

# **Globalization of Agricultural Education: The Case of Cooperation Between the National Agricultural University of Ukraine and Iowa State University**

By

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## **Introduction**

Efforts to globalize agricultural education can lead to a broader picture for students of agriculture and better preparation for their international careers. These efforts can also lead to greater efficiencies in terms of student mobility, language acquisition, and credit transfer among cooperating universities.

The Iowa State University (ISU)/National Agricultural University of Ukraine (NAUU) Linkage Project is one of several U.S. Information Agency Projects involving U.S. and Newly Independent States (NIS) universities working together to bring about educational reforms in the former Soviet Union. It is part of U.S. foreign policy to assist, when requested, universities who are adjusting to democratic reform practices and market economies in their respective countries. Under the United States Information Agency (USIA) program, U.S. universities are paired with universities in the former Soviet Union to accomplish these purposes. U.S. universities benefit from learning about the higher education system in these newly independent states and from testing the robustness of their educational models in other settings. Partnerships of this nature can provide a significant learning experience for both institutions.

## **Purpose of the Paper**

The purpose of this paper is to highlight the cooperative activities and procedures used to develop the linkage between ISU and NAUU in the area of higher agricultural education. An examination of this project and several lessons learned in the process may prove useful to administrators and faculty members in other U.S. universities who may be considering a linkage project with universities in the former Soviet Union.

## **Methods and Data Sources**

The data from which this paper was developed are contained in project reports, project proposals, and university fact sheets. These data are augmented by the personal observations of the authors during five working visits to the Ukraine during 1994-1997.

## **History**

### **National Agricultural University of Ukraine**

The university was founded in 1898 as an agricultural department at the Kiev Polytechnic Institute. Later, known as the Ukrainian State Agricultural University, it developed as a major institution for training agricultural specialists in the USSR. After independence in 1991, the institution was renamed the National Agricultural University of Ukraine and has continued to develop as a leader in higher education in the former Soviet Union. NAUU has as its mission to provide effective instruction on and off campus and to conduct quality research that will benefit the people of Ukraine. NAUU has been recently

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ranked among the top six Ukrainian universities by European and United Nations evaluation agencies.

NAUU is the only university in Ukraine offering undergraduate and postgraduate higher education in agriculture and related disciplines. As a national university it aspires to provide leadership and models of reform to other agricultural universities in Ukraine as well as to universities in other NIS countries. The Ministry of Education in Ukraine has accredited NAUU to offer specialist, master's, and candidate degrees. Currently, the university provides 20 specialist programs and also candidate programs for research in a wide variety of agricultural and social sciences. It has approval to offer master's degrees in ten fields.

### NAUU/ISU Links

Iowa State University and National Agricultural University of Ukraine established a working relationship in 1991 with the Samantha Smith Cultural Exchange Program funded by USIA. The relationship grew under the follow-on Samantha Smith Academic Exchange program in 1993 which provided for an academic exchange of six agriculture students of each university.

This was followed by the President's University Student Exchange, with the second set of ten undergraduates of NAUU and two graduates of the Ukrainian Academy of Agricultural Science for one semester of classes at ISU. At the same time the first group of ISU students on the President's Exchange went to study at NAUU.

Research and other professional activities have also connected Iowa State with NAUU and other institutions in Ukraine. The ISU Center for Agriculture and Rural Development (CARD) has conducted research in trade and agriculture policy, natural resources and economic development policy in Ukraine. In 1993, CARD coordinated the Farmer-to Farmer program to increase short-term food supply, foster democratic farm organizations and assist women in agriculture. The ISU Center for International Agricultural Finance has trained many Ukrainians in-country and at ISU in the area of credit and banking. ISU professors in several departments and centers have established or proposed joint research activities, including forestry, horticulture, seed sciences, sociology, animal science and the ISU library.

In other efforts, Iowa State and the NAUU had always been seeking means of collaboration in institutional development, strengthening and integrating research centers, and financial and privatization development. All were intended to address important needs to bring about the reform of agricultural education in Ukraine. The Linkage Project was designed to advance that broad objective by improving education and continuing education in the NAUU. Importantly, administrators and faculty at NAUU indicated their desire to consult with one or more U.S. universities and several European universities as NAUU undertook a review of their university and decided on a course of change.

