

Korea's ODA to Africa in the ICT Sector: Was it Effective?

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Introduction

- Korea's ICT ODA shares about 10% of total ODA, but linked to other sectors as a cross-cutting issue. There are some issues to improve the efficiency of ICT ODA.
- ❖ African countries are facing a new era with the AfCFTA which was officially launched in Jan. 2021
 - AfCFTA aims to increase intra-regional trade from 15% to 50% by 2030
 - Require good economic infrastructure in the continent (ICT promotion is necessary)
- ❖ Many African countries are requesting ICT sectoral supports to Korea (Why?)
 - Korea's ICT development is internationally recognized (UN, ITU, etc.)
 - The impact of the ICT sector directly related to agriculture, industries, and services (eg. Smart farming, Smart factory, Fin-tech, Mobile banking, e-Commerce, etc.)
 - e-Government; efficiency of the public administration
- ❖ Africa shares about 25% of Korea's ODA
 - The share of Korea's ODA to Africa increased while its share to Asia decreasing.
- ❖ ICT ODA shares about 10% of the total Korea's ODA
 - Need to be carefully selected and implemented to improve efficiency
- ❖ This presentation overviews Korea's ODA, ICT ODA to Africa, and to discuss about effectiveness.

1. ODA Organizations

- Many government ministries and institutions are engaged in ODA activities.
- ❖ Committee of International Development and Corporation: Chaired by the PM, Foreign Minister, Minister of Economic Planning and Finance, and other related Ministers, Specialists(25 members; 15 ministries, 10 from outside)
- ❖ Steering Committee: Chaired by 1st Vice Minister of OPC, Foreign Ministry, Ministry of Strategy and Finance, and other ministries
- ❖ Ministries: The Ministry of Strategy and Finance(MSAF); EDCF (EXIM Bank) for Concessional Loans, and the Ministry of Foreign Affairs(MOFA); KOICA for Grants Aid
- ❖ Debates on the merge of the two: coordination(?), not easy
 - Conflict of argument among different ministries
 - Fragmented; too many institutions (regional governments, other quasi-government institutions)
- ❖ ODA Korea(2023)
 - Budget size: 4.771 trillion KWN(US\$3.8 billion, 0.16% of GDP)
 - Agencies; about 400, project numbers; 1,840, Recipient countries; 92

2. Types of ODA

- Bilateral and multilateral; MOFA and MSAF

<Figure 1> Types and Ministries in Korea's ODA

Types		Institutions	Ministries
Bilateral	Grants Aid	Materials Cash Project Technical Assistant (Development Research, Training, Specialist, Volunteers)	KOICA Min. of Foreign Affairs(MOFA)
	Concessional Loans	EDCF	EXIM Bank Min. of Strategy and Finance (MSAF)
Multilateral	Contribution to Multilateral Institutions : UN etc.		MOFA MOFA
	Pay to International Institutions		BOK Min. of Strategy and Finance(MSAF)

3. ODA Policies

- Korea's ODA policies including goals, directions, strategies, pursue the effectiveness of ODA, i.e. value for money.
- ❖ ODA projects and programs; concern with political environment of recipient countries, (humanity, democracy, international relations, public diplomacy, soft power, income level etc.)
- ❖ Strategy-based business promotion: Strengthening policy linkages with partner countries, international community, and governments
- ❖ More performance-oriented ODA: Advancement of mid- to long-term performance management (operation of performance programs for each area)
- ❖ Integration of business types: Combining various ODA projects with businesses, and create synergies; enhance the PPP
- ❖ Emphasizing predictability and accountability: Management of the mid- to long-term financial resources, prepare for budgets and execution plans
- ❖ Strengthen inclusiveness: Collaboration and linkages with domestic and foreign organizations
- ❖ Total number of CPS in 46 countries (131 CPS Programs, and 65 Sub-programs)
 - 12 Areas (Education, Health, Governance and Peace, Agriculture development, Water, Energy, Transportation, Urban Development, Science, Technology and Innovation, Climate Change, Gender Equality, Human Rights)

4. Bilateral vs Multilateral

- Korea joined OECD DAC in 2010. The highest annual growth rate of ODA 11.9%/annum among 29 DAC members (2.4%) after 2010.

