Information System for Paddy Cultivation

P.A.D.M.D.Ponweera

MScIT/08/10026

Faculty of Information Technology

University of Moratuwa

December 2010

Information System for Paddy Cultivation

P.A.D.M.D.Ponweera

MScIT/08/10026

Dissertation submitted to the Faculty of Information Technology, University of Moratuwa, Sri Lanka for the partial fulfillment of the requirements of the Master of Science in Information Technology.

December 2010

Declaration

We declare that this thesis is our own work and has not been submitted in any form for another degree or diploma at any University or other institution of tertiary education. Information derived from the published or unpublished work of others has been acknowledged in the text and a list of reference is given.

P.A.D.M.D.Ponweera

Name of the student **Signature of student**

Date: 2011.12.21

Supervised by

S.C. Premaratne

Name of the supervisor **Signature of Supervisor**

Date: 21/12/2011

Dedication

This report is heartily dedicated

To all the paddy farmers in the Country who

Sacrifice their labor without getting enough return

For their efforts to provide the rice to the Nation amidst

Thousands of the difficulties & obstacles.

Acknowledgement

It is pleasure to state that M.Sc. (Information Technology) gives us immense opportunities to enhance our talents by improving the subject knowledge and practices. Therefore our sincere thanks should go to Prof.Asoka Karunananda, the Dean of Information Technology for guiding the faculty to design and manage such a valuable master programme.

Subsequently I should thank Mr.Saminda Premarathne, supervisor of this project for the guidance and instructions given to me for the successful completion of this project. If his kind assistance, valuable suggestion and advices were not received by me, this attempt would not be materialized.

Then we should appreciate the contribution made by Dr.Ajith Madurapperuma, former course coordinator of M.Sc. (IT) and Dean of the faculty during the first semester of this programme. And we must thank all the lecturing staff of the course whose invaluable contribution would build up ourselves in the field of information technology. Further staff members of the faculty are remembered gratefully for the assistance given to us during this period.

I should take this opportunity to thank my friends, Chandike, Sudesh, Kanthi and Kumara for their kind cooperation extended to me by advising and guiding me on various subject matters. I am highly indebted to my friend, Eranga for the kind gestures extended to me in completion of this project.

Further my thanks are owed to Mr.Tissa Marasinghe, Director, Institute of Government Accounts and Finance for funding for this course and other valuable guidance and Mr.K.A.D.Hemarathne, Chief Accountant, Ministry of Finance and Planning, for granting me necessary leaves and other facilities for following this course.

Last but not least I should thank to my wife Samudrika and my father, mother and sister for the support given to me during this two years time.

Abstract

This project is basically to develop the information system for paddy cultivation enabling both decision making authorities and farmers to make effective decision making. Using this information system the frequent fluctuation of price of product of paddy cultivation can be avoided by setting up paddy purchasing centers to purchase the excess harvest and import the shortage of such product if any, in time. At the same time farmers also can get the information on expected price of the paddy in advance before the end of each season and they can prepare for the situation coming up by adopting counter strategies. Further individual farmers' productivity reports, reports on fertilizer subsidiary distribution and reports on tax on paddy lands are the other useful artifacts that could be generated from this project. Moreover various other reports which are instrumental for decision making can be created as per the requirements of the users.

As discussed in the chapter 8, this system is opened and facilitate for further development for catering the changing requirements of the environment and users. Hence by addressing those requirements too, agricultural sector of the Sri Lanka will have effective information system for decision making purposes. As chapter 2 explained, one of the main objectives of the Government in long term macro framework is sustainable development in agricultural sector, this system would facilitate to achieve this objective by providing up to date information.

Therefore successful completion of this project definitely will serve both farmers and customers equally by upgrading their living standards. And the Government will be facilitated to achieve the objectives formulated in their long term plan regarding the agricultural sector.

Table of Contents

Table of figures