State Key Laboratory of Agrobiotechnology, The Chinese University of Hong Kong Opinion Paper regarding the "Consultation for Setting up an Agricultural Park"

Submitted to the Panel on Food Safety and Environmental Hygiene Meeting Schedule: 5 Oct 2018

(A) Establishment of the Agricultural Park can facilitate the modernisation and sustainable development of local agriculture

We support the establishment of an Agricultural Park (Agri-Park) as a base for pilot-testing with new agricultural practices for commercial production, and promoting applications of advanced technology for agricultural uses, thereby fortifying the development and establishment of novel and diversified production methods in local farms.

We believe that developing **high-end and value-added agricultural industry** will bring new momentum in agriculture in Hong Kong. Agriculture has become more and more pivotal in China and worldwide. With the establishment of the Agri-Park, upstream research findings can be applied to local crop systems to expand the scope of their potential applications.

To serve the society by training high caliber technologists and testing novel agricultural technology platforms and products, we propose to establish a pilot field station area in the Agri-Park. Owing to the lack of field testing land in Hong Kong, many of crop field trials and testing have to be carried out in other remote field testing stations in Mainland China. The field station in Agri-Park, will not only enable local pilot testing, but also help to facilitate the technology transfer to farmers via different training programs and workshops. It provides an opportunity for youngsters to bring in new innovations to this industry in Hong Kong.

(B) The uniqueness and necessity of local research

Our unique urbanised environment presents specific horticultural problems which necessitate the development of local agricultural solutions. The application of agricultural biotechnology is usually region specific under the combined influences of geographical, environmental, and agricultural operation etc. With the Agricultural Park, crop lines developed through biotechnology, with concerted efforts of local farmers, can be introgressed (via traditional breeding) into regionally adapted lines for production. Besides, the academic sectors can develop tailored measures and strateies to ensure **sustainable**

agricultural development and to address to the environmental and **food security** concerns.

(C) To enhance the research development and technological advancement in agriculture through the establishment of Agricultural Park

We urge the government to intensify its commitments on the research development and technological advancement in agriculture through enhanced administrative and financial support, to address specific agricultural problems. With better coordination, existing research consortia may commit joint effort to boost the potential economic value of agriculture. With the additional funding, projects can be supported to develop high yield and high quality crop lines and generate value-added products from crop plants. Especially, cross-disciplinary efforts will lead to high synergy.

(D) Conservation of our natural resources

By the end of 2017, the land used for vegetable, flower, field crop, and orchard are 304 ha, 125 ha, 15 ha, and 270 ha respectively. Together with the freshwater fish farming industry, they comprise the largest man-made green belt and constructed wetlands in Hong Kong. Therefore, facilitating the sustainable development of local agriculture is of utmost importance for the conservation of local **biodiversity** and **natural resources**. The establishment of an agricultural park can play a coordinating role, together with various ecological conservation schemes, to conserve these precious natural resources for us and our future generations.

(E) Join force with the newly established Sustainable Agricultural Development Fund (SADF) to promote research and development for application of technology in agricultural production

The current financial support from the government to agricultural development has been minimal. For example, in Hong Kong, we have Innovative and Technology Fund for the IT and other Innovation Technologies; SME Fund for Trading and Environment and Conservation Fund for the environment and conservation project and activities. Threatening by urbanization, without the government support, the local agricultural industry has been struggling and diminishing. The efficient use of the SADF can mobilize the research and development on local agricultural activities and facilitate the upper stream technology development; mid-stream technology transfer and manpower training; and downstream marketing and branding of local agricultural produce as a whole.

(F) Promoting other auxiliary activities related to agriculture such as leisure farming and educational activities for students and the public

To educate public at large, different exhibitions, seminars and public talks for the students and public have been organized by different research centers mainly at universities and sometimes at public venue such as the Science Museum. However, owing to the limitation on venue booking, no regular long-term program can be arranged. With the field station in Agri-Park (proposed in part a) above), we will be able to 1) carry out local pilot testing; 2) facilitate technology transfer to farmers via different training programs and workshops; and 3) promote public education through regular exhibitions, outreach programs and tour visits for local students and the public.

(G) Management and System of Governance

We believe the establishment of the Agricultural Park will help motivate academics, farmers and agricultural business operators to invest efforts in developing sustainable agriculture and the necessary personnel required in Hong Kong. The agricultural technology thus developed would help improve sustainable farm production and benefit farmers. The public at large will enjoy a more stable supply of good quality local agricultural produce.

The missions of the Agricultural Park should be diversified encompassing scientific research, education activities and knowledge transfer, etc. An independent committee should be established to oversee its operation and to vet the proposals and approve the funding. To cope with the diversified nature of its undertaking, stakeholders of different aspects in the field should be included to ensure efficient use of public resources. We believe the visions of the committee should aim to, 1) ensure sustainable development on the local agricultural industry; 2) achieve synergy between advanced biotechnology of the academic sector and traditional wisdom of local farmers; and 3) facilitate the optimal use of resources for a stable and enhanced supply of high quality local agricultural produce.

This opinion is from professionals in local tertiary institutes who are also members of the State Key Laboratory of Agrobiotechnology (SKLA). The SKLA affiliated to The Chinese University of Hong Kong, has been established since 2008 with the approval of the Chinese Ministry of Science and Technology. It comprises of the below 23 university members from CUHK, HKU and HKBU.

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State Key Laboratory of Agrobiotechnology, The Chinese University of Hong Kong Sep 26, 2018