



Sub-Group BIO Report

EFFICACY OF BIOLOGICAL AND ECO-FRIENDLY CROP PROTECTION AGENTS (CPAs)

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**TOBACCO RESEARCH BOARD
ZIMBABWE**

October 2021

1. To test biological and eco-friendly CPAs as alternatives to traditional CPAs.
2. To produce a formal protocol for trial and testing procedures.
3. To collate results of trials done under the formal protocol and make them available to ACAC.
4. To harness global participation.





Amended Objectives

❖ ...amended Feb 2021

- 1. To test biological and eco-friendly CPAs as alternatives to traditional CPAs with CORESTA formal protocol and collate related results.**
- 2. To collate results and protocols from trials already conducted with biological and eco-friendly CPAs**
- 3. To collate results and protocols from trials that will not be done with the formal protocol**
- 4. Compile data in a dedicated database and make them available to ACAC.**
- 5. To harness global participation.**

Why the Sub-group?

- ❖ Compliance to global requirements in CPA usage of paramount importance
- ❖ Green movement gaining momentum
- ❖ Increasing shortage of conventional CPAs due to withdrawals and bans





Activities (June 2018 – October 2020)

- ✓ **June 2018 – Jan 2019:** Survey questionnaire on the extent of use and registration of biological and eco-friendly CPAs
- ✓ **June 2019:** Compilation of global biological and ecofriendly CPAs
- ✓ **June 2019:** Protocol formation and Sub-group website page
- ✓ **October 2019:** Standardisation of protocols and harnessing of global participation
- ✓ **Jan 2020:** Revision to further simplify
- ✓ **Jan 2020 to date:** Efficacy trials/data (Japan, Zim, USA, France)
- ✓ **Sept 18th 2020:** Online meeting
- ✓ **Feb 2021:** Amendment of objectives and submission to SC
- ✓ **Currently collating trial data and that which is already existing**



