

**WSIS+20_ZERO WHITE PAPER DRAFT FOR SUSTAINABLE
DEVELOPMENT IN NIGERIA**

**INTERNET IMPACT BRIEF ALIGNED WITH WSIS ACTION LINES
C1 - C11**

AUTHORED BY

**FELLOWS - NIGERIAN SCHOOL ON INTERNET GOVERNANCE
(NSIG)**

2025 COHORT

PRESENTED TO:

**THE FACULTY & MANAGEMENT OF NIGERIAN SCHOOL ON
INTERNET GOVERNANCE (NSIG)**

NOVEMBER 2025

NIGERIA

EDITORIAL TEAM

Engr. Kunle Olorundare - Editor -in-Chief

Akinbo Adebunmi Adeola Member, Assistant Editor -in- Chief

Nkoro Nkoro Esang - Secretary, Editorial Board

Priscilia Igba, member Editorial Board

Saheed Adedokun, member Editorial Board

Barkindo Alkali, member Editorial Board

Billyaminu Umar, Member Editorial Board

NSIG FELLOWS (GROUP 1-5)

	Group 1	Group 2	Group 3	Group 4	<u>Group 5</u> Group 5
1	Abubakar Aisha Sarki.	Inem David.	Muhammad Tahir	Adeloro Olabimpe	Kenechukwu
2	Muhammad Abubakar Hassan.	Iliyasu Faith.	Tijjani.	Abigail.	Okekenta.
3	Opoku Samuel.	Helen Ada Onyeke.	Abdul-Azeez Abass	Adedeji, Muritala	Airat Abdul Rahmon.
4	Binanchi Aliyu Balarabe.	Abubakar Aliyu Adama.	Abiola.	Adewale.	Akohamen
5	Akanji Kehinde Samuel.	Ibrahim Abbas Ruma.	John Enternami	Aguoru Christian	Agenmonmen.
6	Surajo Muayyad.	Nkwaze Juliet Ngozi.	Oluwatumise.	Chibuike.	Lawrence Peter.
7	Binanchi Aliyu Balarabe.	Asma'u Shehu.	Yusuf Shamsudeen.	Bako Samaila Atsen.	Lafimihan Olatunde.
8	Abubakar Muhammad Sani.	Joses chun Jolly Bawa.	Olagunoye Adekemi	Okpoyo Emeti Ndarake.	Nurudeen
9	Yayaji Abba Mohammed.	Abdullahi Abdullahi	Sandra.	Lawan Mohammed.	Abdulsalam.
10	Yusuf Saifullahi.	Tijjani.	Shehu Aisha	Ogbu Egwu Joseph.	Ibrahim Balami.
11	Musa Bilikis Ayomide.	Toluwani Owwoeye.	Muhammad.	Ogunmoroti Tosin	Aminu Nuhu.
12	Ehichanya Kamsiriochukwu Worthy.	Jamilu Muazu.	Olagunoye Adekemi	Olajide.	Seyi Onasanya.
13	Abubakar Bello Alkali.	Ayedun Marvellous	Sandra.	Ibrahim Usman Usman.	Yahaya Abdullahi.
14	Sambo Nathan.	Kolawole.	Umar Abubakar Lamido.	Abdulhakeem	Bond Chebe Badung.
15	Nantok Philip JD.	Akinremi Michael	Sani Auwal Muhammad.	Abdurrahman.	Shamsudeen Saidu.
16	Jonas Happiness Sarki.	Moroundiya.	Abdullahi Asmau Nill.	Sunday Ruth Ki.	Adeyemi Olayinka.
17	Idris Ishaq Aliyu.	Abba Muhammad.	Aliyu Ibrahim Bashir.	Abdullahi Haruna E.	Dele Awotunde.
18	Makinde Olasubomi Alade.	Ishaq Aliyu Idris.	Yau Bashir Sunusi.	Ayeni Ifeoluwa	Ayeni Charles Adida.
19	Yusuf Saifullahi.	Ugonna Wogu.	Mahmoud Umar Garba.	Damilola.	Ibrahim Aliyu
20	Ishaq Rahmatullah Udechukwu.	Ishaq Aliyu Idris.	Mohammed Kadir	Tukur Aisha Bashir.	Usman.
21	Chukwu Godson Enruchi.	Sanusi Suleiman.	Segun.	Isawhe	Amina Abubakar.
22	Temple Joseph Chima.	Joses Chun.	Owoicho Lucky Oche.	Onogheneghalino.	Ahmad AbdulKadir.
23	Ezeano Chiziterem Jaachinma.	Hassan Sa'adu.	Bako jnr. Aminu.	Abduljalilu Sani Garba.	
24	Ibrahim Sani Maikudi.		Effiong Victoria Asuquo.	Tokula Caleb Ojochegbe.	
25	Sabo Bashar Yabo.		Chia Mom.	Eno Emmanuel.	
26	Abubakar Umar Faruq.		Simon Kitgak.	Mebaghandu Christabel.	
27	Adama Abubakar Aliyu		Abubakar Sani Ubana.	Anwalimobor Joseph	
28	Abba Abdullahi Ahmed.		Odewande Ezekiel	Oshorenoya.	
29	Abduljalilu Sani Garba.		Adebiyi.	Saidu Abubakar.	
30	Madubuike Chikamso Luke.		Orinya Emmanuel.		
31	Aminah Onyinyoyi Abdur-Rasheed.		Chidi Chinonso		
32	Abdurrahman Sunusi.		Kingsley.		
33	Precious Nengi Fubara.		Musa Abdul-Basit		
34	Oluwadamilola Emmanuel Makinde.		Luggere.		
35	Fatima Ibrahim Muhammad		Ibrahim Amina Ado.		
36	Hassan Praise Jesulayomi		Gafasa Suhaibu		
			Muhammad.		
			Sani AbdulRashid.		

