

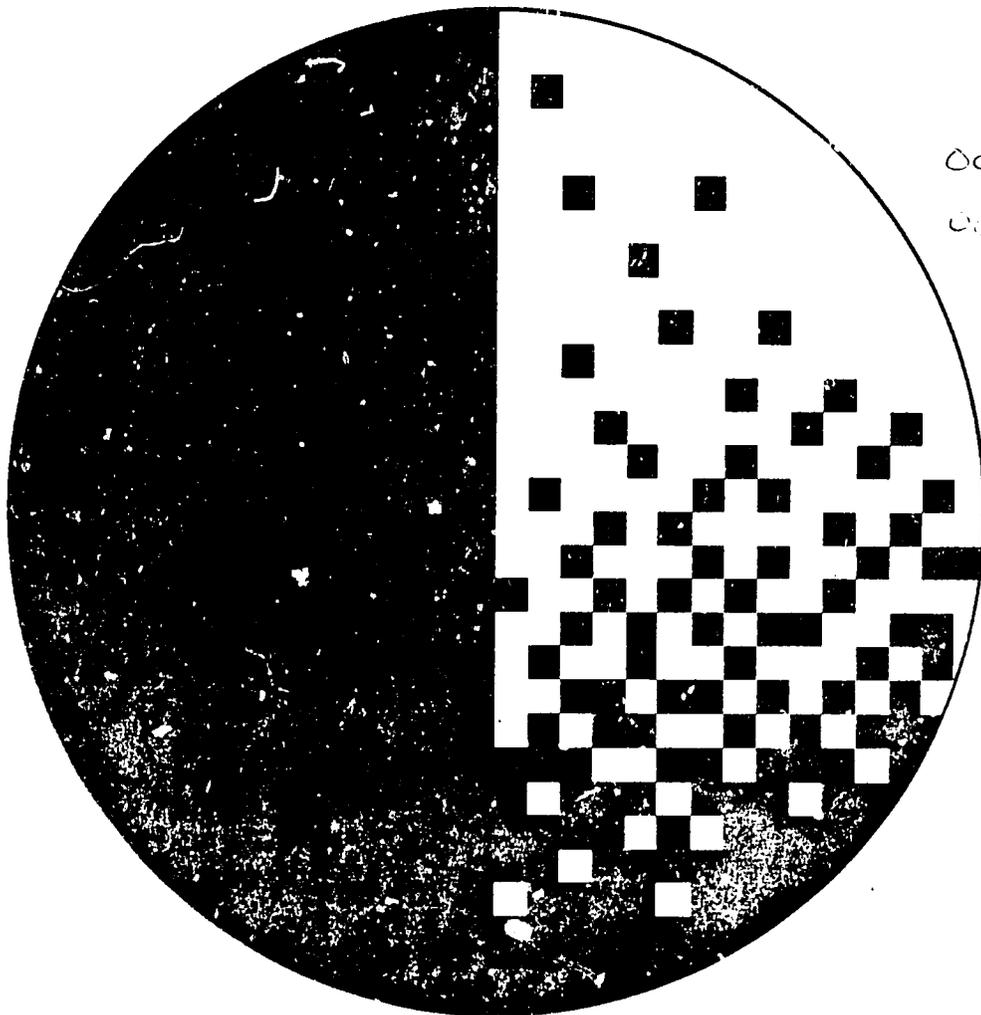
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National Association for Foreign Student Affairs

EDUCATION FOR INTERNATIONAL DEVELOPMENT

Agricultural Education and Students from
the Developing World: A Consultation



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**AGRICULTURAL EDUCATION
AND
STUDENTS FROM THE DEVELOPING WORLD:
A CONSULTATION**

Reported by Joan H. Joshi

INTRODUCTION

"Agricultural Education and Students from the Developing World" was the theme of a consultation attended by some thirty-five representatives of universities and development agencies at the conference center of Winrock International in Morrilton, Arkansas, from October 20-22, 1983. The meeting was one in a series conducted under the Education for International Development Program of the National Association for Foreign Student Affairs funded by the Office of International Training, Agency for International Development.

