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High-level roundtable on "The impact of rapid technological change on sustainable development"

Statement submitted by

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ISA VISWA PRAJNANA TRUST

"Building a world where every human being can achieve Total Consciousness"

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In Consultative Status with the United Nations Economic and Social Council (ECOSOC) since 2015

22nd SESSION OF THE UNITED NATIONS COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)

Written Statement from the Isa Viswa Prajnana Trust, Consultative Status to UN ECOSOC

to the Theme on 'The impact of rapid technological change on sustainable development'

In the Report of the Secretary-General entitled "The impact of rapid technological change on sustainable development" (Document No. E/CN.16/2019/2) Section II was devoted to "Transformative and disruptive potential of rapid technological change." It was noted that "rapid technological change can also disrupt markets and economies, exacerbate social divides and raise normative questions." In addition to the potential disruptions noted, we would like to point out that many of the technologies under development are likely to frustrate if not entirely reverse the efforts towards meeting the SDGs. In areas such as energy consumption, use of natural resources and security--Artificial Intelligence, Big Data, the Internet of Things, and blockchain pose a severe threat.

We raise a few issues here, which is not an exhaustive list, but a sample of some of the most pertinent challenges to implementation of new technologies on large scale.

- Integration of a large part of renewable energy needs a very sophisticated smart grid. If for any reason (e.g., cybersecurity attack, disaster) the grid is not available anymore, nations will be paralysed. It is the same for communications infrastructure.
- With the Internet of Things, everything is connected to another thing—for example the smartphone is connected to the heater which is connected to the grid. If a cyberattack gives authorisation to simultaneously start all the heaters in a region, it would result in a major shut-down of the grid.
- Data dependency is always increasing with new technologies. For example, a self-driving car requires data storage of 4 To per day. This data needs to be stored somewhere. Data Centers are concentrated in some countries such as Norway (for cooling reasons). But what happens in the case of a disaster or conflict there?
- Blockchain is a way to overcome security issues, but requires a large amount of computing power and therefore significantly more energy and data storage space. Each small data server has its own energy consumption. The sum of each individual consumption is dramatically higher than the consumption of a centralized server.
  For example, in 2017, the energy consumption of Bitcoin was about 30.25 TWh, which is larger than the total national energy consumption of 159 countries!
- Internet of Things devices consume less energy now, but it is predicted that the number of devices will dramatically increase – to 50 Billion in 2020. Taking into account the energy consumed by these devices and data centers required for them, the energy consumption growth rate will dramatically increase.
- Almost all new technologies use rare metals and minerals. For example, mobile phones and electric cars use lithium (for batteries), silver (for brazing, connection and alloy), palladium (for fuel cell) and so on. Based on the current global trends, lithium resources are estimated to be exhausted in 50 years. It is the same for almost all minerals and rare metals (silver, gold,

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antimony, chrome, palladium, etc.)—the natural resources are estimated to be depleted within 20 years (or extracted with a significantly increasing price-- for example, the molybdenum price was multiplied by 5 between January 2011 and June 2015).

Large-scale implementation of technologies which have not been thoroughly researched for the long-term impacts should be forestalled. The energy production alone of a country should be carefully measured against the expected consumption of new solutions. Now is the time to make clear policies identifying our ethics and guidelines for their implementation. Just because exciting new technologies are promising in certain ways—such as short-term economic benefits or work efficiency—does not necessarily mean that in the long run they will aid in our efforts to sustain the planet.

We should embrace our power to change the situation. We should be certain that every new technology is beneficial and sustainable in the long term—considering the economic, environmental, and cultural impacts. Any technology must be balanced in terms of quality as well as quantity of energy. This scientific analysis is the speciality of the Global Energy Parliament, and through GEP's scientific research, publications, and public programs, its global volunteers are working to bring about a greater scientific literacy amongst the public and also in decision-makers. Our Sustainable State Model based on balancing the energy in a State, was recently embraced by the Government of Kerala in India after the devastating floods in 2018.

Human wealth is knowledge of the past. With the best of that knowledge, and with necessary corrections, modifications, inventions and implementations, we are architects of the future. Science should also develop the insight and discrimination of human beings. There is an urgent need for realizing that the inner world is connected to the outer world, and how to bring them into balance.

The Isa Viswa Prajnana Trust's 'Education for Total Consciousness' teaching method is another tool to bring about this awareness, which is achieved from childhood itself in school. The ETC teaching methodology integrates objective and subjective knowledge along with a formula that inculcates the awareness that anything we observe in the outside world has a connection to our self, society, environment, nation and universe.

Thus, before we talk about building resiliency against changes, or citizen science, we should first improve our education, both in schools and in informal channels, about human life and human priorities. We are not data-based machines, nor slaves to technology, we are something far greater.

The human's gift is the ability to take logical, scientific, emotional and analytical decisions in order to achieve one's goals and to become a true master of one's self. Inner slavery to the tyrant of the senses, thoughts and desires is even more powerful than outer forms of slavery. These pestilential addictions need to be realized and overcome, so that one can fulfil one's vital role in society.

Science is the light for true human mastership. Let our governments use clear knowledge about human potential to create policies that will protect, ensure, maintain, and sustain—so that we can achieve our collective human destiny.