International Agriculture
College of Agriculture
Purdue University
White Paper
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Introduction

It is in the nature of American Agriculture to be international. Most of the major crops grown in the United States came to us from beyond our borders, including wheat from the Middle East, soybeans from China, and maize from Mexico. Likewise, many of the swarm of pests and diseases of our native and imported crops are international. You can hear it in the names we give them, like European corn borer, Russian wheat aphid, and Hessian fly. The blight that devastated our vast American chestnut forests across the eastern U.S. during the early part of the last century came from China. Furthermore many of the markets for our farm products lie beyond our borders. It is already this way today, but there are untold millions of would-be new customers for our commodities and value-added agricultural products in places like China, India and maybe even, someday, Africa. If we are not out engaged and vigilant for new opportunities and threats, then we shall be forced to watch others take advantage of the opportunities, and be caught by surprise by the threats.

Agriculture is indeed international from the very bedrock on which it is built. It takes no great leap to realize that, for the College of Agriculture (COA) to be successful in its mission, we must of necessity have a robust worldwide engagement. Such engagement enables us to learn about technological innovations in agriculture early on, and to be among the early adopters and strengthen our competitive position. It helps us understand foreign markets and how to maximize benefits. It broadens and deepens our faculty knowledge and understanding thanks to their international experiences. It helps our students prepare for their careers, and be prepared through study abroad experiences. By appreciating foreign cultures and languages, new opportunities open up for them. The future is undoubtedly going to be more international than the past. For the good of our Indiana economy, our students, and our young people, agriculture must be engaged internationally more than ever. Agricultural science knows no borders.

International Programs in Agriculture (IPIA) is the administrative unit responsible for international agriculture at Purdue University. The COA has been a leader within Purdue regarding international programs, and intends to continue leading those efforts in the future. The COA is well positioned to outline goals in its new strategic plan that will be consistent with Purdue’s overall strategic plan, which has the following major goals in the area of globalization: 1) Develop a global mindset, 2) Transform our global missions in learning, discovery, and engagement, and 3) Enhance our global presence. The COA has long had a global mindset, has been a leader within the University for study abroad programs for students, and has had a history of faculty involvement in productive research and extension programs all over the world.

This White Paper lays out the state of international agriculture at Purdue University as of early 2009. It reviews the strengths, weaknesses, challenges and opportunities and summarizes where we are, and where, in context of the broader University we wish to be. It lays out specific goals, and benchmarks for measuring progress.
Where Are We Now?

The strengths of international agriculture at Purdue have many focal points. We have extensive experience in sub-Saharan Africa, where we have dealt with issues ranging from agronomy and plant breeding and pest control of African crops like cowpea and sorghum, to estimating the impact of biotechnologies now being developed and deployed in Africa. Our study abroad program has reached its earlier goal of giving a significant international experience to more than 25 percent of our students. Purdue Agriculture’s accomplishments in international programming have been recognized by numerous awards over time, highlighted most recently by Dr. Phil Nelson receiving the World Food prize.

The working group used different sources of information to identify the past and current situation with respect to international agriculture activities at Purdue University. In Appendix I the activities that were administered through International Programs in Agriculture (IPIA) are documented. The working group specifically considered the fact that the activities that are administered through IPIA do not represent all of the international activities in the COA as there are important programs being carried out in individual departments by individual faculty. It was beyond the scope of this project, given the time and resources available, to document all of those activities so a decision was made to report those activities through IPIA. Working group members interviewed a variety of stakeholders representing current and former Purdue faculty and staff, former students and colleagues. The results of those interviews are summarized in Appendix II of this White Paper.

What Does the Future Hold?

To provide a framework for exploring what the future holds for international activities in the College of Agriculture the political, economic, social and technological (PEST) realities facing international activities in Purdue Agriculture were examined and are reported below. Next, the strengths (S) and weaknesses (W) related to international activities in the College of Agriculture are highlighted followed by the external opportunities (O) and threats (T). These are presented in the following sub-sections considering first the PEST analysis followed by the SWOT analysis.