The consultation was designed by NAFSA's Agricultural Education Advisory Committee to explore how programs for foreign students studying agriculture in the U.S. might be made more effective. Specifically, the following objectives were set before the group:

1. Draft an outline for a handbook for faculty advisers of foreign students in agriculture, detailing the special needs of those from developing countries
2. Clarify perspectives on the costs and benefits of educating foreign students in agriculture
3. Design a strategy for increasing international emphases in U.S. agricultural education
4. Present ideas for increasing inter-institutional and organizational cooperation in the field of international agricultural education
5. Increase understanding in the field of AID and NAFSA goals relating to the education of foreign students

Background information prepared by the Committee in advance of the meeting indicated that, in the 1980-81 academic year (Profiles, IIE, 1981), 3.2% of all foreign students in the United States were in agriculture-related fields of study, a percentage roughly equivalent to 10,400 students. The numbers become significant, however, when viewed at the graduate level: 28% of all graduate students in agriculture are foreign. Moreover, 30% of all Ph.D.'s are granted to non-immigrant foreigners (National Science Foundation, 1979).

The significance of a consultation dealing with the state of agricultural education and foreign students, specifically students from the developing world, becomes even more obvious given the involvement of major sponsoring agencies such as AID. 42% of all AID participants processed through the Office of International Training/AID are in fields of study relating to agriculture. Many of these students are placed in public institutions whose foreign enrollments increasingly have attracted the attention of state legislatures.

Many of the issues which have been discussed in recent years with regard to other disciplines (especially engineering) are transferable to agriculture; these issues include the question of costs - who pays for what in the education of foreign students; of relevance - and the appropriateness of studies and research projects to conditions which will face students in the home country; of the end results of educating foreign students in the U.S. - how do they relate to the needs in their home countries and to opportunities in the United States; and of the short- and long-term impact of foreign students in U.S. education (NAFSA/AID Engineering Education Seminar, 1983).

A survey of the self-perceived needs of students from developing countries by Motoko Lee of Iowa State University in 1981, found that students in agriculture placed the highest importance on the following items. (These rankings were higher for agricultural students than for engineering students):

1. Academic planning
2. Relevance of the academic training
3. Training to apply knowledge
4. Extra-curricular learning experiences
5. Facilitating course work

The Lee study also showed that students in agriculture were more concerned than engineering students with regard to:

1. Anticipated post-return material rewards
2. Professional opportunities at home

An analysis of the survey (Motoko Lee, 1981) of students in the fields of management, agriculture, engineering, natural and life sciences, and health professions showed that the following issues of relevance were more important or just as important to agricultural students as to students in other fields:

1. Academic programs should be relevant to the present need of the country (Engineering students tend to look toward future needs)
2. More international materials should be included in courses
3. Training for knowledge application should be provided
4. Management and leadership training should be included
5. Training is needed to prepare students to be change agents in the home country

Martin Limbird, Consultation Chairman, Iowa State University, opened the meeting by asking participants to focus on remedies for defects they could identify in the continuum of training, and to consider whether U.S. agricultural education is currently meeting the expectations of foreign students, their sponsoring governments or agencies and their host institutions. The four sessions of the consultation are described below.

Session I:

INTERNATIONAL EMPHASIS IN AGRICULTURAL EDUCATION

Valerie Woolston, Director, Office of International Educational Services, and Donald Hegwood, Dean of the College of Agriculture, both of the University of Maryland, proposed a model program for international students of agriculture. Dr. Hegwood's introductory remarks emphasized his conviction that the world food system depends on international education and, indeed, that it will be served by more cooperation among institutions, expanded faculty, and student exchange. He foresees an increasing emphasis in undergraduate agricultural education and on training which does not necessarily lead to a degree, but he asserted that, in all cases, the aim should be to produce a thinking student as well as one trained in skills.

The model program constructed by Ms. Woolston and Dr. Hegwood assumed that the basic agricultural curriculum need not be modified. Thus academic standards remain unchanged, but sufficient flexibility is introduced into the student's program to take into account the culture and environment to which he will return to practice agriculture. The team built their model to meet the five student objectives identified in the 1961 Lee survey quoted above and the following institutional goals:

1. Increase emphasis in international education;
2. Achieve relevance to student needs;
3. Provide continuous effective advising;
4. Provide students with management and leadership training for change agent roles;
5. Meet educational objectives of international students and institutions.

The model incorporated elements related to nine stages in the educational process:

1. The recruitment stage should involve an evaluation by the department/institution of its strengths and weaknesses - in research, teaching, and extension so as to ensure a proper match of student and institutional educational objectives. This could include a match, insofar as practicable, of crops researched, of soils and climate with those in the student's home country.

2. The admissions process should entail consideration of -
 - a) the student's specific goals in terms of degree vs. special skill training;
 - b) his academic qualifications as compared with those required of U.S. students;
 - c) his English language proficiency and any need for remedial work in this area;
 - d) the financial support he brings or requires;
 - e) the need for timely communication of the admission decision.

