

PD-AAAQ-834
11
ISN 38702
/49

UNITED STATES GOVERNMENT

Memorandum

TO : DS/PO, Mr. Robert Simpson

DATE: 28 July 1978

FROM : DS/AGR, Leon F. Hesser *L.F.H.*

SUBJECT: Small Activity/Special Project Inputs: International Arid Land Conference on Plant Resources (FY 78 - \$25,000)

The purpose of this memorandum is to request approval of \$25,000 during FY 1978 to partially support the subject Conference.

A. INTRODUCTION:

Arid land improvement in the developing countries is a difficult task, at best. It calls for better management practices and for the introduction--where feasible--of plants that can cope successfully with deteriorated land resources, heavy grazing pressure, fuel shortages, and adverse climatic conditions. If a developing country can introduce fast-growing, drought tolerant shrubs or trees that would be a good fuel and forage source, the benefits to the entire economy could be substantial. Increased year-around productivity of rangelands can help relieve the impact of drought and population pressures and provide more time to find long range solutions to the population problem.

The value of introducing new plants to a country has been demonstrated in the U.S., where the majority of our food crops and forage legumes, as well as many forage grasses, are introduced types. Most plant introduction activities have been centered on plant resources of the humid regions; arid region plants have been largely ignored. The same situation prevails in many other countries. The commercial utilization of jojoba in the U.S. is a success story of recent origin even though jojoba oil has been processed commercially in Mexico for many years. There undoubtedly are other equally promising plants that could be valuable in developing countries as well as in the United States.

Native plants of arid regions have long been known to possess properties that are useful to man. In addition to providing forage for animals, native plants have been used to produce rubber (guayule), oil (jojoba), wax (candelilla), fiber (sisal), food (cactus), gum arabic (acacia), and steroids (yucca). Mexico has been a leader in developing industries based on arid region plants. In recent years, many other countries have shown renewed interest in identifying and utilizing potentially useful plants. Major emphasis has been placed on finding plants that can produce nutritious forage under drought and saline conditions, provide fuel, or be exploited for commercial purposes. Forage and fuel plants are particularly needed to restore deteriorated rangelands that have been overgrazed and depleted of woody vegetation.

DIRECTOR OF AGRICULTURE



Better use of indigenous and introduced plants in the LDCs has been hampered by a weak information exchange. Experience gained in other countries--developed and developing--can be used to help assure proper selection and management of potentially valuable plants. Guayule, jojoba, neem, leucaena, and buffalo gourd are some of the better known promising plants but there are many more that appear to be at least as valuable.

The problem of finding out what plants might usefully be introduced into developing countries having extensive arid regions is a current restraint on arid land development in the LDCs. No international conference on arid land plant resources has ever been held. Papers on some aspects of the subject have been presented at several scientific meetings but no systematic coverage has been attempted. One publication on medicinal plants of arid regions was issued by UNESCO in 1960. The U.S. National Academy of Sciences has published two booklets recently on guayule and jojoba and another that includes descriptions of some arid region plants. A book, Wildland Shrubs, carries the proceedings of an international shrub conference held in 1971. Chapters in a number of books (e.g., Arid Lands in Transition) have referred to uses of plants that are native to arid regions. None of these publications present a comprehensive analysis of the world situation on past and potential uses of arid land plant resources. The difficulties encountered in finding out what information is available on potentially useful arid land plants emphasize the value of the proposed conference and the information exchange service that will be put into operation afterward.

The proposed international conference will provide information not available elsewhere on plants that can be utilized to increase food production and to improve the economic and nutritional status of the rural poor in the less developed countries of the dry regions of the world. Nearly two-thirds of the countries in which the Agency for International Development is providing development assistance are partly or wholly in the arid regions. Among them are several of the poorest of the poor countries, principally in sub-Saharan Africa.

B. PURPOSE:

To collect, generate and disseminate information on potential plant resources for arid lands in LDCs which can be utilized to increase local food/fiber/energy/forage production and thereby improve the economic and nutritional status of the rural poor.

C. OBJECTIVES:

The following objectives are designed to accomplish the purpose of the Conference:

1. Assemble existing knowledge on the composition, properties, and distribution of arid land plants and their use as sources of food, forage, medicines, energy, and industrial materials.
2. Identify plants having a special potential for large-scale development.
3. Publish proceedings of the conference which will contain significant papers and summary of recommendations of conference participants.
4. Provide a basis for an exchange service at Texas Tech University for scientists and technologists interested in arid land plant resources.

