

CHALLENGES FOR THE DEVELOPMENT OF AGRICULTURAL INNOVATIONS IN THE BRAZILIAN SEMIARID REGION

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One of the main challenges for agricultural innovations is the preparation of human resources. Technology based on holistic competence approach leads to increase productivity in the agriculture sector. Agricultural research must be stimulated in all the areas of the agricultural science. Research institutions, universities and other organizations have a crucial role in national development.

One of the priorities should be the development of technical and vocational education at all levels of the educational systems. Under this perspective, international cooperation should focus in the development of human resources. The use of technologies should be stimulated under the principles of sustainable development involving economic, social and environmental dimensions.

Considering an economical perspective, emphasis should be in farm management with the use of TICs; under a social perspective, emphasis should be in cooperation among all the agencies and, above all, toward social welfare of farm families. Finally, under the environmental quality perspective, emphasis should be given at the municipal level with the implementation of a local system of sustainable development with the involvement, at the local level, of all the population involved in agricultural

business. Under this perception, it is important the involvement of agricultural students and other persons involved in industrial activities and services.

Projects in these areas have been proposed in the Cadernos de Educação do Semiárido, n.8 e 9 (CREA, PE). The requirements should be:

- a) involvement of local community leaders in educational programs for the development of agricultural innovations;
- b) train and hire agricultural teachers for the local schools;
- c) create local and state committees for supervising the programs at the local level;
- d) develop curricula under the competence based approach as recommended by UNESCO, by MEC, and by specialists in the area.

It is important to mention that Brazilian legislation has been approved with the support of governmental programs being developed in the Federal Technological Institutes (IFETs). National Council of Education, Ministry of Work and Employment (MTE) have defined competence profiles of all professions and occupations. The Brazilian Classification of Occupations (CBO) is a benchmarking for curricula development in all the areas of the educational systems.

The Agricultural Science Academy of Pernambuco and the Brazilian Academy of Agricultural Science plan to implement cooperative programs with the Agricultural Institute of Canada (AIC) in this area of agricultural innovations.

We know that Brazilian Company of Agricultural Research (Embrapa), the Research Institute of Pernambuco (IPA) and Federal Rural University of Pernambuco have developed research studies to apply agricultural technology. However, the most crucial point is the establishment of a cooperative effort among all these agencies (ABCA, UFRPE, AIC) to develop strategies in this area.