

A Global Perspective on Change in Higher Education for Agriculture

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Agricultural universities worldwide are facing numerous challenges including increasingly limited resource allocations, declining enrollments, keeping up with advances in information and other technologies, remaining aware of and responsive to clientele, and the need to aggressively globalize their teaching, research, and outreach programs. Although the scale of the problems and the local conditions vary across and among regions, there are remarkable similarities in the fundamental nature of these challenges.

The realization that these are shared challenges, combined with a political and economic climate that lends itself to the lowering of national barriers, presents an environment conducive to global networking and cooperation among universities. However, existing international organizations do not have the mandate to bring together agricultural universities on a global scale to share lessons learned.

The Institutional Landscape of Global Cooperation in Higher Education

The current landscape of cooperation among entities engaged in higher education in agriculture is a “patchwork” rather than a network. The patterns of this cooperation are easily legible. First, national and regional cooperation is fairly well defined. Examples include the Asociacion Mexicana de Educacion Agricola Superior in Mexico, the National Association of State Universities and Land Grant Colleges in the United States, and the Inter-university Conference of Agriculture and Related Sciences in Europe.

Second, there are a number of international or multilateral agencies engaged in serving higher education in agriculture, either directly or tangentially. For example, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) focuses on education in developing nations but does not concentrate on agricultural education. The Food and Agriculture Organization of the United Nations (FAO) focuses on agriculture - including agricultural education - but primarily in developing nations. The Organization for Economic Cooperation and Development (OECD) has an interest in higher education and agricultural knowledge systems but works principally with its members in industrialized nations.

This patchwork of organizations is inadequate for supporting cooperation on a global, multi-regional basis inclusive of both developing and developed countries. Such benefits as interuniversity student and faculty mobility, curriculum sharing, and cross-fertilization of thought improve with the scale of interactions offered by global university cooperation. With the development of communication technology, truly global associations are now feasible to consider.

During 1998 and 1999, there were important international meetings in Paris, Moscow, Kiev, Buenos Aires, Amsterdam, and Panama City dealing with new visions for the future of higher education for the twenty-first century. These meetings began to build bridges among new partners and to build awareness of the power of cooperation on an international scale.

This chapter describes the birth of a new global networking mechanism for agricultural universities and the first global meeting of this network, a conference held in Amsterdam in July 1999. The name selected for this international network is the Global Consortium of Higher Education and Research for Agriculture (GCHERA). This chapter also serves as an introductory chapter for this book that was developed as a product of the conference.

Consortium Background

Plans for the Global Consortium were developed in September of 1998 at an international conference in Kiev. The conference marked the 100th anniversary of the National Agricultural University of Ukraine and the completion of a four-year university linkage project involving Iowa State University and funded by the United States Information Agency. The consortium was formed as a result of significant shared concern for the future of the planet and a desire to see higher education in agriculture play a leadership role in solving problems associated with food security and environmental sustainability. In the process, it became evident that in order for higher education to deal effectively with complex problems on a global scale, two things needed to happen. First, significant reforms needed to take place in the institutions themselves to permit them to serve their societies effectively. Second, to insure maximum impact of effort, cooperation on a global scale was essential. A consortium mission statement was developed to reflect these priorities:

To foster global cooperation for the improvement of higher education and research for agriculture as a prerequisite to solving the food security and environmental problems confronting our world.

The consortium founders designed it to be helpful to institutions worldwide that are working to make significant reforms in their systems of higher agricultural education. The consortium aims to serve institutions with programs in agriculture, veterinary medicine, and natural resources management, including the biological, physical and social sciences dimensions of these fields. The consortium is governed by a regionally balanced Executive Committee and led by a president. Iowa State University President Martin Jischke was elected as the founding president of the consortium and will serve until 2001.

Conference Structure

The Amsterdam conference opened with a welcome from Professor Cees M. Karssen, Rector of one of the top agricultural universities in Europe, Wageningen University and Research Centre. Dr. Martin C. Jischke followed, with a keynote address examining global trends in higher education for agriculture arising in this new era of cooperation. Two days of presentations followed covering successful cases of reform from Africa, Asia, Europe, Latin America, the Middle East and North America. These cases were presented by university leaders who designed and carried out major institutional reforms. These individuals represent a fascinating combination of skills: innovation, scholarly achievement, academic leadership, a passion for quality, and a strong sense of social justice. Each case study was followed by a reaction panel providing insights from the perspective of experience in different institutional and national settings. On the third and final day, four interactive roundtable discussion groups were convened on the following subjects:

- Institutional Leadership in Reform
- Quality Improvement in Undergraduate Education
- Public and Private Partnerships
- Globalization of Teaching and Research

Observations from the Conference

The following observations relate to reform of higher education for agriculture including the societal context for reform, the urgency associated with the consortium's mission, and the role of other partners in pursuing our collective challenges.