Table Of Contents

1.	Title Page	1
2.	NSIG Fellows Group1-5	2
3.	Table of Contents	3
4.	Abstract	5
5.	Introduction	5
6.	Methodology	6
7.	Executive Summary	6
8.	WSIS Action Lines Assessment (C1–C11)	6
8.1.	C1: The Role of Governments and Stakeholders in the Information Society	6
8.1.1	Current State in Nigeria	6
8.1.2	Key Gaps	7
8.1.3	Strategic Needs	7
8.2.	C2: Information and Communication Infrastructure	7
8.2.1	Current State in Nigeria	7
8.2.2	Key Gaps	8
8.2.3	Strategic Needs	8
8.3.	C3: Access to Information and Knowledge	9
8.3.1	Current State in Nigeria	9
8.3.2	Key Gaps	9
8.3.3	Strategic Needs	9
8.4.	C4: Capacity Building	9
8.4.1	Current State in Nigeria	9
8.4.2	Key Gap	9
8.4.3	Strategic Needs	9
8.5	C5: Building Confidence and Security in the Use of ICTs	10
8.5.1	Current State in Nigeria	10
8.5.2	Key Gaps	10
8.5.3	Strategic Needs	11
8.6	C6: Enabling Environment	11
8.6.1	Current State in Nigeria	11
7.6.2	Key Gaps	12
7.6.3	Strategic Needs	12
8.7	C7: ICT Applications	13
8.7.1	Overview of Key Sectors	13
	• E-Government	13
	• E-Business	13
	• E-Learning	13

• E-Health	14
• E-Employment	14
• E-Agriculture	14
• E-Science	14
8.7.2 Current State	14
8.7.3 Key Gaps	14
8.7.4 Strategic Needs	14
8.8. C8: Cultural and Linguistic Diversity	15
8.8.1 Current State in Nigeria	15
8.8.2 Key Gaps	15
8.8.3 Strategic Needs	15
8.9 C9: Media	15
8.9.1 Current State in Nigeria	15
8.9.2 Key Gaps	16
8.9.3 Strategic Needs	16
8.10 C10: Ethical Dimensions of the Information Society	
8.10.1 Current State in Nigeria	16
8.10.2 Key Gaps	16
8.10.3 Strategic Needs	17
8.11 C11: International and Regional Cooperation	17
8.11.1 Nigeria’s Participation	17
8.11.2 Key Gaps	17
8.11.3 Strategic Needs	17
9. National Recommendations Across WSIS Action Lines (C1–C11)	18
9.1 Role of Governments and Stakeholders (C1)	18
9.2 Infrastructure & Access (C2, C3)	19
9.3 Cybersecurity & Trust (C5)	19
9.4 Enabling Environment (C6)	19
9.5 Digital Inclusion & Capacity (C4, C8)	19
9.6 Sectoral ICT Development (C7)	19
9.7 Ethics & Rights (C10)	19
9.8 International Cooperation (C11)	19
10. Conclusion	20
11. Glossary	20
12. Acronyms	21
13. References	

WSIS+20: The Nigerian Review – Full White Paper

Abstract

This white paper offers a comprehensive assessment of Nigeria’s progress across the WSIS Action Lines (C1–C11) in preparation for the WSIS+20 review. It draws on inputs from the Nigerian School on Internet Governance (NSIG) working groups, which are integrated into the national ICT policy frameworks, to evaluate the country’s digital transformation pathway. The analysis encompasses key areas such as infrastructure development, cybersecurity, digital literacy, governance, ICT applications, cultural inclusion, and international cooperation. Based on these insights, the paper presents a strategic policy framework to strengthen Nigeria’s digital ecosystem, enhance resilience, advance inclusion, and ensure alignment with global best practices. It also provides recommendations for ISOC Nigeria, government agencies, private sector actors, civil society, and international stakeholders to strengthen Nigeria’s internet ecosystem. If Nigeria accelerates digital literacy, expands community-level ICT access, integrates ICTs across sectors, and strengthens cultural and linguistic inclusion, the country can unlock meaningful participation in the digital economy and accelerate the achievement of SDGs 3, 4, 5, 8, 9, 10, 13, and 17. Conversely, failure to act will deepen inequality, economic exclusion, and social vulnerabilities.

