

FY2009 EMERGING MARKETS PROGRAM PROPOSAL: FAS/OSTA/NTPMD

A. DATE OF PROPOSAL SUBMISSION: August 15, 2008

B. NAME OF ORGANIZATION SUBMITTING PROPOSAL:

Foreign Agricultural Service

- Office of Science and Technical Affairs, New Technologies and Production Methods Division (OSTA/NTPMD)
- Office of Capacity Building and Development, Trade and Science Capacity Building Division (OCBD/TSCBD)

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G. FULL TITLE OF PROPOSAL:

Addressing Regulatory and Marketing Barriers to the Export of U.S. Agricultural (Bio)technology-Enhanced Products in Emerging Markets

H., I., J., & K. TARGET MARKETS, CURRENT CONDITIONS, DESCRIPTION OF PROBLEMS TO BE ADDRESSED, PROJECT OBJECTIVES:

Our target markets mirror our top export markets because our EMP-funded biotechnology outreach is fundamentally tied to trade and exports. Biotechnology-derived exports were valued over \$30 billion dollars in 2007. 41 percent of these exports went to emerging markets. (For more information on the prevalence of biotechnology in the United States, see **Appendix VIII**) This proposal requests \$1,107,163 in EMP funds to build public consensus and address regulatory and marketing barriers in APEC, Asia, the Western Hemisphere, Eastern Europe, and Africa. Strategies and activities proposed (see **Appendix I/Section P.**) will evolve as conditions and circumstances in target markets change. In every country where an outreach activity is proposed, post has identified biotechnology as a key Country Strategic Statement (CSS) objective or goal.

APEC

The economies that comprise APEC continue to be the largest regional market for U.S. agricultural exports, including exports of corn, cotton and soybeans, the largest consumer market, as well as home for the greatest number of farmers in the world. The application of ‘home-grown’ agricultural biotechnology, in the face of competing regulatory ideologies from Europe and the United States, gives Asia, a global ‘swing vote’ on the

future of agricultural biotechnology. APEC countries' approval or rejection of biotechnology products developed both domestically and in other countries will have far reaching implications for the future regulation of biotechnology crops, the creation of farmer constituencies benefiting from biotechnology, the level of investment in biotechnology research and development, and consumer acceptance of U.S. agricultural exports. These in turn influence global trading rules, which impact directly on the acceptance of U.S. agricultural exports elsewhere. For these reasons, APEC is a top priority for FAS biotechnology marketing and trade policy activities.

The APEC High Level Policy Dialogue (see **Appendix II** for background information) continues to provide the opportunity for policy makers from throughout the APEC region to learn more about the importance of biotechnology to their agricultural sectors and also to share their experiences in order to broaden public awareness of the safety and benefits of biotechnology. As such, the Policy Dialogue will continue to rely on support through the Emerging Markets Program for travel costs to enable key participants from emerging market countries to participate in its annual meeting. EMP funds will be used exclusively to assist emerging markets and will not extend to developed countries.

For 2008-2009, NTPMD and OCBP propose to build on the investments made and the achievements realized to date through a series of coordinated activities in APEC to continue to advance U.S. trade interests in agricultural biotechnology. The goal this year will be to secure and maintain market access for U.S. agricultural exports by promoting the establishment of transparent, science-based regulatory regimes for the products of agricultural biotechnology in APEC economies. Emphasis will be placed on enabling APEC economies to increase public awareness regarding agricultural biotechnology, so that consumers and voters alike can make informed choices regarding the future of this technology in their respective economies.

These activities, with support and input from USAID and the State Department, will contribute to greater farmer, government and consumer understanding of agricultural biotechnology, which will in turn help secure and maintain market access for U.S. agricultural exports, including corn, soybeans and cotton.

Asia

Southeast Asia

Two prevailing conditions in Southeast (SE) Asia affecting the acceptance of agricultural biotechnology include regulatory ambiguity and ambivalent public perception. Regulatory approaches in SE Asia range from the lack of any established framework governing development and trade to an established, functioning regulatory system that enables development and commercialization. The Association for Southeast Asian Nations (ASEAN) – Philippines, Malaysia, Indonesia, Brunei, Thailand, Singapore, Indonesia, Burma, Cambodia and Laos - has set a regulatory harmonization goal for 2015 for products derived from genetic engineering and modern agricultural biotechnology. As regulatory harmonization talks are ongoing, existing political and regulatory frameworks can be polarized into two extremes. On one extreme exists the Philippines with a functioning regulatory framework that enables both the importation of food and seed for planting derived from genetic engineering; the other would be Malaysia, which is near to

implementing regulations outlined in the Malaysia Biosafety Act that includes a stringent labeling regime, very strict liability and redress requirements, and draconian penalties, fines and incarceration for violations of the Act. Within the extremes lay countries that have neither a regulatory structure in place nor any restrictions on the flow of trade.

SE Asia is a critical market for U.S. agricultural exports including products derived from modern biotechnology and genetic engineering. As a region, SE Asia ranks fifth in total value of U.S. agricultural product exports. Approximately 40 percent of U.S. export value to SE Asia is biotechnology derived: soybeans, cotton, feed, soybean meal, coarse grains, vegetable oil and soybean oil. In CY2007, the U.S. exported \$680 million dollars in soybeans to SE Asia, ranking fifth in the world in dollar value of exports to a region.

China

China's regulatory process for biotechnology products, including future biotech event approvals and other issues could potentially impede access to China's markets. U.S. biotechnology trade interests in China center on soybeans, cotton, corn, and processed products. The Chinese market has grown significantly in the past several years. China is the world's largest importer of soybeans and cotton, and the largest U.S. market for both commodities. China's imports of U.S. soybeans were valued at over \$4 billion in 2007 and cotton imports valued at \$1.5 billion, most of which were produced through biotechnology. These represented over one third of total U.S. soybean exports and almost one half of U.S. cotton exports in that year. Longer term, China will increasingly be a competitor to U.S. farm products that have been enhanced through biotechnology. This is especially true for products like cotton and horticultural crops.

The Chinese approach to agricultural biotechnology is a tangled web of technical progress, real food security needs, regulatory apprehension, and potential trade-related barriers. Chinese biotechnology research programs are second only to the United States. Two thirds of the cotton planted in China is 'Bt' and up to 10 types of biotechnology rice are undergoing field trials. (See **Appendix V** for the status of biotech events in China).

Despite this investment in the technology, China has taken a cautious approach to agricultural biotechnology policy. Aspects of China's biotechnology regulations impact technology companies' ability to receive a timely review for the increasing number of products being brought to the U.S. market, including soybeans and corn. Lack of intellectual property protection also impacts this market.

The U.S.-China High-Level Biotechnology Joint Working Group (BWG) was established in July 2002 as a way to address bilateral biotechnology issues of mutual interest with the goal of securing and maintaining access for U.S. soybean exports. To supplement the policy discussions, a Technical Working Group (TWG) was established in July 2003. Because of the significant commitment made by USDA, the BWG and TWG have become the primary means by which the United States and China regularly address biotechnology issues of concern and a number of U.S. Agencies, such as the Department of State, FDA, EPA, and USTR are involved. USDA and China's Ministry of Agriculture are in the process of renewing the MOU which provided a framework for biotechnology cooperation. The renewal of the MOU should provide some impetus to biotechnology

exchange between the United States and China. U.S. priority issues for this forum include: information exchange regarding evolving regulatory systems, discussion of efficient and transparent product application and review processes, discussion of synchronous approvals and stacked event assessments, and sharing concerns over China's testing requirements. The BWG and the supporting TWG have a track record of important policy success. Continuing dialogue through this high-level forum is crucial to safeguarding the nearly \$4 billion of U.S. soybean and \$2 billion cotton exports to China as well as ensuring a transparent regulatory system in China for other farm products produced through modern agricultural biotechnology. The BWG/TWG forum paves the way for other important biotech exchange programs, such as Borlaug exchanges, and regulatory/testing training.

Western Hemisphere

Western Hemisphere countries are both competitors and markets for U.S. agricultural producers and exporters. With regard to agricultural biotechnology, a number of countries in the region share the same basic economic and environmental rationale for using transgenic crops, even if these views are not always expressed strongly in the political process. Indeed, 91 percent of the global area planted to biotechnology crops is in the Western Hemisphere.

Our strategy in the Western Hemisphere builds upon previous activities in the region and will have three main themes. The first is to maintain the collaborative structure of the North American Biotechnology Initiative (NABI). (See **Appendix III** for background information on NABI.) This includes expanding the NABI structure to other countries in Latin America, focusing on the members of the Central American Free Trade Agreement (CAFTA). The goal is to build a hemispheric coalition promoting science-based trading rules for agricultural biotechnology to maintain U.S. market access. This would then be used on the global stage to advance U.S. agricultural exports by limiting "EU-style" trading rules and promoting science-based positions in WTO standard-setting bodies. The second theme is to get other countries in the Western Hemisphere to rationally implement international agreements such as the Cartagena Protocol on Biosafety, which has a tremendous impact on the development of countries' biotechnology regulatory systems and regulations governing trade in biotechnology products. Under NABI, the United States, Canada, and Mexico entered into a "Trilateral Arrangement" on documentation requirements for the Protocol. We plan to promote this "Trilateral Arrangement" as a model throughout the hemisphere. The Third theme is to support the Inter-American Institute for Cooperation in Agriculture's (IICA) role to facilitate information sharing among the Western Hemisphere countries. We also plan to engage with Brazil on a bilateral basis to support U.S. biotechnology interests within the framework of the U.S. – Brazil Consultative Committee on Agriculture (CCA).

