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“Helping Indonesia to Grow”

## **AMARTA**

**Quarterly Report of Project Activities and Achievements**

**Quarter Number Two, 2008**

**January I – March 31, 2008**

## **Project Management**

### **Monitoring and Evaluation**

The following progress was made this quarter against the nine indicators approved by USAID. AMARTA has added an additional subset of the first indicator in order to accurately reflect units of animals, fish, and other aquaculture products rather than hectares of improved technologies.

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

In quarter two 2008, AMARTA added **18,604 hectares** under improved technologies through implementation of value chain interventions, including the following: Rubber (129 hectares), Cocoa (12,000 hectares) Coffee (4,740 hectares), Vegetables (430 hectares) Tropical Fruit and Flowers (1,265 hectares), and Bio-fuels (40 hectares).

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

In quarter two 2008, AMARTA added **9,540 units** under improved technologies through implementation of value chain interventions, including the following: Aquaculture (9,300 fingerlings), Beef Livestock (171 cows), Seaweed (69 lines).

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

In quarter two 2008, AMARTA assisted **869 associations and farmer groups** through value chain interventions, including the following: Aquaculture (5 organizations), Rubber (19 organizations), Cocoa (390 organizations) Coffee (254 organizations), Beef Livestock (16 organizations), Vegetables (89 organizations) Tropical Fruit and Flowers (39 organizations), Bio-fuels (2 organizations) Seaweed (15 organizations) and Regional Agribusiness and Competitiveness Alliances (40 organizations) participating in agribusiness interventions.

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

AMARTA implements activities in partnership with **56 agriculture firms**, including:

- PT. Gayo Mountain Cooperative
- PT. Karamba,
- Warloka Mariculture Business Association
- Subak Abian Farmer Groups
- National Cooperative Business Association
- CV. Lion Lestari
- PT. Bening Big Tree Farms
- CV. Bimandiri
- PT. Olam Indonesia
- Bloomer

- Maria Bintang Laut Cooperative
- Santo Isidorus Cooperative
- PT. Putra Agro Sejati
- CV Roda Mas
- CV. ASABI
- PT. Pijindo Timika
- CV. Canary Imandaya Nabire
- CV. Nemangkawi Rekan Mandiri
- Moanemani Control Union
- CV. Mangugu Wamena
- PT. Kemajuan Industrindo Malang
- PT. Agro 21 Gemilang
- PT. Monfori Flora
- PT. Tropica Greeneries
- CV Bunga Indah Farm
- PT. Tropical Flora Persada
- PT. Kosato Raya
- PT. Angkasa Pura
- PT. Jaya Bumi / Armajaro
- PT. Surveyor Indonesia
- PT. Pan Asia
- The Agimuga Rice Farmer associations
- The Agimuga Swine Farmer associations
- The Agimuga Vegetable & Fruit Producer association
- Indonesia Coffee and Cocoa Research Institute Jember
- Baliem Arabica Cooperative
- PUSKUD NTT
- Masyarakat Jeruk Indonesia
- UD. Tani Beru
- PT. Sewu Segar Nusantara
- PT. Aneka Cool Surabaya,
- CV. Bina Sejatra Diesel Jakarta
- Asosiasi Petani Kopi
- Wamena Control Union
- PT. Aceh Windu Lestari
- PT. Pembangunan Dumai
- PT. Formagro Karya Nusantara
- PT. Exotica Prima Nursery
- PT. Inti Matahari
- PT. Saung Mirwan
- PT. Eka Karya Graha Flora
- PT. Benar Flora Persada
- PT. Pelabuhan Indonesia
- PT. Cargill
- PT. Cahaya Timur
- PT. Terminix Indonesia

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

AMARTA conducts training programs to provide better knowledge of best agricultural practices in an effort to improve local farmer's harvesting capacity and to meet international standards. In quarter two 2008, **21,313 farmers (17,690 men (83%) and 3,623 women (17%) participants)** participated in agribusiness trainings, including the following: Aquaculture (131 participants), Rubber (125 participants), Cocoa (12,274 participants) Coffee (5,170 participants), Beef Livestock (171 participants), Vegetables (747 participants) Tropical Fruit and Flowers (1,516 participants), Bio-fuels (718 participants) Seaweed (68 participants) and Regional Agribusiness and Competitiveness Alliances (393 participants). The training has proven to improve 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**

There were no international exports of targeted agricultural commodities made by AMARTA partners during this period. The percent change in value of international exports will be reported in the next quarterly report.

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

Impacts of USG assistance have already demonstrated positive results in the value of purchases from smallholders:

- Banana Deli Serdang activity: **banana value purchases increased 33%** or \$434 per week
- Citrus Kabanjahe activity: **citrus value purchases increased 44%** or \$4,782 per year
- Grouper Flores Fingerlings: **grouper value purchases increased 50%** or \$407 per harvest
- Cocoa Sulawesi: **cocoa value purchases increased 70%** or \$ 55 per volume purchased

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

AMARTA projects have introduced **43 new technologies or management practices** available for transfer to farmers such as:

**Banana:** Double Row Planting System; Bud Injection; Deleafing, Dehandling and Detipping; Fusarium Control with Stem Injection; Fertilizing; Leaf Spraying; Bunch Clearance and MeriStem Seedling.

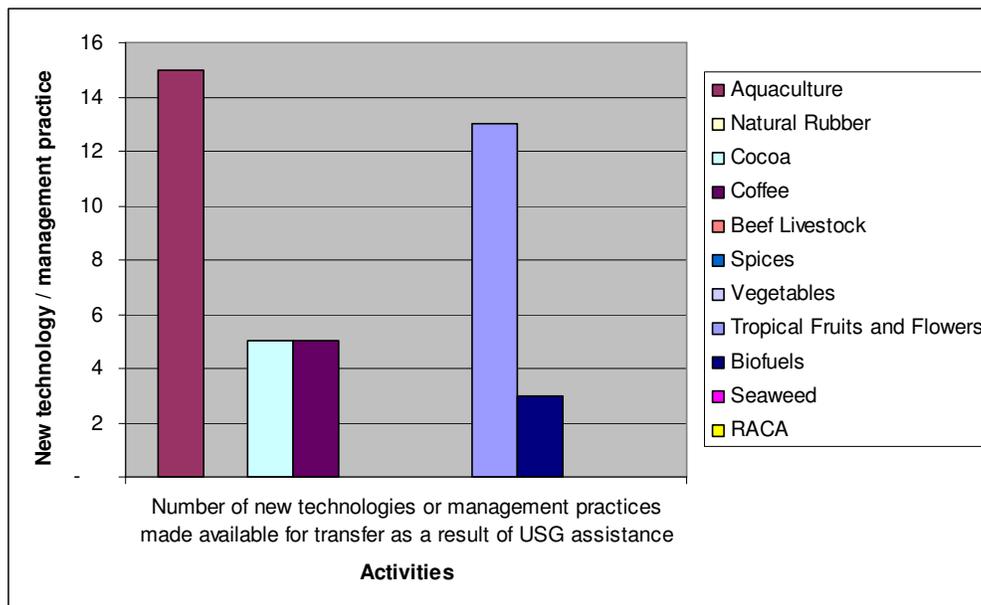
**Citrus:** Insect Trap for Fruit Miner, Multiplying Tricoderma as a Biological Control, Making Compost from Bacterial Fermentation, Side Grafting and Controlling Citrus Fungus on Trees by Mixing Boil Sulfur and Active Chopper.

**Coffee:** Broca Traps, Good Agricultural Practices by Decreasing Chemical Usage, Installation of Coffee Densimetric Table Machinery, Huller, and Tromol Grader, Organic Agricultural Practices, Semi-Washed Processing, Wet Hulling. Organic and Fair Trade Control.

**Cocoa:** Solar Drying, Green Budding, Chupon, Side Grafting, Preparing Organic Fertilizing, Pruning, Sanitation, Pest and Disease Control/Management.

**Bio-fuel:** Using Jatropha Oil or Briquettes for Cooking, Lamps, and Producing Soap, seed pressing equipment, and oil filtering equipment.

**Aquaculture:** Best Hatchery Practices, Best Harvest Practices, Bio-security, Water Disinfection System, Water Pressurized Filter System, Waste Water Treatment System, Seaweed-bio-filter, New Cages System, New Good Quality Artificial Feed, Frequent Fresh Water Bath Application, Best Aquaculture Practices, Building of Ice Plant, Fresh Water Treatment, Rain Water Collecting System, Fiber Glass Boat Building, Soft-shell Crab Production, Machinery Maintenance: Boat Engines, Stationed Diesel Engine, Compressor for Ice Plant, Ice production management.