### **Project Description, Outputs and Impacts**

The Linkage Project began in September 1994, funded originally at \$294,000. In 1997 an additional \$98,000 was awarded in recognition of the considerable progress made during the first three years.

Ten colleges were identified at NAUU as counterparts to seven departments in the ISU College of Agriculture and the College of Veterinary Medicine. At ISU, 14 faculty, staff, and administrators worked directly with NAUU to carry out the objectives during the two-year project. At NAUU eleven different deans and teaching faculty were selected each year to participate in Linkage activities along with the NAUU project coordinator. Each team spent three to four weeks at the counterpart university. ISU professors went twice to NAUU, once each fall during 1994 and 1995; while two NAUU teams visited ISU, one in the Spring of 1995, and the second in the Spring of 1996.

In July 1996, two special NAUU Teams visited ISU to concentrate on modernizing administrative structures and improving continuing education at NAUU. In total 33 NAUU faculty and administrators participated directly in the Linkage Project through working visits to ISU. Counterparts kept in continuous contact throughout the year.

In all cases, visiting professors and administrators learned about the host country's agriculture, the host institution's educational system, and participated in several cultural events as well as focusing on the objectives of the project. Broad faculty support was given during the visits by each of the universities both at ISU and NAUU. Faculty took on activities of the Linkage Project as an add-on assignment, which was part of the cost-share of the project.

The objectives of the linkage and a summary of outputs follow.

#### OBJECTIVE 1: Revise and Restructure Curricula

The creation of a new educational plan or curriculum at NAUU has clearly been the centerpiece of the Linkage Project. The NAUU and ISU faculty involved in the process spent thousands of hours collectively creating awareness of curriculum alternatives, preparing and revising curricula, finalizing curricula, and obtaining final approval from national committees. NAUU curricula were recognized in the ISU Colleges of Agriculture, Business and Veterinary Medicine as a result of the curricular reforms. The process culminated on May 6, 1996, when ISU formally recognized the comparability of the curricula for undergraduate education at NAUU through a Memorandum of Understanding signed by officials of both universities.

#### OBJECTIVE 2: Develop and Acquire Educational Materials

The curriculum reform was further supported through the development of new course materials, and the acquisition of supplies, equipment and teaching materials. Each NAUU Linkage Team member who visited the ISU campus for a month in 1995 or in 1996 purchased, obtained, or developed materials to be used in one or two specific courses as well as for general references to be located in their departments. A set of 50 textbooks with an instructor guide was provided for the newly established International Agribusiness Institute. Materials were obtained for teaching of English as a second language to be used in the English Language Center. Several professors obtained course syllabi, videos, extension and research publications for their own or department use. One NAUU professor wrote and assembled 40 copies of a handbook for his world economics class largely from materials obtained through his ISU visit.

#### OBJECTIVE 3: Incorporate New Teaching Methodologies

A new Media Resource Center has been equipped and is available for instructors to prepare teaching materials such as slides and overheads. Slide and overhead projectors are now available

for check-out by instructors for use in the classrooms. In-service training on developing computer generated graphics and visuals is now part of instructional support. E-mail access is available at the Media Resource Center to encourage NAUU professors to keep in contact with their counterparts at ISU. Cameras purchased for participants in 1996 enabled them to prepare slides and prints for use in course presentations. Action plans were developed to improve instructional methods. Emphasis is being placed on improved teaching methods under austere resource conditions, greater incorporation of computers as teaching tools, and helping students acquire greater skills in the use of computers and self learning.

#### OBJECTIVE 4: Improve Continuing Education

A team of four faculty and administrators with continuing education responsibilities made a two week working visit to ISU in July of 1996. The intensive training received on all aspects of continuing education will assist them as they make improvements in their system. A vice-dean has been named in each Faculty with responsibility for upgrading their off-campus degree and continuing education programs. The Institute of Continuing Education, which collaborates with NAUU faculty members, plans several improvements in their educational programs for graduates returning for additional training in their area of study or for retraining in another area.

