The Summer School on Modelling Tools for Sustainable Development

UNDESA, UNDP, ICTP, Cambridge University, KTH[1]

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Concept Note

The Summer School on Modelling Tools for Sustainable Development has two major objectives. It seeks to deepen the modeling skills of government officials and academics to inform sustainable development policies through more than 100 hours of intensive training sessions combining analysts from governments and academics. Government officials from countries participating in UNDESA and UNDP capacity development projects on modeling tools will interact with graduate students and researchers interested in contributing to the practice of providing rigorous evidence for decision making on sustainable development policies. Ensuring a flow of robust evidence is not enough; efforts must be exert to make the best possible use of evidence. The Summer School also seeks to enrich the discussion on how sustainable development challenges are being perceived by countries, assess the relevance of capacity development practices on the use of modeling tools, and identify ways in which capacity development on modelling tools can better inform the design of policies for sustainable development.

The training sessions of the Summer School will gather, between 12 and 28 June, 30 government officials and 15 academics under the guidance of experts from KTH, Cambridge, IASSA, UNDESA, FAO and other institutions. The high-level meeting will host a candid and incisive exchange of views, on 29 and 30 June, among Ministers and high level government officials from several countries, the Director of Development Policy and Analysis at UN-DESA, and the Director of Strategy and Policy from UNDP, and high level representatives from selected Universities.

BACKGROUND

The international commitments adopted by countries in 2015 pose serious challenges for policy decision makers. Among them, the 2030 Agenda for Sustainable Development and the Nationally Determined Contributions of the Paris Agreement under the United Nations Framework Convention on Climate Change. The 2030 Agenda for Sustainable Development endorsed by UN Member States in September 2015 is a commitment of every country to engage in transformative policies and actions leading towards sustainable development. The Agenda's 17

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global sustainable development goals (SDGs) and 169 targets encompass a wide range of imminent demands from eliminating widespread poverty, rising inequalities and power disparities to addressing environmental degradation, human health and the risks posed by climate change.

Building a transformative development path in line with the development aspirations of countries and the 2030 Agenda is an enormous challenge. Devising and implementing effective sector policies addressing particular Goals and Targets is already a tall order; addressing them in a coherent and inclusive manner with measurable progress is a much bigger challenge as it implies dealing the fact that the three dimensions of sustainability as the SDGs and targets are intimately interlinked. Advancement in one goal may re-enforce progress another goal, but it might also constrain or even regress advances in other goals. Realizing the vision of the 2030 Agenda poses serious implementation challenges for policy decision makers, who need to devise strategies to fulfill national development aspirations in pathways consistent with global goals and targets. Policy makers are often confronted with the complexity of formulating transformative sustainable development policies with evidence based on sectorial approaches. National implementation of the 2030 Agenda and NDCs require to simultaneously taking into account the impacts of policies on the three dimensions of sustainability. It requires integrated policy making across sector boundaries.

A cursory glance at the 17 SDGs suggests that their implementation remains the domain of the traditional competencies of ministries and institutions. Indeed, these organizations will retain their core competencies and responsibilities, their decision making now needs to take into consideration possible impacts their action may have on other sectors. In short, integrated policy making across traditional sector boundaries extends sector-specific planning and decisions making but does not replace it.

MODELLING FOR SUSTAINABLE DEVELOPMENT

Scientists of all disciplines tackle complexity with mathematical models. These are simplified images of real life systems that depict the most essential interdependencies. In the context of Agenda 2030, interdependencies include the SDG interlinkages. Mathematical modelling has long been an important tool to explore, compare and test policy options, design policies to simultaneously meet multiple ends, explore numerous what-if questions. This can be done for one or more national priorities or SDGs. The result is bound to improve both the speed and information needed for integrated policy decision making. Well supported sector-specific policies that simultaneously account for multiple inter-linkages can assist overcoming the silo approach to policy and lead towards the transformative changes envisioned by the 2030 Agenda.

Model design, calibration and skills transfer

Together with leading academics, UN-DESA, UNDP and partners have developed a suite of modelling tools to assist policy makers and development practitioners as they prepare their national agendas for sustainable development. Each country is different, with different socio-economic structures, varying national development priorities and policy challenges. Useful models need to be tailored to the conditions in each country and main policy questions. Each model is made-to-measure using national data, statistics and other relevant information. This indispensable expertise and knowledge resides with the government offices and expert community in each

country. Designing national models, therefore, demands close participation of government representatives, analysts and decision makers in the model development process.

Close involvement of local experts not only improves model quality but also serves as part of national capacity building in their use. Models can only be informative decision making tools if government offices possess the technical capacity to operate the models, interpret results and communicate the policy insights. Model design, calibration and transferring the prerequisite skills all require time - on the order of 9 to 24 months and more. It is a lengthy but highly rewarding investment that leaves lasting technical expertise in countries acquiring these skills. After all, policy making is not a one-time affair.

THE SUMMER SCHOOL

Intensive hands-on training

The three-week training of the Summer School will combine the academic rigor with the pragmatism needed to address the complexity of designing effective and realistic policies for sustainable development for the 2030 Agenda, including the interlinked 17 Goals, its 169 Targets, and the Paris Agreement. During the intensive training sessions and laboratories, experts from developing countries will work on model adaptation to national circumstances, translation of policy questions and issues into model interpretable formats, interpretation and presentation of results into policy relevant form. Academics participating in training will learn the techniques and methodologies relevant for rigorous model formulation that meets the stringent demands of the modeling practice to inform policy decision making. The overarching goal is to sharpen participants' modelling skills to a point where government officials can operate and enhance their national models independently, incorporate new and evolving policy issues and with little further assistance, and academics can usefully contribute to this process by incorporating frontier academic knowledge in the respective fields.

High level meeting

The high-level meeting will mark the culmination of the more than 100 hours of intensive training on modelling tools for sustainable development. The high-level meeting seeks to host an enriching discussion on how sustainable development challenges are being perceived by countries, assess the relevance of capacity development practices on the use of modeling tools, and identify ways in which capacity development on modelling tools can better inform the design of policies for sustainable development. To accomplish its objectives, the meeting will host presentations demonstrating what has been accomplished to date, including several newly articulated national strategies and policy notes. Presentations will attempt to demonstrate how modelling tools can help improve policy support and decision making by:

- Unveiling the interlinkages –trade-offs and synergies—within and across different policy areas.
- Raising awareness about the time commitment required for capacity building,
- Exchanging views on the usefulness of the tools, identify gaps
- Discussing the way forward.