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# Agribusiness Market and Support Activity (AMARTA)

## Year Four Work Plan:

## October 1, 2009 – December 31, 2010

December 2009

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## Acronyms

AEKI	Asosiasi Export Kopi Indonesia
AMARTA	Agribusiness Market and Support Activity
ASBINDO	Indonesia Floriculture Exporters Association
APRINDO	Asosiasi Peritel Indonesia (Indonesia Retail Association)
ASGITA Association)	Asosiasi Agribisnis dan Wisata (Agribusiness and Tourism Association)
ASKA Sulawesi)	AMARTA Sulawesi Kakao Alliance (South, West, Southeast Sulawesi)
ASKA	AMARTA Sulawesi Kakao Alliance
BAP	Best Agricultural Practices
BBI	Balai Benih Induk (Department of Agriculture North Sumatera)
BPTP	Indonesian Institute for Agriculture Technology and Dissemination
CPB	Cocoa Pod Borer
DG	Directorate General
DISBUN	Department of Estate Crops (Provincial and District levels)
FAQ	Fair Average Quality (cocoa)
GHP	Good Handling Practices
GI	Geographical Indication
GMP	Good Manufacturing Practices
ICASEPS	Indonesian Center for Agriculture Socio Economic Policy Studies
ICCRI	Indonesian Coffee and Cocoa Research Institute
IPB	Bogor Agricultural Institute (Institusi Pertanian Bogor)
IPM	Integrated Pest Management
IVEGRI	Indonesian Vegetable Research Institute
KTNA	KTNA – North Sumatera (Farmer Group of North Sumatera)
MJI	Masyarakat Jeruk Indonesia/ Indonesia Citrus Society
MBMC	Mitra Bina Mandiri
MoU	Memorandum of Understanding
PADA	Papua Agriculture Development Alliance
PT PAS	PT Putra Agro Sejati
PT SSN	PT Sewu Segara Nusantara
PSP3	Center for Development Studies
RACA	Regional Agribusiness Competitiveness Alliances
RPO	Rural Producer Organization

SCAA	Specialty Coffee Association of America
SCAI	Specialty Coffee Association of Indonesia
SKA	Sustainindonesia Kakao Alliance (Bali Cocoa Program)
SOP	Standard Operating Procedures
STA	Sub Terminal Agribusiness
STTA	Short-term Technical Assistance
USAID	United States Agency for International Development
VCD	Video Compact Disc

# **I. INTRODUCTION**

The management of the Agribusiness Market and Support Activity (AMARTA) is pleased to submit to USAID – Indonesia the Fourth Year Annual Work Plan for the period October 1, 2009 to December 31, 2010, a fifteen month extension of the AMARTA contract.

In this fourth and last year of activities, the AMARTA project will be focused on conducting five primary tasks as follows:

1. Policy Advocacy and Outreach
2. Value Chain Interventions in Coffee
3. Value Chain Interventions in Cocoa
4. Value Chain Interventions in High Value Horticulture
5. Value Chain Interventions in Papua

This Work Plan builds on the lessons learned and accomplishments of the Year One, Two, and Three activities that will continue to be reported in AMARTA's Quarterly Reports.

We are pleased to note that a considerable number of accomplishments were achieved and substantive positive impact produced for farmers and other agribusiness stakeholders during the third year to address constraints to competitiveness in the Indonesian agriculture economy. Many of the successful interventions resulted in dramatically improved yields and higher income for citrus and banana farmers in North Sumatera, while significant improvements in cocoa production in Sulawesi and Bali also resulted in higher yielding improved quality beans resulting in higher income for farmers, particularly those who sold their cocoa to AMARTA's partners who pay a premium based on quality. Successes were also apparent in improved aquaculture practices in Flores and Warloka, coffee exports through various international buyers, livestock reproduction in West Timor, horticulture interventions in Central Java, and many other initiatives. AMARTA was also successful in integrating women into virtually every activity as over 11,705 women participated in intensive AMARTA training activities, or 17% of the total 69,174 individuals trained.

In addition to conducting highly successful training and technical assistance activities, AMARTA continued to emphasize and implement an effective policy and regulatory advocacy component addressing constraints to agribusiness in Indonesia, via implementation of Regional Agribusiness Competitiveness Alliances (RACA) activities. RACA forums have become an important tool to assist farmers, agribusiness firms, input suppliers, and other stakeholders to identify, address, and resolve important policy and regulatory issues constraining productivity, quality, access to better markets, and the sustainability of agro-enterprises. One particularly successful initiative was the creation of the Karo Horticulture Community (MHK) a community based organization established in Karo District, North Sumatera Province who submitted a proposal to the Karo District House of Representatives and Executive Board resulting in the government's commitment to asphalt two kilometers of road to a central production site for farmers in Tanjung Barus Sub-district that will be completed this year.

Currently, we have strong interest from the Syngenta Foundation for sustainable agriculture to develop a public-private partnership to assist in delivering technical assistance, training, workshops, and materials for the AMARTA high value horticulture program.

Another area where AMARTA focused efforts involved relationships with the various Government of Indonesia officials, institutions, agencies, and departments at the local, provincial and national level. AMARTA is proud of the relationships formed with our implementing and collaborating partners that have enabled us to reach a wider range of stakeholders as project participants and beneficiaries. As we move forward to Year Four, AMARTA will present in this document a detailed description of the planned activities by location, stakeholder involvement, and expected contribution to project indicators. In addition we will provide a value chain intervention timeline showing expected completion of significant steps for each activity. We hope that our work in this extended final year will contribute to actions resulting in sustainability of the important lessons learned during our initiative in Indonesia and the solutions to constraints in competitiveness in the chosen three agribusiness value chains assisted. This work plan envisages a total of 45 activities in 7 provinces of Indonesia, improving rural livelihoods of farmers, fishermen, and other stakeholders by focusing on increasing agriculture productivity, improved product quality, enhanced access to new and better markets, and an improved enabling environment, that continues **“Helping Indonesia to Grow”**.

## **Task 1: Policy Advocacy and Outreach**

### **Activity 1: Coordination meetings with the Government of Indonesia (GOI)**

**Rationale:** Communication and coordination with implementing partner institutions of the Government of Indonesia is required for the project administration, partnership development and dissemination, as well as replication of successful pilot initiatives and lessons learned by the project.

**Objective:**

1. Inform the implementing partner institutions of AMARTA's work plan status, implementation progress, and achievements.
2. Seek recommendations and continue positive cooperation.

**Activity Description:** Conduct four project coordination meetings with the following schedule:

- Work Plan socialization and consultation in January 2010
- First awareness/consultation meeting in April 2010
- Second consultation meeting in July 2010
- Third consultation meeting in October 2010

**Implementing Partner:** Bappenas

**Participants:**

- Deputy of Agriculture of the Coordinating Minister of the Economy
- Secretary General of the Ministry of Agriculture
- Directorate General of Estate Crops
- Directorate General of Horticulture
- Directorate General of Processing and Marketing of Agricultural Products
- Agency of Agricultural Human Resource Development
- Agency for Agricultural Research and Development

In addition to the consultation meetings, AMARTA will also invite implementing partners to visit AMARTA's field activities.

**Outcomes Year Four:** Four meetings with the Government of Indonesia implementing institutions, improved cooperation, and better communication.

### **Activity 2: Agricultural Development Discussion**

**Rationale:** A coordinated Public-Private Dialogue (PPD) involving the related stakeholders of government and private institutions will be instrumental in developing the appropriate national agricultural development strategy and policy. The activity will be conducted in collaboration with either the Deputy of Agriculture and Marine Affairs of the Coordinating Ministry of Economy or Secretary General of the Ministry of Agriculture.

**Objective:** Assist in developing an appropriate agricultural development strategy paper and support the policy-regulatory environment in horticulture and estate crops sectors.

**Activity Description:** AMARTA will organize a series of discussions on agricultural development, including:

- Agribusiness Development Strategy in March 2010
- PPD on policy and regulatory issues with regular discussions on policy and regulatory issues from December 2009- November 2010

**Implementing Partners:**

1. Deputy of Agriculture and Marine Affairs of the Ministry of Economic Coordination
2. Secretary General of the Ministry of Agriculture

**Outcomes Year Four:**

- Two discussions on the agricultural development strategy and policy organized
- Recommendations and reports of the discussions

### **Activity 3: Writing a Horticulture Development Strategy Paper**

**Rationale:** A comprehensively written development strategy paper can be useful as a reference for both the GOI and private sector organizations in requesting from the government appropriate horticulture sector development programs and supporting a sustainable policy-regulatory framework. USAID has requested that AMARTA undertake this initiative, and further discussions will be held to clarify content and specific goals.

**Objective:** Facilitate writing a strategy paper for horticulture development.

**Activity Description:**

- Emphasis will be placed on developing progressive linkages between researchers, extension agents, and farmers to create technological and institutional innovations, as well as between farmers, traders, and consumer linkages to create efficient marketing chains.
- Lessons learned from AMARTA's pilot activities will be the main source of knowledge and ideas in writing the paper.

