. Objectives of the Agency are prevention, suppression and disclosure of the corrupted offenses, investigation of offenses as well as conducting state financial control. To strengthen on-going reforms of the state management system the Chamber of Accountants was established in December 2011[24] based on the Law of Tajikistan on the Chamber of Accountants of Tajikistan. The Chamber is the supreme body of financial control. It aims to promote legality, transparency, efficiency and effectiveness of the public fund and property management. Experts interviewed for this assessment stated that there might be an overlap in regards to responsibilities between the Agency for State Financial Control and Fight with Corruption of the Republic of Tajikistan and the General Chamber of Accountants.

- The implementation of Access to Information legislation depends on individual civil servant's competencies and desire, which might be a key issue and impediment to Open Data. For example, the State Secrecy Law is arbitrarily used to justify retention of information and data.

Assessment on the 2nd dimension: Policy/Legal framework

Question area	Importance	Assessment Rating	Commentary
Privacy protection framework	Very High	Red	Privacy protection is regulated but lacks redress mechanisms. There is no evidence that Government Agencies have robust safeguards to prevent the release of private information of individuals. Only the National Statistics Office has established effective procedures for anonymizing personal data.
Access to information framework	Very High	Yellow/ Red	Access to Information is established in the Constitution and in a mature law. However consistency in application and absence of clear redress mechanisms present an obstacle. In practice

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[21] Asia+ (2014). Electronic declaration of civil servant's income is launched, retrieved on June 06, 2015 from http://news.tj/tj/news/o-ozi-abuli-elektronii-elomiyai-andoz-az-daromadi-khizmatchii-davlat

[22] Agency website://zakupki.gov.tj/

[23] President (2007). The Agency for State Financial Control and Fight with Corruption was established by the Decree of the President of Tajikistan No. 143 from January 10, 2007.

[24] President (2011). Decree of the President of Tajikistan No.1173 from December 12, 2011 on "Establishment of the Chamber of Accountants of the Republic of Tajikistan". Retrieved April 20, 2015 from

		 	requests to access are often denied with reference to the Law on State Secrecy.
Data security framework	High	Red	Data management is decentralized. The issues of database, network and systems protection and security are addressed in laws/regulations, but there are questions about the robustness of their implementation. More information is needed.
Ownership & licensing framework	Very High	Yellow	Unclear. The Constitution appears to allow redistribution and reuse of 'public information'. However there is no clear definition of 'public information'. It is not clear if the Government as a whole or individual Agencies hold any Intellectual Property Rights in public sector information and data. Although sometimes claimed, conditions for reuse are not explicitly formulated. Explicit clarification with terms of use or an an open license is needed.
Revenue based on data	High	Yellow	Paid information services exist, but mainly limited to 'value added products', such as customized reports or analysis on request. Geodata is the only data that is actually commercially explored and sold by the Government. Exclusive agreements, however, are not known. There is no information on the actual revenue generated from charging for public sector information.
Other relevant policy frameworks	High	Red	The State Secrecy Law, and its arbitrary application to justify retention of information and data can be a key issue and impediment to Open Data.
Overall	Very High	Red	Especially the arbitrary use of the Law on State Secrecy represents a real obstacle for Open Data. Other parts of the legislation such as FOI are weak and fall behind international standards. There is no evidence that existing policies and their implementation on privacy and anonymization guarantee the protection of personal data. A clear mandate on what data must be published is missing, as well as a clear policy on the terms of use of data. Central guidance and clarification on applying existing legal frameworks are strongly needed.

Recommended Actions

Ref	Action	Responsibility	Timescale	Comments
A2.01	Improve and ensure protection of private information	Presidential Administration	M12-24	Introduce robust safeguards and redress mechanisms to guard against release of the private information of individuals across all Government Agencies.
A2.02	Improve the Law on Right to Access Information	Ministry of Justice	M12-24	Improve Right to Access Information in accordance with the recommendations of the 2010 Global Right to Information Rating.
A2.03	Improve the implementation of the Right to Access Information Law across all Government Agencies	Presidential Administration	M12-36	Introduce effective measures to eliminate the arbitrary practice of Government Agencies in regards to respond to RTI requests. Introduce robust redress mechanisms.
A2.04	Mandate on data security	ICT Center	M6-18	Introduce clear mandate via top-down policy on database, network security and systems protection.
A2.05	Review Law on State Secrecy and its application.	Presidential Administration	M6-18	Introduce clear mandate via top-down policy on the application of the State Secrecy Law is mandate to eliminate the arbitrary use of the Law.
A2.06	Mandate on information/data publication	Presidential Administration	M6-18	Introduce clear mandate via top-down policy on what information/data must be published proactively, with a "open by default" policy.
A2.07	Policy on the rights to reuse Government information/data.	Ministry of Justice	M6-18	Introduce clear policy on the rights to reuse Government information/data, using a standard open license across all Government Agencies.
A2.08	Mandate on charging for Government information/data publication	Presidential Administration	M6-18	Introduce clear mandate on charging for Government information/data, with a "free of charge default" and setting fees to marginal costs policy.

A2.09	Localization of open licenses (CC)	OSI	M1-2	Commission a legal expert to do localization of the open CC licenses (CC-0, CC-BY, CC-BY-SA) to Tajikistan jurisdiction.

3. Institutional Structures, Responsibilities and Capabilities within the Government

<u>Importance: High</u>

<u>Context</u>: As well as political and senior leadership, middle management level skills and leadership are important to success: creating an Open Data Program requires Agencies to manage their data assets with a transparent, organized process for data gathering, security, quality control and release. To effectively carry out these responsibilities, Agencies need to have (or develop) clear business processes for data management as well as staff with adequate ICT skills and technical understanding of data (e.g., formats, metadata, APIs, databases). Engagement among Agencies and at all levels of Government to set common standards and remove impediments to data interoperability and exchange is also vital, and requires mechanisms for interagency collaboration.

Questions asked in the assessment

3.1. Which agency or agencies have relevant capabilities, mandates, project management experience and technical skills to be a suitable lead institution in the planning and implementation of an Open Data Program? (Importance: Very High)

+ Since November 2012 the Information and Technical Center of the Executive Office of the President of Tajikistan is appointed as the coordinator of the e-Government implementation in Tajikistan[25]. On January 17, 2014[26] the Information and Technical Center was transformed into the Center of Information and Communication Technologies (ICT) of the Executive Office of the President of Tajikistan with status of a department. According to this Decree, the Center of ICT is responsible for management of the State ICT network of the Government of Tajikistan and internal network of the Presidential Office, including the provision of network services, electronic exchange of documents, Government portal development and support, and ICT applications in the state authority bodies. At the same time, the Center of ICT is the Secretariat to the ICT Council under the President of Tajikistan[27].

+ The ICT Center has sufficient project management experience to be the lead institution in the planning and implementation of an Open Data initiative. A mandate for the coordination of such an initiative could be obtained as part of the process of the Open Data Action Plan as a recommendation of the new Open Data Expert Group.

- For the successful implementation of an Open Data initiative civil servants from all Government Agencies will need specific skills, relevant for the management and sharing of Open Data. These skills are not available at present, thus a training program across the Government will be

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[25] Decision No. 655 of the Government of Tajikistan of November 15, 2012
[26] Decree No. 116 of the President of Tajikistan of January 17, 2014
[27] Decree No. 241 of the President of Tajikistan of July 23, 2014

required. To scale this a "train the trainers" program is necessary, where key personnel from each participating Ministry/Agency will be trained to then train other members of the respective Agency.

- Although the ICT Center under the President of Tajikistan could coordinate such a training program, it has very limited resources and capacities for the actual implementation of such a training program across the Government. To be effective this training program across the Government needs to be sufficiently resourced.

- With an extended range of responsibilities, the ICT Center of President of Tajikistan has a limited capacities to manage and implement all tasks.

- The establishment of the State Unitary Enterprise (SUE) as an approach to address low salary and low capacity of the ICT section in the Government Agencies, effective in a short term, can produce outcomes interoperability and integration of various systems on the long run. However, the creation of a single SUE on the basis of existing ones under the President of Tajikistan can help to address ICT relevant institutional and human capacity issues for all state authorities as well as strengthen the capacity of the ICT center as coordinator of the ICT initiatives.

3.2. Which any agencies have a CIO, CTO or permanent official positions dedicated to data management? (Importance: Medium High)

+ The Statistics Agency under the President of Tajikistan is authorized state management body dedicated to data management.

+ Some Ministries and Agencies have data management roles or data center teams (such as Ministry of Finance, the Tax Committee). Some Ministries (such as Ministry of Health and Social Protection, Customs Service) are in the process of forming a data center, or have roles like the Director of ICT.

○ Most Agencies have information analysis departments that deal with data management and provide statistical data to the Statistics Agency, the National Bank of Tajikistan or the Presidential Administration.

- Most Agencies have no CIO, CTO or regular position in charge of data management. However, the e-Government Action Plan for implementation of the national e-Government strategy include the establishment of a CIO across the Government Agencies.

3.3. What interagency mechanisms coordinate ICT issues (such as for technical matters)? (Importance: Medium High)

+ The ICT Council under the President of Tajikistan coordinates the efforts of Government Agencies and ICT market stakeholders to apply ICTs for development goals. At the same time it has a network of ICT Councils under the Capital and Provincial Governments. The Ministry of Education and Science has also established similar structure to engage civil society and businesses for addressing their challenges through ICTs.

+ Managed by the ICT Center the State Data Exchange Network interconnects over 47 Government Agencies. It is maintained by the state owned company Tojiktelecom. Agencies have been developing their own applications to run on this network.

- Though the Government possesses a highly capable ICT infrastructure, the level of its deployment is still low.

3.4. What process is currently used to measure agency performance or quality of service delivery? (Importance: Medium)

+ Every Government Agency is obliged to arrange press conferences every half year[28] since October 2011 on the basis of the Order of the President of Tajikistan #1729 of September 15, 2011. n the past they were held quarterly, based on the Order of the President of Tajikistan #1677 of March 04, 2005.

+ Promoting interactive online platforms like (1) mometavonem.tj and (2) bemiyonaravho.tj to monitor the quality of municipal services and to encourage citizen participation in this process is a good experience of Dushanbe local Government. The first initiative, as outcome of joint efforts of Dushanbe local Government, PF CIPI and OSIAF, was officially launched in February 2012. Actions have been taken by PF CIPI to replicate this platform in Khujand and Qurghonteppa, two administrative centers, since the beginning of 2015. Further replication of this platform across all cities and districts is envisaged.

- Though Government Agencies have no restriction to conduct press conferences more than twice a year, very few arrange similar events in emergency situations.

- There is no mandate or clear procedure for the measurement of Agency performance and the quality of public service delivery. Thus it is left to the individual Agency to measure its performance, if at all.

3.5. Which agency or ministry is primarily responsible for data or statistics? (Importance: Medium)

+ The Statistics Agency under the President of Tajikistan is an authorized state body in the field of statistics. The National Bank of Tajikistan is responsible for financial statistics.

- Some Government Agencies are reluctant to sharing statistics on the industries they regulate on time with the relevant internationally recognized institutions. For example, the ITU, which publishes official data on the information and communication technologies industry of Tajikistan annually, has not received any data since 2006.

3.6. Which agencies or Ministries appear most concerned about the release of data, and what is the basis of their concern? How can they be handled procedurally, and how can their concerns be addressed? (Importance: High)

+ The National Legislation Center under the President of Tajikistan and The National Testing Center under the President of Tajikistan expressed their willingness to embrace the Open Data concept and apply its principles in releasing their relevant data.

- As there is no clear mandate on which information/data should be published, each Agency decides this separately. The main concern articulated is to publish data that is in conflict with the Law on State Secrecy[29]. As there is no mandate, some Agencies like the Prosecutor, Military Base, Department of Internal Affairs, Ministry of Health follow a very restrictive approach. Other Agencies have concerns about their monetization of value added services.

