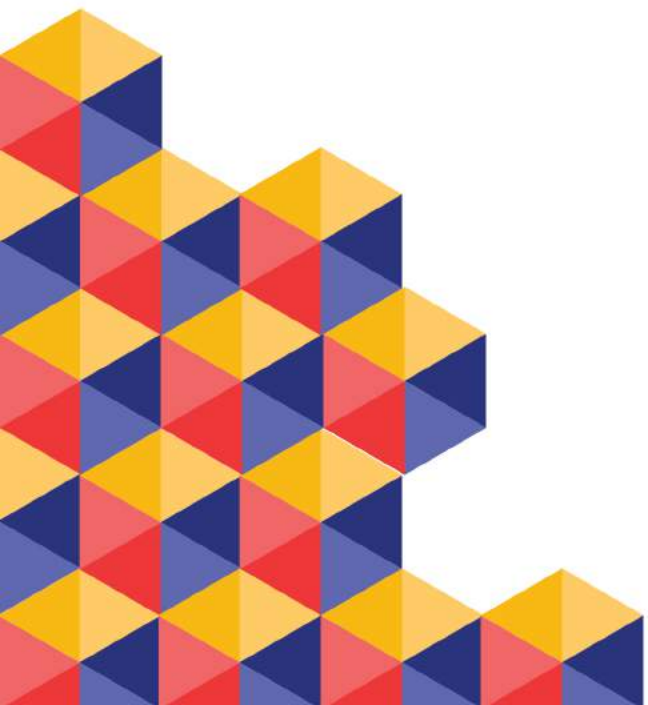
KASANYAGAN

RURAL DEVELOPMENT FOUNDATION



Inclusive
Business
Imperative

Inclusive Business Imperative

IB Imperative is a platform that calls for a collective response from the business communities, national and local government agencies, civil society organizations, and international development organizations that will actively work towards shaping an enabling environment for the development and implementation of more inclusive business projects.

PBSP
Philippine Business for Social Progress

Philippine Business for Social Progress (PBSP), the Philippines' largest corporate-led social development organization committed to poverty reduction and corporate social responsibility, is at a strategic position to effectively lead the promotion and implementation of this rapidly growing concept of Inclusive Business due to its experience, reputation, and access to resources.

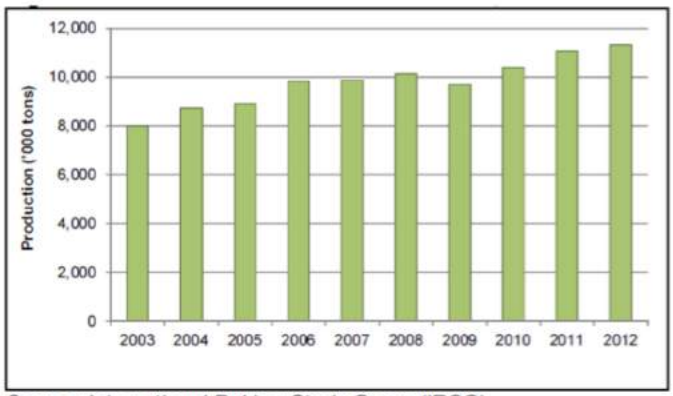
He doesn't think of it in this way, but it is really a kind of dancing. Michael Estrada, senior project technical coordinator of Kasanyangan Rural Development Foundation Inc. (KRDFI), is bent sideways facing one panel of a young rubber tree being tapped for the first time. With his iron tapping knife, he etches the trunk with a shallow angular stroke downward. A thin line of milky white sap flows along the tapline down to a wooden cup tied to the trunk. Mike stands with one leg crossed in front of the other, both feet touching ground at an angle that would allow him to swing smoothly to the next tree some two meters away.

It is a dance all right, but teaching the careful way of tapping raw rubber and the better way to grow the tree – from quality seedlings to KRDFI's rubber-based farming system that will ensure higher prices – are what would bring smallholder farmers to be contributor and gainer in the enterprise.

