I. Introduction

The 2017 Special Meeting of the Economic and Social Council (ECOSOC) on “Innovations for Infrastructure Development and Promoting Sustainable Industrialization” brought forward the challenges and opportunities associated with the achievement of Sustainable Development Goal 9 (SDG-9) to the attention of Member States and UN partners. The speakers -- leading policy-makers and experts from Government, the private sector and multilateral system -- recognized the urgent need for strengthening and scaling up existing partnerships, building capacities and mobilizing resources to achieve progress on SDG-9, as well as to maximise its positive impact on poverty eradication and sustainable development. Stronger international partnerships and development cooperation that increase access to finance, risk mitigation measures and expertise were identified as effective solutions for overcoming challenges. In this regard, the Programme for Country Partnerships (PCP) and Accelerated Agribusiness and Agro-industry Initiative Plus (3ADI+) are two exciting models of UN system-led and Government owned
initiatives that will work at country level in support of infrastructure, industrialization and innovation.

The Special Meeting was the culmination of several months of in depth substantive preparations undertaken by a UN inter-agency Core Group in partnership with countries and other stakeholders, including through the organisation of two preparatory events in Dakar, Senegal (26 March 2017) and Victoria Falls, Zimbabwe (24-26 April 2017).

II. Key Messages

- Resilient infrastructure and sustainable industrialization are essential for overcoming the greatest global challenge – poverty eradication, especially in Africa and countries in special situations (e.g., least developed countries, landlocked developing countries and Small Island Developing States).
- Resilient infrastructure is also critical to building fairer, more inclusive societies and contributing to the achievement of all SDGs. Investment in innovation and green infrastructure and industrialization can help to promote inclusive growth.
- Infrastructure development and industrialization should be aligned with the objectives of fostering economic diversification and boosting value-adding processes in developing countries.
- In order to bridge the annual infrastructure gap of USD 1 to 1.5 trillion in developing countries, the private sector needs to be involved through various instruments, including public-private partnerships (PPP) and blended finance, among others. Non-traditional financial actors, such as pension funds, should also be engaged.
- Agro-industrialization and agribusiness are promising sectors with the potential for development in Africa and countries in special situations. Policies in pursuit of agro-industries development should be committed to ensuring that food and agricultural systems are sustainable and productive, serving humanity and planet.
- Infrastructure development is a crucial precondition for sustainable agricultural development, including in physical infrastructure and information and communication technologies (ICTs).
- To improve access to financing in this sector, enhanced risk mitigation services are needed for small-holder farmers to spur their contributions to agro-industries development.
- Balanced investments in both rural and urban infrastructure are necessary to bridge the infrastructure gap. This requires enhanced collaboration across line ministries and can be facilitated by multi-stakeholder platforms to match the supply and demand sides.
There is significant scope for the Internet of Things (IOT) to accelerate SDG achievement -- including on SDG-9 -- building on data as this generation’s natural resource.

Innovations in agro-industry and agricultural systems are not always driven by the latest technological innovation. For example, improved coordination and efficiency in storage and at other stages of the value chain can improve productivity, prevent crop loss and empower farmers.

Innovative solutions for infrastructure challenges are often generated at the municipal level. Exchanging such solutions and best practices within networks can contribute to capacity building and accelerate infrastructure development.

Domestic resource mobilization and skills and capacity development at the national level will be critical, but insufficient given the scale of the infrastructure and industrialization challenges in developing countries.

The international community, including the UN system, can play a critical role in assisting countries to overcome these challenges through supporting investment promotion, private sector development, capacity and institution building, social inclusiveness, environmental sustainability, and technology transfer.

ECOSOC should support the scaled-up and expanded versions of the Programme for Country Partnerships (PCP) and the multilateral initiative known as 3ADI+, including through its role as a principal UN organ for policy coordination, integration and follow-up and review with respect to the 2030 Agenda.

III. Opening Session

The 2030 Agenda for Sustainable Development – and its 17 Sustainable Development Goals (SDGs) and targets – recognize the importance of infrastructure, industrialization and innovation for eradicating poverty and expanding opportunities for people, especially the poorest.

There was a strong emphasis in the opening session on the catalytic and cross-cutting role of infrastructure development and sustainable industrialization to implement the 2030 Agenda. Making progress on SDG 9 on infrastructure, industrialization and innovation will also have positive ripple effects on other SDGs, such as: SDG 1 to end poverty; SDG 2 on zero hunger; SDG 3 on health; SDG 4 on education; SDG 6 on water and sanitation; SDG 7 on affordable and clean energy; SDG 8 on decent work and economic growth; and SDG 11 on sustainable cities and communities, among others.

