

Global Encounter-Brazil: Making a Difference

Environment, Technology, and People

Individual Written Responses to Questions Related to the Topic

Procedure used to generate this document:

This document represents the summary of responses individuals wrote to questions related to their self-selected area of interest/expertise within six topic areas (Bio-economy and Development; Cultural Hybridizations; Environment, Technology, and People; Global Relations; Health, Education, and Social Disparities; Institutional Planning and Support and Political Economy, Commerce). All responses received are included and are typed verbatim with some explanation of acronyms. There is no significance in the ordering of the topics or comments as presented in this report.

A. What are your *current or future focused areas of teaching, research and/or outreach* related Brazil?

1.
 - Sustainable agriculture
 - Reducing Carbon inputs
 - Increasing Carbon trapping
 - Social economic food systems
 - Reduction of rural exodus
 - Increase in local food production
 - Inter-exchange between MSU/Brazil whereby Brazilian expertise can contribute to Michigan's food and farming economy

2.
 - Development of Augmentative Communication Technology for persons who have severe communication limitations. Localization of voice-output communication aids
 - Training of educators and clinicians in the use of augmentative communication technology
 - Study of issues of appropriate technology for Portuguese and Indigenous Languages. Brazilian Portuguese and indigenous Brazilian languages are not found in commercially available communication systems for non-speaking individuals or blind persons.
 - Infrastructure including the entire delivery system for such technologies, including special sensors and switches, voice synthesizers, and appropriate seating and mounting. It also includes training of clinicians and teachers in the use of this technology and its adaptation to educational, vocational, and social situations and organizations which help to foster this technology and create public awareness for

- it. It also pertains to laws which would allow the duty-free importation of communication devices into and out of Brazil.
- Participated in the International Society for Augmentative and Alternative Communication (ISAAC) Conference in Natal, Brazil in 2004
3.
 - Collaboration in nuclear physics with San Paulo and Rio (ongoing for approximately the last 15 years, partially with NSF funding and funding from Brazilian agencies)
 - Collaboration on instructional technology with San Paulo U: Portuguese version of LON-CAPA (Learning On Line Network – Computer-Assisted Assignment System)
 - SOAR Telescope partnership with Chile and Brazil (Each partner puts in about \$6 million for operation of the telescope and partnership during next 20 years).
 4.
 - Animal Health
 - Public Health
 - Zoonotic Disease
 5.
 - Research collaborations in Animal Science
 - Student exchange (tentatively planning for student from Federal University of Vicosa to come to MSU Fall 2007)
 6.
 - Research – this is my current activity related to Brazil, mostly on environmental issues.
 - Outreach: I've worked with local communities (rubber tapers, indigenous communities) in the Brazilian Amazon on issues such as ecological-economical zoning, economical farming, deforestation, logging, and environmental monitoring.
 - Teaching- future focusing area – 2007 (likely)
 7.
 - Amazon
 - Environment
 - Policy
 - Social movements
 8.
 - The Institute for Food Laws and Regulations offers 9 (soon to be 10) distance education courses in International Food Laws. (Note: All are in English. Students from more than 70 countries have been enrolled. Guest experts come from around the world.)
 - International Food Laws (overview)
 - US Food Regulations
 - EU Food Regulations
 - Canada Food Regulations
 - Latin America Food Regulations
 - Codex Alimentarius

- OIE (animal health)
- IPPC (plants)
- Middle East (in development)
- Asia (New Fall 2007)