**Implementing Partners:**

- USAID Economic Growth Office and DG of Horticulture

**Outcomes Year Four:** Final draft of Horticulture Development Strategy Paper submitted to USAID.

## **Activity 4: Policy and Regulatory Assessments**

**Rationale:** Policy and regulatory assessments are needed in order to identify constraints to competitiveness and growth which are essential for advocacy activities to improve the enabling environment and remove constraints to competitiveness.

**Objective:** Analyze policy, regulatory, and administrative rules and procedures of greatest concern to farmers and agribusiness enterprises for immediate reform and formulate recommended improvements.

**Activity Description:** AMARTA will fund at least four assessments, including policy and regulatory issues in the following areas:

- Exports and imports
- Quarantine of both inter-country and inter-island exit and entry
- Regional government regulations (Peraturan Daerah) in West Java
- Seed and technology research and development, release permits, propagation, and commercialization

### **Implementing Partners:**

1. Indonesian Center for Agro Socio Economic and Policy Studies (ICASEPS)
2. Center for Agricultural and Rural Development Studies-Bogor Agricultural University (PSP3)
3. Center for Tropical Fruit Studies-Bogor Agricultural University (PSBT)
4. Value Chain Center-Padjadjaran University

The findings of each assessment will be discussed in a workshop involving the policy makers and private entities and will be used as advocacy material by the AMARTA supported business organizations, particularly those under the RACA program.

**Outcomes Year Four:** Final draft of four policy and regulatory assessment reports.

## **Activity 5: RACA Establishment and Activation**

**Rationale:** Strong stakeholder organizations or Regional Agribusiness Competitiveness Alliances (RACAs) are essential political institutions in creating policy-regulatory related agribusiness initiatives.

**Objective:** To establish RACAs as an instrument for creating an enabling business environment and removing policy and regulatory-related constraints to Indonesian agribusiness competitiveness.

### **Activity Description:**

- AMARTA will help empower and continue to provide institutional capacity building assistance to the established RACA's in North Sumatera, Karo Horticulture Community (KHC); Deli Serdang Barangan Banana Community (DS-BBC); Bali, Tabanan Cocoa Community Alliance (TCCA); Jembrana Cocoa

Community Alliance (JCCA); West Java, West Java Agribusiness Action Group (WJAAG); and Jakarta, National Horticulture Council (NHC).

- Establish new RACA's in South Sulawesi (three districts) and in Simalungun districts, North Sumatera.

**Partner Institution:** Organizations with similar interests such as agribusiness companies, members of parliament, senators, academics, development institutions, as well as government institutions in advocating an enabling agribusiness environment. The elements of this activity by region are:

- Public-private dialogue, workshops, or round-table discussions on policy and regulatory issues to establish new RACA's
- Capacity building trainings: organizational management, proposal writing, and policy-regulatory analysis
- Technical assistance for preparing advocacy material
- Public hearings before regional parliament
- Participate in the Development Dialogue Forum (MUSRENBANG) and meet with government institutions to fund development support programs
- Lobby for farmers' access to formal credit mechanisms and better markets
- Media campaign such as the radio broadcasting program by KHC
- Internal meetings, formal registration, and secretariat support of RACA's

**Outcomes Year Four:**

At least four RACA's have submitted policy or regulatory reform petitions to the appropriate government agency for improved competitiveness, and follow-up activities conducted with final results publicized.

**Activity 6: Outreach for Public Awareness**

**Rationale:** A media campaign to disseminate the successes of AMARTA activities is necessary in order to create awareness and promote a common message focused on the benefits of improved agribusiness competitiveness.

**Objectives:**

1. Increase public awareness and the benefits of improved agribusiness technology
2. Stimulate demand for AMARTA services
3. Build the credibility necessary for effective public-private partnerships, and promote a common message.

**Activity Description:**

- Continue to work on outreach for public awareness through press releases, production and distribution of fact sheets, monthly newsletters, brochures, posters, booklets and other printed and visual materials- such as DVDs and VCDs- for wide dissemination to the press, government representatives, AMARTA partners, stakeholders, NGOs, universities, other donors, and an international and domestic audience

- Maximize the use of AMARTA web site

**Outcomes Year Four:** Fourteen monthly AMARTA Newsletters, four quarterly PADA Newsletters, one extension film, and 30,000 copies of training VCDs, 4,000 booklets, 5,900 pieces of posters, and 33,000 copies of brochures distributed.

### **Activity 7: Expand the Quantity and Quality of Public Private Partnerships**

**Rationale:** USAID has recognized the importance of establishing public-private partnerships as a strategy to leverage development assistance programs by utilizing private firm's expertise, access to markets, provision of technology, and investment. AMARTA has already established 19 public-private partnerships during the first three years of activities.

**Objective:** To expand the number of public-private partnerships with an additional nine firms, producer organizations, associations, or community based organizations (CBO's) providing valued contributions to achieving improved results.

**Activity Description:** Identify and establish public-private partnerships through value chain interventions including enabling environment activities that will result in increased quantity and quality of assistance delivery.

**Outcomes Year Four:**

At least nine additional public-private partnerships established.

### **Activity 8: National Seminar for Success Story Dissemination**

**Rationale:** A national seminar is an effective opportunity to disseminate AMARTA's success stories and lessons learned for replication and continuation after the project ends.

**Objective:** Informing stakeholders of AMARTA's close down, sharing success stories, resources, and lessons learned for use by interested parties. Providing the Government of Indonesia with examples of successful pilot initiatives that they can replicate.

**Activity Description:** The national seminar will be conducted in November 2010. Selected success stories that are worthy of continuation or replication will be presented at the seminar.

**Implementing Partner:** Secretary-General of the Ministry of Agriculture

**Outcomes Year Four:** A set of seminar proceedings and an implementation report of the seminar.

## **Task 2: Value Chain Interventions in Coffee**

*AMARTA will co-brand its' coffee activities with the Specialty Coffee Association of Indonesia (SCAI). Delivery of focused technical assistance and training activities to coffee value chain stakeholders will be identified and linked with SCAI as membership, capacity building, and association strengthening programs.*

### **Activity 1: Support to SCAI for improving the Quality of Indonesia's Arabica Coffee and Promoting Increased Exports**

**Rationale:** AMARTA is continuing to provide technical and financial support to SCAI that will allow the organization to address three key constraints in the industry: perceptions of poor quality among buyers due to blending of origins; high defect levels due to poor post-harvest handling practices; and lack of a standardized system to measure coffee quality along the value chain.

**Objective:** To train SCAI members of farmers' associations to reduce defects and increase production; introduce and establish the Q-Grading system to small scale coffee growers, which has become the worldwide standard for measuring specialty coffee quality; continue demonstration and trialing of broca traps to reduce coffee defects from the coffee cherry borer; and demonstrate improved harvesting and post-harvest handling practices related to cherry ripeness, pulping, fermentation, and drying.

#### **Activity Description:**

- Provide farmers with productivity and quality training with enhanced focus on improving post-harvest handling practices.
- Work with the Coffee Quality Institute to bring the Q-Grading system to Indonesia for training and certifying SCAI members.
- Introduce a new technology to offset biological damage to smallholder coffee plantings by the coffee cherry borer insect that can be used for organic certified coffee farms. Report and publicize the results of the Broca trap demonstration to coffee farmers, urging better agricultural practices which will result in higher yields and better quality, increasing farmer incomes subsequently by 10 to 15% depending on the incidence and severity of the attacks.
- Training Farmer Cooperative KSU Bina Lestari located in Rantepao District, Toraja. A total of 350 farmers with 750 hectares of coffee within nine sub-districts of North Toraja. Focus on better agricultural practices, post-harvest training, and access to markets.
- Conduct farmer productivity and quality training to three farmer cooperatives in the Lake Toba, Lintong, and Simalungen areas who are members of the SCAI.

#### **Implementing Partners:**

- Asosiasi Petani Kopi (ASPEK)
- CV Lion Lestari coffee company
- Local coffee growers farmer groups
- SCAI

- N. Sumatera Coffee Farmer Cooperatives

**Outcomes Year Four:**

<b>Indicator</b>	<b>Target December 2010</b>
Indicator 1: Additional hectares under improved technologies or practices	6,530
Indicator 2: Number of organizations and associations assisted	5
Indicator 3: Number of agriculture related firms assisted	30
Indicator 4: Number of individuals receiving productivity training	16,100
Indicator 5: Percent change in value of exports	TBD
Indicator 6: Percent change in purchases from smallholders	TBD

**Activity 2: Establish Geographical Indications to Protect the Local Value of Coffee Produced in Specialty Locations**

**Rationale:** There is a perception of poor quality among international buyers due to blending of origins of coffee, which vary from exporter to exporter. A solution to solving this poor perception is to establish geographical boundaries for coffee producing areas, thereby assuring proper labeling and marketing of coffee origins from Indonesia.

