

LAND REFORMS AND LAND CONSOLIDATION
towards sustainable rural development

Malathi Rambodagedara
Uthpala Jayasinghe
Prasanna Wijesinghe

Occasional Publication No: 47



March 2022

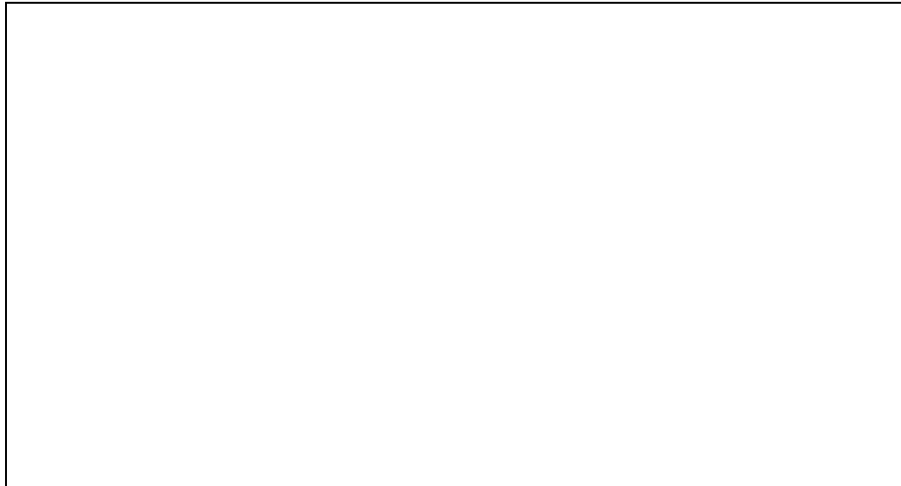
Hector Kobbekaduwa Agrarian Research and Training Institute
114, Wijerama Mawatha
Colombo 07
Sri Lanka

2022, Hector Kobbekaduwa Agrarian Research and Training Institute

First Published: 2022

ISBN: 978-624-5973-17-0

National Library and Documentation Services Board
Cataloguing-In-Publication Data



Hector Kobbekaduwa Agrarian Research and Training Institute
114, Wijerama Mawatha, Colombo 07
Sri Lanka

Final typesetting and lay-out by : Niluka Priyadarshani de Silva

Cover page designed by : Udeni Karunarathna

Tel. Phone : +94 11 2696981
 +94 11 2696437

Fax : +94 11 2692423

Email : librarian@harti.gov.lk

Web page : www.harti.gov.lk

FOREWARD

Samuel Langhorne Clemens, better known by his nom de guerre, Mark Twain, famously advised a young man thus: 'buy land, you know they are not making it any more.' That's a frequently used quote. Clemens didn't anticipate skyscrapers or underground parking, but then again, the observation holds true for massive swathes of territory; skyscrapers are essentially features of metropole landscapes.

Land. It's key when it comes to agriculture. When it comes to development, it is about entitlement. You need land to till and your relation to the land is crucial when the moment comes to claim the harvest. Entitlement issues have been what land reform is all about. Typically, the assumption is that land reform is prompted by a social and political need to address inequality issues which result in benefits being differentially and unfairly distributed. Indeed preambles to land reform exercises in Sri Lanka are full of such rhetoric.

Rhetoric and intent notwithstanding the overall political economy which manifests itself in political configuration have, historically, ensured compromised pieces of legislation. Nevertheless, reforms have helped correct relations of production.

Not all land reforms, however, have been inspired by egalitarian ethos. There's been left-wing reform and right-wing reform — that's one way of putting it. Legislation related to land during the island's occupation by the British, for example, was revolutionary in terms of 'transformation' but it was also about disempowerment, usurpation and outright theft. In more recent times, policies labeled as 'imperative' in terms of economic 'logic' assumed to be impeccable and marketed as ideology-free, have without disturbing the legislator served to reverse processes set in motion in the 1950s and early 1970s. 'Consolidation' after all is an ideologically loaded term and 'economies of scale' a notion that is embedded in one particular development paradigm whose worth has been widely questioned, not least of all because of ills unintentionally (perhaps) generated which have compromised both development and sustainability.

As this study reveals, short-term and singular objectives have given rise to numerous initiatives related to land which have in turn produced mixed results. The initiatives therefore cry out for assessment especially in the context of national interests and global challenges. Societies aren't flat and

agrarian realities are complex and dynamic. Cast-in-stone policies therefore have created additional issues, while good intention has not necessarily enhanced overall well-being.

Land. It is critical, no doubt. They aren't making it any more. Land and all policies and legislation related to it, for this and other reasons, constitute a window into social, economic and political processes, an understanding of which is necessary for course-correction where necessary. This study speaks to these issues and is therefore an important intervention with broader implications for scholars as well as policy-makers.

Malinda Seneviratne
Director/Chief Executive Officer

ACKNOWLEDGEMENT

We would like to express our sincere thanks to Mr. Malinda Seneviratne Director of HARTI for his support extended to finalize and publish this report in time. Our deep sense of gratitude goes to Mr. Sidath Bandara, former Head of Environment Division for his invaluable support and guidance provided throughout the study. We wish to convey our gratitude to Ms. Renuka Weerakkody, Research Fellow and Mr. Shantha Hewage, for their continuous support and facilitation in the completion of this study. We are also thankful for Ms. Susila Lurdu, and again Mr. Shantha Hewage, Senior Research Officers and Ms. B.M.F. Rifana, Research Officer of HARTI for reviewing the report and providing us with their constructive comments. Our special thanks also go to Dr. N.P.G. Samantha, Head, Information and Publication Division for his support rendered in various means.

Our sincere gratitude also goes to Dr. T.K. Illangakoon, Assistant Director of Agriculture, Rice Research and Development Institute for all the generous support provided by giving necessary information and helping us to coordinate with beneficiary farmers of land consolidation initiatives. We also thankful Mr. Nalaka, and Mr B.M.P. Priyankara Ranasinghe agriculture Instructors of the case study area for their invaluable support provided to meet farmers at the ground level. Our deep sense of gratitude also goes to the beneficiary farmers of the study sites who share their experience on land consolidation with us despite their busy farming work.

