BRI II Building, 28th Fl, Suite 2806

Jl. Jend. Sudirman 44-46, Jakarta 10210, Phone: 62-21-571 3548/49, Fax: 62-21-571 1388

"Helping Indonesia to Grow"

AMARTA

Quarterly Report of Project Activities and Achievements

Quarter Three, 2008

April 1 – June 30, 2008

Project Management

Monitoring and Evaluation

The following progress was made this quarter against the nine indicators that have been approved by USAID:

1. ***Number of additional hectares under improved technologies or management practices***

In quarter three 2008, AMARTA added **10,912 hectares** under improved technologies through implementation of value chain interventions including the following: Rubber (263 hectares), Cocoa (3,308 hectares), Coffee (5,900 hectares), Vegetables (180 hectares), Tropical Fruit and Flowers (1,221 hectares) and Bio-fuels (40 hectares).

1b. ***Number of additional units of animals, fish, and other aquaculture products under improved technologies or management practices***

In quarter three 2008, AMARTA added **2,629 units** under improved technologies through implementation of value chain interventions, including the following: Aquaculture (2,500 fingerlings), Beef Livestock (129 cows).

2. ***Number of producers organizations, water users associations, trade and business associations, and community-based organizations (CBOs) receiving USG assistance***

In quarter three 2008, AMARTA assisted **118 associations and farmer groups** through implementation of value chain interventions, including the following: Coffee (46 organizations), Tropical Fruit and Flowers (21 organizations), and Regional Agribusiness and Competitiveness Alliances (RACAs) (51 organizations).

3. ***Number of agriculture related firms benefiting directly from USG supported interventions***

AMARTA implemented new activities in partnership with **3 agriculture firms**, including:

- Tiara Dewata Group
- PT. Karini Utama
- CV. Sumber Rejeki

4. ***Number of individuals who have received USG supported short term agricultural sector productivity training***

AMARTA conducts training programs to provide knowledge on best agricultural practices in an effort to improve local farmer's harvesting capacity and to meet international standards. In quarter three 2008, **21,013 farmers (18,029 men (86%)**

and 2,984 women (14%) participated in agribusiness trainings, including the following: Aquaculture (165 participants), Rubber (113 participants). Cocoa (9,780 participants) Coffee (6,940 participants), Beef Livestock (275 participants), Vegetables (582 participants) Tropical Fruit and Flowers (1,430 participants), Bio-fuels (718 participants) Seaweed (102 participants) and Regional Agribusiness and Competitiveness Alliances (908 participants). The training has proven to improve overall yields and post harvest handling practices and increase sales for farmers as illustrated in many sections of this report.

5. *Percent change in value of international exports of targeted agricultural commodities as a result of USG assistance*

The following exporters increased their export values by 100%, since they did not report any numbers to AMARTA previously; however the total value is quite significant and will be measured against progress next quarter:

- Coffee Gayo Aceh: **export value increased 100% or $77,778**
- Big Tree Farms Cocoa, Bali: **export value increased 100% or $63,771**
- PT Gajah Mountain Coffee, Aceh: **export value increased 100% or $233,334**
- PT Olam, Sulawesi: **export value increased 100% or $882,000**

6. *Percent change in value of purchases from smallholders of targeted commodities as a result of USG assistance*

Impacts of USG assistance have produced additional positive results in the value of purchases from smallholders:

- Bananas, Deli Serdang: banana value of purchases increased **27% or $2,432 per week**
- Citrus, Kabanjahe: citrus value of purchases increased **60% or $4,054**
- Cocoa, Bali: cocoa value of purchases increased **100% or $15,256 this quarter** (no previous figures)
- PT Gajah Mountain Coffee, Aceh: coffee value of purchases increased **100% or $183,000 this quarter** (no previous figures)
- PT Olam, Sulawesi: cocoa value of purchases increased **104% or $449,000 this quarter**

7. Number of new technologies or management practices made available for transfer as a result of USG assistance

AMARTA projects have introduced **46 new technologies or management practices** available for transfer to farmers this quarter, such as:

Cocoa: Frequent harvest, cocoa pod handling, fermentation, appropriate bean sorting and storage, determining cocoa quality, small-scale nursery management, clonal

selection practices, disease awareness (VSD, CPB, Black Pod, Trunk Cancer) and control techniques, improving market access through buying stations, Improving comprehension of technologies used in cocoa trading.
High Value Horticulture: Broccoli nursery technique using trays, mulch application technique for rice farmers during vegetable cultivation, organic pesticide production, organic fertilizer production (bokashi), product sterilization using Ozon (O3), product wrapping technique, frozen plant material handling, strawberry PHQC system, best agriculture practices; in Papua, AMARTA introduced planting, production, transport, marketing and supply of rice, vegetables, fruit, and swine.
Beef Livestock: Artificial Insemination.
Floriculture: Greenhouse prototype.
Seaweed: Seed revolving stock system, best practices in seaweed cultivation, good seed and access to seaweed export market
Rubber: Seed business registration certificate, clone purification, certification for bud wood garden, clone identification, latex unit processing, various rubber clones (PB 260, PB 330, RRIC 100, BPM 1, BPM 24, IRR 39, IRR 118).

8. *Number of additional surveillance and/or control systems in place for agricultural threats*

AMARTA has introduced **7 surveillance and/or control systems this quarter** that serve to detect and/or protect crops from harm such as:

Cocoa: Four VSD detection and control practices
Rubber: Imperata controlling for young rubber planting with weaving, white root disease control
Citrus: Citrus fly fruit miner trap

9. *Number of public private partnerships formed as a result of USG assistance*

AMARTA activities helped create a total of **13 public private partnerships** to enhance agribusiness interventions, such as:

- Pajajaran University
- Indonesia Retail Association (APRINDO)
- Indonesia Vegetable Research Institute
- PT. Hortijaya
- Bridgestone South Kalimantan
- Tabanan Regency
- Agricultural Training Center (Balai Besar Pelatihan Pertanian)
- North Sumatera Assessment Institute of Agricultural Technology (Balai Pengkajian Teknologi Pertanian=BPTP)
- Indonesia Science Institute (LIPI)
- Bandung Agricultural Services
- PT. SUMUT VENTURA
- PT. Karini Utama
- Deli Serdang Regency

AMARTA Grants Program

In the previous quarter, AMARTA provided grant funds totaling $356,000 to support aquaculture and coffee activities in Flores, Papua, and Aceh. The following grants were awarded from January through March 2008:

- Specialty Coffee in Wamena, Papua Implemented by Baliem Arabica Cooperatives – awarded January 9, 2008; $ 73,944
- Grouper Value Chain (Nursery Rehabilitation) in Flores, implemented by PT Karamba – awarded January 9, 2008; $55,000
- Coffee Value Chain Support in Wamena, Papua Implemented by Baliem Arabica Cooperatives – awarded January 14, 2008; $31,230
- Specialty Coffee in Moanemani, Papua implemented by Santo Isodorus Cooperatives – awarded January 15, 2008; $64,500
- Coffee Value Chain Support in Moanemani, Papua implemented by Santo Isodorus Cooperatives – awarded January 15, 2008; $31,230
- Rehabilitation and Development of High Value Prawns in Aceh, implemented by PT Aceh Windu Lestari – awarded January 23, 2008; $96,698
- Ice Factory Production in Kokonao, Papua implemented by Santo Isodorus Cooperatives – awarded March 3, 2008; $3,389

AMARTA awarded three grants this quarter totaling $144,000 to support the Papua Agriculture Development Alliance (PADA) activities and the Specialty Coffee Association of Indonesia (SCAI). The following Grants were awarded from April through June 2008:

- Improving Rice Production in Agimuga, Papua, implemented by the Catholic Church-Bishop Timika – awarded April, 2008; $61,911
- Improving Swine Production in Agimuga, Papua, implemented by the Catholic Church-Bishop Timika - awarded April, 2008; $59,333
- Coffee Association Capacity Building, implemented by the Specialty Coffee Association of Indonesia (SCAI) - awarded April, 2008; $22,900

Coffee grader assembly in Papua

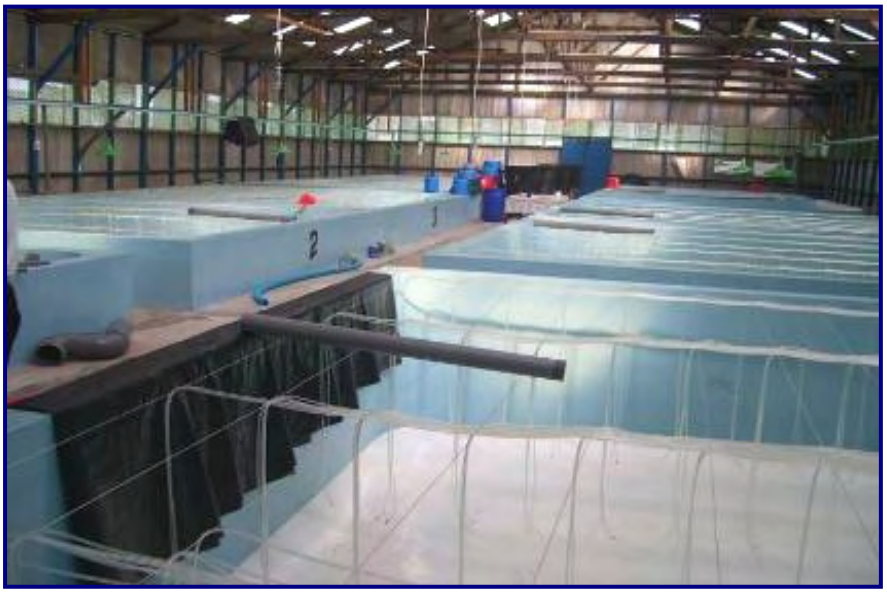
AMARTA is currently developing the following grant proposals for USAID concurrence:

- Rehabilitation and Development of High Value Prawns in Aceh Phase II, implemented by PT Aceh Windu Lestari – estimated grant; $14,120

- Ice Factory Production in Kokonao, Papua Phase II, implemented by Maria Bintang Laut Cooperatives – estimated grant; $28,000

- Developing Market Linkages for Farmers in West Java, implemented by CV Bimandiri – estimated grant; $15,000

- Improving Banana Farmer's Competitive Capacity in Northern Sumatera, implemented by Deli Serdang Banana Farmer's Group- estimated grant; $17,500



Shrimp hatchery and nursery in Bireun, Aceh

Advocacy for Improved Enabling Environment

Collaboration with the Directorate General of Processing and Marketing Agricultural Products in Reviving the Dumai Agribusiness Terminal

As agreed in the inter-agency meeting in Dumai on February 27, AMARTA requested that Dr. Lisa Kitinoja, STTA, review the design of the terminal. Dr. Kitinoja recommended an alternative design in her consultancy report submitted in June. The report was translated into Indonesian and both versions were submitted to the Directorate General of Processing and Marketing of Agricultural Products to be distributed to the relevant users.

Collaboration with the Directorate General of Processing and Marketing Agricultural Products in Developing Cool Storage Facilities

Through a formal invitation letter written on April 9, 2008 the Director General of Processing and Marketing of Agricultural Products invited AMARTA to participate in the

Cool Storage Development Program in eight provinces with a budget of Rp. 1.8 billion per province for 2008. AMARTA provided technical assistance on technology and economic designs for the facilities. As a first step, AMARTA's COP David Anderson participated as keynote speaker in the "Cool Storage Development Workshop" in Surabaya on April 28. AMARTA presented a technical discussion entitled 'Strategy on Developing Cold Storage for Horticultural Products in Tropical Regions'. The workshop was attended by 40 participants, (5 females and 35 males), 20 of whom are government officials, and 20 members of the Indonesian Cold Chain Association. A follow up training of the eight provincial officials involved in determining the design and location of the cold storage facilities will be held in early August 2008.