Introduction

Nigeria is undergoing a rapid digital evolution, driven by an expanding ICT landscape and an increased reliance on digital platforms for governance, commerce, education, and civic engagement. As the global community prepares for the WSIS+20 review, it is crucial to assess Nigeria’s achievements, challenges, and opportunities across the WSIS Action Lines. Nigeria’s push to become a leading African digital economy is challenged by cybercrime, digital rights concerns, limited broadband access, geopolitical pressures, and inconsistent data governance. To address these issues effectively, the country needs a shared governance approach involving government, private innovators, academia, civil society, and the technical community. The paper outlines practical strategies to enhance multi-stakeholder collaboration, improve policy coordination, expand key digital infrastructure, and strengthen Nigeria’s role in global Internet governance.

This white paper consolidates insights from NSIG group submissions, national ICT development plans, regulatory frameworks, and global benchmarks. It aims to:

- Provide a unified national assessment across WSIS Action Lines C1–C11,
- Highlight structural gaps affecting Nigeria’s digital growth,
- Propose actionable pathways for strengthening resilience and inclusion, and

- Support policymakers, civil society, academia, the technical community, and private sector stakeholders.

Methodology

This brief applies the **Internet Society’s Internet Impact Assessment Toolkit (IIAT)** to evaluate how Nigeria’s digital inclusion challenges and proposed interventions impact:

- The Internet Way of Networking (IWN)- the critical properties that keep the Internet global, open, and resilient.
- The Internet Goals: open, globally connected, secure, trustworthy.
- Their respective enablers (e.g., affordability, accessibility, local content, interoperability).

We used the toolkit to evaluate the impact of Nigeria's digital inclusion challenges and to propose interventions on open and inclusive access. Specifically, we assessed how these initiatives affect the Internet's critical properties, such as openness, and its enablers, including affordability, accessibility, and local content. Our analysis followed the IIAT's two-pass approach, examining both the positive and negative impacts on digital inclusion, access, and common global identifiers.

Executive Summary

This policy brief summarizes Nigeria’s national position for the WSIS+20 Review, reflecting inputs from government, private sector, civil society, academia, and technical experts. It highlights Nigeria’s commitment to a people-centered, inclusive, secure, and interoperable Information Society aligned with WSIS Action Lines and the UN SDGs. Nigeria has made progress in broadband expansion, digital public systems, cybersecurity, and digital skills development. However, challenges like connectivity gaps, affordability, uneven digital literacy, limited online safety, and weak privacy and data protection remain.

The WSIS+20 Zero Draft combines NSIG fellows' research outputs and sectoral assessments to present a holistic national framework focused on infrastructure, inclusion, security, digital rights, innovation, capacity building, youth empowerment, and governance. It outlines strategies to address gaps and drive Nigeria’s digital transformation in line with WSIS+20 goals.

WSIS Action Lines Assessment (C1–C11)

C1: The Role of Governments and Stakeholders in the Information Society

C1 evaluates how government institutions and stakeholders contribute to the development of the Information Society.

Current State in Nigeria

Nigeria demonstrates a strong commitment to digital transformation through policies such as NDEPS, broadband expansion plans, and growing e-governance initiatives. Multiple ministries (FMCDE, NCC, NITDA, NIMC) drive ICT policies. Digital skills programs and youth innovation

are on the rise, and multi-stakeholder collaboration is improving. However, coordination and implementation gaps persist.

Key Gaps

1. Overlapping mandates among agencies.
2. High infrastructure costs, multiple taxation, insecurity, and forex constraints.
3. Limited structured engagement with the technical community, underserved groups, and academia.
4. Limited interoperability and low public trust.
5. Limited stakeholder involvement in policymaking.
6. Digital exclusion remains high due to affordability challenges, limited accessibility tools, and persistent gender gaps, particularly in rural and northern regions.

Strategic Needs

1. Strengthen Policy Implementation & Regulatory Coherence
2. Accelerate Infrastructure Investment & Rural Connectivity
3. Build an Integrated, Secure Digital Governance System
4. Deepen Multi-Stakeholder Engagement & Co-Creation
5. Advance Inclusivity, Affordability & Local Relevance

Without cohesive governance, digital policies risk duplication, inefficiency, or misalignment with global standards.

C2: Information and Communication Infrastructure

C2 emphasizes the development of a robust information and communication infrastructure as the foundation of an inclusive Information Society. Strong ICT infrastructure is essential to ensure continuous connectivity, support digital inclusion, enhance socio-economic development, and enable access to public services, education, and innovation. Strengthening infrastructure resilience, accessibility, and security is therefore central to achieving Nigeria's digital transformation goals.

Current State in Nigeria

1. Ongoing initiatives to extend connectivity to underserved and vulnerable communities, driven by policy and regulatory interventions.
2. Expansion and strengthening of Internet Exchange Points (IXPs), which improve domestic connectivity and reduce reliance on external routing.
3. More robust Domain Name System (DNS) infrastructure, including growing adoption of DNS Security Extensions (DNSSEC) to protect against spoofing and maintain user trust.
4. Increasing deployment of submarine cables and terrestrial fiber networks, enhancing capacity, and providing greater geographic redundancy.

