E-governance in Afghanistan since 2021: Challenges and Prospects

Ehsaanullah Zadran and Sarbajeet Mukherjee

To link to this article: http://dx.doi.org/10.31841/KJSSH-6.2-2023-66

Published online: 30 December 2023

Submit your article to this journal

Article

E-governance in Afghanistan since 2021: Challenges and Prospects

Ehsanullah Zadran
Sarbajeet Mukherjee

Abstract

This paper examines the progress and challenges of e-governance in Afghanistan since 2021. It analyzes the government's efforts towards digitization, including the development of digital infrastructure, the implementation of e-government services, and the promotion of citizen engagement. The study also discusses the government's obstacles in achieving successful e-governance, such as lack of technological access, political instability, and corruption. Finally, it explores the prospects of e-governance in Afghanistan, highlighting potential solutions and recommendations for a successful implementation of e-governance initiatives in the country with a comparative analysis of digital/e-governance in the region.

Keywords: Afghanistan, Digital governance, E-governance, Politics.

Introduction

In the age of globalization, the recent conceptualization of e-governance or digital governance is significant in administrative reforms. Drawn on the latest ICT, e-governance aims to open up government processes and enable greater public access to information. Both digital and e-governance are of recent origin, and there is hardly any universally acceptable definition of them. Digital/e-governance refers to using emerging ICT like the internet, web pages, and mobile phones to deliver information and services to citizens. It includes publishing information about government services on websites, and citizens can download the application forms for these services. It can also deliver services such as filling out a tax form, renewing a licence, and processing online payments. The digital government aims to create 'super counters in the government departments and eliminate the endless maze citizens have to negotiate in going from door to door, floor to floor, to obtain service'. Appropriate use of various ICT techniques will usher in a new era in public administration by seeking to make governmental functioning and processes more transparent and accessible.

So, e-governance through a technological innovation 'has changed the basic character of governance – its operational methodology, functional style, ideological orientation, even the spirit, heart and soul'. In developed countries, e-governance is a well-established mode in which online portals make governmental services available to citizens. For instance, in India, digital governance has been legalized by the Information Technology Act of 2000. This act provides legal recognition for the transaction carried out utilizing electronic data interchange and other means of electronic communication, commonly

referred to as 'electronic commerce', which involve the use of alternatives to paper-based methods of communication and storage of information to facilitate electronic filing of documents with the government agencies.

Defining 'electronic form' as 'any information generated, sent, received or stored in media, magnetic, optical, computer memory, microfilm, computer-generated microfiche or similar device', the acts accord legal sanction to the following devices which are: (a) the filling of a form, application or any other document with any office, authority, body or agency owned or controlled by the appropriate government in a particular manner; (b) the issue or grant of any license, permit, sanction or approval by whatever name called in a particular manner; and (c) the receipt or payment of money in a particular manner. Legally endorsed, this act is a watershed in conceptualizing administrative reform in India. More importantly, e-governance checks bureaucratic red-tapism, causing unnecessary delay and corruption. Furthermore, it also creates a space for the regular involvement of citizens who, as customers of public services, now have direct access to governmental activities through ICT. So, the citizens can not only view governmental acts online, but they can also provide significant inputs to the government through e-mails and electronic devices. Technology is, thus, an essential tool for integrating citizens' input and transparency into one model. ICT-based e-governance has ushered in a new era in government innovations with improved capacities to (a) reduce the cost of government, (b) increase citizens' input into government, (c) improve public decision-making, and (d) increase the transparency of government transactions. Given these well-defined functional characteristics, e-governance is also a significant step in combating corruption. Not only does it take any discretion, thereby curbing opportunities for arbitrary action, but e-governance also empowers the citizens by making their intervention in the transactions of governmental business regular through ICT.

Drawn on the ICT, e-governance articulates public administration in a refreshingly new way. However, its application is considerably limited in the public sector simply because e-governance threatens the mass retrenchment of workers involved in government. So, the public sector cannot opt for e-governance to replace people for two reasons. First, internet access is still limited even in the developed countries. Thus, while transactions through ICT cost less than they do by conventional devices, the government has to maintain both the old and new systems to sustain its 'public' character; otherwise, a large portion of the 'people' will remain outside governmental transactions. Second, downsizing and reducing public sector employment in many countries result in economic hardship for those losing jobs, which, for obvious reasons, has severe political repercussions. Thus, this is not a desirable option for the leadership unless no option is available. In other words, given the obvious adverse consequences of e-governance in developed and developing countries, its applicability is uncertain and limited.

Despite significant challenges, the prospects for E-governance in Afghanistan post-2021 are not entirely bleak. Success will depend on addressing critical infrastructure, security, and institutional capacity while taking advantage of reform opportunities and strengthening international partnerships. Good governance refers to the process and structures through which public institutions conduct public affairs and manage public resources transparently, effectively, and accountable. Good governance is further characterized by the rule of law, transparency, accountability, participation, and inclusiveness. E-governance also refers to governments' use of information and communication technologies (ICTs) to provide efficient and effective services to citizens.