D. WORK PLAN:

The following is the general format of the conference:

1. The conference will be held at the "International Center for Arid and Semi-Arid Land Studies - ICASALS" at Texas Tech University in Lubbock, Texas during October 8-13, 1978.
2. An international organizing committee is assisting the conference arrangers to select particular subjects to be covered, potential participants, and other matters.
3. The conference will bring together scientists, resource administrators, and land managers. About 60 percent of the papers and 30 percent of the participants will come from developing countries, mainly those in Africa and the Middle East. The conference will be open to persons from throughout the world. There will be invited and volunteer papers presented, with plenary speakers providing an overview for each of the five subject matter sessions. AID funds under this project will be used to support the travel and per diem expenses of eight or more participants from the LDCs.
4. The five basic subject matters to be discussed at the conference are: (a) plant resources in industrial, energy, fiber and medicinal uses; (2) plant resources for direct human consumption as food; (3) plant resources for forage; (4) development of vegetative patterns in arid and semi-arid lands; and (5) the origin and evolution of arid and semi-arid lands.

- D. 5. The proceedings of the conference will be published and will include papers presented, summary material and recommendations made by the conference. AID funds will be used to support publication of the proceedings.
6. After the conference an optional two day field trip to the Chihuahuan Desert in west Texas and a four to five day field trip to relevant desert sites on the U.S. west coast will be organized and made available to participants.

E. ORGANIZATION:

The Conference is being organized by Texas Tech University through its International Center for Arid and Semi-Arid Land Studies. Co-sponsors of the Conference include: the Committee on Desert and Arid Zone Research; American Association for the Advancement of Science; the Consortium of Arid Land Institutes; and the International Shrub Research Coordination Committee. Commitment of funds for the Conference have been received from the American Association for the Advancement of Science, the Forest Service, the Smithsonian Institution (PL-480 money), and Texas Tech University. Requests for funds for foreign participant travel have been sent to UNESCO also.

The Conference arrangers are J. R. Goodin and D. K. Northington, both of the Department of Biological Sciences, Texas Tech University, Lubbock, Texas 79409.

The estimated budget for the Conference is \$60,029. AID is being requested to provide \$25,000 of this total. AID funds would be used to support travel of LDC participants and publication of the Conference proceedings. (See Proposed Budget attached)

F. PUBLICATIONS:

The Conference's proceedings will be published in 2,000 copies. Copies will be provided to symposium participants, other interested scientists, technicians, libraries, and other institutions in LDCs and non-LDCs alike. Two hundred copies of the proceedings will be for AID's use.

G. PROVISIONS FOR EVALUATING CONFERENCE EFFECTIVENESS:

Dr. Dean Peterson of DS/AGR, who will be in Lubbock, Texas during the first half of October on other and separate business, will also attend some of the sessions and evaluate the Conference for program content, organization and applicability to LDC problems.

H. AID MANPOWER REQUIREMENTS:

No AID manpower requirements are expected except as indicated in "G" above.

Approved B Chapman

Disapproved _____

Date 8/9/78

Attachments:

1. Proposed Budget
2. Letter from Dreague to Hesser dated January 3, 1978, Texas Tech's Proposal and Conference Brochures

Clearance:

DS/AGR/TSWM:DFPeterson (Draft)	<u>DFP</u>	Date	<u>7/28/78</u>
DS/AGR:MMozynski	<u>MM</u>	Date	<u>8/2/78</u>
DS/PO:CKassebaum	<u>CK</u>	Date	<u>8/7/78</u>
DAA/DS/FN:EBabb	<u>B</u>	Date	<u>8/2/78</u>
DS/ST:WParham	<u>WCP</u>	Date	<u>8/1/78</u>

PROPOSED BUDGET

International Arid Land Conference
on Plant Resources
(Small Activity/Special Project-Inputs FY78)

<u>I T E M</u>	<u>Conference Total Funding</u>	<u>AID Funded Support Only</u>
Travel/per diem for invited speakers and participants	\$25,000	\$15,000*
Administrative costs (salaries)	14,414	0
Supplies (brochures, programs, etc.)	2,290	0
Publication of Proceedings	<u>18,325</u>	<u>10,000</u>
TOTALS	\$60,029	\$25,000

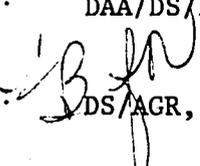
*From LCDs only

UNITED STATES GOVERNMENT

Memorandum

TO : DAA/DS/FN, E. Babb

DATE: July 31, 1978

FROM :  DS/AGR, D. Peterson

SUBJECT: Small Activity - International Arid Lands Conference on Plant Resources

We discussed this with DS/ST and suggested that it might be more appropriate for them to support. They, and we, feel that LDC participation in the Conference should be supported, but DS/ST did not have personnel free at this time to do the paperwork. They suggested we take the initiative if possible. Fortunately our program analyst, Steve Engberg, eats this sort of thing up. I understand the Conference will go on whether or not AID supports it.

I am winding up my last year as Chairman of the AAAS Committee on Arid Lands. This Committee has scheduled a one-day semi-annual meeting in Lubbock on Friday, October 13.

We have many requests to support conferences and workshops each year. We've been handling 6-8 of the most promising ones.



7