Partnership with Deli Serdang Regency Office of Agricultural Services

On June 19, AMARTA and the Deli Serdang Regency Office of Agricultural Services agreed upon the final draft of a formal working agreement along with the signing ceremony to take place in Lubuk Pakam on July 4, 2008. The agreement is expected to provide an effective foundation for future collaborative activities helping improve the banana value chain, as well as the agribusiness sector in general, in Deli Serdang Regency.

Partnership with North Sumatera Assessment Institute of Agricultural Technology

AMARTA and the North Sumatera Assessment Institute of Agricultural Technology-Balai Pengkajian Teknologi Pertanian (BPTP) signed a working agreement in Bogor on June 30. The two institutions have agreed to collaborate in technology trials, development of farm recommendations, demonstration plots, farmer and extension agent trainings, and technology dissemination with the government committing to provide land for research and demonstrations.

Regional Agribusiness Competitiveness Alliance (RACA)

Empowering and Activation of the Karo Horticulture Community

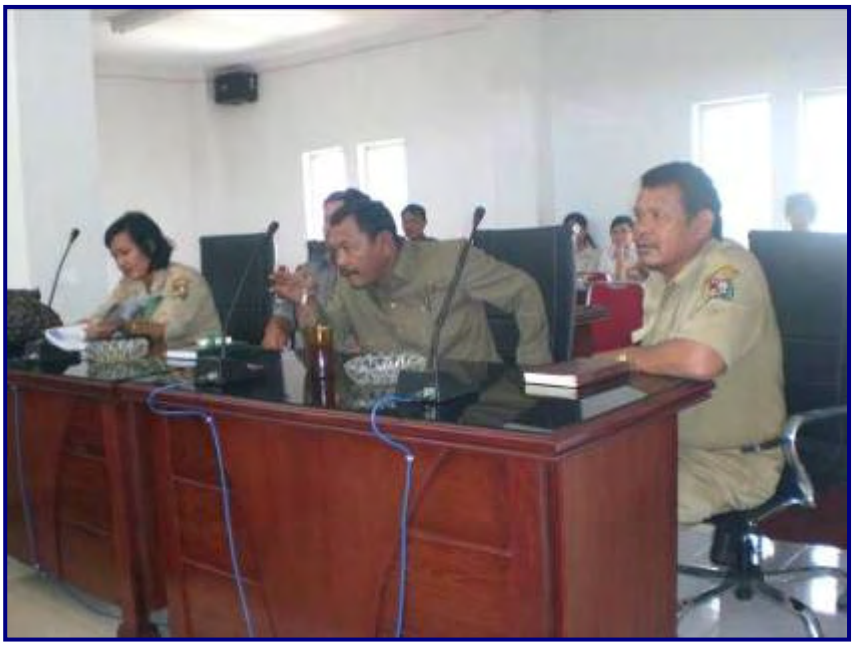
The Karo Horticulture Community (MHK) is a community based organization established in Karo District, North Sumatera Province by AMARTA. The main purpose of MHK is to advocate for the Karo horticulture community during official sessions with the Karo District House of Representatives and Karo District Executive Board who will, in turn, prioritize the horticulture farmer's policy agenda in the District.

On April 9, the first public hearing was conducted at the Karo Regency House of Representatives attended by 67 people, including five media outlets. The hearing was led by Mr. Joy Harlem Sinuhaji, Director of B Commission House of Representatives. During the event, MHK presented a policy paper outlining: 'Potency, Constraints and Policy for Agriculture – Horticulture Competitiveness in Karo District'.

MHK also submitted proposals to B representatives that resulted in successfully approving, funding from the Public Works Agency, a project for hardening of two

kilometers of road to a central production site for farmers in Tanjung Barus Sub-District to be completed this year.

According to Mr. Harlem Sinuhaji: *"USAID and AMARTA have succeeded in establishing and equipping MHK and its members with a coherent policy plan. The representatives were impressed with the analysis and policy paper that helped the government resolve problems within the Karo horticulture community."*



Mr. Harlem Sinuhaji (center) , Head of B Commission Karo House of Representatives at the public hearing

Banana-based RACA, Talun Kenas, Deli Serdang, North Sumatera

In Medan on May 29, in collaboration with Karo Regency Office of Agricultural Services, AMARTA organized the workshop "Government Regulatory and Policy Framework for Enhancing Competitiveness of the Tropical Fruit Value Chains in Deli Serdang Regency" that was attended by 319 participants representing farmer's groups (FGs), agribusiness firms, related government agencies of both provincial, regency and district levels, universities, research institutions, members of parliament, and other development institutions. The workshop concluded with a recommendation for establishing a barangan banana based RACA-typed organization and election of 14 members of an ad hoc committee for initiating formal establishment of the organization.

RACA Workshop on Policy and Regulatory Support to Enhance Tabanan Smallholder Cocoa Production

On May 23, the RACA cocoa workshop was held with the support of the Tabanan District Office which provided the venue, technical equipment, and additional support. The RACA workshop was opened by the Vice-Bupati of Tabanan who took the opportunity to discuss a number of issues linked with government regulations and policies specific to cocoa that could be developed to assist farmers in receiving better

prices and improved market access. The RACA workshop was attended by 120 participants, including 40 heads of FGs from Tabanan District that are currently involved in the AMARTA cocoa training program, as well as other Indonesian government officials and representatives from NGOs, universities, and cocoa companies.

AMARTA Chief of Party, David Anderson, responded to a request by the Vice-Bupati who indicated the need for a study tour by offering a group from Tabanan the opportunity to travel to Sulawesi to explore cocoa production in the region where AMARTA currently has a large cocoa training program (ASKA). In addition to the presentation and discussion on cocoa related issues another outcome was initial discussions by participants who agreed to form the Tabanan Cocoa Community Alliance.

Opening remarks from Tabanan Vice-Regent Gusti Gede Puta Wiransa

Policy and Regulatory Assessment

1. **Horticulture seed assessment by ICASEPS**
   - Draft report submitted to AMARTA on May 12, 2008
   - AMARTA requested a seminar to discuss the report

2. **White paper on horticulture policy and regulatory issues in Karo**
   - Prepared in collaboration with Karo Horticulture Community
   - Presented before the Karo Parliament on April 9, 2008

3. **Rapid assessment of micro-credit schemes for smallholder farmers and fishermen**
   - Final report completed on May 30, 2008, reviewed by USAID
   - AMARTA selecting and designing interventions based on the findings

4. **Horticultural Planting Material Report from PSP3**
   - Draft report submitted on June 25, 2008
   - AMARTA requested a seminar to discuss the report

Summary of Government Cooperation and Collaboration for the Quarter

The following meetings occurred with senior government officials this quarter:

- Director General of Agricultural Processing and Marketing on the cool storage development program; April 4
- B Commission of Karo Parliament Public hearing; April 9
- Director of Dinas Bangka Belitung Province on rubber projects; April 16
- Chairman of Task Force for Agricultural Extension on cocoa; May 2

- Director of Crops Estate, Bali Province on cocoa; April 29
- Government of Tabanan Regency on Establishing the Tabanan Cocoa RACA; May 2
- Centre for Agricultural Extension Training Personnel on cocoa training; May 21
- Bupati of Tabanan, collaboration on RACA workshop; May 23
- Regent of District Deli Serdang and Department of Agriculture Deli Serdang, *Enhancing Competitiveness of Tropical Fruit Value Chain*" event; May 29
- Director of Estate Crops, Bali Province on training for farmers and agricultural extension staff; June 6 and 25
- Indonesian Rubber Research Institute, West Kalimantan on rubber training; June11
- Director of Planning and Development from the Department of Crops for Dinas in West Kalimantan; June 12
- Director of Pengkajian Teknologi Pertanian (BPTP) North regarding a working agreement; June 18
- Director of Deli Serdang Regency Office of Agricultural Service working agreement; June 19
- Head of Dept. of Agriculture Deli Serdang District regarding a working agreement; June 19 and 30
- Representatives from Dirjen Estate Crops, Director of Plant Protection, Senior ICCRI officials, BPTP officials from South Sulawesi and West Sulawesi to participate in the VSD seminar in Sulawesi; June 25
- Governor of South Sulawesi on the cocoa program: June 26

In addition, AMARTA had ongoing collaboration with the following government agencies this quarter:

- BAPENAS regarding registration for AMARTA staff and they were invited to Bogor for an event on June 30
- Indonesian Vegetable Research Institute (IVEGRI)
- Indonesian Coffee and Research Institute (ICCRI)
- Director General of Quarantine

Aquaculture

Grouper Nursery and Grow Out Development in Loh Mbongi

The hatchery and nursery rehabilitation project in Flores has entered the final phase of construction. Twelve nursery tanks were built and are currently being used, while the total grouper production for the quarter is 8,000 fingerlings. A qualified and certified manager has been hired and is implementing best practices in hatchery development, supporting PT Karamba to produce high quality grouper fingerlings. Market price for grouper is more than $40 per kg and PT Karamba will ultimately produce 20,000 grouper fingerlings per month for export to Hong Kong, mainland China, and other areas where demand far exceeds the current supply. The demand is so strong that international buyers are sending live transport boats- with a minimum 10 tons- directly to grouper farms in Indonesia, saving exporters substantial time and resources compared to traditional exporting.

Village Based Net Cage Pilot Program in Warloka Village

The successful fish stocking of Warloka Village net cages continued throughout the quarter as additional fingerlings were provided and PT Karamba demonstrated sustainable aquaculture practices for the fishing village, creating alternative livelihoods for participants and their families. During the quarter an additional 1,200 fingerlings were provided bringing the total population to 2,500 fingerlings, up from 1,300 fingerlings supplied at the March launching. Next quarter, an additional 2,500 fingerlings will be added to the net cages. Rehabilitation of 16 cages was completed to support the grouper grow-out cycle and during the next 12 months, villagers will harvest approximately 500 fish weighing a total of 250kg with a total market value of more than $10,000, benefiting over 400 people.

Warloka Village net cages expanding production

Livestock

The cattle breeding program continues to yield positive results as the first calf was born this quarter in Kupang, along with four other successful deliveries. The project includes farmers who are members of Puskud Nusa Tenggara Timur (NTT) with the *Koperasi Ternak Sapi Potong*, (KOPNAK) in the Kupang District, West Timor, NTT. AMARTA provided 300 heifers- distributed to 235 male farmers and 65 female farmers, and 30 cows are currently pregnant. The artificial insemination (AI) program was initiated for six heifers starting April 29, in order to enhance pregnancy rates. Training on best practices for cow breeding was conducted on May 27, where 221 male farmers and 54 female farmers participated in applying innovative technology, including various aspects of breeding management, feed, reproduction, and compost management.

The project in West Timor was recognized by the Director General of Livestock Services as an excellent model for cow calf production that should be replicated elsewhere in Indonesia. The Director General invited the Vice President of Indonesia, Mr. Jusuf Kala, to visit the program, however in transit Mr. Kala was called back to Jakarta by the President. AMARTA will coordinate with USAID and the Government of Indonesia to reschedule the trip for Mr. Kala next quarter.

Bio-fuels

AMARTA's pilot program in bio-fuels assists villages in substituting jatropha oil for fossil fuels. AMARTA and its private sector partner, Lion Lestari, continued to assist FGs in

the villages of Legu and Uluwae to set up jatropha seedling nurseries. These nurseries produced 75,000 seedlings, which were supplemented by an additional 25,000 plants previously grown from cuttings.