- Main concern of the Government Agencies is about leaking secret data. Raising awareness of public officials that Open Data is about public data can address this concern.

- Irresponsiveness and insufficient institutional and human capacity of some Government Agencies to share real data of national industries lead to underestimation of national achievements in the global level.

3.7. How strong is the government's overall ICT skill base among senior government leaders and civil servants? (Importance: High)

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[28] NANSMIT (2011). Journalists will meet authorities less, retrieved on June 06, 2015 from http://nansmit.tj/21488/
[29] HRP (2013), Independing Center for Human Rights Protection Monitoring of Access to Information, retrieved on June 10, 2015 from http://notorture.tj/sites/default/files/otchet_po_monitoringu_dostupa_k_informacii_0.pdf

+ The middle layer civil servants are confident users of the ICT systems. There are a number of management information systems (MIS) integrated in the public sector like education, health, finance, tax, labour, custom, and social protection.
- Interviewees of this assessment reported that there is a significant skill shortage on data management and data sharing in almost all Government Agencies. Another weakness are data analysis skills that are needed to enable civil servants to effectively make use of data.
- Practical applications of the advanced ICT infrastructure owned by the Government Agencies to address public sector needs is not as active as improvement of its technical component.

3.8. What is the government's presence on the Web? (Importance: Medium)

+ The Decree of the Government of Tajikistan No. 166 of April 1, 2011 on "Common requirements for the websites and the LAN of the state management authority" identifies the form, standard and content of State Agency websites and procedures of access to them. It requires that shared information should be complete, easy to follow, and provided in timely manner. Websites should to be equipped with interactive facilities to encourage citizens contribution in decision-making. Following Decree No. 166 all Central Ministries have their own websites where they publish information on a regular basis.
- Most of the Government Agencies in district levels are not represented online. Driven by Decree 166 all 18 City and District local executive state authorities of Sughd Province[30] were supplied with individual websites since 2012. Monitoring of these websites revealed that only 7 of them are available online. As interviewed project manager at the time[31] shared main problems behind such a situation are brain drain of trained local specialists due to low salary, mismanagement and poor financial support.

Assessment on the 3rd dimension: Institutional Structures, Responsibilities and Capabilities within the Government

Question area	Importance	Assessment Rating	Commentary
Suitable lead institution	Very High	Yellow	The ICT Center under the Executive Office of the President of Tajikistan is well positioned and has sufficient management experience to be the lead organization for an Open Data initiative. However the ICT Center has limited resources and capacities, so that a "train the trainers" program will be necessary to scale required skills across Government.
Data management capabilities	Medium High	Yellow/ Red	Data management is currently decentralized, and lacking coordination. Most Agencies have no dedicated positions such as CIO, CTO - however some Ministries have data teams in charge of

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[30] Sughd (2015). Web-Catalog, retrieved on June 06, 2015 from http://www.sugd.tj/tj/bahshho/web-katalog.html
[31] Kova (2014), NGO Center of Information Technologies Kova, retrieved on June 09, 2015 from http://www.kova.tj/

			data management. The e-Government Strategy mandates the establishment of a CIO across all Government Agencies.
Interagency ICT coordination	Medium High	Yellow/ Red	Little interagency ICT coordination at the Central Government level and even less on the district level, although the national e-Government strategy mandates to improve interagency ICT coordination at all levels.
Agency performance measurement	Medium	Red	There is no mandate for the measurement of Agency performance or the quality of public service delivery. However all Ministries are required to regularly report about their work.
Agency responsible for statistics	Medium	Green	The Statistics Agency under the President of Tajikistan has a clear mandate and well defined and regulated procedures.
Concerns towards data release	High	Yellow/ Red	The main concern articulated by some Agencies is to publish data that is in conflict with the Law on State Secrecy. As there is no clear mandate, some Agencies follow a very restrictive approach. Other Agencies have concerns about their monetization of value added services.
ICT skill base	High	Yellow/ Red	Basic IT skills are present but not in sufficient numbers. Significant skill shortage on data management and data sharing exists in almost all Government Agencies. Another weakness are data analysis skills that are needed to enable civil servants to effectively make use of data.
Government web presence	Medium	Green	All Agencies of the Central Government have web presences that are routinely updated with information. The national e-Government strategy mandates to further strengthen and extend Government web presence across Government with a special focus on features that allow for citizen engagement.
Overall	Medium High	Yellow/ Red	Legacy of ICT systems. Except from statistical and financial data, data management remains decentralized, leading to isolated solutions. Little interagency ICT coordination. Limited ICT capabilities within public administration, especially data management and data analysis skills represent a challenge. No clear mandate on what information/data must be published,

			leading to arbitrary practice, where every Agency decides what to publish and what not. Leadership in Agencies hesitate to take responsibility for decisions on the publication.

Recommended Actions

Ref	Action	Responsibility	Timescale	Comments
A3.01	Improve interagency ICT coordination	ICT Center	M6-18	Coordinate the implementation of the e-Government strategy and the establishment of a CIO/CTO in all Agencies. This group of CIOs must be well resourced to ensure effective interagency ICT coordination.
A3.02	Measurement of agency performance	Presidential Administration	M6-18	Introduce clear mandate for the measurement of Agency performance or the quality of public service delivery across Government
A3.03	Data management capacity building program	ICT Center	M2-36	Design curriculum and provide capacity building for supply side: The ICT Center should coordinate a train the trainer program for 'middle layer' civil servants to enhance their data management and data sharing capabilities. Special focus on data analysis capacity and ability to use their data effectively.
A3.04				
A3.05				
A3.06				
A3.07				

4. Government Data Management Policies and Procedures

<u>Importance: Very High</u>

Context: Open Data Programs can build on established digital data sources and information management procedures within Government where they already exist. Where data is only available in paper form it will be hard to release as Open Data and in reusable format quickly and cheaply. Conversely, good existing information management practices within Government can make it much easier to find data and associated metadata and documentation, identify business ownership, assess what needs to be done to release it as Open Data and put processes in place that make the release of data a sustainable, business-as-usual, downstream process as part of day-to-day information management.

Questions asked in the assessment

4.1. What are the policies and practices on the management of government information? (Importance: High)

+ The Government policies on management of information are set by sectors and industries which are well applied in practice. For example, the education sector produces and shares data annually while the health sector does it quarterly and, if required, daily, weekly and/or monthly.
+ On a practical level, the number of management information systems (MIS) dedicated to particular sectors is increasing. Successful MISs are (1) DHIS-2 in the field of health, (2) EMIS in the field of secondary education, (3) TMIS in the field of treasury, (4) Single window of Tax Committee under the Government of Tajikistan, (5) One-Stop-Shop of the Custom Service under the Government of Tajikistan, (6) Target Social Assistance in social protection. These systems contribute in growth of digital data and information. Similarly, the Statistical Agency under President of Tajikistan has developed a portal that provides comprehensive statistical data and information.
+ The Concept Paper on State Information Policy identifies the internet as important information environment and as one of the tasks this policy recognizes wide presence of the state authorities online through websites, portals, social networks, etc.
+ Data produced by the Statistics Agency are regularly shared online in a machine-readable format.
- Though MISs are in place, interoperability of these systems might be an issue.

4.2. To what extent does the government have a coherent view of its data holdings? (Importance: Medium)

+ The Concept Paper on the State Information Policy identifies goals and objectives of the state information policy, main directions and mechanisms of promoting political, socio-economical and cultural development of Tajikistan.
+ The Statistics Agency under the President of Tajikistan and the National Bank of Tajikistan manage the relevant Government data including sharing with and using by all Government Agencies, civil society and businesses.
+ According to resolution of Government of Tajikistan No. 616 of December 28, 2008, the system of main archive management of Tajikistan consist of 12 archives, including two central archives, (1) the Central State Archive of Tajikistan, and (2) the Central State Archive of Audiovisual Documents of Tajikistan. The archives store documents with permanent storage period since 1830.

- In terms of data management paper-based data collection and processing is still considered as the main approach. The majority of primary data is collected on paper, which is shared from bottom to top. Aggregated in the Central Government level, it is shared in the form of different reports publicly.

4.3. How and where is government data held? (Importance: High)

+ Government data is held in both paper and digital forms in the Statistics Agency under the President of Tajikistan, the National Bank of Tajikistan, and the Central State Archive.
+ The Government funds the development of electronic information resources through the Inter-Agencies Commission on State Information Resources under the Ministry of Economic Development and Trade.
+ As a best local practice for implementing an information management system for local Government activities an experience of the Khatlon Province can be mentioned, which is also known as Task Management Information System (TaMIS). It helps to trace the status of assigned tasks and monitor activities of different departments of the Government online. TaMIS is also equipped with a file sharing facility. Implemented in Khatlon in 2012, it is known as successful G2G project. See graphic G1 in the Appendix.
- A large share of Government data is stored in paper-based format.

4.4. What is the extent of intra- and inter-governmental actual demand and latent demand for data? (Importance: High)

+ Actual demand for intra- and inter-governmental Information, i.e. processed data, is addressed usually by sharing data between Agencies at the same tier of Government that stream down to other subordinated structures. Some data sharing in the level of Local Government and the Statistics Agency local office also takes place.
+ Latent demand for data across the Government Agencies is satisfied through analysis of collected data and shared with different Agencies including the research institutions.

4.5. What data is already made available outside government - either free or for a fee - and on what conditions? (Importance: High)

+ The Statistics Agency provides access to socio-economic data in a machine-readable format free of charge.
+ The Ministry of Finance provides access to data on Government budget and Government spending online. However, it is not provided in a machine-readable format.
+ The National Bank of Tajikistan provides API access to data on the exchange rate of the national currency.
+ The National Legislation Center under the President of Tajikistan provides online access to up to date codes and laws free of charge.
- Provision of the Government data in proprietary formats still dominates, including user-unfriendly dataset structures.
- A limited API access is available to stakeholders. The research revealed that the quality of available data is not good enough for business applications.

4.6. What practical experience does the government have in anonymizing personal data? (Importance: High)

+ The Statistics Agency, the National Testing Center under the President of Tajikistan, and the Ministry of Health and Social Protection of Population have established policies and practice in anonymizing personal data prior to publication. Other Government Agencies also provide anonymized personal data.
- It happens that this principle is not applied to public data when it comes to opening up data on commercial companies.

4.7. Which agencies with established capabilities in data management (e.g. the NSO) could give leadership to a wider program? (Importance: Medium)

+ The ICT Center of the Executive Office of the President of Tajikistan has capabilities and willingness to lead a wider program on Open Data in Tajikistan.
+ The National Legislation Center and the National Testing Center under the President of Tajikistan, the Ministry of Health and Social Protection have strong intentions to lead programs on Open Data relevant to their respective fields of activities.

