**A New Outlook and Emerging Needs of Education Systems for Addressing Impacts and Challenges of Coronavirus Era**

The main focus of the 23rd Sustainable Development Conference 2020 is the impacts of coronavirus (COVD-19) and the resulting fast changing scenario, in almost all walks of life, since the outbreak of the pandemic. Education, a fundamental human right and a dire need, is no exception and is among the most severely hit, not only in its outreach and delivery to one and all across every country, but also in keeping its relevance and adequate quality, from the point of view of employer requirements and expectations; employees essential knowledge and skill; and the market demand, itself also fast changing in many ways because of the pandemic.

Due to the very threats to the lives of both learners and trainers/educators, in the prevailing COVID-19, almost everywhere, both learners and educators/trainers cannot be physically present (face to face) at a learning place, as was the case in pre-COVID-19 days. Traditional education systems at all levels (nursery, primary, secondary, graduate and post-graduate), for obtaining formal or non-formal education, leading to desired targeted qualification awards – diploma, certificates or degrees – have to be rethought.

Quality and relevant 'Education without Physical Presence,' at all levels, appears to be the only option, the very need of the hour and a main fundamental challenge, in the developing countries, including Pakistan, our South Asian neighbours and in Asia, in general; and perhaps to a lesser extent, also in the developed countries. Out of sight learning and education imparting from a distance, by employing appropriate technologies can be one viable approach which is a mega change from exclusively physical to an online education system. If adopted, it would most obviously be confronted with new emerging many challenges for all the stakeholders involved with education, including the planners, facilitators, public & private sectors, educational institutions, parents, teachers and students.

The first and foremost consideration for education planners is to adopt the new online distance learning and education as a 'Stop Gap' arrangement, but the question is for how long, and on permanent basis or not. What would be the fate of the new system and the invested resources, if and when normalcy returns, to restart the old system? Timing and scope, as when to be adopted, if in phases or across the country are to be very carefully and realistically considered. What would be the fate of the huge existing physical infrastructure? Many university campuses already look like ghost towns. Would the existing pre-COVID-19 educational governance and administrative system continue to be relevant and still required? What impacts will the new system have on female education opportunities and student drop-out in general?

For effective online distance learning and education, among the very fundamental needs are access to reliable technology (broadband computers and fast Internet), digital learning and skill acquirement, both for the learners and educators, strong IT material support and IT experts in rural,

urban, near and far off developed and underdeveloped areas across every country, especially Pakistan.

Review of pre-COVID-19 traditional curriculum and its revision to move towards online learning and education, is another vital issue for consideration. Whereas, it may not be much of a challenge for arts and social disciplines, for physical sciences, medical and engineering, the provision of laboratory work, imparting hands on training, practical demonstration and skill enhancement (essential for the respective disciplines) cannot be left out to maintain social distancing. Could this be left to the respective future employers to manage and provide, as per job need, with practical training on-site or a 'Hybrid/Blended' educational system (a mix of online distance learning and partial return to physical learning and education) needs to be looked into, with all its related issues and requirements, such as smart part-time reopening of the campuses and educational institutions, preparation for the same, including on the campus COVID testing and monitoring, quarantine facilities and SOPs to safeguard health of all part-time returnees to the campuses.

Other related key issues for pre-consideration, in adopting online learning and education are development of a mechanism for performance evaluation, to replace the traditional examination system, academic and IT experts forum, development and access to e-learning resources/support material, creation of help-desks both for learners and the educators at least in the initial phase and the need of a non-disruptive friendly environment, online learning and education, at the learner's end – his/her distant home.

This panel will deliberate on the above summarised key issues of concern and answers to the very specific questions raised, by bringing together experts and researchers from think-tanks, universities/academia and policymakers, from within and outside Pakistan. The participants (experts and the audience) would share their experiences, success stories, towards a way forward and reflect on what would/would not work and how to minimise the constraints, due to likely lack of or inadequate resources, ineffective implementation of the educational system with new overall outlook, in a sustainable way to keep ignorance at bay as well as life on track and healthy.

**Panel Organiser**
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