We are also thankful to Ms. L.A.K.C. Dahanayake - Senior Assistant Registrar for providing administrative facilitations throughout the study. We would like to thank Ms. Rasika Wijesinghe, our colleague for extending a helping hand to us whenever needed. Our appreciation also goes to Mr. S.A.C.U. Senanayake, Senior Information and Publication Officer of HARTI for proofreading the final report. The service rendered by Ms. W.N.P. De Silva for typesetting and preparation of the final manuscript and all the support provided of other staff members of the Environment Division is highly appreciated. We are much appreciated to Ms. Udeni Karunarathne for nicely designing the cover page of the report. The research team also wishes to thank staff members of the Information and Publication Division for making arrangements to print the report.

Last but not least, we wish to thank HARTI staff and all the personnel who extended their support in various ways until the report was published.

Malathi Rambodagedara
Uthpala Jayasinghe
Prasanna Wijesinghe

EXECUTIVE SUMMARY

Land, agrarian, and rural reforms encompass a broad territory of focus in rural development and sustainable use of land resources. Land consolidation is regarded as one of the key strategies that facilitate agriculture and rural development by utilizing land resources in a more productive, efficient, and sustainable way. Sri Lanka suffers from serious agricultural land use issues namely land fragmentation, small land plots, and poor land management practices. Prevalent issues concerning rural and agricultural lands necessitate prudent policy measures to promote efficient and sustainable land-use practices. Given its significance, the implementation of land consolidation has generated a serious prolonged policy debate in Sri Lanka. This report reviews the land reforms and land consolidation initiatives in Sri Lanka and identifies farmers' experience in the implementation of land consolidation initiatives at the ground level scenario. It also draws on lessons learned from previous policy reforms and land consolidation experience from both country-specific and regional perspectives.

In the case of Sri Lanka, the formulation of land policies has been inevitably linked with the rural and agricultural landscape of the country due to the long-established agricultural background and the socio-economic significance of the sector. Measures that had been taken to expand the plantation economy in the colonization period can be identified as a crossroads of the land use system in Sri Lanka which led to revolutionary changes in the native production systems, ingrained social fabric, and ideological landscapes. Even today the effects of these land-use changes are momentous and decisive in shaping the performance of the rural land sector in general and agrarian livelihoods in particular.

In the case of Sri Lanka, like many emerging economies in Asia, prior land reforms focused on rationalized objectives such as food security, tenure security, strengthening agricultural productivity, collective farming, boosting employment opportunities, and improving farm structures. These were aimed at addressing the social and economic imperfections that existed at Independence. Nevertheless, profound issues related to the land and agrarian sectors have remained largely unchanged. The influence of political ideologies, management failures and shifting priorities as a result of the absence of long-term static policies, can be regarded as major obstacles in achieving sustainable reform outcomes.

In many countries, modern land consolidation initiatives were commenced to fulfil the pressing needs of the country such as satisfying food demand, reaching food security goals and providing tenure security for deprived rural communities. With the evolution of land reforms and rural restructuring, land consolidation related work has fostered a broad range of development goals, in particular the needs of the competitive agricultural sector, rural development and global environmental concerns.

The Paddy Land Act enacted in 1958 was the first-ever policy initiative on land consolidation in Sri Lanka. Later on, several attempts were made to promote collective farming activities which encompassed certain features of modern Land Consolidation concepts. Major impetuses behind these attempts were increasing agricultural production, assuring food security, optimum utilization of the resources, promoting equity, sovereignty principles, securing employment opportunities for educated youths, income stability, foreign exchange savings, and earnings. However, there were controversial debates on the rationality of these initiatives on both economic and social grounds. As observed, land consolidation-related initiatives accompanied by short-term singular objectives rather than a course of action paired with long-term national policies were a major reason for failure. Moreover, the stagnated pace of the economic transformation of Sri Lanka has further hampered the creation of favorable grounds for the implementation of land consolidation.

Reforms of most emerging countries in Asia emerged through static policy objectives and continued under long-term policy agendas. Lessons of these initiatives were captured to further the development of the reforms and to achieve rural and national development objectives. However, in Sri Lanka, proper evaluation and monitoring processes have not been carried out throughout the policy process except in certain cases as observed. Therefore, rather than learning from previous experiences, most reforms were carried out in accordance with the political ideologies and as ad-hoc policy decisions. This produced irreversible problems in the rural land sector impeding sustainable land use in the long run. In fact, recent land reforms of Sri Lanka have been inadequately equipped to serve national and global challenges. Therein, the resilience of the policies should be enhanced to sustain socio-economic changes and environmental priorities. In achieving this, understanding local and global contexts related to land reforms is of paramount importance.

It is vital to establish an enabling legal environment for land consolidation together with land and agrarian reforms. A vigorous policy initiative could

be implemented at national and regional levels with short and long-term policy objectives to address issues such as land fragmentation, particularly in paddy lands. Land consolidation can be implemented in the simplest way possible which is plot combining, to reduce fragmentation. In this effort enhancing awareness among farmers and obtaining their consent is imperative. Cooperating with farmer companies and farmer organizations in implementing land consolidation strategies and establishing national-level institutional bodies are critical for this. Since the land and well-being of the agrarian community are inextricably linked, rural development efforts should be expanded and integrated with land reforms, rural restructuring, and agrarian livelihood development.

