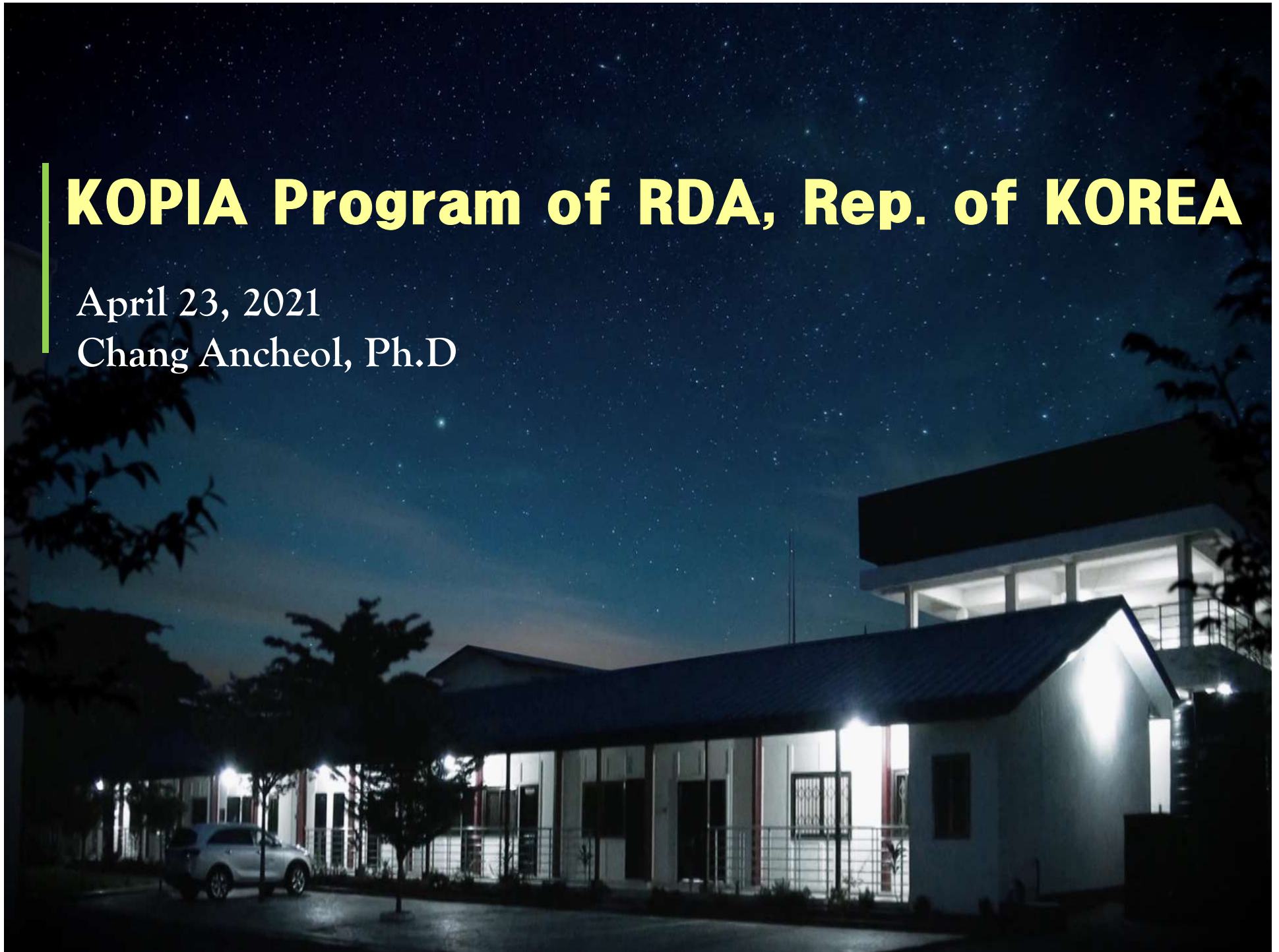


KOPIA Program of RDA, Rep. of KOREA

April 23, 2021

Chang Ancheol, Ph.D



KOPIA's Philosophy: We together find how to catch a fish

We need different fishing gear for different fish.
It would not be realistic if Korea's technology is applied as it is.