Political
Some global political dynamics that must be watched include uncertain political environments in certain regions of the world, political changes in Latin American and the emergence of China as a military and economic power and India as an economic power. Political realities in the U.S. affecting us at Purdue include improvement in student visa processing by the federal government, yet delays for key partner countries like India and China. There is great difficulty in our ability to work with sanctioned countries. Immigration as a political issue in American national politics has a negative impact on our relations with countries such as Mexico and nations of Central America. However, there is increasing awareness in the U.S. of how valuable it is to have international interactions and perspective. There is desire in the State of Indiana for more international trade, and more interest in foreign languages. Purdue is strongly encouraging students to incorporate a study abroad experience in their program of study, and Purdue’s new strategic plan has a great emphasis on globalization. In the future, foundations and private philanthropy will likely focus on Sub-Saharan Africa and Central Asia with areas of South Asia and a few countries in the Americas
(e.g. Haiti). Decisions concerning where U.S. foreign assistance is targeted will be important for Purdue Agriculture and its international programming efforts.

**Economic**
Economic realities in the U.S. include economic recession, weak trade and a weak U.S. dollar. Future employers of our students increasingly value significant global/international experience prior to graduation. However, with the increasing cost of higher education, more students must work to help pay for schooling, perhaps leaving less time for international experiences. Rising costs of international flights and the weak U.S. dollar make study abroad experiences expensive for students. One result is that students are currently opting for shorter study abroad experiences such as Spring Break trips. While short-term courses are important for making study abroad a possibility for a wide variety of students, administrators of study abroad programs worry that students don’t get the same immersion experience as found in semester-long programs.

Foreign travel for Purdue faculty working in international agriculture is also more expensive. These faculty members must increasingly rely on international grant dollars or foundations for funds, rather than the U.S. government. Foreign governments are increasingly making investments in research and development and in education, resulting in more universities outside the U.S. being attractive for higher education. The middle class in much of the world, but especially in Asia, has increased wealth so they are more able to send their children overseas for study and American universities need to compete with a wide range of international institutions for these students.

**Social**
The world population continues to climb. Diseases of people are increasingly mobile, largely because of migration and the popularity of international tourism. Migration of people around the world continues to be large, due to economics, politics, and war. Global climate change will accelerate migration of people. In the U.S., including Indiana, immigration from Mexico is significant. Worldwide, the number of international students is increasing, as is the number of students doing study abroad. The perception of the U.S. by international students and scholars is often less than favorable. Currently, the social fabric of the U.S. is greatly impacted by the U.S. war effort.

**Technological**
Increasingly, we rely on the internet and similar information technologies. While there is no substitute for face-to-face communication, electronic methods of communication such as video conferencing may be increasingly used as travel becomes more expensive. Our use of these technologies extends to the recruitment and admission of students, and the sharing of coursework between universities. These technologies have also helped make language less of a barrier to communication. More courses are available in English, which makes them available to a wider group of students. In terms of building insight into other cultures, learning the language continues to be very important. Research in U.S. universities is increasingly supported by international investment and is more collaborative and international. The intellectual property from such joint research is shared internationally.
Strengths
Strengths at Purdue relevant to international agriculture include strong administrative support for international efforts, dedicated staff in international agriculture offices, and a supportive environment for international students. Purdue is a highly regarded comprehensive institution with a strong engineering and technology thrust. It has excellent professional schools, and the recent development of the Global Engineering Programs provides opportunities for synergies and joint projects. With respect to the COA, the international component has evolved to a dominant presence. Over 25% of undergraduates are studying abroad, and Purdue involvement in programs such as the Organization of Tropical Studies allow for an overseas experience for graduate students. For faculty there is an expectation of international involvement as part of the P&T process. There has been and promises to be substantial external funding for international research and engagement in developing countries. Purdue has a strong reputation in West Africa and for commercial producers in Latin America. COA departments have developed healthy working relationships and support for international research institutions such as CATIE in Costa Rica and other Latin American nations.

Weaknesses
Purdue University as a whole is highly decentralized, and the units are at various stages with regard to internationalization and making that a priority in their strategic plans. The institutional mission is not closely connected to the university’s goals in internationalization. There is general ambiguity and ambivalence about joint programs with institutions in other countries. There are no common procedures or metrics for promotion and tenure at Purdue to recognize international efforts. While the number and percentage of students doing study abroad programs at Purdue have been increasing, there is certainly room to grow this percentage. Most students do short-term programs rather than semester or year-long programs and Anglophone experiences dominate. Limited language skills of faculty and students limit opportunities for international programs.