#### OBJECTIVE 5: Modernize Administrative Structures at NAUU

Important administrative reforms have been institutionalized at NAUU. The leadership at NAUU have indicated that they drew heavily on the model they found at ISU in redesigning their administrative structure. NAUU has added the positions of Provost, Vice President for Student Affairs, and Director of Extension. Multidisciplinary units called Institutes are being formed to enable those in related disciplines to cooperate more closely. The Institutes also add a research dimension to the traditional teaching role of the Faculties.

In addition to the success with the specific objectives, there were noteworthy accomplishments attributable to the project in the areas of human capital development and cross-cultural understanding. There were also a large number of joint projects initiated and carried out during the period of time while we were engaged in the Linkage Project.

1. Joint development of the Institute of Agribusiness (1995-2000)
2. Strengthening NAUU English language training capability (1995-present)
3. Completion of a proposal for leadership development (1996)
4. Management of student exchanges/internships (1994-present)
5. Conduct of the International Ensminger/ISU Ag-Tech School at NAUU (1996)
6. Conduct of an International Agriculture Policy Conference (1996)
7. Conduct of a Veterinary Biologics Workshop at NAUU (1996)
8. Conduct of a workshop on Organization and Planning of Agricultural Research (1996)
9. Conduct of a collaborative swine research program (1995-present)
10. Conduct of a Library exchange program (1996-present)
11. Establishment of an Agricultural Policy Research Center (1996-1999)

In 1996, two ISU faculty were awarded Honorary Professorships at NAUU, the Rector of NAUU was awarded an ISU College of Agriculture World Professorship, and 23 faculty and administrators from ISU participated in three international conferences at NAUU. In 1997, two honorary professorships were awarded to ISU faculty.

The NAUU participants identified the greatest impact of the Linkage Project on their institution. The greatest impact at the university was the curriculum reform in all departments and the Memorandum of Understanding regarding curriculum equivalency; understanding and changing the degrees offered to include bachelors and masters, as well as specialist degrees; changes in the structure of university administration; greater awareness of alternative educational systems; and breaking through stereotypes of U.S. and Ukrainian education and culture.

Participants also identified the greatest impact of the Linkage Project on their department and college. These included adopting new curricula; introduction of new courses; expanding degree programs, reorganization of administration; acquisition of new materials for use in the department; introduction of new teaching methods, means of testing, and electives; and improved off-campus and continuing education.

The Linkage Project made a personal and professional impact on participants, the greatest of which was changing attitudes and raising awareness of the educational system used at ISU. Professors used the educational materials acquired, joined professional organizations, increased professional capabilities such as in diagnosis and design; and gained understanding of systems of extending knowledge and recommended practices beyond the campus.

NAUU Linkage team members mentioned many changes which have taken place at their university recently in which the Linkage Project did not play an important role. These included publishing textbooks and educational materials in the Ukrainian language; budget and financial matters which resulted in cuts in personnel; creating new educational centers; and NAUU's first place showing in the Humor Contest!

Participants pointed out several administrative changes which had taken place as a result of the Linkage Project. Several identified that the university administration had been broadened with the addition of a Provost and new vice rector positions; that changes in administrative personnel had occurred all the way from the department to the university level; and that Nizhyn Agrotechnical College had been added to NAUU. Others mentioned the integration of education and research, establishing departments at the science research institutes, and uniting departments with closely related majors. Also identified by several was the establishment of the Institute of Agribusiness and the signing of the Memorandum of Understanding with Iowa State University.

Administrative changes were also identified at the department and college levels. A review had been made of all administration which resulted in structural reorganization of some colleges. Several departments or colleges made changes in the curricula which necessitated administrative attention, including introducing elective courses, the credit system, and an alumni association.

As a result of the Linkage Project, several student services have been implemented. High on the list were student exchange programs with the U.S. or with western European universities; more opportunity to study English; offering B. S. degrees, and greater consideration of out-of-class study time. Many departments are organizing department clubs and seeking ways to improve student/instructor relations. Many stated that having better educational materials to judge student learning was an important student service.

There were numerous cultural benefits through the Linkage Project for NAUU professors. For most, the trip to Iowa State was the first visit to the U.S. They noted several impressions about the Iowa educational system, such as the amount of information and equipment available in classrooms in primary, secondary, and higher education; the lack of government control over curricula; the mission of teaching, research and extension; the student oriented enrollment process; the measures used for testing and evaluation, and the professionalism of the American professors.

