## 20-Year Reporting Template

## (For Civil Society, Academia, Private Sector, Technical Community, and International Organizations)

| I. | Executive Summary |
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*Provide a brief overview of the entity's achievements, challenges, and future priorities related to the implementation of WSIS outcomes over the last 20 years.*



# Bangladesh NGOs Network for Radio and Communication (BNNRC): 20 Years of Implementing WSIS Action Lines in Bangladesh.

**Achievements:**

Over the past two decades, BNNRC has pioneered the World Summit on the Information Society (WSIS) outcomes in Bangladesh. It successfully promoted community media, especially **community radio**, digital development, media development, and capacity building, as a tool for inclusive growth, rural communication, and the empowerment of marginalized communities.

Bangladesh NGOs Network for Radio and Communication (BNNRC) is an expert policy advocacy organisation in approaches that leverage media and ICT, such as community radio broadcasting and ICT, to reach underserved communities through implementing the UN World Summit on the Information Society (UN WSIS) action line C1-C11 in Bangladesh since 2006.  https://www.bnnrc.net

The BNNRC, in Special Consultative Status with the Economic and Social Council (ECOSOC) and accredited by the World Summit on the Information Society (WSIS), the SDGs Media Compact of the United Nations, and the UN WSIS prize winner 2016, Champion 2017, 2019, 2020, 2021, and 2022 for media development, ICT4D. This international recognition, a testament to our commitment and impact, is a source of pride and reassurance for our stakeholders.

BNNRC has strategically and confidently shifted its focus towards digital development, information integrity, and online spaces, delving deeper into digital Development and digital localisation since 2015. This strategic shift, a testament to our adaptability and forward-thinking, has opened new possibilities and opportunities for us to make a difference. It inspires hope for a more inclusive and digitally advanced future, showing our stakeholders we are at the forefront of digital transformation.

We have implemented several projects aligned with Digital Development, Media Development, Internet Governance, Combatting Technology-facilitated Gender-Based Violence (TFGBV), Access to Justice, Road Safety Journalism, and Information Integrity for Advancing Media Development & Access to Digital Technology for Equitable Digital Inclusion and Human-Centric Digital Transformation.

BNNRC has been accredited by the UN Open-ended Working Group (OEWG) on the security of and use of ICT of the United Nations Office for Disarmament Affairs (UNODA). BNNRC's intervention is to increase knowledge and awareness of the Fourth Industrial Revolution and regularly inform policymakers and stakeholders about the rapidity and liveliness of its multifaceted impacts.

Since 2006, BNNRC has had the privilege of hosting the secretariat for the Bangladesh Internet Governance Forum, and from 2022, the secretariat of the Bangladesh Initiative for Unified Voices on the Global Digital Compact and the UN Summit for the Future 2024.

BNNRC, which has been active in the Global Digital Compact (GDC) and Summit of the Future process since its inception, has written to and made statements expressing concerns regarding the GDC and Summit of the Future's deep dives and informal consultation organized by co-facilitators.

Currently, BNNRC's digital development and digital localization intervention-focused efforts fall into four main areas: CSOs responsibly integrating digital technologies across the practice of development, building open, inclusive, secure, and rights-respecting digital ecosystems, improving staff members of CSOs' capacity to facilitate technology to meet rural people socioeconomic and livelihood needs and focusing on sustainable, inclusive, and human-centric digital transformation.

BNNRC has been a key driver in **bridging the digital divide**, advocating for **affordable access to information and communication technologies (ICTs)**, and supporting **digital literacy** initiatives. Their efforts contributed to establishing 19 community radio stations, now reaching 10 million in rural Bangladesh.

BNNRC also earned international recognition, including multiple WSIS Prizes for the 7th time, for initiatives like empowering women through ICTS and promoting resilience during disasters through radio communication.

**Challenges:**

Over the last two decades, the Bangladesh NGOs Network for Radio and Communication (BNNRC) has faced several key challenges in advancing the WSIS vision:

- **Regulatory Barriers:**

  Establishing and expanding community radio and media faced complex licensing processes and restrictive regulatory frameworks, limiting the growth of grassroots communication platforms.

- **Sustainability and Funding Constraints:**

  Securing long-term financial support for community media initiatives was difficult. Many community radio stations struggled with limited resources to maintain operations, upgrade technology, and train staff.

- **Digital Divide and Connectivity Gaps:**

  Despite efforts to bridge the information gap, rural and marginalized populations, particularly women and youth, continued to face unequal access to affordable internet and digital tools.

- **Policy Inconsistencies:**

  Shifting political priorities and lack of coherent policies supporting community media and ICT for development created uncertainty and slowed momentum for grassroots-driven ICT initiatives.

- **Technological Disruptions:**

  Rapid technological changes outpaced the capacity of many community media outlets to adapt, especially in integrating new digital platforms and ensuring digital safety and security.

- **Capacity Building Challenges:**

There was a persistent need for more investment in human resource development, digital skills training, and leadership building within rural and underserved communities.

Despite these obstacles, BNNRC remained resilient, adapting its strategies to continue empowering communities and pushing forward the WSIS goals in Bangladesh.

Political and policy-level support for community media was inconsistent, making expanding and sustaining initiatives difficult. Furthermore, ensuring **meaningful digital inclusion**, particularly for women, youth, and remote communities, remained a persistent struggle despite rapid technological changes and socio-economic inequalities.

**Future Priorities:**

Looking ahead, BNNRC prioritizes:

- **Strengthening community media's role** in promoting the UN Sustainable Development Goals (SDGs) through digital innovation.
- **Expanding access to emerging technologies** (AI, blockchain, and Internet of Things) for rural communities.
- **Fostering digital resilience** against disinformation, online harms, and technology-facilitated gender-based violence.
- **Building stronger policy advocacy** for an enabling environment for community-based ICT initiatives.
- **Enhancing youth and women's leadership** in the information society through capacity building and grassroots digital empowerment.
- **Digital Development:** Digital Transformation – Catalysing the economy, government and society through digital technologies. 2. Digital Inclusion – Ensuring no one is left behind in a digital world. 3. Digital Responsibility – Enabling a safe, secure, resilient digital environment and 4. Digital Sustainability – Harnessing digital technologies in support of our climate change and environmental aims.

- **Community Digital Public Infrastructure (CDPI)**—CDPI refers to society-wide digital services, such as e-government and national payment systems, and is a key enabler for the digital transformation of both government and the private sector.

- **Women and Girls**—The gender digital divide limits women's and girls' ability to benefit from digital development.

- **Digital Democracy** – For the inclusive community participation in democracy through a free, open, secure and inclusive Internet.

BNNRC remains committed to realizing the WSIS vision of a people-centred**, inclusive, and development-oriented information society** in Bangladesh and beyond.

## II.    Progress on WSIS Action Lines

Please provide a summary of progress on the WSIS Action Lines over the last 20 years, detailing initiatives, contributions, and the integration of digital policies. For each of the following action lines, kindly indicate the key achievements, challenges, and future priorities. Please elaborate with success stories for each Action Line.

**1. Action Line C1: The role of governments and all stakeholders in the promotion of ICTs for**

**development**

**Achievements**

a. The Government of Bangladesh launched major initiatives like "Digital Bangladesh," which significantly accelerated ICT infrastructure development, e-governance, and digital services across the country.

b. Multi-stakeholder collaboration expanded, involving the private sector, academia, and international partners to deliver ICT-based health, education, agriculture, and disaster management solutions.

c. Establishment of Union Digital Centres (UDCS) in over 4,500 unions provided grassroots access to digital services, helping bridge rural-urban divides.

d. Stakeholders promoted ICT skills training and entrepreneurship programs, especially targeting youth and women, contributing to socio-economic empowerment.