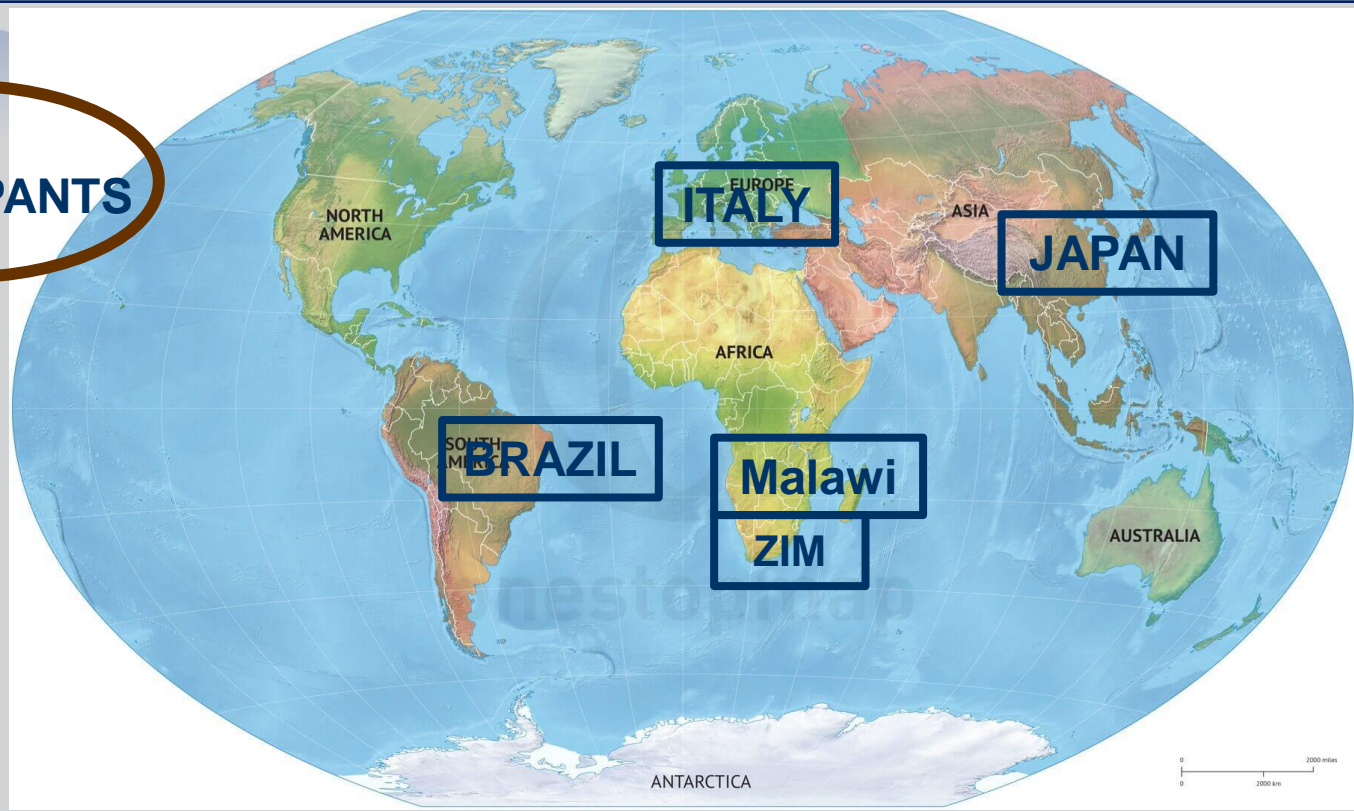
CPAs Actively Tested 2020-21

Biological and/ or Eco-friendly pesticide	Target Pest/s
<i>Trichoderma spp. (Zim)</i>	<i>Fusarium/ Pythium / Sclerotium</i>
<i>Bacillus subtilis (Zim)</i>	<i>Rhizoctonia / Pythium</i>
<i>Beauveria bassiana (Zim, Japan)</i>	Aphids
<i>Azadiractin (Neem) (Japan, Zim)</i>	Aphids
<i>Bacillus firmus (Zim)</i>	Root-knot nematode
Beloukha (Pelargonic Acid)(Zim)	Suckericide



Participants (October 2019)

