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**INTERNATIONAL TECHNOLOGY TRANSFER
OF AGRICULTURAL MACHINERY FOR
PADDY CULTIVATION:
A STUDY ON JAPANESE FOOD PRODUCTION
GRANT**

By

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This Dissertation was submitted to the Department of Management of Technology of the University of Moratuwa in partial fulfillment of the requirement for the Degree of Master of Business Administration.

University of Moratuwa



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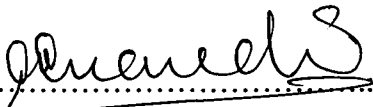


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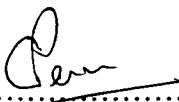
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ABSTRACT

This study attempts to analyze the success and failures of international technology transfer projects of Ministry of Agriculture. An international technology transfer concepts, supporting factors and how transfer is taking place has been reviewed comprehensively.

An international technology transfer projects implemented in the past have not been very successful due to selection of inappropriate technology, selection of incorrect technology supplier and lack of commitment by the transferee.

The author of this dissertation uses a combined conceptual model, which is a combination of the concepts of technology capability enhancement, polytrophic components of technology, stage- gate model and seven factors, and a model of technology diffusion to analyze the success and failures of the projects in detail and found that the application is successful.

The transferor's dominant role in grant aid projects has prevented the opportunities of transferee to enhance the technological capabilities upto the required level. On the other hand, transferee has performed a very poor role in the acquisition process of the technology. Other main contributory factors for not reaching the required level had been lack of knowledge and capabilities in modern technologies, and low level of commitment and poor performance of the transferee. Inadequate technology transfer has made this situation further serious, as transferee is a dependent on the transferor for various components and they are very costly.

It was also noted that the transferor is selling technologies belonging to other companies and acting as a "technology broker" rather than playing the role of committed transferor. Therefore, identification of a transferor, whose motivation and role in the foreign assisted international technology transfer projects, is much more important than simply making use of the funds offered.

Present guidelines and regulations enforced for the procurement of goods and services do not focus on the technological aspects to guide for successful technological transfer. As such, National Procurement Agency, which is currently under the President, needs to prepare a "comprehensive check list" for the evaluation and

selection of technology suppliers and a “Steering Committee” to implement international technology transfer projects. This steering committee is in addition to the technical evaluation committee and the tender board. This concept would bring more successful and justifiable results for the investment.

Any successful TT project does not necessarily produce effective knowledge transfer, unless it is effectively disseminate to stake holders, as they are independent processes. The data of Sri Lanka Integrated Survey confirms that by 1999-2000, only about 13% of agricultural households received technical assistance from a government extension agent, and landless and marginal farmers appeared even more handicapped in accessing extension services.

The conceptual model of technology transfer has three broad categories surrounding the core technology. Needs assessment is the first step in determining the needs and requirements of a new or modified technology to be transferred. Secondly, the implementation process elements are vehicles that facilitate technology transfer and is noted that many international technology transfers fail at the implementation stage.

The diffusion process is the final stage where individuals or groups of people decide whether or not to adopt and use the new technology. In most developing nations, given their traditional and cultural orientations, the role of the government and opinion leaders is paramount to successful diffusion of any new technology.

It is concluded that the linkages and interactions between technology developers, implementation process, and diffusion activity plan, mere producing an effective transfer of new technologies to grass root levels. Dissemination is a collaborative activity, which involves set of actors, activities, organizations and institutions. The end users are varied in terms of their age, gender, ethnicity, education level, income level, and farming activity, hence diffusion of knowledge is very critical.

Therefore, technologies which are very close to the end users needs and wants are quickly diffused. Agricultural extension is a systematic process which transferring knowledge from researches to farmers on numerous matters.

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LIST OF ABBREVIATIONS

CATB	Cabinet Appointed Tender Board
COM	Cabinet of Ministers
CVD	Core Value Determinant
FDI	Foreign Direct Investment
ITT	International Technology Transfer
LM	Line Ministry
MOF	Ministry of Finance and Planning
MTB	Ministry Appointed Tender Board
NPA	National Procurement Agency
SC	Steering Committee
TEC	Technical Evaluation Committee
TB	Tender Board
TT	Technology Transfer
TTSC	Technology Transfer Steering Committee
MOA	Ministry of Agriculture
DOAD	Department of Agrarian Development
DOA	Department of Agriculture
BOO	Built Operate & Own
R&D	Research & Development
JV	Joint Venture
SLR	Sri Lanka Railways
MBA	Master of Business Administration
FAO	Food and Agriculture Organization
SLIS	Sri Lanka Integrated Survey
CDPLC	Colombo Dockyard PLC



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IPR	Intellectual Property Rights
RII	Relative Importance Index
TSI	Technoware Specific inforware
tai	Technoware attributable inforware
toi	Technoware operation inforware
tmi	Technoware maintence inforware
t	Ton
ha	Hectare
IT	Information Technology
ICT	Information and Communication Technology
UNCTC	United Nations Council for Trade & Commerce
UNCTD	United Nations Conference on Trade and Development
NGO	Non Government Organization
CV	Coefficient of Variation



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