Global nature of trends

Trends that surfaced at the conference are global. There are variations specific to local conditions but the challenges confronting agricultural universities are surprisingly similar whether the institution is located in a developing or a developed economy. Dr. Csaba Csaki pointed out, however, that specific solutions must be localized. We learned that we have much to gain from sharing our experiences. Sharing of lessons learned on a mutually beneficial basis promotes a spirit of cooperation rather than one of dependency.

Reform in higher education must accompany societal reform

Socio-political shifts are occurring all over the world. The global shift toward market-driven economics has enormous implications for higher education throughout the world. Some reform processes are more open to new ideas than others. Those universities that have invested and adapted themselves to keep up with changes in their national economies are on the cutting edge. Examples of universities that have been successful are reported here in the following chapters.

Successful reform efforts depend on a number of factors

Major reform efforts in higher education for agriculture depend on a number of mutually reinforcing factors including external help, additional funding, and leadership. Perhaps most importantly, the cross fertilization of ideas can infuse enormous energy into a reform process.

Engagement

The success of a university depends on its ability to stay in touch with the world outside of its gates. Those that are directly engaged with society can move ahead as the economy moves ahead. Those institutions that are disengaged become mired down and don't keep up with the needs of society.

Globalization

Each nation is concerned with globalizing its academic and research programs, partly in response to trends such as the globalization of information, economies, and environmental concerns. Globalization requires strategic alliances and an investment of resources.

Resources

Although additional resources are needed to make widespread changes, it is clear that some action can proceed without massive funding, drawing on the benefits of cooperation across political borders. In general, there is a paucity of resources for agricultural education.

The stakes are high

There is urgency to the tasks associated with food security and environmental sustainability. For example, the target established at the World Food Summit (1996) is to reduce the number of malnourished people on the planet by 50 percent by the year 2015. There are currently 6 billion people in the world, and the population is expected to rise to 8 billion by the year 2020. The consortium can make a difference in terms of food security, world peace, and mutual understanding through exchanges of people and ideas related to higher education and research for agriculture.

Food security and environmental sustainability are critical problems and we will need the best minds working together to solve them. The challenge for agricultural universities is to attract the most talented students to work on these critical problems. The fields of biology, biotechnology sciences, and information systems, are all exciting areas for students to pursue that will have a direct impact on saving the planet.

Institutional leadership

When major shifts occur in societies new leaders emerge in a variety of institutions. University reformers that emerge when such shifts occur are often characterized by opportunism and entrepreneurship as well as by a solid academic and scientific reputation. We learned that institutional leaders can and do make a difference. Leadership development is critical for the continuous improvement of existing leaders and for cultivating the next generation of academic leaders.

The value of networking

The conference atmosphere was one of unanimity of purpose. The conference permitted participants to take important steps forward in their thinking about reform of higher education in keeping with the mission of the GCHERA. It was clear that there is a hunger for this type of networking. When given an opportunity to form working groups to continue the work initiated at the conference the response was overwhelming. There is a message in the enthusiastic and spontaneous response of people to these working groups.

Other partners active in institutional reform

We learned that there are a number of groups and agencies that are eager to cooperate with the consortium. These include the OECD, FAO, UNESCO and the Global Forum on Agricultural Research. We also observed that there are donors committed to ensuring that this global consortium prospers. Those sponsors that supported the inaugural conference took the risk of supporting a new and untested idea.

Future Conferences

Conferences that will be of special interest to those involved in the reform of higher education for agriculture include:

- **The Agricultural Knowledge System**, Paris, (OECD) January 10-13, 2000
- **Global Consortium of Higher Education and Research for Agriculture**, 2001 (date and venue to be announced)

Join the Global Consortium

Institutions engaged in or associated with higher education and research for agriculture are encouraged to join the consortium. The cost of an annual membership is very modest. For \$25 per year an individual or an institution can become a member. On-line application for membership is available at:

<http://www.gchera.iastate.edu>