LIST OF CONTENTS

	Page No.
FOREWARD	i
ACKNOWLEDGEMENT	iii
EXECUTIVE SUMMARY	v
LIST OF CONTENTS	viii
LIST OF TABLES	x
LIST OF FIGURES	x
ABBREVIATION	xi
CHAPTER ONE	1
Introduction	1
1.1 Background to the Study	1
1.2 Rationale and Justification	3
1.3 Research Problem	5
1.4 Objectives	7
1.4.1 Primary Objective.....	7
1.4.2 Specific Objectives	7
1.5 Methodology.....	7
1.6 Study Limitations	8
CHAPTER TWO	9
Literature Review	9
2.1 Land and Agrarian Reforms for Rural Development: A Rationale and Motives	9
2.1.1 Rural Restructuring	11
2.2 Land Consolidation: As an Integral Part of Land Reforms for Sustainable Rural Development	12
CHAPTER THREE	17
Overview of Land and Agrarian Reforms in Sri Lanka	17
3.1 Land and Agrarian Reforms in Sri Lanka	17
3.1.1 Land Reforms and Agrarian Reforms in Sri Lanka: Pre- Independent Period	17
3.1.2 Land and Agrarian Reforms: Post-Independence Sri Lanka	19
3.2 Key Land and Agrarian Reforms in Post-Independence Era	22
3.2.1 Land and Agrarian Policies after 1977: Shifting Dynamics in the Policy Domains	24
3.3 Remarkable Outcomes of Land and Agrarian Reforms.....	26
3.3.1 Changing the ownership of lands.....	26

CHAPTER FOUR	31
Land Consolidation Experience in Other Regional Countries	31
4.1 Land Consolidation Experience in China.....	31
4.2 Land Consolidation Experience in Japan.....	35
4.3 Land Consolidation Experience in South Korea	39
4.4 Land Consolidation Experience in South Asian Countries	40
CHAPTER FIVE	43
Land Consolidation at the Farmer Level: Sri Lankan Experience	43
5.1 Introduction	43
5.2 Sri Lankan Experience of Land Consolidation: Historical Contexts, Approaches and Farmer Experience in Ground Level Scenario	43
5.2.1 Features of Land Consolidation in Traditional Land Use Systems	43
5.1.2 1958 Paddy Land Act.....	45
5.1.3 Land Consolidation under the <i>Dewahuwa</i> Project	47
5.1.4 Sri Lankan Experience in Cooperative Farming.....	50
5.1.5 Motives Behind the Co-operate Farms	53
5.1.6 Farmers 'Experience and Perceptions at the Ground Level	55
5.1.6.1 Background.....	55
5.1.6.2 Case Study One: Farmer Group in Intermediate Zone	55
5.1.6.3 Case Study Two: Farmer Group in Dry Zone.....	58
CHAPTER SIX	63
Summary and Recommendation	63
6.1 Summary	63
6.2 Recommendation.....	68
REFERENCES	71

LIST OF TABLES

	Page No.
Table 3.1: Three Levels of Land Consolidation	14
Table 4.1: Key Motives of LC efforts in China	35
Table 4: 2 Key Motives of LC Efforts in Japan	38

LIST OF FIGURES

	Page No.
Figure 3.1: Motives Behind the Land and Agrarian Reforms.....	26
Figure 5.1: Performance of LC work at Dewahuwa Village- 1971 to 1975	49
Figure 5.2: Key Components of Co-Operative Farms Initiatives in Different Lenses and Reflections of LC Concept.....	54
Figure 5.3: paddy plots of farmer 1: Before and After Consolidation	61
Figure 5.4: Paddy Plots of Farmer 2: Before and After Consolidation.....	61
Figure 5.5: Paddy Plots of Farmer 3: Before and After Consolidation.....	61

ABBREVIATION

ADB	-	Asian Development Bank
CLEO	-	Crown Land Encroachment Ordinance
CORIGAP	-	Closing Rice Yield Gaps in Asia with Reduced Environmental Footprints Project
FAO	-	The Food and Agriculture Organization of the United Nations
GPS	-	Guaranteed Price Scheme
JICA	-	Japan International Cooperation Agency
LC	-	Land Consolidation
LDO	-	Land Development Ordinance
LIA	-	Land Improvement Act
LRC	-	Land Reform Commission
NLCRC	-	National Land Consolidation and Rehabilitation Center
RRDI	-	Rice Research and Development Institute
UNDP	-	United Nations' Development Programme

CHAPTER ONE

Introduction

1.1 Background to the Study

The term 'Reform' carries a profound notion than mere 'change'. Land reforms have been interwoven with the tenure system and redistribution of land rights since the early days. Yet, it has become cognate with agrarian reforms or perfections of agrarian structures (Tuma, 2013), since the focus on land reforms has broadened their horizons towards more comprehensive development paradigms. Concisely, the concepts of land agrarian and rural reforms embrace an extensive focus on rural development, the well-being of peasants, and the sustainable use of land resources. Further, land-related reforms deal with the combination of the factors such as land and tenure system, cultivation patterns and farm organization, the scale of farming, terms of tenancy, institutions of rural credit, marketing, education and, technology (Tuma, 2013).

Legitimately, Land Consolidation (henceforth referred to as LC) can be identified as an integral part of land reforms. By definition, it is an equalizing policy in a fundamental manner, yet land reform laws often advance their core focus (Lipton, 1974). In fact, land reforms and LC efforts are very complementary to achieving inclusive development goals.

In the given context, LC is considered as one of the key strategies that facilitate agriculture development in many countries by utilizing the land in a more productive, efficient, and sustainable way under reform processes (Gedefaw et al., 2019; Sayilan, 2014) LC often denotes activities that target to enhance land-use efficiency in the lands characterized by inefficient and unreasonable land use patterns (Shi et al., 2018). Particularly, it is a robust policy reform in the places where the agricultural land fragmentation is high (Niroula and Thapa, 2005). Further, LC smoothens the protection and sustainability of natural resources and is often accepted as *"a policy tool that empowers technology and inventories to assist in climate change adaptation"* (Childress et al., 2014; 19), which is vitally applicable in coping with emerging challenges at the farm level.

At present, Sri Lanka as a small island experiences serious issues regarding agricultural land use. Accordingly, land fragmentation, small land plots, land degradation, misallocation of lands, poor land management practices, and

unutilized paddy lands are among the major resource challenges that exist in the agricultural land sector which make agricultural lands less productive (MMAIRD and UNDP, 2019). Particularly, it is evident that most of the agricultural lands of smallholders have fragmented over the time due to the division of land, which creates issues in seasonal cultivation, irrigation water management, mechanization, and the rise of the cost of cultivation (Perera, 2016; Wickramaarachchi and Weerahewa, 2016). Further, impacts of adverse climate change are increasingly threatening farming activities of smallholders. This situation ultimately impedes the sustainability of the agricultural sector risking food security, farm income, and wellbeing of the agrarian community as well as the national economy of Sri Lanka. However, limitations of land resources have also hampered the further expansion of agricultural land areas.