This includes using the internet and other digital technologies to improve transparency, accountability, and accessibility in government operations and service delivery. E-governance also encompasses the use of data and analytics to inform decision-making and drive innovation in public policy.

In the case of Afghanistan, E-governance is crucial for the country's development and stability. One of the country's primary challenges is the lack of an efficient and well-established e-governance system. The Afghan government can build public trust, foster social cohesion, and promote economic growth by promoting E-governance practices. E-governance can also help reduce corruption and increase transparency, enhancing the government's legitimacy and increasing public participation in decision-making. Furthermore, improving local governance has been a critical prerequisite to consolidating a stable and legitimate state in Afghanistan. By strengthening subnational governance structures and promoting local ownership and leadership, the government can increase its effectiveness and responsiveness to the needs of the people. This can help to build trust between the government and the population, which is crucial for long-term stability and development.

In summary, E-governance is essential for the development and stability of Afghanistan. The government can build public trust, foster social cohesion, and promote economic growth by promoting transparency, accountability, and inclusiveness. Improving local governance is critical for consolidating the country's stable and legitimate state. This study aims to identify the challenges and barriers to enhancing e-governance in Afghanistan and illuminate a pathway for scholars, politicians, and those seeking knowledge to better and more efficient e-governance in Afghanistan.

2. E-governance in Afghanistan: Historical Overview

E-governance can potentially transform public service delivery and support Afghanistan's development goals. However, implementing effective e-governance initiatives faces many challenges due to Afghanistan's unique context. This section provides an overview of e-governance and its relevance for Afghanistan, discusses current e-governance initiatives, and highlights key challenges and opportunities. E-governance refers to government agencies' use of information and communication technologies (ICTs) to improve information and service delivery, encourage citizen engagement, and make governance more transparent, efficient and effective. For developing countries like Afghanistan, e-governance can help accelerate progress towards development goals by supporting economic growth, improving governance and public service delivery, and empowering citizens.

Afghanistan has development goals around poverty reduction, economic growth, good governance, and regional connectivity. E-governance initiatives can help achieve these goals by facilitating trade and business, increasing government efficiency, reducing corruption, and improving access to services for citizens. However, implementing e-governance requires overcoming many challenges in Afghanistan's context. Some e-governance initiatives have already been implemented in Afghanistan, though on a limited scale. For example, the e-tax system allows taxpayers to file and pay taxes online. An e-procurement system automates government purchasing. An e-visa system processes visa application electronically. An e-justice system provides online case management and legal information.

However, these systems face issues of low usage and uptake. Many Afghans lack access to computers and internet and have low digital literacy. Government agencies lack coordination, technical capacity and funding to implement large-scale e-governance. Security threats also pose risks to e-governance systems and data. Critical challenges to e-governance in Afghanistan include limited ICT infrastructure, low digital literacy, lack of coordination between government agencies, inadequate policies and regulations, security threats, and unequal access across regions and demographics.

Opportunities for e-governance include leveraging mobile technologies due to high mobile phone penetration, partnering with the private sector and donors to expand infrastructure like community access points and telecentres, expanding high-impact services that support development goals, and taking a phased approach, starting with essential priority services. To overcome these challenges and realize the benefits of e-governance, Afghanistan must first develop a comprehensive e-governance policy and implementation plan. The policy should define clear goals, governance structures, funding mechanisms, and performance metrics to monitor progress. An e-government agency can be established to coordinate and oversee e-governance initiatives.

Secondly, efforts must be made to expand ICT infrastructure through public-private partnerships and community access models. Government and donors can invest in broadband and mobile networks, especially in rural areas. Thirdly, e-government services should start with high-priority areas like tax administration, social security, education and health records. These can have the most significant impact on development while being feasible to implement. Lastly, building digital literacy through education and awareness programs is critical to enable citizens to reap the full benefits of e-governance, and therefore, digital literacy programs must be implemented on a large scale. This includes training citizens on how to access and use e-government services.

In short, e-governance can accelerate Afghanistan's development if critical challenges are addressed. A comprehensive, phased approach that starts by expanding infrastructure, developing high-impact services, and building digital literacy could help Afghanistan harness the benefits of e-governance. With proper planning and implementation, e-governance initiatives in Afghanistan could improve governance, drive economic growth, and empower citizens.

2.1 Pre-2001 Situation

Until the fall of the Islamic Emirate of Afghanistan in 2001, Afghanistan had limited access to modern information and communication technology (ICT). Afghanistan's infrastructure was severely damaged by decades of conflict, and the Islamic Emirate of Afghanistan's strict guidelines further hindered ICT development. As a result, e-government was virtually non-existent during this period.

2.2 Post-2001 Developments

After the fall of the government of the Islamic Emirate of Afghanistan, Afghanistan embarked on rebuilding its infrastructure and institutions. The international community, particularly the United States and its allies, provided significant financial and technical assistance to help rebuild the country. One of the focuses was the development of ICT and the promotion of e-government. The e-Afghanistan program was launched with the support of the United Nations and international donors to develop ICT infrastructure

and e-government systems to improve public service delivery. The aim was to make government more transparent, efficient, and accessible using technology.