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

AMARTA has introduced nine (9) surveillance and/or control systems technology that serves to detect and/or protect crops and agricultural products from harm, such as:

**Coffee:** Control of Coffee Pod Borer, Broca Traps, Internal Control System for Organic certification process.

**Cocoa:** warehouse management systems, improved fumigation, solar drying for food safety

**Beef Livestock:** Blood Test to Identify Brucellosis Disease,

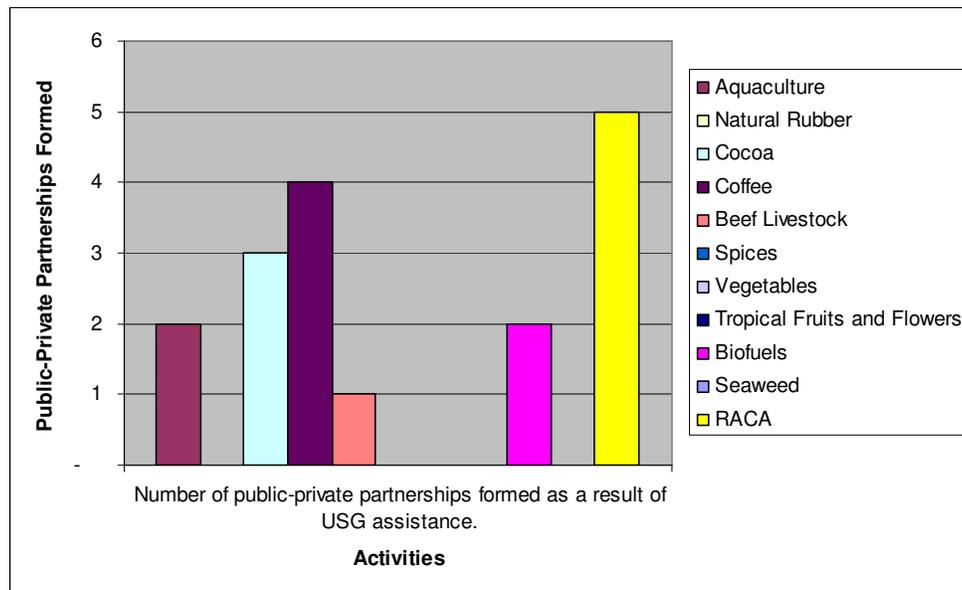
**Aquaculture:** Swim Bladder Diseases Early Detection and Dike System to Prevent Flooding

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

During quarter two, AMARTA activities helped create 22 public private partnerships to enhance Agribusiness interventions, such as:

- Asosiasi Petani Kopi
- PT. Bening –Big Tree Farms
- CV. Lion Lestari Flores
- PT. Olam International & Bloomer Co,
- Warloka Mariculture Business Association
- CV. Tunas Jaya
- PT Surveyor Indonesia
- Riau Provincial and Dumai Government
- Directorate General Agricultural Quarantine
- North Sumatra and Karo Regency Government
- Directorate General Processing and Marketing of Agricultural Products
- Gayo Mountain Cooperative
- PUSKUD NTT – Farmer Groups
- CV. Lion Lestari Jatropha FG
- PT. Aceh Windu Lestari
- PT. Karamba
- PT. Freeport McMoran Indonesia
- PT. Pembangunan Dumai
- Directorate General Horticulture
- Directorate General of Estate Crops

- Center for Agricultural Socio Economic Studies (ICASEPS)
- Pusat Studi Pembangunan Pertanian dan Pedesaan (PSP3), Bogor Agriculture University



### **AMARTA Grants Program**

The following grants were awarded in the previous quarter, from October through December 2007:

- Bio-Fuels Pilot Project in Flores, NTT – Awarded October 1, 2007; \$31,300
- Support of Fishery Value Chain in Kokonao, Papua implemented by Maria Bintang Laut Cooperatives– Awarded November 7, 2008; \$95,000
- Cattle breeding Pilot Program in Kupang, NTT – Awarded November 16, 2007; \$95,000
- Grouper Grow-Out Pilot Program in Fishing Village, Warloka, Flores, NTT – Awarded November 16, 2007; \$81,836



**Jatropha seeds being poured to produce oil in Legu Village, Flores by an AMARTA grantee**

The following Grants were awarded in this quarter:

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



**Grantee recipients in Jagara, Wamena, Papua**

The following grants have been submitted and are awaiting final USAID approval:

- Improving Rice Production in Agimuga, Papua, partner with Catholic Church-Bishop Timika; \$61,911
- Improving Swine Production in Agimuga, Papua, partner with Catholic Church-Bishop Timika; \$59,333
- Coffee Association Capacity Building, partner with the Specialty Coffee Association of Indonesia (SCAI); \$38,345

AMARTA is currently developing the following grant proposals:

- Developing Market Linkages for Farmers in West Java Through CV Bimandiri's Supply Chain
- Improvement of Banana Farmers Competitive Capacity in Northern Sumatra

### **Advocacy for Improved Enabling Environment**

#### **Collaboration with the Directorate General of Processing and Marketing of Agricultural Products and Local Governments in reviving the Dumai Agribusiness Terminal**

AMARTA, accompanied by officials from the Directorate General of Processing and Marketing of Agricultural Products, Riau Province, the Dumai Municipality Office of Agricultural Services, and PT Pembangunan Dumai (elected management on the Dumai Agribusiness Terminal), met with the Dumai Mayor at his residence on February 27 to discuss possible collaboration in improving and utilizing the Dumai Agribusiness Terminal. The Mayor supported the idea of multi-partner collaboration and is ready to support the initiative with financing and resources that may include finding sufficient land for a horticulture plantation. AMARTA also participated as a key resource speaker in a workshop dedicated to fully utilizing the terminal organized by the local government and attended by 40 participants of inter-agencies, farmers and the elected facility managers. AMARTA offered to contribute a design and layout plan of the facilities, as well as training of pack house operations and management staff and compiling market analysis of Singapore-and possibly Malaysia and Dubai for tropical produce exports.

#### **Partnership discussion with Deli Serdang Regency Office of Agricultural Service**

On March 5, AMARTA met the Director of Agricultural Services, Deli Serdang Regency, North Sumatra. As a result of this effort, it was agreed that collaboration in the areas of agricultural technology transfer and policy advocacy will be implemented in the near future. AMARTA is preparing terms of reference for the activities.

#### **Regional Agribusiness Competitiveness Alliance (RACA) Establishment and Activation**

##### **Empowering and activation of the Karo Horticultural Community**

AMARTA completed trainings on proposal writing for the Karo Horticulture Community (Masyarakat Hortikultura Karo) and the Karo RACA, from February 7-9, 13-15, 27-29 and March 1. The events were facilitated by three trainers from North Sumatra University and included 27 participants- representing 13 farmers groups, one farmer's group association, three farmer's interest organizations, one horticultural trader organization, one association of village chiefs, one local university, and three local newspapers.

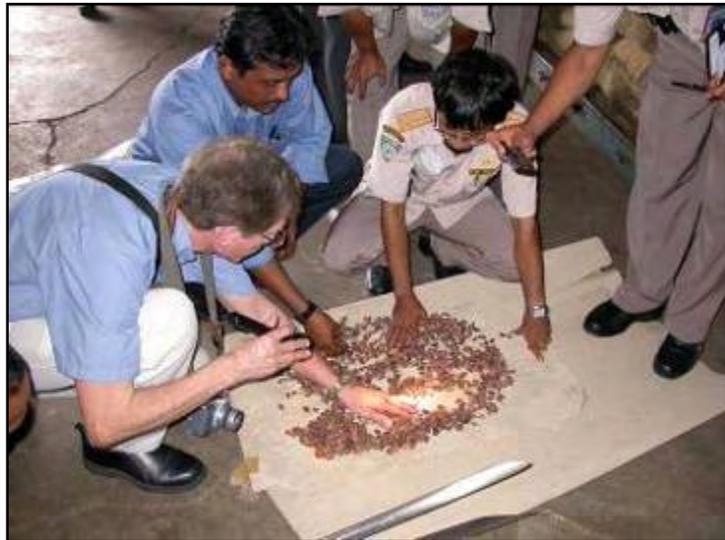
In the afternoon of March 29, the Alliance met Mr. Joy Harlim Sinulingga, Chairman of the Agricultural Commission of Karo Regency Parliament in Sibayak, Berastagi, to discuss the possibility of Parliament providing a hearing forum for the Alliance to advocate farmer's policy interests. Mr. Harlim Sinulingga supported the request and the event will take place on April 9.