Assessment of the 4th dimension: Government Data Management Policies and Procedures

Question area	Importance	Assessment Rating	Commentary
Information management	High	Yellow/ Red	There are no coherent policies or standards across Government for digital data quality, including provenance, accuracy, timeliness and completeness. Although there are established policies and practices on archiving and security on paper based information, there is no coherent policy for digital data.
Data holdings	Medium	Red	No coherent overview on data holdings at the total level. Most Agencies have no information asset registers or inventories. It is not clear how complete, up to date and detailed existing inventories are. Little interagency coordination on metadata standards. Most data holdings are not described by complete, accurate and detailed metadata records. Little use of core reference data sets.
Data form and location	High	Yellow/ Red	Information collection often remains paper-based. Historical data usually remains non-digital. Digitization programs remain isolated. Data management is currently decentralized, resulting in isolated solutions. Very little interagency coordination on standards and formats, producing huge interoperability issues. There are no coherent standards, policies,

			responsibilities and procedures for data archiving and digital preservation across Agencies.
Government data demand	High	Yellow	There is little practice of data sharing between Agencies at the same tier of Government. Data sharing remains ad-hoc and hardly efficient, while data sharing between different tiers of Government remains difficult and with high transaction costs. Some Government Agencies express strong latent demand for high quality data both from other Government Agencies and from external sources. However in practice actual demand remains low, as most Agencies make little use of data from other sources as it is either not available in high quality, transaction costs are too high, or they lack the technical capacity (data analysis skills) to work with the data.
Public data availability	High	Yellow/ Red	With the exception of national statistics, most publicly available Government data is published in non-machine-readable and proprietary formats. If publically available, most data is published in unstructured formats, such as tables inside Microsoft Word of PDF documents. Most data is published in a very global and aggregated way, with little level of detail. Some Agencies charge for value-added services such as reports or analysis on top of their data. Availability of high quality datasets remains very low (see Annex).
Experience in anonymization of data	High	Yellow	Some Agencies such as the NSO have clear anonymization policies and practices, while others don't. There is no indication that current policies and practices can safeguard the protection of personal information across Government.
Agencies that can take leadership roles	High	Yellow	The ITC Center and the NSO both have sufficient experience and capabilities on data collection, curation, management and publication. A well documented, standard workflow for data management does not exist. The NSO could potentially also guide on data analysis, privacy safeguarding and anonymization.
Overall	High	Yellow/ Red	Although there are established policies and practices concerning standards for archiving and security on paper based information, there is no clear policy and coherent application for digital

<table>
<tr><td></td><td></td><td></td><td>data quality, archiving and data security. Quality of data appears to be a main issue across Agencies. No coherent overview on data holdings exists. Data management is currently decentralized, resulting in isolated solutions, producing interoperability issues. Information collection often remains paper-based. Although there are digitization programs in some Agencies, they remain isolated and not coordinated. No coherent practice to guarantee privacy safeguarding and anonymization for digital data exists. Most data is published in non-machine-readable formats. Where data exists, data holders could move forward quickly, making data available in machine-readable formats.</td></tr>
</table>

Recommended Actions

Ref	Action	Responsibility	Timescale	Comments
A4.01	Governance processes for data security	ICT Center	Longterm	Mandate for clear governance processes for information and data security.
A4.02	Mandate for digital data quality	ICT Center	M6-18	Introduce a top-down mandate for a coherent standard across Government for digital data quality, including provenance, accuracy, timeliness and completeness.
A4.03	Information asset registers	ICT Center	M6-36	Introduce a top-down mandate for mandatory complete, up to date and detailed inventory (information asset register).
A4.04	Metadata standardization and interoperability	ICT center	Longterm	Introduction of commonly used standards for metadata and application to describe datasets with complete, accurate and detailed metadata records. Improve interagency coordination on standards and formats, addressing interoperability issues.

A4.05	Improve data quality, management and sharing	ICT Center	Longterm	Improving data management, curation, analysis and sharing across all Government Agencies. Such a program includes 1.) measures to replace legacy ICT systems with an interconnected, standardized infrastructure that eases efficient data management and sharing, 2.) improved data collection and quality, 3.) clear mandates/policies for data sharing, and 4.) capacity building of civil servants to effectively collect, manage, analyze and share data.
A4.06	Protection of personal data and anonymization	ICT Center	Longterm	Introduce common policies and practices to safeguard the protection of personal information across Government. Improve policies, capabilities and practice of anonymization.

5. Demand for Open Data

<u>Importance: Very High</u>

<u>Context</u>: The value of data is in its use. A strong demand-side "pull" of data is important not only in creating and maintaining pressure on Government to release data but also in ensuring that the wider Open Data ecosystem develops and that Open Data is turned into economically or socially valuable services for citizens. The "pull" can come from civil society, the private sector, international organizations, donors and individual citizens.

The concept of Open Data is relatively new to Tajikistan. Accordingly the demand and actual reuse of OGD corresponds to the limited availability of relevant OGD. However the findings of this assessment indicate a growing demand for OGD from different actors.

Representatives from CSO have indicated that they have a high demand for detailed and disaggregated budget and expenditure data as well as for data on public procurement, contracts and licenses for buildings, roads or the extractive industries. Other representatives from civil society highlighted the demand for better data on public services like schools, hospitals, etc and data on public transport and the environment.

Questions asked in the assessment

> **5.1. What is the level and nature of actual demand and latent demand for data from Civil Society,**

Development Partners and the media? (Importance: High)

+ Emerging demand for data from Civil Society is observed. Among civil society organizations the following can be mentioned as champions in Open Data: NGOs Coalition Transparency for Development, PF CIPI, PF Internet, Association of ISPs and IT Companies.
+ Above mentioned organizations have strong ties to Government Agencies to generate reports on the basis of Government data. For example, the Anti-Corruption Shadow Report, the Open Budget Index Report, e-Readiness Assessment Report, Usage of Mobile ICTs in Tajikistan.
+ The International Development Partners not only support civil society initiatives but also assist Government in improvement of data management quality and data production.
+ The mass media demand, actual and latent, for data is high.
- Low awareness and limited capability can be observed in social audit for spending and budget data.

5.2. What is the level and nature of actual demand and latent demand for data from business/the private sector? (Importance: High)

+ Businesses demonstrate emerging demand for data and willingness to engage in data-driven entrepreneurship like pharmaceutics, transport, agriculture, education, health.
+ Software developing companies[32] use geospatial data maps for developing business applications like navigation system, livestock management, weather alerts, and advertisements. The representatives of the private sector highlighted high demand for data on the following: tender and procurement data, demography, public services and private services to population, import/export data on a daily basis, templates for public services, Government events calendar, medical and educational data, demand of market, tax statistical data, data on companies, high quality land ownership data, high quality map, data on textbooks.
- The quality and format of available online data can be issues that hinder more active engagement of businesses. Private sector representatives have also identified the following barriers: IT infrastructure, civil servants capacity, human factor, no detailed data, funding, weak practice for proactive publication, legacy of planned economy, public data as a secret, bureaucratic procedures in the level of Government entities.

5.3. How do public agencies listen to demands for data and respond? (Importance: Medium)

+ The competent Government Agencies like the Statistics Agency and/or the Center for Strategic Research under the President of Tajikistan and others conduct regular researches/surveys to identify demand for data. At the same time, partners like civil society and international development institutions suggest/recommend improving the data management.
+ As analysis of the information requested by citizens revealed[33], highly demanded information is on tax, migration, justice, and women and family affairs.
- Weak knowledge management system that cannot effectively use the organizational knowledge to respond to demands.
- Missing policy on which information and data must be published. Some Agencies ignore requests or deny access with reference to state secrecy. Other Agencies seek monetization.

5.4. How do external stakeholders view public agencies' willingness to listen to demands for data

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[32] IT (2015). Innovation Technologies of Tajikistan LLC - www.itt.tj, NGO Neksigol Mushovir - www.agroinform.tj
[33] CIPI (2014). Analysis of traditional appeals of citizens to public authorities and other structures. Retrieved on June 06, 2015 from http://cipi.tj/wp-content/uploads/2014/12/CitizensAppealsAccess2Information-Analysis_CIPI2.pdf

and respond? (Importance: Medium)

+ Different types of Public Councils under the President of Tajikistan[34] and/or Ministries that demonstrate the Government's willingness to listen to demands of public/businesses are well accepted by external stakeholders. Through memberships in these Councils the external stakeholders seek Government actions to address various issues of society.
- Responsiveness perceived as low by both non-government and Government stakeholders. Lack of policy on how to respond to requests for data leading to ad-hoc practice and lack of uniformity in decisions on making data available on request

Assessment of the 5th dimension: Demand for Open Data

Question area	Importance	Assessment Rating	Commentary
Demand in civil society and media	High	Yellow	Emerging demand from civil society, though signs of low awareness and limited capability. Specialized CSOs and media with capabilities to analyze data, reported that available datasets (for example budget data) are of very aggregated nature, with lack of detail and granularity, so they are actually useless for their work, while other datasets with high demand from CSOs and media are not available (e.g. data on public procurement, contracts, asset declarations, etc). There is little practice of data journalism, although some first trainings and experiments have been made with the support of international donor organizations.
Demand in business society	High	Yellow	Strong demand for high quality data articulated by businesses and media. Actual reuse remains very low because data is either not available or of low quality. High transaction costs (data difficult to find and access) also present a barrier for market uptake.
Willingness to respond to demand	Medium	Yellow/ Red	Low. Missing policy on what information and data must be published. Only some Agencies are willing to listen and respond to demands for data. Some Agencies ignore requests or deny access with reference to State Secrecy. Other Agencies seek monetization by charging for value-added products (such as reports, analysis).
Perceived responsiveness	Medium	Yellow/ Red	Responsiveness perceived as low by both non-government and Government stakeholders.

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[34] Public Councils (2015). (1) Public Council; (2) Consultative Council on Improvement of Investment Climate; (3) ICT Council.

			Missing policy on how to respond to requests for data leading to ad-hoc practice and lack of uniformity in decisions on making data available on request. There is no evidence how demand informs future data collection and publication practice of Agencies.
Overall	Very High	Yellow	Emerging demand, though signs of low awareness and limited capability in civil society. Strong demand for high quality data articulated by businesses and media. Actual reuse remains low due to low quality of available data. Only some Agencies are willing to listen and respond to demands for data. There is no evidence how demand forms future data collection and publication practice of Agencies. Government Agencies have high demand for high quality data. However there are no established procedures for data sharing across Government. interagency data sharing remains ad-hoc, thus inefficient and with high transaction costs. Existing gap between supply and demand.

Recommended Actions

Ref	Action	Responsibility	Timescale	Comments
A5.01	Capacity building for demand side	Donor Organizations	M2-18	Design curricula and provide capacity building for the demand side to foster data literacy and data analysis capabilities on the demand side, including specialized CSOs, media organizations and independent or investigative journalists.
A5.02	Mechanism a align supply and demand	Expert Group	M2-18	Introduce a mechanism across Government Agencies to align supply and demand by listening to demand to form future data collection and publication.
A5.03	Prioritization of high quality datasets with high demand	Expert Group	M2-12	Make a prioritization list based on the gap analysis between supply and demand.

A5.0 4	Improve availability of high quality datasets	Government Agencies	M2-5	Identification, prioritization and release of high quality and useable datasets from prioritization list.
A5.0 5	Improve responsiveness to requests	Expert Group	M2-18	Introduce a clear policy across Government with guidelines how to respond to requests for data, aligned with RTA Law.
A5.0 6	Improve interagency data sharing	ICT Center	M2-18	Improve interagency data sharing by introducing a mechanism and policy so that data shared between two Agencies is available for all other Agencies as well to lower transaction costs.

6. Civic Engagement and Capabilities for Open Data

<u>Importance: High</u>

<u>Context</u>: Following the three-tiered approach an active and engaged civil society is a key to the success of OGD programs. I Appropriate levels of capacities and skills in civil society to actually make use of OGD for evidence-based advocacy and to create pilot projects that showcase OGD usefulness and impact are also a key factor.

Questions asked in the assessment

6.1. Which potential infomediaries (such as data journalists) are able to help translate Open Data into meaningful information for the public? What actions are needed to develop or enhance these parts of the Open Data Ecosystem? (Importance: High)

+ Data journalism exists. Its capability has been growing for the last two years with contribution of the Internews Network in Tajikistan, OSIAF Tajikistan, IWPR, NANSMIT.
+ National Information Agency Khovar[35] and Independent news agencies contribute in building their capacity on data visualization and data analysis[36].
+ Associations of independent journalism like Union of Journalists of Tajikistan, NANSMIT, Media Council actively support development of independent print and electronic media. Other media-oriented NGOs like Khoma, Independent School of Journalists "Tajikistan - XXI century"
- Data journalism is not included in the university training curriculum.

