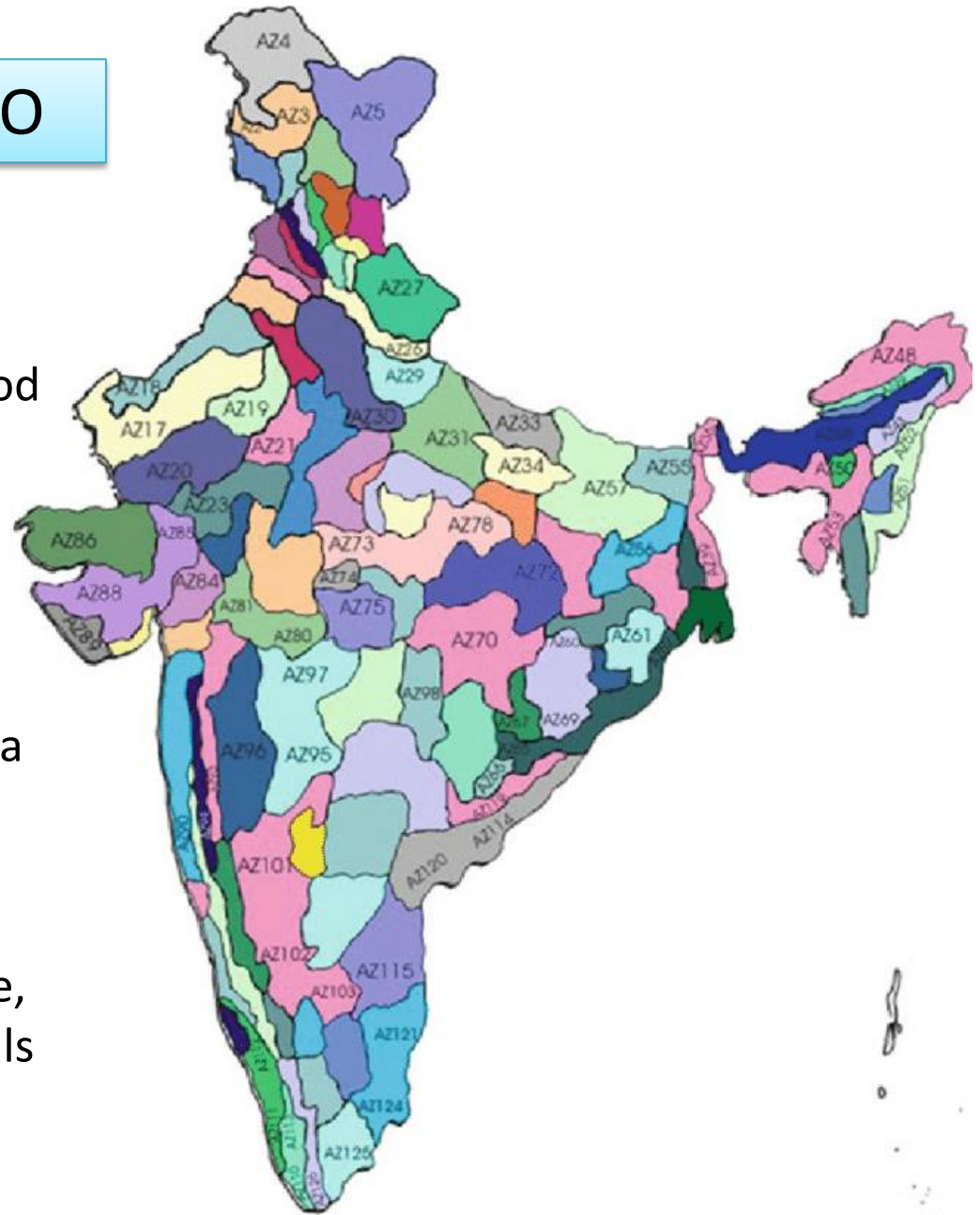


The image shows the Taj Mahal, a world-famous white marble mausoleum in Agra, India. The central dome is the largest and most prominent feature, flanked by four minarets. The entire structure is reflected in the calm water of the reflecting pool in the foreground. The sky is a clear, deep blue, and the lighting suggests it is either early morning or late afternoon. A semi-transparent white banner with a slight shadow is positioned across the lower middle of the image, containing the text "Welcome to India" in a white, cursive font. The banner is centered horizontally and partially overlaps the reflection of the Taj Mahal.