Activities in support of these strategic themes began in 2004 and continued in 2005 and 2006 with EMP funds. We plan to continue using EMP funds to work with the Inter-American Institute for Cooperation on Agriculture (IICA), to serve as a bridge between NABI and other Latin American countries. For example, in March 2006, an IICA organized a workshop in Fortaleza, Brazil to inform key government officials in the

Western Hemisphere regarding ongoing discussions in the Protocol on liability and redress. The specific aim of the workshop was to promote discussion in Protocol meetings on liability and redress that espouses a rational approach to the topic, one that acknowledges the value of biotechnology to agriculture and also takes into account economic, trade and agricultural factors. In May 2005, IICA hosted a meeting in Montreal, Canada prior to the Second Meeting of the Parties (MOP-2) to the Protocol. With additional support from the government of Canada and the U.S. Grains Council, IICA hosted a meeting in Brasilia in February, 2006 prior to MOP-3.

Additional funding will be required in 2007-2008 for activities that address these three strategic themes, with NABI a primary focus.

Eastern Europe

Many Eastern European countries are at decisive stages in the development of their policies (research, regulatory, and trade) related to agricultural biotechnology. Driven by intentions to accede to the EU or to the WTO, Eastern European countries are now being forced to bring clarity to their legislative and regulatory frameworks. (For more background information on Eastern Europe and biotechnology, see **Appendix IV.**)

However, as they seek clarity, there also are many pitfalls that could lead them down a path to policies: that suppress the development and use of the new technologies, that are trade-restrictive and inconsistent with WTO principles and obligations, and that lend themselves to corruption and non-transparent, non-science-based, actions. So, the path that regulatory policies take in these countries could define whether or not there is any hope for the future export of biotech-derived products to these countries.

The strategies described in our activities focus on encouraging/assisting these countries to develop sound policies for the safe and legal use and trade of biotech products. The strategies describe engaging the countries on several levels. Several of these countries actively are seeking accession to the WTO, and through our bilateral negotiations, we have a great deal of leverage to move them along on the development of their regulatory systems. Several of these countries have challenges to their agriculture that naturally lend themselves to the use of the technology in the country. In these countries, we seek to establish or strengthen relationships with researchers, breeders and farmers who understand the need for the technology and may be effective in lobbying their central government for more sound policies on the use of the technology. And several of the countries are in a situation where they already are planting and/or importing biotech products, and their legislation and regulatory systems need to be brought into line, to provide legal backing to the use of the products, rather than leading to a backlash that tries to reverse the current use of biotechnology in the country. Finally, the NTPMD seeks to leverage these proposed EMP activities with ongoing relationships and activities in these countries, through, for example, current State Department initiatives on strengthening research collaborations, through Post-generated initiatives, through industry-organized events, and through regional organizations that already are active in developing relationships with government officials, hosting key spokespeople, and addressing use and safety issues in the region.

Many of the Eastern European countries targeted in this proposal are new democracies, growing economies, and influential across their region. With their growing economies and the modernization of their food and agricultural production sectors, these countries are projected to be significant emerging markets for U.S. exports, especially for U.S.-produced commodities that utilize biotechnology. In other of these countries, a significant amount of imports of biotech products from the United States already exists, and the establishment of sound regulatory frameworks is critical for the maintenance of these markets.

Africa

Despite remarkable progress in application of agricultural biotechnology in other continents, the uptake in African countries remains very low. While many factors have contributed to the situation, lack of policies and low awareness levels remain the key challenges. Globally, many countries have adopted innovative strategies for development and awareness creation. In Africa, only a few countries, such as South Africa have comprehensive biotechnology policies and strategies which include awareness creation, resulting in informed adoption and utilization of biotechnology products.

NTPMD seeks to work with and support countries in sub-Saharan Africa showing leadership in adopting biotechnology. Currently, South Africa is the only country in the region allowing commercial planting of crop varieties improved through modern biotechnology, and just three countries (Kenya, Burkina Faso, and now Uganda) have planted small-scale field trials. Nonetheless, African policymakers are increasingly recognizing that biotechnology could boost the productivity and competitiveness of their agricultural sectors.

Through support from the Emerging Markets Program, FAS has been partnering with U.S. and African stakeholders to promote adoption of agricultural biotechnology in sub-Saharan Africa. Our activities are focusing on two key areas: (1) providing information that is scientifically accurate and appropriately designed to decision-makers and the general public - particularly targeting government, farmer organization and seed industry leaders who are in the best position to influence national policies; and (2) facilitating biotechnology delivery pathways, e.g. by promoting functioning, science-based regulatory systems, and an understanding of what it takes to move from research/field testing of biotech crops to commercial products that reach farmers and markets.

Indian Subcontinent

The Indian subcontinent, one of the world's most densely populated regions, is a tremendous untapped market for US agricultural exports. The region's politics and opinions are dominated by India, which is at a decisive point in its economic growth and its ability to address its security needs and that of the region. As India is a democracy, with approximately 60 percent of its population employed in agriculture, much of India's food security will depend on decisions made by the Government of India's (GOI) regulatory policies regarding the use of agricultural biotechnology.

For the past three years, India has been influenced by the US – Indo Agricultural Knowledge Initiative (AKI). AKI was intended to be an enabler, re-establishing the agricultural cooperation relations formed during the “Green Revolution”. At the close of AKI, its legacy becomes the foundation for strengthening the US - Indian relationship, at a time when this relationship is critical for USG regional strategic objectives. For FAS, this relationship permits influence regarding South Asian policies towards biotechnology, its acceptance and adoption – contributing to overall US objectives of ensuring security in a region critical to global stability in the 21st century. FAS support of regulatory and capacity developments by the GOI regarding biotechnology will have a multiplier affect, leading the region’s policy makers in a similar direction and opening the region to US agricultural exports.

India is the most technologically advanced country in the region. However, significant challenges remain for India to meet its food security needs. These challenges are both agronomic and political in nature. Farmers in the Indian subcontinent suffer from poor soil, crop infestations, and high fertilizer and fuel costs. Many of these challenges can be addressed with already available biotechnology, while some remain to be addressed by crops under development. While farmers in the region have shown a tremendous willingness to grow biotech crops (for example, Bt cotton), their governments have been slow to implement policies which facilitate the commercialization, use of biotech crops and/or importation of products derived from such crops.

L. RATIONALE: PERFORMANCE MEASURES

- i. Quantity of U.S. agricultural exports of (bio) technology-enhanced commodities.
- ii. Number of economies that shift public policy to adhere more closely to international TBT related standards and rules.
- iii. Number of economies that adopt and/or implement science-based (bio) technology regulatory standards and systems.
- iv. Number of countries that approve new bio-engineered events (“single” or “stacked”) for import, for commercialization.
- v. Number of countries accepting U.S. food aid containing products of modern (bio) technology.
- vi. Number of senior-level participants at (bio) technology-related forums recruited by FAS.
- vii. Number of positive statements in international forums made by representatives from economies in support of or in agreement with U.S. positions, particularly those related to the Convention for Biological Diversity (CBD) and implementing protocols such as Cartagena Protocol for Biosafety (CPB) and Convention for Sustainable Development (CSD), and Codex Committee meetings).
- viii. Number of positive votes cast in favor of new biotech products by EU member states from Eastern Europe.
- ix. Number of countries that agree to documentation requirements for the Biosafety Protocol similar to the “Trilateral Agreement”.
- x. Numbers of countries that establish science-based and transparent biotechnology regulatory systems that maintain access for U.S. exports and/or protect intellectual property.

M. RATIONALE:

The FAS (bio)technology strategy objectives are to:

- Achieve a broad and durable public appreciation of the importance of agricultural innovation through (bio)technology; and
- Foster implementation internationally of policies that (1) ensure safe use of the technology; (2) promote dispersion of its benefits, and (3) open and preserve U.S. export markets for biotechnology-derived products.

A broad consensus on biotechnology would serve as the necessary foundation for sound science-based regulatory systems, and for minimization of barriers to trade in biotechnology products. Conversely, such a consensus will be feasible only in the context of effective science-based regulatory frameworks and a clear understanding of the benefits of this technology.

An international consensus will take coherent form only when the technology is applied commercially in a sufficient number of countries, and their citizens see concrete benefits and accept the technology. As the public and governments recognize the technology's benefits, they will also likely develop an interest in ensuring sound regulation and unimpeded trade in biotechnology products. Thus, to foster that consensus, it will be necessary to promote development of the technology and work to ensure at the same time utilization of appropriate regulatory systems, particularly in those emerging markets that are agriculturally dependent.

U.S. exports of biotechnology crops, particularly corn, soybeans, and cotton, and other foods produced or processed using modern biotechnology, are ubiquitous and form the core of the \$90 billion in annual total U.S. agricultural exports.¹ Of these, close to \$37 billion, or close to 42% of total annual U.S. agricultural exports, are to emerging market countries. **(See Appendix VIII for related data.)**

Discussions and decisions made in international organizations and standard setting bodies have great impacts on international agricultural trade. Among these is the Cartagena Protocol on Biosafety (CPB), an international treaty that aims to protect the environment and biodiversity from potential risks posed by the transboundary movement of living modified organisms (LMOs). (CPB Background information is in **Appendix VI**.)

Continued technical assistance and outreach activities are needed to address these regulatory and consumer acceptance issues in order to maintain and hopefully expand market access for U.S. agricultural exports.

The FAS biotechnology strategy consists of five main thrusts: (1) coalition building; (2) global public diplomacy; (3) advancement of science-based regulations; (4) efforts to ensure adherence to existing global commitments governing trade in agricultural biotechnology products; and (5) efforts to assist global development and uptake of a wider spectrum of beneficial biotechnology-based agricultural products, particularly in Africa. This strategy utilizes technical assistance as a means to advance the USDA

¹ Over 80 percent of processed foods on grocery store shelves in the U.S. contain ingredients and oils from biotech crops, according to an industry estimate.

agricultural trade policy. This proposal directly supports the objectives in the FAS Strategic Plan 2006-2011:

- **Objective 1.3:** Build Support for open trade by developing strategic relationships with foreign governments
- **Objective 2.2:** Support the U.S. trade policy agenda through trade capacity building activities
- **Objective 3.2:** Address technical trade barriers through bilateral discussions
- **Objective 3.3:** Support development and adoption of science-based international standards
- **Objective 3.4:** Support development and adoption of science-based regulatory systems

This proposal addresses both current and potential barriers to trade in U.S. agricultural products that are enhanced through (bio)technology. Strategic U.S. engagement can have a profound influence on multinational and national regulatory and standard setting processes. This is particularly crucial before adoption of technical regulations or requirements that could block import of U.S. agricultural products enhanced through (bio)technology. A guiding principle of the activities in this proposal is the value of transparent and science-based technical approaches that acknowledge international standards, where appropriate.