6.2. What activities has the government engaged in to promote reuse of government-held data

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[35] Khovar (2015), National Information Agency of Tajikistan, retrieved on June 08, 2015 from http://khovar.tj/eng/
[36] Mediaschool (2014), ToT on Convergent Journalist Investigation, retrieved on June 08, 2015 from http://mediaschool.tj/index.php?option=com_k2&view=itemlist&task=user&id=63%3Amediaschooltj&Itemid=1&lang=ru

> **(e.g., in developing apps or organizing co-creation events)? How could such promotion be developed or enhanced? (Importance: High)**

+ The number of events arranged by the Government Agencies in different level shows the growing interests of the Government to engage young developers for creation of applications that address the public sector needs. The Best Innovation Website[37], the ICT Forum of Youth[38], and the Young Innovator[39]. Deployment of mobile ICTs is an innovative component of all these contests.

- The use of such channels often remains one-way communication, leaving citizens unsure if their input was considered.

6.3. What is the extent of engagement with government through social media and other digital channels? (Importance: Medium)

+ Most popular social media among young people is Odnoklassniki that covers about 2,500,000 users. Facebook users make up around 100,000[40]. However, Government Agencies prefer to be introduced on Facebook. Examples: website of the President of Tajikistan[41], website of Dushanbe Municipality[42], website of Sughd Province local Government[43].

+ Public sector institutions represented online use social media like Facebook and Youtube

- Though the Concept Paper on State Information Policy defines usage of social media as a policy measure for harnessing the benefits of Internet, most of the state Agencies have not implemented it in practice.

6.4. To what extent is there an existing Apps Economy? (Importance: Medium High)

+ Number of apps developed locally is growing. Most popular apps are focused on education[44], agriculture[45], and financial[46] sector. Mobile apps were well presented in the above mentioned (6.2) government-driven events.

- Though this section of the market is growing, the actual number of software development companies with focus on apps is still low.

6.5. To what extent is there an academic or research community which trains people with technical

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[37] Dushanbe Hukumat (2014), The Best Innovation Website Contest, retrieved on June 06, 2015 from http://www.dushanbe.tj/news/779/

[38] MAORIFDUSHANBE.TJ (2015), Dushanbe City's Week of Technologies, Innovation, and Creativity of Youth, retrieved on June 06, 2015 from http://www.dushanbemaorif.tj/forum.php

[39] MOES (2015), Ministry of Education and Science Annual Contest of Young Innovators, retrieved on June 06, 2015 from http://www.kbtut.tj/view_news.php?id=932&id_lang=1

[40] The PULSE (2015), Tajikistan Suppresses Social Media, retrieved on June 08, 2015 from http://pulsofcentralasia.org/2015/03/31/onoff-onoff-tajikistan-suppresses-social-media-by-abdulfattoh-shafiev/

[41] President (2015), The Press Service of the President of Tajikistan, retrieved on June 08, 2015 from https://www.facebook.com/khadamotimatbuot

[42] Dushanbe Municipality (2015), Facebook Page of Dushanbe Municipality, retrieved on June 08, 2015 from https://www.facebook.com/pages/Dushanbe-city-Dushanbe-Municipality/342944685735281

[43] Sughd (2015), Local Government of the State Authority in Sughd Province, retrieved on June 08, 2015 from https://www.facebook.com/tjsugd

[44] Play Store (2015), Android Apps on Google Play, retrieved on June 06, 2015 from https://play.google.com/store/search?q=Tajikistan&c=apps&hl=en

[45] Agroinform (2015), Mobile Applcations for Agrobusiness, retrieved on June 06, 2015 from http://www.mobi.agroinform.tj/main/index/?lang=ru

[46] Avesta (2014), EBRD Supports Regulatory Framework for Mobile Financial Services in Tajikistan, retrieved June 06, 2015 from http://www.avesta.tj/eng/business/3805-ebrd-supports-regulatory-framework-for-mobile-financial-services-in-tajikistan.html

skills or has capabilities in data analysis? (Importance: Medium)

+   There are five universities that are focused on computer science. The other universities provide training on inter-disciplinary subjects with focus on ICT applications in the national economy. Overall these universities train about 6,000[47] ICT specialists yearly.
+   The National University of Tajikistan offers advanced statistics programs.
+   The Secondary School curriculum includes IT subjects which are taught as of grade 7. However, the state standard considers training of this subject from primary school on.
+   The network of local ICT-oriented CSOs, experienced in promoting and building capacity on free and open source software and technologies in national and regional levels, understands advantages of Open Data for addressing national needs. A few OD-oriented events have been organized by network members since October 2014. OpenCon2014 Dushanbe, a seminar for academic community and CSOs[48] in December 2014, and Training on Open Data for public officials[49] in March 2015 are a few to mention.
-   Demand for ICT specialists in the private sector and Government is high. However universities are not providing high quality and relevant ICT education in line with dynamic labor market demand.

Assessment of 6th dimension: Civic Engagement and Capabilities for Open Data

Question area	Importance	Assessment Rating	Commentary
Potential Infomediaries	High	Yellow	Emerging infomediaries in media and CSOs that can help translate Open Data into meaningful information for the public. A number of Open Data based visualizations and applications have been developed on developer sprints and community events organized by CSOs. Journalist associations express strong interest in data journalism.
Reuse promotion	High	Yellow/ Red	There has not been active promotion for reuse by Government Agencies yet, however a number of Agencies have shared data ad-hoc and are keen on seeing their data reused. They expressed willingness for collaborations and co-creation events such as hackathons.
Government engagement	Medium	Yellow	Extensive use of social media by citizens. All

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[47] e-Readiness (2012), The e-Readiness Assessment Report 2012, retrieved on June 08, 2015 from
http://www.soros.tj/en/publications/library/file/56-e-readiness-of-tajikistan-in-the-era-of-globalization?tmpl=component t
[48] OD Seminar (2014), Open Data Seminar for Academic Community and CSOs was arranged in Technological University of Tajikistan in December 2014, retrieved on June 05, 2015 from
http://ict4d.tj/2014/12/v-tadzhikistane-proshla-pervaya-konferentsiya-opencon-2014/
[49] OD Seminar (2015), Open Data Seminar for Public Officials was arranged in the Public Administration Institute, retrieved on June 05, 2015 from
http://ict4d.tj/2015/03/otkryityie-dannyie-odin-iz-elementov-elektronnogo-pravitelstva-seminar/

		Yellow	Central Government/individual Agencies use social media channels to engage with citizens. Some Agencies have specific citizen engagement components as part of their programs. However the use of such channels often remains one-way communication, leaving citizens unsure if their input was considered. Both Government Agencies and civil society wish to improve engagement.
Apps economy	Medium High	Yellow/ Red	No real Apps Economy exists, however there are a number of local IT companies developing local apps. There is a critical mass of local developers, raising awareness and articulating demand via advocacy, events and pilot projects.
Academic community	Medium	Yellow	Secondary school curricula include computer science or ICT training, but technical education levels remain relatively low.There are technical schools and universities with computer science programs that offer training on data analysis and advanced statistics programs. They produce a notable number of graduates with technical degrees/skills.
Overall	High	Yellow	Emerging infomediaries in media and CSOs that can help translate Open Data into meaningful information for the public. Journalist associations express strong interest in data journalism. Notable ICT sector, although no strong Apps Economy exists. There is a critical mass of local developers, raising awareness and articulating demand via advocacy, events and pilot projects. There is no evidence for Government Agencies actively promoting the reuse of government-held data, although some Agencies expressed they would like to see their data reused. Most Government Agencies have a presence in social media, although actual engagement remains low. Tertiary education programs on data management and data analysis exist, however they are not part of the curricula of both journalists and civil servants.

Recommended Actions

Ref	Action	Responsibility	Timescale	Comments
A6.01	Supporting new infomediaries	Donor Organizations	M2-18	Support emerging infomediaries in media and CSOs with training programs and resources to help them translate Open Data into meaningful information for the public.
A6.02	Promote the reuse of data	Expert Group	M2-18	Government Agencies actively promote reuse via collaborations and co-creation events such as hackathons.
A6.03	Promote and improve citizen engagement	Government Agencies	M2-18	Promote and improve citizen engagement by providing feedback mechanisms so citizens know if and how their input was considered.
A6.04	Support the local ICT Economy	Donor Organizations	Longterm	Support the local Apps Economy and ICT companies with funding programs for innovations.
A6.05	Awareness and outreach	Expert group	Ongoing	Awareness building measures via media and public events.
A6.06	Ecosystem supporting actions	Expert group	M4-18	Organize supportive actions such as hackathons, app competitions, incubation programs.
A6.07	Improve collaborations between academia and public sector	Academia	Longterm	Improve collaborations between academia and public sector to foster ICT training for civil servants to leverage their ICT literacy and data analysis capabilities.

7. Funding an Open Data Program

Importance: Medium High

Context: Funding with respect to both the "supply side" and "demand side" of Open Data is important to ensure that the objectives of an Open Data Program are met.

Questions asked in the assessment

7.1. How could resources be identified to fund an initial phase of an Open Data Program? Who would need to take what action to do so? (Importance: Very High)

+ Initial funding should be limited. e-Governance policy and donors may provide funding opportunities.
+ There are local ongoing initiatives that include Open Data components like the Public Finance Management Reform Program in the Ministry of Finance of Tajikistan funded by WB, the Pension System Reform Program in the Agency of Social Security and Pensions under Government of Tajikistan funded by EC.
+ Subject to strong interest of the Government of Tajikistan the international development partners like the World Bank, UNDP, DFID, OSIAF Tajikistan expressed their openness to support open Government data programs.
- Open data experience in Tajikistan is very limited independently from expressed support from officials during interviews conducted for ODRA.
- Probability to attract funds from the state budget for Government Open Data programs is low. Though its availability, even in a very small amount, would significantly raise interests of international development partners to support these programs.

7.2. What if any resources exist or have any been identified to fund development of initial apps and e-Services that will use Open Data? (Importance: High)

+ Several Agencies are in process of app development with funding. Open Data might be added to this.
+ The private sector demonstrates strong intentions to fund apps development. They also create business incubators among the companies.
- Most of Government initiatives on apps development are funded by development partners like WB, ADB, EBRD, EC.

7.3. What funding is available to support the necessary ICT infrastructure and ensure enough staff have the skills needed to manage an Open Data Program? (Importance: Medium High)

+ E-Governance policy contains strong push on skills and infrastructure. Open Data requirements and awareness may be added here.
+ Main investment to ICT infrastructure by the Government are made through investments for developing the state owned companies like Tojiktelecom and Barqi Tojik. Also during realization of different e-Government initiatives SUEs are created which have strong technical skills.
- Creation of SUEs by public Agencies could be good in short-term. In long-term is better to create one shared SUE to improve efficiency.

7.4. What funding mechanisms does the government have for innovation? (Importance: Medium High)

+ Change and innovation usually funded through donors.
+ Under the "Safe City"project, Government outsourced IT support to a private company.
+ On the Central level a state program was introduced to support entrepreneurship in Tajikistan for the period of 2012-2020. It was approved by the Government Decision No. 201 of April 30, 2012. According to this program the creation of business incubators in four administrative centers

(Dushanbe, Khujand, Kulob, Khorugh) are planned. The first one is already active.[50]

+ Implementation of OGD programs does not have to be very expensive, as the experience of TaMIS shows.

- Public-private partnerships as a reliable mechanism to fund innovation are not used effectively.

- For the implementation of OGD programs it is unlikely that the Government of Tajikistan will be able to introduce such programs without the support of international development partners.