9.
 - In terms of research, I have an ongoing NSF project examining agrarian reform, social movement organizing/mobilizing and related impacts on the environment (land cover and land use changes).
 - I also am working on a project examining the impact both social and environmental, of large mega projects in the Brazilian Amazon.
 - In terms of teaching, my focus is thematic, not regional, focusing on issues of development and environment intersection.
10. ●Environment (mining reclamation, water treatment)
11. ●Statistics applied to plant breeding (sugarcane mainly) and plant production (agriculture in general)
12.
 - Currently none
 - In the future, I hope to advise Brazilian grad students and to host Brazilian exchange students and visiting scholars.
 - Through collaboration with MSU colleagues and Brazilian counterparts, I hope to build a field-based research program in Brazil.
13.
 - Primarily focused on research and graduate student mentoring in the area of rivers and floodplains - their ecology and how human activities impact them
 - I have sponsored two exchange visits (PhD "sandwich" programs) with a 3rd in planning.
 - I am on the organizing committee for an international conference in Brazil in 2008.
14.
 - I want to work on water issues in South America, including Brazil.
 - Currently, doing research on ecology of aquatic systems in the Amazon Basin
 - Interest in assessing the impact of large hydrological modification (e.g. dams, waterways) in aquatic systems
15.
 - Currently completing dissertation on protected areas and earned CARBON credits (compensation for avoided deforestation within protected areas) in Brazilian Amazonia
 - Hope to extend focus beyond Amazonia to the Pantanal, the world's largest wet land area, in future research.
 - Hope to have the opportunity to take students to Brazil in the future.

16. I have a long standing research collaboration with Brazilian mathematicians (15-20 years) at University of Sao Paulo and University of San Carlos, in San Paulo State. There is a strong mathematical collaboration among Brazilian and US mathematicians in my research field, several complex variables and partial differential equations. (Regular conferences every 2nd year.) My main mathematical research connection in Brazil is the director of the Mathematical Institute at Univ. of Sao Paulo.
17.
 - Food science research
 - Packaging (biodegradable packaging for food)
 - Food chemistry
 - Teaching

B. What *resources* (existing at MSU or working in collaboration with MSU) should be considered as the University moves forward on any and all work related to Brazil?

1.
 - Existing agriculture outreach programs in Brazil are excellent in the area of sustainable agriculture.
2.
 - Linkage with researchers in the field of augmentative communication technology in Brazil
 - Funding for MSU graduate student from Brazil to work on this technology (Electrical Engineering or Linguistics)
3. At MSU:
 - SOAR partnership
 - LON-CAPA collaboration
 - National Superconducting Cyclotron Laboratory (NSCL) at MSU connections to Brazilian nuclear physics community
 Outside MSU:
 - NSF international funding
 - NSF PIRE (Partnerships for International Research and Education) programs grants
4.
 - Colleges of Medicine (CHM, COM, CVM, CON)
 - College of Agriculture
5.
 - Travel assistance to help establish collaboration
 - Assistance with identifying grant funding opportunities
6.
 - Study abroad- MSU should enhance or invest more "energy" on this issue. Brazil is a large country and more opportunities for study abroad should be created.

- Partnership- MSU should go beyond south/southeast of Brazil with its partners.
 - There are many organizations (NGOs and governmental organizations) that could be partners in education, outreach and research in Brazil.
 - It is important to focus on NGOs though.
7. ****No Response****
 8.
 - Global Learning (distance education)
 - International Institute for Agriculture
 - Food Safety and Toxicology Center
 - Institute for Food Laws and Regulations personnel, programs, partnerships
 - Study Abroad Programs
 - Lifelong education programs
 9.
 - For me, financial resources to travel to Brazil and for Brazilians to visit is essential.
 - Also, time is critical. Given teaching loads and research demands, time that faculty can devote to these issues is limited.
 10.
 - Good Professors (with know-how)
 - Good Labs (with cutting edge technology and equipments.)
 11. ****No Response****
 12.
 - Financial support to visitors (students/faculty) from Brazil to MSU
 - Financial support for travel by MSU students and faculty to Brazil
 - Organizational support for symposium on land use changes/environmental problems in Brazil
 13.
 - Existing faculty research
 - Experience with international development, agriculture and natural resources, remote sensing, social/economic linkages to environmental issues, throughout Latin America and elsewhere
 14.
 - Expertise from faculty on Brazilian issues, and thematic hot topics (e.g., water, poverty, development)
 - Existing linkages with Brazilian institutions
 - Research facilities or stages for specific topics
 15.
 - CLACS
 - The Tropical Rainforest Information Center (TRFIC) at MSU (<http://www.trfic.msu.edu>). TRFIC is a NASA ESIP (Earth Science Information Partner) here at MSU.

16. ****No Response****
17. ●The technology and equipment for research about biopolymers and packaging

C. What are the *top three to five things* that MSU should be doing in regards to this theme/area of concern in Brazil over the next five to ten years?