The plants are now 50 to 100 cm tall, and are on schedule to produce their first harvest in early 2009. During the next quarter, farmers will be advised to "ratoon" their plants, or cut off the upper branches. This practice causes the trees to develop lateral branches, increasing the opportunity for seeds to develop and reducing the eventual height of the trees for easier harvesting. In late April, AMARTA provided cooperative development training to 27 farmers in Legu and 25 farmers in Uluvae. Key outcomes from the initiative include the following:

- Although Uluvae does not have an ideal climate for jatropha production, due to high altitude and heavy rains, farmers are committed to the program and would like to plant an additional 50,000 cuttings, obtained from the nearby village of Borong.
- The Uluvae cooperative would like to install a 7,000 watt electrical generator that runs on jatropha oil. This would be used for welding and other income generating activities.
- The cooperative in Legu would like to begin processing coconut and kemeri nuts in their expeller. This is technically feasible with the existing equipment, though the machine will have to be carefully cleaned before processing food crops. They are also interested in electricity generation using jatropha oil as fuel.

In April, AMARTA staff met with the Coordinator of the government's Energy Self-Sufficient Village program, also known as Desa Mandiri Energi (DME). This high profile program was launched by President Yudhoyono in 2007, with the goal of creating 1,000 energy self-sufficient villages by 2010. Legu and Uluvae are now enrolled in the program, and can apply for regional and central funding to expand their efforts. AMARTA will assist the villages in preparing proposals for future activities.

In June, AMARTA attended a demonstration for cooking stoves designed by Bosch Siemens to burn jatropha oil. This is a new version of the stove, redesigned to be easier to manufacture and requires less frequent cleaning. The stove functioned very well on crude jatropha oil. The first locally built stoves will be available in October 2008 and AMARTA will purchase demonstration stoves for both pilot villages as soon as they are available.

Cocoa

AMARTA Sulawesi Kakao Alliance (ASKA) training program

The AMARTA Sulawesi Kakao Alliance (ASKA) Basic Training Cycle 2 started in December 2007 with 350 farmer's groups (FGs) and approximately 8,750 farmers participated in the second cycle of basic training which covered Southeast Sulawesi, South Sulawesi, and West Sulawesi.

In **Southeast Sulawesi**, 150 FGs have been trained by ASKA, including 80 FGs from Kolaka District and 70 FGs from North Kolaka District. In March, the first two week training focused on harvesting and sorting cocoa pods and clinical analysis, attended by 3,789 participants (table 1 below). The following two weeks covered frequent harvesting, sanitation, and major pests and diseases and included 3,795 participants. For implementation reasons there are limitations to the total number of FGs who can attend the cocoa clinics, which are conducted at Olam/Tunas Jaya buying stations- capping participation to a maximum of about 25 FGs. The following month 3,752 participants attended three different topics the first two weeks including: Cocoa pod handling and drying techniques, frequent harvesting, and sanitation, while the next two weeks included topics on appropriate sorting and storage of cocoa beans and harvesting and sorting of cocoa pods- with attendance by 3,753 farmers. In May, 3,728 participants attended training on defining cocoa bean quality and cocoa pod handling and drying techniques, while 758 participants were involved in the following week's topics including appropriate sorting and storage of cocoa beans.

Higher Prices for Better Quality Cocoa

Mrs. Hasnah is a 50 year old farmer and a member of Tunas Harapan Farmer Group, one of the 70 FGs in Polewali Mandar District – West Sulawesi that is being assisted by the AMARTA Sulawesi Kakao Alliance (ASKA) program. Before participating in the ASKA program, Mrs. Hasnah sold her cocoa beans to mobile traders or local traders at Rappang Village. Through the ASKA basic training, Mrs. Hasnah learned how to improve cocoa quality, particularly what is needed for export grade cocoa. As a result of this training she became aware of how improved quality would result in higher prices for her cocoa and result in greater income. Mrs. Hasnah also learned that it was more profitable for her to sell directly to cocoa exporters rather than local traders who typically do not purchase cocoa based on export quality parameters and do not reward or separate good from poor quality cocoa.

Since the ASKA basic training, Mrs. Hasnah has started to sort her cocoa beans before selling. On May 7, she sold her highest quality beans that met export standards for Rp. 22,900 ($2.50) per kg to UD. Tunas Jaya (an ASKA partner in West Sulawesi), compared to an average price that Mrs. Hasnah previously received of between Rp. 12,000-14,000 ($1.52) per kg for cocoa she sold to local traders. The lower quality cocoa beans that did not conform to export standard size were sold by Mrs. Hasnah to local traders for Rp. 8,000 ($.87) per kg.

Although the sorting means some additional work for Mrs. Hasnah, she feels that the effort is well worth it. The added value product has provided her with greater returns on her investment in time and higher profits than she has ever received before. When AMARTA visited the Tunas Harapan FG recently, Mrs. Hasnah excitedly expressed her joy and gratitude to USAID-AMARTA: *"ASKA has provided me with the training, information, and improved skills for managing my cocoa farm and has helped me earn more money for my family through improved market access. I am excited to be able to buy my family more food and clothing, and want to continue to learn more from ASKA and AMARTA."*

Mrs. Hasnah with her improved quality cocoa beans

Table 1: ASKA training topics and attendance in Southeast Sulawesi

Month	Topic	Attendance		
		Male	Female	Total
March 2008	Harvesting and sorting of cocoa pods	2,808	468 (14%)	3,276
	Main pests and diseases	460	53 (10%)	513
	Frequent harvest and sanitation	2,531	497 (16%)	3,028
	Cocoa clinic	675	92 (12%)	767
April 2008	Cocoa pod handling and drying technique	2,515	478 (16%)	2,993
	Frequent harvest and sanitation	694	61 (8%)	755
	Appropriate sorting and storage of cocoa beans	2,526	472 (16%)	2,998
	Cocoa clinic	233	19 (8%)	252
	Harvesting and sorting of cocoa pods	463	44 (9%)	507
May 2008	Defining cocoa bean quality	2,491	477 (16%)	2,968
	Cocoa pod handling and drying technique	702	58 (8%)	760
	Appropriate sorting and storage of cocoa beans	698	60 (8%)	758

In South Sulawesi, a total of 80 FGs including 10 FGs from Pinrang and 70 FGs from North Luwu Districts received training by ASKA; topics are noted below in Table 2. AMARTA documented 1,991 farmers who attended the first two week training, while 1,986 participants attended the second two week training. The following month a total of 1,939 farmers participated in cocoa pod handling and drying techniques with 1,986

farmers joining in appropriate sorting and storage of cocoa beans topics. In the final month of the second cycle of basic training, 2,032 participants received instruction on defining cocoa bean quality.

Table 2: ASKA Training topics and attendance in South Sulawesi

Month	Topic	Attendance		
		Male	Female	Total
March 2008	Harvesting and sorting of cocoa pods	1,028	193 (16%)	1,221
	Cocoa clinic	634	136 (18%)	770
	Frequent harvest and sanitation	1,656	277 (14%)	1,933
April 2008	Cocoa pod handling and drying technique	1,647	292 (15%)	1,939
	Appropriate sorting and storage of cocoa beans	1,680	306 (15%)	1,986
May 2008	Defining cocoa bean quality	1,725	307 (15%)	2,032

In West Sulawesi, a total of 120 FGs from two districts participated in ASKA training consisting of 60 FGs from Polewali Mandar District and 60 FGs from Mamuju District; topics are shown below in Table 3. Attendance figures show 2,909 participants attended in March and in the first two weeks of April, 2,909 participants once again attended trainings. In the second two weeks of April 2,942 farmers participated, culminating in May with 2,935 participants.

Table 3: ASKA Training topics and attendance in West Sulawesi

Month	Topic	Attendance		
		Male	Female	Total
March 2008	Harvesting and sorting of cocoa pods	2,400	509 (18%)	2,909
	Frequent harvest and sanitation	2,029	420 (17%)	2,449
	Cocoa clinic	444	67 (13%)	511
April 2008	Cocoa pod handling and drying technique	2,461	448 (15%)	2,909
	ppropriate sorting and storage of cocoa beans	2,460	482 (16%)	2,942
May 2008	Defining cocoa bean quality	2,457	478 (16%)	2,935

Solar Dryers, Organic Farming, and Replanting Techniques

A number of additional topics were also provided by AMARTA-ASKA staff during the basic training program. Determining the extent of support for these additional topics is flexible, primarily determined by the farmers in consultation and coordination with the field trainers and field coordinators and technical staff in Makassar. These additional topics span a number of issues including: How to prepare organic fertilizer, solar dryer construction, introducing different kinds of green budding or top grafting 'okulasi' methods (side grafting, wedge grafting, chupon grafting, seedling grafting), small scale nursery management, introduction and use of natural pesticides, clonal selection

practices, simple methods of sorting cocoa bean size, and introducing collecting centers for FGs.

Many of these additional training topics have already been adopted and implemented by farmers particularly in the case of Kolaka District. There are now 48 solar dryers that have been constructed by farmers and FGs. Another example of additional topics and trainer innovation adopted by cocoa farmers is in Polewali Mandar and North Luwu Districts where additional training in natural and organic fertilizers requiring low input costs are resulting in healthier trees. In addition, continued training and support for side grafting has been implemented in the three provinces where ASKA is working (South, West, and Southeast Sulawesi) building on the work that had been achieved as a result of the previous USAID supported Success Alliance Program.

A farmer spreads cocoa in a solar dryer in Kolaka District

Innovative Solar Dryers Increase Income

"*I usually place the beans directly on the ground at the street for drying, so there are many foreign objects and also the smell of fuel and smoke mixed with the beans, not to mention the risk of beans being crushed by cars or motorcycles. I also need to move the beans when it rains. The solar dryer is different and the beans are safer, dry quickly, and have less fungus. Last year during the rainy season I sold my cocoa beans to local traders for only 5,000 Rupiah [$0.56] per kg, but now that I'm using a solar dryer I can sell my beans to PT. Olam for 22,000 Rupiah [$2.44] per kg. I am very happy! I never got a higher price for my beans in my life. My friends and I want to thank USAID and AMARTA.*"

Bapak Sappe is a 43 year old farmer from Southeast Sulawesi

The use of side grafting is not always appropriate as the increasing incidence of trunk kanker (caused by *Phytopthora spp.*) results in the main trunk being unsuitable for side-grafting. As a result most grafts are likely to drop off due to the diseased tree trunk. To date Sulawesi smallholder cocoa farmers have not been exposed to training or techniques that can help them with the issue of replanting their cocoa gardens. Thus, the current situation sees cocoa farmers who are unable to effectively or efficiently increase production on their cocoa gardens by side-grafting alone. As a solution to this

challenge, the AMARTA team in Makassar through the ASKA smallholder cocoa training program is in the process of completing materials that will assist farmers in conducting a cocoa garden evaluation. This garden evaluation methodology and cocoa replanting and rehabilitation training will become the basis for informed decision making and an action plan that will enable farmers to implement replanting or rehabilitation efforts in their cocoa gardens. Farmers who have heavy Vascular Streak Dieback (VSD – *Oncobasidium theobromae*) and trunk kanker infested cocoa gardens are starting to perform rehabilitation through side grafting and chupon grafting and have also considered replanting their old trees, particularly in West Sulawesi.

Identification and preparation of FGs who will be involved in Cycle 3 of the ASKA Basic Training program began in the first week of June. Another 350 farmer groups or 8,750 target farmers will participate in ASKA Basic Training Cycle 3 with 150 FGs from Southeast Sulawesi, 80 FGs from South Sulawesi, and 120 FGs from West Sulawesi. This will conclude the initial commitment to provide smallholder training through the basic training program (10 one-day sessions) with the remaining time dedicated to implementing a follow-up training program (6 one-day day sessions) designed to build upon and consolidate the core training issues.