- ❖ Korea ranked the 15th among 29 DAC member countries in 2021 in the volume of ODA.
- ❖ In 2021, Korea's ODA size was 0.16% of GNI (the DAC target is 0.7% of GNI).
- ❖ Bilateral 75.1% vs Multilateral 24.9% in 2021

<Table 1> Grant Equivalents

(USD Million)

Year	ODA	Bilateral ODA		Multilateral ODA	
		Amount	share (%)	Amount	share (%)
2018	2,358.25	1,734.45	73.6	623.80	26.5
2019	2,463.18	1,857.04	75.4	606.14	24.6
2020	2,250.03	1,751.45	77.8	498.58	22.2
2021	2,855.04	2,145.17	75.1	709.86	24.9

Source: OECD DAC statistics

5. Loans and Grants

- Grants aid was 63.7%, concessional loans shared 36.3% (Many donors share over 90% for grants aid. Debatable on grants and loans.

- ❖ In 2021, Korea disbursed USD 1,903 million of ODA in bilateral assistance on the grant-equivalent basis (preliminary figures), up 9.7% from the previous year's USD 1,734 million. In 2019, the share of grants and loans respectively stood at 64% (USD 1,217 million) and 36% (USD 685 million).
- ❖ Grant equivalents; loans can be calculated under the cash flow methodology.

<Table 2> Bilateral ODA by Types of Aid

(Grant Equivalents, USD million)

Year	Bilateral ODA	Loans		Grants	
		Amount	Share (%)	Amount	Share (%)
2018	1,734.45	603.42	34.8	1,131.03	65.2
2019	1,857.04	686.28	37.0	1,170.76	63.0
2020	1,751.45	596.53	34.1	1,154.92	65.9
2021	2,145.17	779.57	36.3	1,365.60	63.7

Source: OECD DAC Statistics

6. Sectoral Shares of ODA

• Bilateral ODA by Sectors, 2018-2021 (USD Million)

Source: OECD DAC statistics

<Table 3> Bilateral ODA by Sectors

(Grant Equivalents, USD million)

Bilateral ODA by Sectors	2018	2019	2020	2021
SOCIAL INFRASTRUCTURE & SERVICES (%)	749.2(43.2)	820.8(44.2)	959.5(54.8)	1,115.6(52.0)
Education	225.2	242.4	190.0	224.5
Health	175.9	165.1	504.5	450.2
Population & Reproductive Health	17.6	10.0	15.2	15.6
Water supply & sanitation	126.6	233.3	125.1	185.3
Government & Civil Society	147.2	123.9	95.1	219.9
others	56.8	46.1	29.6	20.1
ECONOMIC INFRASTRUCTURE & SERVICES(%)	386.0(22.3)	403.8(21.7)	242.1(13.8)	349.2(16.3)
Transport	257.2	235.1	167.7	243.7
Communications	54.5	27.9	12.7	15.5
Energy	63.0	133.9	54.2	80.8
Banking & Financing Service	7.4	4.9	2.5	5.1
Business & Other Services	3.9	2.1	5.0	4.0
PRODUCTION SECTORS (%)	141.01(9.6)	145.33(10.0)	224.84(7.8)	408.18(8.8)
Agriculture, Forestry, and Fishing	137.9	145.5	107.4	149.0
Industry, Mining, and Construction	22.7	30.9	14.4	32.3

7. Sectoral Shares of ODA

- Bilateral ODA by Sectors, 2018-2021 (USD Million); continued

Bilateral ODA by Sectors	2018	2019	2020	2021
MULTI-SECTOR(%)	107.4(6.2)	91.4(4.9)	80.2(4.6)	128.5(6.0)
PROGRAMME ASSISTANCE(%)	14.0(0.8)	7.4(0.4)	4.0(0.2)	19.4(0.9)
ACTION RELATING TO DEBT	-	-	-	-
HUMANITARIAN AID(%)	131.3(7.6)	123.2(6.6)	127.6(7.3)	109.7(5.1)
DONOR'S ADMINISTRATIVE COSTS(%)	85.1(4.9)	88.65(4.8)	95.4(5.4)	106.0(4.9)
IN-DONOR REFUGEE COSTS(%)	1.8(0.1)	1.4(0.1)	1.4(0.1)	17.2(0.8)
OTHER / UNSPECIFIED(%)	93.0(5.3)	134.5(7.3)	104.9(6.0)	110.9(5.2)
TOTAL	1,734.5	1,857.0	1,751.4	2,145.2