**Objective:** To begin the process of developing Geographic Indications (GIs) for Indonesia’s Arabica coffee origins, by mapping the origins and creating “type” samples of coffee from the origins of Gayo, Lake Toba, Lintong, Sidikilang, Bali, Flores, Toraja, and the Baliem Valley.

**Activity Description:**

- Develop maps of all production areas for Indonesia’s Arabica coffee. These maps will be completed by stakeholders and could form the basis for establishing GIs.
- Socialize proposed GIs among producing, processing, and exporting stakeholders to reach agreement on production boundaries for the indicated origin.
- Conduct meetings with the appropriate government agencies to draft regulations for the legalization and registration of the GIs.
- Produce type samples of coffee for each origin to educate the marketplace. It is expected that more than 40 coffee importers and roasters in the U.S. would order these samples.

**Implementing Partners:**

- SCAI
- Local governments
- Ministry of Agriculture – Directorate Generals of Estate Crops and Processing and Marketing of Agriculture Products
- Ministry of Trade

**Outcomes Year Four:**

Eight different GIs will be agreed upon by affected stakeholders and progress will be made with the appropriate government agencies for the legal implementation and enforcement of the GIs.

**Activity 3: Expand Efforts to Increase Membership and Services of SCAI**

**Rationale:** The Specialty Coffee Association of Indonesia (SCAI) is a national trade association with 78 members consisting of nine cooperatives and farmer groups, three processors, 17 exporters, 14 roasters/retailers, eight importers, and 27 other organizations from all the coffee growing areas of Indonesia. The seven cooperative members include more than 8,000 farmers. SCAI members export 30% of Indonesia's Arabica coffee, worth an estimated \$71 million annually. A vibrant, active, and viable industry association is essential to improving the economic condition of the stakeholders and improving the industry competitiveness. AMARTA can provide technical assistance, training, and funding for improving and conducting association activities that will attract more members, thus strengthening the association.

**Objective:** Expand the number and type of members across all sectors of the specialty coffee value chain by at least 50% to achieve a broader spectrum of members and increased voice in industry affairs at the local, provincial, and national level. Emphasize the expansion of farmer cooperatives as members.

**Activity Description:**

- Assist in the recruitment for Executive Director of SCAI.
- Participate in SCAI membership meetings and promote broader representation of activities for all members.
- Assist in planning and conducting membership drives.
- Identify funding sources to insure SCAI can maintain its operations beyond the end of AMARTA. This will include administration of the Q-Grading system.

**Implementing Partner:**

- SCAI

**Outcomes Year Four:**

SCAI membership increased by 50% and services improved to involve all sectors of the value chain: farmers, traders, processors, exporters, roasters/retailers. Image of SCAI improved and recognized by GOI as the specialty coffee industry leader. At least three new farmer cooperatives are enrolled as members of SCAI, and are receiving membership benefits.

**Activity 4: Expand Promotion of Indonesian Specialty Coffee in the Domestic and Global Marketplace**

**Rationale:** The Indonesia specialty coffee industry is facing growing competition from Asia, well established coffee suppliers in Latin America, and now from emerging coffee suppliers from Africa that are receiving abundant technical assistance, training, and funding from development organizations such as USAID, the World Bank, African Development Bank, and government programs. Indonesia can no longer rely on its previous image to protect its international reputation and market share.

**Objective:** To promote Indonesia's Arabica coffees through various media, visits by coffee buyers, and participation in international trade shows.

**Activity Description:**

- Produce type samples of coffee for each origin to educate the marketplace. It is expected that more than 100 coffee importers and roasters in the U.S. would order these samples.
- Promote Indonesia's Arabica coffee at trade shows, through the development of promotional materials, and support to coffee buyers visiting Indonesia.
- Participate in the Specialty Coffee Association of America (SCAA) Annual Trade Show in Anaheim, California from April 15-18, 2010.
- Collaborate with the Directorate General of Processing and Marketing of Agriculture Products in promoting activities, both domestically and internationally.
- Sponsor at least one major coffee retailing event in Jakarta during 2010.
- Organize at least one specialty coffee buyer's mission from the United States by providing planning and logistical support for visiting buyers.

**Implementing Partners:**

- SCAI
- Directorate General of Processing and Marketing of Agricultural Products
- Ministry of Trade
- SCAA

**Outcome Year Four:** Coffee sales of SCAI members increased in local and export markets due to promotion efforts.

**Activity 5: Assist SCAI in Focusing on Policy Advocacy and Organizational Development**

**Rationale:** The Government of Indonesia has stated intentions to introduce export taxes on agriculture commodities in an effort to promote more local added value industries. The Ministry of Trade has empowered the Coffee Exporters Association of Indonesia (AEKI) to levy a tax of Rp. 30 per kilogram of coffee exported to be used for promotional purposes. Usage of these funds to support the promotion of specialty coffee exports from Indonesia is limited. The DG of Processing and Marketing of Agricultural Products has a market promotion program that can be utilized by SCAI to improve their market promotion activities at a subsidized cost. Coffee exporters are mixing coffee origins in an effort to gain export volume, without consideration of the

quality and market requirements. Geographical Indication designations are needed to protect the true origin of coffee exported from Indonesia. All of these issues require that SCAI is more formally organized to conduct policy advocacy for the benefit of their membership.

**Objective:** To implement an effective and productive advocacy program with SCAI to address and resolve the above mentioned policy and regulatory constraints to specialty coffee competitiveness in Indonesia.

**Activity Description:**

- Establish a policy advocacy committee within SCAI to analyze and prioritize policy and regulatory issues affecting the competitiveness and sustainability of the organization and members.
- Conduct a workshop with stakeholders to socialize the policy and regulatory issues and establish an action plan.
- Conduct meetings with the relevant GOI entities responsible for policy and/or regulatory decision making authority to determine necessary collaboration for advocacy actions.
- Provide technical and financial support to SCAI to pursue determined advocacy action.

**Implementing Partners:**

- SCAI

**Outcomes Year Four:**

The SCAI Policy and Advocacy Outreach committee achieves at least four major policy or regulatory changes beneficial to the association:

- Establish GIs in six production origins
- Formal collaboration with the DG Processing and Marketing of Agricultural for ongoing financial and technical support for specialty coffee market promotion at the domestic and international level
- Remove regulations hindering the direct importation of food grade gunny bags by coffee exporters

## **Task 3: Value Chain Interventions in Cocoa**

### **Value Chain Interventions - Makassar Region**

#### **Activity 1: AMARTA Sulawesi Kakao Alliance (ASKA) Training and Support Activities - South Sulawesi, Southeast Sulawesi, and West Sulawesi**

**Rationale:** The landscape and context of cocoa production has dramatically changed in Indonesia. Ongoing USAID support for smallholder cocoa producers will provide valuable assistance to those who would otherwise receive minimal if any direct extension and training by other agencies and organizations. Indonesia's competitive

advantages in cocoa production include low cost, high production capacity, efficient infrastructure and an open trading/marketing system. In recent years this competitive advantage has been threatened by poor and inconsistent quality of cocoa. There are a range of causes related to declining productivity and quality in smallholder Sulawesi cocoa production including: i) poor farmer management and practices, ii) infestation from pests and diseases (Cocoa Pod Borer, Black Pod, Vascular Streak Dieback (VSD), and trunk kanker), iii) poor genetic planting material to begin with and iv) the old age of cocoa trees in some areas. As a result of the four core issues mentioned above, the quality of exported cocoa from Indonesia has deteriorated and the value reduced in the international marketplace. This has resulted in large discounts and lower prices paid to farmers. Reducing the demand for Indonesian Fair Average Quality (FAQ) cocoa as buyers found other origins to substitute for Sulawesi cocoa. In order to address these problems, various public and private initiatives have been undertaken to research, train, and transfer improved production practices to smallholder cocoa farmers in Indonesia.

The activities proposed in this annual work plan for 2010 cocoa activities in Sulawesi will provide direct opportunities for cocoa garden rehabilitation and replanting, improved efficiency and productivity, reductions to pest/disease, improved quality and market access. Collaboration between AMARTA, ICCRI and its private sector partners PT. Olam Indonesia and UD. Tunas Jaya via ASKA provides technical assistance through cocoa training to help smallholder cocoa producers to improve both on and off-farm management practices.