2.2.1 National ICT Policy

In 2003, the government of Afghanistan, with support from the United Nations Development Program (UNDP), developed Afghanistan's National Information and Communication Technology Policy. This policy aimed to create a favourable environment for the development of IT and the development of e-government in the country. The policy focuses on several key areas, including infrastructure development, human resource development, legal and regulatory frameworks, and e-government services. By 2010, the e-Afghanistan program under the ICT policy had developed over 100 government websites and 20 online services covering health, education, and customs. This represents some progress in the digitization of government information and services. The National Data Center was established in 2012 to provide government agencies with data storage, management and sharing. The e-Tazkira National Digital ID System was launched in 2013 to issue digital IDs to Afghan citizens.

2.2.2 Infrastructure Development

In collaboration with international partners, the Government of Afghanistan implemented several initiatives to improve the country's ICT infrastructure. These efforts include establishing the Afghanistan Telecommunications Regulatory Authority (ATRA) in 2006, responsible for managing and promoting the telecommunications sector. The government also liberalized the telecommunications market, allowing private companies to enter and compete, leading to significant mobile and internet penetration growth. One of the major infrastructure projects is the development of the Afghanistan National Fiber Optic Trunk, which aims to connect all major cities and provinces with high-speed internet. This project, completed in 2011, has significantly improved the country's connectivity and laid the groundwork for initiatives on e-governance.

2.2.3 Human Resource Development

The Government of Afghanistan, recognizing the importance of qualified human resources to implement e-government successfully, initiated several capacity-building programs with the support of international partners. These programs aimed to train government officials, IT professionals, and the general public on how to use ICT and e-government applications. However, infrastructure gaps remain the biggest challenge, as only about 15-20% of Afghans have internet access, primarily through the 2G network. Likewise, most parts of the country have unreliable power supply, limited computing and ICT infrastructure, and underdeveloped telecommunications networks outside of metropolitan areas. Digital literacy in the Afghan population remains very low, estimated at around 5%, mainly among young people in urban areas. Internet skills are even lower due to limited internet access. An extensive training program is required, but it is gradually expanding. The Ministry of Communications and Information Technology (MCIT) established the Afghan National ICT Institute (NICTIA) in 2005 to provide training and certification programs in various ICT fields. Moreover, several universities and vocational training centres have introduced ICT-related courses to meet the growing demand for skilled workers.

2.2.4 Legal and Regulatory Framework

Afghanistan enacted several laws and regulations to support the development of ICT and e-governance. These include the Telecommunications Services Regulation Act (2005), the

Electronic Transactions Act (2009) and the Access to Information Act (2014). These laws aimed to create a favourable environment for ICT development, protect users' rights, and promote transparency and accountability in government institutions.

2.2.5 E-government Services

With the support of international partners, the Republic government launched several e-government initiatives to improve service delivery and promote transparency. Notable projects include:

– Asan Khedmat: Established in 2015, it provides citizens easy access to government services such as passport issuance business and vehicle registration. A one-stop shop for public services.

– National ID Project (e-Tazkira): Launched in 2016, it aimed to issue electronic ID cards to all Afghan citizens as the basis for various e-government services.

- Afghanistan Revenue Department (ARD) Online Service: ARD has launched an online service that allows taxpayers to access tax return filing, payment, and other tax-related information online.

2.2.6 Challenges and Limitations

The development of ICT and e-government in Afghanistan is progressing, but some challenges and limitations remain.

- Inadequate Infrastructure: A national fibre optic backbone improved connectivity, but many rural areas still lack access to reliable Internet service.

- Limited Human Resources: A shortage of qualified IT professionals and limited capacity of government personnel hindered the effective implementation of e-government initiatives.

– Corruption and Lack of Trust: Widespread corruption in the previous republic government agencies and a lack of trust in the government's ability to deliver services have effectively limited public acceptance of e-government initiatives.

3. Recent Developments and Initiatives

3.1 Digital CASA Afghanistan Project

The World Bank-supported Digital CASA (Central Asia and South Asia) Afghanistan project aims to increase access to affordable internet services, strengthen government connectivity and promote digital development in Afghanistan. The project focuses on expanding the fiber optic network, improving regional connectivity, and developing the country's digital economy. The effort is expected to significantly impact e-government by improving the underlying infrastructure and enabling governments to offer more services online.

3.2 E-NID (Electronic National Identity Document) Project

The E-NID project, launched in 2016, aims to issue electronic ID cards to all Afghan citizens. These badges are the foundation for various e-government services such as elections, social security, and healthcare. The project aims to improve the efficiency and transparency of government services and reduce the risk of fraud and corruption. A historical overview of e-government in Afghanistan highlights the critical progress made since 2001, especially in infrastructure development, human resource development and

the deployment of e-government services. However, the country still faces many challenges, such as inadequate infrastructure and limited human resources. Addressing these challenges is critical to successfully introducing and expanding e-government initiatives in Afghanistan.