Letters from the Field: Cocoa Trainees in Their Own Words

I feel happy and proud to be trained in the ASKA program since June 2007. Before that, it was very rare for us to receive extension services or to be trained in cocoa cultivation and my cocoa plants were heavily damaged by pests and disease, and my total production did not even meet the needs for my family. All the materials that I have received from the ASKA training, I have applied to my cocoa farm. I was able to harvest 1-2 sacks (25-50kgs) of cocoa beans per harvest. Other farmers saw what I had done and they wanted to follow my example. When I went to my farm, many farmers had waited for me to discuss ways to maintain and rehabilitate their farms as well.

Mr. Juhadi, a 35 year old cocoa farmer from Polapo District, South Sulawesi

Follow-up training Cycle 1: TOT in Masamba, North Luwu District

A training-of-trainers (ToT) activity for Cycle 1 follow up trainers was conducted in Masamba District in late March and early April for 20 candidates from Southeast Sulawesi and South Sulawesi. Besides trainer candidates, AMARTA also invited the Indonesian Coffee Cocoa Research Institute (ICCRI), local estate crops officers, and representatives of ASKA private sector partners (PT. Olam Indonesia and UD. Tunas Jaya) to participate in this event.

ASKA Follow-Up training cycle 1

AMARTA completed the first cycle of AMARTA Sulawesi Kakao Alliance (ASKA) basic cocoa training for 3,000 smallholder cocoa farmers or 120 FGs in December 2007. The ASKA follow-up training program will provide opportunities for farmers to consolidate and strengthen their recently acquired knowledge, help develop new skills, as well as allowing AMARTA to track ASKA farmer's progress in achieving increased productivity

and quality. Part of the ASKA visual learning strategy includes the production of four video compact discs (VCD's) that provide step-by-step instructions for farmers to implement in their cocoa gardens. These VCD's provide the basis for some of the follow up training support providing participants with added information beyond what was taught in basic training, as well as opportunities for specific topic based discussions and practical exercises.

In April, Dr. Ir Herdradjat, the Director of Estate Crops Protection requested 380 cocoa VCDs to provide to all of the Estate Crops extension agents throughout Indonesia**.** AMARTA delivered 400 copies to Dr. Herdradjat on May 8.

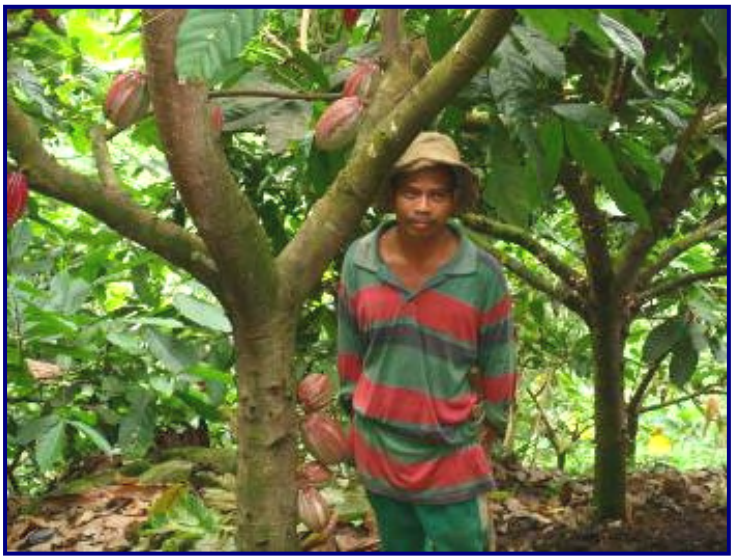
Organic Soil Enriches Soil, Livelihoods

Mr. Tahir has always been a diligent cocoa farmer, attentive to his one-hectare field of 900 mature trees. Though, only since he began to participate in the ASKA cocoa training program has he begun to see the real fruit of his labors. ASKA has stressed fundamental field maintenance using what are known as "PsPSP" methods (frequent harvest, pruning, sanitation, and fertilizing), and in particular the use of organic fertilizer.

From materials such as cocoa leaves, branches, and cocoa pods, Mr. Tahir now makes a compost feedstock that provides a rich natural source of potassium chloride, nitrogen, and other micronutrients for his trees. The results- healthier growth and higher productivity- speak for themselves. In the past, Mr. Tahir's non-side-grafted trees produced only 10 pods per tree per year; with the organic fertilizer, the same trees produce 75 to 100 pods per tree per year. His organically fertilized side-grafted trees are now producing 100 to 300 pods per tree per year.

In addition to this dramatic improvement in production, Mr. Tahir has achieved quality levels that translate into striking economic returns. He recently sold 58.5 kilograms of cocoa with a grade of 84 beans/100 grams to a company called UD. Tunas Jaya (a ratio significantly better than the 110 beans/100 gram recommendation of the Indonesia National Standard).

All told, UD. Tunas Jaya paid Mr. Tahir Rp. 21,000 ($2.28) per kg for his crop, netting him approximately Rp 1.23 million ($134) - an amount previously beyond his imagination. *"I never thought that training in fertilizer could help make me more money. I am grateful to USAID and AMARTA, and look forward to learning more about improved cocoa production practices."*



Mr. Tahir with his cocoa trees

ASKA Capacity building for AMARTA trainers, Polewali Mandar District

Following a series of visits by AMARTA, including STTA BK Matlick, to West Sulawesi between October 2007 and January 2008 it was discovered that many cocoa gardens were heavily infested with Vascular Streak Dieback (*Oncobasidium theobromae*), trunk canker and black pod (*Phytophthora sp*). The level, extent and nature of the combined infestation were considerably greater than had been seen in other regions where ASKA was training (Pinrang, Palopo, Luwu, North Luwu – South Sulawesi and North Kolaka and Kolaka – Southeast Sulawesi). As a response, AMARTA initiated a series of activities as a means of addressing the increasing damage from these diseases that had not previously resulted in declining productivity. From April 15-18, 2008, AMARTA conducted an internal staff capacity building activity in Polewali, West Sulawesi.

Training in Polewali, West Sulawesi

The key aim was to help improve ASKA farmer trainer capacity to conduct a cocoa garden evaluation and develop recommendations to address declining productivity and increase pest and disease pressure. In addition to the 41 ASKA field personnel- farmer trainers and field coordinator- a number of external representatives also attended the training including personnel from the District Estates Crops Office (Polewali Mandar and Mamuju), and ASKA private sector partners (PT. Olam Indonesia, and UD. Tunas Jaya). The skills and techniques delivered will help ASKA farmer trainers better understand the decision making process necessary to evaluate and decide next steps for individual cocoa farmers.

Letters from the Field: Cocoa Trainees in Their Own Words

After learning about quality related issues in the ASKA training, we realized that there were still many farmers, including me, who did not know the quality of their cocoa beans. Our beans were given a very low value when we sold them to local traders. After we understood the quality issues based on the Indonesia National Standards, we started to sort and dry the cocoa beans to the required 7% moisture level. Afterward, we sold the beans to PT. Olam in Masamba, North Luwu. The benefit that I gained is quite significant, Rp. 3,000–4,000 (about $.40) per kg more than I used to receive, in addition to the benefit of knowledge received from Olam's buying station technical staff.

Mr. Camma, a 45 year old cocoa farmer from North Luwu, south Sulawesi

Demonstration Plots with AMARTA and ICCRI for Clonal Genotype Trials

A new activity between AMARTA and ICCRI has seen coordination and cooperation between both parties in the development and facilitation of a number of demonstration plots where cocoa genotype trials are being conducted. There are currently four locations in Mamuju and Polewali Mandar Districts of West Sulawesi where these trials have started. Between June 6-7, AMARTA and ICCRI prepared two demonstration plots in Polewali Mandar and two locations in Mamuju District where a total of eight cocoa clones (ICCRI 03, ICCRI 04, KW 516, KW 617, KW 570, KW 162, KW 168, and DRC 15) had shown indication of resistance and tolerance of VSD. These clonal materials were planted in two locations in each district. The four locations were selected based on the level of disease infecting the area, the condition of the cocoa gardens, and the suitability of the location from flood or other non technical issues that may occur. Three of the four locations selected, have already been side-grafted with clone PBC 123 and BR25 clones that are commonly found in West Sulawesi.

Database Development

In May AMARTA selected CV. Rekayasa Multi Dimensi (RMD) to create a database of cocoa needs assessments and baseline surveys. This data will provide the basis for monitoring, evaluation, and reporting as the program continues to move forward. In addition to this data tracking system, 350 ASKA farmers are recording their cocoa sales, productivity, improved quality, and price derived from sales. This data is collected on a monthly basis and will provide a more in-depth and accurate assessment of the types of improvements that participating farmers are experiencing. Data will be shared in future reports and success stories.

Constraints Working with ASKA partners (PT. Olam Indonesia, UD Tunas Jaya, and PT. Armanjaro)

- Two PT Olam buying stations in Lasusua and Lambai Sub-Districts of Kolaka as well as the Masamba buying station of North Luwu District were closed since February 2008, only re-opening again in the last week of April 2008 due to resignation of staff, low purchases from farmers, and lack of funds to purchase cocoa.

- ASKA partner for Palopo District, PT. Armanjaro agreed to buy farmer's cocoa based on quality standards through three local partners, however two of the partners have not provided quality grading equipment.

SustaIndonesia Kakao Alliance (SKA) - Smallholder Training in Bali

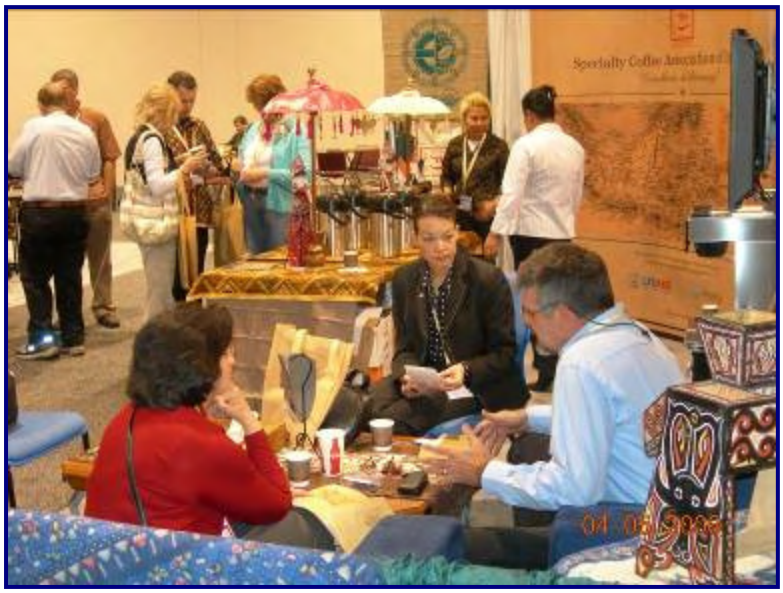
Four farmer trainers were hired, and the first cycle on SKA Basic Training I was conducted and completed at the end of June with 12 training modules completed. A total of 40 FGs were intensively trained in the basic training program. The total number of participants for the remaining four modules is 4,643 male farmers and 601 female farmers. The SKA Basic Training Cycle II will begin in early July 2008 with socialization of the program to FGs.