The activities which helped NAUU professors gain knowledge of U.S. universities included: studying the ISU curricula, visiting classes, studying the system of out-of-class work, participating in seminars, reading graduate theses, visiting the library and computation center, learning about the interrelationship between teaching, research and extension; visiting the departments and residence halls, and meeting with administrators and faculty.

ISU Linkage personnel planned many group and department times for individual activities to help NAUU professors gain knowledge about U.S. culture. NAUU participants noted as most helpful: excursions within the state of Iowa; conversations with teachers, farmers, business persons, and students; contacts with colleagues and their families; visiting Des Moines and Washington DC; attending cultural programs; visiting schools and churches; and learning about ISU professors' assignments, opportunity for advancement and incomes.

Upon their return to Ukraine, NAUU participants mentioned particular aspects of their visit to their family and friends, including: visits with their colleagues and their families; the educational process; the trip to Washington, DC; participating in VEISHEA (a student run festival at ISU) and other ISU student activities; how the extension system works; openness, kindness, optimism, and patriotism of the people; the eagerness to work; the barrier of language; and the similarity of aspirations.

NAUU participants claimed the following activities were the most fun during their U.S. visit: visiting the capitol in Washington and in Iowa; the Iowa excursion; visiting families of colleagues; visiting churches, fraternities, residence halls, community schools; celebrating Independence Day on July 4; talking to people.

The Linkage Project has made an impact on ISU and numerous ISU faculty members. This impact has not been limited to agriculture or rural topics. Student services, management of a university, and library services are examples of areas of interest outside agriculture. Several faculty members and scientists are working on collaborative research projects in both countries. These projects are primarily in animal science, agronomy, and forestry. A number of other types of funded projects have also been developed as a result of this project. These have included additional faculty exchanges, student exchanges, industry internships, women's leadership programs, and regional seminars. The impact of this project will be evident for many years as new opportunities for sharing and linkages present themselves.

### **Lessons Learned**

The following are lessons learned from the project to date:

1. Linkages of this type need to be viewed as a long-term proposition. To make real progress in educational reform requires time to become acquainted, to learn to communicate, to understand the context of each other's problems and to patiently and persistently look for external resources to sustain cooperation.
2. Communication is the key to success. Significant language barriers existed at the beginning of the Linkage. Expert translators and interpreters are essential to convey understanding of words, jargon, true meaning and context among discussants.
3. Differing models of education can present challenges to exchanges of ideas for reform. The modified European approach utilized in Ukraine is significantly different than U.S. models of education. Discussion must be extremely detailed to ascertain if true communication has occurred.
4. NAUU faculty and administrators are very adept at operating under conditions of scarce resources. They used creativity and persistence to overcome resource constraints that would send many U.S. faculty into a tailspin.
5. Practical training at institutions of higher education in Ukraine is extremely high quality. When graduates enter the work force they have had significant practical experience.
6. U.S. faculty needed to learn about command and control power structure and decision-making processes in Ukraine as they are quite different than those common in the U.S. While there is considerable room for discussion and disagreement in the Ukraine context, it is clear that decisions are, in the end, made by an individual and that individual is generally a very senior authority.
7. The institutional structure of agricultural research and education in Ukraine is unlike that found in the United States. Research and education responsibilities are found in different institutions and communication between these separate institutions is now starting to increase.
8. Reform minded leadership is critical to broad institutional change. Dr. Melnichuk, Rector of NAUU, is an exceptional leader who tirelessly pursues reform.

### **Summary and Next Steps**

This project is continuing beyond the original funding period and exceeding the original objectives. It is anticipated that the linkage will continue in various formats for many years. Faculty and administrators from both universities learned much about each other and the higher agricultural education systems in both countries. This paper provides insight to the reader concerning higher agricultural education in Ukraine. This paper also outlines the procedures and activities of the Linkage Project and can provide examples to faculty and administrators from other universities considering linkage arrangements.

During 1998, faculty exchanges will involve approximately 20 faculty in strengthening the graduate programs at NAUU. The focus will also be on dissemination of results.

One significant event currently being planned for September 1998 is an international symposium on the future of agricultural education. The conference will occur on the occasion of the 100th anniversary of the university.

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