- **Challenges**
    a. Coordination gaps among government agencies, the private sector, and civil society organizations (CSOs) sometimes resulted in duplication of efforts and inefficient resource use.

    b. Persistent digital inequality remained a challenge, especially for rural women, indigenous populations, and people with disabilities.

    c. Policy implementation often lagged behind policy announcements, with bureaucratic delays and limited stakeholder engagement in decision-making processes.

    d. Cybersecurity risks, lack of digital literacy, and concerns about digital rights and privacy emerged as new challenges with increasing ICT adoption.

    e. The Internet infrastructure is not sustainable, and there is a lack of community engagement.

    a. **Future priorities**
    b. Strengthen multi-stakeholder platforms to ensure more inclusive policy dialogue and shared ownership of ICT development strategies.

    c. Focus on bridging the digital divide through targeted programs for marginalized groups. Ensure inclusion of gender, disability, and rural communities while emphasizing community digital public infrastructure and public goods.

    d. Invest in next-generation technologies (AI, IoT, blockchain) while ensuring ethical standards, cybersecurity, and digital rights protection.

    e. Build institutional capacity for better coordination, monitoring, and scaling up successful ICT4D (ICT for Development) initiatives nationwide.

    f. Harmonized with the Pact of the Future and Global Digital Compact

2. **Action Line C2: Information and communication infrastructure**
   **Achievements**
   a) Bangladesh made major progress in expanding internet and mobile network coverage, reaching over 95% of the population with mobile connectivity and increasing broadband penetration.

   b) The successful deployment of the Bangladesh-1 Satellite enhanced national telecommunication

capacity and improved broadcast and internet services, particularly in remote areas.

c) Fibre-optic networks, which were expanded under initiatives like the Info-Sarker project, connected thousands of government offices and rural areas to the Internet.

d) 4G services have expanded nationwide, and the groundwork for the rollout of 5G has begun, indicating readiness for future digital transformation.

### Challenges
a) Urban-rural disparities in internet quality, affordability, and speed continue to limit equal access, especially in hard-to-reach and disaster-prone areas.

b) Infrastructure is still vulnerable to natural disasters (floods, Fire & cyclones) due to Bangladesh's

c) geographic location, affecting service continuity.

d) High costs of internet bandwidth and limited local content delivery networks (CDNs) increase
e) digital service costs for end-users.

f) Inadequate cybersecurity infrastructure poses risks to digital services, data privacy, and national
g) security, as well as digital resilience and slow broadband penetration.

### Future priorities
Expand affordable, high-speed broadband access to all rural and marginalized communities, ensuring digital inclusion for all.

Invest in disaster-resilient ICT infrastructure, including emergency communication systems for climate-vulnerable regions.

Accelerate 5G deployment while promoting the development of local content, cloud computing, and data centers to support digital ecosystems.

Strengthen cybersecurity systems and digital trust frameworks to protect users, institutions, and critical infrastructure.

3. **Action Line C3: Access to information and knowledge**
   **Achievements**
   a) Bangladesh enacted the Right to Information (RTI) Act, 2009, enhancing citizens' legal right to access information from public authorities.

   b) Initiatives like Union Digital Centers (UDCs) and InfoGov platforms enabled millions, especially in rural areas, to access e-services in education, health, agriculture, and legal aid.

   c) Significant efforts were made to digitize government services (e.g., land records, tax systems, public exams) and promote open educational resources (OER) through platforms like Muktopaath and the national e-learning portal.

   d) Community radio and grassroots ICT hubs, supported by organizations like BNNRC, played a critical role in ensuring marginalized populations could access vital information in local languages.

   **Challenges**
   a) Low digital literacy remains a barrier for many, especially among older populations, rural women, and disadvantaged groups.

   b) Language barriers limit access to global knowledge resources, as much of the internet

content remains in English or non-localized formats.

c) Cost and infrastructure gaps still restrict access for the poorest communities, especially those in remote or disaster-prone areas.

d) Misinformation and disinformation on digital platforms threaten the quality and reliability of information available to the public.

**Future priorities**
a. Strengthen digital literacy programs targeting women, youth, and rural communities to empower informed and responsible digital citizenship.

b. Promote local language content development and accessibility tools to ensure inclusive knowledge sharing.

c. Improve affordability of internet access and devices to close the economic divide in information access.

d. Build fact-checking networks and promote media literacy to counter misinformation and enhance public trust in information sources.

4. Action Line C4: Capacity building
   **Achievements**
   a. Bangladesh integrated ICT education into school curricula from primary to tertiary levels, Expanding basic digital literacy among the youth.

   b. The government and a2i (Access to Information Program) launched large-scale digital skills training programs, including specialized training for entrepreneurs, farmers, and women.

   c. The establishment of Innovation Hubs and Digital Skills Centres in rural areas helped nurture a growing pool of young ICT professionals and freelancers, contributing to Bangladesh's rise in the global ICT outsourcing market.

   d. Public-private partnerships enhanced professional development, offering specialized courses in coding, AI, and cybersecurity through platforms like Sheikh Kamal IT Training and Incubation Centers.

   **Challenges**
   i. Quality and consistency of ICT training programs vary, with many rural areas receiving limited or outdated content.

   ii. Gender disparities in access to ICT training remain a significant concern, with fewer women participating in advanced tech programs.

   iii. There is a mismatch between training and market needs. Many programs focus on basic skills, while emerging sectors demand advanced, industry-relevant competencies.

   iv. Limited resources for lifelong learning initiatives, particularly for older and marginalized populations.

   **Future priorities**
   i. Expand advanced digital skills training in areas like AI, machine learning, data science, and cybersecurity to build a future-ready workforce.

ii. Promote inclusive training models to reach women, persons with disabilities, and rural youth, ensuring no one is left behind.

iii. Strengthen industry-academia partnerships to align training curricula with real-world job market demands.

iv. Foster a culture of continuous learning and innovation, encouraging entrepreneurship and local content creation in the digital economy.

5. **Action Line C5: Building confidence and security in the use of ICTs**
   **Achievements**
   a. Bangladesh established the Bangladesh e-Government Computer Incident Response Team (BGD e-GOV CIRT) to enhance national cybersecurity readiness and respond to cyber threats.

   b. The government introduced the Digital Security Act (DSA) 2018 aiming to protect citizens and organizations from cybercrime, although its application has sparked debates about balancing security and freedom of expression.

   c. Awareness campaigns by government agencies, NGOs, and the private sector helped promote basic cybersecurity practices among internet users, especially young people and small businesses.

   d. Financial institutions and critical infrastructure sectors strengthened their cybersecurity frameworks, supporting safer online transactions and digital services.

   e. BNNRC has been accredited by the UN Open-ended Working Group (OEWG) on the security of and use of ICT of the United Nations Office for Disarmament Affairs (UNODA). BNNRC's intervention is to increase knowledge and awareness of the Fourth Industrial Revolution and regularly inform policymakers and stakeholders about the rapidity and liveliness of its multifaceted impacts.

   **Challenges**
   i. Low public awareness about digital safety practices persists, particularly among rural and first-time internet users.

   ii. Online harassment, especially gender-based violence and cyberbullying, remains a significant concern with inadequate support mechanisms for victims.

   iii. Cybersecurity talent shortage limits Bangladesh's ability to proactively defend against increasingly sophisticated cyber threats.

   iv. The Digital Security Act has faced criticism for potentially undermining freedom of expression and being used inappropriately, creating fear among some internet users and media practitioners.

   **Future priorities**
   i. Launch nationwide digital literacy and cybersecurity education campaigns focusing on vulnerable groups, including women, youth, and marginalized communities.

   ii. Promote human rights-based approaches to cybersecurity laws and practices, ensuring protection without infringing on freedom of expression.

   iii. Build a strong cybersecurity workforce through specialized training,

certifications, and investment in ethical hacking and incident response skills.

    iv. Strengthen regional and international cooperation to address cross-border cyber threats and enhance Bangladesh's resilience to global cyber risks.

## 6. Action Line C6: Enabling environment

**Achievements**

    a) The Government of Bangladesh implemented the Digital Bangladesh Vision 2021, creating a strong national commitment to an ICT-driven economy and society.

    b) Major reforms, such as the National ICT Policy, Right to Information Act 2009, and Startup Bangladesh Policy, helped promote a more business-friendly and innovation-driven environment.

    c) Public-private partnerships (PPPs) flourished, supporting digital entrepreneurship, e-commerce growth, and mobile financial services (e.g., bKash), significantly enhancing the digital economy.

    d) Bangladesh has expanded regulatory frameworks supporting e-governance, digital payments, and ICT investments, attracting international interest in the local tech sector.

**Challenges**

    a. Policy implementation gaps often slowed down progress; regulatory updates sometimes failed to keep pace with rapid technological changes.

    b. Overregulation in certain areas (e.g., digital security) risked stifling innovation, freedom of expression, and civic participation.

    c. Access to finance remained a major hurdle for startups and grassroots ICT initiatives, especially outside major urban centers.

    d. Digital divide and infrastructure inequalities limited the enabling environment's reach to rural, poor, and marginalized communities.

**Future priorities**

    a. Ensure coherent, forward-looking ICT policies that balance security, innovation, and human rights protections.

    b. Facilitate greater access to funding and support for startups, especially in underserved regions.

    c. Strengthen regulatory agility to adapt quickly to emerging technologies like AI, fintech, and blockchain.

    d. Focus on creating an inclusive digital economy, with proactive measures to close gender, income, and geographic gaps in ICT opportunities.

