

An Introduction to Grand Challenges Nigeria

Speech Presented at the Occasion of the Official Launch of Grand Challenges Nigeria

Professor Folake Samuel PhD. (Ib), FNSN, FPMA-UK Program Director and Technical Lead Grand Challenges Nigeria

Banquet Hall, Aso Rock. Presidential Villa November 18, 2024



Protocols.

Distinguished guests (joining us both physically and online), partners, ladies and gentlemen.

Today's event crystallizes nearly a year's work for Grand Challenges Nigeria in defining why we exist, the impact we hope to make, and how we will go about this assignment. To start, I would like to offer some context on what we mean by a "Grand Challenge."

The concept of 'Grand Challenges' is traced back to the year 1900, when the renowned Mathematician, Dr David Hilbert, presented a list of 23 unsolved "mathematical puzzles" that galvanized and focused the efforts of mathematicians for the entire 20th century and beyond. Hilbert's Grand Challenges framework has since influenced some of humanity's most ambitious projects, from placing a man on the moon, to eradicating polio, to mapping the human genome. The well-known Millenium Development Goals (MDGs) and Sustainable Development Goals (SDGs), as well as the effort to develop a COVID vaccine also follow this framework. So, what is the framework of a Grand Challenge?

Grand challenges are not merely routine research questions; they are visionary directives that:

- 1. demand achievable solutions to exceptionally difficult problems;
- 2. produce outcomes potentially affecting millions, if not hundreds of millions of lives;
- 3. require a multidisciplinary approach, mobilizing research across various fields;
- 4. consist of well-defined metrics such that, through creativity and commitment, can be realistically met and one knows the end has been reached;
- 5. capture the popular imagination, and thus political support.²

In 2003, Grand Challenges in Global Health (GCGH) were proposed as a research initiative launched by the Bill & Melinda Gates Foundation in search of solutions to health problems in the developing world³. Starting in 2010, funders in many countries began to establish Grand Challenges (GC) initiatives – including in Brazil, India, South Africa and a pan-African program, among many others. These initiatives work independently and together as part of the Grand Challenges Network of partners, who use the GC model to accomplish dual objectives: identifying and supporting innovative

¹ Singer & Brook, 2001.

² Michael Gould. "How can research and technology in this field address big-picture problems", GIScience Grand Challenges, 2006.

³ Varmus H., et al., 2003.



solutions to the world's toughest challenges, while at the same time fostering and strengthening innovation ecosystems in places where it will have the most impact. Grand Challenges also offers a model that other funders and governments - particularly those in Low- and Middle-income countries - can use to dedicate more resources to scientific discovery and innovation in health and development. This approach fosters scientific collaboration at local, regional, and global levels, supporting an ecosystem of interconnected researchers and innovators. Although records have shown that individual Nigerian innovators have benefitted from existing GC initiatives, there is no Grand Challenges Nigeria program focusing on the unique local context, issues and needs of Nigerians... until now. Today, that changes as Nigeria joins the Grand Challenges Network of partners which together, seeks to intentionally build and strengthen communities of innovation funders, and support and connect grantees to a global network that boosts their potential.

It is a great honour to introduce Grand Challenges Nigeria (GCNg), a national project of the Federal Government of Nigeria, anchored in the Office of the Vice President and the Federal Ministry of Innovation, Science and Technology. GCNg is implemented by the Nutrition Society of Nigeria, having raised initial funding and garnered the support of Government and non-government partners, for seeding, scaling up, and sustaining innovations in health and development in the country. These partnerships ensure that GCNg aligns with national priorities, leveraging Nigeria's existing strengths in science and innovation. This collective effort stands at the forefront of tackling some of Nigeria's most pressing health and development challenges, which pose formidable barriers to the country's social and economic progress.

Our mission at GCNg is to build a platform for jointly identifying strategic areas for investment and innovation, fostering a dynamic ecosystem where Nigerian innovators, researchers, and practitioners unite to address local grand challenges. We recognize that incremental change is insufficient; Nigeria needs transformative, science-driven solutions capable of achieving meaningful impact at scale. We aim to create opportunities for locally grounded, multidisciplinary solutions, ensuring that investments do not only address critical gaps but also build upon and amplify the successes of ongoing initiatives.

Allow me to illustrate our approach with a simple yet profound example: the evolution of the mechanical door lock. The door lock began as a simple solution to a universal challenge: the need for security. This modest invention—the pin lock—originated around 2000 BCE in ancient Egypt here in Africa (where a lot of good things originate,



like 'man' for example). Initially crafted from wood, the pin lock has evolved over the centuries with refinement by other innovators into the sophisticated locking systems we rely on today. It is remarkable how such a seemingly simple idea has shaped the course of human civilization. Similarly, the Grand Challenges Nigeria, though still in its early stages, aims to drive transformative change, harnessing innovation and in-country expertise to build a brighter future for our nation. With sustained national support, this initiative can grow, adapt, and scale, just as the door lock did, expanding from a simple concept into a lasting, powerful solution that safeguards our collective future.

Today, various experts and allies will present you with the difficult development issues that Nigeria faces and, using the Grand Challenges framework of focused, collaborative innovation, show our approach to contributing to the various efforts to address these issues. We will also announce our first Request for Proposals which will define the first of several issue areas that we will galvanize effort around for Nigerians. We hope to leave you inspired.

Whenever I look at the deep orange of the Grand Challenges Nigeria brand colour and the circle in the logo, I am reminded of the orange colour of the African sunrise and sunset which sandwiches a day's work. Today is our sunrise. Between today and the sunset of the issues we hope to solve there will be many hard days' work. Over the next decade, and beyond, the Government of Nigeria, through Grand Challenges Nigeria will work with esteemed partners, whom we gratefully acknowledge – Nutrition Society of Nigeria, the Nigerian Institute for Medical Research, the Nigerian Stored Products Research Institute, Dalberg Global Development Advisory, the FHI360/Alive & Thrive Project, the Aliko Dangote Foundation, and others who will join us later to create meaningful improvements in the lives of Nigerians across health, food systems, and development.

This is why we exist.

Let me end by thanking all of you for being here today to lay this foundation with us. On behalf of the Nutrition Society of Nigeria and the Governing Board of the newborn Grand Challenges Nigeria, we extend our immense appreciation to the Grand Challenges Network of partners for the welcome and support accorded to us from inception. Special thanks must also go to the Office of the Vice President and the Federal Ministry of Innovation Science and Technology for their incredible support as they worked tirelessly with the GCNg Governing Board and GCNg team towards the success of this launch.



I invite you all to join us today in this work of fashioning one more key to the doors that Nigerians must get through. Thank you.

END.