Within the COA a key weakness relates to the lack of an effective voice for international research and engagement at the university level which makes collaboration across colleges and schools difficult. Large multidisciplinary projects present significant challenges, especially with respect to providing the appropriate recognition for individual faculty members and departments. It can be difficult to structure large projects, which take faculty out of their departments for extended periods, so that the individuals and their departments receive the appropriate recognition and monetary compensation. This is particularly a problem with the increase in the number of multidisciplinary projects. Another challenge exists with respect to streamlining the business office activities associated with international work. The number of business office staff managing international projects is the same as five years ago, in spite of a substantial increase in the level of international programming. Risk management associated with international travel is creating another challenge for faculty in the Purdue COA. The current policy at Purdue puts all of the onus on the faculty member to prove that any proposed activity is safe if it is in a US State Department travel warnings country. While IPIA assists faculty in preparing the risk management plans and provides orientation for travelers, there are economies of scale that could be experienced if the University International Programs office provided more services. Finally, there is institutional knowledge within the COA concerning international programs that is not being used to the greatest extent possible. Given that many projects are initiated by individual faculty it can easily happen that individual faculty in their own departments move forward with a project proposal and
implementation without the benefit of the knowledge and experience of other faculty and departments who may have worked with the corresponding agency or program. Opportunities exist for better coordination to aid all aspects of programs from logistics to content.

**Opportunities**

We are fortunate that numerous international institutions desire to link with Purdue. China, India, and Korea and other regions of the world are primed for recruitment of students, development of alumni relations, and joint research opportunities. Alumni abroad can be utilized to help provide our current students with internships abroad. More service learning programs abroad can be designed and implemented, to the benefit of our students. Grants and contracts obtained from foreign governments and companies can be increased to help support programs in our various mission areas. An international seminar series sponsored by IPIA would help increase our global awareness, and events co-sponsored with other colleges are ideal.

**Threats**

The world is quickly globalizing financially, technologically, and socially, thus requiring us to make evolutionary changes, or we will become extinct. Other institutions, domestic and international, are internationalizing more quickly than Purdue, thus limiting our partnership opportunities. Other English-speaking countries, such as the United Kingdom, New Zealand, and Australia, are competing with the U.S. for international students to obtain degrees or do short-term study abroad programs. Some students in the U.S., and their parents, feel they are at risk doing study abroad programs in other countries because of terrorist events. The weak U.S. dollar makes it expensive for U.S. students to do study abroad programs and the current economic global downturn reduces the ability of Purdue students to afford the time and expense of travel.

**Proposed Goals for International Agriculture**

The following goals for International Agriculture are presented in sections. In each section one or more goals are identified. For each goal the appropriate metric to measure progress towards the goal is also identified.

**International Experience for Students**

- Increase the percentage of undergraduate COA students participating in a study abroad experience to 33%
  - Metric: % of undergraduate students participating in a study abroad experience.
  - Impact: Purdue COA undergraduate students will have a broader appreciation for the global environment we live in, a characteristic that will help them be competitive with recruiters as they look for the first jobs and the broader perspective will help them as they advance in their careers.
- Increase the average length of time that students spend abroad when on a study abroad experience. While the short term (e.g. Spring Break) experiences are useful for the students it is recognized that longer term experiences allow students to more fully understand and appreciate the different cultures and experiences and a specific goal in this area is necessary.
  - Metric: Average number of weeks that each student spends participating in a study abroad experience.
- **Impact:** Purdue COA undergraduate students will have a broader appreciation for the global environment we live in, a characteristic that will help them be competitive with recruiters as they look for the first jobs and the broader perspective will help them as they advance in their careers.

- Increase the funding available for Purdue student scholarships or other funds targeted to support study abroad programs. This could possibly be achieved by having endowments set up and funded for this purpose.
  - **Metric:** $ of funding to support study abroad programs.
  - **Impact:** More students will be able to participate in study-abroad experiences, and especially in the longer-term experiences since the financial cost of being gone for the longer period of time is often a deterrent for students.