### **Banana-based RACA, Talun Kenas, Deli Serdang, North Sumatra**

In an effort to establish a banana-based RACA in Talun Kenas, on March 5, AMARTA participated in the workshop "Empowering Farmer Institutions: Legalization Procedures of Farmer's Group Associations and Micro Finance Institutions" organized by the Deli Serdang Regency Office of Agricultural Services in Lubuk Pakam. The workshop included 200 participants representing all of the farmer's groups in the regency, inter-government institutions, one private company and one non governmental organization. AMARTA presented the idea of establishing a RACA in the region and the participants supported the idea, while the Office of Agricultural Services agreed to collaborate. AMARTA will organize a follow-up RACA meeting to discuss and prioritize advocacy issues for review and further discussion.

### **South Sulawesi Cacao RACA**

In collaboration with the Directorate General of Agricultural Quarantine, on February 14-15 at the Office of Agricultural Quarantine, Makassar, AMARTA held a public-private dialogue on "The Cause and Possible Solutions for Cacao Automatic Detention at United State Ports" with two STTA, Mr. Carl C. Reynolds and Dr. Ray Thompson. Sixty one participants attended, representing the Directorate General of Agricultural Quarantine, five Regional Offices of Agricultural Quarantine, two related government agencies (Disbun and Disperindag), eight private companies, one business association (ASKINDO), and two academic/research institutions (UNHAS and BPTP). All participants agreed that the dialogue forum should continue. The Makassar Office of Agricultural Quarantine and AMARTA will coordinate and support the effort. The consultants made specific recommendations for improved handling, warehouse management, fumigation practices, and other safety related issues, and submitted a report titled 'Assessing Indonesian Storage and Fumigation for Cocoa Beans'. The report was shared with the Directorate General of Agricultural Quarantine.



**Inspection of fumigated and non-fumigated cocoa by AMARTA consultants, Olam, and plant quarantine staff**

## **Jakarta Horticulture RACA**

In collaboration with the Directorate General of Horticulture, AMARTA held a public-private dialogue on 'The Role of a Floriculture Exporter's Association in Expanding Indonesia's Export of Horticulture Products' at the office of the Directorate General of Horticulture on February 11, with keynote speaker Nancy Laws, an AMARTA consultant, and moderated by Dr Dimiyati, Directorate General of Horticulture. The event was attended by 40 participants representing 11 inter-ministerial agencies, 14 private companies, seven business associations and two research institutions.

## **Policy and Regulatory Assessment**

1. Horticulture seed assessment by ICASEPS:
  - Preliminary report submitted to AMARTA on January 24
  - Feedback and comments from AMARTA were submitted to ICASEPS on February 6
2. Horticulture value chain assessment by PSP3:
  - Proposal and purchase order have been agreed on March 3
  - Inception report submitted March 25
3. Cocoa automatic detention assessment by Carl C. Reynolds and Ray Thompson:
  - Final report has been submitted to AMARTA
4. Competitiveness of Karo citrus:
  - Summary has been published in AMARTA Newsletter #2, March 2008 and noted below

## **Aquaculture**

AMARTA has inaugurated a new boat awarded to grantee PT. Karamba in Flores to support the distribution of fingerlings to the grouper grow-out fishing villages. Also, the old and unstable jetty (wooden dock) was replaced by a new jetty with higher quality timber, allowing easier distribution of fingerlings. The hatchery and nursery rehabilitation are improving the capacity of tanks, while the electricity supply and buildings are being refurbished in order to ensure the target production of 20,000 grouper fingerlings per month is achieved. The existing hatchery grouper operation produced 7,500 fingerlings since the season started in early 2008.



**PT Karamba's new boat takes it's first trip at sea**

AMARTA also supported two villagers from Warloka and one staff of PT. Karamba to attend intensive grouper propagation training in Lampung, while one key staff of PT. Karamba joined a quality control management training, organized by the Directorate General of Aquaculture in Cisarua, Bogor (March 25-28), in order to obtain a certificate of Best Aquaculture Practices for PT. Karamba grouper production.

The grouper pilot project also delivered 1,800 fingerlings to Warloka Village net-cages on March 24, to officially launch the project. Subsequently, every four months approximately 2,500 fingerlings will be distributed to the village to sustain a harvest of one ton every four months. More than 10 selected members of Warloka Village received intensive training and have established a Warloka Mariculture Business Association. The opening ceremony was attended by local government officials, fishery service officers, national park representatives, more than 50 villagers, PT. Karamba, AMARTA, and USAID CTO Rafael Jabba. The local government strongly supports the AMARTA program in developing high value aquaculture products with tremendous outside investor appeal that will provide a positive impact on local economic growth. The national park appreciated the pilot program, since it will reduce the pressure by fishermen to collect high value fish from the coral reef environment within the Komodo National Park conservation area.



**Left: Warloka Village fishermen welcome USAID and AMARTA to the newly constructed net cages**  
**Right: AMARTA COP, David Anderson, and USAID CTO, Rafael Jabba, provide fingerlings to Warloka Village**

### **Black Tiger Shrimp Hatchery Company Established**

In January 2008, the hatcheries lab building in Aceh officially opened with grantee PT Windu Lestari beginning operations with equipment donated by AMARTA to ensure the post larvae sold to shrimp farmers are pathogen free. The procurement of lab equipment and chemicals will be completed in April, pending final waiver approval from USAID. The objective of the project is to revitalize the black tiger shrimp, a species native to Aceh. Shares in the company were issued in exchange for capital, and shareholders currently consist of hatchery owners, shrimp farmers, traders and other

stakeholders. AMARTA will provide assistance to the company, though the eventual goal is for the company to operate independently and profitably as a commercial entity.

## **Livestock**

### **Breeding Pilot program of Bali Cattle in West Timor**

Puskud NTT (Koperasi Ternak Sapi Potong, KOPNAK) has purchased and delivered 171 female cows- provided by an AMARTA grant- to improve the production of Bali cattle in West Timor. Local government regulations restrict any female beef for slaughtering and trading outside of the island. The breeding pilot project answers the challenges faced by the community of West Timor who consistently face difficulty in securing the feeder cattle for cattle production. Approximately 29 of the 115 female cows that were



**Heifers awaiting distribution**

distributed to the farmers, all members of Puskud NTT, are believed to be pregnant, while the rest of the heifers are ready to mate. Several cows that failed to become pregnant were found to be infected with brucellosis after blood tests were conducted and they will all be replaced by new cattle. Currently, the remaining heifers are being prepared for artificial insemination, starting in April 2008. In total, 300 cows are expected to be delivered to the breeding program by the end of April 2008.

## **Bio-fuels**

### **Jatropha Production**

AMARTA provided jatropha plant material and bio-fuel production facilities for two villages in Flores- Legu and Ulu Vae. Warehouse construction was completed and jatropha crude oil (JTO) processing machines were also delivered and installed. JTO Production demonstrations were conducted on March 25-26, attended by villagers, cooperative members, local government staff, CV. Lion Lestari, AMARTA and USAID CTO Rafael Jabba.

The nursery at Legu, in Satar Mese District, produced about 75,000 jatropha seedlings. As of March 20, 456 households had planted 70,137 of these seedlings, with the remainder expected to be planted by early April. Production from these seedlings will be supplemented by hedges and extensive stands of wild jatropha that surround the village.

In Ulu Vae, the nursery did not fare as well, due to poor germination and fungal diseases. These problems were caused by the extremely heavy rains that fell during the production period. A total of 7,800 seedlings were produced, which have been transplanted by 262 farmers. To increase jatropha production in Ulu Vae, farmers in Satar Mese contributed 17,250 cuttings, bringing the total number of jatropha plants in Ulu Vae to 25,000. With continuing rain, these cuttings are rooting well.

The 100,000 jatropha plants in the two villages are enough to cover 40 hectares, at the standard density of 2 X 2 meters. This is 66% of the target of 60 hectares that will be achieved at the beginning of the 2008 rainy season, with additional planting of cuttings in both locations. However, AMARTA will work with the associations to carefully evaluate the amount of vacant land available in each village before encouraging additional planting which could displace food crops. A total of 718 farmers have received training in jatropha production. These farmers, as well as others, will also receive training in the uses of jatropha oil.