1. ●Identify and establish institutional contacts with parties that have something to gain from biological-organic agricultural systems. The groups could be small scale or large scale production.
●Using technology that is task appropriate in the reduction and measurement of Carbon inputs/carbon trapping
2. ●Seek institutions in Brazil that are interested in collaborating on augmentative communication.
●Conduct a survey of communication aid usage in Brazil.
●Link with US manufacturers who would like to partner with Brazilian manufacturers to develop markets.
3. ●Joint development of bio-fuel and bio-gas-electricity research projects
●Engage Brazil in on-line learning collaborations.
●Develop dual degrees with Rio and San Paulo federal universities.
4. ●Involve Brazilians in Identification of Needs in Education, Research, and Outreach.
5. ●Collaborating on agricultural and natural resource research (bio-fuels are one important area but we share many other important areas as well)
●Increasing student exchange opportunities and exploring ways to meaningfully integrate educational experience between universities (Build on “sandwich” program that is already available from some Brazilian institutions.)
●Also need to be 2-way exchanges with MSU sending students to Brazil
●Web-based courses available to students at partner universities
6. ●Environmental studies and sustainability
●Local population studies (livelihood, opportunities to grow, etc.)
●People and environmental research in partnership with Brazilian organizations
●Education exchange experiences
7. ●Making research teams across the country (Brazil)
●Consulting with Brazilian institutions about their needs

8.
 - Identify students/faculty who would be available to provide translation services for course materials AND funding provided to pay for translations.
 - Overcoming the language barrier is probably the top issue.
 - Set up linkages with universities that could support distance education courses and contacts.
 - Provide a “clearing house” of programs available on the WWW.
 - Provide emailing lists that individual departments can utilize for providing information for course and programs offered.
 - Tuition is often difficult for the international student unless provided by multi-national corporations – need to identify those companies and NGOs.
9.
 - Organize research team both at MSU and in Brazil.
 - Create institutional links with collaborators to facilitate research and student exchange.
 - Procure financial support for Brazilian students to study at MSU. Currently only the upper middle class has the potential. I work with many students in the North of Brazil, children of Colonos who are smart and truly want to study at MSU, but they don’t have the financial resources or contacts or command of English necessary to score competently on the GRE.
10.
 - Contacting Brazilian professors and researchers to hear from them what are the areas of concern.
 - Looking at other concerns besides the Amazon basin.
11.
 - To visit or make contact with other universities in Brazil. There are many other universities in Brazil that develop research in areas of common interests.
12.
 - Bring in Brazilian Professors for exchanges/sabbatical replacements, etc. → strengthening ties with institutions and individual researchers.
 - Engage with local institutions and NGO’s to identify problems, discuss needs, and offer potential solutions.
 - Offer MSU resources (expertise, equipment, students) to address issues/questions/problems in Brazil.
 - Bring in Brazilian students for exchange programs/setup exchange programs for long-lasting institutional cooperation.
 - Provide “start up” funds through the MSU Intramural Research Grants Program (IRGP) for research projects in Brazil.
13.
 - Recruit grads in “sandwich” programs.
 - Develop research collaborations.
 - Find ways to attract Brazilian students and scholars.
14.
 - Enhance exchange between Brazilian students and MSU students (including international students).
 - Provide more fellowships/research grants to international students.
 - Focus on particular areas of global interest.
 - Define partners in Brazil/make agreements.

