

**Speech of Speaker Gloria Macapagal Arroyo
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Officers and members of the IPU, thank you for the privilege of addressing a most timely theme: promoting peace and development in the age of innovation and technology.

Parliaments and parliamentarians can better promote and develop science, technology, innovation and STEM education in two ways: first, by providing the adequate budget, and second, by legislating the needed enabling legal and regulatory framework.

Innovation and technology should be primarily guided by the market. This means that Parliaments and parliamentarians should only intervene based on three considerations: first, to ensure the sustainable wellbeing of future generations. This is why in the Philippines we are considering a legislative and regulatory framework for nuclear energy development. Second, to manage the balance between science and ethics regarding such controversial issues as artificial intelligence, biotechnology and genetic engineering. In the Philippines, we are considering a bill on GMO labeling. Third, interventions should not be ideology-based but rather evidence-based, using appropriate monitoring and evaluation tools for policy-making. Thus, parliaments must be willing to work hard to deal with a large volume of information but must have the collective experience to quickly discern what is merely important and what is truly essential. They must have a solid disciplined information management infrastructure at their disposal.

On adequate budgetary support, there are international benchmarks to serve as guides. For instance, a UNESCO benchmark developed a decade ago said that modernization needs a critical mass of 340 R&D-capable manpower per million of population. To achieve that benchmark, parliaments and parliamentarians can provide the budget to encourage more youth to pursue scientific and engineering studies. In 2007, the Philippine Congress provided a \$90 million budget to begin such a program, called Engineering Research and Development for Technology or ERDT. Some members of our Congress who gave their support are with us today, namely: Senators Franklin Drilon, Ralph Recto and Panfilo Lacson. An international scientific cooperation with Silicon Valley, ERDT had four components: first, scholarships

aimed to produce a critical mass of research-trained engineers with PhD and Masters' degrees; second, research and development; third, infrastructure development, particularly academic facilities for engineering; and fourth, faculty development.

International scientific cooperation models promote modernization and dialogue and peace. One good practice of such cooperation is the 1979 Malaysia-Thailand agreement to jointly explore oil and gas in a disputed offshore zone in the Gulf of Thailand. That model inspired the 2004 Joint Seismic Marine Undertaking of the Philippine National Oil Company, the China National Offshore Oil Corporation, and the Vietnam Oil and Gas Corporation in disputed areas in the South China Sea. Last August, Philippine President Rodrigo Duterte approved the Secretary of Foreign Affairs' proposal for an experts group from the government, academe and the private sector to look into the legal and other aspects of a proposed joint exploration between the Philippines and China in the South China Sea.

International cooperation models, whether scholarships in advanced engineering R&D or joint research or exploration undertakings, are conducive to supporting the 2030 Sustainable Development Goals or SDGs. Innovation and technology are integral to the SDGs, most importantly, the SDG goal 1 of poverty reduction and particularly the other goals on affordable and clean energy, on industry, innovation and infrastructure, and on climate action. The Philippine Congress recognizes the role of innovation and technology in the proposed Department of Disaster Management.

Finally, and consistent with our emphasis on improving the utilization of human resources under humane conditions wherever they may be, allow me to reiterate the full support of the Philippines for IPU initiatives to promote and facilitate implementation of the Global Compact for Safe, Orderly and Regular Migration (GCM).

Indeed, as parliamentarians, there is much that we can do to help ensure that the SDGs are fulfilled, and that we harness innovation and technology to meet the Goals for peace and development. Thank you.