**Producing soap in Ulu Vae**

The farmer's associations built small warehouses in each village, using materials provided by AMARTA. Oil expellers and manual filters have been installed in each building. Initial tests of the machines resulted in an extraction efficiency of 25% (filtered oil volume divided by seed weight). Over the next quarter, AMARTA and Lion Lestari plan to train farmers on several uses of jatropha oil and seed cake (material left after oil extraction) in both locations. These include:

- Using jatropha oil or briquettes made from jatropha seed cake for cooking
- Lamps which can burn jatropha oil for lighting
- Production of soap from jatropha oil
- Operating a diesel engine on jatropha oil, using the dual fuel tank system where the engine is started and stopped using diesel fuel, while the rest of the time it operates on crude jatropha oil
- Using an engine running on jatropha oil to generate electricity

The first three technologies were demonstrated during the field visit by USAID and AMARTA staff on March 25.



**Ulu Vae production shed during construction....**



**..and after completion with USAID CTO, Rafael Jabba, AMARTA staff, and beneficiaries**

## Cocoa

### **Cocoa training**

AMARTA Sulawesi Kakao Alliance (ASKA), Basic Training Cycle #2 continued with 80 Farmer Groups (FGs) in **South Sulawesi**, 10 from Pinrang District and 70 FGs from North Luwu District from the following Subdistricts: Sukamaju, Masamba, Mappadeceng, Sabbang, and Baebunta. Basic training activities were taught to ASKA farmers, non-ASKA farmers, local organizations, and local estate officials. There were two topics of focus in January, pruning and fertilizing with 1,996 participants from Pinrang and North Luwu Districts, including 1,731 men and 265 women. In February, the topics included a cocoa clinic, pests and diseases, harvesting technology and pod sorting; 1,275 participants attended the cocoa clinic, 1,982 participants attended the pests and diseases session, and 759 attended the harvesting technology and pod sorting session. In March, the training session continued with another cocoa clinic session, frequent harvesting, and sanitation. An agreement was reached stating that if one of the enrolled ASKA farmers was unable to attend a training session, the individual should be replaced by a family member. This family substitution will provide the farmer a complete overview of basic training topics, and allow him or her to fully comprehend best practices for maintaining a cocoa garden.

One hundred and fifty FGs from North Kolaka and Kolaka District in Southeast Sulawesi enrolled in the second cycle of basic training since December 2007. AMARTA trained 70 FGs from North Kolaka District, Subdistricts: Ngapa, Watunohu, Pakue, Lasusua, Lambai, Rante Angin, and Wawo, as well as 80 FGs from Kolaka District, Subdistricts: Wolo, Samaturu, Wondulako, Ladongi, Poli-polia, and Lambandia.

Soon after socialization was completed in December 2007, ASKA activities continued with basic training for the 150 FGs. Generally, the training was attended by ASKA farmers, non-ASKA farmer, local organizations, and local plantation officials. Similar to ASKA farmers from **Southeast Sulawesi**, there were two topics of basic training in January: pruning with enrollment of 3,080 participants, while fertilizing was attended by 3,051 participants, 2,528 male farmers and 523 females. In the same month, 30 FGs from Ladongi, Poli-polia, and Lambandia Subdistricts completed training with 899 participants including 13% female.



**Sutarmi, a 33 year old coca farmer, has increased her income by 70% since joining ASKA and learning advanced technologies**

In February, the topics included a cocoa clinic session, pest and disease, harvesting technology and pod sorting; 2,539 farmers attended the cocoa clinic session, 2,960 the pest and disease session, and 503 attended the harvesting technology and pod sorting. In the same month, 30 FGs from the three Subdistricts enrolled in the pruning session- 798 participants, and the fertilizing session- 782 participants. In March, the training continued covering a cocoa clinic session, harvesting technology and pod sorting, pest and disease control, and frequent harvesting and sanitation.

One hundred and twenty FGs enrolled from Polewali Mamasa (Polmas) and Mamuju Districts in **West Sulawesi**. Each district covers 60 FGs, including six Subdistricts from Polmas: Anreapi, Binuang, Mapili, Bulo, Luyo, and Tapango, and six Subdistricts from Mamuju: Tommo, Budong-Budong, Sampaga, Pangale, Papalang, and Tapalang. These training activities were also attended by ASKA farmers, non-ASKA farmers, local organizations, and local estate officials. Pruning had 3,109 farmers enrolled from Polmas and Mamuju. Fertilizing, included 3,095 farmers from both districts, 2,569 male and 526 female.

In February, the topics once again included a cocoa clinic session, pest and disease, harvesting technology and pod sorting; 2,532 farmers attended the cocoa clinic session, 2,976 the pest and disease session, and 502 attended the harvesting technology and pod sorting. Each FG receives two different topics every month. In March, the training session continued covering a cocoa clinic session, harvesting technology and pod sorting, and frequent harvesting and sanitation. ASKA farmers were also introduced to a local exporter, UD Tunas Jaya, who will purchase farmer's cocoa beans based on quality using transparent procurement procedures.

Cocoa training also occurred in Bali from March 15-19, and though agricultural work has traditionally been dominated by men in Indonesia, a new trend is appearing as the wives of *Subak Abian* –irrigation system- member farmers attended classes. The ladies from *Subak-Abian Asagan*, Gadungan Village, Selemadeg Timur Subdistrict and in *Subak-Abian Dukuh Sari*, Tiyang Gading Village, Selemadeg Barat Subdistrict showed great enthusiasm during the event.

Overall participation for women in USAID/AMARTA trainings has been approximately 10-15%, however in some *Subak-Abian* events, women made up 35% of the group. Based on interviews with female participants, the knowledge was extremely useful since they help their husbands in cocoa farming. One of the participants, 47 year old, Ni Wayan Supadmini, noted: *“I joined this training to learn more about cocoa cultivation techniques, such as pruning, fertilizing, sanitation and pest and disease control.”* She also added, *“Knowledge on the right techniques to split and sort the beans will produce high quality results that will get higher prices for our cocoa. USAID/AMARTA has helped others in our village and we have all seen the good results.”*

### **World Cocoa Foundation visits ASKA cocoa garden**

AMARTA consultant BK Mattlick from the World Cocoa Foundation visited West Sulawesi (Mamuju, Polewali, and Masamba Districts) and Southeast Sulawesi (Lapai,

Kolaka, and Londongi Districts) from January 17-25, in order to observe and evaluate the cocoa gardens, and to perform a review of the current condition of cocoa trees.

West Sulawesi showed Vascular Streak Disease (VSD) infection in most of the cocoa gardens visited, while in Southeast Sulawesi, poor drainage occurred in Ladongi Subdistrict and many of the cocoa trees were infected by *Phytophthora canker*, small pod and beans commonly found in this location. AMARTA recommended a workshop or training conducted by plant pathologist experts, including- not only farmer trainers- but other stakeholders impacted by the diseases. In addition, training about replanting or side grafting were suggested for VSD infected cocoa gardens and proper garden drainage training and brochures will be distributed to reduce *Phytophthora canker* disease. The brochure helps farmers identify the disease, and the information covers garden evaluation, clone selection, farm based nursery development and management, bud-grafting (green budding), pruning and tree formation, fertilization and disease control. Additional recommendations for training ASKA staff about how to develop demonstration plots at strategic sites, develop a training VCD/DVD, and replanting in the follow up training is planned for April 14-18.

### **Solar dryer construction**

AMARTA activity in supporting post harvest handling practices included solar dryer construction not only at PT. Olam and UD Tunas Jaya buying stations, but also at the farmer group level. Following solar dryer activities including training and construction that began in August 2007, additional solar dryers were constructed at Polman District buying stations in West Sulawesi where 14% low-density polyethylene plastic was provided by UD. Tunas Jaya. Solar dryer construction at buying stations will be available soon in Ladongi and Lapai Subdistrict of Kolaka, Masamba Subdistrict of North Luwu and Mamuju Districts. Considering the quality impact leading to price increases, farmers realize the benefits of having solar dryers, particularly during the rainy season. The Tani Jaya FG from Baula Subdistrict of Kolaka initiated building a solar dryer (4x6m), and the construction process from February 23-24 was attended by 53 farmers, 11 of who were females, including farmer representatives from other FGs and local government officials. In addition to constructing smaller solar dryers at the farmer level (2x3m), collaboration among local farmers, AMARTA, and buying stations will continue in April.