In recent decades, experience has shown that countries and regions that have successfully developed their manufacturing sector have made impressive progress in reducing poverty. Between 1990 and 2013, countries in East Asia that largely focused on industrialization have decreased the number of people in poverty from almost 1 billion to 71 million. More recently, African countries and Least Developed Countries (LDCs) have been increasingly pursuing industrialisation.
LDCs must still overcome many challenges if they are to eradicate poverty through industrialisation. In these contexts, industrial capacity, technology, and productivity remain low, and manufacturing employment as a share of total employment still remains relatively small. Advances are not keeping pace with the speed required to achieve the SDGs by 2030. Additionally, most LDCs lack adequate capacity to ensure high quality social and environmental standards in industry. Attracting investment in these countries continues to be a challenge with the costs of doing business still too high to be competitive.

Other challenges include urbanization, with the number of people living in cities in emerging markets expected to double by 2030. Furthermore, there is a need to build and apply effective technology for resilient infrastructure and industrialization in rural areas and in support of smallholder farmers who often live in concentrations of extreme poverty in many countries.

Given the scale of the challenges, the achievement of SDG-9 will need to be prioritized in national, regional and global policy making. The global financing gap for infrastructure in developing countries is estimated to be between $1 trillion and $1.5 trillion annually. 1.1 billion people in the world lack electricity – 95% of which are in countries in sub-Saharan Africa and developing Asia.

The Programme for Country Partnerships (PCP) is UNIDO’s innovative model for accelerating sustainable industrialization. Led by host governments, UNIDO and host country counterparts develop a strategy that includes identifying priority industrial sectors, namely those with strong potential for job creation, increasing exports and attracting foreign direct investment. A promising example is the newly inaugurated integrated agro-industrial park in Ethiopia, which is expected to create around 134,000 new jobs in the region.

The Accelerated Agribusiness and Agro-industry Initiative (3ADI+) can help to significantly boost infrastructure and ensure sustainable industrialization. The purpose of 3ADI+ is to accelerate the development of the agribusiness and agro-industries sectors in participating countries by supporting an investment programme that significantly increases the proportion of agricultural produce that is transformed into differentiated high-value products. 3ADI+ builds on FAO and UNIDO know-how in order to facilitate public and private investment and unlock the full potential of large-scale funding from development partners, such as the International Fund for Agricultural Development (IFAD), the African Development Bank and other development finance institutions.

IV. **The Infrastructure-Industrialization Nexus**

Most global agreements (2030 Agenda, Addis Ababa Action Agenda, the Paris Climate Agreement) and regional roadmaps (African Union’s Agenda 2063) recognize that eradicating poverty requires resilient infrastructure and sustainable industrialization. Investments in infrastructure development and industrialization are mutually reinforcing.
Innovation helps countries and their partners to make progress on sustainable industrialization and inclusive growth. Advances in science, technology and innovation can help to maximise the benefits from the infrastructure-industrialisation nexus. At the same time, the impact of new technologies -- some of which are disruptive in nature, difficult or expensive to access and could exacerbate inequalities -- is an important consideration for developing countries, particularly with respect to employment and the need for capacity development. Participants emphasized the importance of developing a favourable, legal, policy and social environment in order to support and integrate innovation in a sustainable and inclusive manner.

Among the challenges to economic growth, participants highlighted the insufficient level of both hard and soft infrastructure. Infrastructure development, industrialization and diversification of value-chains are processes that must be explored in an inclusive way so as to advance women and youth empowerment. This process requires more than investments in large public works and transport projects. It must also be supported by investments in human capital and productive capacities, as well as by an enabling trade environment.

Many developing countries rely heavily on natural resource commodities exports, and are thereby vulnerable to commodity price fluctuations. Infrastructure development and industrialization must therefore be oriented towards fostering economic diversification and boosting value-adding processes. This would lead to a structural transformation, as well as to greater competitiveness on global markets, economic growth and ultimately poverty eradication.

It is important that the infrastructure-industrialization nexus be developed on a country-specific basis. All policies must be coordinated at the national level. An example from Uganda highlighted how infrastructure development is coordinated by seven ministries, including the ministry of education and sports, the ministry of local development and the ministry of ICT.