- 10% of graduate students in Purdue COA will obtain international professional experience during their time at Purdue. This could take the form of international research, study trips, professional meetings etc.
  - **Metric:** Percentage of graduate students obtaining international professional experience.
  - **Impact:** Purdue COA graduate students will have a broader appreciation for the global environment we live in, a characteristic that will help them be competitive with recruiters as they look for the first jobs and the broader perspective will help them as they advance in their careers.

- Increase the number of international students from other countries studying and working short-term in Purdue COA. It is noted that there are two types of students who study in Purdue COA. Some of the students come for one or two semesters as part of an agreement with a university in another country where their students come to Purdue and Purdue COA students travel and study there for one or two semesters. Those students do not receive a Purdue degree. The second type of students are ones that do earn a Purdue degree. Currently there are a number of students from Chinese Agricultural College that fall into this category. Both of these types of students are important for the international activities in the COA.
  - **Metric:** Number of international students from other countries studying and working short-term in Purdue Agriculture.
  - **Impact:** Purdue faculty and students will have greater insight and understanding of the complexities of the global environment as a result of interacting with the international students. The international students will return to their own countries and become long-term partners for Purdue faculty, staff and students.

- Increase the funding available for international graduate students to obtain professional experience while studying in Purdue COA. Often professional experiences are considered to involve presentations at professional meetings, which is very important. Other types of professional experiences could include participating in Purdue programming and in that way interacting with representatives from farms and agribusinesses in the US and/or assisting in the delivery of Purdue Extension programs to obtain teaching experience as well as the opportunity to interact with agribusiness representatives.
  - **Metric:** $ of funding to support travel for professional experience by international graduate students and number of international graduate students completing such professional experience.
Impact: Purdue graduate students will be more competitive in the market for jobs upon graduation as a result of the professional experience. Purdue COA will benefit from professional connections that are established as a result of the participation in these professional experiences.

Extension
- Double the number of Extension Educators that are participating in an international Extension experience in the next 5 years.
  - Metric: Number of Extension Educators participating in an international Extension experience.
  - Impact: Purdue Extension Educators will have a broader understanding of the global environment and incorporate this broader perspective into their Purdue programming.
- Every department will lead one major Extension international activity per year that is educational in nature (including both programs for US citizens in other countries and international citizens coming to the US)
  - Metric: Number of Extension international programs per year by department.
  - Impact: Faculty, staff and students who participate in these programs will have an increased awareness of the global environment. The citizens of Indiana who engage in these programs, either by travelling abroad or interacting with foreign visitors will also share this increased awareness of the global environment.

Research
- Increase external funding for international research
  - Metric: $ for international research.
  - Impact: Research activity in Purdue COA, related to international work, will increase along with an increased ability to support graduate students. The long term impacts of the research attributed to Purdue COA will help foster and maintain the strong reputation of Purdue COA worldwide.
- Broaden the sources of funding for international research
  - Metric: Number of sources of funding and categories of funding sources.
  - Impact: Funding for International research in Purdue COA will increase as a result of broadening the sources of funding. Research activity in Purdue COA related to international work, will increase along with an increased ability to support graduate students. The long term impacts of the research attributed to Purdue COA will help foster and maintain the strong reputation of Purdue COA worldwide.
- Take advantage of opportunities for large multidisciplinary international programs
  - Metric: Number and $ value of multidisciplinary international programs.
  - Impact: Funding for International research in Purdue COA will increase as a result of broadening the sources of funding. Research activity in Purdue COA related to international work, will increase along with an increased ability to support graduate students. The long term impacts of the research attributed to Purdue COA will help foster and maintain the strong reputation of Purdue COA worldwide.
- Take leadership in research-focused international conferences, programs and workshops
  - Metric: Number of conferences, programs and workshops that Purdue COA had significant leadership role.
Impact: There will be increased recognition of the number and types of international programs that are underway in Purdue COA.

- Embrace more international programs that integrate research and Extension. These should be programs that promote scholarly activities and, as a result of the extension focus, show impact
  - Metric: Number and $ value of international programs that integrate research and Extension.
  - Impact: Funding to support integrative research and Extension programs in international agriculture at Purdue will increase along with an increased ability to support graduate students. The long term impacts of the research and outreach attributed to Purdue COA will help foster and maintain the strong reputation of Purdue COA worldwide.