Welcome to India

AGRICULTURE SCENARIO

- Agriculture since Neolithic Period i.e., 7,000 BCE
- India Population 1.45 Billion
- 55 % engaged in Agriculture
- Avg. Land Holding 1 Ha
- Cropped Area : 219 Million Ha
- 127 Agro-Climatic Zones (Tundra to Equatorial)
- Largest Producer of Pulses, Banana and Spices
- Second Largest Producer of Rice, Fruits, Vegetables and Edible Oils





Indian Council of Agricultural Research

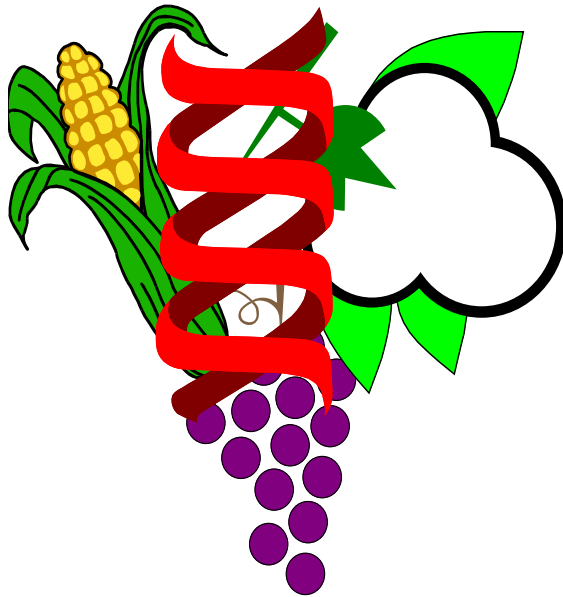
The Indian Council of Agricultural Research – Apex organization recognized globally. Founded in 1930, ICAR spearheads agricultural research, education and extension activities for productivity enhancement and diversification of Indian agriculture.

Network of ICAR Institutes and Affiliates :

- 96 National Institutes,
- 77 All India Coordinated Projects/Networks Crop Wise
- 10 Central Universities,
- 63 State Agricultural/ Horticultural/ Veterinary/ Fishery universities
- 641 Krishi Vigyan Kendras (KVKs) – Agriculture Science Centres
- 19 National Level Institutes for Medicinal & Aromatic Plants

BIOCONTROLS in India :

Govt. Policy Initiatives & Support



ABIM 2024
Basel,
22ND October 2024

KETAN K. MEHTA
Ecosense Labs. (I) Pvt. Ltd.
Email: info@eecosense.com
Cell: +91-9820028696



EC**SENSE**

In Partnership with Nature



More than 1,000 Registration Certificates Issued
for 209 + Registered Biocontrol Products in India

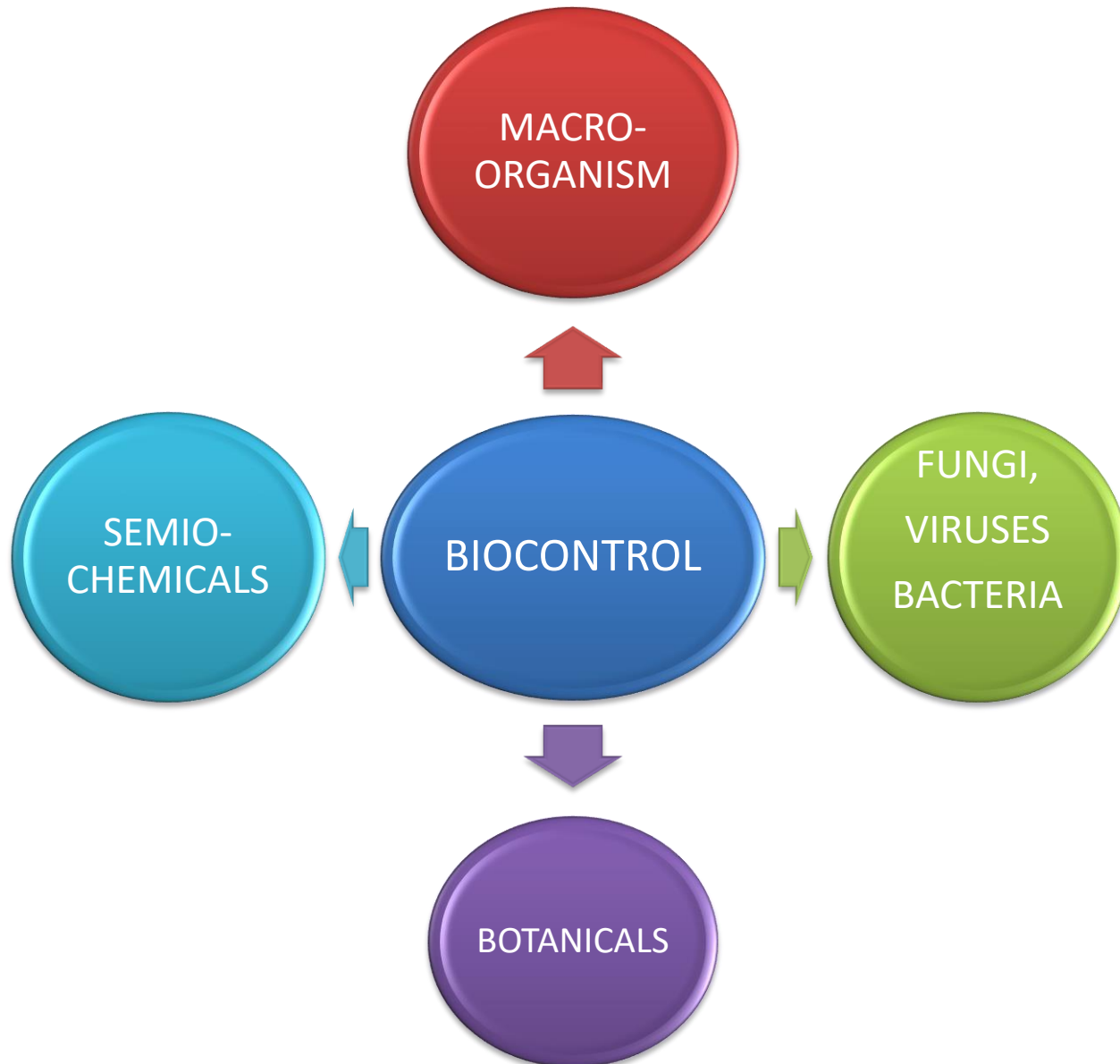
About 280 + Manufacturing License Holders