## 7. Action Line C7: ICT applications: E-government, e-business, e-learning, e-health, etc.

**Achievements:**

**E-Government:**

    a) The government digitized over 2,800 public services under the a2i (Aspire to Innovate) program, including online birth registration, land services, and tax payments, making services more transparent and accessible.

b) E-Business: Bangladesh's e-commerce sector (e.g., Daraz, Chaldal) expanded rapidly, supported by mobile financial services like bKash and Nagad, bringing millions into the digital economy.

c) E-Learning: Platforms like Muktopaath, Kishore Batayan, and televised education through Sangsad TV, Community Radio Broadcasting helped millions of students continue learning, especially during the COVID-19 pandemic.

d) E-Health: Telemedicine services and mobile health apps (like Jachai and Surokkha for vaccination) grew significantly, improving healthcare access in rural and hard-to-reach areas.

**Challenges**
a. Limited digital literacy among citizens sometimes hindered the full utilization of e-services.

b. Trust and security concerns regarding digital transactions and personal data sharing affected the growth of e-business and e-health.

c. Connectivity issues in rural areas slowed the effectiveness of e-learning and e-health services.

d. Interoperability gaps between different e-government platforms sometimes made service delivery less seamless.

**Future priorities**
a. Enhance user-centered design and accessibility of e-services, ensuring they are inclusive and easy for all populations to use.

b. Invest in cybersecurity frameworks to protect data privacy and build public trust across all ICT applications.

c. Expand infrastructure and connectivity to ensure rural and remote communities can benefit equally from e-learning, e-health, and e-commerce.

d. Foster innovation ecosystems supporting startups and SMEs that build localized, affordable ICT applications for social and economic development.

▪ **C7. E-Government:**
**Achievements**
1. The a2i (Aspire to Innovate) program enabled the digitization of over 2,800 public services, making them available online or through Union Digital Centers across the country.

2. E-filing and e-tendering systems were introduced in government ministries and agencies, increasing transparency, efficiency, and reducing corruption.

3. Launch of MyGov, a one-stop mobile and web-based portal for accessing government services.

4. Progress in digital identity infrastructure, with biometric-based National ID (NID) and integration with various government databases for service delivery.

**Challenges**
1. Digital literacy gaps among both service providers and citizens limited

the effective use of many e-government services.

2. Fragmentation of services across multiple platforms led to inconsistent user experiences and difficulties in accessing services.

3. Data security and privacy concerns due to weak data protection frameworks and incidents of personal data leaks.

4. Infrastructure gaps in remote and disaster-prone areas hindered equitable access to e-services.

**Future priorities**
1. Create a single interoperable platform integrating all e-government services for a seamless user experience.

2. Strengthen data protection laws and cybersecurity measures to enhance user confidence and protect citizen data.

3. Expand digital literacy programs for both citizens and public servants to ensure meaningful and inclusive use of e-government services.

4. Invest in resilient digital infrastructure in rural, remote, and climate-vulnerable areas to ensure no one is left behind.

- **C7. E-Business**
  **Achievements**
  i. The e-commerce sector in Bangladesh has grown significantly, with platforms like Daraz, Chaldal, and Pickaboo leading the way. These platforms offer online retail and services to millions across the country.

  ii. Mobile financial services (e.g., bKash, Nagad) became widely used for payments, remittances, and small business transactions, greatly enhancing financial inclusion and enabling small entrepreneurs.

  iii. Government initiatives like Startup Bangladesh and ICT Ministry's National Innovation and Startup Policy have encouraged entrepreneurship, leading to the growth of tech startups, especially in fintech and digital services.

  iv. Digital payment infrastructure improved, with the adoption of QR codes, mobile wallets, and point-of-sale systems, facilitating easier transactions for businesses and consumers alike.

  **Challenges,**
  i. Limited digital literacy among small business owners and consumers in rural areas led to slower adoption of e-business platforms.

  ii. Trust and security concerns over online transactions, including fraud and cyberattacks, deterred some users from fully engaging in e-commerce.

  iii. Logistical challenges in delivering products to remote areas, including inadequate delivery infrastructure and high shipping costs, particularly for smaller businesses.

iv.  Regulatory challenges, including issues around taxation and digital payment systems, created hurdles for small e-businesses looking to scale.

   **Future priorities**
   1. Improve digital literacy programs targeting small and medium-sized enterprises (SMEs), entrepreneurs, and rural populations to enhance participation in e-business.

   2. Strengthen cybersecurity frameworks and consumer protection laws to build confidence in online shopping and payment systems.

   3. Invest in last-mile delivery infrastructure, including smart logistics, to ensure efficient e-commerce operations, especially in rural and underserved areas.

   4. Encourage innovation in e-business through policy reforms, funding for startups, and partnerships between the government, private sector, and academia to create a more conducive environment for digital entrepreneurship.

   **C7. E-Learning**
   Achievements, challenges, future priorities]
   1. The Muktopaath platform, a government-backed online learning platform, became a key resource for e-learning, offering free courses to over a million users across the country.

   2. The government and non-governmental organizations partnered to create digital content in Bangla, making education more accessible to a wider population, particularly in rural areas.

   3. Televised educational programs, such as those on Sangsad TV, enabled students to continue their studies during school closures, especially during the COVID-19 pandemic.

   4. The Open Schooling System and online platforms for vocational training (e.g., BTV e-Learning) expanded learning opportunities for young people and adults alike, especially in non-formal education.

   **Challenges**

   **Digital Divide and Infrastructure Limitations**
   Limited Internet Access: A substantial portion of the population lacks reliable internet connectivity, especially in rural areas. Only 15% of the population used the internet as of 2020, with significant disparities between urban and rural regions.

   **Device Accessibility:** Many students do not have access to essential devices like computers or smartphones. Only 5.6% of households own a computer, and ownership is heavily skewed towards wealthier households.
   The 21st Century Education

   **Digital Literacy Deficits**
   Lack of Basic ICT Skills: A significant portion of the population lacks fundamental ICT skills, hindering effective participation in e-learning.

**Teacher Training Gaps**: Many educators are not adequately trained to deliver online education, affecting the quality of e-learning.

**Institutional and Policy Challenges**
Absence of Strategic Vision: There is a lack of cohesive policies and legislative frameworks to guide the integration of e-learning into the education system.

**Inadequate Support Structures:** Educational institutions often lack the necessary support systems, such as technical assistance and maintenance for e-learning platforms.
ResearchGate

Socio-Cultural and Language Barriers
Cultural Resistance: There is resistance to adopting e-learning due to traditional views on education and skepticism about the effectiveness of online learning. The 21st Century Education

**Language Limitations:** Most e-learning content is in English, which poses challenges for students more comfortable with Bengali or other local languages.
ResearchGate

**Future priorities**

**Enhancing Infrastructure and Accessibility**
Expand Internet Connectivity: Invest in improving internet infrastructure, particularly in rural and underserved areas, to ensure equitable access.
The 21st Century Education

**Provide Affordable Devices:** Implement programs to supply students with affordable or subsidised devices necessary for e-learning.
The 21st Century Education

**2. Improving Digital Literacy**
Comprehensive Training Programs: Develop and implement training initiatives for students, teachers, and parents to build digital competencies.

**Integrate ICT into Curriculum**: Incorporate ICT education into the national curriculum to foster digital skills from an early age.

**3. Developing Supportive Policies and Frameworks**
Establish Strategic Plans: Formulate clear policies and strategic plans to guide the integration of e-learning into the education system.

**Strengthen Institutional Support:** Enhance support structures within educational institutions, including technical support and maintenance for e-learning platforms.

**4. Promoting Inclusive and Localised Content**
Develop Local Language Content: Create e-learning materials in Bengali and other local languages to make content more accessible.

**Cultural Sensitivity:** Design e-learning programs that are culturally sensitive and consider the local context to increase acceptance and effectiveness.

**C7. E-Health**
**Achievements**

**Digital Health Services Expansion**
Over **14,000 Community Clinics and Union Health Centers** now offer basic telemedicine services.

National **16263 Health Call Center** and **Shastho Batayon** provide 24/7 doctor consultations via phone and mobile apps.

**COVID-19 Digital Response**

 **Surokkha app** for vaccination registration and certification.

 Real-time COVID-19 dashboards and contact tracing tools were rolled out.

**Electronic Health Records (EHR) Pilots**

Limited implementation of EHRs in some government hospitals and private institutions.

**mHealth and Public Health Messaging**

Use of SMS and mobile apps for maternal health, family planning, and immunization reminders (e.g., Aponjon, mTika).

**Collaboration with Development Partners**

Projects with WHO, UNDP, UNICEF, and Gavi have supported digital immunization tracking and health information systems.