- Define strategy with partners to achieve goals.
15.
 - Are we concerned solely with partnerships that promote our personal or MSU research/outreach on Brazil or are we equally concerned with activities that promote research on U.S. topics by Brazilians? This question is based on my observation that most of the participants in my session seemed to be focused on how partnerships would benefit their own research/MSU with little to no attention given to the needs/interests of Brazilians who may wish to conduct research about US topics, e.g., the auto industry, agriculture, etc.
 - Improve linkages with Brazilian governmental research entities (e.g., INPA – The Instituto Nacional de Pesquisas da Amazonia (National Institute for Amazonian Research) and INPE – the Instituto Nacional de Pesquisas Espaciais (National Institute for Space Research), non-governmental (Musea Goeldi, Fundacao Vitoria Amazonica (FVA), other NGO’s) and educational institutions within Brazil
 - Improve linkages with U.S. institutions involved in Brazil [NASA-LBA (Large-scale Biosphere-Amazonia Experiment, a Brazilian-led interdisciplinary effort to study human impacts on tropical forest ecology in the Amazon region of Brazil); USAID] and promote the involvement of other institutions (Kellogg).
 - Promote a visiting scholar program (endowed?) to bring Brazilian experts to teach at MSU.
 - Engage parts of the MSU community doing parallel work in other parts of the world (Land Policy Institute).
 16.
 - Include more collaborations in natural sciences including mathematics.
 - Increase the number of Brazilian graduate/undergraduate students at MSU.
 - More cultural activities
 17.
 - Keep research with Brazilian Universities in the area of biopolymers and packaging.
 - Offer Post-doc scholarship for Brazilian student in this field
 - Projects between MSU/Universities in Brazil
 - Know better the Brazilian government (CAPES – Fundacao Coordenacao de Aperfeicoamento de Pessoal de Nivel Superior, Brazilian Ministry of Education Foundation and CNPq – Brazil’s National Counsel of Technological and Scientific Development of the Ministry for Science and Technology).
 - Do exchange program when each country pays part of research mainly.

D. Looking back in 5-10 years, how would we know that we had been successful? (Are there *measurables/metrics* which might be useful?)

1.
 - Both producers/consumers of Brazil and Michigan have an increased “quality of life” in the food system.
 - Measurable inputs of Carbon decreased.
 - Scientific knowledge of increasing carbon trapping in farming system is applied.

2.
 - We would compare the number of persons using augmentative communication now and then.
3.
 - Federally funded common research projects
 - Dual degrees with Rio, Sao Paulo and perhaps other universities in Brazil
4.
 - Number (and quality) of cooperative research programs
5.
 - Number of students and alumni
 - Number of students participating in study abroad to Brazil
 - Research grants involving research in Brazil or collaborations with Brazilian scientists
6.
 - Number of students involved in these activities
 - Number of researchers involved in these activities
 - Publications
 - Local communities involved/benefited by these programs
 - Agreements/MOUs established/implemented
7.
 - Funding for research collaborations
 - Publications joint-authored by teams
 - Number of students going there or coming here
8.
 - Student enrollment
 - Enrollment of MSU faculty and staff in Portuguese/Spanish language courses
 - Perhaps language classes via internet and/or television for free
9.
 - Increase in numbers of Brazilian students and alumni
 - Ongoing institutional agreements with Brazilian Universities, specifically in the Amazon region
 - Increase in the number of collaborative research projects
10. ****No Response****
11. ****No Response****
12.
 - Number of Faculty (MSU) having collaborative projects in Brazil
 - Number of exchange students at MSU
13.
 - All of above are readily assessed – grads in “sandwich programs”; research collaborations, numbers of Brazilian students and scholars.
14.
 - Number of engaged students/faculty from Brazil
 - Number of engaged students/faculty working in Brazil
 - Thematic areas being assessed or developed

- Number of programs related to thematic areas being developed/constructed
15.
 - Number of visits in ether direction by scholars from US and Brazil
 - Number of co-authored research articles
 - Number of grants
 - Number of theses/dissertations addressing Brazil/U.S. by Brazilians
 16. ****No Response****
 17.
 - The production of research between MSU/Brazilian Universities
 - The increase of Brazilian professors/students in MSU
 - The increase of MSU students abroad in Brazil

E. For which items in question C would you be willing to be contacted to continue work as the Brazilian (or Lusophone) agenda progresses?

