



Contribute to Better Rice Production and Nutrition in South East Asia

# Better Rice Initiative Asia - Monthly Update



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## Editor's Note

### BRIA is strengthening the regional rice sector

The May issue of the BRIA newsletter wishes to share the good news that the Thai Rice NAMA proposal, which had been submitted in response to the NAMA Facility's 4<sup>th</sup> Call for Proposals, was preselected by the NAMA Facility in March this year to receive funding for the Detailed Preparation Phase (DPP). The proposal was prepared by GIZ and the BRIA Regional Secretariat, supported by the Thai Rice Department (RD) and the Bank for Agriculture and Agricultural Cooperatives (BAAC) under the Ministry of Agriculture and Cooperatives (MoAC) and the Office of Natural Resources and Environmental Policy and Planning (ONEP) under the Ministry of Natural Resources and Environment. In all, seven proposals from six countries have received the support in this phase and at the end of the DPP, the decision for funding for the implementation will be taken.

In Viet Nam, BRIA has collaborated with ASEAN Sustainable Agrifood Systems to promote the application of IPM (Integrated Pest Management) in rice cultivation. BRIA has successfully integrated IPM as part of BRIA farmer training in three BRIA pilot provinces in the Mekong Delta. This initiative has been supported by the Plant Protection Department (PPD) and provincial DARDs (Departments of Agriculture and Rural Development) in Dong Thap, Hau Giang and Kien Giang.

In the Philippines, BRIA is implementing demo plots in the three provinces of Iloilo, Aurora and Southern Leyte. The objective is to allow Agricultural Extension Workers (AEWs), Lead Farmer Technicians (LFTs) and private service providers who have undergone BRIA FARMERS School Training of Trainers (ToT) and advised farmers to apply their knowledge on value chains, basic agriculture, rice specific farming techniques in order for BRIA farmers to achieve higher production yield and incomes.

In Indonesia, BRIA collaborated with various government agencies of North Sumatra Province to stage the BRIA Expo 2017 to publicize the project results and disseminate best rice cultivation practices, technologies and scientific information on rice for raising rice productivity and achieving sustainable market access. The event fostered communication among stakeholders in the Indonesian rice value chain and also promoted the youth's interest in rice cultivation, research and production. It was organized recently at the Medan International Convention Centre (MICC), Medan, North Sumatra.

Suriyan Vichitlekarn, **BRIA Regional Director**  
Kamol Taukitphaisarn, **BRIA Communication**

## Thai Rice NAMA Project selected for Detailed Preparation Phase



The NAMA Facility has pre-selected seven NAMA Support Projects (NSP) including the Thai Rice NAMA under the Facility's 4<sup>th</sup> Call for Proposals. These NAMA Support Projects will now receive funding for their Detailed Preparation Phases (DPP). At the end of the DPP, it will be decided whether projects receive funding for implementation based on their submitted proposals. The NAMA Facility supports the implementation of ambitious Nationally Appropriate Mitigation Actions (NAMAs).

The German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) and the Department for Business, Energy and Industrial Strategy (BEIS) of the United Kingdom (UK) jointly established the NAMA Facility to support developing countries and emerging economies to tackle climate change and implement ambitious climate protection measures. The Thai Rice NAMA project has been submitted as a result of close collaboration between the Thai Ministry of Agriculture and Cooperatives and the Thai Ministry of Natural Resources and Environment as partner ministries, and GIZ as co-applicant.

Agriculture is the second largest greenhouse gas (GHG) emitting sector in Thailand, and at the same time highly vulnerable to adverse climate change effects. The Thai rice sector is not only responsible for almost 60% of Thailand's emissions from agricultural activities, but also the world's 4<sup>th</sup> largest emitter of rice-related GHGs – mainly methane.

According to data from 1994 to 2013, Thailand is ranked as the 11<sup>th</sup> country most affected by climate-related impacts. With the ratification of the Paris Agreement in September 2016, the Royal Thai Government expressed its commitment to contribute to global efforts to achieve climate change mitigation. "Thailand's Rice Department (RD), under the Ministry of Agriculture and Cooperatives (MoAC), which is a member of the National Committee on Climate Change, is the main implementing agency for the sustainable development of the rice sector. RD will participate in and support the implementation of Thai Rice NAMA," said Mr. Anan Suwannarat, RD Director General.



