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THE DEVELOPMENT OF A RURALLY BASED CASSAVA FLOUR INDUSTRY IN COLOMBIA

(Le développement d'une industrie rurale de farine de manioc en Colombie)

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SUMMARY

The paper describes an on-going cooperative project between the Centro Internacional de Agricultura Tropical, the Instituto de Investigaciones Tecnologicas, and the Universidad del Valle, whose objective is to determine the technical and economic conditions required for the development of a rural cassava flour industry in Colombia. The project is partially financed by the International Development Research Centre. The aim of the project is to design and implement a viable system for the production and use of cassava flour as a partial substitute por Wheat flour in bakery products. The principal areas that are being investigated are : (1) the introduction of improved cassava production technology to reduce costs and raw material prices ; (2) the development of an appropriate cassava processing technology to produce a high quality flour ; (3) the determination of mechanisms to motivate the wheat miller to produce and the baker to use composite flour ; (4) the optimization of baking procedures ; and (5) the evaluation of consumer preferences for and acceptance of composite flour products. The methodological framework within which the project is being carried out is presented, together with the results of the preliminary economic and technical studies that have been undertaken.

RESUME

La communication décrit un projet coopératif en cours entre le Centre International d'Agriculture Tropicale, l'Institut de Recherches Technologiques et l'Université del Valle. L'objectif de ce projet est de déterminer les conditions techniques et économiques pour le développement d'une industrie rurale de farine de manioc en Colombie.

Le projet est partiellement financé par le Centre de Recherche pour le Développement International (CRDI/IRDC). Le but du projet est de concevoir et de mettre en oeuvre un système viable pour la production et l'utilisation de farine de manioc pour remplacer partiellement la farine de blé en boulangerie.

Les principaux secteurs de la recherche en cours sont :

(1) L'introduction d'une technologie améliorée de production du manioc pour réduire les coûts et les prix de la matière première ;

(2) Le développement d'une technologie appropriée de traitement du manioc pour produire une farine de grande qualité ;

(3) La détermination de mécanismes pour motiver le minotier à produire et le boulanger à utiliser une farine mixte.

(4) L'évaluation des préférences du consommateur et l'acceptation de produits à base de farine mixte.

INTRODUCTION

The rapid urbanization of the population in Latin American and Caribbean countries has brought with it an increase in the consumption of bakery products. This, in turn, has led to ever increasing imports of wheat, especially in the tropical countries of the region. In order to reduce the level of these imports and save foreign exchange, on various occasions it has been proposed that the wheat flour in bakery products should be partially substituted by locally produced flours, such as maize, rice, sorghum, potato and cassava flour.

In the specific case of cassava flour, research has shown that it is technically feasible to substitute wheat flour in bread up to levels of 20 per cent (CRABTREE, KRAMER and BALDRY, 1978). However, in practise the implementation of national composite flour programs based on wheat and cassava mixtures has not met with a great deal of success. There are a number of reasons for the failure of these programs. In some cases subsidies on imported wheat have made it impossible to produce cassava flour at a competitive price, in others the cassava flour processing technology has been inadequately selected and, in general, too little attention has been paid to providing incentives to encourage farmers to grow cassava, which has meant that the supply of raw material to the processing plants has often been insufficient and intermittent.

Colombia is one of the few countries in Latin America and the Caribbean that does not subsidise wheat and preliminary economic analysis suggest that the production and use of cassava flour in bakery products would be feasible, given the present cost of producing cassava in the Atlantic