This proposal includes technical assistance projects that target three areas: 1) promoting U.S. and international standards; 2) supporting WTO accessions, FTA and TIFA implementation; and 3) addressing current and potential agricultural trade barriers to products of (bio)technology.

Promoting adoption of science-based U.S. and international standards (Objectives 3.3 and 3.4). The primary objective of these EMP technical assistance projects is to encourage developing countries to adopt a transparent and science-based approach to technical standards-setting, in accordance with WTO obligations.

Technical assistance programs focus on the setting of national standards for (bio)technology, particularly the training of officials in participating developing countries on the role of international science-based standards (CODEX, IPPC, OIE, ISO) in national standards development. National standards development involves drafting of laws and regulations, scientific data gathering and risk analysis. Proposal activities will help developing countries better understand the U.S. regulatory system for food, health and environmental safety as related to (bio)technology and encourage them to accept and/or adopt U.S. standards. Other activities will promote the development and establishment of science-based international standards for (bio)technology and encourage participation by developing countries in international standards setting bodies.

Greater engagement by developing countries in international standards setting bodies is needed to ensure the adoption of science-based standards that facilitate trade in products enhanced through technology. The objective is to build coalitions that understand and support science-based positions in international fora.

Support for countries under Free Trade and Trade and Investment Agreements and WTO accessions (Objective 2.2). Exports of all U.S. agricultural products are projected to increase to countries as requirements defined in bilateral agreements are implemented.

Many trading partners, including emerging markets, are unable to meet requirements of bilateral agreements due to poorly designed or non-science based regulatory systems and ineffective policies. Oftentimes these countries have little or no experience with technical regulations, risk assessments, risk management or risk communication. Technical assistance would be provided to priority markets to assist with development of science-based regulatory systems and coherent public policies related to (bio)technology.

Address current and potential trade barriers (Objective 1.3, 2.2, 3.2, 3.3, 3.4). Globally, U.S. agricultural products enhanced through (bio)technology are facing technical barriers. Proposals are designed to mitigate these trade barriers through bilateral and multilateral discussions, development and adoption of science-based standards and regulatory systems.

N. DEMONSTRATION OF BENEFITS BEYOND THE APPLICANT:

Exports of biotechnology crops, including almost all U.S. corn, soybeans, and cotton, or foods produced or processed using modern biotechnology, are ubiquitous and form the core of the \$100 billion in annual U.S. agricultural exports. The objectives of this proposal and the activities proposed to achieve them are broad in nature and are not issue, commodity, industry, or geographically specific. While targeted toward biotechnology, most U.S. farm exports should benefit because they are so often derived through biotechnology or include biotech ingredients and therefore often face the same regulatory and consumer acceptance issues as do biotechnology crops. Specific food items most likely to benefit from this proposal are corn, soybeans, cotton, some fruits and vegetables, and processed foods. In addition, the U.S. biotechnology research, equipment, and services sector are also expected to benefit.

O. JUSTIFICATION FOR FEDERAL FUNDING:

Federal funding is needed to enable NTPMB and TSCBD to undertake these proposed activities to address regulatory and marketing barriers in emerging markets so as to maintain access for U.S. agricultural crops derived through modern biotechnology. These activities address a broad range of commodities and industries in diverse geographic regions. They are not commodity or industry specific. As part of the Foreign Agricultural Service, NTPMB and TSCBD cannot undertake these activities without federal funding. Due to the inherent government nature of many of the issues, only a U.S. Government organization can effectively undertake the proposed outreach program where benefits are gained by a broad spectrum of U.S. agricultural interests. There is no other federal funding source that specifically supports activities that promote U.S. export interests in emerging market countries as intended in this proposal.

P. SPECIFIC DESCRIPTION OF ACTIVITIES: See Appendix I.

Q. TIMELINE FOR IMPLEMENTATION OF ACTIVITIES: See Appendix I.

R. SIMILAR ACTIVITIES FUNDED BY USDA IN TARGET MARKETS:

EMP has provided support to FAS-managed biotechnology capacity building activities in prior years. With the establishment of the Biotechnology Group (now NTPMD) in the summer of 2003, efforts have been made to coordinate biotechnology outreach activities with those undertaken by private entities, other USG agencies, and overseas FAS posts to help develop synergies, avoid duplication and better ensure that U.S. Government trade and policy objectives are achieved. Activities in this proposal are based on or expand upon earlier EMP-funded activities developed to achieve USDA policy objectives.

While there are many FAS biotechnology activities supported by the Foreign Market Development (FMD), Market Access Program (MAP), FAS Post programs, none provide a global, multi-commodity outreach program as envisioned in this proposal. While there is significant MAP funding for biotechnology marketing efforts, particularly to the American Soybean Association and the U.S. Grains Council, these efforts are commodity and industry specific. Activities in this proposal address a broad range of commodities, industries, and are in diverse geographic regions. Where possible, NTPMB develops synergies and coordinates with biotechnology outreach activities funded by the U.S. government or other private or public partner to improve effectiveness and efficiencies.

All activities proposed in this proposal will be fully developed and implemented using an internal planning document entitled the “Biotech Activity Planning Sheet.” The purpose of this document is to help ensure that all EMP-funded activities have clearly stated objectives, identified constraints to be addressed, detailed description of proposed activity, delineation of implementation responsibilities, statement of biotechnology strategy and past activities in the target country/region and how proposed activity supports those past activities and strategy, implementation partners, performance measures to measure success of the activity in achieving stated objectives, detailed budgets, and individual(s) with responsibility for providing EMP with final performance and financial reports.

S. BUDGET:

Total funding request for this proposal is \$1,107,163, distributed among target markets:

APEC	\$302,724
Asia	\$208,803
Western Hemisphere	\$149,476
Eastern Europe	\$236,118
Africa	\$95,630
Indian Subcontinent	\$114,413
Total	\$1,107,163

Partners involved in the implementation of these activities are expected to contribute in-kind resources to this initiative in the form of: 1) staff time; 2) training, and 3) arranging meetings and site visits. Total contributions to this project are estimated to be valued at approximately \$110,716 or 10 percent of total project value. Detailed budgets for individual activities are included in **Appendix X**.

APPENDIX I

P. SPECIFIC DESCRIPTION OF ACTIVITIES TO BE UNDERTAKEN

APEC Region

- **APEC High Level Policy Dialogue Meeting in Singapore**

Budget: \$202,750

This will be the 8th meeting of the APEC High Level Policy Dialogue on Agricultural Biotechnology. The Policy Dialogue is chaired by the United States and managed by USDA/FAS. USDA leads a large inter-agency delegation to this yearly meeting. The agenda will be developed through the APEC Policy Dialogue Steering Committee. Funds are needed for travel costs for key participants from emerging market countries to participate in the Dialogue, make statements that showcase the importance of biotechnology to their agricultural sectors, and enable these economies to share their experiences in broadening public awareness of the safety and benefits of biotechnology. In addition, the Dialogue provides an opportunity for high-level bi-lateral meetings on the side. The 2009 Policy Dialogue meeting will take place in Singapore, on the margins of the first Senior Officials' Meeting (SOMI). Planned Date: January/February 2009.

- **APEC Workshop on Approaches and Tools to Promote Investment in Agricultural Biotechnology**

Budget: \$99,974

This is a multi-phase program to further the work of the Investment Seminar that was held in Malaysia in 2004. During the APEC Policy Dialogue in Korea, APEC countries discussed and endorsed the recommendations from the Investment Seminar, requesting the development of a 'toolbox' that economies may use as a guide when considering the development of a policy environment that will foster investment in and regulation of agricultural biotechnology. The need for this seminar was again endorsed at the 6th Policy Dialogue. At the 7th Meeting of the APEC High Level Policy Dialogue on Agricultural biotechnology, which was held February 27-28, 2008 in Lima, Peru, members endorsed the continuation of the APEC Investment Toolbox. More specifically, the Policy Dialogue supported efforts to broaden the APEC Toolbox to work on risk communication, to allow more participation by APEC economies to benefit sooner from the trade and regulatory capacity building.

Phase I of the project, which was to identify economies needs and priorities has already taken place, one in Peru, and a second in Singapore. Phase II, which are a series of multi-year bilateral interactions and exchanges that address the range of issues surrounding investment in agricultural biotechnology including, but not limited to policy, investment, risk communication, and both institutional and human capacity, has already begun. An

exchange between Chile and Australia was concluded, while exchanges between Peru and the Philippines, and Vietnam and the Philippines are scheduled for September. Multiple exchanges are being planned for 2009.

- **ASEAN Regulatory Methods of Review, Regulatory Harmonization and Product Commercialization**

Budget: \$91,994

Southeast Asia is at a critical juncture for regulatory development to address both consumption and production of agricultural biotechnology-derived commodities and food products. ASEAN has set a regulatory harmonization goal for 2015 for products derived from genetic engineering and modern agricultural biotechnology. As regulatory harmonization talks are ongoing, it will be critical to engage the ASEAN on approaches to address harmonization for products derived from genetic engineering. This activity will showcase the Philippines model for success in biotechnology regulation and commercialization to ASEAN member states and encourage replication of the model as a benchmark for ASEAN agricultural biotechnology harmonization. Planned date: January 2009.

