Virtual breakout Group Session on Animal Biotechnology

Developers and Researchers

Asia and Oceania

- **58 invitees:**
  - Africa (Ethiopia, Kenya, Mali, Nigeria, South Africa, Uganda), Australia, Bangladesh, India, Indonesia, Israel, Japan, Myanmar, Philippines, Tiawan
- **24 respondents**
  - Africa (Ethiopia, Kenya, Mali, Nigeria, South Africa, Uganda), Australia, Bangladesh, India, Indonesia, Myanmar, Philippines, Tiawan
- **11 participants**

Host / Moderator	Dr Rhodora (Olah) Aldemita	ISAAA SE Asia Center
Facilitator / Rapporteur	Dr Mark Tizard	CSIRO, Australia
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Scribe	Kiran Krishnankutty Nair	CSIRO, Australia

Representing	PARTICIPANT	Organisation
Australia	Dr Carl Ramage	La Trobe University; Rautaki Solutions
Bangladesh	Dr Khondoker Moazzem Hossain	Khulna University
Bangladesh	Dr Nasrin Sultana Juyena	Bangladesh Agricultural University
India	Dr Juwar Doley	Indian Council of Agricultural Research
India	Dr Jaya	ICAR-National Research Centre on Pig
India	Dr Somu Bala Nageswara Rao	ICAR-National Institute of Animal Nutrition & Physiology
India	Dr Manoj Kumar Singh	ICAR-National Dairy Research Institute
Indonesia	Dr Aris Winaya	Center of Biotechnology Development, University of Muhammadiyah Malang
Myanmar	Dr Su Myo Thwe	Analytical Lab Unit, Research and Development Division, Dept of Fisheries
Philippines	Dr Danilda Hufana-Duran	Dept of Agriculture, Philippines, Carabao Center
Taiwan	Dr Ching-Fu Tu	Division of Animal Technology, Agriculture Technology Research Institute

Challenges

- **Bangladesh:** Limited awareness on the use of animal biotechnology; less funding allocated for animal biotechnology development; access to the technology; regulation development is slow.
- **Philippines:** Limited technical manpower; priorities of the research funding agencies.
- **Australia:** Risk appetite; uncertainties in regulation which serve as barrier to commercialization; asynchrony in the approval process.
- **India:** Low acceptance of GM products.
- **Myanmar:** Lack testing facilities and analysis for GMOs; lack of clear biosecurity framework for GMO.
- **Taiwan:** Communication of biotechnology is difficult.
- **Indonesia:** Limited funding to support R&D; understanding the cultural and ethical issues.

Recommendations to address challenges

- Assistance and support to help mature biosecurity frameworks and regulations to provide certainty.
- Aim to simplify regulations but maintain their integrity.
- Encourage information of the public about the truth about animal biotechnology and its benefits versus its risks.
- International assistance for developing nations to support benefit sharing, education and training and manpower.

Regulatory Cooperation

- **Bangladesh:** Integrated-international collaboration through collaborative programs with other countries.
- **Philippines:** not yet producing biotech animals but regulatory cooperation, technical cooperation, shared guidelines, and joint review of regulation are viewed as important.
- **Australia:** Existing regulatory cooperation of APEC member countries; alignment of regulatory systems among countries possible; political will as barrier to regulatory cooperation; existing biosafety framework are mostly process trigger.
- **India:** Addressing public acceptance big issue; model systems to ensure no disadvantage to subsistence farmers; needs international and national consensus building.

Scope of regulation

- ***GE versus GM ?*** – complex with SDN categories; even just getting biosecurity frameworks in place for some countries would be great progress; concerns regarding impact on trade.
- International cooperation/collaboration will be necessary; shared regulatory guidelines important.
- Now is good timing to work on scope of regulation as biosecurity frameworks are in development in many countries in SE Asia.
- APEC and ASEAN may be mechanisms to discuss and get this underway.
- Scope and predictability of regulation is going to be important to ensure that the technology isn't perceived as locked into big companies and their benefit.
- Good models and examples are needed to help this all along.

Preparing for innovation

- **Bangladesh:** Government mandate to S&T Department for human resource development on innovative technologies; introduction of curricula on biotechnology in universities; government support for short trainings of technical staff in other countries.
- **India:** Government efforts on promoting the technology and translate the technology into products; infrastructure support for start-ups; funding support for R&D.
- **Philippines:** Scholarships for studies in area of biotechnology; funding support for R&D Indonesia: Application of biotech plant regulation to animal biotechnology, starting from small animals (fish and poultry) progressing to large animals (cattle, buffalo).
- **Australia:** moving towards principle-based regulation and tiered risk assessment; aiming to lower barriers while maintaining integrity and effectiveness.

Next steps

- **Bangladesh:** All relevant parties to work together and bring the technology to intended users; regional cooperation and collaborative work.
- **India:** Need to attract funding and make the technology available.
- **Australia:** Providing the right information to the general public; work closely with regulators.
- **Philippines:** Training to enhance technical competence.