According to the Land Commission (1985), the One of the core issues of land policy for the future is the optimal utilization of land and water resources on a sustainable basis. Yet, land use planning in the country is continued to be carried out on ad-hoc basis (Mapa et al., 2002). This calls for the adaptation of sensible policy measures equipped with efficient and sustainable land-use practices. In this context, LC can be identified as a promising strategy to minimize existing drawbacks of agricultural land resource management in Sri Lanka, which guarantees the economic viability, efficiency and sustainability of agricultural lands. Owing to its importance, implementation of LC has been a protracted policy discussion in Sri Lanka.

Recently, importance of LC has been opened to discussion again. Various policy documents have emphasized the need of LC as a policy measure considering the downsides pertaining to the rural land sector along with the land related obstacles on agricultural development. Draft agriculture policy in Sri Lanka (2019), and the government national policy framework “*Vistas of Prosperity and Splendour*” have identified the importance of increased land productivity. Draft Agriculture Policy has particularly highlighted the need of consolidation to energize the investment climate for land and to stimulate mechanization.

In addition to the interest of the policy spheres, the difficulty of the implementation of LC programmes effectively is often accepted (Conway and Barbier, 1990) and, it is also established that forced consolidation never succeeds (Ashkar-Ahangarkolae et al., 2006). Hence, the success of the LC programmes depends on farmers 'needs, capabilities, where their aspirations as key stakeholders of the process have to be integrated with

the LC (Conway and Barbier, 1990). Particularly in the Sri Lankan context, similar to other South Asian countries, dealing with land related matters are associated with high delicacy and sensitivity even though there is a policy thrust in implementing LC.

Many emerging economies in Asia have implemented LC approaches together with prudent land and agrarian reforms to fulfill different development objectives along with their economic miracles. Uplifting the income of the farming community, enhancing land and agricultural efficiency, and achieving broader rural development goals are among the major impetus behind most of the LC implementations. Though there is diversity within the approaches adopted by each country, apparent similarities also exist, which comes in useful when initiating successful LC operations.

Further, exploring the lessons of previous land and agrarian reforms of Sri Lanka would provide great insights to realize failures and successes for rectification of common errors. In fact, most countries have begun LC and other land reforms in ways that are consistent with their growth paradigms. Therefore, lessons learned from those policy measures are undeniably important to clear the path for better implementation of land related initiatives and gain fruitful outputs to cope up with prevailing and emerging challenges in rural land sector.

Thus, this study attempts to understand the importance of land reforms and LC to enhance land and agricultural productivity by examining different policy focuses. It also scrutinizes possible ways and means for implementing LC among smallholder farming communities in Sri Lanka with the lessons learned by previous policy reforms and LC experience through both country-specific and the global experience.

1.2 Rationale and Justification

A little more than one-third of the total land area of Sri Lanka is used for agricultural purposes. However, inconsistency between the existing land use practices and sustainable land use mechanisms have become a serious issue (Samaratunga and Marawila, 2006). Therefore, increase the efficiency of land use practices among smallholders should be prioritized. Overall, in Sri Lanka setting intense debates on land use issues and land productivity issues depicts an alarming need of more strategically focused rationalization of current land use practices.

Owing to the state ownership of more than 80 per cent of land, landlessness sustains among rural peasants. This has resulted increasing of encroachment on state land, particularly forest lands. Declining of the forest cover over the decade in the country provide evidence to this matter (Mapa et al., 2002). In addition, need for efficient land use practices for climate change adaptation is highlighted by national guidelines for climate smart agricultural technologies and practices for the dry and intermediate zones in Sri Lanka (2019). This indicates the need of addressing a diverse array of focuses when dealing with lands in sustainable ways.

It is suggested that the large-scale paddy cultivation would be a lucrative livelihood activity in Sri Lanka, where land is consolidated through the eradication of land restrictions, whilst achieving financial and economic gains (Thibbotuwawa and Weerahewa, 2004). Consequently, it has showed that certain temporary adjustments could be stimulated to embrace the impact of continuous fragmentation and the most suitable adjustment is the provisional consolidation of holdings (Tennakoon, 1972). Certain studies also suggested that consolidation of paddy lands is a farsighted strategy and a sensible option to realize the improvement of the food security, agricultural productivity, and socio-economic conditions of farmers and, to achieve far more rural, regional and national development gains (Thibbotuwawa, and Weerahewa, 2004). However, the issues related to land fragmentation and their effects on land productivity have not gained adequate attention (Wickramaarachchi and Weerahewa, 2016).

In this context, it has often pointed out that rationalization of the land use is much essential to use limited available land to meet the land demands more reasonably. As discussed earlier many decisions on land use matters have been taken on ad-hoc basis. Making decisions based on local knowledge and perceptions create irreversible errors and, as a result inappropriate practices were adopted (Mapa et al, 2002). Since the independence, successive governments of Sri Lanka have taken steps to rationalize the rural land use considering priority matters of the country. Inevitably, in most cases political ideologies had influenced the decision-making processes.

Many agricultural development programs have failed to fulfill their outcomes due to a lack of consideration of stakeholder perspectives. Particularly, lack of local contribution has become one of the crucial limitations of land development initiatives (Dent and Gunawadena, 1993). Hence, greater emphasis should be placed on social acceptance and their

perception when setting up the priorities which direct the rationalization of land use of the country along with sound policy framework as one of the core focuses.

Although LC is considered as a tool for enhancing agricultural productivity and efficiency in land management which ultimately lead towards rural development, policy itself difficult to implement LC programmes in effective manner. These difficulties will sustain as long as the indispensability of public participation in such programmes are realized. At the same time, it should also be noted that consolidation is regulated by legislations in many countries (Vitikainen, 2004).