**Solar dryer construction in Bali before.....and after**

Bapak Sappe is a 43 year old farmer, one of 4,179 cocoa farmers in South East Sulawesi, who attended the *Solar Dryer Training*. Sappe and other members of his farmers group built a solar dryer together and AMARTA provided the plastic. Normally during the rainy season, farmers have to dry the cocoa for one week under the sun in order to get dry beans with lower than 8% moisture, though with solar drying it only takes four to five days. Bapak Sappe noted, “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 22,00 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/AMARTA.”

### **Database development**

In an effort to maintain accurate record keeping and measure the impact of how various Sulawesi cocoa training activities are benefiting farmers, AMARTA is exploring a database system to store and organize information linked with ASKA cocoa program activities acquired from questionnaires/surveys that can be accurately interpreted and presented in the form of statistics, charts, tables, and reports that will be presented to USAID. Initial presentations from database development vendors in Makassar occurred in late February and AMARTA is awaiting final proposals from the three vendors.

### **Sustainindonesia Kakao Alliance (SKA) Smallholder Training in Bali**

Sustainindonesia Kakao Alliance (SKA) provided a series of training modules for 1,000 farmers of 40 groups (subak abian) in 17 villages and four Subdistricts (Penebel, Selemadeg Timur, Selemadeg, Selemadeg Barat) in Tabanan Regency. The major assistance provided by SKA is agricultural technology for cocoa trees to increase productivity and quality. The six modules were delivered to the cocoa farmers in Tabanan Regency, including pruning and sanitation, cocoa pest and disease, organic fertilizer and pod sleeving, side grafting and frequent harvest techniques. Cocoa best harvest practices and sorting will be conducted in April when the harvest season starts in Bali.

A training of trainers (TOT) was provided by AMARTA and Big Tree Farm to the AMARTA field trainers and Big Tree Farm field staff on January 14, to improve the knowledge in developing Bali organic cocoa. Topics included:

- On-farm fertility management through composting
- On-farm fertility management through foliar feeding/liquid compost
- Fertility management through semi-purchased inputs – Bokashi
- Fertility management through purchased organic inputs - commercial compost options

### **Coffee**

#### **Indonesia’s specialty coffee industry**

With support from AMARTA, a national trade association was created; The Specialty Coffee Association of Indonesia (SCAI) was launched on February 12, at an event

attended by more than 70 Arabica coffee farmers, exporters and retailers. SCAI immediately completed its first activity- training 46 industry members in coffee “cupping” in Jakarta and Medan. These trainings, introduced the new Q-cup grading system that has been developed by the Coffee Quality Institute.

By March 31, SCAI had 19 dues paying members, 63% of whom are active exporters, and was registered as a member of the Specialty Coffee Association of America "SCAA". Other activities completed in cooperation with SCAI include:

- Preparation for the first Annual General Meeting (AGM) of the association, to be held on April 2. Nominations have been received for the volunteer posts on the Board of Trustees
- Development of a web site, brochure and other promotional material
- Preparations for the Specialty Coffee Association of America (SCAA) trade show and exhibition; SCAI members have entered eight coffee samples into the “Cup of the Year” contest that is held annually at the SCAA show.

AMARTA continued to monitor and support its two grantees in the coffee sector, PT Gajah Mountain Coffee in Aceh and CV Lion Lestari in Flores. Farmers working with Lion Lestari were inspected for organic certification in March by Control Union Indonesia, and are awaiting the final results. Processing equipment is currently in transit to Flores. PT Gajah Mountain recently signed an agreement with ForesTrade, an importer of Indonesian agricultural and forest products. This partnership will provide Gajah Mountain with both financing and U.S. market access for Aceh coffee. In addition, trainings were held on the use of the Broca Traps, a technology to reduce infestation by the coffee bean borer. During the reporting period, trainings were held in Tana Toraja, Sulawesi and Wamena, Papua, for 99 farmers. These farmers received traps and attractant so they can demonstrate the effectiveness of the technology on 100 hectares at each site. Data on the performance of the first group of traps distributed in Sidikilang is now being analyzed.



**SCAI launching with USAID Director of Economic Growth Office, John Pennell, AMARTA, and SCAI members**

## **High Value Horticulture**

### **Four Workshops on “Bridging the Gap in Supermarket Horticulture Supply Chain” in West Java**

AMARTA conducted four workshops related to the horticulture supply chain. The main objective of the workshop was to answer the following questions:

1. Supermarket demand- what they want but do not get from smallholder farmers
2. Critical challenges to be addressed and possible solutions

The workshops were conducted in Bandung on January 15; in Cianjur on January 17; in Garut on January 19; and in Cirebon on January 23, and included supermarkets, specialized wholesalers, local traders, farmers and local government staff. There were 165 participants at the four workshops (46 in Bandung, 42 in Cianjur, 29 in Garut and 46 in Cirebon). As a result of the workshop AMARTA will develop horticulture supply chain models in various locations in West Java to identify promising strategies that could be tested or improved upon with AMARTA assistance, including on-farm demonstration plots and trainings, which if successful- can be replicated.



**Traditional loading of produce at Enrekang STA**

### **Training of Improve Banana Productivity in Deli Serdang District**

From February 28 through March 17, ‘Double Row Banana Planting Using New Technology’ trainings were conducted in the villages of Talun Kenas; Pintu Besi; Rumah Rih and Tiga Juhar in Deli Serdang. AMARTA consultant, Mr. Julian Velez, trained 417 banana growers- 312 male and 105 female, covering 411 hectares of land on the following topics: Maintenance by pruning, de-leaving, cutting and improved fertilizing. AMARTA continues to maintain demonstration plots at the following five village sites: Talun Kenas, Negara, Tiga Juhar, Kuta Jurung and Biru, supporting at least 10 banana growers in every double row and existing plantation.

In addition, AMARTA facilitated the establishment of Yayasan Pisang Mandiri, an agriculture based institution that legally registered in Indonesia the second week of March. Efforts continued with the Association Mama Anak Cucu (Mother-Daughter-Grand daughter) to export their banana production to Jakarta through PT. Sewu Segara Nusantara in Jakarta. The banana growers in Deli Serdang District in the association increased their production for exporting to Jakarta from 6,000 hands per week to 8,000 hands per week (33%) beginning in March.

A vital component of the AMARTA program is to provide advanced technology to farmers and government officials in an effort to replicate successful interventions. Developing the capacity of local beneficiaries, who in turn, transfer that knowledge to others, provides sustainable and far reaching consequences- particularly when projects become institutionalized through government agencies.

In an effort to build local capacity, AMARTA invited a host of participants including the Assessment Institute for Agricultural Technology (BPTP) in Medan- a government agency- to a seminar in Medan in July 2007. The seminar introduced double row banana planting technology to all of the participants, including Mr. Besman Napitupulu, one of BPTP's Department Managers. As a result of the training, Mr. Napitupulu adopted the double row technology and planted Lankantan bananas in Talun Kenas at BPTP's demonstration plot. According to Mr. Besman *"The double row system adopted by BPTP from USAID/AMARTA will improve the banana production up to 80% compared to the system currently available. The system in place has only produced 1,100 to 1,300 banana trees per hectare, however by implementing the double row system yields can increase up to 2,000 to 2,200 banana trees per hectare."*



**Mr. Besman Napitupulu of BPTP demonstrates a fertilizing technique on banana trunks at the Talun Kenas demonstration plot**

**Training on Best Agricultural Practices for Citrus in Berastagi, Karo District**  
A Standard Operating Procedures (SOPs) Manual was provided, and citrus training conducted, continuously during the quarter. In Kabanjahe, 1,099 citrus farmers were trained by AMARTA partner Masyarakat Jeruk Indonesia (MJI) (Indonesia Citrus Society). Trainees included 282 females and 817 males, covering 855 hectares of land from 12 villages and six Subdistricts. The training covered: fertilizing, pest and disease

control with biological stem and chemical techniques, tree pruning, and thinning. In addition to the training, AMARTA facilitated the establishment of 10 business cooperatives in 10 villages.