The Thai Rice NAMA Project will drive wide-scale smallholder adoption of the Sustainable Rice Platform Standard on Sustainable Rice Cultivation. Dr. Wyn Ellis, Sustainable Rice Platform Coordinator, commented: **“The SRP Standard is the world’s first sustainability standard for rice, and offers a practical framework for promoting climate-smart sustainable best practices and improving the livelihoods of Thailand’s rice smallholders.”** The Sustainable Rice Platform (SRP) is a multi-stakeholder alliance co-convened by UN Environment and the International Rice Research Institute (IRRI) to promote resource-use efficiency and sustainability in the global rice sector.

Commenting on the project, Dr. Matthias Bickel, GIZ Programme Director for Agriculture and Food and BRIA focal person, added: **“The project plans to help 100,000 rice farmers reduce greenhouse gas (GHG) emissions from their fields and will work with farmers and farmers’ associations in six provinces in the Central Plains of Thailand in shifting from conventional to low-emission rice farming, and promote its replication on a national scale and in the ASEAN region.”**

#### Mitigation potential:

In irrigated rice cultivation, applying Alternate Wetting and Drying (AWD) on laser land-levelled fields can significantly reduce methane (CH<sub>4</sub>) emissions. The switch to low-emission rice cultivation is estimated to have a potential of preventing the release of 1.664 million metric tons (Mt) of CO<sub>2</sub>e (carbon dioxide equivalent) cumulative over the 5-year project lifespan with increasing annual mitigation potential, thus reducing baseline emissions from irrigated rice by more than 26%.

#### Financial ambition:

The Thai Rice NAMA expects to generate an additional EUR 21.5 million direct financial investments from the private sector for the implementation of innovative financial incentives. The Royal Thai Government currently earmarks at least another EUR 25 million annually in agriculture- and mitigation-related areas.

#### Seven projects selected:

Altogether, the NAMA Facility supports 7 ambitious NAMA Support Projects with funding for the Detailed Preparation Phase. Countries receiving support for the Detailed Preparation Phase include Brazil, Mexico (2 Projects), the Philippines, Thailand, Tunisia, and Uganda.

The applications received by the NAMA Facility in the 4<sup>th</sup> Call illustrate the global reach and wide variety of actions targeted at emission reductions. Most national governments directly referred to their Nationally Determined Contributions (NDC) and the Paris Agreement in their applications. NAMAs can function as an important building block toward implementing NDCs under the Paris Agreement.



## Integration of IPM application into SMART rice cultivation technology to help farmers cultivate better quality rice



“Integrating IPM (Integrated Pest Management) into improved rice cultivation technique training would help increase rice quality, conserve natural enemies, balance eco-system, reduce pollution, diseases, pesticide use,” commented Ms. Nguyen Thuy Tien from Agricultural Extension Station (AES) of Go Quao district, Kien Giang province. Mrs Tien was one of the 33 participants who attended the Training of Trainers (ToT) held for technicians at provincial and district levels.

Early March 2017, BRIA organized two ToTs on Integrated IPM application into SMART rice cultivation for 66 trainers and co-facilitators for farmer training in Dong Thap province. There were 33 participants of each group. The training participants were technician staff at provincial, district and commune levels, as well as lead farmers from the three BRIA provinces of Hau Giang, Kien Giang and Dong Thap. The training aimed to equip the participants with knowledge on integrating IPM application into the “1 Must Do - 6 Reductions” rice cultivation technique as IPM application contributes to the judicious use of pesticides in BRIA project sites.

Furthermore, as the training entailed such methodologies as farmer field visits, group discussions and rice eco-system analysis; technicians and farmer leaders could apply those interesting training methodologies in organizing and facilitating more effective farmer training to ensure farmer participation and cooperation in following recommended sustainable rice production practices. Farmers should also be more active in sharing their rice farm situation and experience in making a decision to use appropriate fertilizers and pesticides. With technicians’ support, farmers could learn to become “field experts.”