**Challenges,**
**Digital Divide**
Rural and underserved populations face limited internet access and low digital literacy.

Gender disparity in mobile phone ownership affects women's access to e-health.

Lack of Interoperability

Disparate health data systems hinder coordinated care and national health data analytics.

Data Privacy and Legal Framework Gaps

Absence of comprehensive health data protection laws and ethical standards for digital health.

Human Resource Constraints

Shortage of health workers trained in digital tools; minimal ICT integration in medical education.

Fragmented Initiatives

Many e-health programs remain donor-driven and are not fully integrated into government systems.


**Future priorities**
**Developing a National Digital Health Strategy**
Align efforts across ministries, donors, and private sector actors; adopt WHO/ITU frameworks.

Invest in ICT Infrastructure
Expand 4G/5G and broadband coverage in rural areas; ensure electricity reliability in clinics in line with DPI and DPG

Enhance Health Workforce Capacity
Train health workers in digital literacy; integrate ICT modules into medical and nursing curricula.

Build Robust Legal and Ethical Frameworks
Establish legislation for health data privacy, telemedicine regulation, and AI use in diagnostics.

Foster Public-Private Partnerships
Encourage innovation through partnerships with Bangladeshi startups and global tech firms.

Promote Inclusive and Gender-Sensitive Solutions
Design services are accessible to women, persons with disabilities, and marginalized communities.


**C7. E-Employment**
Achievements
**Freelancing and Gig Economy Growth**
Bangladesh ranks among the **top 10 countries globally** for freelance ICT work. Over **650,000 registered freelancers**, with platforms like Upwork, Fiverr, and local sites (e.g., Sheba.xyz, BDjobs.com) supporting e-employment.

**Government-Led Digital Skills Programs**
Initiatives like the **Learning and Earning Development Project (LEDP)** and **Digital Bangladesh Program** have trained thousands of youth in freelancing, graphic design, programming, and digital marketing.

**Startup Ecosystem Support**
Growth of ICT-based startups through the **Innovation Design and Entrepreneurship Academy (iDEA)** and **Startup Bangladesh Limited,** providing funding and mentorship.

**Online Job Portals and Mobile Recruitment**
Platforms such as **BDJobs.com**, **Chakri.com**, and **Kormo Jobs** (by Google) have made employment searches accessible via digital tools.

**ICT-Enabled Outsourcing**
The growth in Business Process Outsourcing (BPO) and IT-enabled Services

(ITES) employs thousands and contributes to export earnings.

**Challenges**
Digital Literacy and Access Inequality
Many rural and low-income groups lack access to reliable internet or the digital skills needed to engage in e-employment.

Gender Digital Divide
Women face barriers to entering the digital workforce due to social norms, safety concerns, and lower access to devices and training.

Job Quality and Protection Issues
Gig workers often face precarious conditions, no job security, and a lack of social protection or labor rights.

Recognition of Online Credentials
Limited acceptance of informal or online-acquired skills by employers and formal institutions.

Infrastructure and Power Supply Gaps
Interruptions in electricity and internet access hinder consistent remote work, especially in rural areas.

**Future priorities**
Expand Inclusive Digital Skills Training
Scale up programs targeting women, persons with disabilities, and marginalized youth with market-relevant e-skills.

Develop a National Framework for the Gig Economy
Create policies to protect freelancers and platform workers, ensuring fair wages and access to benefits.

Foster Digital Job Platforms in Local Languages
Make employment resources more accessible through localization and mobile-first design.

Invest in Rural ICT Hubs
Establish digital service centers and co-working spaces to enable remote work in underserved areas.

Enhance Industry-Academia Collaboration
Align digital training with current and emerging labor market demands (e.g., AI, data analytics, cybersecurity).

Promote Women's Participation in E-Employment
Provide safe digital spaces, flexible work models, and targeted mentorship programs for female digital workers.

Encourage Remote Government Work Models
Pilot e-employment initiatives within public service (e.g., remote

administrative work) to set a precedent and reduce urban migration.

**C7. E-Environment**
Achievements
**Disaster Early Warning Systems (DEWS)**
ICT-based **cyclone and early flood warning systems** have significantly reduced disaster-related deaths.
SMS alerts, community radio, and mobile apps (e.g., **Spondon** for earthquake alerts) are used for real-time dissemination.

**Geospatial Technologies for Environmental Monitoring**
Use GIS, satellite imagery, and remote sensing to track deforestation, land erosion, and water body changes.

Bangladesh Space Research and Remote Sensing Organization (SPARRSO) supports environmental modeling.

**Digital Tools in Agriculture and Climate Resilience**
Platforms like **Agri-Information Service (AIS)** and mobile apps deliver weather forecasts, crop advisories, and climate-smart farming tips to farmers.

**Air and Water Quality Monitoring**
Digital air quality index (AQI) dashboards are available in Dhaka and other major cities.
Real-time river and groundwater monitoring in selected areas.

**Smart City and Urban Waste Initiatives**
Pilots for **smart waste collection**, **digital traffic management**, and **urban pollution control** in cities like Dhaka, Khulna, and Rajshahi.

**Challenges**
Fragmented Data and Interagency Coordination
Environmental data is often siloed across agencies (e.g., DoE, BMD, LGED, SPARRSO), leading to inefficiencies in planning.

Limited Rural Coverage
Most ICT-based environmental services are concentrated in urban or coastal areas; hill and inland rural areas remain underserved.

Capacity and Skill Gaps
Local governments and communities often lack the technical expertise to operate or interpret ICT-based environmental tools.

Low Public Awareness
Limited understanding of e-environment tools among the general public and school systems.

Infrastructure Vulnerability
ICT infrastructure itself is vulnerable to extreme weather events, hampering continuity during disasters.

**Future priorities**
**Strengthen Integrated Environmental Information Systems**
Build unified platforms that combine climate, land, water, and disaster data for better decision-making.

**Scale Community-Based E-Environment Initiatives**
Empower local governments and youth to use mobile and digital tools for environmental monitoring (e.g., community air sensors, flood gauges).

**Enhance Climate Education through ICT**
Integrate digital environmental education in schools and public campaigns using social media, apps, and radio.

**Leverage AI and Big Data for Climate Modeling**
Apply emerging technologies for forecasting extreme events, disease outbreaks, and managing urban environmental stressors.

**Promote Green ICT Infrastructure**
Encourage energy-efficient data centers, solar-powered devices, and e-waste management systems.

**Expand ICT Access in Vulnerable Areas**
Deploy robust ICT tools for environmental risk communication in hill tracts, chars (river islands), and climate hotspots.

**Public-Private Collaboration for Smart Environment Solutions**
Foster innovation partnerships with startups, academia, and civil society for low-cost, scalable e-environment solutions.


**C7. E-Agriculture**
**Achievements**
**Digital Advisory Services for Farmers**
**Krishi Call Centre (16123)**: A national helpline where farmers can get expert advice on crops, livestock, and fisheries.

**Krishi Batayon** (agriculture portal): A comprehensive platform offering weather updates, pest alerts, crop calendars, and best practices.

**Mobile Apps and SMS-Based Services**
Apps like **Krishoker Janala**, **Agriman**, and **Daktar Bhai for Livestock** provide targeted farming advice and health info.

Farmers receive **SMS alerts** for weather forecasts, market prices, and disease outbreaks.

**Digital Market Access (E-commerce for Farmers)**
Platforms like **e-Krishok** (by Dnet) and **iFarmer** connect farmers directly with consumers, input suppliers, and financial services.

**Remote Sensing and GIS in Agriculture**
SPARRSO and BARC use **satellite data** and GIS for crop monitoring, land use mapping, and early warning for floods/droughts.

**Agricultural Extension Digitization**

Tablets and digital content are being used by **sub-assistant agricultural officers (SAAOs)** in field-level advisory services.

**Challenges**

Limited Digital Literacy Among Farmers
Many smallholder farmers—especially older and less-educated individuals—struggle to use ICT tools effectively.

Inadequate Infrastructure in Rural Areas
Poor mobile and internet connectivity, irregular power supply, and lack of devices hinder ICT usage in farming.

Gender Digital Divide
Women farmers have less access to mobile phones, ICT training, and agricultural extension services.

Fragmentation and Duplication
Multiple ICT tools and platforms exist without standardization, coordination, or interoperability.

Low Trust and Uptake
Farmers sometimes distrust digital services or prefer face-to-face interactions, leading to underutilizing e-agriculture tools.

**Future priorities**

Strengthen ICT Infrastructure for Rural Agriculture

Expand 4G/5G coverage, improve power reliability, and support community-based digital access centers in farming areas.