1.
 - Sustainable (organic) agricultural production systems
 - Education/extension
 - Reduction of carbon inputs – increase of carbon trapping
2.
 - Seek institutions in Brazil that are interested in collaborating on augmentative communication.
 - Conduct a survey of communication aid usage in Brazil.
 - Link with US manufacturers who would like to partner with Brazilian manufacturers to develop markets for communication aids.
3.
 - I am more than willing to help; I have many strong professional connections with Brazil. I am willing to work in the following:
 - Joint development of bio-fuel and bio-gas-electricity research projects
 - Engage Brazil in on-line learning collaborations
 - Develop dual degrees with Rio and Sao Paulo federal universities.
4.
 - **NO RESPONSE****
5.
 - Agricultural research collaborations
 - Student Exchanges
6.
 - Environmental studies and sustainability
 - People and environmental research in partnership with Brazilian organizations

7.
 - Any
 - Making research teams across the country
 - Consulting with Brazilian institutions about their needs
8.
 - **NO RESPONSE**
9.
 - Organize research team both at MSU and Brazil.
 - Create institutional links with collaborators to facilitate research and student exchange.
 - Procure financial support for Brazilian students to study at MSU. I am especially interested in this. I am currently trying to recruit students from the Amazon region and am running into obstacles.
10.
 - **NO RESPONSE**
11.
 - **NO RESPONSE**
12.
 - Basically, all of them where I can.
 - I certainly will offer my geophysical equipment and expertise where possible.
 - I will host visitors (faculty and students).
 - Bring in Brazilian Professors for exchanges/sabbaticals replacements etc. → strengthening with institutions and individual researchers.
 - Engage with local institutions and NGO's to identify problems, discuss needs, and offer potential solutions.
 - Offer MSU resources (expertise, equipment, students) to address issues/questions/problems in Brazil.
 - Bring in Brazilian students for exchange programs/setup exchange programs for long-lasting institutional cooperation.
 - Provide "start up" funds (through MSU Intramural Research Grants Program) for research projects in Brazil.
13.
 - Recruit grads in "sandwich" programs.
 - Develop research collaborations.
 - Find ways to attract Brazilian students and scholars.
14.
 - Enhance exchange between Brazilian students and MSU students (including international students).
 - Provide more fellowships/research grants to international students.
 - Focus on particular areas of global interest.
 - Define partners in Brazil/make agreements.
 - Define strategy with partners to achieve goals.
15.
 - Improve linkages with Brazilian governmental research entities.
 - Improve linkages with U.S. institutions involved in Brazil (NASA-LBA, USAID, etc.) and promote the involvement of other institutions.
 - Promote a visiting scholar program to bring Brazilian experts to teach at MSU.

- Engage parts of the MSU community doing parallel work in other parts of the world (Land Policy Institute).
16.
 - Include more collaborations in natural sciences including mathematics
 - Increase the number of Brazilian graduate/undergraduate students at MSU
 - More cultural activities
 17.
 - Keep research with Brazilian Universities in the areas of environment, technology and people.
 - Offer Post-doc scholarships for Brazilian student in this field.
 - Projects between MSU/Universities in Brazil
 - Know better the Brazilian government (CAPES, CNPq).
 - Do an exchange program.

F. Additional comments:

1. **NO RESPONSE**
2. **NO RESPONSE**
3. **NO RESPONSE**
4. **NO RESPONSE**
5. **NO RESPONSE**
6. ●Congratulations! That's a very nice initiative (the U.S.–Brazil one).
7. **NO RESPONSE**
8.
 - I like your listing of past/present/future linkage agreements and wish that an all inclusive/global listing would be available on the Web with contact names/e-mail addressed to enable us to start contacting others for notification and invitation to join us.
 - Certificate programs have been instrumental in getting Masters students if they can use 10 credit hours from Lifelong Education to transfer into a grad program.
9. **NO RESPONSE**
10. **NO RESPONSE**
11. **NO RESPONSE**
12. **NO RESPONSE**
13. ●Low representation of Brazilian students (enrolled) at MSU is remarkable and presents a real challenge.

14. ****NO RESPONSE****
15. ●Consider whether our focus should also include research/outreach related to Brazilian interests in the U.S.
16. ****NO RESPONSE****
17. ****NO RESPONSE****

This material was generated from Global Encounter-Brazil
<<http://www.isp.msu.edu/globalencounter/brazil>>, held at Michigan State University on November 7, 2006. This interactive and participatory event was designed to obtain input and to elaborate in a country-specific forum on relevant themes, opportunities, issues, and opportunities affecting MSU's current and future engagement in Brazil (and to some degree Lusophone countries).