- **U.S.-China High-Level Biotechnology Joint Working Group Meeting in China**

Budget: \$41,211

This will be the ninth meeting of the U.S.-China High-Level Biotechnology Joint Working Group (BWG), which was formalized in the USDA-China Ministry of Agriculture (MOA) MOU as a high-level policy exchange. The last meeting was held in China in March 2008. This meeting, to be held in the United States, will provide an opportunity for further discussion on synchronous approvals, the establishment of an efficient review process which includes rolling application submission and meetings of the NBC as needed, the Codex Alimentarius, Biosafety Protocol and other biotechnology policy issues with China. The meeting is anticipated to include industry more and to further address the regulation of stacked events. Planned date: Spring 2009.

- **China Legislator Outreach Program**

Budget: \$75,598

The most longstanding trade policy issue on biotechnology with China is the lack of a concurrent approval system. Despite long discussions with the Ministry of Agriculture to allow the simultaneous submission of application dossiers for new biotech events in China and a third country, the repeated response has been that the current interpretation of the law does not allow MOA to permit this type of application procedure. The State Council is the body tasked with developing laws in China, including the existing law and language regarding this issue. This program would extend the USG's outreach to

legislators and legislative staff that have influence over the legal environment surrounding the regulation of biotechnology. The first leg of the program will take this important group to a third country to show China a different example of the successful regulation of biotechnology. This trip would focus on allaying Chinese concerns regarding the role of regulators, legislative issues, role between government and privately research, food safety evaluation, the media and biotechnology adoption, and new technology adoption in the context of another Asian country. A follow-up trip for this team would be to the United States to compare the first visit to the situation in the United States. Planned Date: Winter 2008 and Summer 2009.

Western Hemisphere

- **Biotechnology Regulatory Workshop for Caribbean Decision Makers Hosted by IICA**

Budget: \$57,382

Biotechnology development in the Caribbean region is uneven. CARICOM is developing a policy and strategy for biotechnology and biosafety. However, to effectively implement a regional framework, transparent, credible and science-based information must be communicated to decision makers. Lack of common understanding and networking among Caribbean makes it difficult to promote change in policies that can promote investment in biotechnology and maintain open trade. A harmonized, transparent and science-based regulatory biotechnology framework will help attract private sector investment for biotechnology in the region. To address these issues, a workshop is planned that will target key decision makers among Caribbean countries. The workshop will focus on fundamental principles and need for transparent, science-based regulation, regulatory harmonization, trade issues, information on risk communication, identity preservation, labeling, public acceptance, and intellectual property rights and technology transfer. Course presenters will be drawn from a combination of US and regional expertise. The workshop will be organized by IICA and will be held in Barbados. Planned Date: February 2009

- **NABI Risk Communication Workshop**

Funding: \$31,398

The workshop will engage Mexican government officials and scientists on principles of and experiences with risk communication for agricultural biotechnology. Presentations will focus on basic theories of and strategies for general risk communication, public perceptions of risk, perceptions of agricultural biotechnology in the United States, Canada, and Mexico and will present case studies of biotech issues where risk communication was necessary and effective, and mechanisms in the United States and Canada for interactions between stakeholders and the government. Key messages will

focus on the pre-planning of strategies for risk communication, the importance of credibility of the communicator and the message, the importance of hearing and addressing public concerns, and the importance of identifying bases for concerns. The objective of the workshop is to facilitate the ability of Mexican biotechnology regulators to discuss biotechnology issues with the Mexican public, to improve public understanding and acceptance of the technology thereby maintaining access for U.S. biotech agricultural products. Planned Date: TBD

- **Biotechnology Short Course for CAFTA-DR Regulators Hosted by IICA**

Funding: \$60,696

Many mid-level officials in Central America, and the Dominican Republic, who have “Biotechnology” as part of their portfolio don’t have a background in biological sciences. It would be tremendously helpful for biotechnology advisors to have a basic understanding of and vocabulary to explain concepts and debunk myths to their ministers who vote in international for a, such as the Convention on Biological Diversity and CODEX, and also make decisions affecting trade. The Biotechnology Short Course for CAFTA-DR Regulators Hosted by IICA will present a general biotech overview for key representatives from the CAFTA-DR countries. Presentation items will include: principles and need for transparent, science-based regulation, CAFTA-DR regional harmonization, trade issues, information on risk communication, identity preservation, labeling, public acceptance, and intellectual property rights and technology transfer. Course presenters will be drawn from a combination of US and regional expertise. The course will be held at Zamorano University in Honduras and will be organized by IICA Planned Date: TBD.

Eastern Europe

- **U.S.-Russia Bilateral Consultative Mechanism on Biotechnology Technical Exchange Meeting in the Russian Federation**

Budget: \$42,160

This will be the second Technical Exchange meeting supporting the U.S.-Russia Bilateral Consultative Mechanism on Biotechnology, which was created to facilitate trade by addressing issues of regulatory development on agricultural biotechnology. A very successful first meeting was held in Washington in July 2008. The second meeting will be convened in the Russian Federation and will focus on the food safety risk assessment process and procedures as well as overarching biosafety regulatory procedures and obstacles to trade. Funds would be used to support the travel and meeting expenses for the USG delegation to Russia. Planned date: Summer 2009

- **International Congress of Biotechnology in Moscow sponsored by the Black Sea Biotech Association**

Budget: \$35,000

In March 2009, the Russian Biotech Industry Organization will host an international biannual symposium in Moscow on all aspects of biotechnology. The symposium will be attended by 300-600 scientists, policy makers, investors, media, and industry leaders that do business in Russia and the Black Sea Region. In 2007, USDA/FAS financially supported the first session on agricultural biotechnology to be held at this meeting. This session was organized by the Black Sea Biotech Association (BSBA). The BSBA has again been selected to organize a related session and press conference at the 2009 meeting. The objective of this year's session will be to educate the participants (policy makers, media, scientists, and general public) on the benefits, use, and safety of agricultural biotechnology. In addition, the BSBA also will host a press conference on biotechnology and a smaller symposium the following day at Moscow University for faculty and students. Fact sheets on biotechnology and CD's of the BIO symposium will also be made and distributed. FAS would like to financially support this session, in conjunction with other partners. FAS support will be used to fund speaker and venue expenses. Planned date: March 2009.

- **Biotech Policy Program at Istanbul Policy Center, Sabanci University, Turkey**

Budget: \$10,000

FAS/Ankara would work with a faculty member of Sabanci University to set up a new program at the Istanbul Policy Center focusing on the positive aspects of biotechnology. This program would act as a central information clearinghouse for information on biotechnology, showcasing scientific and economic studies and positive press reports. It would also serve to answer questions from the public about biotechnology. If the program is hosted by a University, it will have much higher credibility within Turkey than something organized by the USG alone. FAS/Ankara has already received permission from the University to set up the program and agreement from Dr. Cetinier, one of the few leading activists pushing for the acceptance of biotechnology in Turkey, to work with us. Funding will be used to support translation and printing costs, website design and updating, and a public outreach meeting to launch the new center. Additional funding will be sought from the private sector. Planned date: Spring 2009.

- **Ankara Day in conjunction with the 3rd annual Biotechnology Symposium**

Budget: \$10,132

The third annual Biotechnology Symposium takes place in Istanbul at the Sabanci University every year. Ankara Day brings together scientists from across Turkey to discuss advances in biotechnology as well as related policy issues. International experts in the field are invited as speakers and there is a large press presence. FAS/Ankara

would like to organize an “Ankara day” a few weeks after this event to bring speakers to Ankara to meet with government officials and also to host a round table lunch with press, supportive stakeholders, and members of parliament. Planed date: September 2009.

- **Printing of the ISAAA Report in Turkish**

Budget: \$2,500

FAS/Ankara has translated the annual biotech report from the International Service for the Acquisition of Agri-Biotech Applications into Turkish. FAS/Ankara would now like to turn it into a pamphlet, which could be distributed at various biotech related activities. Funding would be used to pay for the cost of printing 1,000 copies of the ISAAA report. Planned date: November 2008.

- **Polish and Lithuanian Journalists Education and Outreach on Biotechnology**

Budget: \$28,518

The number one current obstacle to acceptance of biotechnology in Poland is the unfair media environment. This activity addresses the long term misinformation broadcast about biotechnology and seeks to educate journalists about their responsibilities to report scientific information fairly. The farm and producer press are reporting accurately and with increasing interest in the technology. No program can be designed with present funding levels that can change views of the large media companies in Poland, but with recent policy breakthroughs its time to invest in the media and build coalitions for fair reporting on biotechnology. AgWarsaw recommends a two track approach – send farm and producer press to the United States and educate other Polish press in Poland with a media study program. To support journalists in the United States, AgWarsaw has well developed relations with agricultural extension services at UC Davis, Michigan State, UI Urbana-Champaign, Iowa State, Penn State, and Georgia Tech. Post would plan to send three, two-person teams of journalists to Washington DC and then to continue on to these stops. Journalists would be presented with meetings on biotechnology, biofuels, and related topics to increase the usefulness of the trip and generate more stories. Emphasis will be on biotechnology, but journalists would be encouraged to write about the United States generally. Embassy Public Affairs Section has volunteered to help organize and select candidates. AgWarsaw may use the voluntary Visitors program from the State Department to assist this effort. A high emphasis will be placed on selecting unbiased journalists not just from big cities, but from Poland’s farm belt. One journalist would travel from Lithuania. Secondly, AgWarsaw proposes to bring a science writer to Warsaw to meet with editorial boards of the major press organizations along with Public Affairs to try to bring some sense to the coverage of science. Scientists are regularly confronted with criticism from environmental groups and cannot fairly defend themselves when a journalist second guesses their comment, but not the environmental claim. Planned dates: Fall and Spring 2008/9