*“I will apply the knowledge and training methods in BRIA farmer training in my district and other farmer training by AES in the future to gain more farmer participation and focus with farmers encouraged to exchange and discuss with their peers,”* disclosed Mrs. Tien happily.



To mobilize all the technicians' resources, at the end of the training, BRIA, partners in the three provinces and the technical staff, who had received the ToT, jointly developed the farmer training plan for 2017 for their respective province with IPM application integrated. BRIA delivered 80 IPM training manuals to the technicians and 3,000 IPM booklets to farmers in the three provinces. The manual was developed in collaboration with ASEAN Sustainable Agrifood Systems.

Integration of IPM application into SMART rice cultivation training has been highly appreciated by local governments including the Southern Regional office of the Plant Protection Centre (SRPPC), the Department of Agriculture and Rural Development (DARD) in Dong Thap, Kien Giang, and Hau Giang. During the closing ceremony of the training, Mr. Nguyen Quoc Cuong, Director of SRPPC mentioned: **"IPM protects the environment, mitigates climate change, and promotes sustainable agricultural development. We are planning to work with the Plant Protection Department (PPD) and Provincial DARDs in the Mekong Delta to promote the model with IPM integration to improve rice cultivation. DARDs in Dong Thap, Hau Giang and Kien Giang also issued a letter asking their technical sub-departments to apply this model in their provinces."**

BRIA Viet Nam aims to improve farmers' knowledge about rice cultivation, promote the adoption of modern farming technologies in an environmentally friendly manner, and improve the rice value chain from input to output. Furthermore, BRIA seeks to link rice production to market to raise rice quality, increase the earnings of smallholder farmers and benefit rice consumers. The project seeks to help at least 3,000 paddy farmers from the three provinces of Dong Thap, Hau Giang and Kien Giang to adopt and test innovative rice cultivation methods.

Contributed by Pham Thi Thuy An



## BRIA PH implements 114 demo plots



Covering 57 hectares across three regional sites in Iloilo, Aurora and Southern Leyte, the demo plots were established as a core component of BRIA PH's training curriculum for extension intermediaries and smallholder farmers.

The demo plots served as learning sites to contextualize lessons in the training of trainers (ToT) and farmer field schools (FFS) with field-based examples. This has allowed farmers to test and validate what they have learned from trainings in real field conditions. With this experience, it is easier to convince farmers to test rice-based technologies on their own farms.

The demo plots were implemented during the 2016-2017 wet season and consisted of 0.5 hectares each.

One plot group showcased farmers' practices where they applied their usual practices with no intervention. To provide comparison, the BRIA plot group applied cost-efficient technologies, hybrid rice, and best practices in rice cultivation.

Promoting cost-efficient technologies and sustainable practices aligns with the government's effort to help farmers boost farm yield and income. The government has spearheaded a campaign encouraging farmers to plant hybrid rice, which is part of a national goal to achieve food sufficiency by 2020.

Comparing plots, farmers generally witnessed higher yield from the BRIA plots with a yield margin of 0.13-1.4 ton/ha. The yield increase was achieved by using high quality seeds, a pragmatic pest management approach, better crop nutrition, and the PalayCheck System. A PhilRice study showed the use of high quality seeds contributed to roughly 10-15 percent yield increase.

To achieve higher income, cost-efficient technologies and sustainable crop management practices must be implemented. In the farmers' plots, participants spent twice as much money as necessary to adopt the recommended seeding rate. Instead of 20 kg/ha for inbred rice, farmer participants used the traditional seeding rate of 40 kg/ha. In this case, farmers already lost a considerable amount of money which could have been used for other farm expenses.

BRIA PH has worked to narrow this knowledge gap through trainings with extension intermediaries and farmers. The trainings apply a comprehensive manual on the rice value chain continuum to capacitate farmers to view farming as a business. Specifically, farmers are taught how to make sound business decisions, increase profits, keep records, budget and conserve money.