- With linkages to the UN SDGs,
- KOPIA develops and disseminates agricultural technologies tailored to each partner country.



DAILY NATION
Tuesday December 16, 2009

SMART COMPANY 17

HARVEST REPRIVE

For rice farmers, pedal-powered thresher

South Korea introduces bicycle machine as it seeks to help local producers in value-addition and growing revenues from the crop

BY MUCHIRI GITONGA

Faced with growing unemployment of rice producers, it is convenient since it does not require special skills or electricity to operate. The machine should see the local rice producers reap more from the traditional hand threshing. Experts say this is not only time and energy consuming, but it also hampers value-addition since it destroys the rice kernels.

While Kenya ventured into rice slightly more than 50 years ago, Kenya has been cultivating the crop for thousands of years. South Korea is particularly interested in value-adding activities such as making boba, shoes and bags from rice straw, which are normally burned after harvest.

Last week, the Kenya Agricultural Research Institute and the Korea Project on International Agriculture Kenya (KOPIA) introduced a simple bicycle pedal rice thresher in Mwea rice irrigation scheme that improves efficiency and reduces drudgery for the small-scale farmers.

The two organisations fabricated the machine named 'KOPIA-Tugoki'. The fact that it is made using easily available items such as bicycle pedals and chain and a crescent drum makes it accessible to this particular category of rice producers.

Lifting standards
The machine introduced by the Koreans will be 20 times more productive compared to the hand-threshing one, its proponents say. This system achieves a threshing rate of about 160kgs of rice per day while the simple machines can thresh about 2,000g.

According to Korean Ambassador to Kenya Han Goo Lee, such simple technologies could uplift the living standards of many farmers by raising their production. While it may not be economically viable for Kenyan rice farmers to use combine harvesters as Koreans do, simple technologies could save them the hard work involved in rice production.

"Kari and Kopia Kenya will continue to intensify technology in rice research, value-addition and job-creating machines in order to generate and disseminate useful rice production technologies," the director of KARI Dr Ephraim Mbatia said at the display of the threshing machine in Mwea.

Although he said harvesting is the most laborious and expensive activity in rice production, there has been notable efforts in the past to mechanise rice imports annually. Kenya consumes 200,000 metric tonnes of rice annually, which is higher than the country's production of between 45,000 and 60,000 metric tonnes. According to Dr Mbatia, raising rice production would not only reduce the rice import bill, but also improve food security and income. Also, technologies such as the threshing machine will make the rice production more attractive to the youth.