The rubber tree (hevea brasiliensis) grows best under the temperature and evenly distributed rainfall that are found between the 10 degrees latitudes on either side of the equator. The tree thrives in most kinds of soil, so long as there is good drainage, in elevations of up to 600 meters above sea level.

As Southeast Asia has the natural advantage for growing rubber, it has been producing over 90 percent of total natural rubber production. Some 80 percent of this production is traded in the world market. The tire industry accounts for over 75 percent of the global demand estimated to reach 16.5 million tons per year by 2020 from less than 12 million tons in 2012.

FIGURE 1. WORLD KEY PRODUCERS OF RUBBER



Source: International Rubber Study Group (IRSG)

The Philippines is one of the 11 members of the Association of Natural Rubber Producing Countries, all but two in Southeast Asia, which provide 94 percent of world natural rubber production. Yet the Philippines delivers less than one percent of total world production due to low productivity and small hectarage planted to rubber. Yokohama and Dunlop tire manufacturers in the country have to import more than 10,000 tons per year from Indonesia and Thailand.

While Thailand, Indonesia and Malaysia provide some two-thirds of the world supply, the Philippines accounts for one percent. "You can grow good quality rubber in many places in Mindanao and several other regions," says Anthony Jose, Director f KRDFI, who is based in Zamboanga City but oversees the scaling up of the group's volume and reach in Mindanao provinces where one of every two families lives on subsistence income of less than Php 94,000 per year.

"These farm families (in Agusan del Sur, one of KRDFI's program areas), most of them coming from indigenous tribes, have land from being agrarian reform communities or handed down from their ancestral domain. But they have been turning away from the low earnings from traditional

rubber farming. We are working with them on rubber-based farming systems, where their major crop is rubber but they supplement their income with other crops and benefit from quality seedlings, investment they can raise, and extension and training," says Tony.

"With our business model, we must be doing something right because from the pilot area of 50 hectares, tended by 50 families, in 2009-2010, we have established farms in several hundred hectares. And the latest figure is upwards of 1,600 hectares and farm families that are assisted to integrate the equivalent of one-hectare of rubber plantings per household. Work is done in more than 8 municipalities in Agusan del Sur and an adjacent municipality in Agusan del Norte"

With improved farm practices, rubber will mature in four to six years, even as it allows for permanent intercropping with vegetables, bananas, sweet potatoes, coconut, cassava and other cash crops to tide the farmer over the growing period as well as complement production even after maturity and harvest from rubber trees. When the tree is ready for tapping, a farmer can harvest every two to three days throughout the year, for the next 20 to 30 years. The tree will continue to produce raw rubber that will lift the farm families above the poverty line.

The country's total land area planted to rubber is relatively small, not much more than 200,000 hectares. But Tony, 54, is not one to give up. A veteran of many development projects he was an organizer devoted to protecting workers, employees and their dependents through organizing of worker cooperatives in labor unions when plantations in Mindanao were covered under the Comprehensive Agrarian Reform Program; since then he has devoted his energies and passion to the smallholder farm sector in Mindanao.

The core issues for small holder rubber farming, he says, is

a) technology or modern farm practices, whereas most smallholders still follow the traditional methods resulting in low long-term productivity;

b) capital to invest which must be affordable and accessible to smallholders; and

c) access to quality, clonal seedlings that will grow a productive tree much faster than the traditional non-budded planting material or "wildlings."

The primary concern of lack of quality seedlings is being addressed, principally by a tie-up with the Agusan del Sur provincial government, which has established a Provincial Budwood Garden and Nursery in an initial three hectares at Brgy Mabuhay, Bayugan, Agusan del Sur.

A budwood garden is essential to a rubber nursery as the garden provides the bud eyes used for budding rubber rootstocks. The choice rootstocks are budded with verified high-yielding clones such as PB260 and PB330 and RRIM 600 derived from authenticated source bushes.

The project needed to find ways by which to disseminate the quality seedlings and promote modern or improved farm practices to as wide an area as possible. It has found a dynamic partner in KRDFI which has been promoting what it calls rubber-based farm systems, sometimes referred to as upgraded traditional farming system, where targeted subsistence farming households are enabled to plant 500 seedlings per farm lot of one hectare and provided continuing extension and training in a cost-effective manner.