4. A Comparison of Challenges and Solutions with neighboring countries

4.1 Iran

Iran has made some progress in e-governance, establishing the Supreme Council of ICT in 2001 and the Electronic Government Center in the Ministry of ICT. However, e-governance implementation faces challenges like lack of infrastructure, low digital literacy and international sanctions limiting technology access. Afghanistan and Iran face similar challenges like lack of infrastructure, low digital literacy, international sanctions, and security concerns. However, Iran has a more developed ICT infrastructure and higher digital literacy, which has enabled more significant progress in e-governance. Iran invested heavily in ICT infrastructure and education. Afghanistan can learn from Iran's focus on infrastructure and skills development.

4.2 Tajikistan

Tajikistan established an e-government centre and portal, but e-governance progress is slow due to a lack of infrastructure, low digital literacy, and lack of political will. Only a few e-services are available to citizens. Like Afghanistan, Tajikistan struggles with limited infrastructure, low digital literacy, and an inadequate legal framework for e-governance. However, Tajikistan has a more stable security environment which facilitates e-governance initiatives. Tajikistan adopted e-governance laws and policies, which helped spur progress. Afghanistan should develop a comprehensive legal framework to enable e-governance.

4.3 Pakistan

Pakistan established the Ministry of IT, Telecom, and Digital Pakistan initiative to improve e-governance. The National Information Technology Board promotes e-governance, and Pakistan has an e-government directorate and portal. However, e-governance implementation faces challenges like lack of infrastructure, low digital literacy, lack of funds and political instability. However, Pakistan has a larger economy and population, so it has achieved more significant e-governance progress, especially in urban areas. Pakistan invested in infrastructure and skills in major cities. Afghanistan can focus on developing e-governance in cities with more advanced infrastructure and skills.

4.4 India

India has made significant progress in e-governance. The Digital India program and the Ministry of Electronics and Information Technology promote e-governance. India has a well-developed e-government portal and mobile app, UMANG, which provides many e-services. The e-Governance for Reforming Governance and Administration program funds and implements e-governance initiatives across India. However, large parts of India still lack infrastructure and digital literacy, limiting e-governance. India has a more robust ICT infrastructure and higher digital literacy, enabling substantial e-governance achievements. India invested heavily in nationwide ICT and education initiatives. Afghanistan can learn from India's comprehensive approach to building infrastructure and skills.

5. Status of E-governance in Afghanistan

5.1 Existing E-government Initiatives and Systems

E-Governance in Afghanistan has been a long and complicated process due to the country's many challenges. However, various initiatives and programs have made some progress in recent years. With the support of international organizations and donors, Afghanistan has launched several e-government initiatives and systems in recent years. The key initiatives include the e-Afghanistan program launched in 2010, which aims to develop government websites, online services, and ICT infrastructure. The program has established over 100 government websites and 20 online services. In addition, The National Data Center was established in 2012 to provide government agencies with data storage, management and sharing services. However, it faces issues with funding, maintenance, and security. Furthermore, the e-Tazkira system provides an online national ID and develops and improves the efficiency of governmental institutions and offices in finding information regarding citizens.

5.2 E-governance Initiatives in Afghanistan

5.2.1 The e-Tazkira Project

The e-Tazkira project aims to digitize the government payroll system to improve efficiency, transparency, and accountability. The e-Tazkira project aimed to transform the government's vast and troublesome method into an easy one. Before the e-Tazkira projects, the citizens' identities were printed and handed out in hard copies of long pages. If an individual desires to receive passports and other governmental services, he or she has to go to the Ministry of Interior and check and verify his identity. After some days, he or she would receive it from the Ministry that it is valid or invalid, and millions of identities were forged under this old method. Now, with the e-Tazkira identity cards, they have a sim in it, which government employees where he or she is working can put the card in a sim checker which will display the biometrics and every other data the government has regarding that individual.

Moreover, if citizens wanted any governmental service, they could get it in hours, and the long and cumbersome system ended. Launched in 2010 with World Bank support, the project digitized payroll records for over 350,000 civil servants. It enabled online salary payments and reduced errors and duplication in the payroll. While not without problems, the project demonstrated the potential of e-governance to improve service delivery.

5.2.2 The E-Afghanistan Project

The e-Afghanistan project, launched in 2012, aims to develop a national e-government infrastructure and provide online services to citizens. The project established a state data centre, developed an online platform and portal, and launched some early electronic services. Although progress has been slow, the project has helped build the ICT capabilities within the government and laid the groundwork for future e-government efforts.

5.2.3 The E-Procurement System

The e-procurement system was introduced in 2013 to make public procurement more transparent, efficient, and cost-effective. The system digitized the procurement process, enabling online bidding, contract management, and payments. Although there are still

challenges, the system has helped somewhat reduce procurement costs and delivery times. The system allowed the Afghan government to receive millions of dollars annually through electronic procurement. All payments had to be processed digitally through banks, after which bank drafts were handed over to designated government officials in areas where public affairs and government affairs needed to be reopened.