Assessment of 7th dimension: Funding an Open Data Program

Question area	Importance	Assessment Rating	Commentary
Initial phase resources	Very High	Yellow	A limited amount of resources (people and money) are available for the initial phase of an Open Data initiative via the ICT center. Although it is unlikely to attract substantial fundings from the state budget, there might be commitment to fund small pilot projects. There is evidence that international donors might be willing to contribute to more substantial investments in improving the ICT infrastructure and in capacity building (both necessary for a substantial Open Data initiative in Tajikistan). Government is already thinking how to measure return of investment for the cost of an Open Data initiative, both in financial terms (e.g. potential cost savings, value of new services, and economic impact) and in social terms, especially in relation to the new NDS.
Initial app funding	High	Yellow/ Red	Several Agencies are in the process of app development, these are funded programs. There are currently two projects that have been developed by CSOs that are now being promoted and used by Government Agencies.
ICT infrastructure and skill funding	Medium High	Yellow	The Government already invests in ICT training for civil servants, via the national e-Government strategy, which represents a strong push to leverage ICT skills and ICT infrastructure within Government Agencies. Open Data requirements and data training on analytical capacities might be added to respective programs.
Innovation funding	Medium High	Red	The Government currently makes no direct investments in innovation, SMEs or ICT industry development. Such programs are usually funded

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[50] http://www.businessinc.tj/ru/

			through donors.
Overall	Medium High	Yellow/ Red	A limited amount of resources (people and money) are available for the initial phase of an Open Data initiative via the ICT center. Although it is unlikely to attract substantial fundings from the state budget, there might be commitment to fund small pilot projects. There is evidence that international donors might be willing to contribute to more substantial investments in improving the ICT infrastructure and in capacity building (both necessary for a substantial Open Data initiative in Tajikistan). Innovation programs are usually funded through international donors.

Recommended Actions

Ref	Action	Responsibility	Timescale	Comments
A7.01	Secure funding for the initial phase	Presidential Administration	M2-4	Secure a limited amount of resources (people and money), available for the initial phase of an Open Data initiative (M1-6).
A7.02	Secure funding for pilot projects	ICT Center	M2-4	Coordinate donors and secure sufficient funding for the initial phase and running the pilots for at least one year after implementation (M1-18).
A7.03	Secure funding for the second phase	Presidential Administration	M6-12	Coordinate donors and secure sufficient funding for the second phase of an Open Data Initiative (18-36). These are substantial investments in improving the ICT infrastructure and in capacity building (both necessary for a substantial Open Data initiative in Tajikistan).
A7.04	Leverage funding for innovations	Presidential Administration	Longterm	Promote and leverage more substantial investments in innovation, SMEs or ICT industry development, including both the Government and donor organizations

8. National Technology and Skills Infrastructure

<u>Importance: High</u>

<u>Context</u>: In very practical ways, Open Data Programs normally rely for their success at least in part on the national technology infrastructure, in terms of technology and communications services and the ICT skills among officials, infomediaries and the general public.

Questions asked in the assessment

8.1. What is the local ICT "ecosystem"? Which technologies reach what proportion of citizens? (Importance: High)

+ Very strong mobile penetration that covers over 130% of population in over 90% of inhabited territory of the country[51]. Portion of smartphone owners among active cellular communications users, which is estimated 78%, is about 49%[52]. Growing number of Government e-Services.
+ About 50% of population is found as active internet users. Connecting over 3,800 basic and secondary schools that are equipped with a computer class each to the internet is one of the objectives of the ongoing 3rd phase of State Program on Computerization of Public Schools[53].
+ The ratio of students to computer in universities[54] is 15 to 1 and university teachers to computers is 3.3 to 1 in average.
+ 3G services are available since July 2005 and now cover the majority of district centers. 4G services launched in October 2012 in Dushanbe[55] and since April 2014 are available in districts around Dushanbe, Khujand[56] and a few districts around it.

8.2. What is the level and cost of internet access, both by broadband and by mobile technologies? (Importance: High)

+ Growing internet penetration, esp mobile. Many use public access points.
+ 4G access cost varies from $15 to $100 US with traffic limits of 5GB and 40GB respectively. Speed varies from 1 Mbps up to 20 Mbps.
- Internet and mobile broadband services are available mainly in cities and towns or administrative centers of districts while rural area are mainly dependent on wireless technologies.

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[51] CS (2014), Semiannual report of the Communication Services, retrieved on June 08, 2015 from
http://www.tojnet.tj/pdf/isoboti-faoliyati-xadamot.pdf
[52] MASUD (2015), Use of Mobile ICTs in Tajikistan, retrieved on June 02, 2015 from
http://ict4d.tj/2015/04/issledovanie-po-ispolzovaniyu-mobilnyih-tehnologiy-v-tadzhikistane-infographics/
[53] Education (2011). State Program on Computerization of Public Schools in 2011 - 2015, retrieved on June 09, 2015 from
http://maorif.tj/public/userfiles/docs/Markazi%20TIK/%D0%91%D0%B0%D1%80%D0%BD%D0%BE%D0%BC%D0%B0%D0%B8%20%D0%BA%D0%BE%D0%BC%D0%BF%D1%8E%D1%82%D0%B5%D1%80%202011-2015%20(2.09.2010,%20%E2%84%96416.pdf
[54] WB (2014), Tajikistan: Higher Education Sector Study, retrieved on June 09, 2015 from
https://openknowledge.worldbank.org/bitstream/handle/10986/21326/ACS103830WP0P100sector0study0final.txt?sequence=2
[55] BT (2012), 4G/LTE in Tajikistan, retrieved on June 06, 2015 from
http://www.babilon-m.tj/news/index6605.html?curPage=23
[56] Tcell (2014), Tcell launched 4-th generation communication -
http://news.tj/ru/news/tcell-zapustil-svyaz-chetvertogo-pokoleniya-4g

- The ITU provides statistics on the Tajikistan telecommunications market based on an approximate assessment since 2006 due to the fact that the national responsible authority does not provide relevant data. However, this situation is expected to be improved this year when the ICT Center is appointed as responsible authority for data provision.

8.3. How readily available is computer and store infrastructure? (Importance: Medium High)

+ Local hosting and virtual server services exist. Cloud computing and hosting are often done inside of the country for Government data.
+ Hosting service providers offer discount services to CSOs, academic community institutions and Government Agencies.
+ All communication operators and some web-developing companies have their data centers and provide hosting services including web and server hosting.
+ There are three large data centers that meet the standard requirements of TIER II available for Government Agency services. Each Government Agency is equipped with a server room that is part of the state ICT network.

8.4. How strong are the IT industry, developer community and overall digital literacy? (Importance: High)

+ Vocal and active IT sector, that is a significant service exporter, though relatively small in size as sector. It's concentrated around Dushanbe.
+ Contribution of ICT industry to the state budget is growing annually. Considering only VAT taxes (18% of income), it was 475 mln TJS in 2013 and 483 mln TJS in 2014, which makes up around 4-5% of the state budget[57].
+ Three Government Agencies - Ministry of Finance, Tax Committee, and Custom Service, champions in ICT integration, created their own subordinated State Unitary Enterprises (SUEs) to outsource the ICT services. These SUEs also provide services to the other Government Agencies.
+ The Association of Internet Service Providers and IT companies is the main organization which unites the IT companies.
+ The first business incubator is already active. Additionally for this three universities, one state company and one private company created their technology parks.
+ Tajikistan has a high rate of literacy due to the old Soviet system of free education, with an estimated 99.5% of the population having the ability to read and write[58].
- The creation of SUEs is not good in the industries where the market is competitive. It creates conflicts of interest for the state regulator in the market.

Assessment of the 8th dimension: National Technology and Skills Infrastructure

Question area	Importance	Assessment Rating	Commentary
ICT penetration	High	Yellow	Strong mobile penetration. At the same time a

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[57] Analisys of transport potential of Tajikistan -
http://ict4d.tj/2015/04/infokommunikatsionnyiy-analiz-tranzitnogo-potentsiala-tadzhikistana/
[58] http://en.wikipedia.org/wiki/Tajikistan

		Yellow	digital divide exists, between old and young generations, between urban and rural inhabitants and between genders. Especially young women have little access at all. Although there is a growing number of Government e-Services, broadband landline access remains weak, while at the same time, most services are not fully accessible (with full functionality) via mobile devices. Availability of mobile-enabled services (m-Government) remains low.
Level of internet services	High	Green	Growing numbers of Internet services, especially via mobile technology. Mobile internet services are available at decent quality for reasonable prices throughout the country. Growing number of public access points.
Computer and storage availability	Medium High	Green	Local hosting and virtual server services exist. Cloud computing and hosting often inside of country for Government data.
IT sector, developer community, digital literacy	High	Yellow	Emerging vocal and active IT sector, that is a significant service exporter, though as sector relatively small in size and remaining concentrated around the capital, Dushanbe. There is an active developer community of highly skilled young people, representing high potentials for innovations.
Overall	High	Yellow	Although broadband internet access is available throughout the country, actual usage of landline broadband remains underdeveloped. Access to internet predominantly via smartphones and/or wireless technologies. At the same a digital divide exists, between young and old generations, between urban and rural inhabitants and between genders. Most Central Government Agencies have established a web presence, while Agencies at the district level fall behind. There is a growing number of e-Government services mostly at Central Government level, but also at District level. In spite of the growing number of e-Services, most services are not available as m-Government services, which limits accessibility. With growing access to ICT and the internet there is a parallel need for media and digital literacy that is only partially covered by the public education system. Thus there is a growing need for additional capacity building especially

			for underprivileged groups. There is also a need for more infomediaries (media, CSOs and businesses), to contextualise information and push info services out to their stakeholders and target groups. Vocal and active emerging IT sector, that is a significant service exporter, though as sector relatively small in size.

Recommended Actions

Ref	Action	Responsibility	Timescale	Comments
A8.01	Address digital divide	ICT Center	Longterm	Coordinate and strengthen programs to address the digital divide, with a focus on women, elderly people, underprivileged groups, and minorities. High priority should be on programs that focus on ICT literacy and access to the Internet for young women.
A8.02	Mobile-enabled services	ICT Center	M12-36	Improve accessibility of existing e-Government and e-Services by providing mobile-enabled services.
A8.03	ICT and media literacy training	Presidential Administration	Longterm	There is a need for substantive and long term capacity building programs to leverage general basic ICT skills and media literacy.

Conclusions

This Open Data Readiness Assessment is designed to produce a rapid evaluation of a Government's readiness to introduce and sustain an Open Data initiative. In doing this, the Assessment looks at eight dimensions. While each dimension is important, the Assessment methodology gives each a weighted rating of relative importance.