**COA Administration**

- All COA administrators need to participate in international activity and show support of international programs, in part by recognizing and rewarding faculty for contributing to meeting the goals outlined above
  - Metric: Number of international activities COA administrators participated in. Degree to which faculty are recognized for contributing to goals related to International Agriculture in tenure and promotion process and annual reviews.
  - Impact: The importance of the value of international activities in Purdue COA is elevated, which encourages all faculty, but especially Assistant Professors, to actively engage in international activities.

- Increase the availability of significant seed monies to fund new potential international collaborations.
  - Metric: Number and $ value of projects funded with seed monies.
  - Impact: The projects funded by the seed monies lay the groundwork for successful funding proposals from external sources.

**Awards**

- Increase the number of international awards coming to Purdue and Purdue faculty in the COA.
  - Metric: Number of awards and ranking of organization giving the awards.
  - Impact: There is increased recognition of the value of the international programming in Purdue COA.

**Key Investment Areas**

To achieve the goals identified above, the following investments will be necessary:

**Dollars:**

- Increased resources to work with faculty to develop and deliver study abroad programs, and to work to recruit students to participate in study abroad programs
- Increased resources to establish endowments and scholarships to support the study abroad programs
- Increased resources to develop Extension programming related to international agriculture, at the level of the County Educators and by department on campus
• Significant seed monies for new potential research and/or Extension international programs

**Time:**
• Faculty time to develop and submit grant proposals for external funding for international research, including multidisciplinary international programs.
• COA administrators deliberately engaging in and supporting international activities in agriculture
• Faculty time to develop and submit nominations for international awards
Appendix 1: Five Year Trends in IPIA

In this appendix information is presented about international activities in agriculture at Purdue University that were coordinated through International Programs in Agriculture (IPIA). It is noted that there were activities initiated and implemented by individual faculty and at the departmental level that do not show up as IPIA activities. Given the decentralized nature of these other activities it was only possible to collect the data on the activities through IPIA.

IPIA was founded in 1962 with the mission “to promote and facilitate international activities in the College of Agriculture.” Highlights of IPIA activities for the past five years are presented in this section.

Research and Extension

Figures 1 and 2 reflect external funding for international programs through IPIA. External funding for international programs administered through specific departments in the COA is not included in these numbers. In general, international programs funded through IPIA are those of a multidisciplinary nature. Purdue COA had long-term involvement in several of the Collaborative Research Support Programs (CRSP) funded by USAID – including Bean/Cowpea, International Sorghum and Millet (INTSORMIL), Integrated Pest Management (IPM), Peanut, and Sustainable Agriculture and Natural Resource Management (SANREM). As noted in Figure 2 the termination of the Bean/Cowpea CRSP and the movement of much of the management of the funding of INTSORMIL to the University of Nebraska in 2007 led to the decrease in expenditures in that year. The increase in expenditures in 2008 is reflective of the Purdue Improved Cowpea Storage (PICS) and the Advancing Afghan Agriculture Alliance (A4) program expenditures.

Figure 1: Funding Awarded for International Projects through IPIA
International travel is another indicator of the extent and level of international activity in the COA. Figures 3 and 4 report international travel by faculty, staff and graduate assistants.
Efforts to strengthen the international dimension of the Extension mission in Agriculture at Purdue University have increased over the past 5 years. In the 2002-2003 year a graduate assistantship to work on the internationalization of Extension was awarded along with the appointment of a Multiculturalism and International Extension Coordinating Committee. In the following year a full-time position was created. The International Extension Program Coordinator was responsible for initiating new opportunities to enhance the ability of Extension educators to provide improved service to immigrant residents in Indiana; identify and initiate opportunities to better position Indiana farmers and businesses to compete in the global marketplace in cooperation with Indiana state government and provide international travel opportunities and resources for Extension educators to build experience in creating internationally-focused programming. The results of efforts in this area are reported in Table 1. One of the challenges has been turn-over of staff. The first person in this role left Purdue University after three years and the second person was also only with Purdue for a short time, leaving due to family reasons.

