



# Promoting Digital Inclusion of Vulnerable Groups for DRR and Building Resilience

Presentation IV in Session 3:  
Inclusion of Vulnerable Groups in DRR Policy Design and Implementation to Build Resilience

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1 September 2020

## Multiply Vulnerable Groups

- The poor
- Persons with disabilities
- Older persons
- Migrants & refugees
- Children & youth
- Women
- ...

### Physical factors

- Shelter, age etc.

### Social factors

- discrimination, exclusion, status etc.

### Economic factors

- poverty, rural setting etc.

### Environmental factors

- climate change, poor service etc.



<sup>1</sup> Module 1: Science, Technology, and Innovation in Public Governance for DRR and Resilience. Risk-Informed Governance and Innovative Technologies for Disaster Risk Reduction and Resilience. Toolkit Session 1.1. UNDRR & DESA. April 2020

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## Women, ICT and emergency telecommunications: opportunities and constraints

Access to information & communications technology (ICT) is essential for **disaster resilience**<sup>1</sup> but a crippling barrier for many is the **digital divide**: the gap in access to, and usage of, ICT by various populations<sup>2</sup>.

The **digital divide is differentiated**. Estimates of the digital *gender gap*, for example are:

- For mobile: 45% in Pakistan<sup>3</sup>; 60% in Rwanda<sup>4</sup>
- For Internet: 12% overall in developing countries<sup>5</sup>, having increased by 7% over the period 2013 – 2019

The *fundamental* divide derives from the lack of access to **digital opportunities to live the life one values**<sup>6</sup> so to narrow the gap we go beyond access and use, to **strategic aspects of self-actualization and agency**.

In partnership with:



<https://www.itu.int/en/ITU-D/Emergency-Telecommunications/Documents/events/2020/Women-ICT-ET/Full-report.pdf>



<sup>1</sup>ETC (2020) | <sup>2</sup>OECD (2001) | <sup>3</sup>GSMA (2018)

<sup>4</sup>Research ICT Africa (2019) | <sup>5</sup>ITU (2019) | <sup>6</sup>UNESCAP (2019)



