EMERGING ICS IN THE PHILIPPINES

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One of the passions of Filipinos is food. Generally, even on ordinary days, three full meals are served in a day-breakfast, lunch and dinner. Still many others, even in rural areas, eat five times a day if you include morning and afternoon snacks. Almost all food preparations require cooking and heating. In addition to these food preparations, which are usually cereal and rootcrop-based, either hot tea or coffee is served. One can imagine a kitchen with a traditional cookstove blowing eternal smoke and burning red from dawn to evening.

The Philippines is a developing country in Asia with a population of over 68 million, 80 percent of which still depends on biomass for primary cooking fuel. The biomass used is mainly fuelwood or agricultural waste collected from surrounding land. Yet, up to the year 2000 in the Philippines, there had only been a few small and fragmented initiatives for ICS production. Marketing happened at the village or municipal level through the efforts of local NGOs like for the *Silkalan* of AGTALON, and rice hull stoves were promoted by the Affiliated Non-Conventional Energy Centers (ANECs) of the Department of Energy, to mention a few.

Why was it that neither development actors, NGOs nor the Government of the Philippines was interested in addressing biomass fuel issues despite the fact that biomass has been the primary fuel used by a majority of the population? Are the government and community not interested at all in ICS? This is possible. We can conclude this because somehow

The MPA implementation in Tigbauan, Ilo Ilo

ICS seems to have never been introduced and disseminated or comprehensively addressed nationwide. We can also note that one reason they may not have been interested is because ICS was not a profitable enterprise.

Recognizing the urgency and need for an ICS program, in early 2000 Approtech Asia and the Asia Regional Cookstove Program (ARECOP) discussed the importance of having a sustainable strategy for ICS dissemination in the Philippines. These discussions gave birth to the first national "Potter's Training on Improved Cookstoves" and the evolving partnership between NGOs and ANECs with interested and innovative potters. Partnerships were preferably with those potters

who already produced traditional cookstoves or flowerpots.

Representatives from the Department of Energy were invited by Approtech Asia to attend the planning of the training and from then on participated in training and other workshops. This is how the partnership began between the government and non-profit sector to encourage ICS use among a broader population in the Philippines. Participation from the private sector has come in the form of retailers of traditional stoves, who then decided to carry ICS stoves as well. Inventor-entrepreneurs were also selling their own stoves in malls and supermarkets or through scientific and technological exhibitions.

All organizations involved hoped that the partnership would bring about mutual understanding through studying the technical features of traditional cookstoves, modifying these to come up with an efficient and appropriate cookstove design, and then promoting that design to end-users. This partnership was designed to continue and strengthen after the training as both partners face the challenges of producing, promoting and marketing stoves. This collaboration takes into consideration the reality that not all partners were trained entrepreneurs.

The main objective of this partnership is to encourage NGOs and ANECs together with potters to start producing ICS for commercialization. The NGOs and ANECs will supervise quality, especially of the technical features of the ICS. Whenever necessary or when demand is high, the partners will improve the capacity of potters to mass-produce ICS through micro-financing, enterprise management and capacity building, or simply through assistance with marketing or promotion of ICS.

Steps Toward Larger Scale Dissemination

The potter's training took place in Bulua, Cagayan de Oro in February 2001 and was attended by 10 technical and social development workers from NGOs and ANECs and 10 potters with an international trainer / expert provided by ARECOP. The training lasted for 12 days while potters and technical staff analyzed traditional stove designs and discussed the cooking habits of their respective communities. The partners (NGOs/ANECs and the

The trainers are enthusiastically trying to make a new model of ICS

The ANAGI stove from Sri Lanka was adopted in Ilo Ilo

potters) spent time learning about the technical features and qualities of improved pottery stoves, such as the ANAGI stove from Sri Lanka and the SAE stove from Indonesia, which have already been commercialized. They then designed their own improved cookstove and produced prototypes, sharing designs among themselves and even working on cost calculations for the ICS that they chose to develop and produce when they returned home.

It should be noted here that the potters, NGOs and ANECs also brought their own soil/clay and traditional stoves they produced. This arrangement was to ensure that soil quality and mixture were addressed during the training in order to produce good-quality stoves.

The new improved cookstoves produced during the training were a hybrid of the ANAGI and SAE, taking the features of the ANAGI but with the size and body of the SAE stove.

The partners' enthusiasm to produce and sell the improved cookstove was very high. So, upon arrival in their respective communities, the potters produced the ICS and the technical staff introduced and sold new units in the market.

In Ilocos Norte, the technical staff sold ICS during the Agriculture Caravan and also during festivals through actual demonstration by cooking banana cue (sugar coated banana) to show the performance of the stove. They usually sold all units available after the demonstration. It was very inspiring. However, the excitement did not last long. Just as all love stories do not have a happy ending, the honeymoon was over when, during one public cooking demonstration, the stove started cracking. This situation did not dampen the spirit of the partners. They continued to produce ICS, hoping they would hit the right mix of materials as they gained more experience. ICS continued to sell in certain villages and orders were coming faster than the potters could produce the stoves.

Dozens of ICS units were sold in Ilocos Norte, Panay Island, Cebu and Davao where the potters tested the market. The NGO and ANEC partners made an effort to popularize ICS and link-up with progressive organizations through the retail market for clay flower pots and traditional clay stoves.