Source: OECD DAC statistics

- ❖ More than 50% of Korea's ODA was shared by social infrastructure and services during the last few years, followed by economic infrastructure (transport, communication, and services)
- ❖ Other major projects are health, energy, water, education, ICT, public administration, etc.

8. Regional Shares of ODA

- Korea's ODA to Africa shared around 23%-28%, which is comparable to Asia 46%-53% between 2018-2021. Why?

<Table 4> Bilateral ODA by Regions

(Grant Equivalents, USD million)

Bilateral ODA by Region	2018	2019	2020	2021		
Africa (share : %)	484.09	490.86	426.68	522.14		
	27.9	26.4	24.4	23.3		
Asia (share : %)	802.24	959.00	934.95	1,014.40		
	46.3	51.6	53.4	47.3		
America (share : %)	170.66	188.70	139.01	205.30		
	9.8	10.2	7.9	9.6		
Europe (share : %)	1.99	7.50	10.82	8.77		
	0.1	0.4	0.6	0.4		
Oceania (share : %)	16.09	15.93	15.52	16.42		
	0.9	0.9	0.9	0.8		
Unallocated (share : %)	259.38	195.05	224.47	378.13		
	15.0	10.5	12.8	17.6		
Total	1,734.45	1,857.04	1751.45	2,145.17		
Asia and Pacific	Africa		Latin America		Middle East and CIS	
43.1%	27.7%		17.0%		12.2%	

1. Korea's ODA to Africa

- Korea's ODA to Africa strengthened by the new government in 2022.
- ❖ Why Africa? Korea's national interest, competition and rivalry, historical, public diplomacy, humanitarian, knowledge sharing, etc.
- ❖ ODA policies to key African countries
 - CPS countries; prioritize, to achieve SDGs of individual African countries
 - Analyze developmental environment and build up capacity for sustainable development
 - Non CPS countries are also eligible to Korea's ODA
- ❖ Korea is hosting the first Korea-Africa Special Summit in 2024.
 - Improve partnership with African countries (The AfCFTA started in 2021)
 - Enhance economic linkages with Africa; trade and investment, and exchange programs
 - Contribute more to the international society
- ❖ Divided the African continent into three sub-regions; focus on different areas
 - South-East Africa: Customized strategies and implement, quality improvement of maternal health and public health
 - Mid-west Africa: Inclusive education for deprived people, and sustainable agricultural output, and market expansion of agriculture products
 - North Africa: Focus on TVET to build capacity of manufacturing
- ❖ KOICA has 7 strategic Areas: Education, Public health and health care, Public administration system, Agricultural development, IT, Industry and energy, Environment and others

1. ICT ODA

- Many agencies are participating ICT ODA activities.
- ❖ With a great demand for ICT ODA, most of ICT related government institutions established departments for international development and cooperation
 - Good way of knowledge sharing
- ❖ ICT ODA agencies emerged during the last 30 years
 - Korea Information Society Development Institute(KISDI)
 - The Korea Internet & Security Agency (KISA)
 - Korea Agency for Digital Opportunity and Promotion(KADO)
 - Korea Information Promotion Agency(KIPA)
 - National Information Society Agency (NIA)
- ❖ There some other quasi-government institutions, and non-profit organizations engage in ICT ODA
 - KOTRA(Korea Trade and Investment Agency)
 - KPC(Korea Productive Center)
 - KITA (Korea International Trade Association)
 - KCCI (Korea Chamber of Commerce)
- ❖ ICT ODA agencies are closely working with international institutions such as UN, World Bank, regional development banks, ITU, OECD, etc.