The agrarian and rural transformation is dynamic and we have experienced it in many stages. With the initiatives of LC, there would be a paradigm shift in the agrarian sector. Thus, this study emphasizes the experience on LC initiatives in different countries, and previous land and agrarian reforms in Sri Lanka along with farmers experience in LC efforts which will be beneficial for the long awaited agricultural and rural transformation process in Sri Lanka.

1.3 Research Problem

In a country where the majority of rural people depend on agriculture for their livelihood, farming communities would essentially benefit from sustainable and productive land. Particularly, majority of the Sri Lankan farmers are engaged with smallholder farm operations, where around 80 per cent of farmers represent smallholder agriculture (Department of Census and Statistics, 2002). Owing to this, around 1.65 million smallholder farmers operate in less than two hectares and contribute to 80 percent of the total food production of Sri Lanka each year. (Ministry of Agriculture, 2021) The average size of a small holding in Sri Lanka dropped by about 64 per cent over the period 1946-2012 (from 1.3 ha to 0.47 ha). This shows the limitations of using land resources of smallholders and necessity of making available lands towards profitable ventures.

In particular, the issue of fragmentation and scattering of individual holding is identified as inherent characteristics of dry zone (Tennekoon, 1972), which holds much of countries land mass. Further, In Sri Lanka large farms belonging to ordinary farmers are scarce under this inherent structural system. Within this situation, competitive and commercial family farms have become less common (Perera, 2016).

As it was evident, paddy production has gradually achieved the goals and almost self-sufficient in rice. However, it is unclear in the future that whether the country can sustain with the projected population growth (Davis et al, 2016; Department of Census and Statistics. 2014) as well as other possible catastrophes, which constitute of the impacts of adverse climate change. Hence, there is a crucial need to examine possible ways of enhancing the agricultural production in the future and ensuring the wellbeing of the agrarian community.

In this context, the importance of LC is increasingly being recognized as a viable approach that stimulates the development of the agricultural sector along with the sound reforms process. Despite the recent policy interest and realistic need of the ground level for agricultural transformation, the feasibility of the implementation of LC among smallholder farmers is yet to be recognized and have received little attention. At the same time, although numerous land and agrarian reforms were implemented in Sri Lanka during the pre and post independent era the issues related to rural agrarian and land sector remains unchanged.

Therefore, identifying the reasons for not making the remarkable changes through the plethora of reform process is vital to go forward with the positive changes and finding the pathways for LC implementation. At the same time many emerging economies could fulfil the desired objectives through their reform process. Particularly, it is worth understanding the ways and means of how different countries have implemented LC programmes through their rural reform programmes to identify the lessons and plans that can be applied to country-specific contexts.

1.4 Objectives

1.4.1 Primary Objective

This study is designed to review the land and agrarian reforms and LC initiatives and the possible ways and means of implementing LC among the smallholder farming sector in Sri Lanka.

1.4.2 Specific Objectives

- i. Review the land and agrarian reforms implemented during the pre and post-independence eras in Sri Lanka and identify outcomes and gaps of those reforms.
- ii. Identify the experiences of other regional countries related to LC as a strategy for land and rural development
- iii. Identify LC experience in the context of Sri Lanka and identify farmers' experience in implementation of LC at the ground level scenario
- iv. To identify possible ways and means of implementation of LC among farming community in the context of Sri Lanka

1.5 Methodology

The study has three major components. For the first component, a review of land and agrarian policies in Sri Lanka was carried out to understand the motives, implementation process, and understand the lessons. The second component is a review of LC efforts in various countries, with a particular focus on regional countries to understand the ways and means of obtaining farmer participation, motives, and lessons learned. Understanding farmers' perspectives on the implementation of LC and covering farmer groups who involved with LC activities, is the third component. Case studies focusing on two farmer groups representing smallholder paddy farmer groups in the intermediate and dry zones were used to gather farmers' experiences. This component also incorporated previous experience in Sri Lanka with LC programmes.

A literature and a policy review were conducted to understand the land reform initiatives in Sri Lanka and the experience of other countries. Farmers' interviews and case study method were used to understand the ground level situation of the LC experience of Sri Lanka. In addition, Key

Informant Discussions were conducted to gather information whenever necessary by using both physical meetings and telephone interviews.

1.6 Study Limitations

Initially, a questionnaire survey covering major agricultural districts in dry zone was designed with the intention of setting up variable specifications and measurements to obtain farmer perceptions on LC. In addition, interviews, key informant discussions and case studies were also designed to obtain in-depth understanding of the farmers' perception and their acceptance on LC as conducting qualitative interviews can often enhance the value of a research outcome. Accordingly, a set of attributes and variables were designed to obtain comprehensive information.

Owing to the travel restrictions imposed following the outbreak of COVID-19, it was unable to conduct the farmer survey as intended. Further the attempt to obtain in-depth information as expected in the planning process of the study was aborted and comprehensive data collection in the field data relating to farmer perceptions too was inaccessible. This was the major limitation of the study which has affected the quality and outputs of the originally designed objectives of the study. Further, the scope of the study had been changed substantially due to aforesaid limitations.

CHAPTER TWO

Literature Review

This chapter provides an overview of agrarian and land reforms pertaining to theory and practice as reforms are an integral part of rural development and LC. It also covers the conceptual aspect of the LC.

2.1 Land and Agrarian Reforms for Rural Development: A Rationale and Motives

Reform cannot simply be streamlined to mere change. It encompasses more rational objectives for the transformation of a society or a system. The terms 'Land Reform' and 'Agrarian Reform' are often erroneously referred to as synonymous concepts. Agrarian Reforms cover a broader sphere than Land Reforms as it considers not only the extensive distribution of lands, but so covers redistributive and democratic reforms as a whole and also infrastructure development (Jacobs, 2013).

The positive move of the agrarian structure due to widening access to land for the poor segments of the rural areas and securing tenure for the people working on land involves the Land Reforms (Ghimire, 2001). However, agrarian reforms constitute an extensive redistribution of lands and ground-breaking initiatives that aim to empower unprivileged poor peasants, enhancing their participation in decision making which influences their livelihoods, and, rationalizing agrarian and class structures of the rural society (Barraclough, 1970; Jacobs, 2013).