5.2.4 The e-Tax Project

The e-Tax project, launched in 2014, aimed to digitize Afghanistan's tax system to improve revenue collection. The project aims to create an effective and efficient way for the tax collectors and the government to collect, review and even track the taxpayers. Before this project, millions of dollars disappeared annually while the in-government ledger was received. However, the money was unavailable in the treasury, so the government funded and created the E-tax project with the help of international organizations (World Bank and various generous donors). This project had taken power from the hand of tax collectors and handed it to a digital bank and payment system where, if an individual were trying to pay his or her tax, he would have first to deposit the money to the bank account of the government and then the remaining process was done physically. The project developed online platforms for taxpayers to file and pay taxes electronically. While tax collection remains challenging, the system has helped increase the number of taxpayers and the share of taxes paid electronically. The program is funded through the Afghanistan Incentive Program Development Policy Grant, which the World Bank Group's Fund funds for the Poorest Countries, the International Development Association, and the World Bank-administered multi-donor fund, Afghanistan Reconstruction Fund backed by a trust fund.

5.2.5 The e-Health Project

The e-Health project, launched in 2017 with World Bank support, aimed to improve the delivery of primary healthcare services through ICT. The project developed an electronic health management information system to digitize patient records, monitor medicine and other supply stock levels and generate reports. While still in the early stages, the system promises to improve health service delivery. These case studies demonstrate that while progress has been incremental and limited, e-governance initiatives - when properly designed and implemented - have the potential to improve governance.

6. Challenges and Prospects of E-Governance in Afghanistan Since 2021

The Islamic Emirate of Afghanistan's takeover of Afghanistan in August 2021 has created significant challenges for the country's nascent e-governance initiatives. Since then, the political instability, security threats, and economic turmoil have exacerbated existing issues and created new obstacles.

6.1 Challenges

6.1.1 Political and Security Challenges

The power seizure and ongoing political disagreements between the Islamic Emirate of Afghanistan and the international community are severely impacting government agencies and e-government projects. Many government officials and IT professionals have fled the country, causing a brain drain. The future of e-government under the new regime remains uncertain. The non-recognition of the Islamic Emirate of Afghanistan, economic sanctions, and lack of funds have damaged ICT infrastructure and disrupted e-

government services. Implementing and maintaining e-governance efforts is, therefore, becoming more complex.

6.1.2 Technological Infrastructure and Access

Internet penetration in Afghanistan remains low, especially in rural areas. Only about 25% of the population has internet access. The high cost and unreliability of internet services are a challenge. The country lacks adequate ICT infrastructure to support e-government. Insufficient investments are made in expanding and modernizing the network. Maintaining the existing infrastructure also proved difficult, given the disruption. Afghanistan faces limited internet penetration, inadequate ICT infrastructure, and the challenge of ensuring the e-government system remains. Power outages occur frequently in many regions and affect the functioning of ICT networks and systems.

6.1.3 Human Resources and Capacity Building

A shortage of skilled IT professionals is required to implement and manage e-governance initiatives. Many IT professionals have left the country, and some government employees generally lack ICT training and skills. Many public officials are not fully aware of the potential benefits of e-government and how e-government can improve the delivery of public services, which hinders e-governance efforts.

6.1.4 Legal and Regulatory Framework

Afghanistan's legal framework is inadequate to support e-government. There are not enough laws to regulate cybercrime, privacy, and electronic commerce. There are concerns about cybersecurity and protecting sensitive government data and public information. Afghanistan is vulnerable to cyberattacks due to system vulnerabilities. Aside from a weak legal framework and cybersecurity concerns, Afghanistan lacks a central authority to coordinate and oversee the e-government efforts of various government agencies. The result is a fragmented approach with little integration between systems.

6.1.5 Cultural and Social Barriers

Residents' digital capabilities are particularly low in rural areas. This is a challenge in promoting the use of e-government. In addition to low digital literacy, there is a general lack of trust in state institutions among the population due to widespread corruption. As a result, many people are reluctant to introduce or use e-government services. Concerns about transparency and accountability further undermine trust.

6.1.6 Financial Constraints

Afghanistan's economic challenges go beyond the effects of conflict and instability. Additionally, the country has a high poverty rate, limited government revenues, and a large informal economy, make it challenging to fund e-government efforts. Afghanistan remains heavily dependent on international aid.

6.2 Prospects for E-governance in Afghanistan

Despite the challenges, there are reasons to be optimistic about e-governance in Afghanistan. If properly implemented, it can potentially improve governance and public services.

6.2.1 Improved Public Service Delivery

E-governance can help streamline and automate government processes, making public services more efficient, transparent, and accessible. This can lead to better service delivery in healthcare, education, and social welfare, ultimately improving the quality of life for Afghan citizens.

6.2.2 Enhanced Transparency and Accountability

By digitizing government records and making them available online, e-governance can increase transparency and reduce corruption. This can help build trust between the government and its citizens, fostering a more stable and accountable political environment.