**Objectives:**

- Facilitate and develop a model of sustainable cocoa development based on 'simple garden evaluation concept' which encourages farmers in making decisions on current conditions in the cocoa garden.
- Increase overall cocoa farming productivity through training on production techniques and pest and disease control.
- Facilitate and support solar dryer training and construction at the farmer level in improving quality, particularly in moisture content and mould content.
- Facilitate improved access for smallholder cocoa farmers to exporters who will provide a transparent and standardized process in determining cocoa quality at partners buying stations (PT. Olam Indonesia and UD Tunas Jaya).
- Improve field staff and government officials at the district and provincial level through training of trainers, technical assistance, and additional support.
- Collaborate with ICCRI to develop six model cocoa gardens, rehabilitation/replanting and clonal trials as a supporting methodology to support training, provide ICCRI will field based trials of promising clonal material, conduct field trials in other practices and new technologies, as well as trialing and initial selection of promising clonal material identified by cocoa farmers.

**Activity Description:**

- I. ASKA Cocoa Training** - Focus on improving skills and knowledge of and off-farm management practices with an intensive training for 300 farmer groups or 7,500 smallholders of Southeast, South, and West Sulawesi (Polman, North Luwu and North Kolaka).

2. **Cocoa model gardens** - Activities will begin in December 2009 in three districts throughout Sulawesi where model cocoa gardens will be developed and maintained in conjunction with ICCRI. These gardens will have multiple roles underpinning training and field trials linked with clonal varieties and garden management practices.
3. **ASKA Satellite Offices/Regional Cocoa Information Centers** - AMARTA will support three modest satellite offices/cocoa information centers in Sulawesi where training materials, publications, cocoa information clinics, staff meetings and office equipment will be housed.
4. **Solar dryer training and construction** - In order to meet cocoa export requisites, particularly for moisture content, ASKA introduced a simple and environmentally friendly method for drying, the solar dryer. Sixty solar dryers have already been constructed at eight partner buying units and 52 farmers groups.
5. **Training of trainers**, All AMARTA farmer trainers and other field personnel employed with the ASKA training program receive intensive training from master trainers. This training will be for 6-8 days before both training initiatives begin.
6. **Cocoa RACA for Sulawesi Districts** It is proposed that a series of cocoa RACA's be established to help identify and resolve policy and regulatory constraints to cocoa competitiveness at the district level.
7. **Monitoring and Evaluation**, ongoing monitoring and evaluation of training impacts with initial baseline surveys, post-training field surveys to be completed, stakeholder testimonies, data entry, and final progress against indicators.

**ASKA Implementing Partners:**

- Indonesian Coffee Cocoa Research Institute (ICCRI)
- PT. OLAM Indonesia
- UD. Tunas Jaya
- A range of other stakeholders including provincial and district estate crops agencies

**Outcomes Year Four:**

<b>Indicator</b>	<b>Target December 2010</b>
Indicator 1: Additional hectares under improved technologies or practices	10,500ha* (building on 40,250ha initially established)
Indicator 2: Number of organizations and associations assisted	300* (+820 FGs from initial ASKA training)
Indicator 3: Number of agriculture related firms assisted	7 (TBD)
Indicator 4: Number of individuals receiving productivity training	7,500 (building on 28,750* initially established)
Indicator 5: Percent change in value of exports	*TBD
Indicator 6: Percent change in purchases from smallholders	*TBD
Indicator 7: Number of new technologies or management practices made available for transfer	23
Indicator 8: Number of additional surveillance and/or control systems in place for agricultural threats	N/A

*Year Four Work Plan  
October 1, 2009 to December 31, 2010*

*Agribusiness Market and Support Activity  
(AMARTA)*

Indicator 9: Number of public-private partnerships formed	N/A
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\* Number of hectares calculated on baseline survey data indicating average holdings per farmer of 1.4hectares of cocoa

## **Value Chain Interventions - Bali Region**

### **Activity 2: Conduct Additional Basic Training in Jembrana and Tabanan Districts**

#### **Activity Rationale:**

The primary aim of the USAID AMARTA cocoa program in Bali is to facilitate access to improved market opportunities by training farmers in improved cocoa cultivation, post-harvest handling and fermentation practices. The USAID AMARTA *Sustainindonesia Kakao Alliance* (SKA) program in Bali has 5 goals: i) to increase cocoa farming productivity via training focusing on improving farmers' knowledge and skills important to good cocoa production; ii) to reduce the impact of pests and diseases while explaining how the adoption of good practices can reduce crop damage and increase farm-based incomes; iii) to assist farmers to provide good quality high volume 'wet' (or dry fermented) cocoa beans to the central cocoa processing unit; iv) AMARTA will provide extension support and training in the requisite post-harvest handling and quality parameters for providing farmers with the capacity to provide wet cocoa beans that meet the Central Cacao Processing Unit (CCPU) "raw material", as well as the quality parameters for fair average quality cocoa, and v) to help facilitate improved capacity for smallholder cocoa farmers to produce high quality fermented cocoa. Under the extension proposed SKA training activities will identify and train 60 new farmer groups in Jembrana and Tabanan Districts (approximately 30 farmer groups in each district). As per USAID's guidance AMARTA will provide follow-up training to the 80 Subak Abian farmer groups already trained under the SKA program.

#### **Objectives:**

- Facilitate and develop a model of sustainable cocoa development based on the 'simple garden evaluation concept' which encourages farmers in making decisions on current conditions of the cocoa garden.
- Increase overall cocoa farming productivity through training on production techniques and pests and diseases control, applied good agriculture practices, use farmer study gardens as a training methodology (*kebun belajar*), providing technical assistance for rehabilitation, replanting and intensification techniques, and skills on how to select promising local cocoa clones.
- Facilitate and support solar dryer training and construction at the farmer level in improving quality, particularly in moisture content and mould content.
- Facilitate improved access for smallholder cocoa farmers to exporters who will provide a transparent and standardized process in determining cocoa quality at partners buying stations. Increase farmer knowledge and capacity to provide cocoa beans that meet international export quality standards (both fermented and non-fermented cocoa).

- Improve field staff and government official's competence at the district and provincial level through training of trainers, technical assistance, and additional support.
- Collaborate with ICCRI to develop two model cocoa gardens, rehabilitation/replanting and clonal trials as a supporting methodology, provide ICCRI will field based trials of promising clonal material, conduct field trials in other practices and new technologies, as well as trialing and initial selection of promising clonal material identified by cocoa farmers.

**Activity Description:**

1. **SKA Training for 60 Farmer Groups** - Conduct additional basic training programs covering best practices in cocoa cultivation, post-harvest handling, quality and fermentation in the Jembrana and Tabanan Districts focusing on improved smallholder cocoa production practices for a total of 60 farmer groups
2. **Follow-up Training for 80 Farmer Groups** - Provide follow-up training to farmers from 80 farmer groups (totaling 2,000 farmers) in the Tabanan District and Jembrana District on post-harvest handling, drying, fermentation, and garden rehabilitation
3. **RACA Activities to Support ALKANA and AMARKATA** - The AMARTA Sulawesi cocoa technical team will continue to provide support where requested to assist in the implementation of RACA activities in Tabanan and Jembrana Districts
4. **Training of Trainers** - To complement the above activities AMARTA will facilitate and support a number of capacity building workshops and training activities for SKA extension, GOI and Alliance personnel from Jembrana and Tabanan
5. **Support for Solar Dryers** - Training will include expansion of solar dryer and cocoa pod borer trap technologies by farmers, as well as local government in Bali.
6. **Monitoring and Evaluation** - Ongoing monitoring and evaluation of training impacts with initial baseline surveys, post-training field surveys, stakeholder testimonials, data entry, and final progress against indicators

**SKA Implementing Partners:**

- Indonesian Coffee Cocoa Research Institute (ICCRI)
- ALKANA
- AMARKATA
- Other stakeholders including provincial and district estate crops agencies, Universities and local NGOs

**Outcomes Year Four:**

<b>Indicator</b>	<b>Target December 2010</b>
Indicator 1: Additional hectares under improved technologies or practices	3,500
Indicator 2: Number of organizations and associations assisted including farmer groups of approximately 40 growers each	140 farmer groups
Indicator 3: Number of agriculture related firms assisted	4
Indicator 4: Number of individuals receiving productivity training	3,500*

Indicator 5: Percent change in value of exports	TBD
Indicator 6: Percent change in purchases from smallholders	TBD
Indicator 7: Number of new technologies or management practices made available for transfer as a result of USG assistance	23
Indicator 8: Number of additional surveillance and/or control systems in place for agricultural threats (biological and environmental) as a result of USG assistance	N/A
Indicator 9: Number of public-private partnership formed as a result of USG assistance	N/A

\* Indicators will be dependent upon USAID approval and available funding – should funds be cut then targets will be modified. Assumes GOI agrees to dedicate personnel to follow-up training activities in 2010.