- **Roundtable Discussions on the EU Biotech Regulatory Process in Romania**

Budget: \$25,668

Romania is unique in that it has lengthy experience with the benefits of a biotech product. Now a part of the EU, Romania is struggling to operate within the EU regulatory framework. While the use of biotech products is somewhat constrained by the dysfunctional regulatory system of the EU, Romania now votes on regulatory decisions on biotech products in the EU. This activity will encourage relevant Romanian officials to draw on their positive experience with biotechnology and adopt a positive stance on the potential of biotech products within the EU biotechnology regulatory decision-making process. The envisioned activity will be four roundtable discussions with representatives from or people knowledgeable in the methods of biosafety commissions from other EU countries in four separate farm communities across Romania. In addition, there will be discussions with representatives from the European Food Safety Authority (EFSA) to explain how EFSA works and evaluates dossiers for new products. The key to this activity would be the linking of scientists from the EU with scientists from Romania, where consensus on the safety of biotech products often is more easily developed prior to political interventions. With a better understanding of the procedures and roles of national biosafety committees in the EU regulatory process, Romanian scientists may be more effective in advancing their hopefully positive positions. Funding would support travel, lodging, and venue expenses for four roundtable discussions in four separate locations across Romania. Planned date: Spring 2009

- **Student Essay Contest on Biotechnology, Bulgaria**

Budget: \$5,900

USDA, in partnership with the Biotech Information Center (BgBIC), would support the third annual national biotech essay contest for students. The goal of the essay contest is not only to improve public awareness among young people but also to identify weaknesses in curriculum on biology, work with teachers and schools management teams and use the results of the contest for a policy dialogue with the Bulgarian Ministry of Education. The second national biotech essay contest for students took place in February- April 2008, and was partially supported by funds from USDA. The title of the 2008 contest was "The future of GMOs in the changing world". Over 150 schools, 3 times more than in 2007, sent essays for the contest. Participation from the countryside was more active than from the capital. For the first time, small schools in distant villages took part and sent some of the best works. There was high interest to the topic among younger participants, with the youngest writer being only 12 years old. The BgBIC made an active promotion of the essay contest through media channels: internet, newspapers, research centers, municipalities, specialized journals and magazines, Universities, secondary schools. Letters, internet and phones were used for communication. The essays were evaluated by a special jury composed of researchers, representatives of the Ministry of Environment, Agriculture and Education. A special award ceremony was arranged in cooperation with Sofia University. The U.S. Ambassador presented 3 Ambassador's awards and all winners received some sort of awards to encourage further

popularization and participation. The ceremony ended with a small reception and photo opportunities for the participants. A special round table and lunch was organized by the FAS/Sofia for the BgBIC, government officials and essay winners after the ceremony. The winning school was given a tour of the Embassy compound and a meeting with the DCM. The meeting with the DCM turned into a very interesting discussion with young people about the future of the technology and its role and place in Bulgaria. Funding will support transportation for the participants, an Ambassador's lunch for the contestants, and plaques and invitations. Planned date: Spring 2009

- **Biotech Advisor for Romania and Bulgaria**

Budget: \$19,170

Romania and Bulgaria are well suited to benefit from agricultural biotechnology, as they are blessed with fertile arable land and in the case of Romania, farmers experienced in bio-engineered crop cultivation. Before joining the EU in January 2007, Romania was a major producer of bio-engineered soybeans. Currently, Bulgarian and Romanian farmers have access to biotech corn cultivation technology, but are frequently victims of misinterpretation of the law by local regulators. This activity would bring an advisor to Romania and Bulgaria to work with Government officials, researchers and scientists and farmers to clarify various aspects of the EU and Romanian and Bulgarian legislation and emphasize how the accurate/inaccurate interpretation could impact the economic and environment areas. In addition, the advisor would highlight the potential consequences one EU member can face by violating the WTO Panel recent decision which found that the EU policy towards biotechnology was in breach of the EU's obligations under the WTO Agreement (this is valid in the case the threat for a moratorium on MON 810 will be still floating). The advisor's mission would be to equip farmers' representatives with effective tools for conveying their messages to all relevant stakeholders, including media. The communication tools should also target hostile actions undertaken by anti-biotech NGO organizations through media channels. Because Romania and Bulgaria are within close proximity to one another, the advisor would be able to visit each country on the same trip. During two visits, the advisor would interact with the main stakeholders in the biotech field, as well as conduct several outreach meetings in Bucharest and Sofia and in each of the farming areas. Funding would support the travel, per diem, consultant fees and materials' expenses for one advisor to make two trips to Romania and Bulgaria. Planned dates: Two visits, Fall 2008 and Spring 2009.

- **Black Sea Biotech Association 6-Language Web Site**

Budget: \$15,200

In 2004, the Black Sea Biotech Association established a 6-language (English, Russian, Ukraine, Romanian, Bulgarian and Turkish) website (bsbanet.org) covering a wide range of biotech topics. International and regional scientists, economists, and policy makers have submitted articles, reports, editorials, regulatory updates, symposium announcements and proceedings in their native tongues to the BSAB for use on the

website. BSBA has paid for the translations of this material into the other languages and English. Updates and translations are done monthly or less frequently depending on budget constraints. This website has disseminated information for three years and has become a recognized reference location with linkages to almost all the other global websites. Funds would be used to upgrade the hardware used to maintain the website and to provide administrative maintain the site, with particular emphasis to increase linkages and publications and to monitor frequency and demographics of users. Planned date: throughout FY2009.

- **Pannonian Plant Biotechnology Association Workshop on the Use of Biotechnology for Addressing Agronomic Needs in the Greater Pannonian Region (a geographic region in Central and Eastern Europe encircled by the Carpathian Mountains)**

Budget: \$17,300

There is a strong need for safer food production in the Pannonian region of eastern Europe. This statement is especially true because of the high food, feed and bioenergy crop production potential. The objective of the Pannonian Plant Biotechnology Association (PPBA) is to disseminate new biotechnology results and to establish a coordination in genetic resources development with the following aims. With the spreading of corn rootworm (*Diabrotica* spp.) in Europe, disease resistance has become linked to feed and food quantity and quality because it will increase yield safety. There is major concern among producers and consumers that global climatic change may result in uncertain regional consequences for agricultural production. Therefore, there is a need for coordinated efforts to develop pathogen-resistant and abiotic-stress tolerant germplasm suitable for the Pannonian region. To reach this aim, the Pannonian Plant Biotechnology Association would like to focus efforts on the development of biotechnology tools and innovation in this field exploiting international cooperation. This goal of this three-day workshop would be to identify and discuss the role of biotechnology in satisfying present and future production needs for agriculture in the greater Pannonian regions. Participants will introduce results and identify potential tools in plant breeding and biotechnology to improve the knowledge of common traits for food and feed in agricultural crops. Funding will support the travel, lodging, and expenses for 12 participants from EMP-eligible countries. Planned date: May 2009

- **Pannonian Plant Biotechnology Association Farmer to Farmer Visit to Romania**

Budget: \$24,570

With the spreading of corn rootworm (*Diabrotica* spp.) across Europe, disease resistance has become linked to feed and food quantity and quality because it will increase yield safety. In the Pannonian region, extreme conditions occur more frequently, like very warm or unusually dry seasons. This means all the unfavourable climatic effects are possible in greater Pannonia. The Pannonian region need biotech solutions to increase

food/feed and bioenergy crop production stability. The country of Romania intensively embraces biotechnology. Recent decisions by the Romanian Biosafety Committee to support MON 810 planting suggests significant area growth of corn protected against European corn borer in 2009. Therefore the science-oriented Romanian approval processes will make Romania an important production and research center in biotechnology. For this reason, the PPBA would like to take a group of farmers from the Pannonian region to the visit various farms and experimental sites in Romania with the goal of learning about the practical benefits biotechnology provides. Funding would support the travel, hotel, and related expenses for a 3 day program for 30 farmers from EMP-eligible countries. Planned date: September 2009.

Africa

- **Advanced Biotechnology Training for Southern Africa Officials**

Budget: \$32,000

Although Madagascar and Mozambique are not large markets for agricultural biotechnology derived products, their role in the region of Southern Africa and acceptance of the technology will prove important in addressing the misconceptions surrounding the technology. A greater acceptance of biotechnology requires a competent national authority and scientific community that can make science-based decisions to harness the benefits of biotechnology while minimizing any potential risks. As follow-up to the FY08 group biotechnology training in both countries, this activity will bring four strategically-placed officials, two each from Madagascar and Mozambique, to participate in a Michigan State University short-course, to understand the importance of a transparent and non-restrictive trade regime for genetically-engineered food and feed products. Planned Date: September, 2009.

- **Biotechnology Orientation Program for Nigerian Officials**

Budget: \$63,630

Nigeria is a key country that the USG is targeting for active engagement with the medium term goal of establishing models for agbiotech trade and development. The proposed orientation program is for seven key lawmakers and regulators selected by FAS/Lagos. In 2007, the Nigerian Biosafety Committee submitted a draft biosafety bill to the Minister of Environment. If the bill were enforced once passed, it would likely affect exports of U.S. food products to Nigeria. Furthermore, at a recent meeting of the Economic Community of West African States to develop a regional action plan, Nigeria objected to the signing a memorandum of understanding for a common approach to biosafety. However, with transgenic insect-resistant cotton soon to go into commercial production in nearby Burkina Faso, Nigerian cotton growers have indicated strong interest in conducting field trials, and Nigerian scientists are currently assessing genetic diversity in the major domestic crops. Agricultural products that may contain biotech ingredients such as soybeans, soybean meal, soybean oil and processed food are freely imported from

the U.S., EU, Brazil and Argentina. In fact, rice and soybean meal are commodities that have been monetized under USDA food aid programs in the past few years.

The orientation program will highlight the benefits of modern biotechnology, and how products derived from agricultural biotechnology are considered in the U.S. food safety regulatory system. A contractor will be selected to customize a tour of the United States; specific activities will include:

1. Field Visits to observe biotech crops in production as well as field testing;
2. Visits/orientation meetings with key biotech company (ies);
3. Meetings with USDA officials on biotechnology and regulation procedures.

Planned Date: Spring 2009.