## How can digital tech empower vulnerable groups for disaster resilience?

1. Access information
2. Access cash
3. Engage & participate
4. Learn
5. Perceive vulnerable groups differently



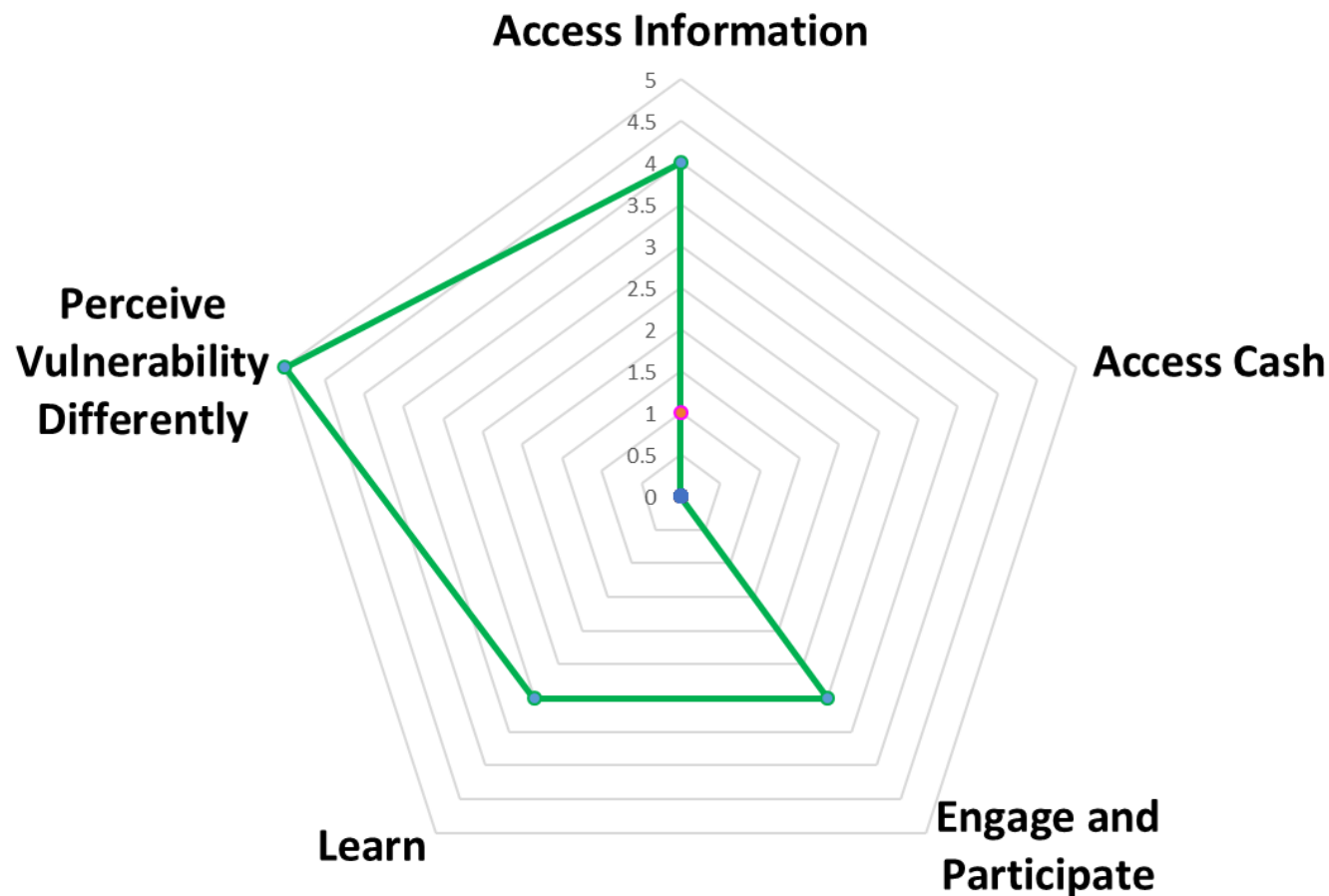
## Which digital access technologies are suitable for the vulnerable?