Dimension	Importance	Assessment	
		Rating	Commentary

1. Senior leadership	Very High	Yellow/ Red	Sufficient leadership commitment established at the top level of Government (Presidential Administration), while more sensitization is needed at the level of the executive branch. Not all measures to improve accountability and mitigate corruption are effective, some remain rhetoric or fall behind commitments. Although Open Data is being promoted, it is not yet widely understood.
2. Legal and policy framework	Very High	Red	Especially the arbitrary use of the Law on State Secrecy represents a real obstacle for Open Data. Other parts of the legislation such as FOI are weak and fall behind international standards. There is no evidence that existing policies and their implementation on privacy and anonymization guarantee the protection of personal data. Lack of clear mandate on what data must be published, as well as a lack of a clear policy on the terms of use of data. Central guidance and clarification on applying existing legal frameworks strongly needed.
3. Institutional structures, responsibilities, capabilities	Medium High	Yellow/ Red	Legacy of ICT systems. Except from statistical and financial data, data management remains decentralized, leading to isolated solutions. Little interagency ICT coordination. Limited ICT capabilities within public administration, especially data management and data analysis skills represent a challenge. No clear mandate on what information/data must be published, leading to arbitrary practice, where every Agency decides what to publish and what not. Leadership in Agencies hesitate to take responsibility for decisions on the publication.
4. Government data management policies	High	Red	Although there are established policies and practices on standards for archiving and security on paper based information, there is no coherent policy and practice for digital data quality, archiving and data security. Quality of data poses a main issue across Agencies. No coherent overview on data holdings. Data management is currently decentralized, resulting in isolated solutions, resulting in interoperability issues. Information collection often remains paper-based. Although there are digitization programs in some Agencies, they remain isolated and not

		   	coordinated. No coherent practice to guarantee privacy safeguarding and anonymization for digital data. Most data published in non-machine-readable formats. Where data exists, data holders could move forward quickly, making data available in machine-readable formats.
5. Societal demand for Open Data	Very High	Yellow	Emerging demand, though signs of low awareness and limited capability in civil society. Strong demand for high quality data articulated by businesses and media. Actual reuse remains low due to low quality of available data. Only some Agencies are willing to listen and respond to demands for data. There is no evidence how demand forms future data collection and publication practice of Agencies. Government Agencies have high demand for high quality data. However there are no established procedures for data sharing across Government. Interagency data sharing remains ad-hoc, thus inefficient and with high transaction costs. Existing gap between supply and demand.
6. Civil engagement and capabilities for Open Data	High	Yellow	Emerging infomediaries in media and CSOs. Journalist associations express strong interest in more data journalism. Notable ICT sector, although no strong Apps Economy exists. There is a critical mass of local developers, raising awareness and articulating demand via advocacy, events and pilot projects. No evidence for Government Agencies actively promoting the reuse of government-held data, although some Agencies want to see their data reused more. Most Government Agencies have presence in social media, although actual engagement remains low. Tertiary education programs on data management and data analysis exist, however they are not part of the curriculum of both journalists and civil servants.
7. Funding Open Data program	Medium High	Yellow/ Red	A limited amount of resources (people and money) are available for the initial phase via the ICT center. Although it is unlikely to attract substantial funding from the state budget, there might be commitment to fund small pilot projects. There is evidence that international donors might

			be willing to contribute to more substantial investments in improving the ICT infrastructure and in capacity building (both necessary for a substantial Open Data initiative in Tajikistan). Innovation programs are usually funded through international donors.
8. National tech and skills infrastructure	High	Yellow	Although broadband internet access is available throughout the country, actual usage of landline broadband remains underdeveloped. Access to internet predominantly via smartphones and /or wireless technologies. At the same time there is a digital divide, between old and young generations, between urban and rural inhabitants and between genders. Most Agencies have a web presence. Growing number of e-Government services. Although there is a growing number of Government e-Services, most services are not available as m-Government services, which limits accessibility. With growing access to ICTs and the internet there is a parallel need for media and digital literacy that is only partially covered by the public education system. Thus a growing need for additional capacity building evolves, especially for underprivileged groups. There is also a need for more infomediaries (media, CSOs and businesses), to contextualize information and push info services out to their stakeholders and target groups. Emerging vocal and active IT sector, which is a significant service exporter, though relatively small in size as sector.

It is important to note that all Governments have their own combination of challenges and comparative advantages as they implement Open Data initiatives. Open Data offers opportunities for every Government to drive innovation, improve public services and engage citizens in new ways.

Tajikistan's political, economic, technical, social and organizational context presents a complex environment of opportunities and challenges for the introduction of an Open Data initiative. Although there are a number of critical challenges presently for the introduction of an Open Data initiative in Tajikistan, there is also a window of opportunity and sufficient commitment to introduce an Open Data initiative with a series of pilot projects that can showcase the positive impacts of Open Data in sectors that are keys for the national development strategy of Tajikistan. Recognizing the overall challenging situation, this assessment concludes with the recommendation to focus on making Open Data available where that is easy to do so, and to form a multi-stakeholder expert group of Government Agencies, civil society, business and developers to quickly create a few practical examples of the usage of Open Data that can serve as example for further extension of the Open Data initiative.

The design and implementation should be coordinated by the Open Data Expert Group that is supposed to be established under the ICT Center under the Presidential Administration of Tajikistan. An open and collaborative process can help the Government and its stakeholders in civil society and the private sector to build a relationship of trust and a better understanding of how to make Open Data useful for all stakeholders in Tajikistan. The lessons learned from the process of the multi stakeholder expert group alongside with the implementation of the pilot projects should form the further development of the national Open Data action plan, which is aligned with the national development strategy, the national e-Government strategy and other relevant policies to address the challenges identified within the eight dimensions and take the necessary and more substantial actions to overcome them.

For a set of recommended actions please see the Action Planning section in the Appendix.

Appendices

A. Glossary

Open Data	Data in machine-readable format that is publicly available under an "open" license that ensures it can be freely used/reused/redistributed by anyone for any legal purpose.
Open Data Program	A set of actions designed to introduce and manage Open Data by a Government, Agency, organization or company. The Assessment focuses on Open Data Programs developed by Governments or individual public sector Agencies.
Open Data Ecosystem	An approach to Open Data that focuses not only on data but on the larger environment for Open Data—its "ecosystem"—including other key dimensions like leadership, policy/legal framework, institutions, infrastructure and the state of user communities (like developers, universities, private sector).
Open Data Portal	A platform (usually accessed as a website) that at a minimum acts as a catalogue providing a single point of access for the public to search and access Open Data available from a Government, Agency or organization.
Open Government	A philosophy or principles for Government that focus on changing how Government works to make it more transparent, accountable, participatory (with greater citizen engagement) and collaborative.
Open Government Partnership	A global partnership of Governments dedicated to implementing domestic reforms that make Government more open, accountable, and responsive to citizens. Launched in 2011, the OGP now has over 60 member countries.
Open Standards	Technical standards that are publicly available, non-proprietary and can be implemented on a royalty-free basis. Often open standards are also developed in an "open" transparent process that enables a larger group of people to contribute to their development.

Archiving	The storing of records, documents, or other materials of historical interest (or a collection of them) in a defined place or repository.
Data Management	The development, execution and supervision of plans, policies, programs and practices that control, protect, deliver and enhance the value of data and information assets.
Metadata	Metadata is "data about data" – meaning data that describes basic aspects of a dataset, for example when the dataset was created, which Agency is responsible for the dataset, the format of the data, last update, etc.
Infomediary	A person or entity that helps make data/information more easily understandable to a broader audience such as the general public. For example, the media are important infomediaries for sharing information with the public in a more understandable way.

B. List of meetings and interviews conducted

List of ODRA Meetings

Organization	Date
Center of ICT of the Executive Office of the President of Tajikistan	April 14, 2015
National Testing Center under the President of Tajikistan	April 14, 2015
National Legislation Center under the President of Tajikistan	April 14, 2015
Open Society Institute - Assistance Foundation in Tajikistan	April 16, 2015
USAID	April 17, 2015
World Bank	April 17, 2015
UNDP	April 17, 2015
UKAID	April 17, 2015
Public Fund CIPI	April 15, 2015
Internews Network	April 14, 2015
Public Organization Khoma	April 15, 2015
National Association of Independent Mass Media of Tajikistan	April 15, 2015
IWPR	April 15, 2015
Association of Independent Audiovisual Productions	April 15, 2015

NGOs Coalition Transparency for Development	April 15, 2015

List of ODRA Events

Event	Description	Date
Workshop with Government officials	Introduction to Open Government Data: What, Why, and How OGD could be useful in Tajikistan. Efficiency, data sharing, transparency and accountability, creating jobs and other potential benefits of OGD.	April 14, 2015
Workshop for civil society and mass media representatives	Introduction to Open Government Data: What, Why, and How intermediaries could benefit from and contribute to creating new products and services by accessing OGD.	April 15, 2015
Master class for Open Data for students and university teachers, as well as CSO	Open Data introduction, benefits for Tajikistan.	April 16, 2015
Workshop for businesses	Introduction to Open Government Data: What, Why, and How businesses could benefit from and contribute to creating new products and services by accessing OGD. Discussion to identify challenges to Open Data and potential pilot projects to address them.	April 21, 2015
Wrap-up Workshop	Presenting the preliminary results and discuss next steps with high and middle layer Government officials, experts from departments, and CSO, Academia, Businesses. Discussion to identify challenges to Open Data and potential pilot projects to address them.	April 22, 2015
1st day of the public event, focus on ODRA presentation and discussion	80 representatives from top level Government officials, middle layer civil servants, civil society organizations, academia, the private sector and international donor organizations.	June 15, 2015
2nd day of the public event on, focus on policy, pilot projects and action planning	50 representatives from top level Government officials, middle layer civil servants, civil society organizations, academia, the private sector and international donor organizations.	June 16, 2015
Open Data Expert Group preparation meeting	10 representatives from top level Government officials, middle layer civil servants, civil society organizations, academia, and private sector.	June 17, 2015

List of Organizations Involved in Interviews

#	Organization
1	National Testing Center
2	National Center of Legislation
3	Deputy to the Center ICT
4	Advisor to the President of Tajikistan on legal issues
5	Center ICT of the Presidential Administration
6	Head of Department on Classified Documents
7	Ministry of Justice, Head of Department
8	Internews Network in Tajikistan
9	Head of InfoSecurity Department at National Bank
10	ICT Department at President's Administration
11	Tax Committee under the Government of Tajikistan
12	CIPI
13	Senior expert of ICT Department at President's Administration [1]
14	Civil Servants Agency under the President of Tajikistan
15	Vice-Rector of Technological University of Tajikistan
16	Doctor of Economy, Teacher at the Public Administration Institute
17	Center for Strategic Researches
18	Center of Contemporary Processes Research and Scientific Future Planning of the Academy of Sciences
19	Center of Contemporary Processes Research and Scientific Future Planning of the Academy of Sciences
20	National Statistics Agency
21	National Testing Center
22	Secretary to ICT Council of Khatlon Province Government
23	DHIS, Ministry of Health
24	PO IWPR
25	PF CIPI
26	PO Khoma
27	Head of Department, Dushanbe Government
28	Ministry of Finance
29	Association of Small and Medium Businesses
30	Free Market Center
31	Rector of Technical University
32	Open Society Institute
33	Research Center Zerkalo
34	Public Organization Lawyer, Coalition of NGOs "Transparency for Development
35	Public Organization...., Coalition of NGOs "Transparency for Development"
36	Public Organization Center for Anti-corruption awareness
37	Ministry of Internal Affairs
38	Association of Independent TV Companies and Audiovisual Producers
39	Center for Strategic Researches

C. Overview of (key) data sets

This assessment indicates that most Government information is only accessible:

- ● in a very aggregated way, with little details, depth and granularity
- ● as hard copies or, if digitized, in PDF format (which can not be processed by machines)

Below is a list of datasets, and the form in which they currently exist. Data that is already available online in HTML are a prime candidate to quickly also release in machine readable formats as Open Data. Candidates where it seems likely Open Data can be achieved with some supporting effort from CSO and business stakeholders are marked in **bold**.

Nr	Dataset	Level openness	Comments
1	**Budget data** (both at Ministry of Finance and individual agency level)	At the Ministry of Finance data is publically available on the Internet, free of charge. However the data is not available in machine readable format and cannot be downloaded in bulk. It is unclear what, if any, IPR might be attached to the data. It is missing a dedicated open license or clear statement on the rights to reuse. No evidence about availability of data on individual Agency level.	In 2012 Tajikistan scored very low, with a 17% out of 100% in the Open Budget Index. The Ministry of Finance has initiated actions to address this issue. The main problem remains that the available datasets are of very general, aggregated nature, with little details and granularity, making it not very useful for interested stakeholders.
2	Disaggregated expenditure and grant data (e.g. which school got what money, when)	Disaggregated expenditure and grant data is not available.	However some data on expenditure available on the Ministry of Finance website. Yet, the data are not disaggregated and detailed and are retained in non-machine-readable format. This website is also subject to copyright as indicated by copyright symbol in the main section of the websites. Thus with no clear statement for the terms and conditions of access and reuse to them.