Land Reforms and wider agrarian reforms involve diverse political, economic, and social intentions. At the same time revolutionary, conservative and liberal land reforms are also notable (Jacobs, 2013; Putzel, 1992).

1. **'Revolutionary' Reforms:** Followed by political uprisings that ends with regime change. *"These might expropriate a large amount of agricultural land, redistribute it in collectives and plan for agrarian reform within a wider process of social change"* (Jacobs, 2013; 3).
2. **'Conservative' Reforms:** Conversely, leaves the basic social and political framework intact and usually redistributes less land. Land

tends to be purchased by the state and redistributed to a particular group of cultivators for farming on a family or household basis

3. **'Liberal' Reforms:** *"Liberal Agrarian or Land Reforms are more ambitious than the conservative model, seeking better conditions for rural cultivators but without overall social change"* (Jacobs, 2013; 3).

Inducing an Income surge amongst the poor, enhancing the power of poor peasants and eliminating landlessness were the main aims behind the redistributionist land reform programmes. Therein, a levelling effect was catalyzed by reducing the gap between the people with large lands and people suffering from scarcity of land (Jacobs, 2013). Hence, alleviating poverty and hunger and environmental concerns have been rationalized as motives behind Agrarian Reforms (Ghimire, 2001).

Scholars perceive that the erroneous similitude of peasantry and rural poor leads to the overlooking of unequal resource distribution within the rural population, gender inequality and different resource endowment that smallholder agrarian groups have possessed. As such there are numerous reasons for agrarian reform, including economic, political, environmental, and human rights concerns (Jacobs, 2013).

The notion of land and agrarian reforms began to popularize with the development paradigm provoked after the Second World War particularly in European countries. With this paradigm, it was believed that state and development policies should pave the way for the restructuring of society and stimulate development. Agrarian reforms are thus, considered as an integral part of this growth outlook (Jacobs, 2013).

Accordingly, land and agrarian reforms are conventional development approaches adapted decades back with the constant changes. It has come to the fore in policy agenda today in line with the rapid transformation of socio-economic and ecological systems in the rural landscape (Borras and Franco, 2010). According to conventional explanations, redistributive land reform is a public policy component that transfers property rights over private landholdings to smallholders and agricultural labourers who do not possess the land (Griffin et al., 2002).

In contrast to conventional land reform, where the state was the dominant authoritative actor, contemporary thinking of land policies are interwoven with free market forces in land re-allocation. Further, modern land reforms are necessarily linked with the motives such as agro-fuels, food safety, food

sovereignty, surging of food prices, and optimum efficiency of lands. These ideologies and necessities have fueled the creation of new terrains on land reforms while spotlighting productive and perceptive land utilization approaches. The prevailing issues of the land sector incentivize the future land development discourse and research (Borras and Franco, 2010). Further, institutional setup could play a vital role in dealing with ever-increasing challenges relating to land resources and in making land utilization more systematic and sustainable.

Even today, when evaluating the ‘*success*’ or ‘*failure*’ of land policies, it is continued to be measured in economic aspects. However, occasionally land policies have been measured considering the non-economic significances. In conversational systems, ground-breaking steps on lands were identified with value-laden terms such as Land Reform, Land Settlements, and Leasehold Reforms (Borras and Franco, 2010). Yet, a contemporary land policy entails a neutral meaning with a wide array of focuses.

2.1.1 Rural Restructuring

Restructuring is not merely a transformation in one sector which induces multiple impacts on other relevant sectors. It twists with fundamental readjustments in diverse domains in existence. When it comes to change, every process of change shows causal relationship (Hoggart, and Paniagua, 2001).

According to Tu and Long (2017), *“Rural restructuring is a process of reshaping socio-economic morphology and spatial pattern in the rural territory in response to the changes of elements both in kernel system and external system of rural development, by optimally allocating and efficiently managing the material and non-material elements in the two systems”* (Tu, and Long, 2017;1169).

Woods also views rural restructuring as a similar concern. He articulates that reshaping the rural socio-economic structures within the process of urbanization and industrialization was induced by the series of interactions that happened with various elements owing to the deteriorating economic importance of agriculture (Woods, 2004).

As often identified, the notion of rural restructuring widely emerged in many countries in response to drastic changes that happened in the rural landscape and rural socio-economic structures accompanied by

urbanization and industrialization. Some scholars identified that rural restructuring related to the rural recession aroused with the changing dynamic of national and global arenas with urbanization and globalization (Hoggart and Paniagua, 2001; Woods, 2004).

Rural restructuring is considered a one of the rural development strategies to realize urban-rural integrated development (Zhang et al., 2016). Further, in the rural development context, uneven development in the rural structures and urban structures can be considered as a major motive of invoking rural restructuring process. Lesser-faire paradigm regarding rural interventions combined with the complex policy environment and disjointed character of traditional 'trend' planning, is a substantial impediment to the long-term spatial development of the rural sphere (O'Keeffe et al., 2009). In this context rural restructuring combined with various complexities and concerns needs to be addressed.

Within this context, LC is comprised as a part of many land reform strategies over the period (Sabates-Wheeler, 2002). Therefore, understanding of land and agrarian reforms and LC cannot be segregated and reform process and LC efforts should be complimentary to each other in achieving better and sustainable rural development goals.

2.2 Land Consolidation: As an Integral Part of Land Reforms for Sustainable Rural Development

LC often denotes the activities that target to enhance land-use efficiency in the lands characterized with inefficient and unreasonable land use patterns. These activities can be applied to vacant lands or lands damaged by production, construction, and even natural disasters as well (Shi et al., 2018). LC is not a reallocation of fragmented land parcels; however, it is considered as an important tool for rural development (Aslan, 2007; Crecente et al., 2002; González et al., 2004, 2007; van den Brink and Molema, 2008).

Land use can be analogized to a mirror that reflects the socio-economic and environmental issues that arose owing to rural restructuring. Yet LC was deemed as a sustainable approach for rural development which can support reconciling and resolving many complexities (Lond 2014).

