

# HUMAN RESOURCE DEVELOPMENT IN AGRICULTURE SECTOR - DAL'S PROJECTIONS

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## Abstract

*The title of this paper indicates the main theme in that the principal objective in sustainable agriculture is through Human Resource Development at all levels of the sub-sector. As such Human Resource Development must acquire a central role in the practice of agricultural development. It is in this context that Strategy for training for human resources within the agriculture sub-sector was fostered. Thus the training strategy is deliberately aimed at improving knowledge and skills of serving agricultural and livestock officers and emphasized capacity to deliver agricultural services to farmers in the rural sector. Human Resource Development strategy likewise places greater emphasis to promote staff personal needs for growth and development through in-country higher degree programs at masters and doctoral levels. However, such training would be carefully scrutinised to ensure that it clearly relates around job situation and being appropriate and relevant to the farming systems / or agriculture industry in Papua New Guinea. In view of competition for meagre funds between Pre-Service and In-Serve Training Programs, the primary goal of **direct** contribution to organizational effectiveness should prevail. In another words, as part of DAL reform, Pre-Service Education be given over to Commission for Higher Education or other alternative authorities to control and manage instead of DAL.*

**Key words:** Human resource development, sustainable agriculture, training strategy, improving skills, improving knowledge.

## INTRODUCTION

Government's emphasis being placed on agriculture as an economic growth area with the commitment to develop human resources to efficiently produce agricultural products, provide technical and advisory services to producers, assist producers obtain credits from financial institutions and provide trained and competent manpower at all levels of the sub-sector.

Human resource development is concerned with people and as such puts people first in the development process.

In the context of Department of agriculture and Livestock, the development of human resources will be carried out by means of 'training' as farmer, extension officer, technician, researcher, analyst, clerical and executive level.

## OBJECTIVE

The objective of this paper is to outline the training strategy which stresses the importance of provid-

ing effective in-service training for agricultural officers both within DAL as well as provincial DPLs to effectively deliver agricultural services to farmers in the rural sector.

The training strategy is consistent with DAL perpetual three (3) year training plan which came into operation in 1990 as part of government policy governing manpower development in the public sector.

DAL training strategy (DAL 1988), however, does not address the Pre-service education, as such function does not contribute directly to the effectiveness of the organization (DAL).

Whilst on this subject I wish to quote the view expressed by Commission for Higher Education (1992) "... Papua New Guinea is coming to the point where employer demand for certificate trained manpower has been satisfied. Therefore, the trend now is to provide more in-service training at basic degree, masters and doctoral levels. This is to ensure better qualified staff are produced to implement various government initiatives to achieve self-sufficiency for farmers and cash crop producers in the rural sector".

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## TRAINING

This paper will concentrate mainly on the training strategy as a means towards development of human resources for sustainable agriculture in Papua New Guinea.

Training is a process with a key role in capacity building for development, whose prime aim is to:

develop human resources with appropriate tools, both conceptual and technical so as to carry out their work more effectively.

## MEDIUM TERM GOALS

The Human Resource Development Division's mission is to assist the department's mission of promoting investment in agriculture in the rural sector through its investment in human resources.

The main goals of the division in the medium term are:

- (a) to provide trained manpower for the agriculture sub-sector through management training.
- (b) to produce a manpower plan for the sub-sector in collaboration with provinces and the industry, co-ordinate manpower development and training needs assessment for the sub-sector.

The development of human resources will be concentrated on four areas:

- (i) up-grading and developing existing personnel through in-service and other staff training programs;
- (ii) increasing the capacity of Highlands Agricultural College and Lae In-service Training Centre;
- (iii) providing and arranging overseas training for nationals;
- (iv) embarking on in-country higher degree training, especially at masters and doctorate levels related to identified needs in the agriculture sub-sector.

## MANPOWER SURVEY

A major manpower survey has been undertaken by the United Nations Development Programmes (UNDP) and the Food and Agriculture Organisation (FAO) as well as ANZDEC consultants. The findings contained in these reports should enable Department of Agriculture and Livestock to draw up a comprehensive human resource development strategy for the agriculture sub-sector.

It will also help the department to refine training and manpower policies and strategies for developing human resources.

In developing the manpower, emphasis will be given on increasing the capacity of the professional manpower based throughout the sub-sector, particularly in research, extension, veterinary services, plant protection, project planning and other technical fields.

Priority will be given to training for improved monitoring of animal health and productivity. This calls for provision of specialised training overseas for key field and laboratory staff of what is now known as Agriculture Protection Division. In addition existing in-service training to provide improved inputs in the areas of basic epidemiology would be strengthened.

Collaborative programs with research and training institutions will be encouraged as a means by which the skills and experience of nationals can be enhanced. As far as possible "twinning" arrangements with relevant overseas institutions may be negotiated.

The training and manpower development strategy embodies the improvement and upgrading of national manpower available to the sub-sector through in-service training. The strategy will be to utilise existing training institutions (Highlands Agricultural College and Universities).

More emphasis will be placed on a viable working relationship with the Department of Agriculture at the University of Technology in Lae, to promote the training of national manpower particularly at undergraduate level. It is anticipated this relationship will foster training of better qualified graduates which will alleviate DAL's acute manpower problem.

## HIGHER DEGREE TRAINING

As part of a major drive towards capacity building in human resources development within the agriculture sub-sector, DAL will initiate high level in-country training programs geared towards solving some of the common agricultural problems in the country.