3	Contracts let, call for tender, future tenders	Public procurement tenders are available online in HTML format, however missing details and context to make it useful.	CSOs reported that the data available is actually not detailed enough to discover cases of corruption.
4	**Statistical data** (from the Statistical Agency or individual departments publishing recognized national statistics)	The data is publically available on the Internet, free of charge and available in machine-readable formats.	
5	Census data	The census data is publicly available online on the Statistical Agency website. However, it is retained in non-machine-readable format (.pdf)	The Statistical Agency is in charge of conducting the national census. The latest census was conducted in 2010.
6	Parliamentary data including records of proceedings, draft laws under debate and enacted version of legislation	Parliamentary proceedings are available online. However, in non-machine-readable format. Draft laws are not available. Government Agencies like the Ministry of Internal Affairs or the Tax Committee arrange online discussions on draft laws of relevance to their fields of activities.	Comments on draft laws from the Members of Parliament are available in HTML format without any feedback facilities. In the case of the Ministry of Internal Affairs feedback of citizens is sent via email.
7	**Procurement data** (who was awarded what) and contract data (the documents and details of the deal)	Data is publicly available on the website of the Agency on State Procurement of Goods and Services. However the majority of them is in HTML format.	Procurement data is available only for the current year.
8	**Data on public facilities** including schools, hospitals, police stations, public toilets, libraries, government offices etc. - location and services available	Data on public schools is available online in HTML format only for Dushanbe. Data on the other public facilities is not available online.	Open Data on public schools of Dushanbe is available in the website developed as a result of Central Asian Open Data Hackathon http://lab.code.tj/es/
9	Public service delivery and performance data at the level of individual school, hospital/clinic etc.	This data is not available online. Private clinics data is available online, but not in an open format.	Complains on the public service delivery can be filed in Dushanbe online. It is initiated by the Mayor's office

10	Transport data including roads and public transport	Transport Timetables are available online for airlines. For railroad and intercity public transport, timetables are available in paper format and only in train and bus stations.	Data is not updated regularly.
11	Crime data to the level of individual crimes and their locations	Crime data is available online in the form of reports and/or via press conferences. But data is not retained in a machine-readable format.	Ministry of Internal Affairs website is one of the regularly updated websites with good feedback facilities.
12	Reports of inspections and official decisions and rulings in reusable form (e.g. public health inspections of food outlets)	No data is available online.	Data is available in the form of reports.
13	Official registers - companies, charities, cadastral/land ownership etc.	Official registers of companies are available online on the website of the Tax Committee. However, it does not provide detailed data on companies. Data on charities (foreign) is available in the form of reports (pdf) on the State Committee on investment website. No data on cadastral/land ownership is available online.	Tax Committee data includes company name, taxpayers identification number, legal status, and registration date. Development of website on cadastral/land ownership (www.cadastre.tj) is ongoing. It is supported by the World Bank.
14	Geospatial information - maps, address registers, points of interest.	At the same products relevant to emergency situations mapping are available for free in the website of State Committee on Land Management and Geodesy of the Republic of Tajikistan. http://goskomzem.tj/index.php/geoportal/karta	Data on maps is digital and owned by the SUE in this field. However, it is not available online and access is not free of charge.
15	Weather data	Weather data is publicly available online in HTML format.	Hydrometeorological State Enterprise is very active in providing data online.
16	Construction data (permits, zoning)	Relevant data is available for Dushanbe via General Plan of construction. However, it is not retained in machine-readable	Permits are granted by the local Governments in their respective territory. Though their online presence is

		format.	growing, this data is available only for Dushanbe.
17	Real estate data (sales, listings, taxes, other property-specific data)	No public data is available online.	Available data, not in open format, is owned by private companies. But this data does not include sales and taxes. A good example is http://maskan.tj/ that provides very detailed data, though not in machine-readable format.
18	Pollution levels, energy consumption	The Hydrometeorological Service provides daily information on the level of air pollutants across the country along with weather forecast data, analytical documents on climate and ecological overview.	Available files are digital but not in a machine-readable format.
19	Global Development: Aid, food security, extractives, land	Data on extractive industry companies is available online in pdf format.	Availability of extractive industry data is result of the NGOs Coalition Transparency for Development http://tfd.tj/map/
20	Science and Research Genome data, research and educational activity, experiment results	No Science and Research Genome data is available online. Data on research and educational activity including experiment results are available on the website of universities and research institutions.	The Academy of Sciences provides data on its research activities in the form of reports (HTML format).

According to the Open Data Index (ODI) Tajikistan scores 420 points (ranking position 50th of 116 countries)[59]

Although some datasets score relatively high in the ODI (e.g. budget and spending as 75 % open), stakeholders from civil society and private sector state that the information provided is not useful for them, as it is of very general nature, very highly aggregated and not detailed enough. In this context, it is essential to point out that Tajikistan scores 17 out of 100 in the Open Budget Index (OBI) 2012 Report[60].

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[59] OK (2014). Open Data Index for Tajikistan, retrieved April 15, 2015 from http://global.census.okfn.org/place/tj
[60] Tajikistan OBI 2012 Report, retrieved April 15, 2015 from
http://internationalbudget.org/wp-content/uploads/OBI2012-TajikistanCS-English.pdf

It concludes that "Tajikistan provides scant information to the public in its budget documents during the year."

Alternatively, the research on Open Data[61] applicability in Tajikistan finds Government budget as "accessible, but partly open for reuse" evaluating it against 4 attributes of Open Data.

D. Action planning

Open Data starts from the top down, from the middle out and from the bottom up
For a successful Open Data program actions need to be taken at different levels simultaneously and in coordination with each other. Tim Berners-Lee, initiator of the UK Open Data Institute summarizes it as 'Open Data starts from the top down, from the middle out and from the bottom up'.

- The top level in this context is the legal framework and the overall Government policy framework. It is where the overall circumstances for enabling Open Data are set and decided.
- The middle level is formed by the sectoral Ministries and Agencies and the data sets they hold. It is where the translation into everyday processes and practical interpretation takes place.
- The bottom up level is where the first pilots for publishing and using Open Data take place as a collaborative exploration of both Government Agencies and civil society and business stakeholders.

Small pilots where Government data holders and external stakeholders together explore how to do Open Data well, are key bottom-up initiatives to show where actions need to be taken inside Agencies or on a regulatory level. Likewise changes in regulation that are important will allow new bottom-up initiatives to emerge. Sectoral Ministries and Agencies by adopting specific steps give practical interpretation of existing legal and policy framework and create the space for external stakeholders to create impact with Open Data. Implementing an Open Data initiative is very much a 'learning-by-doing' process, and it is therefore key that actions are not planned or viewed on their own, but always in the context of corresponding or interconnected steps at the other levels.

Open Data Expert Group with a key role
The Open Data Expert Group (ODEG) is a crucial element in the implementation of the Tajikistan Open Data Initiative. Due to its high level and inter-ministerial composition, as well as the presence of external business and CSO stakeholders, it is the connecting element between the three different levels and various activities. The ODEG is uniquely positioned to a) suggest alterations to existing legal and policy frameworks, b) provide guidance to Ministries and Agencies both on the practicalities of Open Data as well as the interpretation of legal and policy frameworks, thus ensuring consistency across Government, and c) provide recognition to ongoing pilot projects and use their experiences to inform a) and b). This makes the ODEG the owner and moderator of the action plan.

Composition and governance of the ODEG: The expert group should be lead by the Centre ICT, and might be composed with representation of the following organizations:

- Centre ICT
- Legal department of the Presidential Executive Office

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[61] Abdurakhmanova M. (2014). Master thesis on "Assessment of Open Data-related Opportunities to and Challenges for the Improvement of Proactive Information Disclosure in Tajikistan"

- National Legislation Centre under the President of Tajikistan
- Ministry of Economic Development and Trade of Tajikistan
- Statistical Agency under the President of Tajikistan
- Public Fund Internet
- Public Fund CIPI
- Association of ISPs and IT Companies
- Public Organization Khoma
- National Association of Independent Mass Media of Tajikistan (NANSMIT)
- Association of Farmers of Tajikistan

The proposed list is not limited and is open for extension. The ODEG should have a chairperson (ICT Center) and two deputies, one from civil society (Public Fund Internet) and one from the private sector (Association of ISPs and IT Companies).

Action plan

It ODRA action plan recommends actions to address challenges identified across the eight dimensions of the Open Data Readiness Assessment. It contains short term as well as middle to long term actions. Each of the eight dimensions contains its own set of recommended actions listed in a table at the end of each dimension. There is also an overview for time management in this GANTT chart.

The action plan should define specific actions, that:
- address key challenges in the different dimensions presented in this assessment
- are relevant to the country's main development goals
- are Specific, Measurable, Actionable, Relevant and Timebound (S.M.A.R.T.)
- give indication of a responsible action owner

The action plan is a living document and needs to be further developed in a collaborative and iterative process driven by the multi-stakeholder Open Data Expert Group. The action plan is designed to strike a balance between actions at the top, middle and bottom.

The be operational the ODRA action plan consists of three elements: 1. High priority actions for the initial phase, 2. actions specific for each pilot project, and 3. the ODRA actions addressing the challenges in each dimension. The high priority action plan sets a focus on releasing a few data sets as Open Data as soon as possible, in the context of the pilot projects and likely in line with information already published pro-actively online. This is the clearest possible signal to society that they are invited to engage. The action plan for the pilot projects should be developed using this Open Data Pilot Project Template.

Recommended high priority actions (HA)

Ref	Action	Responsibility	Timescale	Comments
HA1.01 (A1.01)	Initiation of expert group	ICT Center	M1	Initiation of a multi-stakeholder process to become the main driver of the OGD initiative by leading discussions on the findings of the ODRA and set relevant and realistic goals, for

				implementation of pilots and policy design.
HA1.02 (A1.02)	Develop and approve action plan	Expert group	M1-2	Establish S.M.A.R.T. goals and realistic actions to archive these goals. The action plan is the result of the multi-stakeholder process driven by the ODEG.
HA1.03 (A1.03)	Introduce Open Data into National Development Strategy	Ministry of Economic Development and Trade	M2-3	Establish formal representation OGD experts in the NDS drafting process, to ensure that improving availability of high quality Open Data is defined as a priority within the NDS. Introduce Open Data as a means to improve data management and sharing within Government, with the goal of improving policy by better, thus evidence-based, decision making to help the Government to meet its main development goals (and SDGs).
HA1.04 (A1.04)	Government sensitization	Expert group	M1-6	Fostering sensitization and commitment from top level political leaders and middle level civil servants, to gain buy-in across Government Agencies.
HA1.05 (A1.05)	Supporting "Open Data champions"	Expert group	M1-6	Identifying and supporting "Open Data champions" in public administration, who can promote and drive the OGD agenda and function as a multiplier.
HA1.06 (A2.09)	Localization of open licenses (CC)	OSI	M1-2	Commission a legal expert to do localization of the open CC licenses (CC-0, CC-BY, CC-BY-SA) to Tajikistan jurisdiction.
HA1.07	Outline of pilot projects	Expert group	M2-3	Design of the pilot projects using an open process based on agile and iterative approach, see methodology below.
HA1.08	Secure funding for pilot projects	ICT Center	M2-3	Coordinate donors and secure sufficient funding for the initial

				phase and running the pilots for at least one year after implementation.
HA1.09	Implementation of pilot projects phase 1 and 2: see sub-actions in PA1, PA2, PA3	ICT Center	M3-6 and Phase 2: M6-18	Oversee and coordinate the implementation process of the pilots, ensuring timely results and stakeholder engagement. The pilot projects have two phases. Phase 1 includes: Scoping study, supply & demand round tables, collaborative project design, implementation in iterative and agile processes, making high quality data available, and public launch event. Phase 2 includes: Monitoring and evaluation of pilot, dissemination of results, sustain service and maintenance in 2016.
HA1.10	Capacity building for supply side	TBC	M3-5	Design curriculum and provide capacity building for supply side: training for 'middle layer' Government bureaucrats to enhance their data analysis capacity and ability to use their data effectively.
HA1.11	Capacity building for demand side	TBC	M3-5	Design curriculum and provide capacity building for demand side: foster capabilities of intermediaries such as CSOs and Journalists.
HA1.12	Availability of high quality Data	State Agencies	M2-5	Identification, prioritization and release of high quality and useable datasets.
HA1.13	Initiate data portal	ICT Center	M4-6	This action has two phases 1.) Scoping study for setting up a central data portal, this action includes: technical exploration, comparing different options, scoping of initial datasets for the portal, methods for data collection/harvesting to the

				central portal, funding for the portal, and sustainability strategy. And 2.) Based on the scoping a portal might be implemented accordingly.
HA1.14	Awareness and outreach	Expert group	M1-6	Awareness building measures via media and public events.
HA1.15	Ecosystem supporting actions	Expert group	M1-6	Organize supportive actions such as hackathons, app competitions, incubation programs.