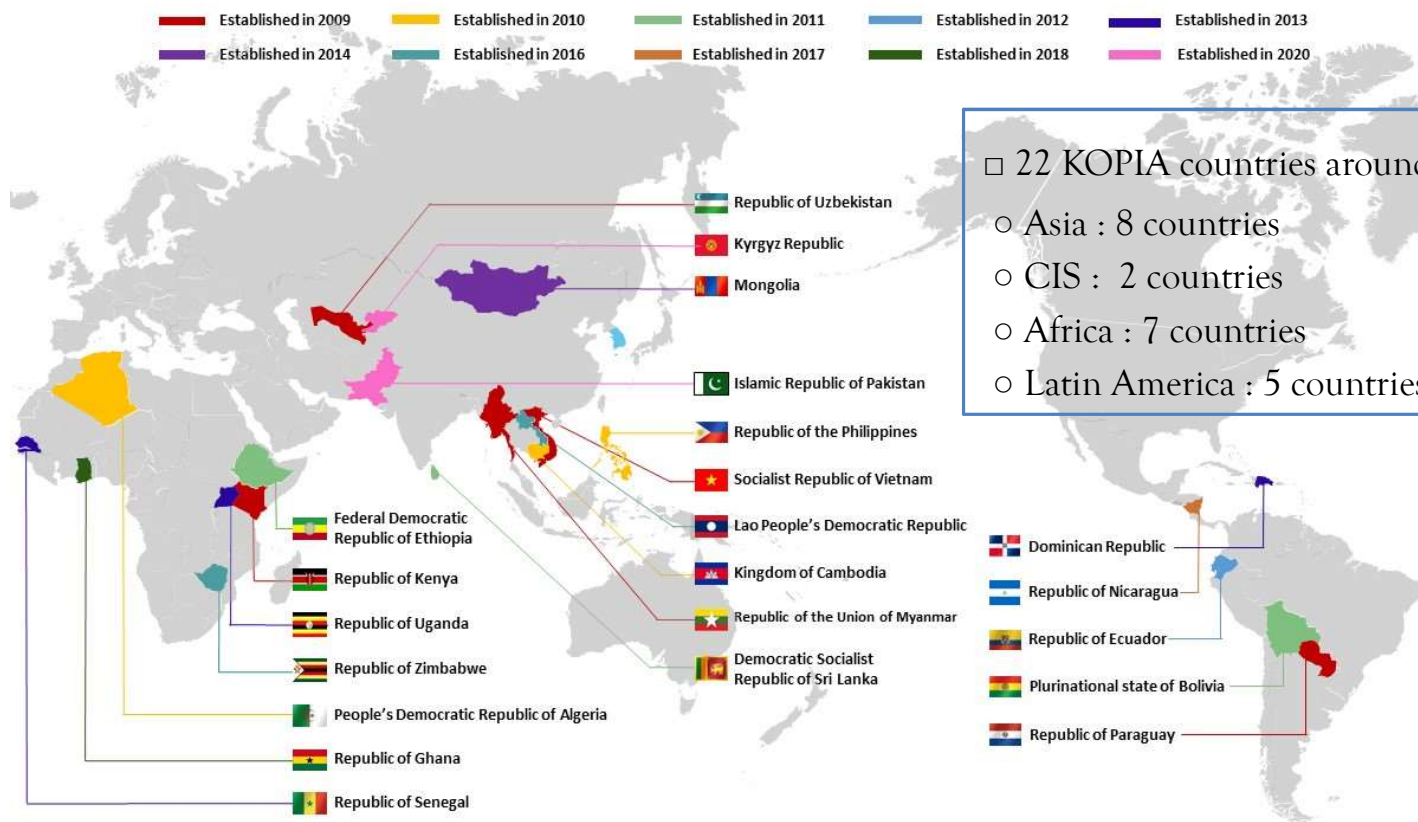
Dr Mbatia said annual rice consumption is increasing at 12 per cent compared 4 per cent for wheat and just 1 percent for maize as eating habits change. "Optimising the land labour involved in rice growing by use of a simple machine may also be appealing to the youth and encourage them to get more involved in rice farming," the director of KOPIA Kenya, Mr Byung Chang, said.

"According to him, the machine marks the beginning of collaboration between Korea and Kenya in the development of rice production. The Koreans are eager to pass on to local rice growers guidelines for rice planting, that could raise yields and promote partnerships among farmers."

KOPIA (Korea Program For International Cooperation In Agricultural Technology)

□ What KOPIA aims to achieve:

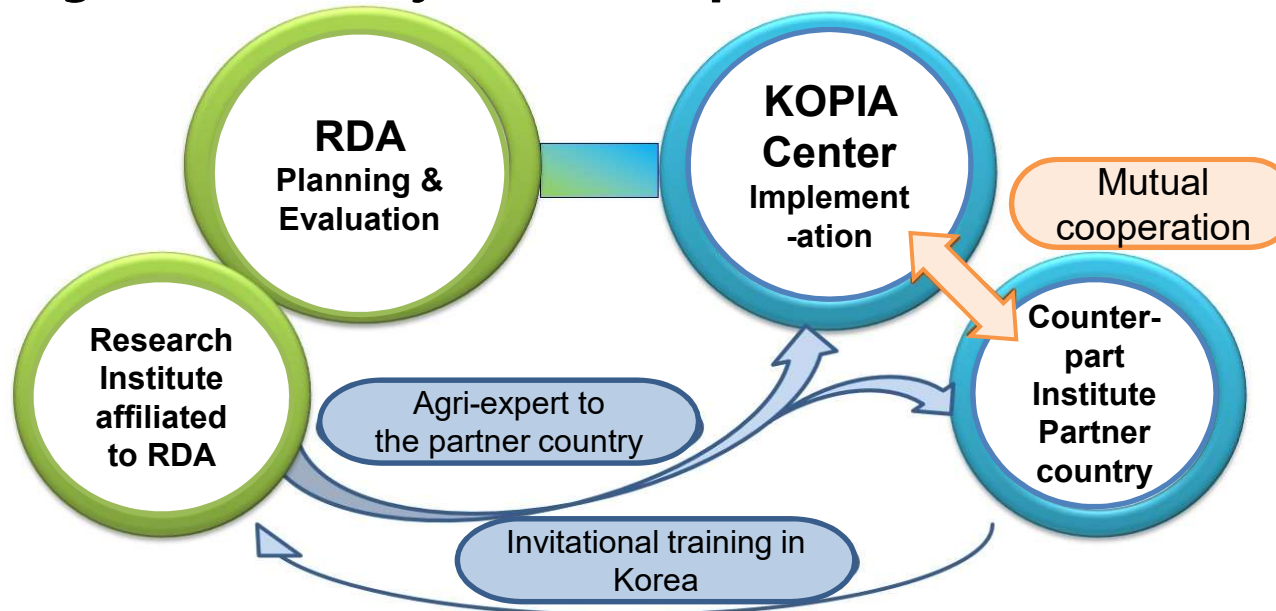
- Strengthen partnership with KOPIA country's representative agri. research institute
- Develop, test, and disseminate agricultural technologies
- Improve smallholder farmers' productivity and subsequently, their incomes.



- 22 KOPIA countries around the world
- Asia : 8 countries
- CIS : 2 countries
- Africa : 7 countries
- Latin America : 5 countries

How KOPIA Works

Inter-organizational system for operation



Step-by-step Implementation

Development of tailored technologies	Small-scale application with farmers	Model Village Project
3 techs by country	⇒ 1 project by country	⇒ 1 project for four countries
Short-term visit of agri-expert Invitational training of local scientists	Short-term visit of agri-expert Invitational training of local scientists	Long-term stay of agri-expert Invitation of local scientists and leaders

Incorporate KOPIA's success model into partner country's policy
 ► Disseminate the model across the country, across the continent

KOPIA's Key Achievements



(Cambodia)

Development of a new maize variety, 'CHM01'
Productivity ▲ to 8.9 t/ha & cost of imported seed ▼ by 30%



(The Philippines)

Rice yield ▲ by 18% (3.8 tons/ha → 4.5 tons/ha)
88 tons of rice seed distributed to approx. 2,200 ha



(Uganda)

Development of customized orange cultivation technologies
Productivity ▲ by 114% & income ▲ by 85%



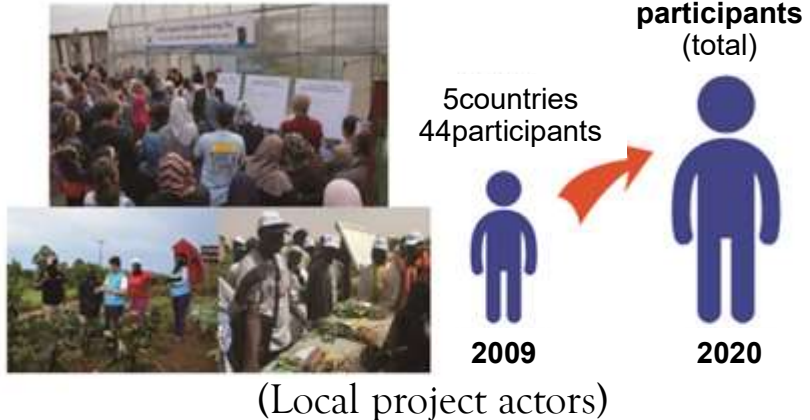
(Paraguay)