By addressing land fragmentation, which can occur in various ways, LC can be used to improve the tenure structure in support of rural development

such as a fragmented farm (FAO, 2003). Further, LC is identified as the fundamental measure for facilitating agriculture productivity, rural development, and making land administration more efficient (FAO, 2003). It also provides positive grounds for environment management (Crecente et al., 2002). Conflicts on borders, water, and roads are one of the biggest issues among farmers in rural areas where the lands are small. Consolidation enables farmers to improve their spatial and economic conditions by reducing the number of separate plots on a farm while alternating the shape of the farm plots allowing mechanization and reducing the distance between residences and farm plots (Kupidura et al., 2014).

In a more comprehensive elaboration of the concept, Long (2020), identified LC as *“a spatial problem-solving land management instrument that attempts to eliminate certain types of land fragmentation, to enhance land productivity, and to improve rural production and living conditions for the purpose of coordinating urban-rural development, through a process of concentration of plots or rejuvenation of failing and aging rural settlements and abandoned industrial and mining land, which is usually accompanied by the construction of new roads, irrigation facilities and other auxiliary services”* (Long, 2020:1).

The above explanation portrays the importance of LC in every aspect of rural development which in turn provides a full-fledged approach towards rural development through well planning and implementation. Due to the importance of LC for agricultural and rural development, it is implemented in many countries around the world as a key land reform strategy. There is a long history in European countries in LC such as Netherlands (a small county like Sri Lanka), France, Denmark, Spain, Czech Republic and in Asian countries such as China and Japan and even many African countries like Kenya, Rwanda (Rosman and Sonnenberg, 1998; Wu et al., 2005).

However, the ultimate target of LC is to impact positively to the community. Mainly it can be derived through three levels.

Table 3.1: Three Levels of Land Consolidation

LEVEL	DESCRIPTION
Micro-level:	LC intentions are linked with changing the farm structure and direct environment enabling farmers to become more competitive. Eliminating land fragmentation, redrawing the boundaries of ill-shaped parcels, improving physical conditions, and allowing farmers to enhance means of production
Meso-level:	Focused on the broader aim of LC for changing rural communities by improving infrastructure (roads, irrigation and drainage systems, water and disposal installations, etc.), the natural environment, and management of natural resources, landscape, and, consequently, the spatial distribution of economic activities.
Macro-level:	Focus is on changes that can positively affect the whole country, by improving the overall competitiveness of the agricultural and rural sector, the natural environment economic and social relations between actors at all levels. If projects are undertaken as planned, these initiatives create trust between government and citizens and are responsive to the needs of farmers and others in rural communities.

Source: FAO, (2008)

LC objectives vary from personal objectives and community objectives. Further objectives are categorized as national, regional, and local objectives (Demetriou, 2014; Vitikainen, 2004). Therefore, LC can be considered an extremely sensitive and complex development mission. When considering the LC approaches there are four types of approaches namely; comprehensive, simplified, voluntary, and individual LC (FAO, 2003). Programmes of LC differ along with a number of dimensions: from completely voluntary to state-imposed, from being linked to major land-improvement schemes (Oldenburg, 1990).

Above mentioned four Land Consolidation approaches are elaborated below;

- i. **Complex or comprehensive Land Consolidation:** This includes parcel re-allocation and a wide range of other processes to stimulate rural development (FAO, 2003) as a policy optimization. It can be identified as the most promising approach for integrated rural developments due to provisioning of long-term solution to agrarian structures (Thomas, 2006). The comprehensive approach mainly reduces fragmentation.
- ii. **Simplified Land Consolidation:** This type of LC mainly focuses on optimization of conditions of the agricultural sector by re-allocation or exchange of parcels and the additional lands are supplied through land banks and thus, optimize conditions in the agricultural sector (FAO,2003).
- iii. **Voluntary Land Consolidation:** In this type of Land Consolidation there is no element of compulsion however, functions through a mutual agreement. Since consolidation is fully voluntary, it recommended to be consensual. Wilden (2006) pointed out that voluntary land consolidation is the simplest, fastest, and cost-effective approach.
- iv. **Individual Consolidation:** *This method is used on informal and irregular basis. "The state is not directly involved and, so these initiatives do not include the provision of public facilities. However, the state can play a significant role in encouraging consolidations that improve agriculture by promoting policies such as joint land-use agreements, leasing, and retirement schemes "(FAO,2003;27).*

Above approaches are well-known in the LC domain. In addition, Eberlin (2015), indicated dissimilar approaches for LC which are virtual (leasing to a company/ farmer/ joint production), market-based (leasing and buying/selling), voluntary (exchange of parcels), and comprehensive (rearrangement of parcels).

A LC strategy should address issues such as institutional issues, financial issues, legal issues, capacity building and international cooperation. Further, reallocation of lands should go align with the rural development and agricultural sector strategies, and natural resource protection is also critical for success. (FAO, 2003).In addition, there are number of prerequisites that needs to concern prior to undertaking LC initiatives.

Voluntary participation of the stakeholders is one of the major conditions of LC Initiatives. The decision-making process should be demand driven

therefore implementation areas should comply with the interest of local citizens and community authorities (FAO, 2003). In the agriculture sector, it is often claimed that farmers participation is lacking thus, their genuine participation has become a crucial matter.

Location-specific and timely LC is also preferred. These initiatives should be market-driven, demand-driven, and participatory. Planners believe that when policies place a strong focus on formalized and legislative LC measures, these initiatives would be doomed to failure (Sabates-Wheeler, 2002).

Many countries have countenanced a substantial level of farmer or local involvement as land related projects are dealing with their property rights (FAO, 2003). Hence, in many European countries where LC is implemented widely for agriculture and rural development, participants' consent is required for the LC project to move forward. In areas where LC is required, a quorum or super majority may be considered adequate to overrule a few dissenting owners LC to avoid unnecessary delays in project implementation. On the other hand, criticisms from dissenting owners, on the grounds of forceful displacement may hinder efforts to introduce LC (FAO, 2003).