17
PARTICIPANTS

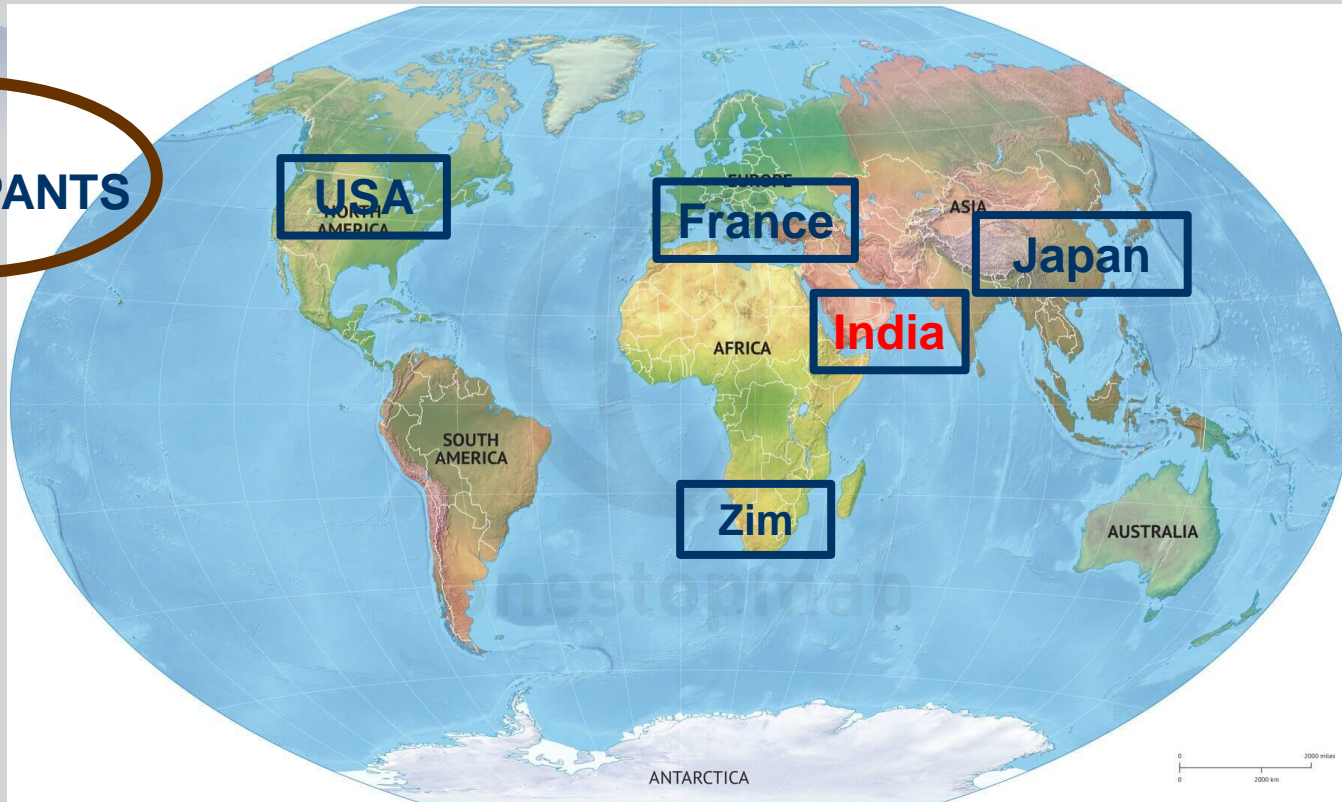




Final Participants: Sept 2020

5

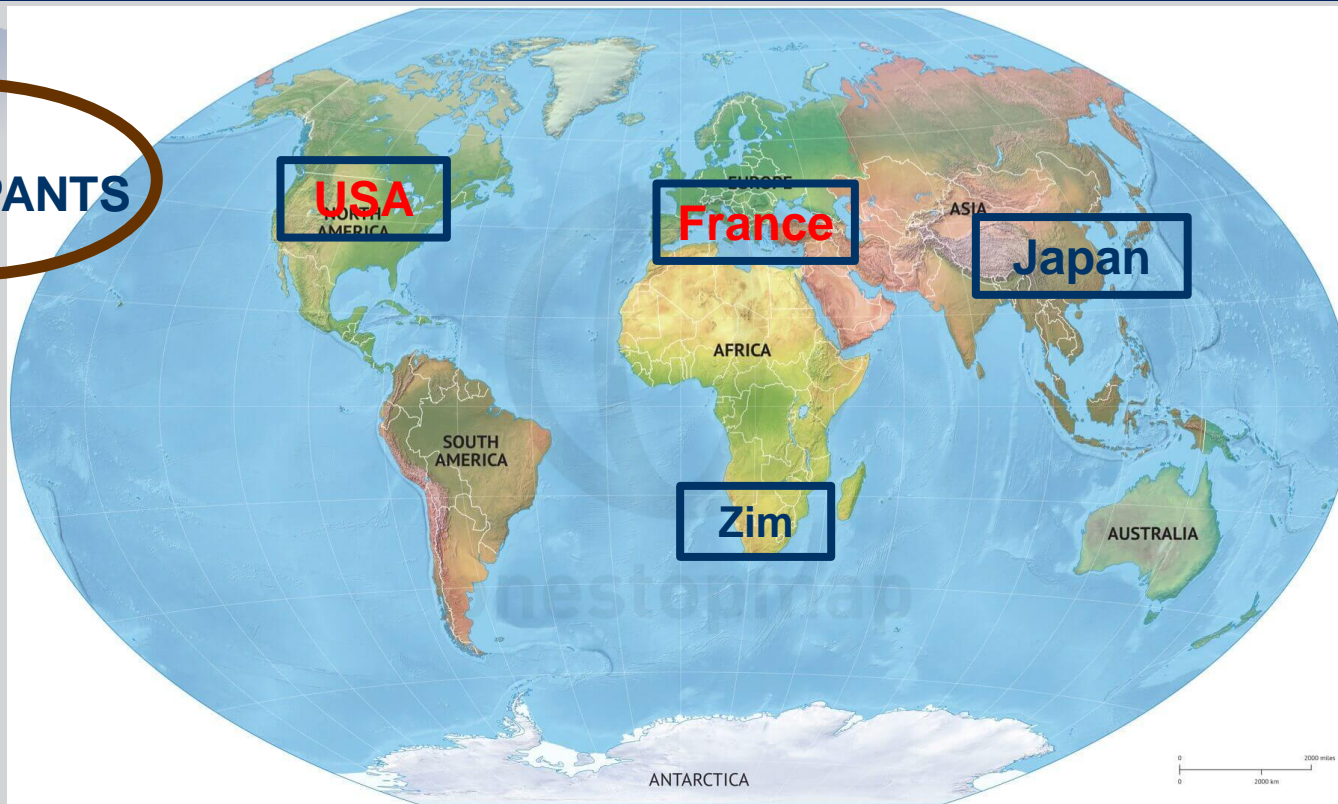
PARTICIPANTS





Final Participants: Sept 2020- 2021

4
PARTICIPANTS



- ❖ **Most companies not able/willing to carry out scientific field experiments, despite revision of protocols (low participation)**
- ❖ **Some countries have already done tests of some of the bio CPAs and have data (India, Spain, Italy); low response**

- ❖ **Continue with efficacy trials in Zimbabwe and Japan**
- ❖ **Double up efforts to extract already existing data from countries**





Acknowledgements

- ❑ Tobacco Research Board (TRB)
- ❑ CORESTA Agrochemical Advisory Committee (ACAC)
- ❑ Participants