

# Session: Technologies for the future - Luis Herrera Session Chair and Michael Clegg Rapporteur

- **What three technological innovations are most likely to impact food security in the Americas over the next fifty years? E.g. Biotechnology, innovations in environmental inputs like fertilizers, systems for water use efficiency, nutritional innovations, etc.**

Issue: Little scope for increasing arable land supply.

- Food demand expected to grow by 70 to 80% over next fifty years.
- Technological innovations will have to play a role in meeting this demand.
- Imagine you are an investor with \$1 million to bet on which technologies will be most effective in addressing future demand.

# Problems that need to be solved

- Addressing pollution, water supplies, plant and animal diseases, food safety issues, reduction in food wastage.
- Improved nutrition and production of more nutritious foods, post harvest wastage.

Technologies that work in the intersection of production, environmental sustainability and economy are likely to be most effective. E.g. some of the technologies described this morning.

- Pi utilization as a substitute for organic phosphate
- Breeding more nutritious crop plants
- Better exploitation of microbiome
- Efficiencies in water use
- Human resource development in better training programs