India

- **Bio-Nano: The War on Hunger Summit, Hosted by ASSOCHAM**
Budget: \$9,716

Supporting workshops and conferences will promote the common goals of increasing agriculture trade between the United States and India, and create an environment of sustainable growth in this sector. Presentations by invited speakers and/or FAS-NTPMD scientific advisors will provide positive reviews of the cumulative experiences in the use of transgenic crops, and address concerns about the environmental effects of changing farming practices associated with some transgenic crops and the benefits to the adoption of modern technologies being developed for use in agriculture. In each of these workshops/conference the objective remains – facilitate an open dialogue on issues surrounding the adoption of advanced technology with the Indian public, to improve public understanding and acceptance of the technology thereby increasing access for U.S. biotech agricultural products. Background information on Nano-biotechnology is included in **Appendix VII**. Planned Date: October 29-November 1, 2008

- **Agri-Bio Business Conference Co-hosted by FICCI and FAS**
Budget: \$15,360

The GOI has already requested through FAS/New Delhi for US speakers, company participation and FAS/NTPMD presence as a formal member of the conference.

Indian scientists are typically trained in the United States and enjoy close relations with US researchers. The existing connection provided a venue for open collaboration and dialogue between US and Indian biotechnology researchers. Some of the collaborations established under AKI are working to develop biotech crops that will address some of the environmental challenges (e.g. frequent draughts and high soil salinity) faced in the region. In addition, academics are widely respected in Asia and will international backing, their expertise may form the backbone of a regional effort to adequately, and rapidly address the region's security challenges. Planned Date: January/February 2009.

- **Targeting Regulatory Capacity Building Efforts toward the New Food Safety and Standards Authority**

Budget: \$49,337

India does not currently have a clear procedure for the regulation/approval of processed food imports that contain GM ingredients, although it is likely that such products are already present in Indian markets. The new Food Safety and Standards Authority (FSSA) has authority for the safety assessment of GM foods but it has not outlined how it would regulate such foods, and there may be an overlap in mandate between the FSSA, the ICMR (?), and the proposed NBRA that needs to be resolved. Furthermore, there is a risk that the FSSA may adopt a system requiring that each new food item containing GM ingredients be assessed for safety rather than just the transgenic events themselves. It is likely that the courts will force the FSSA to establish itself soon, which means that regulations on the import and sale of processed GM foods may be developed and enforced in the near future. Technical support and guidance to the FSSA and other agencies that may share the mandate for processed GM foods would facilitate the establishment of a science-based and efficient regulatory process.

AgBios will be contracted to develop a guidance document outlining options for how the GOI could choose to regulate the import and sale of processed foods containing GM ingredients and perform the necessary outreach activity with Indian officials to encourage adoption of a science based food safety standards document. The guidance document will include: (1) Highlight examples from other countries/regulatory bodies that conduct safety assessments of GM foods or events that are not intended for environmental release in those countries, (2) Identify any advantages or disadvantages that might present themselves if the above systems were adapted to the Indian context, (3) Provide one or more specific options for how the FSSA could regulate GM foods to maximize safety and efficiency while minimizing trade disruption, (4) Identify any conflicts in mandate between the FSSA and other regulatory bodies and provide suggestions on how these could be resolved. Planned Date: June 2009.

- **Environmental Biosafety and Food Safety Capacity Building**

Budget \$40,000

The government of Sri Lanka has developed a National Biosafety Framework which is yet to be implemented. Technical assistance is needed for developing implementation guidelines and procedures so that biotechnology products can be field tested and commercialized in Sri Lanka. Planned Date: Fall 2009.

APPENDIX II

BACKGROUND INFORMATION ON APEC BIOTECHNOLOGY ENGAGEMENT

In 2001, after several years of negotiation, the Asia Pacific Economic Cooperation (APEC) called for the establishment of a High Level Policy Dialogue on Agricultural Biotechnology to be chaired by the United States. The purpose of the Policy Dialogue is for APEC's 21-member economies to exchange information and achieve consensus on the importance of biotechnology to agricultural productivity, the environment, and food security. The APEC Policy Dialogue has been pivotal in enabling FAS to advance agricultural biotechnology within APEC.

The seventh Policy Dialogue was held in February 2008 in Lima, Peru. Through these Policy Dialogue meetings, senior APEC policy makers have affirmed their support for biotechnology development and have begun to use the Policy Dialogue as a means to address common challenges, including developing transparent, science-based regulatory frameworks, facilitating technology transfer, encouraging investment and presenting programs to strengthen public confidence regarding biotechnology. In September 2007 and in January 2008, two workshops were held on Liability and Redress as it relates to the Cartagena Protocol on Biosafety (CPB), in Vietnam and Japan, respectively. Also, in October 2007, a communication workshop was held in Peru that focused on addressing the public challenge with respect to agricultural biotechnology. An important output from this workshop was the development of a "*best practices*" guide that is intended to provide information on ways to study public perception.

Also, under the APEC forum, in November 2007 and in January 2008, two Needs Assessment Workshops were conducted by Singapore Company Asia BioBusiness Pte. Ltd., in Peru and Singapore, respectively. The aim of these workshops was to identify current bottlenecks in the commercialization of agricultural biotechnology in APEC member economies at the policy development, regulatory, and infrastructural levels. As a result, delegations from Peru and Chile visited the Philippines and Australia respectively, and other exchanges are being planned for Indonesia, Korea, Malaysia and Vietnam.

In recent years, the Policy Dialogue has moved beyond its designation by the APEC Secretariat as not only the "premiere dialogue in APEC to discuss agricultural biotechnology", it has effectively taken advantage of its high-level status to influence leadership in APEC and in other regional/international bodies regarding the role for biotechnology in agriculture. This new leadership was most evident this year in Bonn, when APEC economies gathered together to provide one voice on the issue of Liability and Redress under the CPB. Moreover, at last year's HLPDAB meeting in Peru, the APEC economies agreed to collaborate on a plan to harmonize regulations in the APEC region that seek to reduce the disparities that exist regarding policy and regulatory frameworks among APEC economies.

APPENDIX III

BACKGROUND INFORMATION ON NABI ENGAGEMENT

Since its inception in 2002, the North America Biotech Initiative (NABI) has emerged as a success story on agricultural biotechnology, one of cooperation and coordination as it fostered closer, more positive working relations between the three member countries – Mexico, Canada and the United States, particularly given that Mexico is a Party to the Protocol. NABI serves as a forum for the exchange of ideas and information, and for address of issues related to the regulation of and trade in bioengineered products. NABI sessions focus on broad themes such as: scientific research exchanges; biodiversity; coordination on biotech-related policy issues; training and capacity building; encouragement of private sector interactions; harmonization of regulatory approaches for agricultural biotechnology products; collaboration with international organizations; and development of biotechnology and biosafety safeguards in the Americas.

Previous EMP-supported activities under the NABI were instrumental in Mexico's passage in early 2005 of comprehensive biosafety legislation that is favorable to U.S. trade interests. Communications between U.S. and constant work with the Mexican government, facilitated by NABI, helped preserve U.S. coarse grain and soybean exports to Mexico, valued at close to \$2.3 billion annually, were instrumental in facilitating the recent approval in Mexico of two genetically engineered rice events (that inadvertently entered the U.S. commercial rice supply in 2006 in very small quantities) thereby maintaining U.S. rice exports to Mexico, the largest U.S. rice market, and had a positive effect on overall U.S. agricultural exports to Mexico, which were valued at almost \$11 billion in 2006.

The United States seeks to continue using the NABI framework to maintain and secure U.S. export markets in Canada and Mexico. Just as important will be the work the NABI undertakes in the coming year to tackle complex issues such as adventitious presence and imports of transgenic crops. The NABI forum is a unique, closed forum for the frank exchange of ideas and positions on these important issues. Given the effectiveness of our NABI sessions, the United States has encouraged Mexico to broaden its participation and cooperation in the NABI process by inviting other governmental agencies involved in the health, safety and environmental review of biotechnological events.

APPENDIX IV

BACKGROUND INFORMATION ON EASTERN EUROPE AND BIOTECHNOLOGY

Countries such as Russia, Ukraine and Kazakhstan are all actively pursuing accession to the WTO, and monitoring the status of each other's progress. For biotech issues, this translates into movement on establishing regulatory policies and frameworks consistent with WTO principles and obligations. Including both core and implementing legislation, multiple, complex policy questions and unresolved policy issues need resolution for the trade and use of biotech products to become a reality. Continued and consistent policy discussions are necessary to ensure that trade-friendly policies get enshrined in new legislation. And technical outreach that supports policy discussions is critical to ensure that the implementation of policies also is pragmatic and realistic for the trade and use biotech products.

Countries such as Bulgaria and Romania are grappling with the current use of biotech crops by farmers in the face of legislative restrictions imposed by their recent accession to the EU. Romania is in the unique situation of having farmers already very familiar with and relying on the technology, which accounted for their rapid increase in the country's production of soybeans. In the face of this dilemma, outreach to farmers and accessibility to the latest information on biotechnology will help to reaffirm among politicians the importance of the technology for the self-interest of these countries. With the important U.S. seed trade to these countries and the need for alternative positions to the EU's entrenched stance on biotech that has lead to trade restrictive measures around the world, the positions taken by these countries are important to ensure trade-friendly policies are put in place.

The Pannonia Region includes countries uniquely and historically bound by similar agricultural challenges, production methods, and mechanisms for knowledge exchange. From Serbia up through Hungary to the Czech Republic, the region specializes in corn production and was a major supplier of corn and seeds for the Eastern Bloc. Serbia in particular was a leader for seed production and plant breeding in the former Eastern Bloc. This history enabled a network of plant breeders and research institutes to be established to exchange current techniques for agricultural production. This same network is now organizing to promote biotechnology in the face of often entrenched political positions against the technology. FAS/NTPMB has long felt that the best strategies for promoting the trade of biotechnology products worldwide includes building up acceptance and motivation at a grass roots level, among end-users of the products such as plant breeders and farmers. And FAS has a history of outreach on biotechnology in Serbia, the legacy of which serves as a good foundation for further engagement.