One of the participants, Mr. Purnama Sembiring, a 40 year old citrus farmer from North Sumatera, used to struggle to grow high quality citrus and sold it for what he always considered an unfair price. After participating in AMARTA's citrus training program he began implementing Standard Operating Procedures (SOPs) on his citrus plantation in Guru Benua and Kuta Great Villages, Karo Regency. Mr. Sembiring, his wife, and their 16 year old high school child have all been actively working on the newly revitalized 1.5 ha orchard. The results are staggering:

- Citrus weight is heavier and fruit bigger than before
- Buds as big as strawberries are growing and flowers are blooming
- Taste is sweeter and more aromatic with more juice
- Survivability is up to five months so he can wait for better prices in the market
- Production is increasing up to 200%
- Quality is 50 to 75% better based on buyer's grading systems
- Prices received have increased more than 300%- his citrus used to be valued between 1,000 to 1,500 Rupiah per kg, while today he receives 4,000 to 4,500 Rupiah per kg

Mr. Purnama is now extremely motivated in planting citrus due to his dramatically increased income. He has harvested 20 tons every four months and 60 tons every year.

The average price of his citrus per kg is more than 4,000 Rupiah, and in one year he can earn 200,000,000 to 230,000,000 Rupiah, while only paying 40,000,000 Rupiah to maintain his citrus plantation and to pay for labor. Mr. Sembiring noted, *"USAID and AMARTA have helped me to improve my life. I am making more money than I ever thought possible in my orchard and the training on SOPs has provided me with the knowledge to continue to improve my citrus."*



**Mr. Purnama Sembiring in front of his improved citrus trees**

### **Improve Production and Marketing of Vegetables – Berastagi, Sumatera**

On February 5, the Farmer Association and Carrot Traders for Karo was created. The members of this association are carrot farmer's groups from five villages in Karo District and will receive carrot cultivation and marketing training, as well as pilot project

demonstration plots for developing several varieties that will be able to fulfill the market demand.

Broccoli variety development was initiated with PT. Horti Jaya in an effort to create a trial plot for broccoli seeds deriving from several countries such as 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.

### **Integrated Pest Management Citrus Training – Berastagi, Sumatera**

Twenty five villages in seven subdistricts were selected in Karo District to receive 'Judicious Use of Pesticides' training. The training is conducted by AMARTA with collaboration from Croplife Indonesia; a non profit association from eight multi-national pesticide companies. The training ran from March 3-8, equipping 582 farmers- 91 female and 491 male, covering 430 hectares- and included the following topics: Pesticide regulations, pesticide classification, pest and disease identification, pesticide selection, sprayer design, nozzle selection, pesticide toxicity, protective clothing, pesticide storing, calibration of sprayers, and care and maintenance of sprayers.

In an effort to capture behavioral changes of the farmers in using pesticides AMARTA is partnering with the Assessment Institute for Agricultural Technology (BPTP) and Protection Institute for Horticulture and Food Plants (BTPPH I) in North Sumatera who are conducting analysis of farmer's actions before and after the training and also watching the pesticide residue at the trainees farms for up to three months.

### **Obtaining approval for Strawberry Pilot Program in Pancasari, Bali**

AMARTA has arranged to import three varieties of strawberry frigo plants (vernalized dormant strawberry plants held at below freezing in transport) from California for the pilot program production in Pancasari/Bedugul, Bali. The recipients of plant material have been identified; 47 members of the Mitra Bina Mandiri Cooperative in Pancasari, who currently grow strawberries with plant source material that is more than 10 years old will be primary beneficiaries of this program.

AMARTA will demonstrate a completed pilot program in growing high quality strawberry material by black plastic mulch and drip irrigation. The pilot program will provide technical assistance on frozen plant material handling, best agriculture practices and best harvest practices. The training program is scheduled to be held in April 2008, prior to arrival of imported plant material. Currently, the strawberry plant material is being imported from California and AMARTA has received approval from the plant quarantine office. The strawberry is estimated to arrive in Tanjung Perak (Surabaya) port in the beginning of May 2008.

## **Natural Rubber**

### **Latex processing and marketing training in West Kalimantan**

Four days of training were conducted in Pana Village on Jan 21-22, followed by two more days of training in Bareng Bekawat Village of Kapuas, West Kalimantan on January 23-24. Describing the latex processing procedure and assessing the market need for farmers were the main goals of the training that covered five topics: Dry rubber content (DRC) assessment for latex and slab, price determination, slab and lump processing, and coagulants. The training was facilitated by two experts from the Indonesia Rubber Research Institute (IRRI), Dr. Didin Suwardin and Edy Suyono. The first training in Pana Village was attended by 74 farmer representatives from 16 farmer groups from Pana and Entakai Villages. Thirty eight farmer representatives from seven farmer groups of Bareng Bekawat, and Semayan Villages attended similar training conducted in Bareng Bekawat Village. The last training was attended by three estate officials from Kapuas Subdistrict.

## **Seaweed**

### **Seaweed Production in Northern Sulawesi**

Activities continued in an effort to increase seaweed production in the villages of Lemito (North Gorontalo District) and Tolango (Lohuwatu District). AMARTA identified 15 groups of seaweed farmers and an implementing partner, Southeast Asia Seaplant Network (SEAPlant Net), an NGO based in Makassar, to increase seaweed production throughout Indonesia. The coastline of both areas is ideal for growing seaweed. There are currently 69 hectares of production, harvesting about 73 tons per year; however there is room for more than 5,000 hectares of production in the two areas. Discussions with farmers identified a lack of planting material as the main constraint to increased production. AMARTA, working through SEAPlant, agreed to provide an initial stock of planting material to 30 nurseries managed by the farmer's groups. Once the nurseries grow out the planting material they will loan seaweed to group members who will in-turn repay the loans plus interest in the form of seaweed so that new farmers can participate in the ever expanding program. The 15 groups currently have a total of 150 members.

As a first step, SEAPlant investigated various sources of planting material and modes of transportation. Islands along the coast of Southern Sulawesi were identified as a potential source for the planting material. Various forms of transport were also investigated. Truck transport was determined to be too slow, while air transport was both expensive and logistically complicated, given the volumes involved. Transport by boat was identified as the best option, though, unfortunately, the first shipment of 10 tons of live seaweed from Southern Sulawesi did not survive due to engine trouble delaying the boat, causing the seaweed to dry out. The funds expended to purchase the planting material are now being recovered by selling the seaweed in dry form. These funds will be used to purchase new seed stock. AMARTA and SEAPlant are now evaluating other options to supply the nurseries, including identifying other sources of seaweed closer to Gorontalo- an area west of Lemito may have sufficient bio-mass to

supply some of the nurseries- and reconsidering air transport, despite the increased costs and logistical complications. Next quarter, AMARTA will hold workshops with the farmer's groups in each location to discuss:

- On-going management of the cooperatively owned seaweed nurseries
- Systems to disseminate extension messages
- Options for developing financial services, such as savings and credit



**Seaweed activities in Gorantolo, a small-scale seaweed farmer with 500 meters of line can produce 90 kg of dried seaweed per month worth 5000,000 Rupiah (\$55)**

## **Floriculture**



**Nancy Laws with an orchid grower from Medan**

Training in Good Agriculture Practices for floriculture farmers was conducted in Medan on March 13, by STTA consultant Nancy Laws in cooperation with the Department of Agriculture, Medan. The floriculture farmers in Berastagi were trained in chrysanth flower land preparation, cultivation, and disease/fungus prevention. Berastagi is the central production center of cut flowers in North Sumatera and Aceh.

## **Papua Agriculture Development Alliance (PADA)**

The office location in Timika, Papua selected in October 2007 has been furnished with the Social Local Department (SLD) of Freeport assisting AMARTA in providing some furniture and installing electricity, water supply, an air conditioner, and phone and Internet connection as part of Freeport's in-kind contribution to the PADA project. This work has been delayed by various factors, but is expected to be completed no later than mid-April 2008. As of March 31, some progress was made, including: Painting of the internal walls and ceilings of the office, construction of a storage facility, and construction of partitions/cubicles for working space were completed. In April, additional work is expected on providing additional furnishing, installing a generator set for the office power supply, and installing additional air conditioners. If the current schedule is met, AMARTA can use the new office before the end of April. Currently, the AMARTA office is located in the Matoa Room at the Sheraton Hotel, Timika. Freeport is paying for this space as part of its in-kind contribution to the PADA project.