Table 1: International Extension Activities

<table>
<thead>
<tr>
<th>Year</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-2004</td>
<td>• 7 Extension Educators participated in International Extension assignments in Russia, Moldova, Uganda, Nicaragua, El Salvador</td>
</tr>
<tr>
<td>2005-2006</td>
<td>• 3 Extension Educators participated in International Extension assignments in El Salvador, Russia, Uganda and Belarus</td>
</tr>
<tr>
<td></td>
<td>• Indiana Master Gardeners and other horticulture enthusiasts participated in England and its Gardens travel program (26 participants)</td>
</tr>
</tbody>
</table>
2006-2007

- 3 Extension Educators participated in International Extension assignments in the Ukraine
- Indiana Master Gardeners and other horticulture enthusiasts participated in England and its Gardens travel program (18 participants)
- Cultural Competence and Global Competitiveness – ten-day research program linking Purdue graduate students, Extension educators, and Indiana high school agriculture and science teachers to Indiana agribusinesses interested in exploring the Costa Rican market. (10 Participants)

2007-2008

- 2 Extension Educators participated in International Extension assignments in South Africa and China
- Indiana Master Gardeners and other horticulture enthusiasts participated in England and its Gardens travel program (18 participants)
- The Culture of Mexico Educational Experience - 9 Purdue staff members and other Indiana government officials participated in this ten-day study tour
- Cultural Competence and Global Competitiveness – ten-day research program linking Purdue graduate students, Extension educators, and Indiana high school agriculture and science teachers to Indiana agribusinesses interested in exploring the Costa Rican market. (10 Participants)

2008-2009

- Indiana Master Gardeners and other horticulture enthusiasts participated in The Gardens of France travel program (nearly 30 participants)
- Italy for Wine Professionals led 15 members of Indiana’s wine industry on a nine-day study tour

Academic Programs/Study Abroad

Purdue Agriculture has long recognized the importance of international exposure and experience for its undergraduate students and as part of that incorporated international understanding as a component of the core curriculum and strongly encouraged undergraduate students to participate in a study abroad experience. Since the 2002-2003 academic year, the percentage of COA’s undergraduates who have participated in a study abroad program prior to graduation is the highest percentage of all colleges or schools at Purdue University.

Table 2: Study Abroad Activity in Purdue COA

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of COA Students Participating in Academic Overseas Experience</th>
<th>Percentage of Purdue COA Undergraduates who Participated in a Study Abroad Program Prior to Graduation</th>
<th>Percentage of Purdue COA Undergraduates who Participated in a Study Abroad Program (relative to total number of undergraduates)</th>
<th>Countries Where Purdue COA Undergraduates Studied/Traveled</th>
<th>No. COA Faculty/Staff Leading Courses</th>
</tr>
</thead>
</table>

13
<table>
<thead>
<tr>
<th>Period</th>
<th>Count</th>
<th>Growth Rate</th>
<th>Inflation Rate</th>
<th>Countries</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002-2003</td>
<td>148</td>
<td>15.40%</td>
<td>6.1%</td>
<td>Germany, Sweden, Australia, Costa Rica, Mexico, New Zealand, United Kingdom, Austria, France, Greece, Ireland, Honduras, China, Italy, Japan, Spain</td>
<td>7</td>
</tr>
<tr>
<td>2003-2004</td>
<td>180</td>
<td>19.80%</td>
<td>7.45%</td>
<td>Australia, New Zealand, Sweden, United Kingdom, Ireland, Netherlands, France, Brazil, Honduras, Italy, Japan, Poland, Spain</td>
<td>16</td>
</tr>
<tr>
<td>2004-2005</td>
<td>165</td>
<td>23.67%</td>
<td>6.98%</td>
<td>Australia, Greece, Italy, Mexico, Sweden, United Kingdom, Austria, Czech Republic, Germany, Ireland, New Zealand, Brazil, China, Honduras, Hungary, Spain</td>
<td>16</td>
</tr>
<tr>
<td>2005-2006</td>
<td>148</td>
<td>23.15%</td>
<td>5.94%</td>
<td>Australia, Canada, Ireland, Sweden, Brazil, Costa Rica, Ethiopia, Mexico, United Kingdom, China, Italy, France, Honduras, Jamaica, Russia, Trinidad/Tobago</td>
<td>15</td>
</tr>
<tr>
<td>2006-2007</td>
<td>242</td>
<td>25.05%</td>
<td>7.81</td>
<td>Australia, Brazil, Argentina, Canada, China, Denmark, Indonesia, Kenya, New Zealand, Niger, Spain, Sweden, Mexico, Ireland, France, South Africa, Belgium, Costa Rica,</td>
<td>22</td>
</tr>
<tr>
<td>Year</td>
<td>Students</td>
<td>Percentage</td>
<td>Countries</td>
<td>Faculty</td>
<td></td>
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<td>------------</td>
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<td></td>
</tr>
<tr>
<td>2007-2008</td>
<td>149</td>
<td>25%</td>
<td>Australia, Canada, China, Greece, Kenya, Mali, Mexico, Netherlands, Spain, Sweden, Switzerland, Honduras, Italy, Romania, Argentina, Azerbaijan, Ecuador, Egypt, France, Jamaica, Kenya, Korea, United Kingdom, Malawi, Trinidad//Tobago, Vietnam, India, Austria, Germany, Spain, Chile, New Zealand</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>2008-2009</td>
<td>190 (estimated)</td>
<td></td>
<td>Australia, Costa Rica, Japan, New Zealand, Germany, Spain, Sweden, Austria, United Kingdom, Ireland, Honduras, Guatemala, Poland, Jordan, Jamaica, Italy, India, France, Ecuador, China, Brazil</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