Key Gaps

1. Power instability affects network reliability, even though some now rely on alternative sources of power
2. Persistent digital divide, especially in rural and underserved communities, where broadband access remains limited.
3. High deployment costs and limited adoption of modern routing security mechanisms, such as RPKI and BGP security, deter private investment and increase infrastructure vulnerability.
4. Limited technical capacity for incident response, routing management, and large-scale infrastructure security.
5. Insufficient implementation of security best practices across networks increases susceptibility to intrusions, attacks, and misconfigurations.

Strategic Needs

1. Adopt the Web Content Accessibility Guidelines (WCAG) 2.1 level AA institutionalize secure Software Development Lifecycle (SDLC) practices across digital platforms as the national standard for all government digital assets.
2. Reduce the cost of assistive technologies, support local production, and promote collaboration among ISPs, IXPs, and regulators to support coordinated routing stability.
3. Expand IXPs and strengthen routing security (DNSSEC, RPKI) across public and private sector networks.
4. Improve last-mile connectivity for underserved communities to improve local traffic exchange.
5. Incentivize private-sector infrastructure development, support infrastructure sharing, and adopt investment-friendly policies to accelerate rollout.
6. Promote network segmentation, firewalls, IDS/IPS, and zero-trust principles, conduct routine national incident response drills, and expand technical capacity-building programs.
7. Mandate strong encryption standards such as AES-256 (data at rest) and TLS 1.3 (data in transit)
8. Expand submarine cable redundancy and terrestrial fiber coverage, and implement BGP security mechanisms to prevent route hijacks

C3: Access to Information and Knowledge

C3 focuses on ensuring that all citizens can access relevant, usable, and affordable information and digital resources.

Current State in Nigeria

1. Nigeria introduced open data portals.
2. Libraries and community ICT centres exist in major cities.
3. Digital public services (ID, payments, tax, health) are expanding.

Key Gaps

1. Public access centres are insufficient.
2. Many services are predominantly English-language, excluding millions of local language speakers.
3. Limited disability-inclusive digital tools.

Strategic Needs

1. Strengthen public access ICT facilities at the LGA level.
2. Support multilingual digital platforms (Hausa, Yoruba, Igbo, etc.).
3. Promote affordable access policies.

C4: Capacity Building

C4 assesses national digital skills, ICT literacy, and human-capacity development.

Current State in Nigeria

1. Digital literacy remains low in rural areas.
2. Skills gaps persist in cybersecurity, data science, and emerging technologies.
3. Schools often lack adequate ICT resources.
4. National digital skills initiatives exist but require scale and sustainability.

Key Gap

The digital divide widens without targeted capacity building, affecting economic opportunities and participation.

Strategic Needs

1. Establish digital literacy hubs across all Local Government Areas.
2. Integrate digital skills into the national school curriculum.
3. Ensure women and marginalized groups, such as senior citizens and people with disabilities, are included in training and empowerment initiatives
4. Organize training-of-trainers at the grassroots level to ensure effective knowledge transfer and capacity building.
5. Upskill civil servants, Educators, Students, SMEs, and local innovators in STEM education, including the use of e-learning tools and platforms.
6. Expand scholarships and training for ICT professionals.

C5: Building Confidence and Security in the Use of ICTs

C5 focuses on trust, security, and confidence in ICT usage, which underpin economic participation, digital inclusion, and innovation. A secure online environment protects users and services from breaches and attacks. Strong cybersecurity frameworks, resilient infrastructure, and informed users are the foundation of national digital trust.

Current State in Nigeria

Nigeria has made progress in enhancing cybersecurity governance and digital trust:

1. Development and enforcement of data protection regulations such as the Nigerian Data Protection Act (NDPA, 2023) and NDPR (2019).
2. Establishment of Computer Emergency Response Teams (CERTs) and increased national coordination on incident response.
3. Nigeria has a National Cybersecurity Policy & Strategy (2021/2024 update).
4. NITDA, NCC, and ONSA support cybersecurity initiatives.
5. Awareness programs exist, but have limited nationwide reach.
6. Greater adoption of secure authentication mechanisms, including multi-factor authentication (MFA), in public and private sectors.
7. Gradual uptake of Zero Trust Architecture (ZTA) principles across critical ICT services.

Key Gaps

1. Low cyber hygiene among citizens (phishing, fraud, impersonation).
2. Limited nationwide adoption of advanced cybersecurity architectures, such as Zero Trust and continuous monitoring.
3. Inconsistent enforcement of data protection regulations among businesses, especially SMEs.
4. Inadequate CERT/CSIRT capacity and coordination.
5. Limited enforcement of NDPA compliance by organizations.
6. Weak protection for vulnerable populations (youth, elderly, low-literacy users).

7. Insufficient disaster recovery planning for many critical ICT systems.
8. Fragmented cyber incident reporting, with uneven coordination between public and private stakeholders.
9. Limited adoption of routing security mechanisms (RPKI, BGP monitoring) leaves networks vulnerable to route hijacks.
10. Persistent low user awareness regarding cyber hygiene, phishing, and social engineering.