## **Task 4: Value Chain Interventions in Horticulture**

### **Value Chain Interventions – Medan Region**

#### **Activity I: Continue Training for Citrus Productivity and Post-harvest Handling**

**Rationale:** Several supermarkets have used the brand name “Jeruk Medan” or Medan Citrus, though market penetration of citrus from the Medan area has been low due to stiff competition from China, Thailand, Pakistan, and others country whose citrus prices are similar to local producers although they are better quality. Many farmers in North Sumatera lack knowledge of proper production methods, including improper planting distance, pruning and fruit thinning. These factors contribute to quality problems. In addition, because farmers are concerned more with quantity rather than quality of produce, the quality of fruit is poor and sorting and grading are not common practices. This is a major barrier to competition in the Indonesian modern retail market. Training is necessary to teach improved production, post-harvest handling, and marketing practices to improve competitiveness.

**Objectives:** Improve productivity with technical assistance and training on Standard Operating Procedures (SOPs) for citrus to continue efforts to reduce production costs by focusing on pest control, pruning, organic fertilizing, and post harvest handling.

#### **Activity Description:**

- Provide training of trainers (ToT) for each target village or farmer’s group to disseminate training on improving soil condition and management practices
- Demonstrate improved citrus techniques by implementing SOPs in five selected sites
- Mobilize citrus farmer participants in conjunction with the field extension service and village farmer group chiefs

**Implementing Partners:**

- MJI (Masyarakat Jeruk Indonesia/ Indonesia Citrus Society) (Kardi Ginting, Paham Girsang, Komando Tarigan, Nasib dan Berlin Kemit)
- BPTP (Government research station)
- Karo Agriculture Department
- Natal Agriculture Department
- Simalungen Agriculture Department
- North Tapanuli Agriculture Department
- Pak Pak Agriculture Department
- Padang Lawas Agriculture Department
- PT Sewu Segar Nusantara
- Local traders (TBD)

**Outcomes Year Four:**

Indicator	Target December 2010
Indicator 1: Additional hectares under improved technologies or practices	2,500
Indicator 2: Number of organizations and associations assisted	100
Indicator 3: Number of agriculture related firms assisted	TBD
Indicator 4: Number of individuals receiving productivity training	5,300
Indicator 5: Percent change in value of exports	NA
Indicator 6: Percent change in purchases from smallholders	50%

**Activity 2: Improve Production and Marketing of Vegetables**

**Rationale:** Two of the constraints that continue to hamper market access for many traditional smallholder farmers are the lack of proper post-harvest handling techniques and low quality seeds that result in poor quality produce with low demand in domestic and international markets. AMARTA has been providing training in post-harvest handling and seed production to improve the quality of produce, and enable farmers to access and become competitive in the Indonesian modern retail market. Carrot and broccoli are crops with potential markets in Indonesia as well as Singapore, Taiwan, and Japan. Continuing to build on earlier assistance will help farmers to further penetrate these markets.

**Objectives:** Improve quality and quantity of vegetable production in Berastagi through training in best agricultural practices and post-harvest handling techniques. Increase PT. Hortijaya, and other related companies, sales in fresh carrot and broccoli for the retail market in Medan and export markets. Provide farmers with additional skills to increase revenues from improved quality and quantity of vegetables.

**Activity Description:**

- Continue to mobilize carrot and broccoli farmers in coordination with farmer's group leaders and government extension staff to conduct field training in best agricultural practices and post harvest handling with field staff from PT. Hortijaya or other companies.
- Introduce farmers with several new varieties of carrot and broccoli which can be differentiated from poor local stock.
- Demonstrate carrot and broccoli field trials with farmer's groups and PT. Hortijaya using improved seeds and better varieties provided by AMARTA and adaptable to local conditions.
- Work with PT. Hortijaya or other companies to introduce products through several export distributors and conduct trial shipments in refrigerated containers.

**Implementing Partners:**

- PT. Hortijaya (Sunario Chan)
- Farmer Groups in Berastagi area
- Karo Agriculture Department/Government field extension agents
- Simalungen Agriculture Department
- North Tapanuli Agriculture Department

**Outcomes Year Four:**

<b>Indicator</b>	<b>Target December 2010</b>
Indicator 1: Additional hectares under improved technologies or practices	100
Indicator 2: Number of organizations and associations assisted	5
Indicator 3: Number of agriculture related firms assisted	4
Indicator 4: Number of individuals receiving productivity training	300
Indicator 5: Percent change in value of exports	20%
Indicator 6: Percent change in purchases from smallholders	30%

**Activity 3: Improve Banana Productivity – Deli Serdang, North Sumatera**

**Rationale:** Fresh banana demand continues to grow for Lakatan bananas, known as Pisang Barangan, one of Indonesia's favorite varieties. AMARTA's efforts focused on this activity in North Sumatera during year three produced outstanding results. In conjunction with PT Sewu Segar Nusantara (PT SNN), who holds a 30% share of the Indonesian retail banana market, AMARTA supported farmers who supplied 10,000 hands per day. Continued technical assistance and training for farmer's groups will help support and stabilize the supply and increase farmer's incomes further, as well as improving chances of long-term production and marketing sustainability.

**Objectives:** Increase banana productivity by 70% by continuing to expand the double row planting method, improved cultivation methods, and post harvest handling practices for improved quality, as well as accessing additional markets where appropriate.

**Activity Description:**

- Continue maintaining three hectares of demonstration plots in three sub-districts of Deli Serdang to serve as models for improved post-harvest technology and handling.
- Continue demonstrations to farmers using good agricultural practices including pruning, removing buds and false hands, de-handing, de-flowering, de-leafing, and protecting the fruit from damage caused by friction from leaves and other mechanical agents.
- Implement the newly devised system for moving de-handed bananas from the field to the packing shed using stacking baskets to decrease bruising.
- Train and mentor the Banana Cooperation Mandiri (Koperasi Serba Usaha Pisang Mandiri) in improving management skills and overall capacity building.
- Continue commercial shipments with PT Sewu Segar Nusantara and other banana distributors to resolve logistical problems and other bottlenecks during transport.
- Provide technical assistance and funding for an additional banana packing shed in another strategic location to improve the supply of better quality bananas to the marketplace.

**Implementing Partners:**

- PT Sewu Segar Nusantara
- Koperasi Serba Usaha Pisang Mandiri (Mambar Sembiring and Josep Barus)
- Extension agents from Deli Serdang Agricultural Service Offices
- Researchers from the BPTP
- University of North Sumatra

**Outcomes Year Four:**

<b>Indicator</b>	<b>Target December 2010</b>
Indicator 1: Additional hectares under improved technologies or practices	2,500
Indicator 2: Number of organizations and associations assisted	100
Indicator 3: Number of agriculture related firms assisted	2
Indicator 4: Number of individuals receiving productivity training	2,800
Indicator 5: Percent change in value of exports	N/A
Indicator 6: Percent change in purchases from smallholders	50%

**Activity 4: Improve Production of Cut Flowers (Chrysanthemum) - Berastagi**

**Rationale:** AMARTA has been working with local farmers in order to enhance Indonesia's competitive opportunity in the production and marketing of high value flower products to local, regional, national, and international markets, due to the low cost of labor and land, and favorable climatic conditions compared to Singapore and

Malaysia. Further efforts will be conducted in cultivating chrysanthemums and other floriculture activities in Berastagi.

**Objectives:** Improve the quality and quantity of production of cut flowers in Berastagi by providing technical assistance and training. Improve extension services by facilitating training for field extension agents and farmers regarding disease diagnosis. Promote the Berastagi highland area as a leading cut flower center in Indonesia, with Raya Village as a center for cut flower production in North Sumatera.

**Activity Description:**

- Continue demonstration techniques at the completed greenhouse in Raya Village to propagate new flower varieties.
- Design and deliver a training program for best agricultural practices including cultivation techniques, disease diagnosis, marketing, post harvest handling, and packing. Training will be offered to both farmers and extension agents.
- Assist in procuring improved seed varieties for the nursery and greenhouse from Java and other areas.
- Assist in improving marketing of cut flowers, including coordination with the district government of Berastagi to print promotional materials, and promote the wholesale market to local and regional customers.

**Implementing Partners:**

- Departments of Agriculture in Medan City and Berastagi
- PT. MJ Flora
- Raya flower’s farmers group (Ternalem Ginting)

**Outcomes Year Four:**

<b>Indicator</b>	<b>Target December 2010</b>
Indicator 1: Additional hectares under improved technologies or practices	100
Indicator 2: Number of organizations and associations assisted	20
Indicator 3: Number of agriculture related firms assisted	3
Indicator 4: Number of individuals receiving productivity training	300
Indicator 5: Percent change in value of exports	NA
Indicator 6: Percent change in purchases from smallholders	20%

**Horticulture Value Chain Interventions – West Java Region**

**Introduction**

AMARTA interventions in West Java began in April 2008, collaborating with the Indonesian Vegetable Research Institute (IVEGRI), Lembang-Bandung to conduct various trainings and workshops to improve productivity, quality, and market access for targeted vegetable products. IVEGRI provides the necessary facilities including equipment, materials, demonstration plots, and free office space. In addition to the collaboration

with IVEGRI, AMARTA began a market access pilot project with produce supply firm Bimandiri, based in Bandung. The purpose of this effort was to demonstrate better market linkages with small scale farmers for a more dependable and higher quality supply chain. The following Year Four activities are a continuation of the Year Three initiatives, and will develop additional marketing intermediary companies.