Promote Farmer-Centric, Localized Content

Develop mobile-friendly apps and audio-visual content in Bangla and regional dialects tailored to local crops and needs.

Build Digital Literacy and Inclusion
Train farmers, especially women and youth, on using e-agriculture tools through cooperatives, NGOs, and extension networks.

 Integrate AI, IoT, and Big Data for Precision Agriculture

Use drones, sensors, and analytics for soil health monitoring, pest control, and irrigation optimization.

Develop a Unified National E-Agriculture Framework
Coordinate efforts across ministries, donors, and private innovators for standardization, scalability, and sustainability.

Link ICT Tools to Finance and Insurance
Enable farmers to access credit scoring, crop insurance, and digital payments

via mobile platforms.

Encourage Public-Private Partnerships (PPPs)
Leverage private sector innovation (e.g., agritech startups) with public sector scale to mainstream smart agriculture.

## C7. E-Science
### Achievements
Development of National Research and Education Network (BdREN)

Bangladesh Research and Education Network (BdREN) connects universities and research institutions across the country with high-speed internet and facilitates remote learning, scientific collaboration, and data sharing.

### Increased Access to Scientific Databases
Public universities and research centers now have access to global academic journals and scientific databases through the Bangladesh Program for Enhancement of Research Information (PERI)consortium and the UGC Digital Library.

### Expansion of E-Learning and Digital Classrooms
Widespread use of virtual labs, LMS platforms, and video conferencing tools (especially post-COVID-19) has enabled remote scientific education and collaboration.

### Establishment of Specialized ICT Research Institutions
Institutions like the Bangladesh Computer Council (BCC), ICT Division's Hi-Tech Parks, and the Bangladesh Council of Scientific and Industrial Research (BCSIR) support research in ICT, biotechnology, and applied sciences.

### International Research Collaborations
Bangladeshi researchers are increasingly using digital platforms to participate in global collaborative projects (e.g., climate modeling, digital health, disaster forecasting).

### Challenges
Limited Investment in R&D

Bangladesh spends less than 0.5% of GDP on research and development, constraining innovation and scientific output.

Digital Divide in Research Institutions
Not all universities, especially in rural areas, have access to high-speed internet, digital labs, or up-to-date computing infrastructure.

Brain Drain and Talent Gaps
Many skilled scientists and researchers migrate abroad due to limited domestic opportunities and underfunded institutions.

Low Adoption of Open Science Practices
Limited awareness and infrastructure for open access, open data, and collaborative tools among local researchers.

Fragmented ICT Integration in Science Policy
Lack of coherent national strategy to embed ICT in all scientific disciplines and across research institutions.

**Future priorities**
**Increase Public Investment in Digital R&D**
Raise funding for science and innovation with a focus on ICT-enabled research infrastructure, labs, and open platforms.

Enhance BdREN and Regional Research Connectivity
Expand high-speed internet access and digital collaboration tools to all public and private universities.

Promote Open Science Ecosystem
Develop national repositories, open-access journals, and policies to encourage open data and transparent research.

Integrate AI, Big Data, and Supercomputing in Research
Build national capacity for advanced scientific computing to support research in climate change, genomics, and public health.

Strengthen Research-Industry Linkages
Foster partnerships between academia, startups, and industry to translate scientific research into innovation and solutions.

Develop Human Capital in E-Science
Provide training in data science, digital tools, and collaborative research platforms, especially for young scientists and women researchers.

Encourage Multidisciplinary and International Collaboration

Support cross-border, cross-disciplinary projects using ICT platforms to address global challenges like climate change, AMR, and sustainable development.

**Action Line C8: Cultural diversity and identity, linguistic diversity, and local content**
**Achievements**:

**Digitization of Cultural Heritage**
**Bangladesh National Museum** and **Bangla Academy** have digitized books, manuscripts, and historical archives.

Digital initiatives to preserve folk music (e.g., Baul songs), traditional dance, and crafts are available through YouTube and local content platforms.

**Promotion of Bangla in ICT**
Unicode-standard **Bangla computing tools**, **Bangla keyboards**, and the inclusion of Bangla in major OS and platforms (e.g., Android, Microsoft).

**National e-Service Portal** and many government services are available in Bangla.

**Growth of Local Digital Content Ecosystem**
Expansion of Bangla content through online news portals, YouTube creators, and OTT platforms (e.g., Chorki).

The success of e-learning platforms like **Shikkhok Batayon** and **Kishor Batayon**, offering educational content in Bangla.

**Recognition of Linguistic Diversity**
Pilot projects by NGOs and educational institutions to preserve **indigenous languages** (e.g., Chakma, Santali) using mobile apps and digital dictionaries.

**Celebration of National Identity Through ICT**
Digital campaigns and apps supporting events like **International Mother Language Day**, Victory Day, and Language Movement commemorations.

**Challenges**:
**Digital Exclusion of Indigenous and Marginalized Communities**

ICT content and services rarely cater to indigenous peoples and linguistic minorities in their native languages.

**Limited Local Content for Development Needs**

Shortage of locally produced digital content in areas such as health, agriculture, legal literacy, and civic education.

**Dominance of Foreign Content**

Global media and platforms often overshadow local content, particularly among youth, threatening cultural preservation.

**Monolingual Bias in Digital Tools**

While Bangla is widely supported, **minority languages lack digital representation** in keyboards, translation tools, and voice interfaces.

**Funding and Infrastructure Gaps**

Inadequate support for content creators, archivists, and cultural preservation initiatives, especially outside Dhaka.

**Future priorities:**
Support Indigenous and Minority Language Digital Inclusion

Develop and scale tools (e.g., fonts, keyboards, AI speech recognition) in indigenous languages to preserve linguistic heritage.

Promote Local Content Creation Across Sectors

Incentivize localized content development for health, education, governance, and climate resilience in digital formats.

Create a National Digital Cultural Archive

Establish a centralized digital platform for documenting and showcasing Bangladesh's tangible and intangible cultural assets.

Strengthen Policies for Linguistic and Cultural Rights Online
Enforce regulations that promote cultural diversity, prevent algorithmic bias, and ensure inclusive digital representation.

Invest in Creative and Digital Media Industries
Support youth-led digital storytelling, regional OTT platforms, gaming, and animation rooted in local narratives.

Leverage AI and Machine Translation for Bangla and Regional Languages
Enhance natural language processing tools for Bangla and indigenous languages to broaden access and usability.

Encourage Community Participation
Engage local communities, especially youth and women, in co-creating and curating digital cultural and linguistic content.

## 8. Action Line C9: Media
**Achievements**
Growth of Digital Media Platforms
Rapid expansion of online news portals, social media-based journalism, and video content creation.

Over 2,000 registered online news portals and several OTT platforms (e.g., Chorki, Bongo BD) providing local content.

**Pluralism in Media Landscape**
Presence of private TV channels, community radios, and print/online newspapers in multiple languages (including regional dialects and indigenous languages).

Vibrant presence of independent journalism initiatives and civil society-led platforms.

**Community Radio Empowerment**
Community radio stations in rural and disaster-prone areas provide locally relevant information on health, agriculture, and climate change—promoting grassroots participation.

**Use of Media for Social Awareness**
Campaigns on issues like gender-based violence, COVID-19, and child marriage have effectively used mainstream and social media.

Youth-led media projects under initiatives like Youth Bangla, DW Akademie, and UNESCO-supported programs.

**Media Digitization and Convergence**
Traditional outlets are increasingly shifting to digital-first models, livestreaming, podcasting, and cross-platform journalism.

**Challenges**
 **Threats to Press Freedom and Safety**

Journalists face legal harassment (e.g., under the Cyber Security Act) and threats, particularly when covering sensitive issues.

Lack of strong protections for freedom of expression online and offline.

**Disinformation and Digital Manipulation**

Spread of fake news, deepfakes, and hate speech through social media and messaging platforms, often used for political or communal incitement.

Digital Divide in Media Access
Rural and marginalized populations have less access to diverse media content due to connectivity gaps and affordability issues.
Lack of Media Literacy
Limited digital/media literacy education, especially among youth and the elderly, exacerbates widespread misinformation among the public.

**Gender Inequity in Media**
There is an underrepresentation of women in media leadership, and there is a continued portrayal of harmful gender stereotypes.

**Future priorities**
Ensure Legal Protection for Journalists and Free Expression

Reform laws like the Cyber Security Act to align with international standards on press freedom and human rights.

**Strengthen Media and Digital Literacy**
Integrate media literacy in school curricula and community programs to build resilience against disinformation and promote responsible online behavior.

**Promote Independent and Ethical Journalism**
Support capacity-building for journalists in fact-checking, data journalism, and investigative reporting through training and funding.