2. Characteristics of ICT ODA

- The knowledge of ICT is prerequisite to achieve economic development, and ICT ODA can be applied in PPP frame.
- ❖ ICT ODA can help to leapfrog IT institutional and infrastructural technologies in recipient countries (Lee et.al. 2008)
- ❖ ICT is a core element of development process in the 4th Industrial Revolution Era
 - Contribute to poverty, economic development and welfare (Park, 2020)
- ❖ Many ICT ODA projects and programs are carried out by multi-ministerial tasks
 - Policy coordination is necessary
 - ICT technologies are provided by private companies
- ❖ ICT ODA can activate PPP(Public Private Partnership) frame format
 - ICT has public good's nature (or quasi-Public good; eg. road)
 - The internet is a global public good; non-rivalry, non-excludable
 - Government has limited capacity to provide telecommunication services
 - PPP in telecom infrastructure can leverage capital, technology and expertise
 - Free rider problems; incentive without contributing towards cost
- ❖ ICT ODA in PPP frame format can be different types
 - BOT, BOO, BTO, BOOT, etc. (detailed studies are needed)

3. Rationale of ICT ODA

- Why is Korea emphasizing ICT ODA in Africa?
 - ❖ Awareness of Korea's ICT in the global society;
 - Korea is a well developed ICT industries, and recognized by international institutions including UN, ITU, and many others.
 - ICT is the technology of the 21st century.
 - ❖ Why ICT ODA to Africa;
 - Share development experience of ICT with African countries
 - Korea has comparative advantage in the ICT sector
 - Possible implication of ICT in agriculture, industry and many other sectors (McKinsey, 2021)
 - Protect ICT users, protect privacy, security and standards in recipient countries
 - Digital diplomacy; especially after COVID 19 (Kang & Kim, 2022)
 - ❖ However, it requires coordination between countries or with more diverse stakeholders
 - Can stimulate the development process of recipients
 - Easy access to new technologies
 - ❖ Greater return on investment and new industries (e-mobility)
 - Manufacturing requires enormous capital and technology accumulation
 - New industries (electric cars; e-mobility) require ICT (CDH, 2022)

4. Korea's ICT ODA

- ICT ODA shares about 10% of total ODA. ICT ODA can be either directly linked purely ICT or applying to other sectors which I noted Converged ICT ODA.

<Table 5> Korea's ICT ODA

Unit: 100million KWN

Description	2015	2016	2017	2018	2019	Total
ODA Total	23,782	24,394	26,359	30,482	32,003	137,020
Converged ICT ODA	1,735 (7.3%)	1,183 (4.8%)	2,297 (8.7%)	2,695 (8.8%)	2,766 (8.6%)	10,676 (7.8%)
Pure ICT ODA	836 (3.5%)	429 (1.8%)	534 (2.0%)	630 (2.1%)	438 (1.4%)	2,867 (2.1%)

Notes: - % shows the share of total ODA.

- ICT ODA shared around 10% of total ODA during 2015-2019.

Source: Yoo Jisu and Yoo Sunghoon (2019)

- ❖ Converged ICT ODA includes: Public Administration, Education, Energy and Environment, Economic infra., Agriculture and Fishery, Health, etc.
(I used the word 'converged' to make it simple.)
- ❖ Pure ICT ODA: ICT Sector infrastructure includes ICT network, Broadcasting systems, Information systems, etc.