1. Familiar
2. Affordable
3. Accessible (to all)
4. Acceptable

## Suitability of digital access technologies for disaster resilience for the vulnerable is context-specific:

1. Free to Air (FTA) radio & TV
2. Cellular voice with SMS
3. Mobile Internet
4. Distance learning

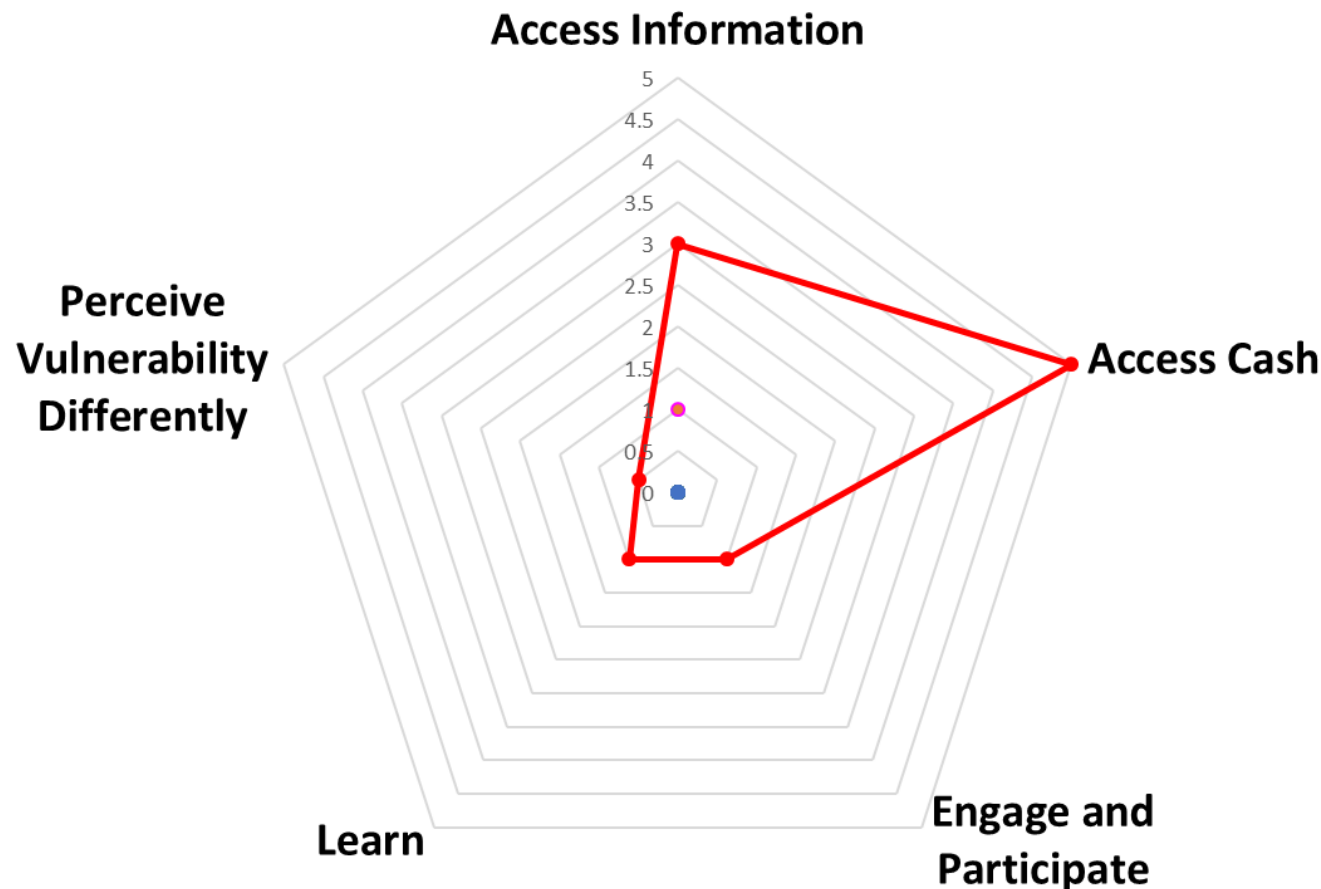
— FTA Broadcast (Radio & TV) — Cellular Voice (with SMS) — Mobile Internet — Distance Learning Platforms