**Support Local and Community Media**
To strengthen local voices, provide financial, technical, and policy support to community radio, youth media, and indigenous language outlets.

**Enhance Regulation of Online Platforms Transparently**
Encourage accountability of social media companies while avoiding censorship and protecting users' rights.

**Encourage Diversity in Media Ownership and Content**
Foster plurality of ownership and support inclusive content that reflects the country's social, linguistic, and cultural diversity.

**Leverage Emerging Technologies for Media Innovation**
Use AI, AR/VR, and data visualization for immersive storytelling and audience engagement in development reporting.

**Empower Women and Youth in Media**
Promote gender-sensitive media practices and increase leadership roles for women and young journalists through mentorship and incentives.

**Action Line C10: Ethical dimensions of the Information Society**
**Achievements**
National ICT Policies with Ethical Considerations
Bangladesh's Digital Security Act (2018), National ICT Policy (2018), and Cyber Security Policy (2021) include provisions for safeguarding citizens' rights, combating cybercrime, and ensuring

ethical use of digital technologies.

Progress in Child Online Protection
Initiatives by UNICEF Bangladesh, the ICT Division, and Safer Internet Day campaigns promote online safety for children and raise awareness among parents and educators.

Efforts to Tackle Hate Speech and Extremism Online
National efforts to monitor and counter hate speech, online radicalization, and cyberbullying have been implemented through cybercrime units and digital literacy campaigns.
Ethics in AI and Emerging Technology Discourse
Early-stage discussions and pilot efforts (e.g., AI in healthcare and education) include ethical considerations such as privacy, fairness, and transparency.

Digital Rights Advocacy by Civil Society
GO and NGOs promote digital rights, ethical data use, and freedom of expression online.

**Challenges**
Tensions Between Cybersecurity and Freedom of Expression

Laws like the Cyber Security Act have been criticized for vague definitions and misuse against journalists, activists, and citizens, raising concerns about overregulation and censorship.
Lack of a Comprehensive Digital Ethics Framework
No national-level ethical guideline addresses AI ethics, algorithmic accountability, or data protection systematically.

Data Privacy and Surveillance Concerns
The absence of a dedicated Data Protection Act leads to growing concerns about unauthorized data collection, surveillance, and misuse of personal data.

Digital Gender-Based Violence and Online Harassment
Widespread incidents of cyberbullying, non-consensual image sharing, and stalking, particularly targeting women and marginalized groups, with limited legal and psychological support.

**Ethical Use of AI, Facial Recognition, and Automation**
Government and private sectors use emerging technologies without transparent bias, privacy, or consent safeguards.

**Future priorities**
Enact a Comprehensive Data Protection Law

Introduce a rights-based data protection framework that ensures user consent, accountability, and redress mechanisms.

**Establish National Guidelines for AI and Emerging Technologies**
Develop ethical standards for AI, automation, surveillance tech, and digital identity systems that ensure fairness, transparency, and non-discrimination.

**Reform Digital Security and Online Governance Laws**
Align existing laws (e.g., Cyber Security Act) with international human rights standards to protect freedom of expression and prevent misuse.

Mainstream Digital Ethics in Education and Capacity Building

Integrate digital ethics, media literacy, and responsible online behavior into school curricula, university programs, and civil service training.

**Strengthen Institutional Mechanisms for Rights Protection**
Empower the Bangladesh Human Rights Commission, Cyber Tribunals, and relevant watchdogs to address digital grievances effectively.

**Build Ethical Tech Ecosystems Through Multi-Stakeholder Dialogue**
Encourage collaboration among government, civil society, academia, youth, and tech companies to co-create a trustworthy and inclusive digital society.

**Promote Digital Inclusion and Equity**
Ensure that ICT development benefits rural communities, indigenous peoples, women, and persons with disabilities ethically and equitably.

**Action Line C11: International and regional cooperation**
**Achievements**
Active Participation in Global ICT Platforms
Bangladesh is a consistent participant in WSIS Forums, ITU events, and global ICT development discussions (e.g., AI for Good, IGF).

Representation through the Bangladesh Telecommunication Regulatory Commission (BTRC) and the ICT Division in cross-border digital dialogues.

South-South and Regional Cooperation
Collaboration with countries in SAARC, BIMSTEC, and ASEAN on issues like digital connectivity, disaster risk reduction, and e-governance.

Ongoing projects under the South Asia Subregional Economic Cooperation (SASEC) program to improve ICT infrastructure and broadband penetration.

Development Partnerships with UN Agencies and Donors
Strong cooperation with UNDP, UNESCO, ITU, UNICEF, and World Bank on ICT4D projects, including digital education, e-governance, and youth digital skills.

Notable collaboration with Digital Bangladesh Task Force partners on areas like digital finance, e-health, and cybersecurity.

Cross-Border Connectivity Projects
Engagement in regional internet gateway and submarine cable initiatives (e.g., SEA-ME-WE), enhancing broadband access and reducing costs.

Global Capacity Building and Technical Assistance
Bangladesh has benefitted from capacity development programs, scholarships, and technical assistance through ITU, KOICA, India's ITEC, and China's Belt & Road ICT initiatives.

**Challenges**
**Fragmentation of Efforts Across Agencies**
Coordination among ministries, development partners, and regional actors is often siloed, leading to duplication or gaps in implementation.

**Unequal Bargaining Power in Global Digital Governance**
As a Global South country, Bangladesh faces challenges in influencing international standards on data governance, AI ethics, and cross-border regulation.

**Limited Local Ownership of Donor-Driven ICT Projects**
Many projects are externally initiated, with limited localization, sustainability, or integration

into national frameworks.

**Dependence on External Technologies**
Over-reliance on foreign platforms and vendors without clear data sovereignty or technology transfer provisions.

**Low Representation in Global ICT Standards Development**
Limited Bangladeshi participation in setting international norms on cybersecurity, internet governance, and digital trade.
**Future priorities**
Strengthen Regional Digital Cooperation

Promote regional ICT frameworks under SAARC and BIMSTEC for digital trade, cybersecurity, broadband access, and cloud/data infrastructure.

Enhance National Coordination on ICT Cooperation

Create an inter-ministerial digital cooperation platform to align international partnerships with national priorities.

**Localize and Sustain Donor Projects**
Ensure external ICT projects are integrated into local ecosystems, have clear exit strategies, and empower national institutions.

Invest in Global ICT Diplomacy and Standards Engagement

Build diplomatic and technical capacity to represent Bangladesh in ITU, IGF, ICANN, ISO, and other forums shaping global digital futures.

Leverage Technology Transfer and South-South Collaboration

Negotiate for knowledge-sharing, open-source tools, and capacity exchange with peers in Asia, Africa, and Latin America.

Foster Multi-Stakeholder Participation

Include civil society, academia, youth, and private sector voices in shaping and implementing international digital partnerships.

Push for Ethical, Inclusive Global Digital Rules

Advocate for human rights-based, gender-sensitive, and development-focused global digital norms.

| III. | Strategies and Policy Contributions |
| --- | --- |

*Please provide details on strategies, policies, and frameworks implemented by the entity to support WSIS goals over the last 20 years, including:*

1.   **Digital Strategy/Policy**

- Please provide details of any global strategy or policy for ICT development and digital transformation.

Over the past two decades, the World Summit on the Information Society (WSIS) has played an instrumental role in shaping global strategies and policies that advance inclusive Information and Communication Technologies (ICTs) for sustainable development. Various

international frameworks and initiatives have significantly supported the objectives of WSIS, which focus on bridging the digital divide, enhancing access to information, and leveraging ICTs for development.

Key Global Strategies and Policies for ICT Development and Digital Transformation

**1. WSIS Action Lines (2003 & 2005)**
These foundational frameworks were established during the WSIS phases in Geneva (2003) and Tunis (2005), providing a solid basis for global ICT strategies. They continue to serve as guiding principles for ICT development and digital policies across national, regional, and international levels.

**2. Sustainable Development Goals (SDGs) and the WSIS-SDG Matrix (2015)**
The alignment of the WSIS framework with the 2030 Agenda for Sustainable Development through the WSIS-SDG Matrix highlights the synergistic relationship between WSIS Action Lines and relevant SDG targets. ICTs are increasingly recognized as vital enablers in achieving the SDGs, particularly in areas such as education (SDG 4), health (SDG 3), gender equality (SDG 5), industry and innovation (SDG 9), and partnerships (SDG 17).