5. ICT ODA Comparison

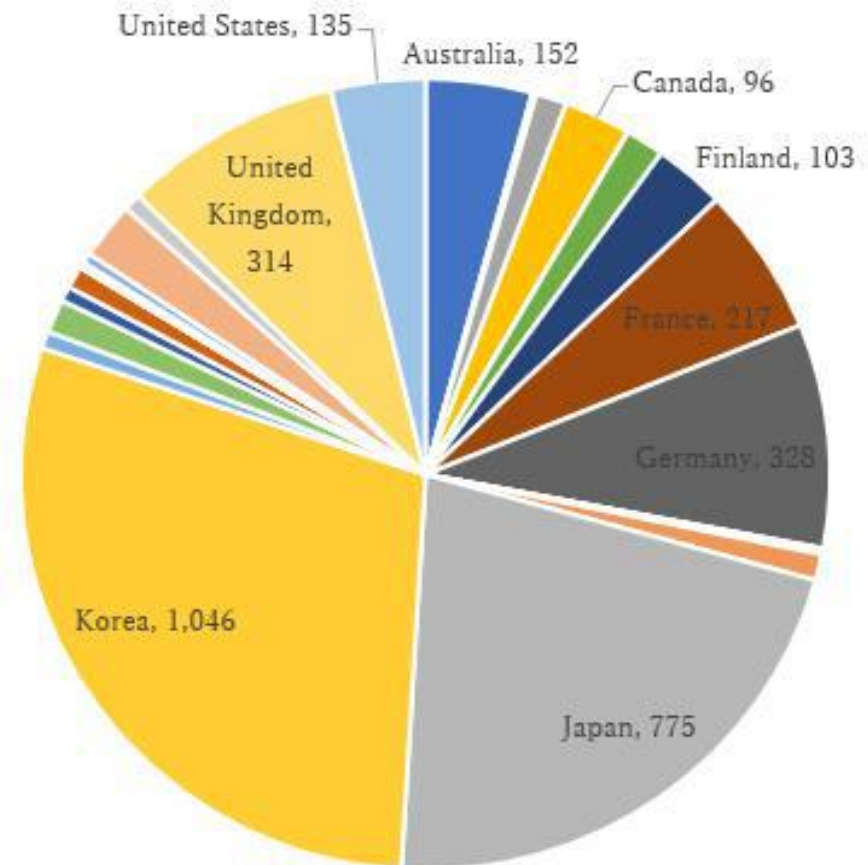
- Korea's ICT ODA; higher than many DAC members over the last two decades.

- ❖ Case Study of Vietnam by Hur & Kim(2022)
 - Korea's ICT ODA was greater than other DAC members between 2010-2019
 - Followed by Japan, Germany, UK, France, etc.
 - USA has relatively small amount compared with total ODA

- ❖ Reasons:
 - Good absorptive capacity of Vietnam
 - Strong economic partnership
 - Expect efficiency
 - Sustainability

<Figure 2> ICT ODA 2010-2019

Unit: \$million



Source: Hur and Kim(2022)

6. Types of ICT ODA

- ICT ODA can be divided into two main parts IT and e-Government, and further detailed projects are as follows.

<p style="text-align: center;">IT</p>	<ul style="list-style-type: none"> • Strengthening National Spectrum Management and Monitoring System(NSMMS) • Advising and Consulting for the Implementation of Broadband Infrastructure • Feasibility Study/Research for the Implementation of the National ICT Master Plan • Development of the Framework for Establishment of Effective Cloud Based Data System • Communication, Cyber Security, Certification Systems
<p style="text-align: center;">E- Government (Pub. Admin.)</p>	<ul style="list-style-type: none"> • Systems for Public Procurement/ Financial Management • Policy Consultation on the Pension Fund and National Digital Certification System, Immigration Control Systems, Budget Management • National Security/ Disaster Management(Early Warning System) • Consultation of the Establishment of Automated Taxation System • Smart Tourist Management System • Health and Insurance Management System

7. ICT ODA to Africa

- ICT ODA to Africa increased faster than that of Asia.
 - ICT can shorten development process in recipient countries (eg. Move to the mobile telecommunication without the lined connection.)
- ❖ ICT ODA to Africa includes, ICT Projects (Establishing ICT centers, R&D centers, startup labs, capacity building of institutions, etc.), ICT development consulting, supply of ICT equipment and facilities, invitational program for training and education, technical cooperation, dispatch of volunteers, etc.
 - ❖ Rwanda has the largest amount of Korea's ICT ODA among African countries; The country had the top priority of development of ICT for many years.

<Table 6> ICT ODA to Africa

Unit: million KWN

Area	2015	2016	2017	2018	2019	Total
Asia	919 (53.0%)	474 (40.0%)	714 (31.1%)	871 (32.3%)	970 (35.1%)	10,672 (37.0%)
Africa	335 (19.3%)	309 (26.1%)	871 (37.9%)	620 (23.0%)	869 (31.4%)	3,004 (28.1%)

Notes: - % shows the share of total ICT ODA.