6.2.3 Economic Growth

E-governance can contribute to economic growth by promoting digital literacy, creating jobs in the ICT sector, and attracting foreign investment. Additionally, it can help streamline business processes, making it easier for entrepreneurs to start and grow businesses in Afghanistan.

6.2.4. Increased Citizen Participation

E-governance can facilitate greater citizen participation in the political process by providing online platforms for public consultation, feedback, and voting. This can lead to more inclusive and responsive governance, empowering Afghan citizens to have a more significant say in the decisions that affect their lives.

6.2.5 Strengthened National Security

E-governance can help improve national security by enhancing the government's ability to collect, analyze, and share data. This can lead to better decision-making and more effective responses to security threats.

In addition, the following are a few essential prospects which are relevant for the efficiency and development of e-governance in Afghanistan since 2021:

1. Political Will and Commitment: The current government is committed to developing Afghanistan's ICT sector and leveraging technology to improve governance. Even if the future is uncertain, this shows a willingness to push forward with e-government efforts. With the proper safeguards in place, progress might be possible. As noted by the World Bank, the Afghan government is using ICT to "improve efficiency, effectiveness, transparency and enhance its ability to deliver quality services." Over 100 government websites were developed to transform Afghanistan into an information society.

2. Donor Support and Funding: International donors and organizations continue to be interested in supporting e-government projects in Afghanistan. The World Bank, Asian Development Bank and others have pledged funding for ICT infrastructure development and capacity building. With sufficient backing, this external funding could help launch early efforts. Proper implementation of e-governance can improve public service management and delivery, increasing transparency, efficiency, and accountability in government operations. E-services make it easier for citizens to access information and use public services.

3. Growing ICT Sector and Infrastructure: Afghanistan's ICT sector has grown significantly in recent years, with an increasing number of internet users, telecommunication companies, and IT companies. This indicates that the ICT infrastructure required to

support e-government may be further expanded. A growing youth population also provides a potential talent pool.

4. Adoption of New Technologies: The Afghan people, especially young people, are willing to adopt new technologies such as mobile phones and the Internet. This indicates that citizens can take advantage of e-government services as soon as they become available. Increased digital literacy may further enable e-government initiatives.

5. Regional Examples and Best Practices: Afghanistan can learn from the e-government experiences of neighbouring and other developing countries. Local examples and best practices can enlighten the situation. As part of the problem-solving approach, Afghanistan must seek assistance and necessary help from neighbouring countries such as Pakistan, Iran, and India, as they share the same cultural, ethnic and linguistic problems.

Conclusion

E-governance has the potential to improve governance and service delivery in Afghanistan significantly. However, implementing successful e-governance initiatives in the country's complex context requires a long-term and incremental approach combined with political will, funding support, and capacity building. While some initial e-governance projects have been launched in Afghanistan, they have faced numerous infrastructures, capacity, funding, security, and corruption challenges, especially during the Republic government. Progress has been slow and limited in scale. However, even small steps towards digitization can help build technical expertise, data systems, and trust that will lay the foundation for more ambitious initiatives over time. The key to success lies in developing a comprehensive national e-governance strategy that outlines a long-term vision, priorities, and implementation roadmap. This strategy should promote an inclusive and citizen-centric approach to identify high-impact services to prioritize and leverage the private sector where possible. Significant investments will be needed to build the basic ICT infrastructure and capacity within the government. Donor support will play a crucial role in funding these initial investments.

The government should launch e-services with high social impact and benefit citizens directly, like health, education, and social welfare programs. This can help build momentum, trust, and technical expertise to pave the way for more complex e-government initiatives. Strict transparency and accountability measures must also be instituted to mitigate risks of corruption and misuse of systems. Citizens should be engaged to provide feedback and oversight. Alternatives for those without internet access, like offline services, will also be critical, given limited connectivity across Afghanistan. While challenges remain immense, e-governance initiatives represent an opportunity for Afghanistan to leapfrog traditional governance and service delivery models. Success will depend on securing long-term political commitment, funding support and donor technical assistance. However, if appropriately implemented through an incremental and inclusive approach, e-governance can fundamentally transform how the government functions and serves its citizens. In summary, e-governance initiatives in Afghanistan should aim for slow and steady progress that builds technical capacity, infrastructure, and trust over time. Small initial steps can lay the groundwork for more ambitious digitization efforts to improve governance, transparency, and service delivery for Afghan citizens if taken right.

Policy Recommendations

• The first step is to develop a comprehensive national e-governance strategy outlining a long-term vision. It should identify electronic services, capacity needs, funding needs and governance structure.

• Building basic ICT infrastructure, such as reliable Internet access, data centres, and digital platforms, requires significant investments. Capacity development for civil servants will enable effective use of e-government tools.

• Start with high-impact services by adopting an incremental approach and learn to tackle complex projects.

• Ensure transparency and accountability.

• Engaging and partnering with the private sector will improve e-governance and lessen the burden on the government. This can be achieved by formulating and adopting business-friendly policies vis-à-vis the private sector.

• Afghanistan must provide alternatives for those without internet access by creating internet booths in villages and far-flung areas.

