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DEVELOPMENT OF A COMPUTER PACKAGE ON AGRICULTURAL PROJECT ANALYSIS FOR BANKS

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Even though agricultural credit is provided by many banks in Sri Lanka, the default rate of agricultural credit is very high and has a detrimental effect on the banks as well as the national economy. It has been observed that a rigorous evaluation of agricultural credit applications before approval could prevent most of these defaults. This is not the normal practice of most banks, because of the lack of personnel and the high time consumption, which is about three hours for a complete project analysis. If a computerized system is used to carry out this task, it will be possible to overcome the above problems.

The first objective of the project was to develop a computer package, which would provide annual cost-benefit streams of an agricultural project, and carry out a complete project analysis, which could be used as a Decision Support System for credit approval in banks. The scope was limited to agricultural project analysis regarding financial purposes of selected perennial crops. The second objective was to prepare a guide for its users.

The programming language was dBase 5 for Windows. The necessary output was decided by interviewing bank officers and subject matter specialists. The development process included designing the menu, developing the database structure, hierarchical ordering, defining procedures and sub-routines, designing action diagrams, coding and testing and debugging at the unit and integration levels. After initial development, the computer package was tested at the system level, and debugged. A guide for the user was prepared as a help window, within the application. The design and the programming procedures were documented to facilitate future modification and maintenance.

The computer package includes six procedure files, two menu files, six query files and a database. The total number of procedures is 243, and the number of lines of code is 8054. It could be used by non-agricultural personnel in financial institutions, as well as agricultural entrepreneurs. It is a user-friendly application with a graphical interface, requiring only very basic computer skills.

The database provides cost-benefit streams of selected fruit crops. Financial analysis based on the user specifications of interest rate and time period is provided. A help feature is also included in the computer package. A report, which can be modified according to the user's needs, is generated while the project analysis is carried out. Using the computer package, the average time taken to analyse an agricultural project will be about fifteen minutes, which is a 1100% increase in efficiency, compared with the time taken to do it manually.