The farming household raises Php 7,500 or half of the Php 15,000 worth of seedlings at Php 30 per polybag from the Central Nursery and basic inputs needed per hectare. The balance is given by the local or provincial government unit or DENR. The farmers sign an agreement with KRDFI indicating their commitment to attend trainings and implement the improved farming protocols, including providing the labor to maintain and develop the rubber-based farming system.

Ida Dangoy, the project coordinator of KRDFI for at least eight towns and Bayugan City in Agusan del Sur, shows proudly the Central Rubber Nursery her teammates, including senior technical coordinator Mike, has nurtured starting in 2011 on four hectares provided by the provincial government in a partnership agreement that will expire in 2016 in Bayugan City. The nursery has expanded its production to 200,000 polybags of seedlings.

"Perhaps we may call this labor of love of a nursery as the centerpiece of KRDFI's rubber-based farming system. This serves as platform to all our efforts to empower the farmer families to earn a net income that is higher than the poverty income threshold,"

KRDFI's business model has caught the attention of several provincial and municipal officials in Northern Mindanao, including Governor Adolph Edward Plaza and Mayor Kim Lope Asis. Together with the DA, DENR and development organizations and NGOs like KRDFI and the Philippine Business for Social Progress, they have provided the funds and extension support that enabled KRDFI to go for a rapid scale up and replication of its program.

Mindful of climate change and the need to manage risks, KRDFI incorporates into its training program resilience building and supports the climate change and disaster response capabilities of the LGUs. With the help of resource persons and contracted research for relevant data to the localities, KRDFI helps in barangay-based vulnerability and capacity assessments, and trains farmers how to anticipate and cope with climate change.

Using KRDFI's system, the farm yield can increase 2.8 times and net income by 4.8 times. Farmers can earn Php 100,000 per hectare of rubber farm compared to only Php 21,000 income from the traditional system.

Ida was even more enthusiastic to introduce several Higaonon (IP) families in a subsequent trip to Esperanza town, where over a hundred member-households have adopted KRDFI's RBFS system. Poverty incidence in Esperanza is high at 49.3 percent.

TABLE 1. COMPARISON OF RUBBER FARMING SYSTEMS

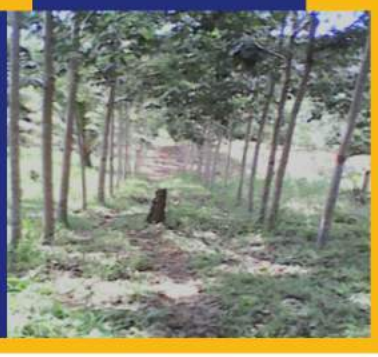
Traditional Farming System	*Upgraded* Traditional	Modern Farming System
• Poor quality of planting materials • Longer maturity period. • Low production caused by low density of productive trees • Higher incidence of bark and root diseases. • Prone to wind damage. • High occurrence of TPD (tapping panel dryness) commonly caused by overexploitation • Shorter exploitation period	• Improved planting materials • Shorter than traditional • High density • Limited incidence of bark and root diseases • Better resistance to wind damage • Less over-exploitation • Sustainable exploitation period	• Superior quality of planting materials • Shorter maturity period • High density of productive trees. • Limited incidence of bark and root diseases • Ability to withstand stronger winds with minimal damage • Low occurrence of TPD (tapping panel dryness). • Sustainable 30-yr exploitation period

Farmer-enrollees Connie Utbo, Adela Boque and Dolores Cabato have become so adept in KRDFI's farm system that they serve as "farmer para-technicians" to train other smallholders mostly in Barangay Hawilian, Esperanza in raising the volume and quality of their harvests.

Connie had a simple way of raising the Php 7,500 investment required by the system: she raised a sow until it was able to give birth to 12 piglets. With each piglet fetching Php 1,800 Connie had more than enough to invest in her farm. She finds a faithful assistant in her husband, Jojo, who works as a vehicle body-builder in Bayugan.