## BRIA Expo 2017 in Medan, North Sumatra, Indonesia

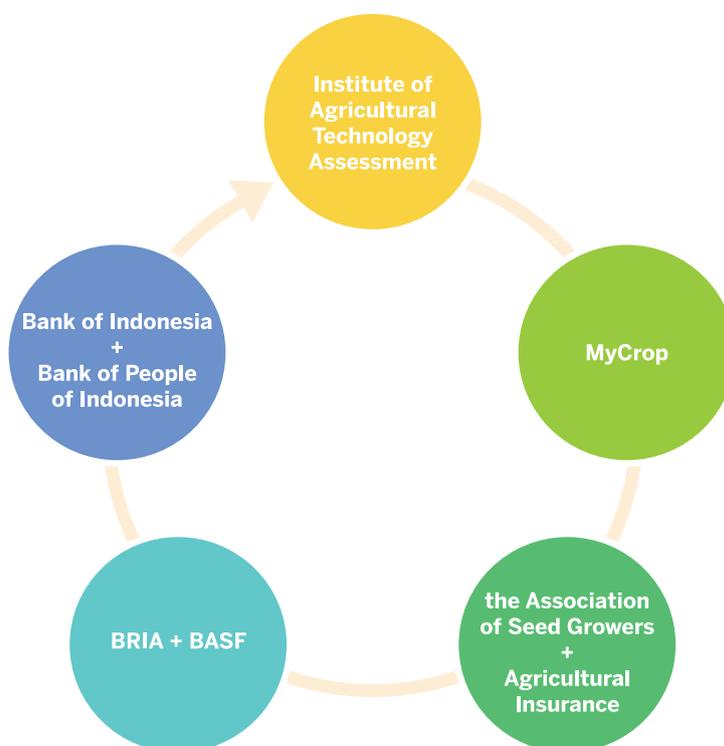


The agricultural sector has become the main foundation of the food supply for 245 million people in Indonesia, providing about 87% of raw materials for small and medium enterprises. The sector contributes to 15% of the GDP with a foreign exchange value of approximately US\$ 43 billion. In addition, the agricultural sector employs about 33% of the labor force and is a major source of income for about 70% of rural households.

Rice remains the primary staple for most of the population. Indonesia is the third largest rice producer worldwide after China and India. Given Indonesia's 1.49% per year population growth rate, it is crucial to increase rice production to meet the demand of approximately 275 million people by 2025. However, lack of access to best rice cultivation information and technology, agro-inputs, markets and capital pose challenges for increasing rice production.

BRIA contributes to enhancing rice productivity and sustainable market access. In collaboration with public sector counterparts, BRIA has implemented activities to promote best rice cultivation practices and technology in the provinces of North Sumatra and East Java. As part of the dissemination of information and technology on rice as well as to build partnership among various stakeholders, BRIA recently organized an expo on 9 March 2017. The BRIA Expo 2017 took place at the Medan International Convention Centre (MICC) in Medan, North Sumatra, Indonesia.

Unlike other common expos where participants are scattered around the arena to visit any preferred booths, 200 participants were assigned randomly into 5 small groups distinguished by colours. These groups were given 30 minutes to visit every booth in rotation. At least 5 booths were ready to deliver important messages from 6 partner organizations and BRIA. Participating organizations included the Association of Seed Growers (APBP), Agricultural Insurance Company (PT Jasindo), Institute of Agricultural Technology Assessment (BPTP), Central Bank of Indonesia (BI), Commercial Bank (BRI), and Digital Agriculture Start-Up (MyCrop).



BRIA Partners' Expo Booths

Mrs. Sri Kuntarsih, the Director of Financing Facilities and Crop Insurance at the Directorate General of Agricultural Infrastructure and Facilities of the Indonesian Ministry of Agriculture, stated enthusiastically in her opening speech, “In 2016, Indonesia stopped importing rice from other countries. One of the driving factors is the BRIA program aimed at improving the livelihood of farmers. Agricultural technology promoted by BRIA may increase harvest up to 40% and reduce production costs by 20%. Hopefully in 2017, we will be able to take the role of rice exporter.” The Director also supports BRIA’s intervention to improve the rice value chain through better market linkages.