### **Activity I: Continue Assisting Bimandiri and Develop Other Marketing Intermediary Companies**

**Rationale:** As specialized produce wholesalers supplying supermarkets, firms such as Bimandiri and others need to diversify and expand their procurement sources. AMARTA provided a grant to Bimandiri to modernize a produce collection and packing house in Garut to accomplish this task. There is a need for more farmers to meet market demand with appropriate quality standards operating under long term contracts which are essential for sustainability of the supply chain. This becomes more important as AVA Singapore will provide an opportunity to Bimandiri to export vegetables to the Singapore market. After various productivity related assistance provided to Palmarosa Farmer's Group in Lembang and Asgita Farmers Group, who have been able to increase productivity, the focus is currently to expand their distribution network by linking them to high-end markets.

**Objective:** To improve product quality through better agricultural and post harvest handling practices, access better markets, involve more small farmers, increase smallholders income, and improve the welfare of smallholder vegetable growers which will strengthen the supply chain of Bimandiri and other marketing intermediary companies.

#### **Activities Description:**

- Provide on farm training on production of various high value vegetables including broccoli, carrot, tomato, kyurii cucumbers, zucchini, and potato seed production.
- Conduct training on post-harvest handling and packing house operations.
- Establish farmers' field demplots for: broccoli, carrot, potato seed production, zucchini, kyuri (cucumber), and a new tomato variety (beef tomato).
- Establish a model nursery house for growing green leafy vegetables (celery and lettuce), tomato, and broccoli planting material for transplant.
- Provide ongoing technical assistance and training to Bimandiri's expanded packing house and distribution center staff in Garut to purchase more farmers' products and expand access to better markets.
- Provide technical assistance and training to Bimandiri staff and farmers to match supermarket quality standards including cultivation techniques, post-harvest handling, and farm management.
- Ensure sustainability through long term contracts with Bimandiri and farmers based on trust and partnerships between farmers and buyers.
- Provide technical assistance in the form of production technology, irrigation systems and link farmer groups to PT Momenta Agrikultura (a high-end market supplier) as a buyer.

**Implementing Partners:**

- The Indonesian Vegetable Research Institute (IVEGRI) – Centre for Horticultural Research and Development
- APRINDO (Indonesian Retail Merchant Associations)
- Agriculture Regional Offices in Bandung and Garut.
- CV. Bimandiri
- Farmer groups
- Other marketing intermediary companies such as PT Momenta Agrikultura and Amazing Farms.

**Outcomes Year Four:** The Bimandiri Co. contracting relationship with growers is strengthened with at least two additional farmer groups added, and at least two more intermediary marketing companies introduced to new and existing farmer groups to enhance their farm sales through established supply contracts.

**Activity 2: Improved Production and Marketing Practices**

**Rationale:** Workshops on “Bridging the Gap between Farmers and Supermarkets” conducted by AMARTA in January 2008 found that a high percentage of farmers products were rejected due to poor quality. Classroom training and on-farm demonstration plots (demplots) on farmer’s land will effectively show and teach farmers how to perform best agricultural practices to match modern market quality standards. In the last four months, AMARTA has established demplots of broccoli in Bandung, organic vegetables in Garut, and local strawberries in IVEGRI’s trial land in Lembang. For Year Four those demplots will be expanded covering additional crops and areas to reach more beneficiaries.

**Objectives:** By expanding and learning from the experience of existing demplots in Bandung and Garut, AMARTA will train additional farmers on best agricultural practices to produce improved quality high value vegetables.

**Activity Description:**

AMARTA will:

- Establish 1.3 ha demplots of broccoli in Bandung, 1.3 ha and 1.5 ha of various high value vegetables in Garut expanding on the existing 1 ha demplots.
- Facilitate two field assistants- one each from Bandung and Garut - to provide farm budget record keeping and daily technical assistance.
- Conduct class room training, field trainings, field days, and workshops on increased farm productivity and post-harvest handling.
- Facilitate farmer’s access to markets in Garut and Bandung through CV Bimandiri and other intermediary marketing companies.

**Implementing Partners:**

- The Indonesian Vegetable Research Institute (IVEGRI)-Centre for Horticultural Research and Development
- Agriculture Regional Offices in Bandung and Garut

- APRINDO (Indonesian Retail Merchant Association)
- CV Bimandiri in Bandung and Garut
- Palmarosa Farmer's Group in Bandung
- Kelompok Agribisnis Pemuda Kudangsari Farmer's Group in Garut
- PT Syngenta Indonesia/The Syngenta Foundation for Sustainable Agriculture
- PT Momenta

**Outcomes Year Four:** 4.1 hectares of new vegetable production demplots will be established showing new, improved agricultural practices to at least six new farmer groups, who will also benefit from introductory farm management skills training.

### **Activity 3: Continue to Support IVEGRI Demonstration Plots for Various Vegetable Crops**

**Rationale:** The Indonesian Vegetable Research Institutes (IVEGRI) is the only government research institute with a mandate in conducting vegetable research activities in Indonesia. Disseminating research results in the form of on-farm demonstration plots, conducting training, field days, workshops, and completing relevant studies will convince farmers to implement best farming practices, build a farmer's network, and ultimately empower them. IVEGRI's in-house demplots and 'Field Days' are conducted to bridge these gaps.

**Objectives:** To train farmers to implement best farming practices in producing improved quality high value vegetables by establishing demplots at IVEGRI's trial land, facilitating market access, and conducting market studies on related commodities.

#### **Activity Description:**

- Establish 0.5 hectares of in-house demplots for various commodities such as strawberries, broccoli, kyurii, spinach, tomato, eggplant, and chili to be used as training sites.
- Establish seed growing venture of Russet Burbank potatoes for processing and Russet Norgold for fresh consumption.
- Conduct regional market studies and supermarket studies on selected commodities.
- Provide IVEGRI with capacity building in order to ensure the sustainability of all successful pilot projects that are marketable.

#### **Implementing Partners:**

- The Indonesian Vegetable Research Institute (IVEGRI)-Centre for Horticultural Research and Development
- Agriculture Regional Offices in Bandung and Garut
- APRINDO (Indonesian Retail Merchant Association)
- CV Bimandiri in Bandung and Garut
- ASGITA (Asosiasi Agribisnis dan Wisata) farmer group association in Bandung
- Stroberi Betah Lestari farmer group in Garut

- Palmarosa Farmer Group in Bandung
- Kelompok Agribisnis Pemuda Kudangsari Farmer Group in Garut
- Pt Syngenta Indonesia
- The Syngenta Foundation for Sustainable Agriculture

**Outcomes Year Four:** IVEGRI acknowledges increased capacity to continue to conduct both on-station and on-farm vegetable demonstration plots with results to be socialized via Farmer Field Days and other public events. Vegetable production assistance will also include production planning and marketing information.

#### **Activity 4: Provide IVEGRI with Continued Capacity Building**

**Rationale:** The Indonesian Vegetables Research Institutes (IVEGRI) is the only government research institute with a mandate in conducting vegetable research activities in Indonesia. Disseminating research results in the form of on-farm demonstration plots, conducting training, field days, workshops, and completing relevant studies will convince farmers to implement best farming practices, build a farmer's network, and ultimately empower them. But IVEGRI needs to provide more assistance and training to conduct practical research in response to farmers needs, and learn how to disseminate this effectively.

**Objectives:** To build the capacity of IVEGRI staff to analyze, design, implement, and disseminate research work based on identified farmer needs. Cooperate with the institution to install research demonstration plots off station, and implement best farming practices in producing improved quality high value vegetables by establishing demplots at IVEGRI's trial land, facilitating market access, and conducting market studies on related commodities.

#### **Activity Description:**

- Conduct classroom training on adaptive farm research techniques.
- Assist designing and installing demonstration plots.
- Help organize farmer field days to demonstrate research results.
- Assist in obtaining new and better planting material for demonstration.
- Provide information and assistance on market information systems for farmers.

#### **Implementing Partners:**

- The Indonesian Vegetable Research Institute (IVEGRI)-Centre for Horticultural Research and Development
- APRINDO (Indonesian Retail Merchant Association)
- CV Bimandiri in Bandung and Garut
- Stroberi Betah Lestari farmer group in Garut
- Palmarosa Farmer Group in Bandung
- Kelompok Agribisnis Pemuda Kudangsari Farmer Group in Garut
- The Syngenta Foundation for Sustainable Agriculture

#### **Outcomes Year Four:**

IVEGRI demonstrates adoption of farmer oriented field demplots to showcase the merits and financial returns of improved agricultural practices. IVEGRI will conduct farmer field days to ensure the sustainability of the pilot projects.