AMARTA grantee, PT Bening Big Tree Farm (BTF), based in Bali, is currently supervising 39 FGs and developing an integrated supply chain for fermented cocoa with high value linkages between producers and end users. During 2007 through early May 2008, BTF exported $63,771 worth of high quality cocoa to the United States, England, Germany, Spain, the Czech Republic, and also promoted Bali cocoa to importers in France, Denmark, and Italy.

Coffee

Arabica Coffee

AMARTA is supporting the activities of the Specialty Coffee Association of Indonesia (SCAI), which now has 39 members from all segments of the industry. The largest segment continues to be exporters, followed by farmer's cooperatives. The seven coffee cooperatives that have joined the association have 8,050 members. On April 2, SCAI held its First Annual General Meeting, attended by 20 out of the 23 members registered at the time. The participants elected leadership for the association and voted to work on four main activities over the next 12 months:



The SCAI booth in Minneapolis, Minnesota

1) Developing geographic indications for Indonesia's Arabica coffees
2) Researching trademarks on coffee names
3) Improving the cupping skills of SCAI members
4) Improving the training of baristas and possibly holding a regional barista contest

A delegation from SCAI attended the Specialty Coffee Association of America (SCAA) trade show and conference in Minneapolis, Minnesota between May 2 and 5. More than 7,300 people attended, making it the most important event in the industry. AMARTA's support allowed SCAI to rent an exhibition booth and send a delegation of four members to represent the association. The members who were sponsored by AMARTA were joined by other SCAI members, who traveled with funding from the Association of Indonesian Coffee Exporters (AEKI) or their own funding. Brochures about Indonesia's Arabica coffee and the association's activities were distributed to more than 1,500 visitors to the booth. Other highlights of the show included:

- The SCAI booth was visited by major coffee importers including McDonalds, Dunn Brothers, Peets, Atlas, Atlantic, Royal and Cafe Imports
- Coffee samples submitted by SCAI members to the Cup of the Year contest were ranked 3rd, 5th and 6th among all the samples submitted from the Pacific, Asia and Hawaii.
- SCAI signed a memorandum of understanding with the International Relations Council of SCAA.

From July 12-18, Ted Lingle, the Co-Chairman of the Specialty Coffee Association of America (SCAA) and Executive Director of the Coffee Quality Institute (CQI) will be in Indonesia to visit five locations and provide training to Indonesia's best coffee cuppers preparing tasters to become Q-cuppers who measure the quality of specialty coffee.

AMARTA Coffee Grantees

AMARTA continued to monitor and support its two grantees in the coffee sector, PT. Gajah Mountain Coffee in Aceh and C.V. Lion Lestari in Flores, both of whom are SCAI members. During the reporting period Lion Lestari was certified as an organic producer by Control Union in June. Also, farmers working with PT. Gajah Mountain Coffee completed a majority of the major steps required to become organic certified producers be LeSOS, a local certifier, accredited by Bio-Inspecta, a Swiss organic certifier. One final inspection in August in conjunction with Bio- Inspecta will complete the process and provide certification.

A coffee picker in Uluvae, Flores supplies AMARTA grantee Lion Lestari with fresh beans

P.T. Gajah Mountain Coffee purchased 61,000 kg of coffee from the Gayo Mountain Cooperative. The coffee was sorted and graded using the equipment purchased under the AMARTA grant

Three containers (54,000 kg) of this coffee, with a value of $233,334, were exported between late March and mid-June to a roaster in the United Kingdom.

The Coffee Cherry Borer (CCB) is a major coffee pest in Indonesia, and as its name indicates, CCB bores a hole in the coffee cherry. AMARTA and its partners have distributed 1,000 Broca Traps to 150 farmers in Sidikilang, Toraja and Aceh to combat the pest. Data collected by farmers in Sidikilang indicates that the traps can reduce the damage caused by this pest from 27% to 7%. Coffee beans with holes are counted as defects, and coffee with 27% defective beans would be classified as Grade 3, while coffee with 7% damage could still be sold as Grade 1. The economic impact is significant, since a reduction of two grades could reduce the contract price by 10% or cause the entire shipment to be rejected. AMARTA will continue to collect data through the peak production seasons in each area. This data will then be presented to farmers at workshops in each area, showing them economic benefits that the traps can provide.

High Value Horticulture

High Value Horticulture Development Program in Pancasari

Mitra Bina Mandiri Cooperative (MBMC) has been identified as a partner on the high value horticulture development program in Pancasari. Training on best agriculture practices for strawberries was conducted on April 15 and attended by 25 male farmers and three female farmers. Post harvest handling was also conducted between June 9–12, by STTA Lisa Kitinoja, where farmers learned improved on-farm practices (picking and field packing), as well as improved off-farm practices for the AMARTA strawberry post harvest quality control system (PHQC). The training was conducted in anticipation of AMARTA receiving a strawberry shipment of 500,000 strawberry frigo seeds scheduled to be distributed to farmers in May; however AMARTA has faced a major obstacle related to strawberry import, delaying activities in Bandung, Garut and Majalengka. The Indonesian Department of Quarantine has refused to allow the shipment to enter the country based on an apparent finding of Xylella fastidiosa disease. The seed has remained in Surabaya port for about two months, awaiting clearance or possible destruction from the Quarantine Office. AMARTA has enlisted USAID, USDA, and Government of Indonesia support to assist in the process and find an amenable solution.

High Value Horticulture Development Program in West Java

AMARTA's Lembang Office, located at the Indonesian Vegetable Research Institute (IVEGRI) office complex, was launched on April 15, 2008. Collaboration continues as IVEGRI is conducting trainings for farmers who are involved in AMARTA's high value horticultural activities in West Java; while IVEGRI contributes office facilities for

USAID CTO, Rafael Jabba; AMARTA COP, David Anderson, AMARTA, and IVEGRI staff at the Lembang Office launch

AMARTA staff, post-harvest facilities, and land to be used for the trainings and on-farm demonstration plots.

AMARTA has focused efforts on improving produce for the domestic market. Through numerous discussions with wholesalers and buyers, as well as producing recommendations from a consultant report, "Bridging the Gap Between Farmers and Supermarkets" conducted in the four cities of Bandung, Cianjur, Cirebon and Garut in January 2008. Based on the findings AMARTA established seven on-farm demonstration plots:

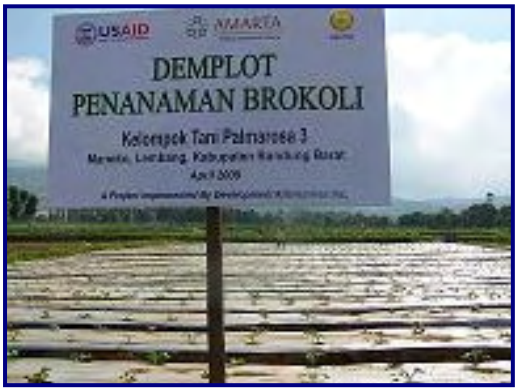
1. **Broccoli** in Lembang – Bandung,
2. **Strawberries** in Rancabali - Bandung,
3. **Organic Vegetables** in Tarogong – Garut
4. **Strawberries** in Samarang – Garut
5. **Kyurii** in Argapura - Majalengka
6. **Strawberries** in Argalingga – Majalengka
7. **Carrots** in Cipanas – Cianjur

Activities on carrots in Cianjur were also delayed as the seeds to be introduced had low germination levels at IVEGRI trials. Therefore, during this quarter only three on-farm demonstration plots were established. The four remaining plots will be created next quarter.

There were two types of trainings provided to farmers for all commodities: Best agricultural practices socialization and post harvest trainings, while other trainings were commodity specific.

Broccoli On-farm Demonstration Plot in Lembang-Bandung

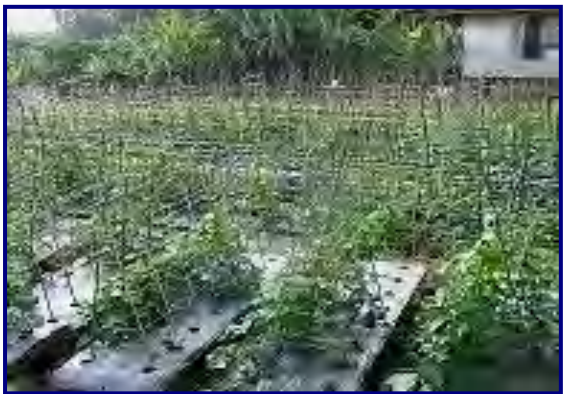
A broccoli demonstration plot 1,000 m^2 located in Manoko, Lembang-Bandung is being run by the Palmarosa-3 FG. It sells the product to Carrefour Supermarket through a specialized wholesaler, CV. Bimandiri, and is trying to sell to other supermarkets in Jogjakarta. In addition to trainings and supervision on the demonstration plot, AMARTA provided a tray based nursery-greenhouse with a seed bed base and water pump to allow farmers to grow the crop in the dry season to collect higher prices.



Broccoli demonstration plot

Kyurii Demonstration Plot in Argapura-Majalengka

The kyurii (Japanese cucumber) demonstration plot was established in Argapura-Majal helping rice farmers from the Cikareo FG grow high value horticulture to diversify their crops and income. One of the key materials utilized during training was mulch that they had never previously used before in their rice fields.



Kyurii plants three weeks before harvesting

Organic Vegetables Demonstration Plot in Tarogong-Garut

The organic vegetable demonstration plot in Tarogong-Garut, involved a FG that included seven young members, hence the name of their group, Kelompok Agribisnis Pemuda Kudangsari- or Agribusiness of Kudangsari Youth Group. Based on the enthusiasm of these young members during the training, AMARTA expects them to become horticultural private extension providers in the future. Cultivation techniques, organic fertilizers, and pesticides were emphasized during the trainings.

Organic fertilizer applied from plastic bottles

Organic pesticide grinding techniques

Post-harvest Training in collaboration with IVEGRI and the Indonesian Retail Association

In collaboration with the Indonesian Retail Association (APRINDO), essentially the supermarket association, AMARTA and IVEGRI conducted fresh vegetable handling training in June. APRINDO trained farmers in wrapping techniques to match supermarket standards. In addition to sorting and grading, IVEGRI also introduced sterilization equipment, designed by the Indonesian Science Institute (LIPI). This equipment can kill bacteria and reduce pesticide residue, using ozone gas.

Vegetable wrapping training by supermarket staff

Training on Best Agricultural Practices for Citrus in Berastagi, Karo District

During the entire quarter, AMARTA continued training citrus farmers by implementing standard operating procedures (SOPs) provided by the Director General of Horticulture. Collaborating with Masyarakat Jeruk Indonesia (Indonesia Citrus Society), North Sumatera, AMARTA has trained 1,047 farmers, included 287 females and 760 males, covering 628 Ha of citrus fields in nine villages in five sub-districts. The training covered soil preparation, controlling pests and diseases, orchard management, fruit

Female farmer group discussing citrus SOPs

thinning, and pruning. In addition, AMARTA continuously provides technical assistance and field school training to citrus farmers at their orchards with a more detailed and advanced curriculum. AMARTA also developed a Citrus VCD to target farmers and provide interactive visual aids. The citrus VCD will be distributed next quarter. The dramatic success that farmers are achieving continues to motivate others and encourages new farmers to participate in AMARTA's activities.

Fruit Miner Trap Helps Citrus Growers Make More Money

Simple to use, relatively cheap, and good for the environment, the insect fruit miner trap is a thing of beauty—a rudimentary but effective technology that can mean the difference between life and death for a fruit tree, indeed for a farmer's entire livelihood. The trap saves the life of the fruit tree by trapping the insect fruit pest (*Bactrocera sp*), a notorious scourge that will ravage a farm if it goes uncontrolled. In Indonesia, for example, 26 types of such pests attack vegetables and fruits. Over her three-year lifespan, a female insect can lay up to 40 eggs per day, each of which turns into a worm that spells ruin for its host fruit.