A study conducted in 2015 by UNECA and NEPAD showcased great potential for domestic resource mobilization. Estimates show that for Africa, remittances amount to USD 62 billion annually, illicit financial flows out of Africa amount to USD 50 billion annually, exports of mineral resources generate approximately USD 168 billion and stock market capitalization could contribute USD 1.3 trillion per year. There is therefore great urgency and value in focusing policies and building appropriate partnerships to unlock this potential.

In order to bridge the annual infrastructure gap of USD 1 to 1.5 trillion for developing countries as a whole, the private sector needs "a seat at the table", including through various instruments such as public-private partnerships (PPP) and blended finance. Furthermore, developing a meaningful policy and regulatory environment will create a business-friendly environment for local entrepreneurs and enhance private sector engagement.
Innovative approaches must be developed to incentivize new actors such as venture capital funds and pension funds. Twenty-eight of the 52 pension funds in Africa are valued collectively at USD 1.4 trillion. In the past year, they invested about USD 42 billion in various African sectors. Infrastructure projects can be reclassified as an asset class in order to attract such an under-utilized investment source. Relevant UN entities, multilateral development banks and international financial corporations can provide support through capacity building and project preparation.

The support of the international community will be essential to achieve all those objectives. The BRICS (Brazil, Russia, India, China and South Africa) group of countries consider industrialization as the core of their development cooperation policy. In addition to supporting capacity development and investments in science, training and innovation, this also translates in financial cooperation such as through the New Development Bank. This institution will open its first regional office in Africa, the Africa Regional Centre, in order to carry out the same efforts it has undertaken in Asia. As an example of a regional initiative, NEPAD, African Development Bank and African Union developed the Service Delivery Mechanism to support the Programme for Infrastructure Development in Africa (PIDA). PIDA focuses on key regional, transboundary infrastructure development. The Continental Business Network (CBN) was also established to support the involvement of the private sector.

Africa’s contribution to global growth is estimated at 0.1%. Moreover, African countries, Least Developed Countries, Landlocked Developing Countries and Small Island Developing States experience declines in marginal value-addition in the share of global output. SIDS and LLDCs also face specific constraints and heightened needs for adequate infrastructure due to their geographic isolation. In order to industrialize and develop sustainable infrastructure, countries in special situations will need to innovate both technologically and institutionally, with the support of the international community, especially in the area of technology transfer. Participants highlighted the importance of operationalizing the technology bank.

V. The Potential of Agro-industry and Agricultural Systems

The potential of agro-industry and agricultural systems to contribute to sustainable development was discussed in detail at the preparatory expert group meeting in Victoria Falls. Many of the main recommendations and conclusions emerging from that meeting were reflected in the discussion at the Special Meeting, with various key challenges facing developing countries. In particular, the lack of technology and skills, as well as the inability to access finance, especially among smallholders and medium-sized actors, were highlighted by many participants.

With respect to Africa’s agricultural sector, productivity, market access and financing are clear challenges. Agriculture accounts for a quarter of GDP of Africa. Yet, it lags behind in many aspects of agricultural productivity; for example, Africa’s cereal production yields are only 50% of the international average. Furthermore, $US 200 billion worth of
food is imported by the continent each year. The issue of increasing small holder farmers’ productivity is key for spurring agricultural development in Africa.

The importance of value addition in agriculture and agro-industry was emphasized. Adding value means greater opportunities for poverty reduction and inclusive growth. Value addition through agro-industrialization can substantially reduce food loss, since processed products can be successfully stored for longer periods and be transported more easily.

In the area of financing, de-risking agricultural processes of small-holder farmers is crucial. Encouraging investments from the private sector requires context specific approaches. Engaging small-holder farmers can be achieved through new technologies that can help them to meet quality standards and integrate them into the value chain. Small-holder farmers can be grouped together through partnerships to reduce transaction costs in market places and bring their products to the market.

The Internet of Things (IOT) can also accelerate SDG achievement. In the agricultural realm, yield increases are necessary to support the 2030 Agenda and SDG2. While the exploitation of more arable land and relying on genetic improvements will only make marginal contributions to yield increases, knowledge and data powered by IOT technology can optimize cultural practices in an economically and ecologically sustainable way. This can include knowledge on what to plant, when and how to plant as well as when, how much and how to irrigate, fertilize and protect. Cost effective digital sensors for use in agriculture can support such measurements and generate this knowledge and data.

Efficient storage systems are also essential for sustainable agriculture as they minimise crop loss and can empower farmers. Warehouse receipt systems have been developed to benefit farmers and other stakeholders. The national and local contexts need to be considered, particularly with regards to the availability of storage and other infrastructure.