Finally, throughout the region, leaders and farmers are slowly realizing the benefit of biotechnology for local agriculture. This interest should be encouraged by informational and policy exchange programs with the United States, to empower them to envision the use of the technology in their locales and to provide testimony to the need for the

technology for the benefit to the country. In Russia and Turkey in particular, locales already have been identified by Posts as areas where the technology could address needs and challenges and where the local governing environments are amenable to the use of the technology.

With science-based biotechnology regulatory systems in place, countries are more likely to have trade policies that are more consistent with international trade rules, maintain open access for U.S. agricultural exports, and support internal development of the technology. The countries of the Black Sea and Pannonia Region, notably Russia, Ukraine, Turkey, and Serbia, are at decisive points in the development of their biotechnology regulatory systems, with each country deciding internally the type of regulatory system it wants to adopt and/or its level of acceptance of biotechnology as a tool for agricultural production. Countries like Bulgaria and Romania are also in a unique position as new EU members, and in the case of Romania, formerly a significant user of the technology. Targeted now, these countries may be able to help shift the anti-biotech position often taken by EU member states.

The focus of our strategy in the Black Sea Region is to continue to provide support to countries and organizations developing science-based biotechnology policies; to curb the expansion of overly restrictive and trade-restricting biotechnology regulatory policies in non-EU countries; and to develop strong European allies with common interests and shared beliefs (in international fora such as Cartagena Protocol, Codex, FAO, IPPC, OIE and OECD). Our activities target Russia, Ukraine, the Pannonia region and continued support for the Black Sea Biotech Network.

Over the past year, NTPMB has pursued fact-finding activities, established key contacts in governments, and participated in high-level policy discussions as part of the WTO accession process with the countries of the region to help the United States better understand current thinking and underlying motives. Our strategy in the region builds upon these successful engagements, and will focus on the adoption of a transparent, science-based approach to regulating biotechnology. Through these activities, we hope to influence the development of science-based regulatory systems in these countries and throughout the region to be consistent with international agreements, support the technology, and open to U.S. exports.

For Russia, two major strategies are envisioned, which ultimately seek to create a market receptive to U.S. imports of biotech seed, grains, and processed products. One is to maintain the leverage and momentum attained with the Government of Russia through the WTO accession process through direct government-to-government engagement. This strategy involves the establishment and maintenance of bilateral high-level policy and technical dialogues with relevant authorities as biosafety legislation is drafted and a regulatory framework for biotechnology is implemented in Russia. The second strategy involves fostering the use of biotechnology in Russia through a grass-roots program focused on local officials and farmers in regions where the use of biotech products could benefit Russian agriculture, and in turn, encourage the import of biotech products. The mechanism for this strategy would be through informational exchange programs as well as through follow-up mechanisms such as a distance-learning program to provide the

latest information on the safety, uses, and benefits of biotech products.

Turkey is a major importer of biotech products from the United States, specifically corn, cotton, soybeans, and their products. Turkey is developing legislation to regulate their import and use of biotechnology. The proposed draft legislation is very restrictive and could disrupt trade if approved in its current form. There is currently limited public debate on agricultural biotechnology in Turkey and there are few proponents of the technology. Much of the public, including most scientists and policy makers, are seriously misinformed about the topic. Turkey is very focused on joining the European Union, and therefore, is taking its lead on biotech from the EU. Within Turkey, there is widespread misunderstanding of EU restrictions on biotech and great fear about losing access to the EU market.

APPENDIX V

BACKGROUND INFORMATION ON SOYBEAN BIOTECH EVENTS AND APPROVALS IN CHINA

Over the last 10 years, China's soybean consumption has more than tripled, estimated to be 47 million metric tons in Market Year 2006/07. Domestic production, however, increased only 10 percent, constrained by limited natural resources—especially land—and low yields. Rapid growth in demand for soybeans and soy products has far outstripped China's domestic production. Rising incomes, urbanization, and population growth have fueled demand for soybean oil and soymeal.

China's imports have grown by more than 900 percent in the last 10 years 2008/09. Today, China is the world's largest soybean importer, accounting for over 40 percent of global trade with imports forecast at 35.5 million metric tons in MY2008/09. In CY 2007, China was the largest export market for U.S. soybeans with trade valued at over \$4 billion.

Despite its heavy reliance on imported biotech soybeans, China's policies on biotechnology pose numerous issues and potential obstacles to future U.S. trade. Chief among them is an asynchronous approval process, where China requires complete regulatory approval for a product in the exporting country before it can apply for approval in China. Given the fact that China requires verification tests on environment and food safety, which involve field trials and animal feeding studies, the entire approval process may take up to 2 years. This means there could be a two-year delay between commercialization of new products in the United States and bringing them to the Chinese market. Given these issues, China's regulatory system may not be able to respond in a timely and efficient manner to introductions of new products in the United States and elsewhere, thus risk major commercial disruptions. Currently, there are more than a dozen new soybean and corn applications awaiting action by MOA. In addition, there are three new soybean products expected to become commercialized in the United States in 2009. If China continues to reject synchronous approvals, the delay would not only prevent trade of the new U.S. products, but also potentially disrupt trade of approved products due to adventitious presence and commingling issues.

MOA requires a safety certificate for importing approved biotech products, and it is subject to review after 5 years. In addition, import permits are needed for each shipment. This is illustrative of the volatility of China's market, where technical barriers could be used to disrupt trade. Soybean shipments could be interrupted by the denial of import permits or the revoking of the safety certificate. The lack of guidelines in the country's regulations regarding stacked events could also lead to trade disruptions.

Despite these concerns, China's dependence on soybean imports is an irreversible trend. In the long term, it is in the best interest of both China and the United States that China address its cumbersome biotech policies to better deal with the challenges of new technologies and to facilitate continued and uninterrupted trade.

APPENDIX VI

BACKGROUND INFORMATION ON THE CARTAGENA PROTOCOL ON BIOSAFETY

The Cartagena Protocol on Biosafety (CPB), a supplementary agreement negotiated under the Convention on Biological Diversity, was adopted on 29 January 2000 and entered into force September 11, 2003. Although the USG supports the Protocol's principles of the protecting and sustaining biodiversity, the United States is not a Party to the Cartagena Protocol and has no obligations under it.

The CPB, currently with 147 Parties, is an international treaty that aims to protect the environment and biodiversity from potential risks posed by the transboundary movement of living modified organisms (LMOs). At the same time, it creates a serious threat to U.S. trade in bulk agricultural commodities, the delivery of U.S. food aid, and scientific research on LMOs.

The Protocol is at the crossroads of three important ministries--environment, agriculture, and trade. Primarily importing/developing countries speaking through their environmental ministries negotiated the CPB.

Proponents of the Protocol favor biodiversity and dismiss trade and agricultural issues as insignificant while major exporting nations like the United States that are equally concerned about biodiversity are left in a vulnerable trading situation. As a result, the CPB remains vague and open to broad interpretation, leaving developing countries (and especially parties to the Protocol) with the option of taking trade restrictive actions that could result in significant disruptions for both commercial and food aid shipments of LMOs, planting of biotech crops, and advancing research and development efforts in biotechnology. Of most immediate concern to the US are trade-restrictive interpretations that could be taken concerning the multi-billion dollar industry in oil seed, grain, and cotton products.

The most important topics discussed within the CPB to date have included: 1) documentation requirements for the transboundary movement of LMOs, and 2) the issue of Liability and Redress (L&R). The United States has advocated that "may contain" documentation requirements for LMOs (as compared to "does contain" requirements where specific LMOs must be identified in transboundary shipments) are consistent with the CPB and the least disruptive to trade. On the issue of L&R, the United States has maintained that existing legal regimes at the national level can adequately address any allegations of damage to biological diversity associated with LMOs; more onerous legal regimes could restrict research activities and impede trade. To date, in part due to educational and outreach programs conducted by the United States prior to important CPB meetings and interventions made by the United States and its allies, decisions taken within the CPB have been unduly restrictive. The next major topic to be considered under the CPB for a decision in 2010 pertains to biotechnology risk assessment and risk management, documentation and labeling, and enforcement.

APPENDIX VII

BACKGROUND INFORMATION ON NANO-BIOTECHNOLOGY IN AGRICULTURE

Nanotechnology in general and nano-biotechnology in particular may be the first emerging area of science and technology that presents realistic opportunities for developing countries to develop, and engage in cutting – edge innovations. This is especially true in countries that are increasingly adopting more sophisticated national science and technology policies as part of their economic development strategies. Nano-biotechnology use in production agricultural holds the promise of significantly increasing developing countries' agricultural commodity production capacity in ways that generates less pollution from fertilizers and/or pesticides, utilizes the land more efficiently, reduces labor requirements/costs and material requirements. Specifically, nano-biotechnology applications are expected to improve agricultural productivity by increasing crop yields, decreasing crop losses and post-harvest losses, increasing the acreage available for farming, reducing energy and water demands, and improving the effectiveness of fertilizers pest control and other inputs. These technologies can also potentially enable the use of land previously unsuitable for agricultural production and create opportunities for new value-added products, such as functional foods, based on agricultural commodities.

Through their Departments of Science and Technology, Brazil, China, India, and South Africa have often made significant investments in nano-biotechnology research, and have developed national nanotechnology strategies. For instance by 2007, China has invested over \$230m, Brazil has invested over \$25m, India has invested over \$22.8m, and South Africa (a relative late comer to the field) has invested \$28m in the past two years alone. Each of these countries has seen growing numbers of public and private investments in research, infrastructure, and human resources. Many other emerging market countries are also taking a proactive approach. For instance, Thailand has developed a national nanotechnology roadmap and Malaysia has six existing research centers engaging in nanotechnology research. In 2003, at least six groups were working on nanotechnology in the Philippines.

