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**THE EFFECTS OF URBAN SPRAWL ON
AGRICULTURAL LAND USE IN SRI LANKA:
A CASE STUDY ON GAMPAHA DISTRICT**

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A thesis submitted in partial fulfillment
of the requirements for the degree of
Masters in Philosophy (Agricultural Economics)
Massey University

1996

I would like to dedicate this thesis to my Appa (father) and Mama (uncle). Were it not for them, this thesis would never have been possible. They are the ones who brought me up to this stage and have found happiness in my progress. Although they are no longer physically present to see the completed thesis, they have both remained with me spiritually throughout, and I know that they will be happy to accept this thesis. I know also that they will continue to be with me throughout the rest of my life.

ABSTRACT

Sri Lanka is an island nation situated in the Indian Ocean to the South-west of the Indian sub-continent. In 1977, Sri Lanka adopted free market economic policies to overcome the economic problems and poverty of the country and its people. Although the new policy changes have brought some improvement to the economy, many of the changes were achieved at the cost of the environment and the agricultural sector. As the agricultural sector still plays, and will continue to play, a major role in the national economy, especially in terms of food security, export earnings, employment opportunities and income generation, and as a source of raw material for many industries, it is necessary to minimize the adverse effects on the agricultural sector and the resources used by this sector from the urban and industrial development encouraged under the free market policies.

This thesis has focused on land degradation and land conversion in peri-urban areas. Special attention has been focused on the case study area of Gampaha district, situated next to the capital city of Colombo. Questionnaire surveys were carried out with former and present farmers in various areas of the district. 135 former farmers, who had sold their lands for non-agricultural uses, were interviewed in the first questionnaire survey to identify the reasons they sold their lands. The second questionnaire survey interviewed 195 present farmers, to identify the problems they have been facing in the agricultural sector, especially since the introduction of the free market policies. Further, a grid survey was undertaken to identify the land use changes in the district. The present land uses identified through the grid survey were compared with the land use data prepared in 1981 by the Land Use Planning Unit, Gampaha district. Data were also collected relating to the discharge of effluent and waste in the peri-urban areas of the district.

The results showed that urban and built-up land has increased from 1.6 percent in 1981 to 14.9 percent in 1996. The total agricultural land under production in the district declined from 90.41 percent in 1981 to 56.85 percent in 1996. Paddy land decreased from 16.12 percent to 10.48 percent, coconut land decreased from 17.51 percent to 10.94 percent, and the homestead lands decreased from 49.9 percent to 30.84 percent. This study further found that urban and industrial effluent discharged, even after treatment, was still of unacceptable levels. The study also identified that much of the land converted to non-agricultural uses was under-utilised or used extensively, due to a lack of essential infrastructure development. This has created large expanses of waste land which are not used productively by either sector.

The farmers in the study were found to be suffering problems in cultivation due to a number of factors, including the withdrawal or limitation of subsidies, flooding due to poor irrigation, and pollution from the industrial sector. They were thus attracted by increasing land prices which were manipulated by the private property developers in the free market environment. This has led to fertile agricultural land being rapidly converted on the urban fringes and along the main roads of the district.

To solve the problems related to premature land conversion, and land degradation, this thesis identifies a number of policy changes and programmes which need to be adopted. These include the adoption of agricultural zoning to prevent urban expansion onto agricultural land, measures to control the activities of private property developers, and consequently the rising cost of land, and pollution control measures. There is also a need to intensify agriculture in areas still under cultivation, through measures such as intercropping and increased fertilizer input. Immediate attention must be given to slow land conversion in peri-urban areas, and to prevent land degradation. An appropriate land use management plan is urgently required in order to ensure sustainable development in Gampaha district and Sri Lanka as a whole.

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ACKNOWLEDGEMENTS

First of all I would like to thank God for all his grace, especially throughout the hard times I have experienced during the last year.

I have benefited from the help and advice of many people in the process of researching, writing and editing this thesis. It is impossible to thank all of them individually here, but in particular I would like to acknowledge the help of the following people:

Professor A.D. Meister supervised the production of this thesis, and his enthusiasm and tolerance kept me going through the hardest times. I also appreciate his kindness understanding, and patience.

My thanks to Dr. J. Holand who also provided help in many ways.

Dr. D. Kirtisinghe, Project Manager of the Agricultural Research Project (ARP) in Sri Lanka. His kindness and help went beyond what one could have expected. Also thanks to all the other staff at ARP.

Dr. S.L. Samarasinghe, Director of the Agrarian Research and Training Centre (ARTI), and the other staff at ARTI provided assistance right throughout, in all aspects of the production.

I would especially like to thank the following people who assisted and made possible the case study:

The farmers, both former and present, whose responses form the basis for the data presented in this thesis.

Those officials and personnel who gave their time and allowed me to interview them, including the following:

Mr. Jeyawardena, Land use planning officer, Gampaha.

Mr. Herandra Suriya, Assistant Director for Agriculture, Kelaniya.

Mr. Varnakulasingham and Mr. Fernando, Physical health officers.

Mr. Roger Fernando, Village officer.

Dr. K.D. Ferendo, University of Moratuwa guided me around various sites, especially during the field survey.

My special thanks to my friend Nathan Dunbar for his valuable help in the writing and editing of this thesis, and in many other ways.

The following people were also of assistance during the production of the thesis:

Dr. Rukumani Gounder, Massey University.

All the staff at department of Applied and International Economics and Department of Economics Massey University.

My special thanks to all my family whose love support and prayers have kept me going. Special thanks to my loving Amma and Auntie whose blessings and love strengthened me throughout.

My thanks to all my other friends and colleagues who directly and indirectly helped me in numerous ways.

This thesis was assisted by a grant from the Agricultural Research Project.