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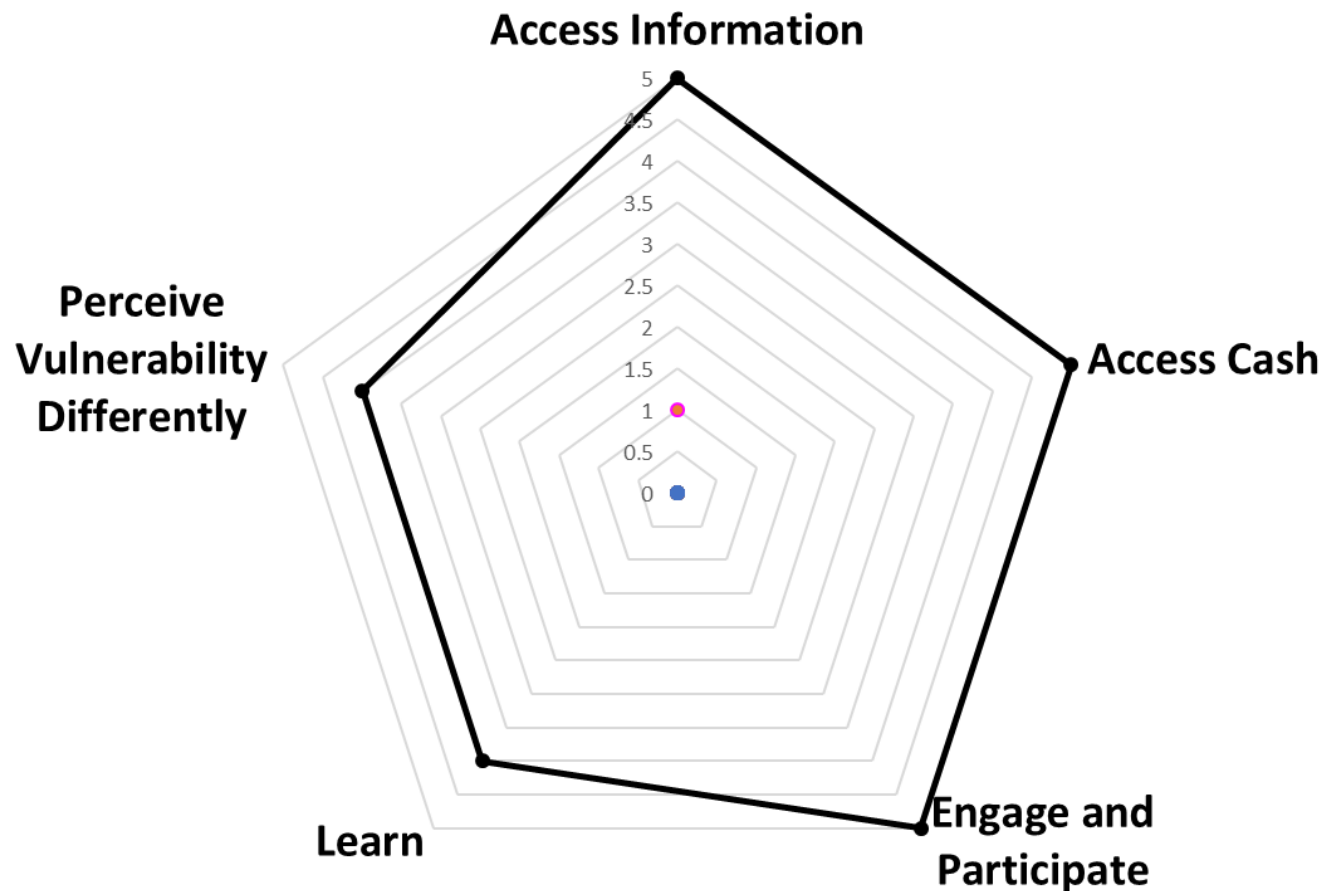
