Ministry of Foreign Affairs

KOPPERT BIOLOGICAL SYSTEMS

UPL

NWO Netherlands Organisation for Scientific Research
WOTRO Science for Global Development

FOOD & BUSINESS APPLIED RESEARCH FUND

A SYSTEM APPROACH FOR A SUSTAINABLE PRODUCTION OF RICE IN INDONESIA

CONSORTIUM MEMBER: - N. R. RAJAPANDIAN, MANISH CHOUDHARY, HENRI OOSTHEK, H. MIKKELSEN

OBJECTIVE: - Average Rice production levels are relatively low due to pests and diseases. The consortium led by Indonesian based company UPL in collaboration with Koppert developed an integrated Pest solution with Biologicals against pests and diseases to increase the productivity.

- **Integrate practical and scientific knowledge to build a resilient crop protection system against the main plant pests and diseases in rice under low land tropical conditions**
- **Enable (small-scale) farmers to increase sustainable rice production contributing to higher incomes, less dependency on imported rice and increased food security**
- **Diminish negative environmental effects by combining biological with chemical crop protection products and combat resistance management**

First step would be a design a protocol to test the products both Soil and Foliar. Based upon the research outcomes, the optimal IPM system will be developed and tested in 2 locations on Java. Products will be developed up to the commercialization phase. Results will be shared via training and field days.

Major Pest Problems

a. **BLB and Sheath Blight**
b. **BPH and Stem Borer**
c. **Nematodes** (Outside scope)
d. **Golden snails** (Outside scope)

Year 1- UPL project started by August 2014

a. Assist in literature study
b. Collection and isolation of diseases in Indonesia
c. Conduct Base line study
d. Monitor 1st year field evaluation
e. First year small-scale tests on plant pathogen- antagonistic interactions
f. Bio-assays in trays to monitor persistence of single species agents under local conditions. Measuring abundance of species with plate techniques
g. Contribute to the annual report

Year 2

a. Execution, data processing and reporting of field experiment with 6 treatments of MSP, 3 replicate fields, 3 nitrogen levels and 3 best performing MSPs identified for large scale trails
b. Contribute to the annual report

Year 3

a. Demonstration and training days at multiple locations in Indonesia for farmers and entrepreneurs in cooperation with local farming associations
b. Participate, if desired, in workshops and expert meetings for relevant policy makers, scientists and associations
c. Publication of results in (International) journals

Food & Business Knowledge Platform

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