Int’l Seminar on Restructuring and Strengthening Research and Development (R&D) for Agricultural Engineering

An Introduction

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Background

• Why this Seminar
  -- Situation of R&D for Agricultural Engineering (AE) in Asian Developing countries
  -- The Case of China
  -- Impact of S&T developments
  -- The Role of AE

• Launching a project

• Objectives of the Seminar
The Situation of R&D for AE

- Investment in R&D for new plant varieties and agronomy
  high pay-offs

- R&D for agricultural machinery:
  -- an input from a variety of professional disciplines
  -- a more complex holistic approach
  -- lack of sufficient budget for concurrent costs
  -- lack of funding for R&D

(Cont’d)
The Situation of R&D for AE

- Public sector funded R&D on AE: a poor record of success

- In general, machinery innovations were developed by commercial enterprises in response to a ready demand.

- R&D institutions for AE more commercially oriented in industrialized countries
The Case of China

- A reform for an outward-looking R&D approach, catering to rural demands.

- Implementation of several programmes, the most important ones: the “Spark” and the “Torch” programmes.
The Case of China

- **The Spark programme**: to disseminate appropriate technology to rural areas to boost the development of township enterprises and to help farmers reduce rural poverty.

- **The Torch programme**: to promote industrialization of advanced technology in science parks and to incubate small emerging enterprises and entrepreneurs.
The Case of China

• Inherent policy:
market-oriented, enterprise-oriented

• The case of Legend Group Company:
a well known example of the success of
this policy

• Government policies on incentives:
tax holidays and fiscal incentives
Impact of S&T Developments

• The Evolution of AE professions

• A shift from traditional Mechanical Engineering to Agricultural and Biological Engineering

• Reduced attention to power and machinery

• More programmes for biological and food engineering, and pollution control
The Role of AE

• The lowly position of AE in the int’l donor community and the developing world.
  -- FAO: gone
  -- IRRI: gone
  -- Silsoe: gone (S. Justice)

• Agriculture in developing countries: still labor-intensive.

• A leadership role in correcting the unfortunate position and backstopping AE R&D. (Bill Stout)
Launching a Project

• A project profile on Restructuring and Strengthening R&D for Agricultural Engineering proposed by APCAEM

• Main Contents of the project:
  -- 4 commissioned study reports (Stout, Wang, Soni, Sun & Luo)
  -- An Int’l Seminar (9 country papers)
  -- Follow-up activities
Objectives of the Seminar

• Analyze the impact of China’s policy reform for R&D, assess its contribution to agricultural development and poverty reduction, and summarize the lessons;

• Overview of the status of R&D for AE in select member countries, assess its contribution to agricultural development and poverty reduction; (Cont’d)
Objectives of the Seminar

• Review and appraise the R&D of AE and its role in the new situation;

• Identify Priorities of R&D for AE;

• Recommendations on formulating policies, strategies and programmes.
Programme Schedule

• **Keynote presentations**
  – Current situation of AE in some key member countries of APCAEM in Asia and the Pacific (Dr. Peeyush SONI, AIT)
  – Restructuring R&D of AE in China (Prof. WANG Maohua, CAU)
  – Case study on China’s restructuring in Science and Technology system (Mr. SUN Mengxin)

• **Country presentations**
  – Participating countries (9): Bangladesh, India, Indonesia, Pakistan, Philippines, China, ROK, Sri Lanka, Thailand
  – Overview report

• **Conclusion and recommendations**
May the Seminar be a Success

All participants are encouraged to make contributions through proactive and productive discussion and interaction.

Thank you!