At the home booth, BRIA re-emphasized Good Agricultural Practices (GAP) of sustainable rice production including seed treatment, soil fertility, balanced fertilization using soil test kit (PUTS) recommendations, the Legowo planting method to increase crop population and Integrated Pest Management (IPM). Set up together with BASE, this booth displayed a mannequin using sample PPE (personal protective equipment), ties of paddy with selected inputs used, and an interactive presentation.

At the event, Mr. Legino, chairman of the Association of Seed Growers (APBP), urged participating farmers to use certified and labelled seed to increase rice production and become local seed growers since there is high demand for qualified seed each planting season. PT Jasindo, a state-owned insurance company, presented the mechanism and benefits of rice crop insurance to the expo participants. The Ministry of Agriculture has developed rice crop insurance to cover harvest failures due to floods, drought, pest and disease outbreaks with Jasindo as the mandated operator. As farmers still lack adequate information, more frequent socialization is required to achieve a better understanding of the scheme.

To improve farmers’ standard of living, PT MyCrop Indonesia Sejahtera Gemilang introduced a new digital application for agriculture. “MyCrop” is a collaborative platform that strives to combine cutting edge technology, innovative business models, and focused human efforts to empower smallholder farmers. During the expo, the company demonstrated practical use of the application. The application can be easily installed on an android mobile phone or tablet.



Another important booth was hosted by the Institute of Agricultural Technology Assessment (BPTP), one of BRIA's main project partners. The research institute presented the improved planting method of “Jajar Legowo Super” (Super Legowo Row Spacing Technology) using the superior rice variety inpari 1 – 42.

At the financial institution booth, the Central Bank of Indonesia introduced the new digital accounting application called “Si Apik.” This app collects financial information for small and micro businesses, and can record simple transactions for individuals and agricultural businesses. Through using this app, farmers can expect to increase their accountability to fulfill bank requirements. BRI, a leading Indonesian commercial bank, also took this opportunity to explain how farmers can access the bank's financial services.

This expo marked the fourth year of BRIA project implementation in Indonesia, serving as another milestone to reach 75,000 farmers with better knowledge to increase rice production. With support from and collaboration with stakeholders, BRIA is achieving this mission.

### Seeing is believing.

To learn more about BRIA field interventions after the expo, Mrs. Sri Kuntarsih visited BRIA farmers at Hampan Perak sub-district, Deliserdang, North Sumatra province, accompanied by the BRIA field team, officers from the Agricultural Department of North Sumatra, extension agencies, and PT Jasindo, and community leaders.

Mrs. Sri Kuntarsih was informed by BRIA farmers about the Farmer Field School (FFS) organized to provide participants with improved knowledge on seed technology, fertilisation based on crop needs and soil nutrient status, the Legowo planting method and IPM. Farmers believe that applying these technologies can enhance both the quality and quantity of their rice. Since balanced fertilization can reduce production cost, farmers intend to own and manage a Soil Test Kit (PUTS) within their group.

BRIA has also introduced crop insurance at the FFS in collaboration with extension officers. In the near future, BRIA and PT Jasindo will have a cooperation agreement to support BRIA farmers in accessing crop insurance. The BRIA web-based database system will soon enable proper administration processes and registration and claim mechanisms for crop insurance.

Contributed by  
Yulia Indawardhani Lubis and Isnaini Jalil



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**BRIA Regional Secretariat Office**

39/1 Soi Sukhumvit 13, Sukhumvit Road, Klongtoey Nua, Wattana, Bangkok 10110 Thailand

[bria@giz.de](mailto:bria@giz.de)

[www.better-rice-initiative-asia.org](http://www.better-rice-initiative-asia.org)

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**Responsible for the content:**

Suriyan Vichitlekarn (BRIA Regional Director)

**If you want to be added or removed from this mailing list, please contact:**

[kamol.taukitphaisarn@giz.de](mailto:kamol.taukitphaisarn@giz.de)