Strategic Needs

1. Promote the adoption of DNSSEC to safeguard the integrity of DNS responses.
2. Deploy redundant systems and disaster recovery sites for critical ICT services.
3. Implement continuous monitoring and rapid incident response protocols.
4. Accelerate the adoption of Zero Trust Architecture and strong multi-factor authentication across sectors.
5. Enforce compliance with NDPA (2023) and NDPR (2019).
6. Mandate encryption of sensitive data and encourage end-to-end encrypted communication.
7. Expand and operationalize CERTs with coordinated national cyber drills.
8. Scale nationwide digital literacy and cyber-awareness campaigns against phishing and social engineering.
9. Promote adoption of routing security standards (RPKI, secure BGP, active routing monitoring).
10. Strengthen multi-stakeholder cooperation among ISPs, regulators, IXPs, and private sector actors.
11. Encourage transparency and accountability in network operations to build public trust.

C6: Enabling Environment

C6 evaluates the overall regulatory and policy landscape that enables ICT penetration, innovation, affordability, and digital rights. Policy decisions directly affect regional Internet resilience. Nigeria can draw lessons from the West African Free-Roaming Agreement initiative by exploring bilateral and ECOWAS-level frameworks that reduce roaming costs, improve cross-border data flow, and advance regional Internet stability.

Current State in Nigeria

1. Nigeria's Internet Registry (NiRA) deploys DNSSEC for all .ng domains, protecting millions of users from DNS spoofing and phishing attacks.
2. Existence of multiple national strategies: NDEPS 2020-2030, Broadband Plan 2020-2025.
3. Policy efforts to improve digital inclusion and innovation.
4. Growing public-private partnerships in telecom, fintech, and cloud services.

5. Implementation of light-touch, evidence-based regulations that allow rapid deployment of security and infrastructure standards.
6. Development of public-private partnerships to mobilize investments in resilient networks.
7. Introduction of sustainable financing mechanisms to support long-term ICT infrastructure growth.
8. Engagement in regional policy harmonization for cross-border connectivity, e.g., free-roaming agreements in West Africa, improving affordability and service continuity.
9. Growing adoption of multi-stakeholder governance models across government, civil society, the private sector, and technical communities.

Key Gaps

1. High device and broadband costs limit affordability.
2. Unclear regulatory boundaries between agencies.
3. Weak enforcement of competition and consumer protection.
4. Inconsistent implementation of digital rights frameworks.
5. Regulatory frameworks are inconsistent or fragmented across states and sectors.
6. Limited capacity to enforce policies and adoption of technical security standards such as DNSSEC and RPKI.
7. Funding gaps for infrastructure projects in underserved or remote areas.
8. Inadequate recognition and inclusion of grassroots technical actors and local communities in policy development.
9. Weak alignment with regional and international cybersecurity and data protection norms in some instances.

Strategic Needs

1. Harmonize ICT policies across agencies (NCC, NITDA, NIMC).
2. Introduce tax incentives for ICT equipment.
3. Publish transparent regulatory guidelines for emerging technologies (AI, IoT).
4. Strengthen multistakeholder Internet governance processes.
5. Create digital governance dashboards to track broadband rollout, digital ID systems, cybersecurity progress, and e-government performance.
6. Implement light-touch, evidence-based regulations for rapid deployment of ICT infrastructure.
7. Expand public-private partnerships to finance resilient and inclusive networks.
8. Establish sustainable financing mechanisms for long-term ICT growth.
9. Promote regional policy harmonization to reduce barriers and improve cross-border connectivity (e.g., free-roaming agreements)
10. Provide regulatory support for initiatives like DNSSEC and RPKI deployment.

11. Institutionalize multi-stakeholder governance models involving government, civil society, the private sector, and technical communities.
12. Provide capacity-building and technical assistance to local and grassroots organizations.
13. Encourage the adoption of open routing and security standards without fiscal or administrative barriers.
14. Recognize the technical community and grassroots actors as essential partners.
15. Align national policies with regional and international cybersecurity and data protection norms.

C7: ICT Applications

C7 examines ICT adoption across seven key sectors, essential to national development.

Seven key sectors	Current State in Nigeria	Key Gaps	Strategic Needs
E-Government	Digitization efforts in Nigeria’s public sector, such as interoperability frameworks and e-service portals, have been linked to meaningful efficiency and transparency gains, although quantifiable metrics such as time saved per transaction remain scarce		Need for greater interoperability across platforms.
E-Business	There’s a rapid growth in fintech, mobile payments, and SME digital tools	Structural challenges for micro-business digital integration.	
E-Learning	Digital learning grew post-COVID	Connectivity and device gaps remain significant barriers	(C4 Strategic Needs apply here)

E-Health	Telemedicine projects are emerging but not widely deployed.	A major gap in Nigeria's telemedicine landscape is the limited digital infrastructure and inconsistent connectivity that hinder reliable remote healthcare delivery.	Health data protection needs stronger regulation.
E-Employment	Online job platforms are increasingly available and accessible nationwide.	Widespread digital skill shortages limit meaningful participation and reduce the ability of many citizens to benefit from these opportunities	Nigeria needs targeted digital literacy initiatives and stronger skills development programs that equip people to engage effectively with the online job ecosystem.
E-Agriculture	ICT tools for farmers (weather, crop information) exist, but adoption is low due to literacy barriers.		Upskill farmers with digital literacy and provide them with affordable ICT farming tools.
E-Science	Limited national investment in research and data-sharing platforms		

C8: Cultural and Linguistic Diversity

C8 focuses on ensuring digital systems reflect national cultural diversity, languages, and identity, emphasizing the development of language APIs.