**3. Broadband Commission for Sustainable Development**
Established by the ITU and UNESCO, this Commission advocates for broadband access as a means to accelerate progress towards the SDGs. Its Global Broadband Targets for 2025 encompass:
- Universal access to broadband services
- Development of digital literacy and skills
- Affordable pricing for broadband services
- Connectivity that is inclusive and gender-responsive

**4. UN Secretary-General's Roadmap for Digital Cooperation (2020)**
This roadmap articulates a cohesive vision for digital transformation, emphasizing:
- The achievement of universal connectivity
- Digital inclusion
- Upholding digital human rights
- Ensuring digital trust and security
- Enhancing capacity-building
It also lays the groundwork for the Global Digital Compact, which is anticipated to be adopted at the Summit of the Future in 2024–2025.

**5. ITU Strategic Plans and Global ICT Regulatory Outlook**
The International Telecommunication Union (ITU) periodically releases strategic plans and regulatory reports that guide the path for digital transformation. Its Connect 2030 Agenda underscores the importance of innovation, inclusiveness, sustainability, and partnerships. The ITU also plays a supportive role in the development of national ICT policies and regulatory reforms, particularly for low- and middle-income countries.

**6. G20 and OECD Digital Economy Policies**
Multilateral forums such as the G20 and OECD have made significant contributions to advancing frameworks for:
- Digital taxation
- Governance of Artificial Intelligence (AI)
- Management of cross-border data flows

- Promotion of digital trade and inclusion

These policies complement the goals of WSIS by fostering a supportive global digital ecosystem.

**Digital Public Infrastructure (DPI) and Digital Cooperation Initiatives**

Newer strategies are increasingly focusing on open-source digital public goods, including digital identity systems, payment platforms, and data registries. Organizations such as the Digital Public Goods Alliance (DPGA) and India's G20 presidency are championing the promotion of DPI as a cornerstone for effective digital transformation.

Conclusion

The global strategies and policies developed over the past two decades have substantially advanced the goals of WSIS by promoting equitable access to ICTs, encouraging innovation, and addressing the challenges of digital divides. As we continue to emphasize inclusive digital transformation, the legacy of WSIS remains pivotal to fostering global digital cooperation, especially as we navigate the evolving challenges posed by AI, cybersecurity, and the future of the internet.

2. **Strategic Documents/Plans**

- List any key global reports or strategies that have aligned with WSIS Action Lines.

**ITU Strategic Plans and Connect Series**
- **ITU Connect 2030 Agenda for Global Telecommunication/ICT Development** (Endorsed at WTDC 2017 & WTDC 2022)
    - Prioritizes universal connectivity, digital skills, security, innovation, and environmental sustainability (aligned with Action Lines C2, C4, C5, and C11).
- **Global Connectivity Reports** (e.g., 2022)
    - Highlights progress and gaps in digital inclusion, broadband rollout, and policy frameworks.

**United Nations Sustainable Development Goals (SDGs) & WSIS-SDG Matrix**
- **WSIS-SDG Matrix** (2015–present)
    - Maps each WSIS Action Line to specific SDG targets (e.g., e-health to SDG 3, e-learning to SDG 4, ICT infrastructure to SDG 9).
- Supports integration of ICTs into **national development strategies**.

**UN Secretary-General's Roadmap for Digital Cooperation (2020)**
- Lays out eight priority areas, including:
    - Universal connectivity
    - Digital inclusion
    - Digital trust and security
- Supports **multi-stakeholder governance**, aligning with Action Lines C1, C5, C6, and C11.

**Broadband Commission Reports**
- **State of Broadband Report** (Annual)
- **Global Broadband Targets for 2025**
    - Focus on affordable, meaningful connectivity and inclusive broadband access (aligned with Action Lines C2 and C4).
- Special reports on **education, gender equality**, and **youth digital skills**.

**UNDP and UNCTAD Digital Economy and Governance Strategies**
- **UNCTAD Digital Economy Reports** (2019, 2021, 2023)
    - Address global data governance, digital platforms, and inclusive trade.

- **UNDP Digital Strategy 2022–2025**
  - Promotes inclusive digital transformation aligned with democratic governance, echoing Action Lines C3, C4, C6, and C7.

**NESCO Reports on Internet Universality and AI Ethics**
- **Internet Universality Indicators Report** (aligned with C3, C8, C9)
- **Recommendation on the Ethics of Artificial Intelligence** (2021)
  - Emphasizes inclusiveness, transparency, and human rights in AI deployment (aligned with Action Line C10 on ethical dimensions).

**Digital Public Infrastructure (DPI) Frameworks**
- **G20 Framework for Systems of DPI** (2023, India Presidency)
  - Advocates for open, secure, and inclusive digital public goods (linked to Action Lines C3, C6, and C7).
- **Digital Public Goods Alliance (DPGA) Annual Reports**
  - Align with WSIS principles by promoting equity, access, and open standards.

3. **Implementation of WSIS Mandates**
   - Explain how the entity has incorporated WSIS mandates into broader development goals.

Entities that support the World Summit on the Information Society (WSIS) have integrated its mandates into their development agendas by aligning digital transformation efforts with sustainable, inclusive, and rights-based development principles. Here's how:

**Mainstreaming ICTs Across National Development Plans**
Entities incorporate WSIS Action Lines into national development frameworks, aligning ICT initiatives with goals such as:

Poverty reduction
Health and education improvements
Economic growth
Good governance

Example: Governments include e-health, e-learning, e-agriculture, and e-government strategies in their national ICT policies—addressing Action Lines C7 and C8.

Supporting the SDGs through the WSIS-SDG Matrix
WSIS mandates are embedded in efforts to achieve the Sustainable Development Goals (SDGs) by using ICT as a cross-cutting enabler. Entities:

Use the WSIS-SDG Matrix to plan digital programs that contribute to specific SDG targets.
Design ICT-based interventions for gender equity (SDG 5), climate resilience (SDG 13), and partnerships (SDG 17).

Example: A digital literacy campaign aligned with WSIS Action Line C4 also supports SDG 4 on quality education.

Creating Enabling Environments for Innovation and Inclusion
Entities implement WSIS Action Line C6 (Enabling Environment) by:
Reforming regulatory frameworks for ICT investment
Promoting affordable broadband and infrastructure
Encouraging digital entrepreneurship

Example: Digital economy strategies include startup support, fintech regulation, and data protection laws, all rooted in WSIS principles.

Ensuring Digital Inclusion and Accessibility
Reflecting WSIS Action Lines C2, C3, and C5, entities prioritize:

Universal access to digital infrastructure
Services for marginalized groups (women, youth, people with disabilities)
Cybersecurity frameworks to protect users

Example: Civil society organizations promote community networks and digital safety training, expanding access to underserved populations.

Promoting Multistakeholder Collaboration
WSIS emphasizes inclusive governance (C1). Entities:
Collaborate with academia, private sector, and civil society
Participate in platforms like the WSIS Forum, IGF, and Broadband Commission

Example: National digital transformation councils reflect WSIS's multistakeholder approach.

Monitoring and Reporting Progress
Entities track progress using indicators linked to WSIS and SDG frameworks. They submit:
National reports to ITU/WSIS Forum
Voluntary National Reviews (VNRs) for the SDGs, highlighting digital transformation

Example: A country might report increased rural internet access (C2) in its SDG VNR under Goal 9 (industry, innovation, infrastructure).

Conclusion
By embedding WSIS mandates into broader development goals, entities ensure that digital transformation is not just about technology—but about empowering people, closing equity gaps, and achieving sustainable development.


| IV. | Key Indicators of Progress |
|-----|----------------------------|

*Provide key data or indicators that demonstrate the entity's progress toward achieving WSIS goals (e.g. percentage of the population with internet access, mobile penetration, percentage of government services available online, number of broadband connections, cybersecurity initiatives, digital skills training, policies and digital governance frameworks, etc.)*

Here is a summary of key data and indicators showing Bangladesh's progress toward achieving WSIS goals, particularly in areas like connectivity, digital services, digital skills, and governance. The country has made significant strides in aligning its digital development with WSIS Action Lines and the SDGs.

