

PN - AAR - 392  
ISN = 37025

PN AAR-392

CURSO DE POST-GRADO "CLASIFICACION DE TIERRAS"

OCT. 26 - NOV. 11, 1983 TARIJA-BOLIVIA

FINAL REPORT

Contract No. 511-0000-C-00-3047

Douglas J. Fool  
AGRO CORPORATION  
Apartado 26  
Santa Isabel  
Puerto Rico, 00757

## BACKGROUND

The "Clasificación de Tierras" short-course presented from October 26 to November 11, 1983 in Tarija, was attended by 30 participants ( 15 professionals from the interior all of them with scholarships, 10 professionals from Tarija Institutions and 5 university UAJMS Students). Course Coordinator, Fernando del Carpio, had previously met with the supporting institutions (MACA, UAJMS, CODETAR, PERTT, USAID and UNESCO) to establish preliminary course objectives, arrange local logistic and contract professors.

## PARTICIPANTS

Brochures and course outline prepared by Juan Carlos Quiroga and Fernando del Carpio were circulated to all agencies dealing with natural resources. The participants selected represented a mix of agronomists, foresters, geologists, soil scientists, veterinary and resource planners from the interior of Bolivia as well as Tarija.

## STAFF AND COURSE CONTENT

The professors ( Table 1 ) represented a wide range of experiences in land classification in Latin America. Special efforts were concentrated on presenting a practical application of land classification (30% theory and 70% field work).

After a brief introduction the class visited three projects: Alto Guadalquivir- CODETAR, San Jacinto - MACA and Camacho-PERTT, which served as an introduction to the resource management problems of the Tarija Valley as well as a basis for field exercises.

Subsequently, the participants were divided into three groups where they applied the land use classification system based on life zones to a specific project area.

Group reports were divided into two sections:

- 1) A report on the methodology and field application of the land use classification system based on life zone ecology.

Table 1. List of Staff that participated in short-course "Clasificación de Tierras"  
Oct. 26 - Nov. 11, 1983, Tarija - Bolivia

NAME	FUNDING AGENCY	PROFESSION	DATES OF PARTICIPATION	COURSE SUBJECT	COMING FROM
Fernando del Carpio	USAID	Forester	Full-Time	Course coordinator. Land rehabilitation, institutional aspect	Tarija/ Bolivia
Juan Carlos Quiroga	CHEMONICS/ USAID	Soil Scientist	Full-time	Land use classification, methodology & application, map preparation.	La Paz/ Bolivia
Douglas J. Pool	USAID	Agronomist	Full-Time	Natural resource management, technical analysis, crop ecology	Sta. Isabel Puerto Rico
Richard Breimer	UNESCO	Soil Scientist	Oct.29-Nov.5	USDA & FAO land classification system	Montevideo/ Uruguay
Joseph A. Tosi, Jr.	CHEMONICS/ USAID	Land use ecologist	Nov. 1- 8	Life Zone ecology land use classification	San José/ Costa Rica
Rolando Vargas Gil	INTA	Geologist	Nov.9 - 11	Soil Taxonomy	Salta/ Argentina

2) A report on the synthesis and technical analysis of each proposed project.

Each group presented their land use classification maps and explanations to the entire class, after this, project presentation was discussed. The course reports will be edited and reproduced and mailed to participants.

Course content included life zone ecology, comparison of USDA and FAO land use classification, natural resource management, conflicts of actual and potential land use, crop ecology and crop planning, impacts of over grazing, levels of appropriate technology, methodologies to determine land use capability, water balance, determination of biotemperature, recommended schemes to implement land use changes, the political - institutional problem, the socio-economic factors that determine efficient management of the agropecuario and forestry resources, environmental and technical analysis of development projects and others.

#### DEFICIENCIES

Since this course was the first of a series, the pre-course organization can be greatly improved. Despite the late date in which course funds were actually disbursed (2 days prior to course initiation) the course coordinator Fernando del Carpio had conscientiously made institutional contacts, mailed course descriptions, arranged logistics as well as preparations for reproducing course materials. Transportation was adequate at the beginning of the course when the entire group participated

in the field trips, but problematic when individual groups required more time in the field to complete the practical exercises. The coordinating committee should emphasize the benefits that local institutions are receiving from these courses in order to firmly convince the institutions to provide transport.

The lack of bibliographic materials concerning resource management and land use classification based on life zone ecology is problematic. Professors brought considerable material that was reproduced, but it would be preferable to have course handouts available at the beginning of the course.

#### EVALUATION

Forms were distributed to evaluate the course and to find out the groups consensus concerning future courses and locational preference. These evaluations have been delivered to Preston Pattie by Fernando del Carpio.

#### RECOMMENDATIONS FOR FUTURE COURSES

1. Continue to invite professors and local speakers that represent distinct points of view and experiences as well as encourage lively discussions that lead to a better understanding of natural resource management.
2. The principles of natural resource management (land use classification, life zone ecology, agropecuario, forestry and wild life management needs to be included in future courses.
3. Course content needs to be sufficiently general so that results can be applied to all areas of Bolivia and yet specific

enough to resolve practical problems.

4. The practical or field exercises of the course should be maintained at 60 - 70% as compared to 30 - 40% theory or classroom.
5. Field exercises should be encouraged and implemented in future courses so that participants learn how to apply new methodologies in real situations. The selection of appropriate areas for field exercises will assist in obtaining practical results for the participants.
6. Programming of course content , course budget, logistic and staff orientation should be organized with coordinating institutions well in advance ( 3 months ) or course initiation.
7. Selection of course participants should include mid-level professionals and technicians who deal with practical problems as well as professionals who are involved in the decision making process that affect long-term planning and management of natural resources.
8. Evaluation of participants should be based on individual interest to learn and apply new ideas and the multidisciplinary interchange with other professionals, is more important than rigid exams.