Sikkim - First State in any nation to be declared
Organic State since 2003

GOVT. INITIATIVES AND SUPPORT TO BIOCONTROL INDUSTRY

- Regulator approval of Access Benefit Sharing of Data, Technology, as shared with Entrepreneurs by Govt. of India, Agricultural Universities/ Institutes;
- Biopesticide/ Biocontrol Efficacy Trials conducted by Govt. of India, Agricultural Universities/ Institutes across multiple Climatic Zones over multiple seasons;
- Regulator issues Registration on a preferential basis for BioPesticides;
- Central and State Govt. Agencies regularly procure Biocontrol Products from Entrepreneurs;
- Many Central & State Govt. Corporations manufacture Biocontrol Products;
- Improving Economic Returns for Organic Farmers on Tea, Coffee, Spices, Millets, Cotton, Mango, Tomato, Okra, etc., in many states;

BIOCONTROLS IN INDIA – PRODUCT SEGMENTS



BIO-CONTROLS – INDIAN SCENARIO

- 175 + Registrants of Botanicals like:

Azaridachtin, Pyrethrum, Karanjin, Garlic, Anonin, etc., (Insect and Disease Control)

- 225+ Registrants of Microbials like:

BT, Trichoderma, Pseudomonas, Bacillus, Beauveria, Metarhizium, Verticillium, etc. (Insect and Disease Control)

BIO-CONTROLS – INDIAN SCENARIO

- **Macrobials:**

Mainly Govt. Universities/ Farm Science Centres, NGOs, Farmer Co-ops.

- **Semio-Chemicals handful of Registrants:**

Mainly Attractants for Monitoring & Trapping;

Attract-n-Kill and Mating Disruption growing fast.

INDIAN BIOCONTROLS – MARKET SEGMENTS

BioControls – Market	Percent
GOVERNMENT SCHEMES (Central, State, Societies, Agri-Commodity Boards)	60 – 65%
DISTRIBUTORS & RETAILERS (Conventional Marketing/ Distribution)	20 – 25%
SPECIALITY SEGMENT (Organic Farming, IPM Farming, Exporters, Greenhouses)	10 - 15%

Major Players:

Government :

Govt. Corporations and Universities and Agriculture Depts.

Private Companies :

Large, Medium, Small and Micro

BIOLOGICALS IN INDIA – ONE STOP SOURCE

- EXTREMELY TALENTED RESOURCE POOL & ENTREPRENEURS.
- BIOLOGICALS - PUBLIC/GOVT. BODIES – PROVEN/ TESTED.
- EFFICACY IN VARIED CLIMATIC CONDITIONS – TROPICAL RAINFOREST, TROPICAL SAVANNAH, ARID, SEMI-ARID, TEMPERATE, MOUNTAIN.
- AVAILABILITY OF ALL TYPES OF CROPS – FIELD, GREENHOUSE, ORCHARDS.
- ADEQUATE CAPACITY : EXTRACTION, CHEMISTRY, LIQUID FERMENTATION
- DESIRED CAPACITY : SOLID FERMENTATION, INSECTARIES, FORMULATION
- EASILY AVAILABLE SOLID CARRIER MATERIALS.
- EASY AVAILABILITY OF OILS AS INERT CARRIERS.
- **CONDUCTIVE CLIMATE – HUMID/TEMPERATURE (Everything Grows!)**
 - **CAPTIVE MARKET - 219 Million Ha.**

INDIA STEPS UP TO THE CHALLENGE



During COVID, India demonstrated its Bio-Tech prowess in research, product development, manufacturing and delivery of affordable Vaccines.

India is ready to step up to the UN's 2030 SDG challenge in Biologicals for Agriculture and Public Health.