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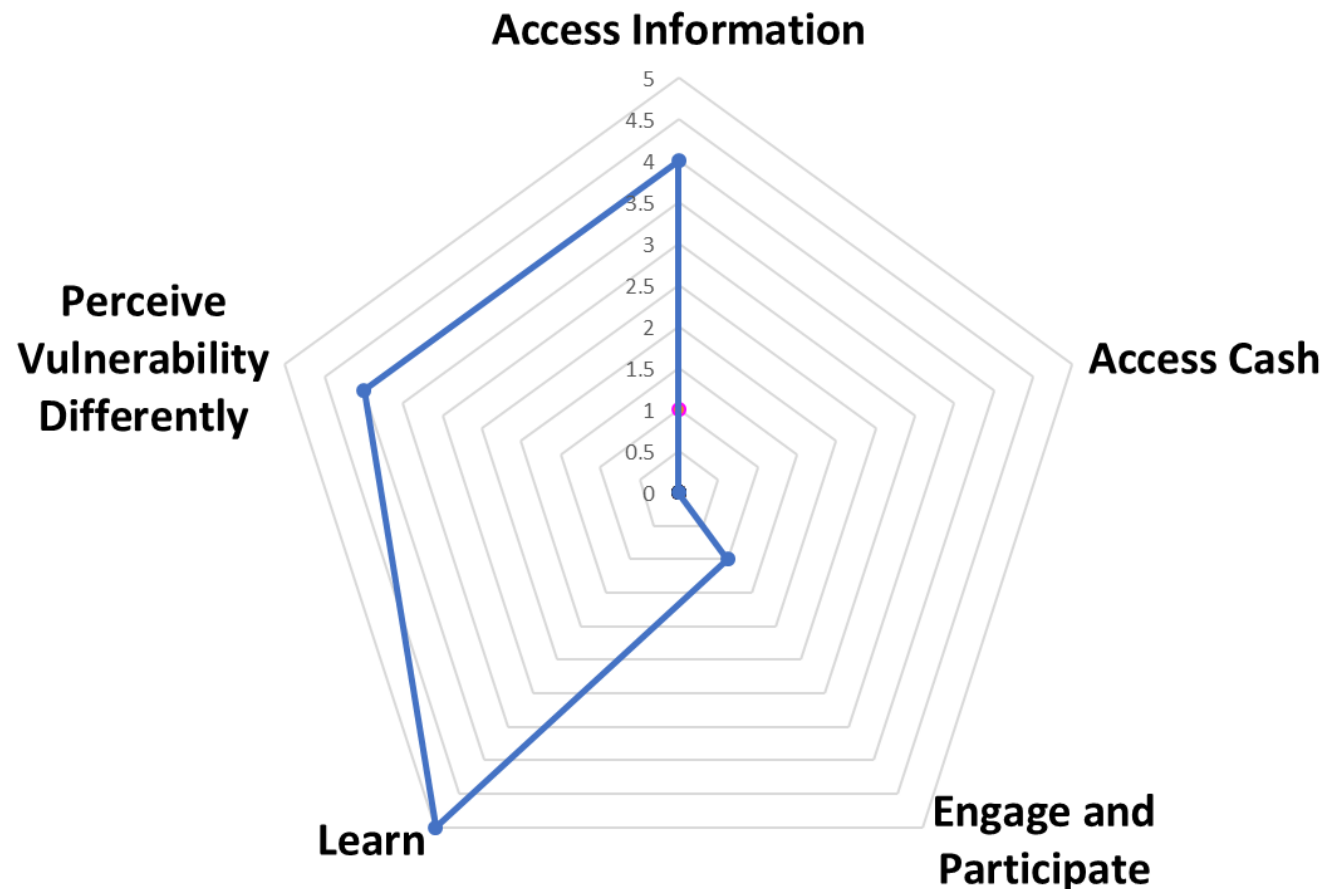