### **Kokonao**

On October 22, 2007, PADA began working in Kokonao to build an ice factory to supply the local fishermen with ice blocks. The objective is to help the fishermen preserve their catch until they can ship it to an appropriate market. Moreover, PADA is establishing a facility to build fiberglass boats for fishing. A medium size five ton transport boat will be built and provided to a grantee to transport fish from Kokonao to Timika. In addition, PADA is also training local fishermen the proper way to catch, raise, and harvest soft shell crabs. Styrofoam boxes will be provided to a grantee- the local fishing cooperative- by PADA.

The ice factory building is completed along with 80 meters of access channel for small boats from the main body of water to reach the ice factory as well as a small docking facility. Installation of the internal components of the facility is also completed. The engine for the power supply has arrived in Timika and is awaiting delivery to Kokonao in the middle of April.

The fiberglass boat building facility is also completed. The trainers from Nabire have conducted the first session of training, which included technical assistance in building a cool box and two small fiber canoes. The second session will begin in early April focusing on using fiber material and building two large canoes.

The responsibility for building a five-ton wooden transport boat was given to a local boat builder in Kokonao who completed the task this quarter. On March 3, AMARTA COP, David Anderson and the Bishop of Timika inaugurated the completed vessel by nailing the wooden plaques with the AMARTA logo and the name of the boat - Maria Bintang Laut, onto the deck. The engine for the boat, which was purchased by AMARTA, has already been delivered and stored in Kokonao and will soon be installed.

The building of cages to raise soft shell crabs was completed along with a water channel to access the cages. On March 3, David Anderson, Kornel Gartner, and Fernando Tinal

from AMARTA, and the Bishop of Timika visited the soft shell crab production site in order to find out more about the structure of the Maria Bintang Laut Cooperative in Kokonao and to determine how to move forward with the management of the ice factory once the operation begins. The Bishop agreed to find internal members of the organization who will assist in the management of the cooperatives and bookkeeping. Fishing equipment and styrofoam boxes for 300 fishermen were purchased and were delivered to Kokonao and will be distributed to the fishermen once the ice factory begins operations.

### **Papua Coffee Development**

David Anderson and Kornel Gartner met with Starbucks representatives and Senior Vice President for Coffee Mr. Dub Hay in Seattle, Washington on December 19, 2007 in order to discuss possible cooperation between Starbucks and AMARTA to further develop Papuan coffee. Starbucks and AMARTA are working to provide samples to increase quality and the cupping profile in order to enhance development of the Papua origin. Samples continue to be sent to Starbucks for evaluation, while the newly established Specialty Coffee Association of Indonesia (SCAI) supports Baliem Arabica with market information and market research.

AMARTA's PADA coffee project in **Wamena** began on October 22, 2007. The aim of the project is to set up a specialty coffee supply chain from the farmers in Baliem Valley to the international specialty coffee market. In order to meet this goal, AMARTA and the coffee farmers must reach several milestones such as setting up a farmer's cooperative, namely Baliem Arabica Cooperative, achieving organic and fair trade certification of the Wamena origin, creating transportation and supply lines for Wamena origin, and identifying potential buyers.

Baliem Arabica Cooperative was established and registered on November 27, 2007. The registration number is 16/BH/KPKM/2007. The cooperative works with approximately 1,200 coffee farms in the Baliem Valley. The socialization process by the cooperative to the farmers is completed and all parties understand their responsibilities. During early March AMARTA STTA for cooperatives, Stephen DeMeulenaere met with the association and was impressed by the organizational capacity.



**Sorting coffee after training**

Green coffee samples have been taken from Wamena to analyze grade and quality at the ICCRI coffee research center in Jember, East Java. The result of the study shows that Baliem Valley coffee meets the international specialty coffee standards.

The renovation of the specialty coffee processing facility, Okesa Jagara, is 75% complete and the coffee hulling machinery for the Okesa Jagara facility was delivered and installed on site. A 240-meter long fence was constructed around the production facility and a traditional house (Honai) was built on site for meetings with farmer groups from different villages. The construction of the roof extension for the processing warehouse is complete, while the construction of a toilet for workers is planned and AMARTA has received a price offer from a local contractor.



**Efforts continue alongside the newly built Honai**

Processing machinery and equipment for coffee drying and sorting has arrived in Timika and will be transported to Wamena in early April in several shipments due to the size of



**Newly constructed model coffee pulper in Papua**

of the equipment and the lack of large airplanes going from Timika to Wamena. AMARTA met with the head of the Dinas Perkebunan in Wamena and Jayapura to inform them about the ongoing project in Wamena. Dinas Perkebunan agreed to facilitate and support AMARTA's project in the areas of organic and fair trade certification, seeds and nursery, and establishing an export facility in Jayapura and Wamena.

The Wamena coffee project is managed by Kornel Gartner (AMARTA), Simon Gombo, and Maximus Lane, from the Baliem Arabica Coffee Cooperative, and Dr. Surip Mawardi from the Indonesian Coffee and Cocoa Research Institute (ICCRI).

The specialty coffee project in **Moanemani** was started on October 22, 2007. The project is designed to produce Arabica coffee for the international specialty coffee market. In order to meet this goal AMARTA will team up with a local cooperative, Santo Isodorus, to obtain organic and fair trade certification, create transportation and supply lines, and to identify potential buyers.

Socialization with the Santo Isodorus Cooperative was completed, though the Santo Isodorus cooperative's license has expired the Timika diocese is in the process of renewing it. A baseline study to identify whether Moanemani coffee is qualified to be certified as organic and available for fair trade was completed, and AMARTA is awaiting the outcome of the study. A production facility in Moanemani was identified and is currently under renovation, while a coffee huller was purchased and delivered to Timika and is awaiting airfreight to Moanemani in mid-April where it will be



**Moanemani Coffee from the P-5 Cooperative**

stored at the Catholic Church compound.

Green coffee samples have been taken from Moanemani to analyze grade and quality at the ICCRI coffee research center in Jember, East Java. The result of the study shows that Moanemani coffee meets the international specialty coffee standard. The coffee project is managed by Kornel Gartner (AMARTA), and Didimus Tebay in cooperation with John Giay from Santo Isidorus Cooperative (P-5).

### **Agimuga**

The Agimuga project is designed to create farming sustainability in the Agimuga area. The project aims to help farmers to plant rice, fruits, and vegetables to end their dependency on the distant market in Timika. In addition, AMARTA will assist the farmers to raise pigs that can be sold in Timika. To achieve this goal AMARTA will create a supply line and provide transportation.

On March, 4 AMARTA Staff along with the Bishop of Timika went to Agimuga and had a meeting with the local villagers. At the conclusion of the meeting, farmer groups were formed for rice farming, swine, and vegetables. AMARTA will work with the Diocese in Agimuga and Timika to manage production and marketing of rice, vegetable, fruits and pigs from Agimuga by providing two grants. AMARTA also plans to fix and improve the condition of the main road that links the village of Aramsolki to the harbor in Kiliarma. Currently, there is a government project to recondition the road, though during the last survey visit very little progress appeared to be made.

The following projects will begin this quarter:

- Build up and organize rice production, purchase ship and install rice production machinery in Aramsolki
- Rebuild and fix existing transport road from Aramsolki to the Kiliarma
- Purchase transport equipment, mid-sized farm tractor with trailer, and a five ton transport boat
- Set up satellite public pay phone for the Aramsolki Village
- Rebuild the swine farm, including 10 big pens, and 600m fence around the swine roaming area
- Build an all weather transport road from Aramsolki to the big farm
- Build a boat pier in an appropriate place close to the big farm at the river connecting Agimuga to Timika
- Training of farmer groups in pig farming, rice growing and processing, handling and maintenance of machinery, marketing, budgeting, and cooperative work