Current State in Nigeria

1. The English language dominates Nigeria's digital landscape.
2. Limited online content in major local languages (Hausa, Yoruba, Igbo, etc.).
3. Cultural heritage digitization is slow.

Key Gaps

1. Inadequate local-language digital tools.
2. Low availability of indigenous educational and technical content.
3. Few incentives for developers to create culturally relevant digital resources.

Strategic Needs

1. Curate and develop local-language APIs to enable inclusive linguistic representation in digital platforms. (Create a database of Nigerian languages to facilitate communication and training in local dialects.)
2. Support cultural digitization programs (archives, museums).
3. Initiate stakeholder mapping to identify local organizations and individuals involved in digital empowerment across Nigeria.
4. Utilize radio services to communicate project details and training opportunities to local communities in their languages
5. Collaborate with ISOC to support the project and ensure funding is utilized effectively.
6. Create incentives (e.g., grants, awards) for local content creators.
7. Integrate multilingual digital literacy into national curricula.

C9: Media

WSIS C9 emphasizes the role of media in promoting access to information, freedom of expression, and digital participation.

Current State in Nigeria

1. Rapid adoption of digital media platforms (online newspapers, blogs, social media).
2. Strong youth engagement in digital journalism and civic conversations.

Key Gaps

1. Citizens are exposed to misinformation and propaganda, face risks of surveillance or online profiling, and encounter a digital divide that excludes rural populations.
2. Limited media literacy among the rural public.
3. Regulatory uncertainty affecting press freedom.
4. Threats to journalists, especially during political events.

Strategic Needs

1. Strengthen media literacy programs by creating strategic awareness and campaigns.
2. Funding and partnership support for established fact-checking platforms.
3. Integrating fact-checks into social media feeds, search tools, and public service announcements.
4. Training journalists and citizen reporters on verification tools and responsible reporting.
5. Promote fact-checking initiatives, such as Africa Check, Dubawa, FactCheckHub, and AFP Fact Check Nigeria.
6. Create early-warning systems to detect harmful viral content, especially during elections, public-health emergencies, and security reporting.

C10: Ethical Dimensions of the Information Society

This action line focuses on ethics, fairness, privacy, transparency, and the responsible use of technology.

Current State in Nigeria

1. NITDA now has a dedicated Cyber Security Department tasked with coordinating cybersecurity efforts across government, the private sector, and individuals.
2. The country is actively developing a new, comprehensive cybersecurity framework to set minimum security standards for critical sectors, including telecoms, infrastructure, and data handling.
3. NITDA collaborates with SecDojo to establish a Cybersecurity Academy to train professionals, build domestic capacity, and reduce reliance on external expertise.

Key Gaps

1. Limited oversight and weak compliance mechanisms allow repeated violations, eroding trust in digital services and exposing users to unnecessary risks.
2. Lack of AI ethics guidelines despite growing AI adoption.
3. Exposure to digital spaces where users face harassment and scams.
4. Minors receive inadequate protection online, with weak safeguards exposing children to risks such as harmful content and privacy breaches.

Strategic Needs

1. Establish AI and emerging tech ethics frameworks.
2. Create a foundation for a more resilient digital infrastructure to strengthen digital rights protections and NDPA enforcement.
3. Promote ethics-by-design in government digital services, requiring government agencies and critical sectors to employ certified local cybersecurity talent.
4. Establishing regional cybersecurity training hubs by expanding online safety education.
5. Funding internship and apprenticeship pipelines with industry partners and supporting startups working on indigenous cybersecurity solutions.

C11: International and Regional Cooperation

WSIS C11 emphasizes collaboration at global, regional, and local levels to advance ICT development.

Nigeria's Participation

1. Active member of ITU, AU digital programs, including ISOC, and WSIS processes.
2. Engagement through NiRA, NITDA, NCC, NCS, civil society, and academia.
3. Facilitates international research collaboration through conferences and academic partnerships connecting Nigeria to global ICT communities.
4. Nigeria's participation in international digital governance bodies, including IGF, ICANN, AfriNIC, and IEEE.

Key Gaps

1. Limited funding for sustained multilateral participation.
2. Weak alignment between global commitments and national implementation.
3. Insufficient multi-stakeholder representation at international forums.

Strategic Needs

1. Strengthen Nigeria's leadership in AfIGF, AfNOG, AfPIF, and Commonwealth digital forums.
2. Enhance cooperation with global partners in cybersecurity, digital literacy, and infrastructure development.
3. Build structured partnerships between the government and the technical community.