### **Activity 5: Continue Provision of MD-2 Variety Pineapple Planting Material**

**Rationale:** Indonesia does not currently cultivate new, improved varieties of fresh pineapple that can compete in local hypermarkets with imported pineapple from the Philippines, nor any that are acceptable for the fresh pineapple export market. AMARTA began a culture tissue propagation program in the Year One Work Plan, and currently has 25,000 plants of the Del Monte MD-2 hybrid pineapple variety ready for transplanting to a demonstration plot for further propagation and demonstration. The MD-2 variety pineapple has a potential market at high-end supermarkets and for export.

**Objective:** Provide a location where MD-2 pineapple plants can be grown for propagation and distribution to interested small scale farmers or commercial enterprises for cultivation of a new and improved fresh pineapple variety. Demonstrate modern pineapple production practices to optimize the yield and quality characteristics of the variety.

#### **Activity Description:**

- Establish a one hectare demonstration plot in Bogor to demonstrate modern pineapple production practices for land preparation, planting, field maintenance, seed production, and fruit production.
- Conduct monthly training field days for the Dinas, pineapple growers, and other GOI agencies to discuss production practices.
- Produce pineapple seedlings for distribution to GOI tropical fruit experiment stations for further propagation.

#### **Implementing Partner:**

- MJ Flora in Bogor
- IPB
- W. Java Dinas

#### **Outcome Year Four:**

One hectare of MD-2 pineapple plants producing additional seed for distribution to government research stations, small scale farmers, or commercial enterprises for further development.

### **Activity 6: Assistance to the West Java Action Group (WJAG) and Value Chain Center (VCC)**

**Rationale:** The West Java Agribusiness Action Group – Value Chain Center established by AMARTA in collaboration with the LPPM – UNPAD has conducted several activities that have received a very positive response from various agribusiness actors. The group

facilitated the establishment of the Indonesian Fruits and Vegetables Exporters Association. To improve capacity and contribution to regional agribusiness development, AMARTA will facilitate round table discussions, farm management trainings, and policy papers on West Java Horticulture and Value Chain Development. The policy papers will include lessons-learned from the AMARTA program in West Java.

**Objective:**

To sustain and improve the capacity and contribution of the West Java Agribusiness Action Group-Value Chain Center.

**Activity Description:**

- Conduct round table discussion on various topics including access to technology, access to markets, access to agro-inputs, and access to finance.
- Conduct farm management trainings and create a training manual.
- Write a paper on “West Java Horticulture and Value Chain Development”.

**Implementing Partners:**

- West Java Value Chain Center
- West Java Action Group
- UNPAD
- W. Java Regency Dept. of Agriculture

**Outcomes Year Four:** The West Java Action Group in collaboration with the West Java Value Chain Center and UNPAD develop a sustainability plan for continuation of the policy and regulatory dialogue forum.

## **Papua Agriculture Development Alliance – PADA**

### **Value Chain Interventions - Papua Region**

As part of the USAID – Freeport-LPMAK collaboration for economic development in Papua, AMARTA will continue value chain interventions in 2010. The ongoing programs in Papua implemented through the Papua Agribusiness Development Alliance (PADA) allow AMARTA to assist PT Freeport Indonesia and LPMAK in rural socio-economic development. The aim is to create additional employment, increase farmer income, and alleviate rural poverty while improving the livelihood of the various villages. In 2010, AMARTA is proposing the expansion of nine activities under PADA:

#### **Activity 1: Provide Training and Technical Assistance to the Maria Bintang Laut Cooperative for Fish processing in Timika**

**Rationale:** In its first two years of work, PADA assisted Maria Bintang Laut with funds to purchase fish and procurement of equipment to improve fishing capacity including building an ice factory. Currently Maria Bintang Laut is in need of a proper fish processing facility in order to increase productivity and the quality of fish that will later be sold to customers. PADA’s assistance in building a fish processing plant will

empower the Cooperative to improve its marketing efforts. AMARTA will assist with funding of the fish processing facility and also training for the workers at the facility.

**Objective:** There is an existing and promising market in Timika for large quantities of seafood. A proper fish processing facility would allow the Cooperative to make fish fillet and steaks and store them for a longer period of time, turning a virtually immediate profit.

**Activity Description:**

- Build a medium size fish processing facility in Timika with integrated freezing and cold storage
- Provide training to beneficiaries in fish processing and proper storing methods preferred by customers
- Assist in enhanced marketing efforts

**Implementing Partners:**

- Freeport Indonesia
- Catholic Church of Timika
- Koperasi Serba Usaha Maria Bintang Laut

**Outcomes Year Four:**

Indicator	Target December 2010
Indicator 1: Additional hectares under improved technologies or practices	N/A
Indicator 2: Number of organizations and associations assisted	1
Indicator 3: Number of agriculture related firms assisted	9
Indicator 4: Number of individuals receiving productivity training	15
Indicator 5: Percent change in value of exports	50
Indicator 6: Percent change in purchases from smallholders	50

**Activity 2: Enhance Activities in Kokonao to Involve Additional Fishermen**

**Rationale:** In Year Three, PADA provided an ice factory to the fishermen in Kokonao. Unfortunately, many fishermen live far from Kokonao and most of them have to use row boats to reach the ice factory which is not efficient. In Year Four, PADA will provide technical assistance and grants to build three ice bunkers in rural villages that are far from the ice factory. This will allow the fishermen to deliver their catch to the nearby ice bunkers and the Cooperative can collect the fish, while they simultaneously supply the bunkers with more ice blocks from the factory.

**Objectives:** To keep the fish fresh as required by customers and to increase the volume purchased from villagers. Also, to increase production and sales of ice produced at the Kokonao ice factory and to secure a sustainable operation.

**Activity Description:**

- Establish three ice bunkers with an integrated buying station shop
- Build an 8-ton transport boat with inboard and back up outboard engine to support the ice supply and fish collection
- Supply and install four short wave radios including solar power supply, for communication between the buying station and processing center
- Provide a transport vehicle for the ice supply station at the Timika harbor
- Supply and install a consistent energy supply for each buying station

**Implementing Partners:**

- Koperasi Serba Usaha Maria Bintang Laut
- LPMMAK

**Outcomes Year Four:**

Indicator	Target December 2010
Indicator 1: Additional hectares under improved technologies or practices	N/A
Indicator 2: Number of organizations and associations assisted	1
Indicator 3: Number of agriculture related firms assisted	9
Indicator 4: Number of individuals receiving productivity training	15
Indicator 5: Percent change in value of exports	50
Indicator 6: Percent change in purchases from smallholders	50

**Activity 3: Provide Technical Assistance on Fishing Related activities for Maria Bintang Laut Cooperative**

**Rationale:** The cooperative requested that PADA train their personal in the field together with local fisherman to improve the quality and supply, handling of fish, maintenance of fishing equipment, bookkeeping, purchasing, scheduling, and communication. It is very important to train the local personnel to increase their self confidence since in past years these jobs where not available for locals.

**Objective:** Improve the management of the fish supply line to increase volume and quality of purchased fish. Improve knowledge for maintaining fishing and fish storage equipment for buying station personnel and fisherman to insure proper handling and maintenance of equipment, such as boats, engines, fishing nets, and the handling of money.

**Activity Description:**

- Provide training sessions to improve the management of supply line and trade station personnel, including demonstrating preventive maintenance of equipment

and tools; assisting in on-site training in fresh fish handling and food safety; and improved fish handling practices during transport

**Implementing Partners:**

- Catholic Church of Timika
- Koperasi Serba Usaha Maria Bintang Laut
- LPMMAK

**Outcomes Year Four:**

<b>Indicator</b>	<b>Target December 2010</b>
Indicator 1: Additional hectares under improved technologies or practices	NA
Indicator 2: Number of organizations and associations assisted	1
Indicator 3: Number of agriculture related firms assisted	9
Indicator 4: Number of individuals receiving productivity training	1,200
Indicator 5: Percent change in value of exports	50
Indicator 6: Percent change in purchases from smallholders	50

**Activity 4: Establish Additional Coffee Seedling Nurseries to Expand Production in Wamena and Moanemani**

**Rationale:** PADA has provided technical assistance, training, and grants to develop the Arabica specialty coffee production, processing, and export potential of the Baliem and Kamuu Valley areas. Already, AMARTA has made improvements to the Cooperative’s processing sites, installation of coffee quality and cupping laboratories, and satellite phone stations. Coffee huller machines, vertical coffee grading machines, and generators for electric supply have been delivered and installed at the facilities. Work is underway to improve water supply and sanitary facilities. Also, Organic and Rain Forest certification is in progress. Additional coffee plantings are necessary to increase the production base to better utilize the facilities already installed, and expand the program to additional coffee farmers in the two production centers.