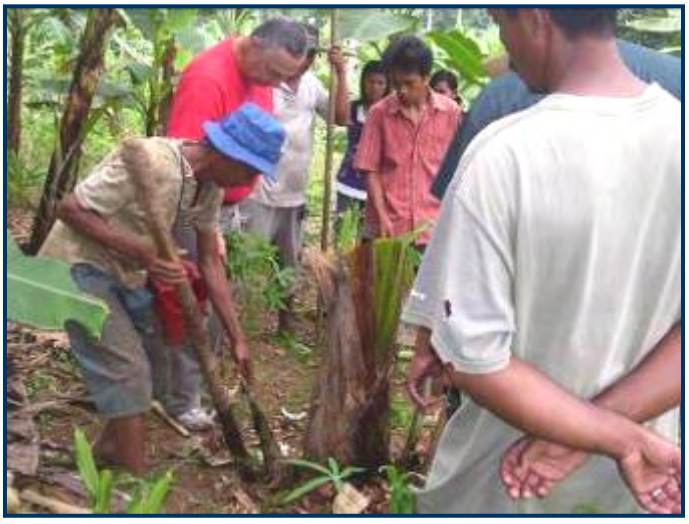
Since January 2007, AMARTA has trained more than 3,500 citrus farmers in Karo Regency to use insect fruit miner traps. Some 80% of the participants are currently applying the technology.

Ibrani Sembiring, a 33 year-old farmer from Seberaya Village, is typical. *"After installing the fruit miner trap at my citrus plantation, I don't have to spray my citrus plantation once a week like I used to," said Mr. Sembiring. "I can now spray the plantation once a month and the cost for pesticide is reduced."*

In addition to safeguarding his crop, Mr. Sembiring is reducing his pesticide load and saving money. His 0.37 hectares and 200 citrus trees are yielding roughly 25 tons of fruit per year, providing him with annual revenue of approximately Rp. 50 million ($5,434), generated from Rp. 10 million ($1,087) per year in operations and maintenance costs.

Mr. Ibrani Sembiring shows off an insect fruit miner trap in his citrus plantation

Training on Best Practices for Bananas in Deli Serdang, Karo District



STTA Julian Velez providing training for farmers in Deli Serdang

AMARTA STTA, Julian Velez, visited Deli Serdang District of North Sumatera to establish demonstration plots for the double row planting system that essentially doubles previous production. He also provided training and technical assistance on tree maintenance including: pruning, de-leafing, cutting, and proper fertilization. Five plots were completed by the end of 2007. In addition, a soil analysis was completed to identify the deficient elements. The results were shared with local Agriculture Technology Research Center (BPTP) staff to design fertilizer trials to demonstrate the best agricultural practices for plant nutrition. The FGs overseeing the plots will be able to disseminate these improved agriculture practices and serve as district collectors for PT. SSN banana procurement. A local branch of the (BPTP) also established a demonstration plot for double row planting as a result of AMARTA's demonstration, fulfilling one of the goals of the program: government replication of successful pilot initiatives.

"AMARTA provided the best citrus training I ever attended. They provided the theory in citrus planting and maintenance but also very practical knowledge on best agriculture practices and SOPs for citrus. They also gave me materials to share with my family to maintain our citrus farm. Our lives have already improved with the extra income we are earning."

Mr. Tampai Sitepu, 42 years old, citrus farmer from Sukajulu Village, Karo District

Banana Packing House Completed

AMARTA completed a banana packing facility in Tiga Juhar Village, North Sumatera in May. The facility will help improve the quality of shipments and improve efficiency for farmers by decreasing the time required to package and distribute to market. The packing plant is 5 x 12 meters and located next to the main road in STM Hulu Sub-District of, Deli Serdang District. The village harvests approximately 7,000 hands per month. Additional pack houses will be constructed at Negara, Talun Kenas, Kuta Jurung, and Biru-Biru. There are more than 30 hectares of land and approximately 170 banana growers growing lacatan banana in Tiga Juhar Village.

The banana packing house in Tig Juhar during construction… **……and after**

Banana Producers in Deli Serdang Double Their Income

Mr. Aman Sembiring is a 45 year old Lacatan banana grower in North Sumatera who has been using traditional practices for 23 years. His family members help him in the field where they have 1,000 to 1,100 trunks per hectare. Mr. Sembiring owns two hectares and plants approximatley every two years; by planting 1,000 trunks of bananas, yields are about 950 bunches per hectare with each bunch having seven hands. Starting in 1991 his banana production began decreasing due to banana disease aggression. From 1,000 trunks he was only harvesting 850 bunches per hectare with only six hands. Mr. Sembiring has struggled with lower yields while prices have remained relatively stable for his lacatan bananas from 2007 at Rp. 2,500 ($.27) per hand for grade A bananas.

On October 28, 2007, Mr. Sembiring and his wife attended a training provided by AMARTA in Talun Kenas regarding the double row system- a new technology in

Indonesia. His banana productivity now reaches 2,200 to 2,500 trunks per hectare and banana quality is excellent. Initially, Mr. Sembiring was extremely hesitant to attempt any changes due to lack of information and limited access to markets, though soon after AMARTA established the linkage directly to a buyer PT. Sewu Segar Nusantara in September 2007, the price of lacatan bananas quickly improved by a staggering 80% from Rp. 2,500 ($.27) per hand to Rp. 4,500 ($.49) per hand for grade A, and 75%, from, Rp. 1,000 ($.11) became Rp. 1,750 ($.19) per hand for grade C.

The benefits gained by Mr. Sembiring's family from AMARTA's assistance in Deli Serdang District are tangible as he now derives more than double his previous income- earning Rp. 1,500,000 ($163) per week, where previously his family only earned Rp. 700,000 ($76) per week. He and his wife are very motivated to improve their skills in cultivating barangan bananas by attending the regular trainings from AMARTA to become in their words, "professional banana growers". Mr. Sembiring notes, *"USAID and AMARTA have equipped me with, not only the market linkages to access better prices, but also helped me improve my barangan banana production and quality by applying the new technology."*

Mr. Sembiring examines his bananas

Improved Production and Marketing of Vegetables – Berastagi, Sumatera

The Carrot Farmers and Traders Association established by AMARTA began developing carrot demonstration plots in five main production sites in Karo, including the villages of Basam, Sukadame, Bunuraya, Kutambelin and Merdeka. The demonstration plots planted six different varieties from local and imported seed. As a result of this activity the farmers have provided suitable varieties to address supermarket demand and are more competitive than imported carrots. There are five FGs involved in the training with 38 females and 53 males participating on 30 ha of land.

Broccoli production was initiated with PT. Horti Jaya in an effort to create a trial plot for broccoli seeds deriving from USA, Japan, and Taiwan. As a result of this initiative, the most appropriate sites will receive advanced cultivation technique training in order to find the proper variety to meet market demand.

Broccoli trial field in Berestagi

Floriculture

STTA, Benny Tjia, trains chrysanthemum farmers

AMARTA completed the construction of a greenhouse prototype at the chrysanthemum demonstration plot in Raya Village, North Sumatera in conjunction with training provided by STTA Benny Tjia, an expert in floriculture and the owner of PT. MJ flora. The training included direction on constructing a bamboo greenhouse, selecting planting material, fertilizing systems, and controlling pests and diseases. The planting materials for the site were delivered from PT. Saung Mirwan in Bogor. The farmers introduced propagation technology by using stem cuttings as planting material, where farmers previously used sprouted plants that may already be contaminated by numerous soil borne diseases and viruses. There are 128 farmers involved in the program, including 20 female and 108 males, covering 50 ha of chrysanthemum fields.

The greenhouse in Karo District, North Sumatera during construction…

……and after

Natural Rubber

Setting up Certified Nurseries in South Kalimantan

On April 29, AMARTA, in cooperation with the Agriculture Office of South Kalimantan and the Installation for Monitoring and Testing of Seedling Quality (IP2MB) conducted training on rubber nursery certification for 39 farmers (36 males, 3 females) from FGs supported by AMARTA and Bridgestone. Out of the 39 participants, only one was properly registered, and none of them had entry field certification. The participants usually sold rubber below market prices because they had not acquired registration certificates for their nursery businesses (TRUP). Market prices for TRUP holders are Rp 1,200 to 1,500 ($.16), whereas non TRUP prices are Rp 800 to 1,000 ($.11). Buyers for the seedlings are middlemen (tengkulak), from the same village as the farmers or outside brokers. Seedling farmers who are able to acquire direct contracts with buyers such as private plantations will receive better prices and sustainable access to markets. Rubber seedling markets are currently experiencing a substantial depression due to several failed projects, and government projects that are still using auctions. These conditions created an oversupply of rubber seedlings and saplings in the field.

It is expected that by September 2008, the market will start to become more active. Documentation such as TRUP, field certification, and notification of seedling quality (SKMB) are intended to increase the selling price of rubber seedlings produced by farmers. The documentation will provide greater assurance that the seedlings are of high quality. The training participants were very responsive to the materials provided by speakers from Dinas Perkebunan and IP2MB. AMARTA and Bridgestone assisted farmer groups in establishing a cooperative, whose members are all rubber seedlings and nursery farmers. In June 2008, the cooperative will be registered as a legal entity.

Contract with Gapkindo Kalselteng Provides 40,180 Trees and a Market

AMARTA and Bridgestone supported the following FGs in Kalimantan: Sari Murni, Karya Mufakat, Karya Bersama, and Karya Harapan. These FGs banded together to from a union, and on May 27 signed a contract to produce 40,180 units of planting materials in polybags to sell directly to Gapkindo Kalselteng at a price of Rp. 2,500/polybag ($.27). The total contract value is Rp. 100,450,000 ($10,900). Gapkindo Kalselteng supplies rubber to eight crumb rubber factories at South and Central Kalimantan. The distribution and quantity of the order is noted below:

1.	PT. Banua Lima Sejurus, Banjarmasin amount	7,590 trees
2.	PT. Hok Tong, Banjarmasin, amount	3,220 trees
3.	PT. Insan Bonafide, Banjarmasin amount	5,390 trees
4.	PT. Karya Sejati, Banjarmasin amount	2,610 trees
5.	PT. Sampit, Kalteng amount	6,030 trees
6.	PT. Darma Kalimantan Jaya, Haruyan amount	5,500 trees
7.	PT. Bumi Asri Pasaman, Buntok amount	7,590 trees
8.	PT. Karias Tabing Kencana, Amuntai, amount	2,250 trees
	Total	**40,180 trees**

Based on information from Mr. Sulaiman Abdullah, Gapkindo Kalselteng's Secretary, rubber planting materials were distributed free of charge to suppliers. He noted that AMARTA-Bridgestone FGs were selected based on the quality of rubber they have recently produced at the plantation. The farmers brought certified letters from Gapkindo Kalselteng to verify their inclusion in the program and were able to take only as many planting materials as allocated.

Mr. Sulaiman also noted that PT. Sampit, of Central Kalimantan will use planting materials for bud wood gardens; however they lack knowledge how to design the gardens. Mr. Sulaiman requested AMARTA assist PT. Sampit in designing gardens and providing technical assistance. The first shipment of 8,500 trees occurred on June 12 with a second shipment on June 18.

On April 26, 2008 Mr. Sutarjo, the head of one of the FGs had initially informed AMARTA and Bridgestone that there was no market for rubber planting materials, though after signing the contract with Gapkindo Kalselteng he now believes there is a strong demand and he will be able to continue to produce rubber planting materials. The new contract will help rubber nurseries to expand and provide higher income for smallholders as they have a steady supply of rubber planting materials for new plantations and replanting.

