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Editorial

Reducing Global Hunger Way Forward

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Global population already hit 7.7 billion mark; another million-feeding mouth are being added every 14 months in average. This aggressive population growth doesn't seem to slowing anytime sooner. More population has high demand for consumption of natural resources, but the real concern is, can our earth be able to withstand this population pressure? Clear indication on steadily increasing income elasticity of demand for food is indicating towards the verge of catastrophic failure of human civilization as earth hospitality may not remain the same. To amply feed the global population we need to expand our framework on current agriculture practices and food distribution network. Poverty, food security and food safety are major challenges to address. Agriculture innovation and technology adaptation are our vital tools for the change. These must be supported by modernization prescribed on scientific ground. The increasing demand for adequate and safer food can be addressed by smart agriculture, green revolution and sustainable agriculture aided by mechanization. To ensure food for all advanced tools like biotechnology and agrigenomics can also be used.

Reducing hunger to zero by 2030 is an ambitious Sustainable Development Goal (SDG) put forward by the UN. It is a development landmark that essentially focuses on actions to end hunger; achieve food security and improved nutrition; and promote sustainable agriculture. Besides, it also advocates for increasing income of small-scale farmers; ensuring proper functioning of the food commodity market; eradicating hunger; and improving agriculture and production system. Famine and hunger can be ended either by rapid economic growth or increased agricultural production. Governments need to increase the investment in infrastructure and technology for sustainable agriculture so that the pressure in the agriculture production system would decrease. Advancement in the current agricultural system is the option to cope with and eliminate hunger from the world. Regarding this issue, we are observing changes in agricultural practices even in low-income countries. Human advancement is always related to harvesting prosperity form agriculture innovation. The emerging consensus implies the application of modern and improved tools for designing a more sustainable agricultural system. Newer agriculture system models are data-driven and represent multiple crops and simulate inter-cropping or crop-livestock interactions. Current huge investments by corporations in agricultural technologies have brought modernization in the agricultural system. New and promising technological innovations involving use of artificial intelligence, automation and robotics in agriculture, modern system of livestock farming, greenhouse practices, and precision agriculture are introduced. Besides this, 21st century agriculture witnessed used of technology triad (biotechnology, ICT, and nanotechnology). The advancement in agrigenomics can offer sustainable productivity and solution for feeding the ever-increasing global population. Biotechnical approaches like genetic manipulation hold immense potential to enhance agricultural productivity via altering agriculturally important complex traits. The future holds on growing opportunities for smart crops to ensure food and nutritional security.

The current global situation in terms of population growth and food availability is not comfortable. With the progressively increasing global population, global hunger and chronic malnutrition are above baseline. These conditions like poverty, hunger and malnutrition cannot be improved by the conventional approach alone. We need a new paradigm of inclusive agriculture, green growth and effective use of available global resources. Fostering green growth with multisectoral collaboration will help to be a part of a solution to this widespread problem. Strategies like promoting agriculture mechanization, integrating crops and livestock, applying integrated pest management, planting cover crops are methods for improved

agricultural practices. Mitigating high labor demand, adopting and supporting a sustainable production system can be used to combat poverty and the food crisis. The same can empower the critically vulnerable population in terms of improved food supply, reduced food price and poverty. To properly address global hunger and cope with increasing food demand the future is bringing, we need agriculture innovation and technology adaptation. Racing with rapidly shifting consumer demand and preferences, food security, food safety, competitive advantage on agricultural trade and industrialization needs a remarkable increase in farm productivity and output per farm labor. Innovation can enable a critical shift in the productivity and sustainability of our farm. Additionally, we need to focus on exploring new edible species, refining existing foodstuffs, considering our food safety, reducing wastage during handling and processing. In summary, feeding the population in the 21st century will not be an easy choice but with agricultural innovation and transformation it is not impossible either [1-6].

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