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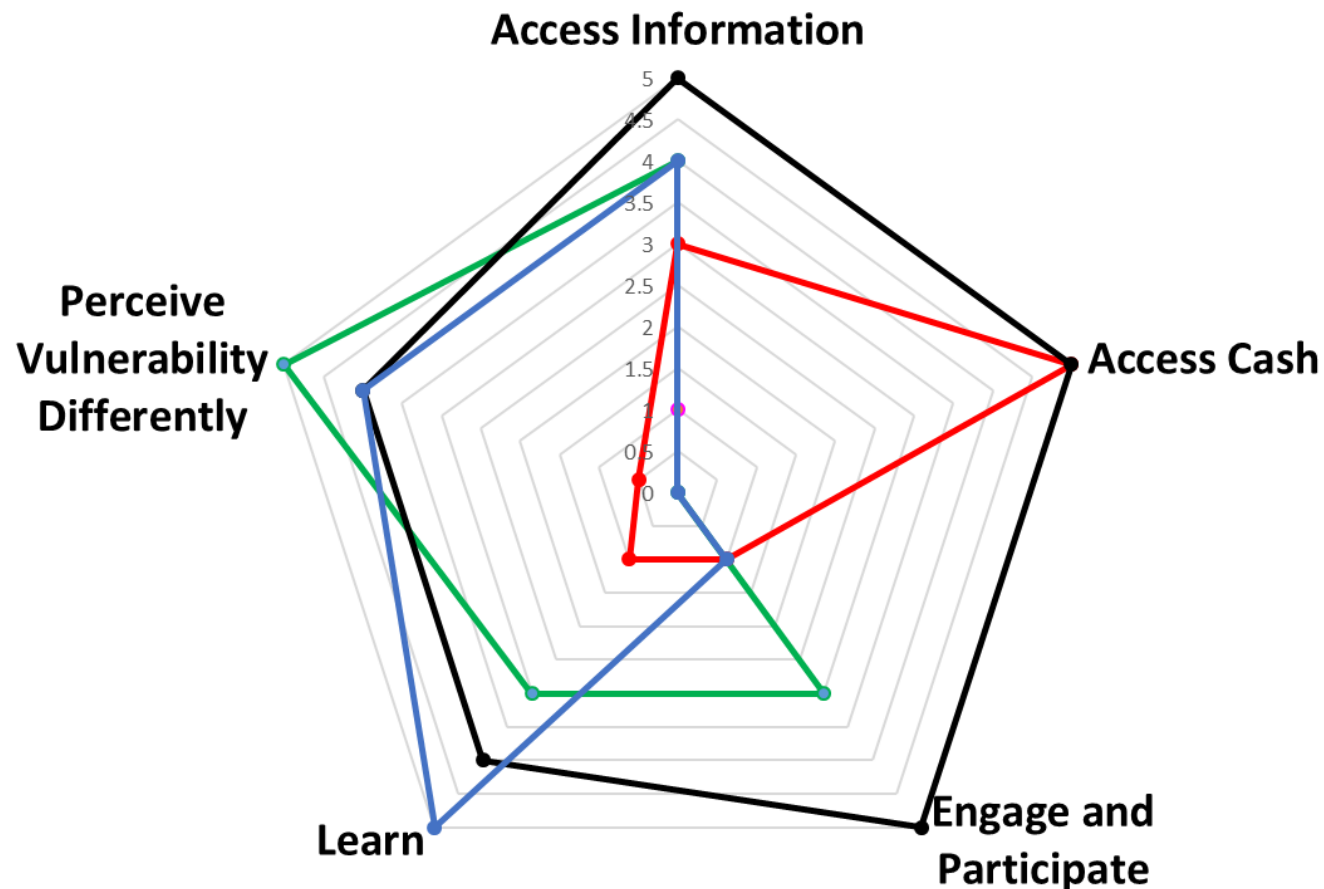
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# ICT-enabled resilience for the vulnerable follows a personal growth path



