**IMPROVING ACCESS TO QUALITY FERTILIZER AND INFORMATION FOR RUBBER FARMERS**

One of the major causes of low yields and low return on investment experienced by smallholder rubber farmers of Mon State is the limited knowledge and access about the use of quality Fertilizer. With experience from Phase I, in 2018 (Phase II), Grow designed an intervention to make quality fertilizer more accessible to the farmers and proper usage of the fertilizer so that production cost might decrease and/or yield could increase. The intervention was designed to work with input/fertilizer supply companies, but as in complex markets solutions often emerge from the interaction between the market actors, this case study showcases one such case where market actors worked together achieve more.

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**About Generating Rubber Opportunities**

Generating Rubber Opportunities in Myanmar—branded as GRO Myanmar— is a market development project which aims to contribute to increasing income and sustainability of smallholder men and women rubber farmers in the South East of Myanmar. It does this by facilitating changes in services, inputs and product markets, which in turn increases the competitiveness of farmers and small enterprises. GRO is a mandated project of Swiss Agency for Development and Cooperation, implemented by CARE International is currently in phase II after successfully completing phase I (2015-2017).

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**ABOUT THE INTERVENTION**

While farmers in Mon State recognize the potential of fertilizer to improve their yields and profits, actual fertilizer usage happens without any knowledge about the application procedure and the quality of the fertilizer being used. Why are farmers not using quality fertilizer appropriately? The answer lies in the complex misalignment of incentives and needs of farmers, fertilizer companies and dealer/retailer and government actors.

**The major constraint identified by the GRO team were:**

- Poor information flow on cultural practices and utilization of inputs (fertilizer, acid, pesticide...) in Mon/Kayin/Tanintharyi regions due to lack of staff capacity in private and public sector actors. Most of the farmers only know about Urea fertilizer and lacks knowledge about other relevant fertilizer and nutrients.
- Input companies including ARMO and AWBA (the most popular brands in Mon State as well as Myanmar) mostly shared product information to the farmers and not embedded information on how to use or what are the other best practices that could impact farmers yield even if they use fertilizer appropriately. Although these companies share the information directly to the farmers, it is not possible for them with their limited resources to reach every rubber farmer.
- The input dealers and retailers are weak in sharing input usage and technical information to the farmers and do not have the right incentive or interest to share knowledge and information with farmers.
- Fertilisers are expensive so inappropriate usage (over dosage or under dosage) could impact farmers’ cost of production and lower yield. Usually three (3) bags are required fertilizer per acre (50 kg bag). The average unit price per bag is 35,000 MMK for tapping farm and 28000 MMK for un-matured rubber farm
(maintenance farm). For a maintenance farm, the usage can vary depending on the age of rubber trees. Depending on what stage the plantation/trees are the ratio of the N (nitrogen), Phosphorous (P) and Potassium (K) varies and most farmers are not aware of this ratio.

In Phase I, GRO worked with ARMO to develop the capacity of company staff, retailers and dealers and engage these actors to share improved knowledge and information about quality fertilizer and their usage. Following the experience of ARMO, in phase II Awba one of the market leaders in agri-input supply in Myanmar partnered in GRO.

The major activities designed under this intervention are:

1) **Identifying a willing and capable partner**: and in this case it was Awba Myanmar, one of the largest agri-input companies in the country.

2) **Capacity Building of Awba Staff**: through Department of Agriculture (DoA) staff on sharing the updated and appropriate information to the farmers and retailers. The DoA staff capacity was built through series of trainings and the update Rubber Manual completed in GRO Phase 1.

3) **Capacity Building training**: for Awba retailers and dealers to be able to share relevant information to the farmers on appropriate usage of fertilizer and cultural practices.

4) **Farmers training and meeting**: through AWBA staff and in collaboration with DoA and local Rubber producers and planters association (RPPA) to improve awareness about quality fertilizer, appropriate usage of fertilizer and other nutrients and good cultural practices.

5) **Demonstration and Field Days**: on appropriate fertilizer usage. AWBA set up demonstration plots with selected lead farmers to demonstrate the effect of recommended fertilizer dosage.