The process, if effective, can be costly to the institution in the short term in that it implies considerable "preventive counseling", although it reduces problems which can crop up in later stages.

3. The academic progress of incoming the student will be better secured by a careful initial orientation to U.S. higher education, the host campus, the admitting department and its academic requirements, and the social context in which he will find himself. Participants suggested the addition of information on the U.S. system of agricultural research and extension.
4. A successful educational experience for the student, implies a departmental motivation to -
 - a) compare specific country educational and agricultural extension and research systems with those of the U.S.;
 - b) develop a philosophy and policy orientation for international education;
 - c) understand international farming systems models; and
 - d) be aware of such available campus services as English language teaching, immigration advising, cross-cultural counseling, etc.
5. Academic advisers should be selected from among staff who hold both teaching and research appointments, from those with a commitment to international education, strong communications skills, and international experience personally, preferably in the student's own country or region. The group noted the age of the adviser could also be significant to students from cultures where seniority is respected and suggested a team approach in cases where only the younger faculty have the desired international experience. The appropriateness of a gender match should also be considered.
6. The enrollment stage should involve the clarification of educational goals and the careful delineation of a comprehensive training plan. This should include the establishment of a time frame, selection of curriculum, preliminary identification of a thesis topic, of the review committee, and of extra-curricular activities needed to enrich the student's experience (see #8 below).
7. Retention of the student for the full program initially outlined should be an explicit goal, implying periodic consultation and review of the student's progress in course work and thesis research, of his social comfort, and of the relevance of his activities for his home country. Importance is also placed on the student maintaining liaison with agricultural developments at home.
8. The model includes a number of extra-curricular enrichment activities intended to ensure both that the educational experience is fully relevant to the needs of the student and his country and that the U.S. agricultural system is fully understood and its resources utilized. Activities suggested include:
 - a) practical work experience;
 - b) internships with county and state extension services;
 - c) skills training in organization and management;

- d) experience in community affairs, with civic clubs, etc.;
- e) exploration of the change agent mode;
- f) international experience in extension development (e.g. CIED);
- g) assistance with professional integration upon return home; and
- h) thesis research in the home country or on a home country agricultural problem.

Participants in the consultation suggested a number of organizations which might cooperate in enrichment activities (see Session IV below). They also argued that these should not be looked upon as supplementary but as central or core elements of the educational program and that, as such, any costs involved should be included in the student's original academic budget.

9. Finally, post-educational ties should be maintained with the student. For example, a campus newsletter might be prepared and distributed to alumni, alumni associations might be formed in individual countries, the institution might serve as a resource clearinghouse to which the student could later turn for information, genetic material, etc., and, where appropriate, a regular exchange of persons might be established.

Presentation of the model was followed by a wide-ranging discussion on the responsibility of U.S. institutions to ensure that the student is both educated and trained, is ready for whatever destiny has in store for him in his home country, even if that involved organization and management of an agricultural sector rather than scientific work in the field. Recognizing that career paths often diverge from original plans (not a phenomenon unique to the international student), consensus favored broad educational goals: the ability to think, to deal with change, to adapt to local conditions, to communicate skillfully, and to be ready to participate in life-long learning. Stress was also placed on the importance of teaching the work ethic.

Nonetheless, this desirable "education of the whole person" was acknowledged by the group to be a formidable objective, even for a four-year academic program; institutions can only hope to move students in this direction.

Session II:

ADVISING PROCESS FOR AGRICULTURAL STUDENTS FROM DEVELOPING COUNTRIES

Participants were asked to offer guidance to a NAFSA editorial team (Robert Mashburn of NAFSA, Jack Van de Water of Oregon State University) charged with the preparation of a handbook for faculty advisers to agricultural students from countries in the developing world. In small groups they reviewed a document prepared with respect to another discipline and made a number of constructive suggestions for its improvement and adaptation to agriculture. The group recommended, for example, that the manual:

1. Focus on the differences between advising U.S. and international students in a concise format
2. Clarify the role and concerns of sponsoring agencies
3. Include reference data on enrichment activities and especially on resources for research in home countries
4. Contain a section where campus-specific resource information (name and location of FSA, of those competent in credentials evaluation, etc.)
5. Use the model presented in Session I as an outline

Suggestions for encouraging use of the handbook by faculty advisers assigned international students included its introduction during "teaching seminars" now often held on individual campuses and in the course of professional society meetings, as well as during Title XII

Regional Meetings. It was also noted that a document designed to help the students themselves understand the advisory process might be useful in that the concept is alien to many.