**Objective:** Improve the productivity of current coffee production and expand the production base.

**Activity Description:**

- Establish small seedling nurseries with individual growers using seed collected from existing coffee plants in order to expand the coffee production area
- Introduce a second variety of coffee for each location according to market demand and cupping profile in cooperation with the local Dinas and ICCRI
- Select farmer groups in each location to set up four nurseries with 5,000 trees of the current variety, and three nurseries with 5,000 trees of the new variety
- Monitor the development of the current and new varieties. These nurseries will increase the current production of 115 hectares or 100%

**Implementing Partners:**

- Coffee Cooperative Santo Isodorus
- OKESA JAGARA Farmers Group
- Baliem Specialty Coffee Cooperative , KSU Baliem Arabica

**Outcomes Year Four:**

Indicator	Target December 2010
Indicator 1: Additional hectares under improved technologies or practices	312
Indicator 2: Number of organizations and associations assisted	24
Indicator 3: Number of agriculture related firms assisted	21
Indicator 4: Number of individuals receiving productivity training	2,700
Indicator 5: Percent change in value of exports	100
Indicator 6: Percent change in purchases from smallholders	70

**Activity 5: Demonstrate Improved Coffee Drying and Processing Practices to Farmers in Wamena and Moanemani**

**Rationale:** AMARTA has provided technical assistance, training, and grants to develop the Arabica Specialty Coffee production, processing and export potential of the Baliem Valley and Kamuu Valley areas of Wamena and Moanemani respectively, and efforts will continue to improve quality and processed coffee volume.

**Objective:** Improve volume and quality of processed specialty Arabica coffee to increase market value and stabilize produced quality and volume according to international market requirements. Enable coffee farmers to understand quality requirements and issues to insure the best possible quality is grown and processed at the farm level. Provide technical support at the central processing mill in Moanemani, to advance quality produced through advanced drying and sorting techniques.

**Activity Description:**

- Continue training on good agriculture practices at the plantation, including: pruning, soil management, production of organic fertilizer, and harvest schedule
- Distribute basic equipment such as: drying sheets, buckets for washing coffee, and plastic bags for fermentation and storage
- Supply pulping stations, including washing equipment such as water tanks and buckets for floating the coffee prior to the pulping process
- Hold workshops with farmer groups on plantation maintenance, processing, pest control, and quality requirements of processed coffee

**Implementing Partners:**

- Coffee Cooperative Santo Isodorus
- OKESA JAGARA Farmers Group

- Baliem Specialty Coffee Cooperative , KSU Baliem Arabica

**Outcomes Year Four:**

<b>Indicator</b>	<b>Target December 2010</b>
Indicator 1: Additional hectares under improved technologies or practices	2,743
Indicator 2: Number of organizations and associations assisted	24
Indicator 3: Number of agriculture related firms assisted	21
Indicator 4: Number of individuals receiving productivity training	2,700
Indicator 5: Percent change in value of exports	100
Indicator 6: Percent change in purchases from smallholders	70

**Activity 6: Assist Coffee Producers to Sustain Organic Certification and in Achieving Rainforest Alliance Certification in Wamena**

**Rationale:** AMARTA has provided technical assistance, training, and grants to develop the Arabica Specialty Coffee production, processing and export potential of the Baliem Valley area and efforts will continue to improve quality and yields. Added value to the coffee produced and processed can be achieved through assistance to achieve additional return on coffee sales with certifications such as Organic and the Rain Forest Alliance.

**Objective:** To increase the sustainability, traceability, transparency, market value, and price at the farm gate to receive the highest possible prices at the international market, Organic and Rain Forest Alliance certification will add value to the coffee produced in Wamena for the national and international market.

**Activity Description:**

- Provide training to extension workers of the Cooperative in maintaining control books and administration for the organic internal control system
- Train farmer groups on organic farming

**Implementing Partners:**

- OKESA JAGARA Farmers Group
- Baliem Specialty Coffee Cooperative , KSU Baliem Arabica

**Outcomes Year Four:**

<b>Indicator</b>	<b>Target December 2010</b>
Indicator 1: Additional hectares under improved technologies or practices	2,743
Indicator 2: Number of organizations and associations assisted	24
Indicator 3: Number of agriculture related firms assisted	21

Indicator 4: Number of individuals receiving productivity training	2,700
Indicator 5: Percent change in value of exports	100
Indicator 6: Percent change in purchases from smallholders	70

### **Activity 7: Strengthen Coffee Cooperative Governance and Management in Wamena and Moanemani**

**Rationale:** AMARTA provided technical assistance, training, and grants to develop the Arabica Specialty Coffee production, processing and export potential of the Baliem Valley and Kamuu Valley areas and efforts will continue to improve quality and yields.

**Objective:** The Baliem Arabika and The Santo Isodorus Cooperatives must compete on the domestic international coffee markets for Specialty Coffee. Communications, relations, and negotiation with local and international buyers, as well as a close relationship with the Cooperatives farmers are necessary and the foundation for success. Understanding and implementing sound business management and governance practices are essential to assuring the sustainability of these immature farmer cooperatives.

#### **Activity Description:**

- Provide technical assistance, in the form of workshops and direct training in the following fields: cooperative management, accounting and bookkeeping, coffee business related requirements such as communication with buyers, planning of purchasing, production, marketing, sales, exporting, sustainability, and transparency.

#### **Implementing Partners:**

- OKESA JAGARA Farmers Group
- Baliem Specialty Coffee Cooperative , KSU Baliem Arabica
- Coffee Cooperative Santo Isodorus

#### **Outcomes Year Four:**

<b>Indicator</b>	<b>Target December 2010</b>
Indicator 1: Additional hectares under improved technologies or practices	2,743
Indicator 2: Number of organizations and associations assisted	24
Indicator 3: Number of agriculture related firms assisted	21
Indicator 4: Number of individuals receiving productivity training	2,700
Indicator 5: Percent change in value of exports	100
Indicator 6: Percent change in purchases from smallholders	70

## Activity 8: Provide Improved Swine Breeding Stock and Training in Agimuga

### **Rationale:**

AMARTA provided technical assistance, training, and grants to develop the swine breeding and husbandry activities in Agimuga, together with the local swine farmers group of Agimuga, AMARTA constructed a modern swine farm in Agimuga. One boar and two breeding sows were then delivered for rearing. Basic training in animal husbandry and swine breeding was held to improve knowledge of the local farmers.

**Objective:** Improve the productivity of current swine production. Expand the production base to meet Freeport Indonesia's pork requirements and high demand for ceremonial pigs in the area.

### **Activity Description:**

- Training on feed preparation and basic veterinarian issues
- Monthly control of weight and health of pigs maintained together with the local government
- Supply a freezer to keep meat and fish fresh for sales to community

### **Implementing Partners:**

- Agimuga Village
- Timika Regency Department of Agriculture
- Catholic Church

### **Outcomes Year Four:**

<b>Indicator</b>	<b>Target December 2010</b>
Indicator 1: Additional hectares under improved technologies or practices	N/A
Indicator 2: Number of organizations and associations assisted	1
Indicator 3: Number of agriculture related firms assisted	3
Indicator 4: Number of individuals receiving productivity training	50
Indicator 5: Percent change in value of exports	N/A
Indicator 6: Percent change in purchases from smallholders	N/A

## Activity 9: Introduce Improved Rice Storage Practices to Ensure Food Security in Agimuga

### **Rationale:**

AMARTA provided technical assistance, training, and grants to develop the rice production, processing, and marketing potential of four villages in the area. Rice seeds and rice production equipment were delivered and installed in Aramsolki, and the rice farmer's group received training to operate processing machinery. Currently, there are about six hectares of rice planted and under production.

**Objectives:** Improve the post-harvest handling of the rice currently cultivated. Create access to better, higher value markets by improving transportation and communication systems from the production area to the Timika market.

**Activity Description:**

- Renovate the current rice processing and storage facility at Aramsolki and equip it with an electric supply
- Relocate the local village shop managed by the Cooperative to a bigger building with storage facility for rice and other agriculture products produced by the farmer's group for trade in Timika
- Build a landing site at the harbor in Agimuga located at the village of Kiliarma for supply boats and a sufficient warehouse at the port
- Supply two short wave radios to communicate with the supply boat and the base in Timika
- Maintain the newly completed road to the harbor in Kiliarma
- Supply an additional transport boat for Agimuga to keep up with the increased trade and transport to Timika

**Implementing Partners:**

- Agimuga Village
- Timika Regency Department of Agriculture
- Catholic Church
- LPMK

**Outcomes Year Four:**

<b>Indicator</b>	<b>Target December 2010</b>
Indicator 1: Additional hectares under improved technologies or practices	75
Indicator 2: Number of organizations and associations assisted	1
Indicator 3: Number of agriculture related firms assisted	3
Indicator 4: Number of individuals receiving productivity training	300
Indicator 5: Percent change in value of exports	N/A
Indicator 6: Percent change in purchases from smallholders	100

# Value Chain Intervention Timeline

(Please See Attached Gantt Chart)