National Recommendations Across WSIS Action Lines (C1–C11)

Below is a consolidated national strategy for Nigeria:

The Role of Governments and Stakeholders in the Information Society (CI)

Focus Area	Recommendations
Law, Policy & Regulation	Improve policy implementation, ensure regulatory coherence, and fast-track key digital laws to foster investor confidence. Establish a Digital Rights & Internet Governance Committee in the National Assembly. Train judges on digital rights, cyber jurisprudence, and data-related cases.
Economy, Infrastructure & Connectivity	Reduce deployment costs, address multiple taxation, secure fibre routes, and expand PPPs for rural broadband.
Digital Governance(Open Access) & Security	Develop national interoperability standards, enhance NIMC infrastructure, and strengthen cybersecurity readiness.
Digital Skills & Talent	Scale industry-aligned training, build mentorship-to-employment pathways, and invest in retaining advanced digital talent.
Multi-Stakeholder Collaboration	Enhance transparency, institutionalize co-creation processes, and deepen engagement with the private sector and civil society.
Inclusion & Local Relevance	Improve affordability, expand digital accessibility tools, scale gender- and disability-inclusive digital programs, and enable community networking.

Infrastructure & Access (C2, C3)

- Expand affordable broadband, especially in rural areas.
- Increase public access points (libraries, community ICT hubs).
- Enhance power infrastructure to support the growth of the ICT sector.

Cybersecurity & Trust (C5)

- Expand CERT/CSIRT capacity nationwide.
- Enforce data protection compliance.
- Promote cyber awareness and safe online practices.
- Strengthen digital identity security.

Enabling Environment (C6)

- Harmonize ICT regulations across agencies.
- Lower device and broadband taxes.
- Develop clear guidelines for AI, IoT, cloud, and emerging technologies.
- Ensure rights-based, transparent, and inclusive policymaking.

Digital Inclusion & Capacity (C4, C8)

- Create digital literacy hubs in all LGAs.
- Support local-language content development.
- Promote culturally inclusive digital innovation.
- Expand ICT training across all education levels.

Sectoral ICT Development (C7)

- Strengthen ICT adoption in health, education, agriculture, commerce, and governance.
- Support e-health and e-learning infrastructure.
- Promote SME digital transformation.

Ethics & Rights (C10)

- Introduce national AI ethics guidelines.
- Strengthen child online protection.
- Promote ethical digital citizenship.

International Cooperation (C11)

- Increase support for Nigeria's participation in global Internet Governance (IG) processes.
- Build strategic partnerships with international tech communities.
- Engage diaspora talent in ICT development.

Conclusion

Nigeria's digital transformation has made significant progress, but it still faces major gaps in infrastructure, cybersecurity, digital literacy, and governance. By adopting WSIS+20-aligned reforms and strengthening multistakeholder collaboration, Nigeria can build a resilient, secure, and inclusive Internet ecosystem. This white paper provides a unified national framework to guide policy, investment, and development toward a future-ready Information Society.

Further work should include:

- Facilitate meetings with stakeholders to involve them in the holistic implementation of the proposed action plans.
- Cost implementation plans,
- Facilitate community-level pilot projects,
- Engage in deeper IIAT assessments for specific sectors, and
- Ensure stronger collaboration with WSIS, ITU, ISOC, and other regional bodies.

Glossary

The Sustainable Development Goals are:

1. No Poverty
2. Zero Hunger
3. Good Health and Well-being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible consumption and production
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace, Justice, and Strong Institutions
17. Partnerships for the Goals

Acronyms

AfIGF - Africa Internet Governance Forum
AfriNIC - Africa Network Information Center
AfNOG - Africa Network Operators Group
AfPIF - African Peering and Interconnection Forum
AI - Artificial Intelligence
API - Application Programming Interface
BGP - Border Gateway Protocol
CERT / CSIRT - Computer Emergency Response Team / Computer Security Incident Response Team
DNSSEC - Domain Name System Security Extensions
DNS - Domain Name System
E-Health- Electronic Health
E-Learning- Electronic Learning
E-Agriculture- Electronic Agriculture
E-Business- Electronic Business
E-Science- Electronic Science
FMCIDE- Federal Ministry of Communications, Innovation and Digital Economy
GDC- Global Digital Compact
ICANN- Internet Corporation for Assigned Names and Numbers
IEEE-Institute of Electrical and Electronics Engineers
ICT- Information and Communication Technologies
IAT- Internet Impact Assessment Toolkit
IGF- Internet Governance Forum
IoT- Internet of Things
ISOC- Internet Society of Nigeria Chapter
IWN- Internet Way of Networking
ITU- International Telecommunication Union
IXPs- Internet Exchange Points
LGA- Local Government Area
NCC - Nigerian Communications Commission
NCS- Nigeria Computer Society
NDEPS- National Digital Economy Policy and Strategy
NDPA- Nigeria Data Protection Act
NIMC- National Identity Management Commission
NITDA - National Information Technology Development Agency (Nigeria)
NSIG - Nigeria School of Internet Governance
ONSA- Office of the National Security Adviser - ONSA
PWDs- Persons With Disabilities
RPKI- Resource Public Key Infrastructure
RoW - Right of Way
SMEs- Small and Medium Enterprises
STEM- Science, Technology, Engineering, and Mathematics
SDG - Sustainable Development Goal
UN - United Nations
UNGA - United Nations General Assembly