• E-governance must operate within the framework of Sharia Law and Afghan cultural norms to gain more acceptance.

• Start with non-controversial e-services.

• Address legal and policy barriers.

• Build technical capacity through partnerships.

• Promote digital literacy and awareness.

• Monitor and evaluate e-governance initiatives.

• Leverage international support

Contributions

Mr. Ehsanullah Zadran: Principal Author
Mr. Sarbajeet Mukherjee: Corresponding Author

References

Ali A. Jalali, "Afghanistan: Regaining Momentum," Parameters 37, no. 4 (2007): 5-19, doi:10.55540/ 0031-1723.2390.

Bamberger, Leo. "Special Inspector General for Afghanistan Reconstruction (SIGAR): What we need to learn. Lessons of twenty years of Afghanistan Reconstruction. Washington, D.C.: SIGAR, August 2021" SIRIUS – Zeitschrift für Strategische Analysen 6, no. 1 (2022): 97-98. https://doi.org/10.1515/sirius-2022-1012

Bannister, Frank, and Regina Connolly. "Defining e-governance." E-Service Journal: A Journal of Electronic Services in the Public and Private Sectors 8, no. 2 (2012): 3-25., https://www.jstor.org/stable/10.2979/eservicej.8.2.3

Barfield, Thomas, and Neamatollah, Nojumi. "Bringing more effective governance to Afghanistan: 10 pathways to stability." Middle East Policy 17, no. 4 (2010): 40-52. https://doi.org/10.1111/j.1475-4967.2010.00461.x

Brown, Vanda Felbab "The Afghanistan Challenge: A Government that Serves the Afghan People" Brookings, February 15, 2012 https://www.brookings.edu/articles/the-afghanistan-challenge-a-government-that-serves-the-afghan-people/

Chand, Bidyut Chakrabarty Prakash. Public Administration in a Globalizing World. Sage, 2012.

Dey, Bata K. "E-Governance in India: Problems, Challenges and Opportunities—A Futures Vision." Indian Journal of Public Administration 46, no. 3 (2000): 300-313. https://doi.org/10.1177/0019556120000302

Ebadi, Naghmeh. "The maturity level of E-governance in Iran Ministry Portals." Journal of Public Administration 8, no. 3 (2016): 487-510. https://jipa.ut.ac.ir/article_60765_en.html

Farhad Sultani and Mohammad Basir Arifi. "Study of challenges and issues of e-governance in Afghanistan." International Journal of Scientific and Research Publications, 10 4 (2020): 23-239, https://www.ijsrp.org/research-paper-0420.php?rp=P1009875

Felbab-Brown, Vanda. "Slip-sliding on a yellow brick road: Stabilization efforts in Afghanistan." Stability: International Journal of Security and Development 1, no. 1 (2012): 4-19, https://stabilityjournal.org/articles/10.5334/sta.af

Garg, Preeti. "E-Governance- A Way to Good Governance." The Indian Journal of Political Science 69, no. 1 (2008): 43–48. http://www.jstor.org/stable/41856390.

Habib, Shabnam. "Local Government in Afghanistan: How it works and main challenges." 21st Nispacee Annual Conference 21, no. 1 (2013): 1-16. https://www.nispa.org/files/conferences/2013/papers/201304161044150.Paper_Habib.pdf

Heeks, Richard, Building e-Governance for Development: A Framework for National and Donor Action (February 18, 2001). iGovernment Working Paper no. 12, http://dx.doi.org/10.2139/ssrn.3540057

https://heinonline.org/hol-cgi-bin/get_pdf.cgi?handle=hein.journals/hilj55&section=8

https://www.researchgate.net/publication/346142242_Obstacles_to_Political_Development_in_the_Post-Tablian_Period_in_Afghanistan_An_Analytical_Study

Ismail, Emal, Ala Abdulaziz Alariqi, Asadullah Jawid, John Wall, and Mohammad Abdulrab. "Strategy, Policy, and Legal Barriers to E-Gov Implementation in Afghanistan." IEEE Access 10 (2022): 13800-13812. https://ieeexplore.ieee.org/abstract/document/9684484

Kapur, Jagdish C. "IT and good governance." Indian Journal of Public Administration 46, no. 3 (2000): 386-395. doi:10.1177/0019556120000309

Kazmi, Syed Nayyer Abbas. "Factors influencing e-Governance implementation: Issues and challenges in Pakistan." In 2010 Fifth International Conference on Digital Information Management (ICDIM), pp. 326-331. IEEE, 2010. https://ieeexplore.ieee.org/abstract/document/5664643/

Kettani, Driss. E-Government for Good Governance in Developing Countries: Empirical Evidence from the EFez Project. Anthem Press, 2014.