BD Bangladesh: Progress Toward Achieving WSIS Goals
Connectivity & Access (WSIS Action Lines C2, C4, C6)
Internet Penetration:

- As of 2024, over 132 million internet subscribers
- Internet penetration: ~78% of the population (BTRC, 2024)
- Rapid shift to mobile internet — over 126 million mobile internet users

Mobile Phone Penetration:
- Over 188 million mobile subscribers (BTRC, 2024)
- Mobile phone penetration rate: ~110% (indicating multiple SIM use per person)

Broadband Access:
- Around 11 million fixed broadband users, including FTTH (fiber to the home) expansion in urban areas

Digital Government Services (WSIS Action Line C7 – E-Government)
Digital Services:
- Over 2,000 public services available through a2i (Aspire to Innovate) and MyGov platform
- Citizens access services via Union Digital Centres (UDCs) — over 8,800 centres nationwide
- Services include birth registration, digital payments, agricultural advisories, land records, and more

E-Nothi System (E-File Management):
- Implemented in all ministries and agencies, improving public sector efficiency and transparency

Digital Literacy & Skills (WSIS Action Line C4 – Capacity Building)
Digital Skills Training:
- Over 2 million citizens trained in basic and advanced digital skills through a2i and the Digital Bangladesh agenda
- Youth-focused initiatives like She Power Project, Tech4Girls, and Women ICT Frontier Initiative (WIFI)

ICT Education Integration:
- ICT introduced in school curricula (secondary level)
- Expansion of technical and vocational education through ICT Division and private partners

Cybersecurity & Trust (WSIS Action Line C5 – Cybersecurity)
National Cybersecurity Strategy (2021):
- Focus on data protection, critical infrastructure, and capacity building
- Bangladesh Government CERT (BGD e-GOV CIRT) operational since 2016

Cyber Tribunals established under the ICT Act to address cybercrimes

Digital Security Act 2018 (controversial, under review):
- Enacted to curb digital threats but criticized for restricting freedom of expression

Policy and Digital Governance Frameworks (WSIS Action Lines C1, C6, C10)
Key Policies and Strategies:

Digital Bangladesh Vision 2021 (now succeeded by Smart Bangladesh Vision 2041)
National ICT Policy 2018

National Broadband Policy 2023

Regulatory Body:
Bangladesh Telecommunication Regulatory Commission (BTRC) oversees digital policy enforcement, spectrum management, and telecom regulation

6. 📈 International Engagement & Monitoring (WSIS Alignment)
Regular participant in WSIS Forum and contributor to ITU's global indicators

Active member of the Digital Public Goods Alliance, promoting open-source digital tools

UNDP Bangladesh supports inclusive digital transformation with a focus on SDG–WSIS alignment

Conclusion
Bangladesh has made significant progress toward WSIS goals, particularly in connectivity, digital service delivery, and skills development. Challenges remain in areas like digital rights, rural broadband quality, and cybersecurity governance, but national strategies like Smart Bangladesh 2041 demonstrate a long-term commitment to WSIS principles.


| V. | Challenges and Gaps |
| --- | --- |

*Please identify key barriers or challenges the entity has faced in implementing WSIS mandates and achieving desired outcomes.*


Here is an overview of the key challenges and gaps Bangladesh has faced in implementing the WSIS mandates and achieving inclusive digital transformation, despite commendable progress over the past two decades.

Challenges and Gaps in Implementing WSIS Mandates – Bangladesh
Urban-Rural Digital Divide
WSIS Action Lines Affected: C2 (Infrastructure), C4 (Capacity Building), C7 (E-services)

Issue: While urban areas enjoy high-speed internet, many rural and remote communities still lack reliable broadband access.

Impact: Limits access to online education, e-health, e-government, and digital financial services in marginalized regions.

Cause: Infrastructure cost, lack of local content, and weak last-mile connectivity.

Digital Literacy and Skills Gap
WSIS Action Lines Affected: C4 (Capacity Building)

Issue: Many citizens, especially women, the elderly, and people with disabilities, lack basic digital literacy.

Impact: Hinders the full utilization of online public services and economic opportunities.

Cause: Uneven access to training programs, language barriers, limited ICT curriculum integration at grassroots levels.

Cybersecurity and Digital Rights Concerns
WSIS Action Lines Affected: C5 (Cybersecurity), C10 (Ethics in the Information Society)

Issue: Cyberattacks, online fraud, and data breaches are rising, but cybersecurity infrastructure and awareness are still developing.

Controversy: The Digital Security Act 2018 has been criticized for suppressing freedom of expression and press freedom.

Impact: Erodes trust in digital platforms and impedes safe online participation.

Interoperability and Fragmentation in E-Government Services
WSIS Action Lines Affected: C1 (Governance), C7 (E-Government), C11 (International Cooperation)

Issue: Government digital platforms sometimes lack interoperability, creating silos between ministries and agencies.

Impact: Duplication of data, inefficiencies in service delivery, and user confusion.

Cause: Legacy systems, inconsistent digital governance standards, and limited cross-agency coordination.

Gender Digital Divide
WSIS Action Lines Affected: C3 (Access), C4 (Capacity Building), C8 (Cultural Diversity)

Issue: Women and girls have lower access to mobile phones, internet, and ICT education compared to men.

Impact: Reduced participation in the digital economy and underrepresentation in ICT careers.

Cause: Socio-cultural norms, affordability issues, lack of targeted digital inclusion policies.

Financial Constraints and Sustainability of Digital Initiatives
WSIS Action Lines Affected: C6 (Enabling Environment)

Issue: Many digital projects, especially donor-funded ones, face sustainability challenges after initial funding ends.

Impact: Difficulty in scaling successful pilot projects nationally.

Cause: Inadequate long-term budget allocation and business models.

Policy Implementation Gaps
WSIS Action Lines Affected: C1 (Governance), C6 (Regulatory Framework)

Issue: While Bangladesh has developed strong digital policies (e.g., Smart Bangladesh 2041, ICT Policy), implementation often lags behind.

Impact: Discrepancy between policy ambition and on-the-ground execution.
Cause: Institutional capacity gaps, bureaucratic inertia, and insufficient monitoring mechanisms.

**Conclusion**

Bangladesh has embraced the WSIS vision and made strong policy and infrastructure strides. However, challenges in inclusion, cybersecurity, skills, and governance must be addressed to fully realize the potential of a people-centered, inclusive Information Society.

## VI.  Future Directions and Areas for Collaboration and Vision Beyond 2025

*Please outline the entity's vision for the future of WSIS beyond 2025 and identify areas where collaboration with stakeholders could further accelerate progress.*

**Future Directions (Post-2025)**
Universal and Affordable Connectivity
Goal: Achieve 100% broadband coverage with meaningful, affordable internet access for all.

WSIS Alignment: Action Lines C2 (Infrastructure), C3 (Access)

Focus: Expand last-mile fiber networks, mobile internet in rural areas, and public Wi-Fi.

Next-Gen Digital Skills for All
Goal: Equip youth, women, and underserved communities with skills in digital literacy, coding, AI, cybersecurity, and data science.

WSIS Alignment: C4 (Capacity Building)

Focus: Upskilling for jobs of the future and reducing the digital gender gap.

Integrated, AI-Enabled Public Services
Goal: Use emerging technologies (AI, blockchain, big data) to offer efficient, transparent, and user-friendly public services.

WSIS Alignment: C7 (E-Government), C10 (Ethical Dimensions)

Focus: One-stop digital service platforms with integrated identity, payment, and citizen feedback systems.

Trust, Privacy, and Cybersecurity
Goal: Foster a secure and rights-respecting digital environment with robust data protection.

WSIS Alignment: C5 (Cybersecurity), C10 (Ethics)

Focus: Update laws, build institutional capacity, and strengthen CERTs.

Climate Resilience through Digital Innovation
Goal: Leverage ICTs for climate-smart agriculture, disaster risk reduction, and early warning systems.

WSIS Alignment: C7 (E-Environment)

Focus: Digital tools for sustainable development and climate adaptation.

Areas for Collaboration with Stakeholders
1. Public–Private Partnerships (PPP)
To co-invest in broadband infrastructure, innovation hubs, and digital services

Collaboration with mobile operators, tech startups, and global ICT companies

Leverage technical assistance, funding, and knowledge exchange on digital governance, DPI, and SDG implementation

Digital Public Goods and Open Source Collaboration
Promote use and co-creation of digital public infrastructure (DPI) like digital ID, e-payments, and registries

Work with Digital Public Goods Alliance, GovStack, and India Stack-inspired initiatives

Academic and Civil Society Engagement
Foster multi-stakeholder innovation labs, digital literacy campaigns, and digital rights advocacy

Encourage research collaboration with local universities and think tanks

Youth and Gender Inclusion Networks
Work with women-led tech organizations and youth digital clubs

Partner with initiatives like Tech4Girls, Girls in ICT, and SheMeansBusiness
Conclusion: Bangladesh's WSIS Vision Beyond 2025
Bangladesh envisions a just, inclusive, and knowledge-driven society, powered by safe, ethical, and equitable digital innovation. By continuing to align with WSIS goals and fostering collaboration across sectors, the country can lead by example in shaping a people-centered, digitally empowered future for all.

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****Please provide details and contact information for the entity/stakeholder responsible for WSIS Follow-Up****

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