







## **MARA CHINA-CABI Joint Laboratory for Bio-safety**

CHEN Julian
IPP-CAAS, Beijing, China
19 October 2018

IPP-CAAS, MARA-CABI Joint Lab for Bio-safety

#### **Establishment of the Joint Lab in 2008**

- Located at the Institute of Plant Protection of the Chinese Academy of Agricultural Sciences (IPP-CAAS), Beijing
- □ China's donation to CABI Development Fund to support Joint Lab, increased from US\$ 50K / year in the beginning to US\$ 400K / year in 2016
- CABI invested human resources to support the Joint Lab







### Joint Lab Management Structure



Prof. Xueping Zhou Co-Director

Steering Committee (SC) (China 4 + CABI 4)



Co-Directors
(China 1 + CABI 1)

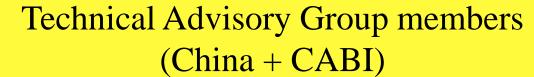


Liaison Secretary (China 1 + CABI 1)





Dr. Ulrich Kuhlmann Co-Director





### **Joint Lab SC Meetings**





## **Joint Lab SC Meetings**



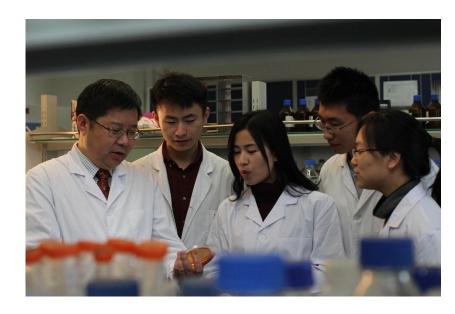


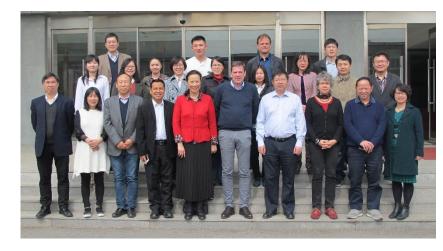




#### **Joint Lab Functions**

- A platform for research collaboration and technology transfer
- A centre for training and scientific exchange
- An open platform for joint collaboration with third parties
- A consultancy service







#### **Joint Lab Themes**

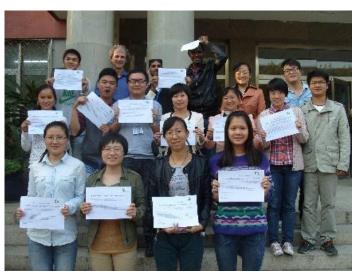
- Integrated Pest Management (IPM) and biological control
- Prevention and control of invasive alien species (IAS)
- Introduction and development of biopesticide resources
- GMOs environmental safety assessment





### **Joint Lab Research Team**







Leading scientists +
Researchers +
Tech. assistants +
Graduate students



### **Highlights of the Joint Lab**

- Prof. Wu Kongming, then Co-Director of the Joint Lab
  - Elected academician of the Chinese
     Academy of Engineering in 2011
  - Promoted to Vice President of the Chinese Academy of Agricultural Sciences in 2012
- Prof. Zhou Xueping, Co-Director of the Joint Lab
  - Won the Ho Leung Ho Lee
     Foundation Prize in 2017
  - Elected the Fellow of the American
     Phytopathological Society in 2018







### **Highlights of the Joint Laboratory**

- Dr Ulrich Kuhlmann, CABI's Co-Director of the Joint Lab
  - Won a Friendship Award from the Chinese Government in 2012
  - Received the International Friends Award from the Chinese
     Academy of Agricultural Sciences in 2017









# Activities & Achievements: Project development / implementation (2008-2018)

- 25 Research & Development projects with total funding \$ 23.47 million and over 70 international and Chinese partners involved
- Research: biological control of the most important agricultural insect pests and weeds causing huge economic losses to important grain and cash crops







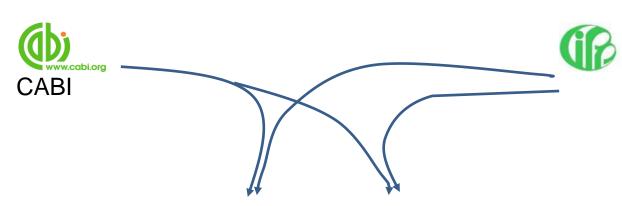
# Activities & Achievements: Project development / implementation (2008-2018)

- Development: technology transfer from China to other developing countries (e.g. DPR Korea, Laos, Myanmar, Rwanda, etc), contributing to global food security and poverty alleviation
- □ Plantwise: 93 plant clinics providing diagnostic of crop pests and IPM advices to smallholder farmers in four provinces of China



## An example of successful technology transfer: use of **beneficial insects** in **rice** and **maize IPM**





Department of Agriculture, Ministry of Agriculture, Livestock and Irrigation, Myanmar

Department of Agriculture, Ministry of Agriculture and Forestry,

Laos

IPP-CAAS; Xing'an County Plant Protection Station, Guangxi; Dehong Prefecture Plant Protection and Quarantine Station, Yunnan,

Dryland Farming Institute, Hengshui, China;

China













# Activities and Achievements: Scientific exchanges & workshops (2008-2018)

- □ ca. 40 scientific exchanges per year
- □ Dr Stefan Toepfer seconded as visiting professor (2014-2016)
- ▶ >10 international scientific conferences or workshops with some 2,300 participants from 50 countries in total, e.g. International Congress on Biological Invasions, Radar Entomology Workshop, OBOR Consultation Workshop, etc
- 26 oral presentations delivered





# **Activities and Achievements: Capacity Building (2008-2019)**

- → >50 south-south IPM techiques training courses with
  - over 1000 technicians from developing countries were trained
- Two courses : Statistic and IPM at Graduate School of CAAS
  - around 291 young scientists and graduate students were trained





# **Activities and Achievements: Capacity Building (2008-2018)**

- 74 joint publications in total, incl. 18 at IF > 2 in SCI journals
- 3 Post-doc, 7 PhDs, 11 MSc and 47undergraduate students trained



### **Lessons Learnt: Success of the Joint Lab**

- Strong and consistent support and commitment from senior management teams of Chinese MOA, CAAS, IPP-CAAS and CABI based on MoU
- □ Financial support from MOA and human resources invested by CABI
- Functioning management mechanism, good governance provided by the steering committee and consultancy role of technical advisory group
- Dedicated staff from both sides working on the ground
- Concerted effort for international, regional and national funding to support collaborative projects



### **Going forward**

- Establishment of the MARA China-CABI European Laboratory at CABI Switzerland Centre to help the Joint Lab achieve greater globalisation and innovative development
- Key functions of the European Lab will focus on 1) Collaborative research, 2) Scientific and technological exchange and training, and 3) Cooperation with third-party partners



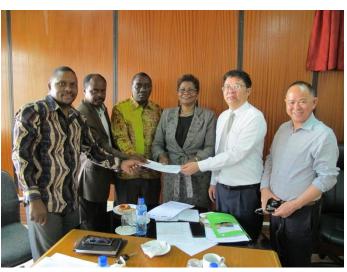




## **Going forward**

- An MoU among IPP-CAAS, CABI, and Kenya partners was signed in 2017 to strengthen plant protection cooperation between Kenya and China under the Belt and Road initiative
- An MoU among Ministry of National Food Security and Research of Pakistan, IPP-CAAS and CABI in 2018 to explore collaboration between Pakistan and China under the Belt and Road initiative















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