Participants noted that addressing single issues will not enable the strategic shift necessary to achieve sustainable food systems. What is needed is a shift from disjointed, individual projects to more systems-oriented partnerships. Such an approach would bring all stakeholders together from a given system – in this case, the food system – to agree on common objectives, provide mutual support and ensure decentralized action in a coordinated way.

Current food systems are not sustainable as agriculture is responsible for 70% of water withdrawal globally and 30% of greenhouse gas emissions. The “Grow Africa” and “Grow Asia” partnerships, supported by the World Economic Forum with regional partners such as NEPAD and ASEAN, respectively, help to encourage investment and capacity-building throughout the food systems.
Country-led approaches to improving market-based solutions in the agricultural sector should involve national stakeholders working to change value chains. At the same time, there should be a clear understanding of the strengths and weaknesses of multi-stakeholder approaches in different contexts and in facing certain challenges, given that these sometimes involve high transaction costs.

VI. Building Capacities and Mobilizing Resources

Infrastructure is critical to building inclusive societies and to achieving progress in all SDGs, particularly through bridging the digital divide and enabling access to renewable energy for all. While there seems to be consensus on the benefits of infrastructure development, the amount invested world-wide in infrastructure falls short of what is needed. Official Development Assistance (ODA) remains the main source of support for infrastructure projects in developing countries. Leveraging private funds with public resources is required to accelerate infrastructure development, yet the mobilization of blended finance remains challenging in many countries.

Participants noted that some sectors in which infrastructure development is needed most, such as network industries or green technology, are often highly regulated. Consequently, entry barriers, cartels, lack of transparency in public procurement, risk of corruption and little competition, work to hamper the creation of a favourable business climate for infrastructure projects across the globe.

To mitigate the risks associated with infrastructure investments, panellists showcased best practices and lessons learned from various national and international experiences. Policy interventions such as the development of principles for long-term investments and designing legal frameworks for public-private partnerships have proven successful to provide guarantees for all actors involved in infrastructure projects.

Innovative solutions exist at the municipal level, at which it is critical to ensure that local investment is transparent and that public expenditures enjoy the support of citizens. Examples of multi-stakeholder partnerships at the municipal level include social housing projects for which the city provided the land and the private sector the construction material. Furthermore, local authorities play a critical role as conveners, bringing together universities, the private sector and local and regional authorities in high tech parks. To ensure that the latter contribute to the local economy in a sustainable way, tax support is provided by the local government for installing solar panels.

Designing resilient and climate-sensitive urban infrastructure is critical in this regard and is a major concern to many countries. Innovative infrastructure solutions generated at the municipal level can be exchanged in networks of cities facing similar sustainable development challenges, and ultimately contribute to capacity building. For example, 200 small and medium sized cities in Argentina have created a network to exchange best practices and lessons learned. Many of the members of the network have either developed local action plans to mitigate the impact of climate change or set goals to
reduce greenhouse gas emissions. Common indicators have been adopted to measure and compare results achieved.

Sustainable public affairs management constitutes a critical and smart tool to design urban infrastructure that generates benefits across the three dimensions of sustainable development – economic, social and environmental – and at the same time mobilize the resources needed to build and sustain it.

The link between industrialization and urbanization also needs to be reconsidered in order to achieve SDG 9. While industrialisation can lead to urbanization, it is not a causal consequence thereof. Balanced investments in both urban and rural industrialisation are critical to bridge the infrastructure gap, yet few countries have done so. Enhanced communication and collaboration within and across line ministries at the national level, as well as within and across international organizations and multilateral development banks, would allow a holistic approach to tackling industrialisation and infrastructure challenges.

Farmers should be considered essential partners in “public-private-producer-partnerships” to foster sustainable and resilient agriculture. The latter requires access to finance and capacity building which remain major concerns to smallholder farmers. Assisting farmers to collaborate in farmers’ organizations or cooperatives to advocate for their needs can facilitate the mobilization of resources for infrastructure projects, such as irrigation systems which are particularly needed in Sub-Saharan Africa. Technical cooperation provided by international organizations should also include capacity building for domestic resource mobilization.

Some countries have been able to engage the diaspora in investing in infrastructure projects and by creating one-stop-shop investment centres which enable the government and the private sector to process direct investment into the required infrastructure. Tailoring capacity building support to the different levels of development of countries and connecting the supply and demand sides for investments were highlighted as critical elements to accelerate infrastructure development, industrialisation and innovation.

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