**Market System Actors Interact to Come up with Practical Solutions**

Market systems are complex and dynamic and they involve different public and private players collaborating, coordinating and competing. Their behaviour and performance are influenced by the rules, incentives and the physical conditions of the business environment. But they are also affected by other actors' decisions, to which they adapt. Moreover, accurate information about market players such as their prices, sales turnover, profit margins and plans is often hard to come by, making a precise snapshot of the 'state' of a market system difficult to pin down.

This inherent uncertainty and flux also exists in the Myanmar Rubber market and can make the task of transforming market systems to benefit women and men rubber farmers extremely complex. As a result, it is difficult to predict reliably how market systems will react to changes, such as interventions by development agencies. As a market systems development project, GRO has to see if solutions are emerging based on the interaction between different actors in the market and how they adapt to changing conditions or shifts in the
market. One such practical solution for last mile distribution of quality fertilizer and information emerged from the intervention with Awba.

Ko Min Min from Ye Township

As part of the intervention activities GRO supported Awba to conduct a number of retailer/dealer trainings and Ko Min Min, from Ye Township, was one of the retailers who attended the event in Ye.

Ko Min Min has been in the agri-retail business for about eight years but had not had any direct interaction with Awba even though he has been selling their products. He only ordered the products through his friend who is also a retailer but soon realized that transferring payment through his friend was high risk for his business. He approached Awba and expressed an interest in ordering directly from the company if they could offer him a guarantee on the quality of their products, particularly fertilizer. Ko Min Min was concerned because local farmers believe that Myanmar fertilizer is lower quality than fertilizers from Thailand, and worried about the potential impact on his business and reputation of selling Myanmar fertilizer. However, following assurance from Awba and the offer of additional technical support, he agreed to distribute the fertilizer.

Awba provided him a technical person who recently graduated from State Agri-Science Institute, to support and share effective fertilizer application with farmers. Whenever Ko Min Min goes to the farms, that technician from Awba accompanies him and so they can share the fertilizer technical information with the farmers.

The retail agri-input business in Ye township is very competitive as there are 4 or 5 retailers for input companies distributing fertilizer product and also low quality and inexpensive fertilizers are illegally smuggled from Thailand and are widely available. Ko Min Min realized he had to find a new way of distributing the fertilizer. Through a farmer meeting jointly organized by Awba and GRO he met a member of the Ye Township RPPA. He negotiated with the Township RPPA Executive Committee to distribute fertilizers to the Ye RPPA members and offered an installment system of payment and a profit sharing agreement, whereby a profit of 1000 kyats per bag would be shared 50:50 between Ko Min Min and Ye RPPA.

This has worked so well that Ko Min Min does not need to expand his distribution outside Ye RPPA – he simply get the distribution list from Ye RPPA and deliver the fertilizer to the listed farmers. He also continues to share the information and knowledge about fertilizer usage to the farmers.

U Min Min says “Thanks to Ye RPPA and because of their network, I distribute and sell far more fertilizer than last year. Last year, after I met with Ye RPPA, the sales volume was obviously increased, up to 1200 bags of fertilizer.”

Now he has a different type of challenge. Because of his innovative business model and information sharing, he gets many telephone calls from the farmers who want to ask about the fertilizer application for rubber, the variety of rubber etc.

**Structures are hard to change but attitude matters**

Changing the fertilizer market system and farmers behavior and perception about fertilizer usage requires changing the ways that fertilizer companies operate and interact with the farmers. In turn, persuading a large, established company like Awba to change its business model is a challenge in itself. However based on anecdotal evidence on how the company interacts with local retailers and how these retailers find ways to improve the last mile distribution of quality fertilizer and knowledge to the rubber farmers, the company’s internal organizational dynamic could evolve and GRO might be able to support them to develop proper business case of changing or trying out different ways to distribute their fertilizer and establish the brand identity and reputation beyond just sellers of inputs but also as a source of quality information. GRO can work with Awba further to improve their distribution model in partnership with local actors like the RPPAs and retailers. Of course there are other challenges with regards to fertilizer access and usage, but companies like Awba operate multiple business units, including technology and Microfinance and so on, that could enable them to come up with integrated business solutions for the rubber farmers. In addition to that GRO will look for crowding in opportunities for other input companies to be able to learn and adopt such models for improving the access to quality inputs and information to the men and women rubber farmers.