Methodological approach for an OGD Pilot

The findings of this report suggest that the Open Data Working Group identifies three potential OGD pilots that should be discussed with stakeholders and evaluated against the following criteria:

1. Availability of data
2. Ease of release as Open Data
3. Ease of implementation
4. Relevance to solve a specific problem statement
5. Relevance to the country's main development goals
6. Availability of internal champions
7. Openness for partnership

Ideally these three pilots should align to one of the main objectives of OGD as in:

● A well-informed public; citizens that understand why decisions are made and how tax money is spent, thus enabling them to effectively engage and actively participate in society.
● A more transparent and accountable Government as a basis to mitigate corruption and rebuild trust in public institutions.
● Better data management and data sharing practices within Governments that lead to a more efficient public administration and save tax money.
● Better, because evidence-based, decision-making within Government, which leads to better policies and better public services.
● The creation of innovations, new products and services built by third parties reusing OGD, leading to the creation of jobs and economic growth.
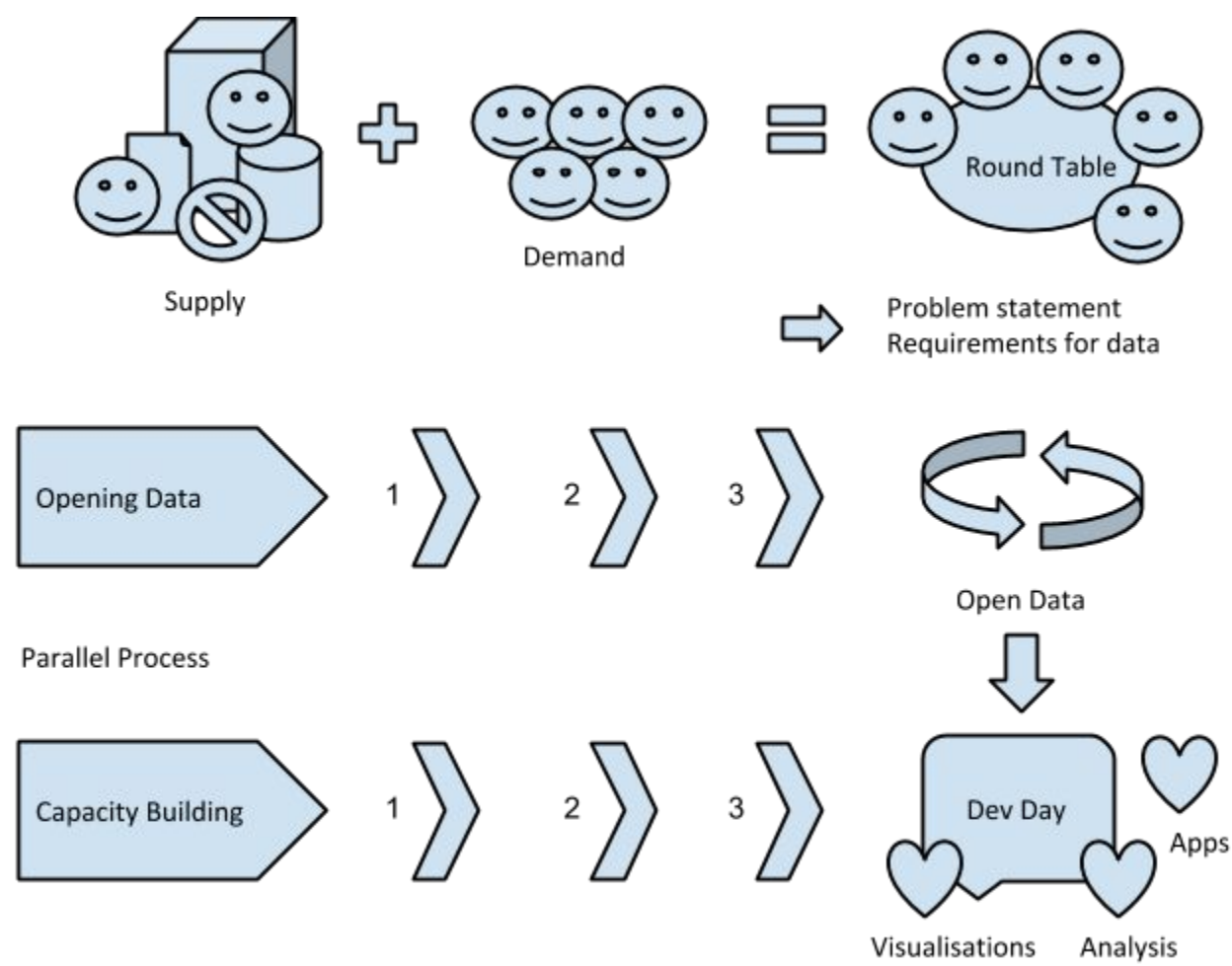
Methodological approach for OGD pilots

For the design of the pilot projects we suggest using the The Public Projects Canvas by Beth Simone Noveck for The GovLab. For the actual implementation of the pilot projects we suggest following the approach as outlined in this diagram.

It is recommended to use design thinking methodology for the roundtables/workshops, perception based online surveys to gather stakeholder needs, and tools such as the GovLab Canvas to understand problems, stakeholders, benefits and define approach and success metrics. It is mandatory to use S.M.A.R.T. methodology to define goals. For the technical development it is recommended to use usability testing and "don't make me think" methodology, as well as "Kanban" for agile project management methodology and tools like Github and Trello for collaborative code development, issue tracking and ticketing.
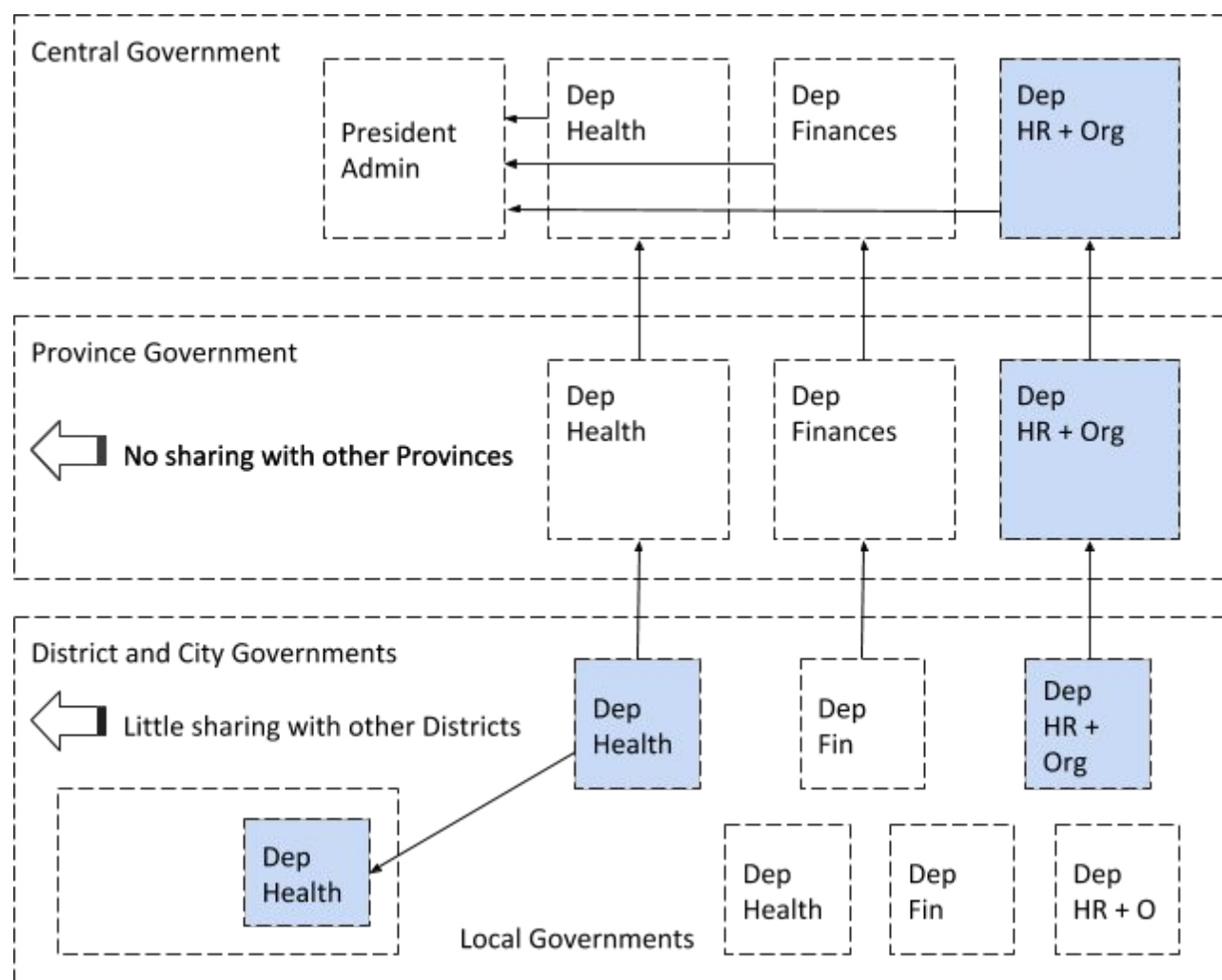
Step by step approach

1. Identify a potential societal problem that could be solved with data
2. Initiate a multi-stakeholder round table (including those who want to solve the problem e.g. CSOs and those who have the data that is needed as part of the problem solving). The round table has two outputs:
   2.1. A clear problem statement (describing the problem and the approach to solve it)
   2.2. A detailed list of what data and in what quality/granularity/format is needed
3. Initiate a parallel process, by sending expert teams to:
   3.1. Provide technical assistance and training for data supplier to open identified data
   3.2. Provide capacity building for the reuser group aligned with the problem statement
4. Arrange events (data expeditions, hackathon, workshops) to produce data-based products (analytical reports, applications) to actually solve the problem identified
5. Evaluate and disseminate the results to stakeholders and the general public

See graphic

Supply

Demand

Round Table

Problem statement
Requirements for data

Opening Data

1 2 3

Open Data

Parallel Process

Capacity Building

1 2 3

Dev Day

Apps

Visualisations   Analysis

Graphic G1

The graphic above illustrates data sharing and data flow processes within the Government. These processes are also provided by TaMIS. Data collection, as required by procedures, happens vertically from Local Government, i.e. local self-regulation body, in rural area to the District Local Government with further submission to the Province and then to the Central Government. A little (in the case of district level Departments) or no (in the case of province level Departments) data sharing is observed in the level of Local Governments. Even in the Central level Government, Ministries share data in the aggregated or report form. The same information is shared with subordinated Agencies and Local Government bodies. Though TaMIS provides a platform for sharing common data, the legacy of sharing data via Central Government bodies still dominates.