Researchers are now able to mimic the right recipes / crop specific-protocols that will induce the plant to hasten the crop cycle by growing at a high density, and by producing healthy, viable seeds within these installations. The researchers can also scale-up their activities in either controlled greenhouse bays or in the polyhouse facility after using the testbeds for protocol development.

This innovation contributes to nutrition and food security goals, and the platform has been launched, available for use by researchers and is being used for ICRISAT breeding operations. The protocols pre-requisite for the breeding programs for chickpea, groundnut, pearl millet, sorghum and cowpea are ready to be integrated by the public and private users.

RapidGen Platform is the byname for the Rapid Generation Advancement, which is a facility that aims to modernise crop breeding by accelerating plant lifecycle in light, temperature, and humidity-controlled conditions. This research facility consists of main 3 elements: testbed optimization chambers, lighting controlled greenhouse bays, and a temperature-regulated light deprivation polyhouse. The temperature, light and humidity conditions in these installations can be fine-tuned based on the breeding program's requirements.

This innovation is devised to help crop breeders by significantly lowering the time and cost of crop varietal development by shortening the crop generational window, speeding up the growth and life cycle of crops when compared against the traditional methods of developing varieties in fields for over a decade.

RapidGen Platform has a potential to reduce the breeding cycle by an estimated 40% for most crops

"RapidGen is a case of many firsts, including a first for CGIAR, the group of research institutions of which ICRISAT is a part of, and which is the world's largest agriculture research system striving to ensure a resilient, food and nutrition secure future"