## AMARTA INDICATORS BY INDICATOR NUMBER (1-4)

<b>INDICATORS BY ACTIVITIES</b>	<b>#1</b> Number of additional hectares under improved technologies or management practices as a result of USG assistance			<b>#1a</b> Number of additional units of animals, fish, and other aquaculture products under improved technologies or management practices as a result of USG assistance			<b>#2</b> Number of producer organizations, water user associations, trade and business associations, and community-based organizations (CBOs) receiving USG assistance			<b>#3</b> Number of agriculture related firms benefiting directly from USG supported interventions			<b>#4</b> Number of individuals (men and women) who have received USG supported short-term agriculture sector productivity training		
	Actual	Up to	Target	Actual	Up to	Target	Actual	Up to	Target	Actual	Up to	Target	Actual	Up to	Target
	2007	Q2 2008	2008	2007	Q2 2008	2008	2007	Q2 2008	2008	2007	Q2 2008	2008	2007	Q2 2008	2008
Aquaculture	-	-	-	-	9,300	30	-	5	5	-	8	59	-	131	920
Natural Rubber	-	129	500	-	-	-	-	19	28	-	-	5	-	125	595
Cocoa	4,215	12,000	12,250	-	-	-	150	390	503	3	5	7	10,100	12,274	12,260
Coffee	-	4,740	10,713	-	-	-	-	254	70	-	12	118	-	5,170	10,100
Beef Livestock	-	-	-	-	171	300	-	16	1	-	2	2	-	171	300
Spices	-	-	100	-	-	-	-	-	8	-	-	2	-	-	200
Vegetables	-	430	612	-	-	-	-	89	44	-	4	57	957	747	3,162
Tropical Fruits and Flowers	1,137	1,265	1,890	-	-	-	9	39	65	4	2	13	579	1,516	1,610
Bio-fuels	-	40	50	-	-	-	-	2	2	-	1	1	-	718	2,900
Seaweed	-	-	-	-	69	300	-	15	24	-	-	2	-	68	600
RACA	-	-	-	-	-	-	-	40	10	-	22	-	-	393	900
<b>Total</b>	5,352	18,604	26,115	-	9,540	630	159	869	760	7	56	266	11,636	21,313	33,547

## AMARTA INDICATORS BY INDICATOR NUMBER (5-9)

INDICATORS BY ACTIVITIES	#5 Percent change in value of international exports of targeted agricultural commodities as a results of USG assistance			#6 Percent change in value of purchases from smallholders of targeted commodities as a result of USG assistance			#7 Number of new technologies or management practices made available for transfer as a result of USG assistance			#8 Number of additional surveillance and/or control systems in place for agricultural threats			#9 Number of public-private partnerships formed as a result of USG assistance.		
	Actual	Up to	Target	Actual	Up to	Target	Actual	Up to	Target	Actual	Up to	Target	Actual	Up to	Target
	2007	Q2 2008	2008	2007	Q2 2008	2008	2007	Q2 2008	2008	2007	Q2 2008	2008	2007	Q2 2008	2008
Aquaculture	-	-	75	-	50	167	-	15	-	-	2	-	-	2	-
Natural Rubber	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cocoa	-	-	60	-	70	30	5	5	-	-	1	-	2	3	-
Coffee	-	-	107.5	-	-	45	-	5	-	-	3	-	2	4	-
Beef Livestock	-	-	-	-	-	-	-	-	-	-	1	-	1	1	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetables	-	-	30	-	-	52	-	-	-	-	-	-	-	-	-
Tropical Fruits and Flowers	-	-	-	-	77	28	5	13	-	-	-	-	-	-	-
Bio-fuels	-	-	-	-	-	-	-	3	-	-	-	-	-	2	-
Seaweed	-	-	400	-	-	400	-	-	-	-	-	-	-	-	-
RACA	-	-	-	-	-	-	-	-	-	-	-	-	4	5	5
<b>Total</b>	-	-	672.5	-	197*	722	10	43	-	-	9	-	9	22	5

AMARTA INDICATORS BY VALUE CHAIN		Aquaculture	Rubber	Cocoa	Coffee	Beef / Livestock	Spices	Total
#1 Number of additional hectares under improved technologies or management practices as a result of USG assistance	Actual 2007	-	-	4,215	-	-	-	4,215
	Up to Q2 2008	-	129	12,000	4,740	-	-	16,869
	Target 2008	-	500	12,250	10,713	-	100	23,463
#1a 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	-	-	-	-	-	-	-
	Up to Q2 2008	9,300	-	-	-	171	-	9,471
	Target 2008	15,000	-	-	-	300	-	15,300
#2 Number of producer organizations, water user associations, trade and business associations, and community-based organizations (CBOs) receiving USG assistance	Actual 2007	-	-	150	-	-	-	150
	Up to Q2 2008	5	19	390	254	16	-	684
	Target 2008	5	28	503	70	1	8	615
#3 Number of agriculture related firms benefiting directly from USG supported interventions	Actual 2007	-	-	3	-	-	-	3
	Up to Q2 2008	8	-	5	12	2	-	27
	Target 2008	59	5	7	118	2	2	193
#4 Number of individuals (men and women) who have received USG supported short-term agriculture sector productivity training	Actual 2007	-	-	10,100	-	-	-	10,100
	Up to Q2 2008	131	125	12,274	5,170	171	-	17,871
	Target 2008	920	595	12,260	10,100	300	200	24,375
#5 Percent change in value of international exports of targeted agricultural commodities as a result of USG assistance	Actual 2007	-	-	-	-	-	-	-
	Up to Q2 2008	-	-	-	-	-	-	-
	Target 2008	75	-	60	107.5	-	-	243
#6 Percent change in value of purchases from smallholders of targeted commodities as a result of USG assistance	Actual 2007	-	-	-	-	-	-	-
	Up to Q2 2008	50	-	70	-	-	-	120
	Target 2008	167	-	30	45	-	-	242
#7 Number of new technologies or management practices made available for transfer as a result of USG assistance	Actual 2007	-	-	5	-	-	-	5
	Up to Q2 2008	15	-	5	5	-	-	25
	Target 2008	-	-	-	-	-	-	-
#8 Number of additional surveillance and/or control systems in place for agricultural threats	Actual 2007	-	-	-	-	-	-	-
	Up to Q2 2008	2	-	3	3	1	-	9
	Target 2008	-	-	-	-	-	-	-
#9 Number of public-private partnerships formed as a result of USG assistance	Actual 2007	-	-	2	2	1	-	5
	Up to Q2 2008	3	-	6	4	1	-	14
	Target 2008	-	-	-	-	-	-	-

AMARTA INDICATORS BY VALUE CHAIN		Spices	Vegetables	Tropical Fruit & Flowers	Bio-fuels	Seaweed	RACA	Total
#1 Number of additional hectares under improved technologies or management practices as a result of USG assistance	Actual 2007	-	-	1,137	-	-	-	1,137
	Up to Q2 2008	-	430	1,265	40	-	-	1,735
	Target 2008	100	612	1,890	50	-	-	2,652
#1a 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	-	-	-	-	-	-	-
	Up to Q2 2008	-	-	-	-	69	-	69
	Target 2008	-	-	-	-	300	-	300
#2 Number of producer organizations, water user associations, trade and business associations, and community-based organizations (CBOs) receiving USG assistance	Actual 2007	-	-	9	-	-	-	9
	Up to Q2 2008	-	89	39	2	15	40	185
	Target 2008	8	44	65	2	24	10	153
#3 Number of agriculture related firms benefiting directly from USG supported interventions	Actual 2007	-	-	4	-	-	-	4
	Up to Q2 2008	-	4	2	1	-	22	29
	Target 2008	2	57	13	1	2	-	75
#4 Number of individuals (men and women) who have received USG supported short-term agriculture sector productivity training	Actual 2007	-	957	579	-	-	-	1,536
	Up to Q2 2008	-	747	1,516	718	68	393	3,442
	Target 2008	200	3,162	1,610	2,900	600	900	9,372
#5 Percent change in value of international exports of targeted agricultural commodities as a result of USG assistance	Actual 2007	-	-	-	-	-	-	-
	Up to Q2 2008	-	-	-	-	-	-	-
	Target 2008	-	30	-	-	400	-	430
#6 Percent change in value of purchases from smallholders of targeted commodities as a result of USG assistance	Actual 2007	-	-	-	-	-	-	-
	Up to Q2 2008	-	-	77*	-	-	-	77
	Target 2008	-	52	28	-	400	-	480
#7 Number of new technologies or management practices made available for transfer as a result of USG assistance	Actual 2007	-	-	5	-	-	-	5
	Up to Q2 2008	-	-	13	5	-	-	18
	Target 2008	-	-	-	-	-	-	-
#8 Number of additional surveillance and/or control systems in place for agricultural threats	Actual 2007	-	-	-	-	-	-	-
	Up to Q2 2008	-	-	-	-	-	-	-
	Target 2008	-	-	-	-	-	-	-
#9 Number of public-private partnerships formed as a result of USG assistance	Actual 2007	-	-	-	-	-	4	4
	Up to Q2 2008	-	3	3	2	-	-	8
	Target 2008	-	-	-	-	-	5	5