REFERENCES

1. *International Telecommunication Union (ITU). World Summit on the Information Society (WSIS) Action Lines Reports, 2005-2024.*
2. *Federal Ministry of Communications, Innovation & Digital Economy. National Digital Economy Policy and Strategy (NDEPS), 2020-2030.*
3. *Nigerian Communications Commission (NCC). National Broadband Plan (2020-2025).*
4. *Nigeria Data Protection Commission (NDPC). Nigeria Data Protection Act, 2023.*
5. *Federal Republic of Nigeria. Cybercrimes (Prohibition, Prevention, etc.) Act, 2015.*
6. *Internet Society. Internet Governance and Infrastructure Security Reports, 2020-2024.*
7. *World Bank Digital Economy Diagnostics for Nigeria (2021-2023).*
8. *African Union. Digital Transformation Strategy for Africa (2020-2030).*
9. *UN IGF. National and Regional Internet Governance Forum Reports, 2018-2024*
10. *Access Now. (2023). The cost of internet shutdowns report.*
11. *Alliance for Affordable Internet. (2023). Affordability report.*
12. *European Commission. (2015). Regulation (EU) 2015/2120 on open internet access.*
13. *Freedom House. (2023). Freedom on the net: Nigeria.*
14. *GSMA. (2022). State of mobile internet connectivity report.*
15. *Internet Governance Forum. (2023). Policy networks on meaningful access and internet fragmentation.*
16. *Internet Society. (2021). The internet way of networking: Principles for an open, connected internet.*
17. *Internet Society. (2023). Policy brief: Internet fragmentation.*
18. *International Telecommunication Union. (2022). WSIS+10 outcome documents.*
19. *International Telecommunication Union. (2023). Measuring digital development: Facts and figures.*
20. *Mozilla Foundation. (2019). The case for net neutrality.*
21. *Nigerian Communications Commission. (2020). National broadband plan 2020-2025.*
22. *UNESCO. (2021). Digital literacy for lifelong learning.*
23. *United Nations Human Rights Council. (2021). Internet shutdowns and human rights.*
24. *United Nations. (2006). Convention on the Rights of Persons with Disabilities (CRPD).*
25. *W3C. (2018). Web Content Accessibility Guidelines (WCAG) 2.1.*
26. *Internet Society (ISOC) (n.d.). A Template for Your Internet Impact Brief: Use this template as you plan and write your Internet Impact Brief document. Internet Society.*
27. *ISOC Nigeria NSIG - Group 5 (2025). First Meeting of ISOC NSIG Group 5 Members: Meeting Notes, 17 November 2025.*
28. *Internet Society (2021). How to Conduct an Internet Impact Brief: Internet Impact Assessment Toolkit. CC BY-NC-SA 4.0. Available at: Internet Society resources.*

29. *United Nations General Assembly (2025). WSIS+20 Zero Draft - Twenty-year Review of the World Summit on the Information Society. Zero Draft, December 2025.*
30. *United Nations (2015). Transforming Our World: The 2030 Agenda for Sustainable Development. Resolution A/RES/70/1. United Nations.*
31. *United Nations (2015). Outcome Document of the High-Level Meeting of the General Assembly on the Overall Review of WSIS Outcomes. Resolution A/RES/70/125.*
32. *United Nations (2024). The Pact for the Future. Resolution A/RES/79/1. United Nations.*
33. *United Nations (2023). General Assembly Resolution on Human Rights and Digital Technologies. Resolution A/RES/78/213.*
34. *Internet Society (2020). Critical Properties of the Internet. Internet Society.*
35. *Internet Society (2021). Enablers of an Open, Globally Connected, Secure and Trustworthy Internet. Internet Society.*
36. *International Telecommunication Union (ITU) (2005). Geneva Declaration of Principles and Geneva Plan of Action. World Summit on the Information Society.*
37. *International Telecommunication Union (2005). Tunis Commitment and Tunis Agenda for the Information Society. WSIS Phase II.*
38. *International Telecommunication Union (2024-2025). WSIS+20 Review Process Materials, Action Line Reports, and Facilitator Updates. ITU Publications.*
39. *Federal Ministry of Communications, Innovation & Digital Economy (Nigeria) (2023-2025). National Broadband Plan Updates, 3MTT Programme Documents, and Digital Nigeria Initiatives.*
40. *National Information Technology Development Agency (NITDA) (2023-2025). Digital Literacy and Skills Framework; Nigeria Digital Public Infrastructure Initiatives.*
41. *Nigerian Communications Commission (NCC) (2023-2025). Telecom Statistics, Broadband Monitoring Reports, and Universal Service Provision Fund Publications.*