



**COVENANT UNIVERSITY, OTA
COLLEGE OF ENGINEERING
DEPARTMENT OF CIVIL ENGINEERING**

COMMUNIQUE FOR ICSID2020

The 2nd International Conference on Sustainable Infrastructural Development (ICSID 2020) brought together notable scholars, experts, governmental agencies, policy makers, industrialists, professional bodies, and students to share ideas on issues pertinent to sustainable infrastructural development. This conference, organised by the Department of Civil Engineering, Covenant University, Ota, Nigeria, held from July 27th to 28th, 2020. Due to the Covid-19 pandemic and the consequent world-wide safety measures such as social distancing and ban on traveling, this year's conference held virtually. The Vice Chancellor of Covenant University, Professor AAA Atayero, ably represented by the Deputy Vice Chancellor, Professor Akan Bassey, welcomed every participant and officially declared the conference open.

Two plenary sessions addressed different aspects of Sustainable Infrastructural Development on each of the days of the conference. On day 1, international speakers made their presentations. Prof Innocent Musonda from the University of Johannesburg, South Africa spoke on "Building Sustainable Infrastructure in Post Covid-19 Era". while Dr. Nadine Ibrahim of the University of Waterloo, Canada, spoke on "Sustainability of Urban Infrastructure in Cities, Megacities, and Megaregions". On day 2, Dr. Thomas B. Eyo from the Federal Roads Maintenance Agency, FERMA, Abuja, Nigeria, presented on "Research and Development: Adoption of Innovations and Technologies for Sustainable Road Infrastructure".

Furthermore, of the over 200 abstracts and full papers received for the conference, 152 were accepted for the conference and packaged in the conference book of abstracts. Six breakout sessions were held on the basis of the conference themes and 76 presentations were scheduled for each day of the conference. Zoom platform was made available for the registered participants to present papers on the following sub-themes:

Sustainable Water Resources and Environment,
Sustainable Housing and Construction Management,
Sustainable Construction Materials,
Sustainable Infrastructure, Project Management and Computational Modelling,
Geotechnics and Transportation Infrastructure,
Social Development Issues.

Most of the presentations addressed challenges related to the Sustainable Developments Goals (SDG's) of the United Nations. The SDG contents of the presentations at the conference covered SDG goals 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 15 and 17.

The 1st keynote speaker, Professor Innocent Musonda, stated that providing infrastructure is an imposing challenge in Africa and there is growing gaps between supply and demand of basic

infrastructure and services such as electricity supply, water access, sewer and waste removal and transportation.

Based on the report of Hoornweg and Pope (2017), African cities will make up the 13 of the top 20 cities worldwide in population by 2100. Ongoing discussions on infrastructure emphasize its impact on sustainability and this stands out as the direction to go in the post COVID-19 era. Infrastructure is critical as it enables economic growth and socio development, among others. Project organization can also be influenced by voids in certain sectors and these voids need urgent attention. Example of these voids are institutional voids and infrastructural voids. These voids create opportunity for public and private institutions to work together to create appropriate values for the society.

He concluded by stating that sustainable infrastructure will be achieved through goal-oriented developments, Public and Private Partnerships (PPP), local centric thinking, data rich environments, collaboration and stakeholder involvement and de-politicized infrastructure development.

The 2nd keynote Speaker, Dr. Nadine Ibrahim emphasized that by 2050, the top 10 countries with the highest increase in population will be in African. She showed the difference between urban setups in developed world, developing world and the underdeveloped, and stated that the story of a city tells us much about its Green House Gas (GHG) emission. It was shown that the trend of data on prosperity of world mega cities is linked with the increase of Green House Gas (GHG) emissions, except for London that is increasing in prosperity but with reduced emissions. Mega cities were said to contain 10 million or more people and contribute the highest amounts of energy consumption in terms of waste disposal, gas emissions, while contributing about a quarter of the GDP.

While on the sustainability assessment of megaregions around the world, Dr. Ibrahim narrowed to the Western African mega region and identified the rural density, city populations and urban catchment areas. Focusing on Lagos, Nigeria, the bio-physical and socio-economic indicators were shown. At that point, it was emphasized that rapid growth is difficult to manage but must be planned for.

The speaker concluded the presentations with remarks on sustainability strategies, indicating that buildings, transportation, waste management, water and wastewater as the areas that need more urgent intervention. Buildings needs to be designed to utilize renewable sources and reduce cooling and heating loads. Non-motorized forms of transportation, alternative fuels and electric vehicles should be the focus of new investment. Waste-to-energy and recycling will be of great benefit to the society. Re-use of non-potable water should be encouraged, while rainwater harvesting should be maximized.

The 3rd keynote speaker, Dr. Thomas Eyo stated that questioning conventional wisdom is the origin of research and that innovation is the answered question to a successful research. He emphasized that sustainability is the application of innovations to meet the needs of the present without compromising the ability of future generations to meet their own needs.

He went on to showcase road products and materials, technology, intermediate equipment, and publications that he pioneered and advanced as the Director of Research and Development at the Federal Roads Maintenance Agency (FERMA). Standing out among the FERMA road products is Road Mat, a prefabricated road maintenance product (for sealing potholes). This

was produced on kraft paper by compacting mixes of bitumen, crumb rubber and aggregates of various sizes to suit intended usage.

Pavement Resurfacing by Fumigation technology, Central Plan and Cold Planning Asphalt recycling technologies were showcased among the FERMA road technologies. He emphasized that the re-use of materials that have served its first intended purpose in road maintenance led to savings of about 40-80% in the use of pavement materials, conservation of bitumen and aggregates, energy saving, shorter construction time and reduced downtime on road blockage for maintenance.

We trust that the presentations at ICSID2020 will serve as a catalyst to collective engagements by researcher, policymakers, industrialists towards addressing the challenges envisaged in the Sustainable Developments Goals.

We greatly appreciate all the participants and every one that helped to make this conference a success. We look forward to a more enriching future edition.

Thank you.