Approtech Asia, ARECOP's Country Contact Point, coordinated ICS activities in the Philippines. The problems of

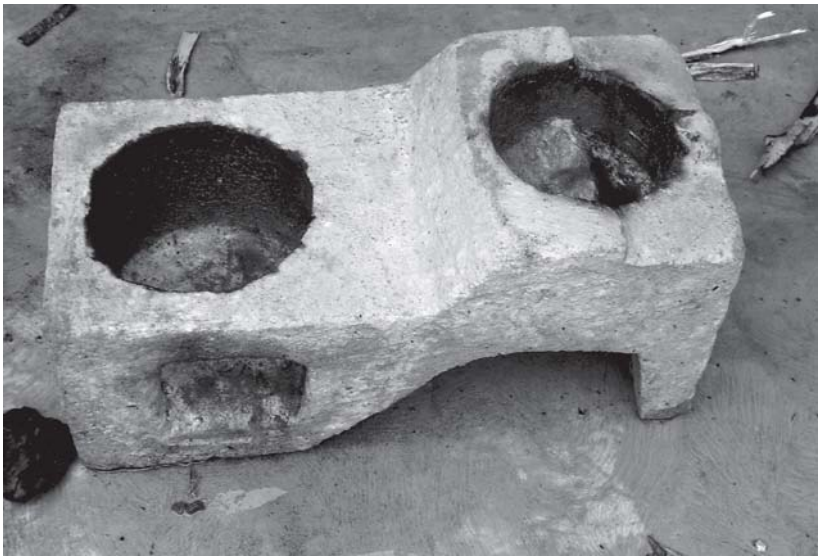
Improved charcoal stoves developed at Appropriate Technology Center, Central Philippines University

quality and commercialization of ICS were discussed extensively, while Approtech sought ways to deal with the slow and difficult take-off of ICS production with respective NGOs and two surviving ANECs. Although the demonstrations had been rather successful at the village level, it was difficult to get momentum going for a national ICS program. The issue of seed capital surfaced during the discussion. A small initiative fund was then made available on a cash basis to the NGOs and ANECs to start purchasing ICS products to assist potter-entrepreneurs. The fund was also used to assist in the marketing and promotion of ICS in addition to the efforts made by respective potters through their own marketing channels and shops.

The potters experienced various difficulties and downfalls when they started mass-producing ICS. Despite the financial assistance, potters who marketed ICS on their own were not encouraged to produce enough because of the time spent making the stove. Although ICS sells at a higher price than their traditional pottery products, it also takes more time to make and consumes more space in the kiln. Six of the ten potters who went into production did not own a kiln. Three of them used open firing while two others rented a commercial kiln. Only one had use of a kiln because family members own a pottery business.

Micro-financing for ICS Dissemination

The most crucial problem faced by potters was the quality of the new products. This problem was identified during monitoring from



Econo-Dalikan, concrete ICS, developed at Appropriate Technology Center, Central Philippines University

the northern to the southern part of the country by ARECOP together with Approtech Asia. The potters and respective NGOs and ANECs were visited in their production areas to see the products and to listen to their problems.

Based on the results of the monitoring and the discussion of problems faced by potters and NGOs in their production of ICS, ARECOP and Approtech Asia organized a Refresher Training with three main resource persons. They were Mr. Auke Koopmans, a clay expert who helped to analyze and overcome cracking problems; Mr. Amarasekera of IDEA, an ANAGI stove production and dissemination expert in Sri Lanka; and Mr. Aryanto Sudjarwo, a SAE stove production expert in Indonesia.

The Refresher Training propelled the real take-off of ICS production in the Philippines. The quality of ICS was enhanced and there was a significant improvement in performance as well. The Refresher Training assisted the technical staff in getting the right mixture of materials in the production of the clay for the body of the stoves so that they would no longer crack during use.

Two years after the long and tedious struggle for the commercialization of ICS, a partnership with a micro-finance institution, Taytay Sa Kauswagan Inc. (TSKI) fueled the marketing of a thousand ICS in less than one year's time. Rainier Roa, an ex-trainee potter who became a trainer and entrepreneur, was given assistance by TSKI in the construction of his own kiln. He has since trained more than 200 potters on Panay Island through TSKI.

Another potter, Agustin Cabance, became a trainer and entrepreneur in the southern Philippines. He has trained youth potters in Vigan, Ilocos Sur and in San Nicolas, Ilocos Norte through the able assistance of Ms. Irma P. Acebedo and Dr. Letty Flores-Gudoy of the Mariano Marcos State University ANEC in Batac. One potter-entrepreneur in Pangasinan, Maximo Tendero, succeeded in marketing his ICS by himself. He was not originally a potter, but an electrician. His interest in pottery, creativity, and persistence, however, made him succeed in ICS production and manufacturing.

ICS, the potters, NGOs and ANECs underwent a painful journey towards the commercial market. But persistence has high rewards and quality products always find a good place in the market. The demand for ICS is still much higher than the production rate. There is a need for more potters. ICS has become accessible to the poor segment of society as the price is reasonable, but unfortunately the lack of supply has kept dissemination from a broader population.

The recent increase in the price of gas is increasing demand for ICS in all regions of the country and across all economic levels of society. Many health professionals, teachers, employees and students, among others, promote ICS by word of mouth. Someone who sees ICS in the kitchen of a neighbor is compelled to buy her own unit. It has come to a point now where there is no longer a need to promote the stove for its performance. Those who know the benefits of using ICS find the cost insignificant. It must also be noted that some health workers have been promoting ICS at the village level.

ICS is now a profitable business. There are cooperatives and women's associations who request training for their potters and are willing to engage in ICS commercialization. Many women users are waiting in long queues with money in their wallets ready to pay for new ICS. It is about time to pick one up now if you still do not have one in your kitchen! glow