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## REPORT OF WORKSHOP III

Subject: Resource Constraints in Production, Processing and Marketing in Antigua

1. Constraints were identified as:

- (i) Natural, physical, soil and environmental factors
- (ii) Institutional framework and regulating mechanisms
- (iii) Organizational arrangements
- (iv) Finance allocations and policies
- (v) Inadequate storage, preservation and agro-industrial linkages
- (vi) The need for marketing strategies to meet specific local needs and national goals.

2. The natural resource base:

Climate, rainfall regimes, soils, topography and the inter-acting influences of these natural factors on agricultural production were discussed.

Although these natural factors impose some production constraints, the Workshop was of the opinion that, among other things, given the necessary organizational, technical, financial inputs, the resource base could permit a stable agricultural industry although with distinct seasonal fluctuations.

The conservation and development of water resources, the use of production techniques that minimise water use and at the same time maximise water use efficiency, intensification of land use and cropping systems and careful evaluation of returns from various inputs to ensure that uneconomic activities are minimised were considered necessary.

Land deterioration resulting from high rates of continuing soil erosion, and denudation of primary and secondary forests without follow-up development have become more widespread in recent years. The Workshop recommended implementation of a comprehensive land use and zoning policy, coupled with a soil conservation and reforestation programme which could include the use of economic fruit trees in water sheds.

3. *Land use and zoning*

Work being done by local technical personnel was commended.

Meeting recommended that this work be continued and developed to the fullest possible extent to provide necessary inputs into land use policies and strategies.

4. *The institutional framework*

The Workshop considered the adequacy of existing institutions with respect to their ability to supply needed services to the agricultural sector. Manpower limitations were recognised as indicated in the study document.

5. Clear policy guidelines particularly with respect to medium and long-term perspectives were considered to be necessary in order to realize

any meaningful and sustained agricultural development in the Antigua environment and existing agricultural trading conditions.

6. Existing policies and strategies of funding agencies need to be modified to provide a favourable credit and investment framework within which agricultural development can be financed.

7. The present investment climate for agriculture does not engender confidence or provide attraction to the private person. This is particularly important to facilitate the development of an industry responsive to national needs and operated in the main by local entrepreneurs.

8. Lack of an adequate (and reliable) statistics base and data collection system to provide reliable inputs for planning and policy decisions. The Committee recommended strengthening and expanding the statistics service with adequate programmes with respect to the agricultural sector.

9. An acute human resource constraint resulting from inadequate training opportunities and unattractive job conditions was recognized. The increasing loss of professionals to overseas positions has resulted in a shortage of personnel to implement programmes. The meeting was of the opinion that the present policies of obtaining technical assistance personnel on short-term assignments should be reviewed and both local and aid donor resources used to develop local human resource to secure a cadre of national professionals in appropriate jobs.

10. A functional agricultural information service was recognized as a necessary input to facilitate implementation of agricultural programmes, improve farming practices, and regularity of supplies.

11. Advanced age of farmers, their present apparent low level of technical expertise and production efficiency coupled with the virtual absence of young farmers entering into production were recognised as constraints to existing and future production.

12. Formulation of credit systems with (apparent) high probability of success in the local farming environment was recognised as a major need to remove the present credit constraints and improve repayment.

13. The Workshop was of the opinion that identification of specific national production goals for each commodity is a pre-requisite to the efficient mobilization and organization of agricultural services and inputs for expanded and sustained production.

14. *Pricing policies*

Pricing policies to stimulate production, improve continuity of supplies, and be an effective regulating mechanism to reduce gluts can be used to great advantage. However, the marketing agencies and primary producers should agree on certain prices well in advance of the planting season. Prices should be tied to an effective grading system.

15. *Marketing*

The Workshop recognised that the role of a Marketing Board is not to dispose of surplus production but is a part of an inseparable production/

marketing complex of activities neither of which can be a viable and sustained activity in its own right.

It was recommended that marketing considerations be given a major role in production planning and programming decisions. Such inputs could help to increase national production efficiency, financial returns to the farmer and the national economy.

16. Free grazing livestock which inflict serious damage to growing crops is a serious constraint to arable cropping. The meeting recommended that measures should be introduced to enforce effective control of such animals.

17. *Processing*

Processing was recognised as a means whereby import substitution and increased economic development could be realized. The existing activities carried out in the Government Chemist's Department were commended and their continuation recommended.

In order to increase utilization of primary produce and to reduce wastage during the main season, the Workshop recommended that efforts be made to identify and obtain processing facilities appropriate to the local situation.

It was recognized and stressed that even small scale, commercial activities demand production of raw material specifically for the processing plant in order to realize financial viability.

18. The Workshop recommended increased production, utilization and, where necessary, preservation of the following commodities with the aim of realizing self-sufficiency. It should be noted here that criteria on which recommendations were based included not only considerations of the environment, present and assumed future demand but also nutrition, financial and economic factors.

(a) Cereals - corn: The environmental constraints on production were recognized. However, systems of mixed farming and mixed cropping by small farmers, given necessary agricultural extension inputs, were recommended. The fragile financial and economic base of large scale mechanized production, the opportunity cost of corn production, the present high unemployment rate and low labour demand of the existing system were noted. Alternate land use which could realize increased economic returns to the island should be examined.

(b) Sugar cane and sugar: The Workshop was of the opinion that cultivation of sugar cane for the production of raw sugar would most likely be unfinancial and uneconomic, given the existing and likely future cost/price relations. If a decision were made to produce raw sugar for local use, then adequate and cheaper technologies must be developed.

The meeting recognized that production of sugar cane for animal feed could make a large and important contribution to agricultural development and the economy.

(c) Livestock: The constraints to livestock production are mainly inadequate organization, poor pasture development coupled with large seasonal and annual fluctuations in the availability of fodder, unreliable water supplies, high cost and irregular

supplies of necessary protein inputs on the one hand and the failure of farmers to implement systematic off-take policies to avoid over-stocking, large annual fluctuations in liveweight, high mortality, and reduced fecundity.

The Workshop was of the opinion that there is a large potential for the production of small stock to supply the local demand and enter into regional trade. However, viable operations would require de-control of meat prices and better presentation of the product.

The role of livestock, and particularly sheep and goats in small mixed farming enterprises was considered an important factor with regard to national production, nutrition, farmer income and on-farm work throughout the year.

It was recognized that a programme for the production and conservation of fodder are pre-requisites for a viable industry.

- (d) Vegetables and food crops: Relatively small acreages are needed to supply local demand. However, improved production techniques extension of the planting season and planning production either for the fresh market or for processing are pre-requisites to ensure regular supplies.

The production of food legumes was identified as one of the most important food production programmes which should be implemented with the very highest priority.

- (e) Cotton: The climatic, production and harvesting constraints were discussed. The Workshop recognized plant protection, harvesting and adequate crop rotation and crop associations as the main constraints to expanding acreages and realization of higher yields. However, with the very good possibilities for agro-industrial linkages and employment generation, the use of by-products as high protein animal feed and the production of edible oils were considered sufficiently important to urge the continuation and expansion of cotton production.
- (f) Fish: No fisheries personnel was present. The relative low yield of fish in the surrounding waters is well-known. However, the potential to increase fish yields with the development of an adequate fleet using improved gear and techniques was recognized and recommended as a high priority activity.