Mittal, Pardeep, and Amandeep Kaur. "E-governance: A challenge for India." International Journal of Advanced Research in Computer Engineering & Technology 2, no. 3 (2013). https://egovstandards.gov.in/sites/default/files/IJARCET-VOL-2-ISSUE-3- 1196-1199_1.pdf

Mohmand, Abdul Mujeeb, Aimal Marjan, and Amirzai Sangin. "Developing e-government in Afghanistan." In Proceedings of the 4th International Conference on Theory and Practice of Electronic Governance, pp. 43-48. 2010. https://dl.acm.org/doi/abs/10.1145/1930321.1930331

Pherali, Tejendra, and Arif Sahar. "Learning in the chaos: A political economy analysis of education in Afghanistan." Research in Comparative and International Education 13, no. 2 (2018): 239-258, https://journals.sagepub.com/doi/pdf/10.1177/1745499918781882

Pour, Mona Jami, Mohamad Hossien Sherkat, and Mohammad Asarian. "Citizens' intention to use e-governance in Iran: the challenge of e-good governance implementation." Electronic Government, An International Journal 18, no. 3 (2022): 293-322. https://www.inderscienceonline.com/doi/abs/10.1504/EG.2022.123833

Qazizada, Yalda, and Nassir Ul Haq Wani. "Terrorism as a Challenge to Good Governance in Afghanistan: An Evaluation." Kardan Journal of Social Sciences and Humanities 3, no. 2 (2020): 1-13. https://kardan.edu.af/data/public/files/KJSSH-3.1-2020-0131122020014632.pdf

ROSE R. "A Global Diffusion Model of e-Governance". Journal of Public Policy. 25, no1 (2005): 5-27. doi:10.1017/S0143814X05000279

Saxena, Kul Bhushan Chandra. " Towards excellence in e-governance." International Journal of Public Sector Management 18, no. 6 (2005):   498-513. https://www.emerald.com/insight/content/doi/10.1108/09513550510616733/full/html

Shaikh, Asif Zaheer, Ume Laila Shah, and Chamila Wijekuruppu. "Public service delivery and e-governance: The case of Pakistan." International Journal for infonomics 9, no. 2 (2016): 1161-1170. https://infonomics-society.org/wp-content/uploads/iji/published-papers/volume-9-2016/Public-Service-Delivery-and-e-Governance-The-Case-of-Pakistan.pdf

Sharma, Pankaj. E-governance, APH Publishing, 2004.

Skandari, Naqeebullah. "The impact of E-governance on development and its status in Afghanistan." PhD diss., Brac University, 2019, http://dspace.bracu.ac.bd/xmlui/handle/10361/13112

Sultani, Farhad, and Eraj Haidari. "Obstacles to Political Development in the Post-Taliban Period in Afghanistan: An Analytical Study." International Journal of Scientific and Research Publications 10, 9 (2020): 825-828

Swenson, Geoffrey. "Why US efforts to promote the rule of law in Afghanistan failed." International Security 42, no. 1 (2017): 114-151 https://direct.mit.edu/isec/article-abstract/42/1/114/12167

The World Bank, "E-Filing Boosts Tax Compliance and Curbs Corruption in Afghanistan," May 20, 2021, https://www.worldbank.org/en/news/feature/2021/05/20/e-filing-boosts-tax-compliance-and-curbs-corruption-in-afghanistan#:~:text=Not%20only%20has%20e-filing,filing%20has%20helped%20curb%20corruption.

The World Bank." Afghanistan shows the way in E-government" September,29,2015. https://www.worldbank.org/en/news/feature/2015/09/24/afghanistan-shows-way-e-government

Thomas, Clayton. "Afghanistan: background and US Policy." Congressional Research Service 10 (2023)., R45122, https://crsreports.congress.gov/product/pdf/R/R45122

Waldman, Thomas. "Reconciliation and research in Afghanistan: an analytical narrative." International Affairs 90, no. 5 (2014): 1049-1068 https://academic.oup.com/ia/article-abstract/90/5/1049/2326752

Wang, Carol. "Rule of law in Afghanistan: enabling a constitutional framework for local accountability." Harv. Int'l LJ 55 (2014): 211.

Waseeb, Shakirullah. Current situation of e-government in Afghanistan. Poha Journal, 68, (2018). 221-229. https://www.researchgate.net/publication/331968650_Current_Situation_of_E-Government_in_Afghanistan

Williams, Michael J. "State-building and the armed forces in modern Afghanistan: A structural analysis." International Politics 52 (2015): 305-334, https://link.springer.com/article/10.1057/ip.2015.12

Wolf, Harald. E-Government and e-Governance in Developing Countries: Preconditions for Their Implementation: A Case Study of Indonesia. diplom.de, 2002.

Yusufzada, Shaheen, Zhejiang Xia. "Public administration in Afghanistan: challenges and the way forward." Open Journal of Social Sciences 7, no. 06 (2019): 142, https://www.scirp.org/html/12-1762602_93117.htm

About the Author

Mr. Ehsanullah Zadran, *Alumni BPS, Member Research Society Kardan University, Kabul, Afghanistan. <Ehsaankhan00747@gmail.com>*
Mr. Sarbajeet Mukherjee, *Assistant Professor, Faculty of Social Sciences, Kardan University, Kabul, Afghanistan. <s.mukherjee@kardan.edu.af>*