The number of students studying abroad depends on the portfolio of courses and the faculty involved. To keep faculty, who successfully lead courses, interested and engaged, IPIA recommends conducting a particular course every other year. The longer term programs which are successful are those in which other universities also send their students (e.g., PURPAN, France, and Zamorano. Honduras). Student funding, in the form of scholarships from Purdue COA.
departments is also important to the success of the study abroad program. Funding has varied from department to department and year to year depending upon need and available resources.

**Appendix II: Stakeholder Survey**

**What have been the most impactful ways international agriculture has changed for the COA over the past five years?**

Over the past five years in the COA, more students and faculty have been involved in study abroad programs, thus providing meaningful connections to global/international issues. Also, more faculty members have been involved in short term programs/courses, and there is increased recognition of the importance of international experiences/involvement. Faculty have sought more funding linked to international involvement, and built more collaborative relationships with other universities. Engagement has expanded to involve and include new parts of the world. There has also been an increase in the diversity of the engagement projects involving Purdue COA. Work related to discovery or research has changed as funding sources have moved from primarily government sources to include foundations and industry. This has led to a broadening of the research scope. The breadth of activity in international agriculture has increased with a new emphasis on the Near East and Far East as well as emphasis on biofuels and non-traditional areas.

**What are the key driving forces and emerging issues external to the college that will impact how we implement our mission area of international agriculture?**

Numerous driving forces and issues external to Purdue University impact our plans for, and activities in, international agriculture. These can be categorized as relating to the economy and funding, politics, global problems linked to agriculture, companies, and education/educational institutions.

Work in international agriculture at Purdue is driven by the availability of funding. For many individuals involved in international agriculture humanitarianism is a driving force, but without funding they are unable to do much. As we are faced with a global recession, funding for international agriculture efforts are even less certain. In recent times, funding from USAID has fallen, and more funding available from foundations/NGOs. The recession will likely further reduce government funding of efforts in international agriculture, and increase the reliance on other sources. There is at least a perception that funds are increasingly difficult to access for international agriculture programs.

Political realities, agreements, regulations, and restrictions help determine which countries we can work with and how effective we are. A favorable perception of the U.S. is critical to effectively work in other countries on agricultural programs. The perception of the U.S. in numerous countries has suffered in recent years. Also, the U.S. has restrictions on travel to and from certain countries, preventing or limiting activities for Purdue personnel in international agriculture. Involvement of the U.S. in free trade agreements affects our efforts in international agriculture. Regarding other countries, immigration (i.e., to other countries, or from rural areas to large cities within a country), determined by political or economic realities, affect which countries we focus our efforts in international agriculture and the nature of our efforts.
Perhaps never before have we been faced with so many global problems that are linked to agriculture. This creates new opportunities and challenges within international agriculture. Recent discussions about the worldwide food crisis has raised awareness associated with the challenges of cost and availability of food; the impact of biofuels on food supply; concern regarding consumer acceptance of GMOs; demand for organics and food safety. Increasing populations lead to increasing demands for agricultural products. The issue of using human or animal food for fuel is relevant worldwide. Other global agriculture problems, such as climate change, water resources, new pests, and invasive plant species, point to a need for increased collaborative efforts in international agriculture. As these global problems are being dealt with worldwide, there is increasing concern by all countries on questions of ownership of germplasm and natural resources as well as issues of property rights.