The handbook drafted by the editorial team will be circulated to Winrock participants, selected students, faculty, administrators, and key personnel in professional associations and government agencies for their reactions and suggestions for improvement.

It will be finally reviewed by the NAFSA Education for International Development Committee, and printed and distributed in late Spring, 1984.

Session III:

COSTS AS A FACTOR IN U.S. EDUCATION OF STUDENTS FROM THE DEVELOPING WORLD

Jean Weidemann of BIFAD moderated a panel on economic considerations on Friday evening. She was supported by William Abbott of Oklahoma State University, Lawrence Apple of North Carolina State University, James Collum of Purdue University, and Louis Wise of Mississippi State University. Panelist comments focused on the demand by institutions and sponsoring agencies and governments for greater cost effectiveness, despite the difficulties in making such measurements. Return on educational investment has become an express concern and this, in turn, has led to efforts to compute real costs and to consider who should benefit from subsidies and to what degree. Financially pressed public institutions, in particular, have been challenged by their state legislatures to justify admission of international students who do not share the tax burden of local residents. There have been varied responses to this challenge; a few institutions charge all out-of-state students "full costs"; others impose a modest surcharge on international students to cover the costs of extra services provided them. On the whole, however, a recent survey (Foreign Students in Public Institutions of Higher Education, IIE, 1983) indicated that "no major changes have occurred ... that are likely to have a strong impact on the extent to which foreign students are able to attend U.S. colleges and universities".

In the discussion which followed, a most creative plan initiated by Oregon State University was outlined. The University reduces tuition to the in-state level for some international students in exchange for their commitment to serve as a local educational resource. For the most part, this implies a contribution to teaching in K-12 schools, but students have also acted as consultants to local business (e.g., a group of Koreans advised a manufacturing firm planning a marketing campaign in their country.) This exchange has benefited both student and community, not least in making citizens of the latter more sympathetic to development needs and to the role their university plays in responding to them.

Session IV:

INTER-ORGANIZATIONAL COOPERATION IN AGRICULTURAL EDUCATION

The final session involved a panel led by Wes Weidemann of the Cooperative League of the USA and including Mertin Creger of Western Carolina University and James Mahoney of AACJC, as well as James Collum, Purdue University and Joan Joshi. The panel, aided by participants to the consultation, identified numerous possibilities for educationally valuable linkages between academic institutions and organizations active in agricultural research training, production and commerce. Participants noted the importance of these linkages in the operation of the U.S. agricultural system as a further argument for their introduction into the foreign student's program.

The suggestions, listed below, respond to the enrichment element of the aforementioned model and will be incorporated into the Adviser's Handbook in an effort to encourage their utilization:

In the U.S. - agricultural cooperatives, agribusiness concerns, seed companies, extension services, state departments of agriculture, U.S.D.A., other governmental agencies, trade associations, professional societies, 4 H's International Agricultural Training Program, labor unions, donor agencies, private voluntary, development organizations, school systems, community colleges, centers of excellence at other universities, civic groups, individual farmers; overseas participation might come from PVO's/development agencies in the field, Peace Corps, international agricultural research centers, e.g., CIMMYT, IRRI, CIAT, IITA, etc. and institutions of higher education.

The resources might be utilized in a variety of ways. Work/study, internship or practical training programs might be arranged for the international student; he might attend workshops or conferences, enroll in short courses or simply make a series of observational visits. Guest lecturers might be drawn from the organizations for on-campus programs, and their staff might be called upon to collaborate in supervision of thesis or dissertation research. The last is especially relevant to the international agricultural research centers and to foreign academic institutions which can offer competent oversight of research in the student's home environment, on problems with which he will deal in his professional career, and often at a cost saving.

The group further recommended that a state-by-state inventory of specific resources be drawn up and indicated a need for some form of clearinghouse to ensure an equitable distribution of requests for visits, assistance, internships, etc.

CONCLUSION

Participants in the consultation contributed broadly to the discussion with comments and suggestions. Many noted the sessions had greatly expanded their awareness of foreign student needs, although they would have preferred more time to explore the issues raised in greater depth. All valued the setting of Winrock International's conference center which quickly engendered a spirit of collaboration and fellowship. The forthcoming Handbook, which will incorporate and expand upon the concepts discussed, should be a major contribution to agricultural education for students from the developing world.

A follow-up consultation in Washington, D.C. with a modest number of private foundations interested in the education of foreign students as well as participants from Washington - based development banks was recommended by the advisory committee to broaden the base of the agriculture consultation.

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