The first shipment of rubber trees on June 12

Rubber Cultivation and Nursery Training at IRRI Sembawa, South Sumatera

Formal Training and field based demonstrations were provided for five days from June 11-15 in Sembawa, South Sumatera and IRRI Sembawa plantation. The objectives of the training were to enhance rubber cultivation knowledge**,** provide guidance to improve rootstock and bud wood gardens**,** introduce rubber clones**,** improve tapping techniques**,** and manage rubber nurseries in an efficient and profitable franchise system.

Seaweed

AMARTA is assisting seaweed farmers to expand production at two locations in Northern Sulawesi, Lemito in Pohuwatu District and Kwandang in North Gorontalo District. This program is implemented in conjunction with the Makassar-based NGO, SEAPlant Net, which is providing technical assistance and planting material. Between April 17 and 19, SEAPlant Net provided 15 FGs in the two locations with 10 tons of seaweed planting material (bibit). The seaweed was distributed to 20 farmers, who

were selected by the groups to multiply the seaweed for distribution to the rest of the group, on a loan and repayment basis.

During this exercise, AMARTA and SEAPlant discovered farmers in Kwandang growing a new variety of seaweed, which is apparently indigenous to the area. SEAPlant sent a sample to a seaweed processor and determined that the carrageenan content of this variety is excellent. A locally adapted variety of seaweed could benefit the entire seaweed industry in Indonesia. The next steps are to determine the growth rate and other characteristics of this new variety, to see if it would be advantageous for farmers in other areas. From May 26 to 30, AMARTA sponsored workshops in Lemito and Kwandang covering the following topics.

Newly placed seaweed in Lemito

- A presentation from a seaweed buyer on current market conditions
- A presentation by a successful farmer from Maumere, in Southern Sulawesi
- A field visit to inspect seaweed nurseries and provide production advice
- Question and answer sessions where production problems such as "ice-ice" and the effect of fish poisons were discussed
- Planning session for distribution of bibit to the nurseries on a loan basis

The seaweed in the nurseries in Lemito is generally growing well, although farmers have experienced problems with grazing by rabbit fish and poisoning by fishermen using illegal fishing techniques near the seaweed farms. In Kwandang, the seaweed is not growing as well, possibly because the nurseries are located too close to shore. Resolving this problem will be the first task for SEAPlant, when they begin work in July.

Between March and May, the "beach price" for dried cottonii seaweed in Northern Sulawesi rose from Rp. 4,500 ($.49) to Rp. 8,000 ($.87) per kilo. This increase is due to increased demand in China, India and other rapidly growing economies. Although this price is very favorable for farmers, there are fears that limited availability and high prices could prompt manufacturers to substitute other gels for carrageenan in their products.

In an effort to increase seaweed production in Gorontalo Province, AMARTA and SEAPlant devised a seaweed seed revolving stock system introduced to 10 FGs in Lemito Village of Pohuwatu District and five FGs from Tolango Village of North

Gorontalo District. A total of 7.8 tons of seaweed was distributed to 10 FGs in Lemito and 2.2 tons was distributed to five FGs in Tolango Village.

Seaweed Development Workshop

A three day workshop was held in Lemito on May 26-28, attended by 102 participants, 75 males and 27 females from 15 FGs, CV. Sumber Rejeki, the Marine and Fisheries Department of Pohowatu, as well as AMARTA personnel. The workshop touched on technical aspects of seaweed cultivation like seed and site selection, and good practices in maintenance cultivation, and post harvest handling, while also addressing market access- potentiality enhanced by CV. Sumber Rejeki. Each FG created a seed revolving stock system and a seasonal map of seaweed growth.

In addition to the technical aspects of the workshop a baseline survey was conducted on May 27, completed by 84 farmers from both villages including 56 males and 28 females. These baseline surveys contain detailed information of each farmer regarding the size and scale of their cultivation area, needs and standard practices, seaweed production, and post harvest handling.

Field visits to four seaweed farmer nursery sites completed on May 27 and 29, showed that farmers are still struggling with ice-ice problems and the adverse impact of inappropriate fishing around Lemito's waterway, though only one nursery site visited was in poor condition supporting the notion that seaweed is viable in the area.

AMARTA Assists Farmers in Establishing Seaweed Nurseries in Sulawesi

Agen Halid is a seaweed farmer in Lemito Bay, Northern Sulawesi. He grows a species of seaweed called *Kappaphycus alvarezii*, which is the main source of kappa-carrageenan, a water soluble gel used in many foods and cosmetics. Driven by rising commodity prices worldwide, the farm-gate price of dried cottonii has reached an all time high of $769 per ton in the Lemito area. AMARTA identified Lemito Bay on the southern coast of the north-eastern arm of Sulawesi and Kwandang Bay on the northern coast as ideal locations for seaweed production.

Agen started producing seaweed in 2003 with 270 meters of line in the ocean. Today, his farm has expanded to 5,000 meters of line. Because of his success, he was chosen by other farmers in the area to develop a seaweed nursery. Initially, this nursery will supply planting material to 10 other farmers in the bay. AMARTA helped provide an initial stock of 10,000 kg of planting material to Pak Agen and 29 other nursery owners in Lemito and Kwandang. This seaweed is now growing at the amazing rate of 4.8% per day. This means that the bio-mass is doubling every 16 days.

The next challenge will be to train farmers in new techniques that will allow them to maintain production at commercially sustainable levels from September to December, when growth rates tend to decrease. As Agen noted: *"I think the program of seaweed nurseries and revolving seed stock funds will be very useful and will help us to tackle the problem of bibit deficiency in Lemito. I am looking forward to helping others start their seaweed farms and increasing the income of villagers."*

Agen Halid shows a mature seaweed plant in his left hand and the new supply after only 30 days

Papua Agriculture Development Alliance (PADA)

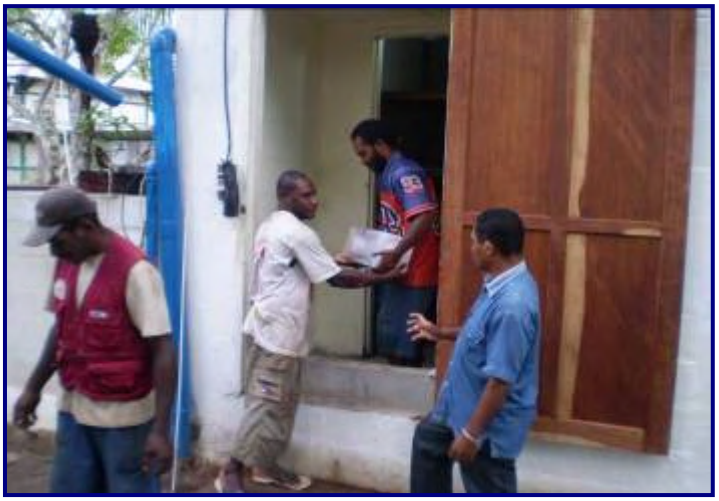
The original office location in Timika, Papua identified in October 2007 has been upgraded and furnished with cooperation from the SLD Department of Freeport as part of Freeport's in-kind contribution to the PADA project. The work was completed this quarter and AMARTA moved into the new office on June 30.

Kokonao

Ice Factory

The project to support the Kokonao community in Kokonao, West Mimika, Papua with an ice factory continued this quarter as construction was completed in the beginning of March, with the first 200 blocks of ice produced on April 24. Test production and related data collection for economic evaluation continue and sales transacted from May through June are increasing substantially. The ice will enable fishermen in the region to keep their catch cold for transport to local markets and maintain the freshness and quality for days. In addition, AMARTA has completed the cool storage facilities for ice and fish to serve as a central storage point for fishermen and villagers.

The newly established cool storage site



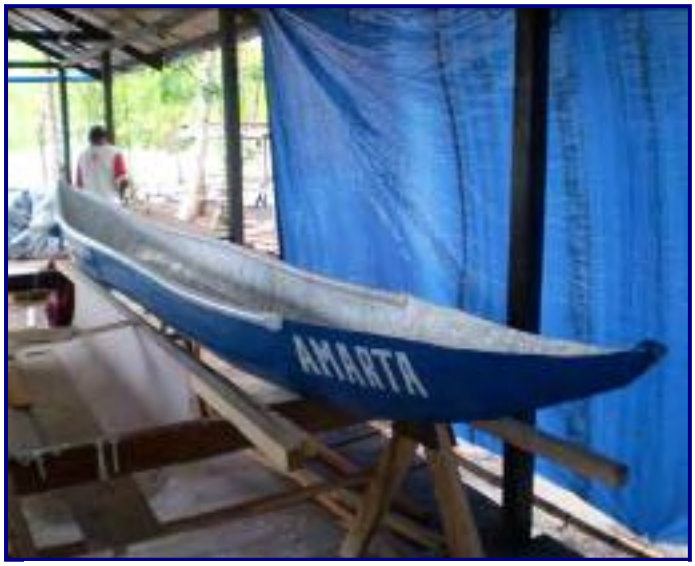
The first production trials

Generator providing electricity for the ice machine

A happy crowd with the first blocks of ice produced

Fiberglass Boats

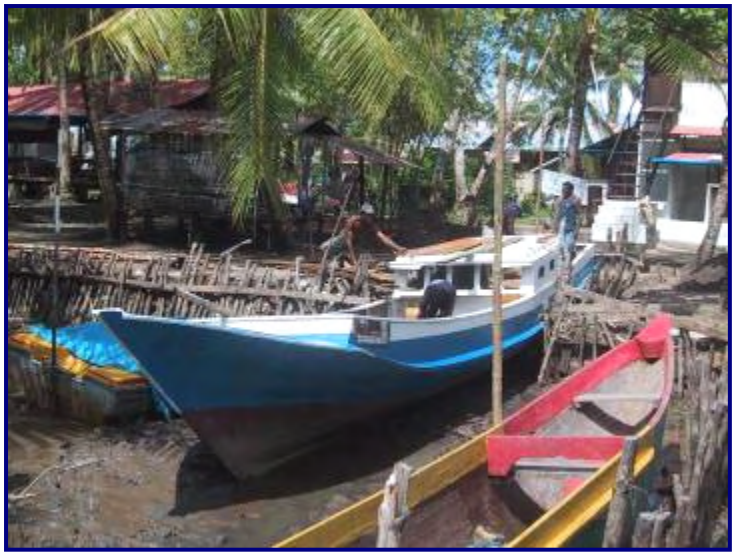
Fiberglass boat training began on June 4 with 25 participants who were trained in fiberglass handling procedures and building molds for different fiber objects. The first mold for small boats is completed and three boats were produced by the participants during the training, along with holding tanks for fish in the cool storage area. The mold for the large boats also started during the training and when additional materials and supplies arrived on June 26, construction and training continued successfully. The first large boat is scheduled for completion on July 15, 2008.