Increasingly companies of all sizes are affected by global issues, so they must have a global perspective. These companies are major employers of our students, and highly value students who have had an exposure to other cultures through study abroad programs such as those offered through Purdue’s IPIA. Some of these companies have research and development centers around the world and many companies outsource work to expand their intellectual capacity. This increasing global perspective of companies extends to individuals - - persons who work in those companies and persons who work in other jobs. This extends to citizens of the state of Indiana, and to parents of our students in the COA. While parents are concerned about the safety of their children during study abroad programs, they are very supportive of having their children take advantage of these opportunities, because of the various benefits including the favorable view by prospective employers.

Previously the U.S. enjoyed the reputation of being one of the only and best places for higher education. However, now many other countries have very strong educational institutions. Students from a number of other countries (e.g., China, India, etc.) no longer feel they need to come to the U.S. for higher education. The intellectual capacity has increased in many countries, and they have outstanding educational institutions. This means that those of us in the U.S. working in international agriculture now have many strong international partners with whom to work, creating equal partnerships. However, the increase in strong educational institutions in other countries may affect the quality and diversity of students within the COA. The limited linguistic capacity of most Americans, and U.S. faculty and students in particular is a challenge. Most Americans are unilingual and this creates a problem when it comes to working with students from abroad in the U.S. or for American students traveling abroad. In addition, as the capacity of institutions in these other countries to engage in international work has improved they have become competition for funding for this work, placing pressure on our programs.

Funding agencies seem to be putting a greater emphasis on the final impact of the programs and are measuring that impact in a very short time frame. It was also noted that some university administrators are in turn evaluating faculty performance using a short term time frame. This makes it very difficult, if not impossible, to effectively carry out projects that have a long term time horizon where the impact can only truly be measured 15 or 20 years later. Funding agencies are also putting increased emphasis on multidisciplinary projects, which can be problematic for
individual faculty if administrators are looking for credit to return to their own department or unit. In many cases the structure of the systems has not changed to reflect the new conditions.

One critical constraint to international travel is the challenge of getting visas. It is getting increasingly difficult for foreigners to get a visa to travel to the U.S. as well as for Americans to get visas to travel abroad.

**What are the key driving forces/Issues internal to the college that will impact how we implement our mission area of international agriculture?**

Some factors at Purdue, particularly with the COA, are encouraging and supportive of international agriculture efforts, while others hinder these efforts. A major factor encouraging international agriculture at Purdue is support by the administration. A clear mission and vision for international programs within the COA will further increase the support from the administration at all levels. Strong leadership and prioritization based on that vision will be helpful in achieving our mission in international agriculture. Other factors encouraging international agriculture include the diversity of our faculty and students, willingness on the part of our faculty and students to participate in international programs, and faculty willingness to work in interdisciplinary teams. Interdisciplinary groups working together internationally (within and between countries), rather than individual competing, will make the programs more effective and efficient. We also can improve our sharing of knowledge with one another, both within and across disciplines, so knowledge/technology developed for one country can be better transferred/adapted to other countries. While many feel that the COA administration is supportive of international programs there is some feeling that limitations exist in this area. Uncertainties with respect to how international work is weighted in review of personnel and in particular in the tenure and promotion process. In addition, many faculty are already overcommitted and while they have aspirations to engage in international work they simply do not have time.

Certain other internal factors are improving but need further improvement to really help facilitate international agriculture programs, include streamlining business office procedures, and arrangements for credit hour transfers for students studying abroad. Factors that hinder international agriculture efforts include limited funding, the need to cover the salaries of faculty (9-month) during such programs, and limited housing for international visitors. Also, there are limited opportunities for graduate students at Purdue to participate in study abroad programs. A final challenge internally is some limitation in infrastructure and facilities at Purdue, making it difficult to attract top international collaborators.