Development of a new sesame variety, 'IPTA-K07'
Sesame acreage ▲ by 63.6% (3,912 ha → 6,400)

KOPIA's Achievements in Figures



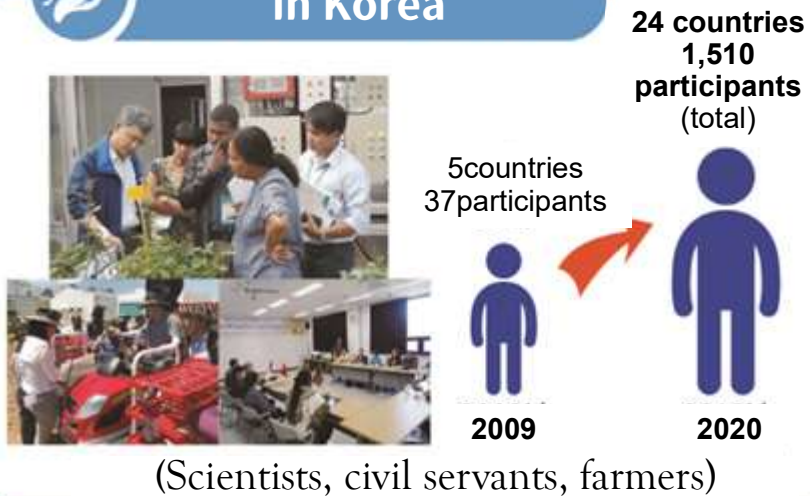
Training in partner country



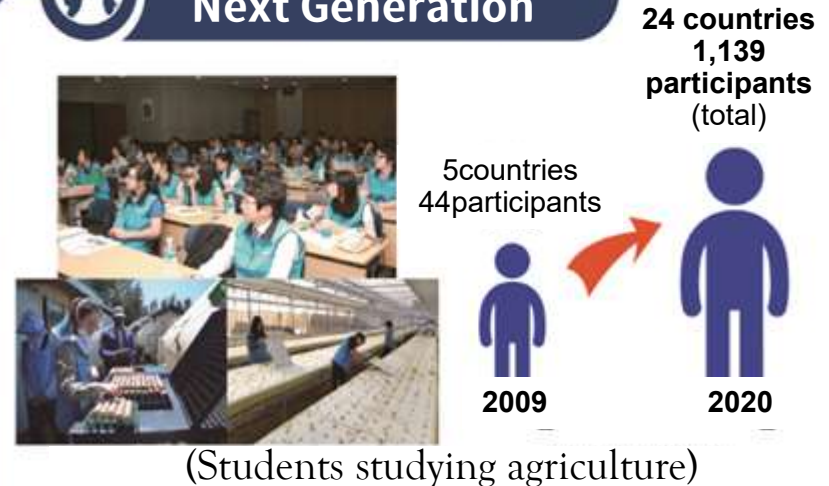
Dispatch of Korean Experts



Training in Korea



Training of the Next Generation



| How KOPIA project can be a success

◆ (Partnership) Work closely with partner' s representative research institute

- Highly responsive to the partner's needs & in line with its agricultural policy
- Incorporate technological needs of local farmers



◆ (Step-by-step implementation) Recommend a customized success model

- Technology development → small-scale application → model village
- Field-oriented approach: Scaling up from a small case study to model village

◆ (Education) Dispatch Korean agri-experts, invite local researchers for training

- Promote joint project and strengthen the capacity of participating researchers
- Empower project participants through project implementation