- 1. Interactive websites
  - 2. Mobile applications
  - 3. Video conferencing
  - 4. Social media
  - 5. Distance learning
- 
- Basic data life cycle
  - Basic ICT product life cycle
  - Full DRM cycle
  - Advocacy
  - Mentoring

- +
- 1. Mobile radio
- 2. Amateur radio
- 3. New & emerging technologies: drones, AI, big data, machine learning, block chain

- Advanced data life cycle
- Advanced ICT product life cycle
- Teaching & mentoring
- Advocacy
- Research
- Policy & regulation

## 3 Leadership

- Undertake advanced learning
- Profoundly modify perceptions of gender



## 2 Contribution

- 1. Receive rich information
- 2. Engage
- 3. Undertake basic to intermediate learning
- 4. Modify perceptions of gender

## 1 Protection

- 1. Receive basic information
- 2. Get and spend cash

- 1. FTA broadcast TV & radio, with and without call-in
- 2. Basic voice with SMS
- 3. Humanitarian hotlines
- 4. Interactive Voice Response
- 5. Mobile money
- 6. Biometric-enabled cash transfer

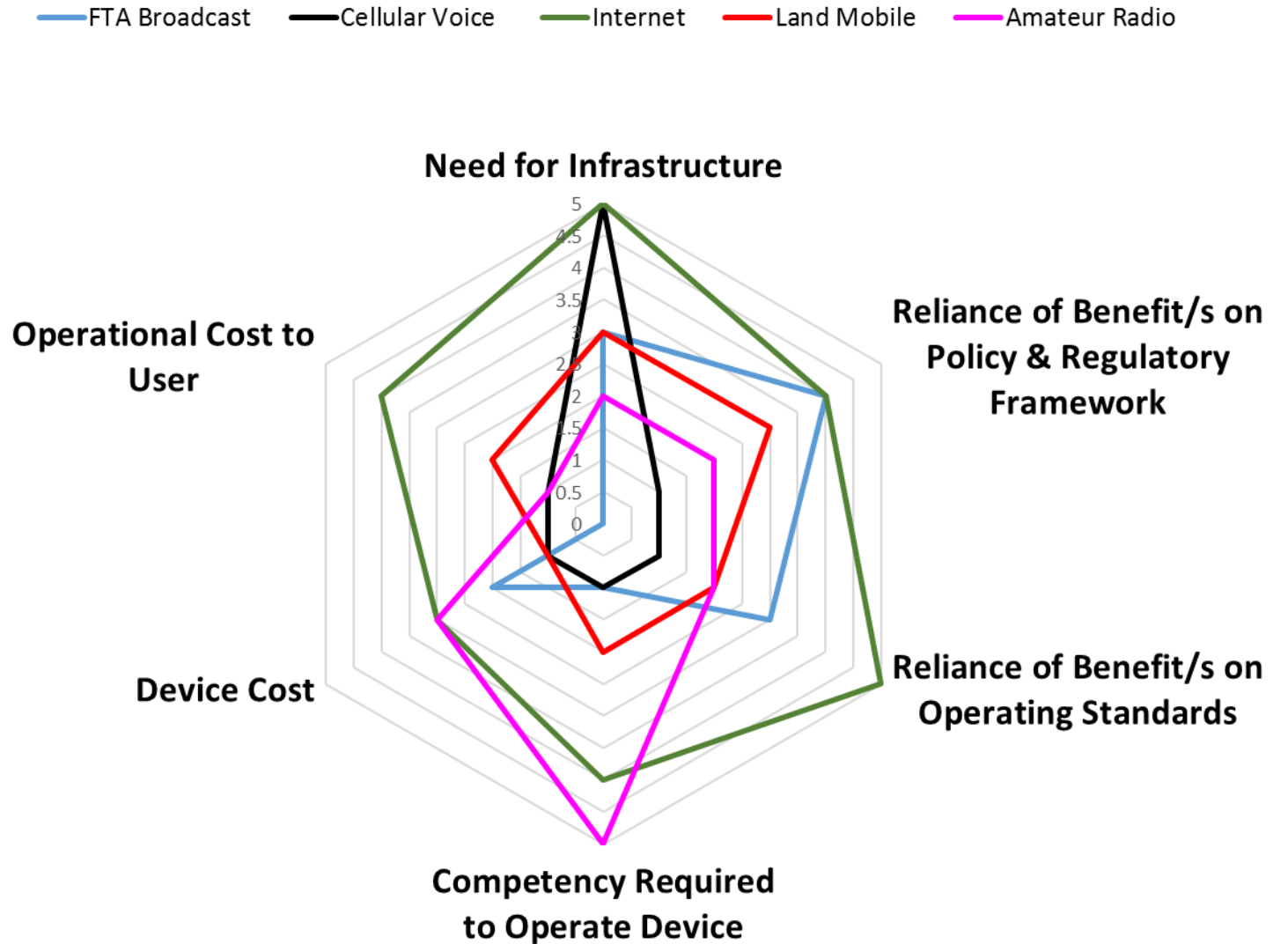


## Levers to promote digital inclusion for the vulnerable address:

- Device cost
- Operational cost
- Competence
- Infrastructure

## and entail, inter alia:

- Policy & Regulation
- Operating standards



Sample  
**policy-driven  
strategies to  
promote digital  
inclusion of  
vulnerable  
groups for DRR  
and to build  
resilience**

Governments  
should ...

- Exert international pressure on **digital platform operators** to protect users' rights
- Ensure that **national emergency telecommunication plans** require:
  - **multimodal messaging** (in text, audio, video & if possible haptics) during **all phases** of DRM cycle
  - emergency messaging on **multiple channels** e.g. FTA TV & radio, SMS & Internet at no-cost
- Require that, and incentivize service providers to:
  - **offer accessible ICT devices**, services and support and accessible financial services through **mobile money** and biometrics
  - *meet* **universal service obligations** to ensure FTA, cellular & WiFi coverage
  - *introduce* **ICT market innovations** to enable affordable service for the vulnerable
- Incentivize **community radio** stations
- Establish **community Wi-Fi** hotspots with training and mentorship
- Encourage the vulnerable to **tell their stories** through a variety of ICT channels
- Encourage the inclusion of the vulnerable in the **co-design** of ICTs; & recognize contributions
- Support **community innovation** through maker spaces in schools and community centres
- Promote ICT for DRR **use, study, design and leadership** by all vulnerable groups
- **Integrate** ICTs seamlessly into DRR campaigns, public awareness & capacity building
- **Collaborate!**

Recall Principle 3 of Effective Governance for SDG Implementation: “... *institutions at all levels of government and in all sectors should work together and jointly with non-State actors ...*”



**360°** strategy to promote Digital Inclusion of Vulnerable Groups for DRR and to build resilience:

- **longitudinally** through DRM cycle
- **instrumentally** with context appropriate technologies
- **laterally** across technology, policy, regulation, advocacy, research, innovation, DRR & ICT ecosystems, projects and communities
- **stratified** across all tiers of the growth path
- **temporally** in, and for, the short, medium and long term
- **methodologically**: systematic, ad hoc; institutionalized, informal
- **sensitively** recognizing multiple vulnerabilities



## Sources

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