Such training will be in the area of higher degree studies leading to Masters and Doctoral degrees. The studies will as much as possible be job related. Hence, the officer undertaking such studies will do his research whilst on the job but supervised by a well qualified and experienced supervisor at professional level. In order to gain global status such studies will be linked with reputable overseas universities for the award of degrees etc.

It makes economic sense for such training to take place in-country because currently similar training being carried out overseas is extremely expensive. The department and the country would gain from such training arrangement whilst at the same time the officer would benefit by way of obtaining higher qualifications from a recognised overseas university.

The private sector will be encouraged to actively participate in training manpower for the agricultural sub-sector. Private sector involvement in other areas of training and manpower development will include sponsorship of students (under-graduate and post-graduate) during their training, inputs into the development and evaluation of curricula at colleges and membership on the governing councils of training institutions.

## TRAINING NEEDS

In determining the gap in trained manpower, and thereby, the training needs of the sector, relevant factors include deviations between the actual and prescribed educational qualifications both for the relevant staff category and for the occupational level of the job performed would be kept in mind.

Manpower study (FAO 1989) identified four main areas in which training is needed.

- (a) Underqualification arising from a mismatch between the staff categories and the occupational levels of the job being undertaken.

- (b) Skills gap currently filled by expatriate staff.
- (c) Training needs related to effecting an improvement in productivity and job competence for all staff including those already possessing the appropriate educational qualifications.
- (d) Training needs were also identified in relation to certain agricultural occupations for which adequate preparation is not provided through pre-service education at the diploma and degree levels. Notable amongst such occupations are those of agricultural economist, agricultural statistician, soil surveyor at degree level and farm manager, laboratory technician, husbandry agriculturalist at Diploma level.

The training needs of DAL and provincial DPIs outlined in this paper were derived from previous studies commissioned by the department including Manpower study (1989), the Agriculture Extension Improvement Study (ANZDEC 1990), holding a series of discussions with divisional directors, provincial DPI assistant secretaries and/or staff development officers.

## PRIORITY AREAS FOR TRAINING

The broadly defined areas of training needs are research, agricultural extension, veterinary services, DAL/DPI management staff and agricultural college teaching staff.

### 1. Research

With the establishment of National Agriculture Research Institute (NARI), following responsibilities will be carried out.

- function as an effective national research coordinating apparatus
- strengthen national research capabilities and
- develop appropriate research programs.

Given the above responsibilities Research staff will need to be prepared adequately in the following areas:

- definition of research problem
- research and experimentation methodology

analytical research.

## 2. Agricultural Extension

The following training needs for extension workers were identified to strengthen their confidence while on the job.

- extension service organisation and operation
- extension administration, management and supervision
- extension programme development and evaluation
- extension teaching methods
- extension communication strategies
- location specific agro-technology recommended practices
- location specific basic, agricultural marketing practices.

## 3. Veterinary Services

To provide trained manpower required to ensure improved monitoring of animal health and productivity by:

- provision of specialised training overseas for key personnel and laboratory staff;
- strengthening of existing in-service training to provide improved inputs in the areas of basic epidemiology and economics;
- strengthening linkages between field and laboratory services at provincial and national levels.

## 4. DAL and DPI Management

Senior and Middle (line supervisors or project and team leaders and sectional heads) management will undergo training in the following areas.

- organization and administration skills
- management and supervision skills
- project planning and preparation techniques
- project appraisal, monitoring and evaluation
- communication skills
- staff appraisal and identification of individual training needs.

## 5. Agricultural Colleges (HAC and LISTC)

Revitalise the in-service training programs for agricultural staff by:

- improving the infrastructure of Highlands Agricultural College and Lae In-Service Training Centre;
- making course syllabus more appropriate to existing agricultural systems;
- upgrading qualifications of lecturing staff to degree and post-graduate degree level;
- expose lecturing staff to technical fields and field experience;
- revitalise PMTP so that agricultural management training may continue to serve small-medium scale cash crop producers.

## 6. Farmer Training

In order for DAL to stimulate economic development in the rural areas, strong efforts will be made to collaborate with the provinces to revitalise the farmer training concept. The farmer training school/ or centre may be established in each of the provincial extension centres in each province.

National Department of Agriculture and Livestock to provide input into the farmer training school at Regional level through the office of Regional Director who will be responsible for subject matter specialists and other support staff including Staff Development and Training Officer.

## 7. Post Training Evaluation

In line with planned training programme for each officer, a comprehensive follow-up evaluation of training will be carried out by staff within Human Resource Development Division after an officer has successfully completed his/her training.

The evaluation may cover various aspects particularly relating to course curricula and perceived effects of training in terms of work performance and productivity.

The evaluator would be required to possess a broad knowledge of the context of training programme, gained through observation and experience.

## 8. Bonding system

In order for the Department of Agriculture and Livestock to gain maximum benefit from officers

who successfully completed long academic courses, either abroad or in-country to be required to sign an agreement to continue to serve the department for up to 5 years after completion of studies.

Such bonding system would ensure continuity in the department's operations whilst at the same time giving the officer concerned a sense of commitment and dedication to the department and the country as a whole.

## CONCLUSION

The important consideration in the proposals/strategies outlined here is for the functions to be achieved. In order for such functions to be achieved it is important that DAL through Human Resource Development Division develops viable working relationships with agricultural based Universities and with all those involved in agriculture. In doing so, we can be able to produce manpower that will give 85% of our country's population a better livelihood and 15% better food at cheaper prices.

## RECOMMENDATION

In view of competition for scarce financial resources between Pre-service Education and In-service Training programs, it is recommended that the function of Pre-service Education be handed over to Commission for Higher Education or other authorities to control and manage.

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