One of three completed small fiberglass boats

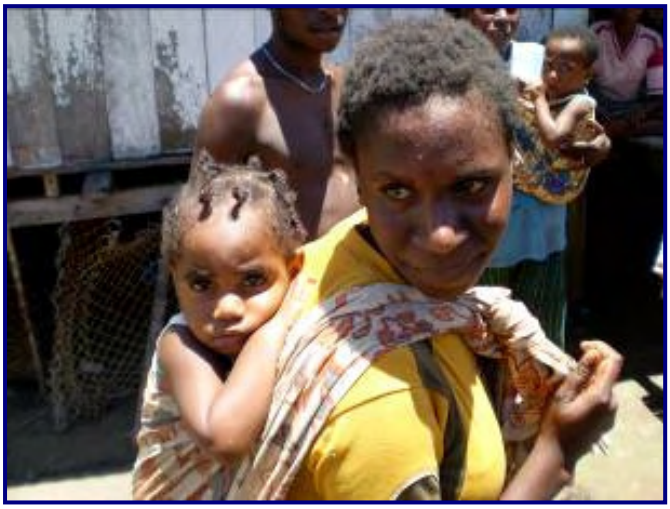
Transport Boat

The body of transport boat KM Maria Bintang Laut was completed in the beginning of March and was transferred to the Cooperative. The engine, gear box, and propulsion system were installed and tested. Subsequently, the electrical system, bilge pump, and telecommunication system was installed by local workers under AMARTA STTA, Franz Goetz's supervision. Ten people were trained on different systems and responsibilities in order to properly operate the boat and its equipment. The remaining work, including installing the cable system for the rudder and local production of specially fitted fiberglass tanks for fish and ice transport will be completed next quarter.



Work continuing on the transport boat in Kokonao

Soft Shell Crab Production



Future crab farmer in Kokonao

The soft shell crab and crab fattening site was completed during the quarter. Once trade activities are initiated in July, a two-day training in the technical procedures and initial guidance for the women owned enterprise's operators will be conducted. Future extension of this component will be completed by private family-based operators with marketing coordinated through the Cooperative. AMARTA STTA, Pater Windi, of Maria Bintang Laut Cooperative prepared a business plan, marketing arrangements, and sensitivity analysis documents for all planned activities. The documents were presented to the Bishop and his advisory team. Remaining activities of this initiative include further socialization of the integrated activities planned for Kokonao including the establishment of an accounting and micro-credit scheme. The start of fish purchasing and marketing has been set by the Bishop for July 1, 2008. The Maria Bintang Laut Timika Cooperative still must complete the landing site and make the required transport arrangements to Timika in order to meet the deadline.

Papua Coffee Development

A meeting occurred on June 23 with the Provincial Director of Agriculture, the Provincial Director of Cooperatives, the Provincial Director of Trade and Industry, Freeport, the Agriculture Department of the Jayawijaya Regency, Director of the Baliem Arabica Cooperative, David Anderson- AMARTA COP, and Kornel Gartner- AMARTA PADA Coordinator, to discuss international exports of Arabica coffee from the Baliem Valley. As a result of the meeting, the government provided the Cooperative a warehouse in Jayapura for coffee storage and exports for five years at no cost to AMARTA or the Cooperative. In addition, the Trade development Office of Jayapura obtained an export license for the Cooperative to make the first ever export shipment from Jayapura scheduled for late August 2008 to ship one or two containers of coffee to Starbucks in the United States, who have committed to purchase 36 metric tons of Baliem Valley coffee at $4.33 per kg, representing a 60% premium over previous prices provided to farmers. Finally, the Ministry of Cooperatives of Papua provided a vehicle free of charge for coffee collection during the 2008 season.

The numerous successes of the AMARTA/PADA Papua coffee program were presented to the President of Indonesia, Mr. Susilo Bambang Yudhoyono, by Government of Indonesia officials. In addition, the USAID Administrator in Washington, DC received a summary of the successes during a weekly briefing in the beginning of July.

Another highlight for PADA was the announcement that Mr. Maximus Lane, and active and eager participant in PADA activities, who serves as the Coordinator for Baliem Arabica Coffee facility, was named the Papuan Farmer of the Year.

The following milestones were completed this quarter:

- All machinery for coffee processing was delivered and installed at the processing facility at Okesa Jagara, Wamena, Papua; the machinery includes a coffee huller, coffee grader, and coffee roaster with 12 kg capacity.
- The construction and establishment of a laboratory for quality control was completed with a 300 gram coffee sample roaster.
- Electric installation for machinery and lighting were completed; the source of power comes from a 5 KVA generator set purchased in Timika, Papua .
- The supply line is established and three trucks are currently being used to purchase and transport coffee from collecting points throughout the Baliem Valley to the processing facility, which is producing 500kg to 1 ton of green coffee daily.

The new coffee huller machine

Learning to use the coffee grader

Moanemani

The AMARTA-PADA project collaborates with the Cooperative Santo Isodorus of the Catholic Church Diocese, to create the management system and appoint personnel to assist in the project. The Diocese is the most obvious choice as a partner since it is the single most influential civil institution in the region and will remain long after AMARTA-PADA support ends. The board members consist of the Moanemani Catholic Church Pastor, the Moanemani Parish Manager, and a Parish Secretary. Meanwhile, a local farmer leader who has an education background in Agriculture, Didimus Tebay, is in charge of the coffee processing facility and with the help of two extension workers will direct village-to-village quality control. A meeting on June 17 formalized these arrangements. Socialization will take place to inform the farmers about the benefits of

joining the Cooperative and to encourage all Arabica coffee farmers in the Kamu Valley to become members.

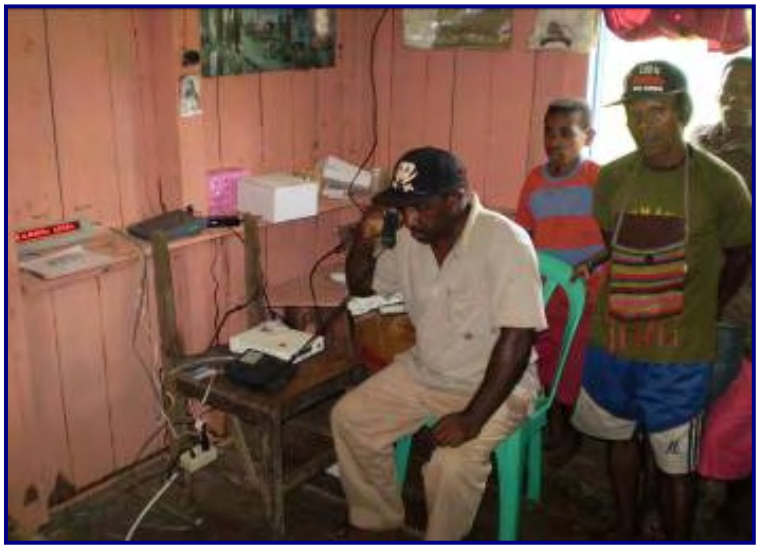
The following milestones were achieved this quarter:

- Coffee processing machinery was delivered and installed in Moanemani.
- Installation of a satellite public pay phone at the coffee processing plant.
- Coffee buying and processing schedule completed and will begin on July 1.

Agimuga

The following milestones were completed this quarter in Agimuga:

- Reconditioning of the12km supply road between Aramsolki and Kiliarma is 75% completed; rehabilitation of the last 2 km of road and the old bridge will be completed next quarter.
- Two rice hullers donated by CV Lion Lestari were delivered to Timika- one unit is already delivered to Agimuga and the second is awaiting helicopter airfreight from Freeport.
- Identified appropriate building for rice processing and rehabilitation work began.
- Road rehabilitation to the swine farm initiated in late June.
- The rice consultant, STTA Jafar Baco, made two visits to prepare for the rice planting season which begins in the first and second week of July.
- The swine specialist, Matheus Sariubang, visited Aramsolki Village for a survey and assessment of the current situation of swine farming; building the new swine farm will take place at the end of July.
- Purchased two hand tractors for rice cultivation, shipped to Timika.
- Purchased a medium size, four wheel drive farm tractor, shipping underway.
- Continued efforts with the Catholic Church in Agimuga and Timika to manage production and marketing of rice and pigs.



Satellite phone in Aramsolki, Agimuga

An important group of PADA beneficiaries pose for the camera

INDICATORS		Aqua culture	Natural Rubber	Cocoa	Coffee	Beef Livestock	Vegetables	Tropical Fruit & Flowers	Biofuels	Seaweed	RACA	Total
Number of additional hectares under improved technologies or management practices as a result of USG assistance	Actual 2007	-	-	4,215	-	-	-	1,137	-	-	-	5,352
	Q3 2008	-	263	3,308	5,900	-	180	1,221	40	-	-	10,912
	Actual 2008	-	392	12,008	5,900	-	610	1,438	40	-	-	20,388
	Target 2008	-	500	12,250	10,713	-	612	1,890	50	-	-	26,015
Number of additional units of animal, fish and other aquaculture products under improved technologies or management practices as a result of USG assistance	Actual 2007	-	-		-	-	-	-	-	-	-	-
	Q3 2008	2,500	-	-	-	129	-	-	-	-	-	2,629
	Actual 2008	12,238	-		-	300	-	-	-	69		12,607
	Target 2008	30	-		-	300	-	-	-	300	-	630
Number of producer organizations, water user associations, trade and business associations, and community-based organizations (CBOs) receiving USG assistance	Actual 2007	-	-	150	-	-	-	9	-	-	-	159
	Q3 2008	-	-	-	46	-	-	21	-	-	51	118
	Actual 2008	5	19	390	290	16	89	69	2	15	91	986
	Target 2008	5	28	503	70	1	44	65	2	24	10	752
Number of agriculture related firms benefiting directly from USG supported interventions	Actual 2007	-	-	3	-	-	-	4	-	-	-	7
	Q3 2008	-	-	1	-	-	1	-	-	-	1	3
	Actual 2008	8	-	3	11	2	7	3	1	1	24	60
	Target 2008	59	5	5	12	2	57	13	1	2	-	156
Number of individuals (men and women) who have received USG supported short-term agriculture sector productivity training	Actual 2007	-	-	10,100	-	-	957	579	-	-	-	11,636
	Q3 2008	165	113	9,780	6,940	275	582	1,430	718	102	908	21,013
	Actual 2008	165	125	12,274	6,940	275	747	1,516	718	102	908	23,770
	Target 2008	920	595	12,260	10,100	300	3,162	1,610	2,900	600	900	33,347
Percent change in value of international exports of targeted agricultural commodities as a results of USG assistance	Actual 2007	-	-	-	-	-	-	-	-	-	-	-
	Q3 2008	-	-	100	100	-	-	-	-	-	-	100
	Actual 2008	-	-	100	100	-	-	-	-	-	-	100
	Target 2008	75	-	60	107.5	-	30	-	-	400	-	135
Percent change in value of purchases from smallholders of targeted commodities as a result of USG assistance	Actual 2007	-	-	-	-	-	-	-	-	-	-	-
	Q3 2008			100	100	-	-	87	-	-	-	96
	Actual 2008	-	-	100	100	-	-	87	-	-	-	96
	Target 2008	167	-	30	45	-	52	28	-	400	-	144
Number of new technologies or management practices made available for transfer as a result of USG assistance	Actual 2007	-	-	5	-	-	-	5	-	-	-	10
	Q3 2008	-	12	-	-	4	26	1	-	3	-	46
	Actual 2008	21	4	16	10	1	14	16	3	4	-	89
	Target 2008	-	-	-	-	-	-	-	-	-	-	-
Number of additional surveilance and/or control systems in place for agricultural threats	Actual 2007	-	-	-	-	-	-	-	-	-	-	-
	Q3 2008	-	2	4	-	-	-	1	-	-	-	7
	Actual 2008	2	2	1	9	1	-	1	-	-	-	16
	Target 2008	-	-	-	-	-	-	-	-	-	-	-
Number of public-private partnerships formed as a result of USG assistance.	Actual 2007	-	-	2	2	1	-	-	-	-	4	9
	Q3 2008	-	2	-	-	-	8	-	-	-	3	13
	Actual 2008	3	2	6	4	1	8	3	2	-	6	35
	Target 2008	-	-	-	-	-	-	-	-	-	5	5