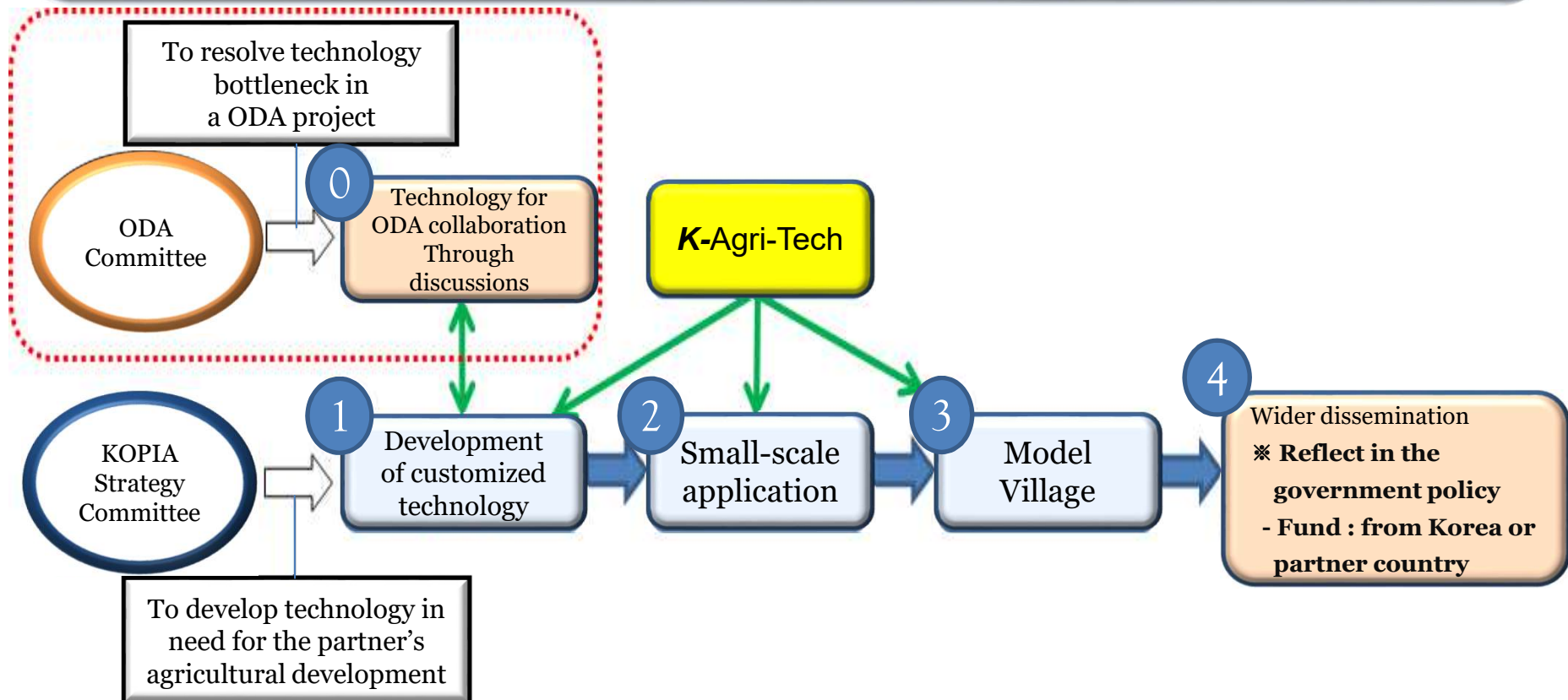


◆ (Expertise) Based on RDA' s expertise in R&D, extension service and education

◆ (Humanity) Korean experts work with passion and build friendship with KOPIA partners

KOPIA's Future Plan

1. Use Korea's technologies with comparative advantages
2. Technology development → small-scale applications with farmers → model village project (step-by-step implementation)
3. Inter-ministerial/departmental discussions through ODA Committee led by the Korean embassy in the partner country



A close-up photograph of two hands, palms up, holding a large quantity of white, uncooked rice grains. The hands are positioned to frame the rice, which is piled in the center. The skin tone is dark brown. The background is a plain, light-colored surface.

Thank You

We love to share what we have !