Nationally Funded Nanotechnology Programs: Argentina, Armenia, Brazil, Chile, Costa Rice, Egypt, Georgia, India, Iran, Mexico, Malaysia, Philippines, Serbia & Montenegro, S Africa, Thailand, Turkey, Uruguay and Vietnam

Significant Research Programs: Bangladesh, Botswana, Columbia, Croatia, Cuba, Indonesia, Jordan, Kazakhstan, Moldova, Pakistan, Uzbekistan, Venezuela

Although advances in nanotechnology may bring benefits to society, many people also raise concerns about potential environmental safety and human health risks of nanoscale materials (e.g. agricultural pesticides, herbicides, food packaging materials). Several fundamental aspects of nanoscale materials are causing concern that these particles could be harmful to people or the environment resulting from their use in production agriculture

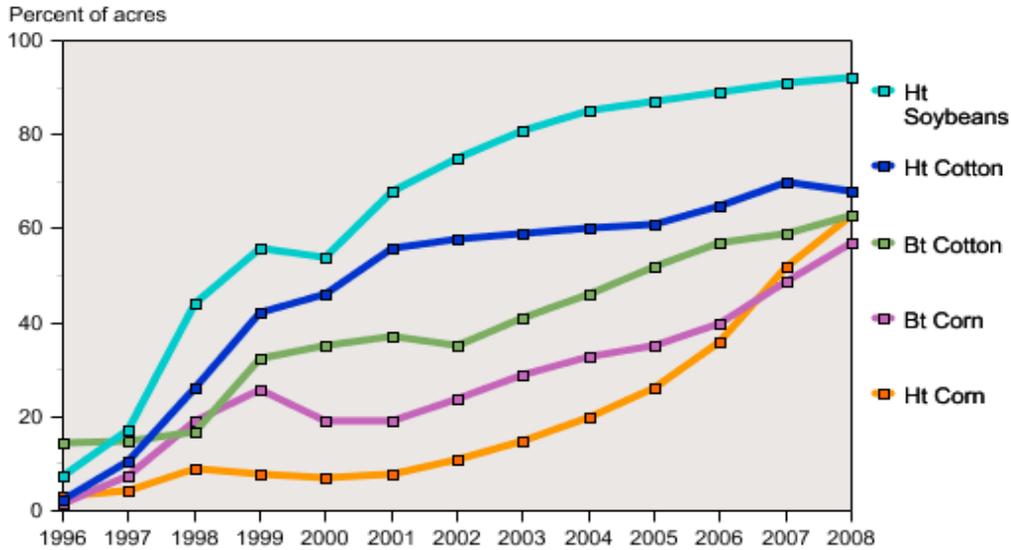
and/or commodity processing. Despite a growing body of scientific literature, many uncertainties about nanoparticle risks remain unanswered. In the meantime, the development of applications of nano-biotechnology is continuing to progress rapidly, and new applications are being commercialized on a daily basis. In light of this combination of factors, international organizations (e.g. OECD and ISO) and having discussions about the future of nano-enabled applications – without input from emerging market countries. Based on the guidance documents from OECD, or standards developed in ISO, governments may be asked to set risk research plans for nano-biotechnology. In addition to the need for additional risk research, there are significant debates (within OECD) on the need for nanotechnology specific regulations.

Several initiatives are exploring risk governance frameworks that would create comprehensive systems for risk assessment and management of nanotechnology. Uncertainty about nanotechnology's potential impacts and regulatory uncertainty could impede the estimated \$2.6 trillion in nanotechnology-based manufactured goods expected on the global market by 2014. Since these discussions are happening in venues that specifically exclude emerging market countries, it is very likely there will be regional differences in regulatory regimes for nanotechnology (e.g. process or product determined) and these differences may create barriers for international trade in products containing nanoscale materials, came in contact with nanoscale materials or were developed with nano-enabled agricultural production methods.

APPENDIX VIII

**BACKGROUND INFORMATION ON
THE PREVALENCE OF CROPS PRODUCED BY MODERN AGRICULTURAL
(BIO)TECHNOLOGIES IN THE UNITED STATES**

Rapid growth in adoption of genetically engineered crops continues in the U.S.



Data for each crop category include varieties with both HT and Bt (stacked) traits.
Source: 1996-1999 data are from Fernandez-Cornejo and McBride (2002). Data for 2000-08 are available in tables 1-3.

BIOTECH PRODUCTION: PERCENTAGE U.S. CORN, SOYBEAN AND COTTON PRODUCTION (%)						
Commodity	2003	2004	2005	2006	2007	2008
Soybeans	81	85	87	89	91	92
Cotton	73	76	79	83	87	86
Corn	40	47	52	61	73	80

Data Source: U.S. Department of Agriculture/NASS. June, 2008

UNITED STATES DEPARTMENT OF AGRICULTURE FOREIGN AGRICULTURAL SERVICE BICO EXPORT COMMODITY AGGREGATIONS: U.S. AGRICULTURAL EXPORTS ALL COUNTRIES					
January – December Values in 1000 Dollars					
Commodity	2003	2004	2005	2006	2007
Soybeans	7,959,922	6,667,516	6,273,643	6,935,556	10,004,300
Cotton	3,376,469	4,251,073	3,929,420	4,514,432	4,589,153
Coarse Grains	5,147,400	6,611,157	5,316,094	6,808,162	9,793,805
Total Agricultural Products	59,392,299	61,426,075	63,181,702	70,948,334	89,907,481

Data Source: Department of Commerce, U.S. Census Bureau, Foreign Trade Data

UNITED STATES DEPARTMENT OF AGRICULTURE FOREIGN AGRICULTURAL SERVICE BICO EXPORT COMMODITY AGGREGATIONS: US. AGRICULTURAL EXPORTS EMERGING MARKET COUNTRIES					
January – December Values in 1000 Dollars					
Commodity	2003	2004	2005	2006	2007
Soybeans	5,407,930	4,325,054	4,426,068	4,774,828	7,161,561
Cotton	2,763,235	3,575,270	3,384,939	4,018,738	3,939,116
Coarse Grains	1,923,500	2,599,386	2,048,130	3,297,674	4,272,186
Total Agricultural Products	23,889,652	24,636,033	25,527,721	29,941,285	37,370,710
Emerging Market Total as % Total US Exports	40.2	40.1	40.4	42.2	41.6

Data Source: Department of Commerce, U.S. Census Bureau, Foreign Trade Data

APPENDIX IX

QUALIFICATIONS OF APPLICANTS:

OSTA's New Technologies and Production Methods Division (NTPMD) will be the lead entity and provide scientifically-based guidance to stakeholders on the benefits of modern and emerging agricultural technologies for FAS. While NTPMD's mandate has been broadened to include new technologies such as cloning and nano-technology, its principal focus still lies with agricultural biotechnology as U.S. exports of biotechnology crops, particularly corn, soybeans, and cotton, and other foods produced or processed using modern biotechnology, are ubiquitous and form the core of the \$90 billion in annual total U.S. agricultural exports. Since its initial establishment as the Biotechnology Group in the summer of 2003, NTPMD has successfully centralized FAS biotechnology policy analysis and has helped coordinate biotechnology outreach with those undertaken by private entities and associations, other U.S. Government agencies, and overseas FAS posts to develop and coordinate strategies, build upon synergies, avoid duplication and better ensure the achievement of U.S. Government trade and policy objectives.

OCBD's Trade and Science Capacity Building Division (TSCBD) will help plan, develop and administer several of the technical assistance activities described in this proposal. TSCBD is responsible for coordination and delivery of international technical assistance, public policy outreach, and scientific exchange and cooperation programs in FAS. In addition, NTPMD will work in association with an array of other government and private sector organizations as described below.

Other FAS Participation: While NTPMD has the lead in FAS for (bio)technology policy and in the formulation of this proposal, other FAS offices are playing a substantive role in ensuring that capacity building and policy activities are consistent with overall FAS trade policy and marketing objectives. FAS Overseas Offices are providing current information on relevant country-specific issues and assist with activity development and implementation as needed. The Office of Country and Regional Affairs (OCRA) is providing strategic leadership and focused analysis of key countries and regions of the world to advance consistent and mutually reinforcing strategies for U.S. agriculture, trade policy, foreign policy and national security interests. The Office of Negotiations and Agreements (ONA) is assisting in development of trade policy and strategy for international trade negotiations and monitor of trade agreement compliance. The Office of Global Analysis (OGA) is focusing on cross-cutting analysis to support USDA's trade agenda and is developing and maintaining USDA's agricultural production, supply and demand data. The Office of Trade Programs (OTP), among other responsibilities, administers the Foreign Market Development, Market Access Program and other marketing programs with FAS cooperator groups.

Other Partnerships: NTPMD enlists the cooperation and support of a broad range of U.S. agricultural interests who have established leadership in agricultural biotechnology, both within the U.S. Government, as well as with private organizations. NTPMD does this to ensure that proposed activities are consistent, sustainable and support a broad range of U.S. agricultural trade interests.

- a. NTPMD works closely with U.S. Government regulatory agencies, particularly USDA’s Animal and Plant Health Inspection Service (APHIS)/Biotechnology Regulatory Services (BRS), the Food and Drug Administration (FDA), and the Environmental Protection Agency (EPA);
- b. NTPMD coordinates closely with USDA’s Grain Inspection and Packers Stockyards Administration and Agricultural Research Service, the U.S. Agency for International Development, the Department of State and the Office of the U.S. Trade Representative. This collaboration ensures a common U.S. strategy in address of (bio)technology policy issues.
- c. NTPMD works closely with FAS cooperators, commodity trade associations, and related farm associations to ensure trade issues affecting U.S. agriculture are appropriately defined and strategies developed to open or maintain markets for U.S. agricultural products are implementable;
- d. Other private sector partners that contribute to the proposed activities include, but are not limited to: the Agricultural Biotechnology Planning Committee, the International Food Information Council, CropLife International, and the Biotechnology Industry Organization.

Regional Grand Totals and EMP Proposal Total	
Grand Total: APEC	\$302,724
Subtotal for SE Asia	\$91,994
Subtotal: China	\$116,809
Grand Total: Asia	\$208,803
Grand Total: Western Hemisphere	\$149,476
Grand Total: Eastern Europe	\$236,118
Grand Total: Africa	\$95,630
Grand Total Indian Subcontinent	\$114,413
FY09 EMP Total Request	\$1,107,163