- ICT ODA to Africa shared around 30% of total ICT ODA during 2015-2019.

Source: Yoo Jisu and Yoo Sunghoon (2019)

1. Causes of Inefficiencies as a Donor

- Causal factors inducing inefficiencies of ICT ODA to Africa can be summarized as follows.

- ❖ The preparation stage:
 - Limited knowledge about the local ICT environment; a small team numbers visit target countries and prepare proposals
 - Limited number of Korean experts on Africa; neglected to educate specialists
 - Feasibility analysis; not good enough and some discrepancies
 - N-2 rules in Korea's ODA can be flexible, and divide into some categories (complaints from recipient countries)
- ❖ Selection process:
 - Fairness of evaluation, technical evaluation and amount, dumping, entry barriers,
- ❖ The implementation stage:
 - Lack of local knowledge, shortage of experts in designated countries
 - Hardship to find adequate partners from the local market
 - Delays of process; both external factors such as COVID 19 and internal factors
- ❖ After completion
 - Lack of maintenance and sustainability schemes
 - Dispatching ICT volunteers; limited (1~2 years)
 - Shortage of resources for after services

2. Causes of Inefficiencies in Recipient Countries

- African countries need to improve the absorptive capacity of new technologies such as ICT. Causal factors of inefficiencies are as follows.

- ❖ Red tapes(Bureaucracy): long administration processes (corruption)
 - Lack of policy coordination among different ministries and institutions
 - Before, implementation, after completion
 - Delays on decision making with political interest (eg. site, areas, etc.)
- ❖ Shortage of experts: absorptive capacity
 - Knowledge and experience; lack of specialization
 - Execution capacity; difficulties in partnership and co-work
- ❖ Uncertainty of continuity and sustainability
 - Maintenance: lack of skills and technics
 - Shortage of financial and manpower
- ❖ Lack of accountability:
 - Short-termism, lack of long-term vision, Changes in policy priorities
 - Mind-sets; patriotism(?)
 - Dependency, lack of self-esteem and motivation
- ❖ Korea's ICT ODA to Africa reduced E-government's effectiveness by favoring authoritarian recipients (Schoopf, 2019)

3. Suggestions for ICT ODA

- Aforementioned causal factors should be modified. Korea can continue the areas already experienced, but they need to be more consolidated.
- ❖ ICT Infrastructure:
 - Appropriate information technology, ICT-based businesses infrastructure, Internet connection and network systems
- ❖ E-government:
 - Public sector capacity building through extensive use of IT in public administration
 - Policy advocacy for the IT sector
- ❖ E-commerce and Fin-tech:
 - E-commerce platform, Mobile banking platform, Cyber security
- ❖ E-education:
 - Schools, TVET, tertiary education, Training and education of ICT personnel
- ❖ E-health:
 - Mobile healthcare, hospital information system, ICT-based public health system
- ❖ Cross cutting issues:
 - Agriculture, industry, service sector; smart concepts, socio-political implication of ICT

Conclusion

- ICT ODA is one of the most important areas of Korea's ODA, it has been given priorities over the last two decades. African countries are badly need to develop the ICT sector. Korea can be a good partner to improve their ICT capacity.
- ❖ The AfCFTA started in 2021 and Africa is facing a new era for development
 - ICT can improve economic and social development
 - ICT ODA can enhance African development
- ❖ Korea: as a donor
 - Comparative or competitive advantage of the ICT sector
 - Preparation, implementation, and after completion; improved
 - Increase number of experts, and build up capacity of executing agencies
 - Types of ICT ODA should be carefully selected
 - Good partnership with agencies in recipient countries
 - Too many institutions are involved in ODA; should build good coordination among different agencies
- ❖ African countries: as recipients
 - Build up ICT infrastructure and experts
 - Efficiency and efficacy of government policies and coordination
 - Elimination of corruption and bureaucracy
- ❖ Need to put more effort on the effectiveness of ICT ODA

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Thank You!

Q&A