OXFAM subsidized the balance of Php 7,500 for each of the participating smallholders for three years, from 2008 to 2010, and since 2011, local governments and Spanish development cooperation through CODESPA that assumed the subsidy. Several micro-lenders, people's bank, and other rural banks supported the farmers financially whenever they needed extra cash. Recently, the Department of Environment and Natural Resources through it National Greening Program has also participated in the program by assisting some of the households raise their counterpart contributions.

Dolores, on the other hand, grew mostly bananas in her one-hectare farm and in 2010 she began planting rubber with the help of her grown-up children. From the 500 seedlings, 438 trees survived while the rest were carried down in a landslide during a road widening in their barangay. The first 92 trees are ready for tapping this November (2015) and by next May, another 70 or more trees will be ready



Not too far from Dolores's place, Maximo Tuga showed off very neat rows of rubber trees, cleared of grass and weeds, in the sloping terrain of the eight hectares he was cultivating for his brothers and sisters. Several of them were sending money from overseas. He was ferrying people in a pump boat at the Agusan river, one of the main waterways of Mindanao, and also drove a motorcycle with perpendicular seats to carry up to 10 passengers (locally called a habal-habal). He began planting rubber intercropped with bananas and pineapples in 2011. He looks forward to his first harvest within the year.

KRDFI community organizer Ernie Calderon was always around to offer help to the farmer para-technicians, and would be the first to say that women power was the driving force to the success of the program. With Mike and Ida's tireless but cheerful efforts, KRDFI system has succeeded in a big way in at least eight Agusan del Sur towns and Las Nieves in Agusan del Norte, so that other provinces are seeking for their services.

About a week earlier, in a the middle of a heavy downpour at the Davao airport, Tony Jose spoke of the years he spent supporting office,factory employees and plantation workers to develop capacities to operate centrally-managed rubber plantations through cooperatives. After this engagement, he had turned to the plight of individual smallholders in Mindanao who were among the poorest and most vulnerable Filipinos when in fact there was fertile land to give them decent earnings if they were taught how it can be done.

The Agusan del Sur institutional partnership model for small holder adoption of RBFS on individual farms, has been demonstrated to be both scaleable and replicable. It can provide hope for tens of thousands of smallholder families in Mindanao, if other LGU's and government agencies adopt the institutional mechanisms and technical components of the program, to address both rural, structural poverty and exploit Mindanao's natural advantages for rubber cultivation. With the current policy thrusts of GOP to pursue inclusive growth, and the initiatives in recent years of DTI and DA to reinvigorate the rubber industry, now would be a good time to identify, adopt, adapt and scale-up programs such as these.

TABLE 2. FARM PROFITS WITH AND WITHOUT KRDFI'S RUBBER-BASED FARMING SYSTEM

Parameters	Present System (WOP)	Upgraded Traditional (WP)	Multiple Increase
Production (kg dry rubber per ha)	600	1,670	2.8x
Annual Average Cost (PhP/ha)	9,000	66,434	7.4x
Average Net Income (PhP/ha)	21,000	100,566	4.8x
Job Generation per ha	<0.5	0.5	<1.0x
Estimated forex/ha (US$)	1,500	4,180	2.8x

TABLE 3. KRDFI'S SMALLHOLDER BENEFICIARIES WITH FULLY ESTABLISHED FARM (AS OF OCTOBER 9, 2015)

Municipality/City	# of Households with fully established rubber farms
Bayugan City	608
Esperanza	539
Las Nieves	153
Veruela	141
Rosario	97
San Luis	65
Talacogon	45
San Francisco	4
Prosperidad	16

Listening to him speak of KRDFI's work, mostly with lumads or IPs, led to an epiphany or a flash of insight. The primary enabling element for a successful cooperative, or any innovative program, is personal leadership. Either embodied in one person or a group, leadership that is dedicated to improving the lives of the poor is key to creating inclusiveness and sustainability in an enterprise.

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