CHAPTER THREE

Overview of Land and Agrarian Reforms in Sri Lanka

This chapter portrays both the pre and post-independent agrarian and land reforms of Sri Lanka. It also discusses the motives for implementing reforms and their relevance to the upliftment of the agrarian community, land sector, rural structures, ideological reflections, and innovations of the reform process for enhancing rural land productivity. Significant mismatches with contemporary land issues and lessons learned are also covered in this chapter.

3.1 Land and Agrarian Reforms in Sri Lanka

Considerations of formulation of land policies were inevitably connected with the agricultural and agrarian significances, owing to the long-established agricultural background of the country and the socio-economic importance of the sector. It is noteworthy that, there are many controversies regarding the arrangements of land rights in Sri Lanka since historical times. As a predominantly agricultural country even before the independence, myriad of land and agrarian policies were set up in Sri Lanka to achieve a diverse array of development aims. Changing dynamics of the economy, social forces, and political ideologies impacted the formulation of strategies through land and agrarian reforms creating contradictions and consistencies in rural development and restructuring paradigms over time.

The Agrarian and Land Reforms of Sri Lanka can be identified mainly under two stages;

1. Reforms in Pre-independent Sri Lanka
2. Reforms in Post-Independent Sri Lanka

3.1.1 Land Reforms and Agrarian Reforms in Sri Lanka: Pre-Independent Period

Long remained feudal and semi-feudal land arrangements of Sri Lanka have begun to undergo radical changes since the dawn of colonization, mostly in the British period. The pre-colonial economy of the country largely consisted of subsistence level paddy and *chena* cultivation (Bandarage, 1982). The economic and social institutional setting related to lands was

largely interwoven with the subsistence agriculture system with long-held traditional structures before and in early stages of colonization.

In certain European colonies such as Java or Gold Coast, the primary strategy for agriculture was associated with peasant or smallholder cultivation. Yet, the approach embarked for Sri Lanka was set off with the emergence of the large-scale plantation sector (Bandarage, 1982). Particularly, British rulers were highly concerned about popularizing plantation agriculture. They acquired already utilized lands comprising of virgin forest covers and peasant lands in a monopolistic manner to realize their ambitions (Herath, 2016; Shanmugaratnam, 1981). When initializing the coffee plantations in the Kandyan Highlands Edward Barnes (1824-1831), the Governor of the Ceylon and George Bird, a retired major in the colonial army used their administrative positions to authorize and introduce supporting legislation setting for large-scale commercial agriculture (Bandarage, 1982).

The plantation industry was known for its capital-intensive, large-scale agriculture and high labour utilization. It primarily produced crops for the export market (Herath, 2016). It mainly produced export-oriented crops. With the changes of sovereignty and instituting of the plantation agricultural sector, the long-established customary service tenure of the country known as "*Rajakariya*"¹ was abolished in 1832. Subsequently, diverse land reforms and agrarian reforms were introduced in the colonial era as well as post-independence Sri Lanka. Crown Land Encroachment Ordinance (CLEO) was introduced in 1840. Through this Act, the rights of the Crown to take over uncultivated lands, and to grant, sell or lease such lands to individuals or an institution for any purpose approved by the Governor General was substantiated. This was implemented to allocate adequate labour for the plantation sector and obtain more land for plantation expansion, resulting in the transfer more lands to the Crown (Maddumabandara, 2000). *Chena* and other lands cultivated with several intervals fell under the ownership of the crown, where otherwise the land ownership was proved with the "*sannas*". The system was mostly in favour of investors (Ellman et al., 1975). As a result, many peasants faced economic turmoil as they relied solely on their lands for livelihood for generations (Maddumabandara, 2000).

The plantation sector grew rapidly compelling the British rulers to seek new avenues through 'Registration of Temple Land Ordinance of 1856' as Waste

¹ Meaning of floristic term "*Rajakariya*" is king's service which was the salient feature of the feudal system of Sri Lanka.

Land Ordinance of 1897 (all forest, waste, unoccupied or uncultivated land was presumed to be the property of the Crown until the contrary is proved). Some other pieces of legislations also served to formalize and smooth the land transaction process. Yet these were primarily intended to foster the growth and development of the plantation sector.

The Land Development Ordinance (LDO), which laid the foundation for the country's future land development policy was enacted in 1935. (Jogaratham, 2001). In line with this, the Land Commissioner's Department was formed to oversee and control the alienation and use of land under the behest of the Crown. This Act stressed the importance of boosting the food production in the country and improving the living conditions of peasants (Ellman et al., 1975).

To meet the irrigation requirements of the alienated lands of the dry zone under the Land Development Ordinance of 1935 (LDO), the Irrigation Land Ordinance was enacted in 1946 (This was amended in 1951 and 1968). Most of the settlements established under LDO were situated in the dry zone and irrigation facilities were provided. The irrigation Land Ordinance facilitated the use and operations of irrigation facilities to these new settlements (Ellman et al., 1975; Herath, 2006). Among the other legislations enacted, the Temple Land (Compensation) Ordinance of 1944 was significant.

The land reforms introduced before the independence were mostly in relation with the land acquisition to fulfill the needs of colonial rulers and to lessen unfavourable impact on the peasants whilst safeguarding the food security to a certain point. However, it had resulted in increased complications related to land governance and socio-economic structures surrounding peasants.

3.1.2 Land and Agrarian Reforms: Post-Independence Sri Lanka

The strategic focus on expanding the large-scale plantation sector unfolded radical changes in the long-established feudal system extirpating the feudal norms and establishments. These measures can be identified as crossroads of the land use system in Sri Lanka that created revolutionary changes in native production systems, ingrained social fabric, and ideological landscapes. Even today, the consequences of these land-use changes are significant and continue to shape the performance of the rural land sector and in particular agrarian livelihoods.

Further, independence (as a sovereign state) was granted along with imperfections in socio-economic situations and complexities under an unbalanced development paradigm which was blended with the colonial legislative and semi-feudal system. In this context, the prosperity and advancement of the rural land and agrarian sector were much to be desired at the time of independence. In this period peasants of Sri Lankan society were desperately marginalized and land issues were among the top priorities to be addressed.

Notably, landlessness and insecure land rights were among the serious issues that prevailed in the rural sector at the time of independence. These struggles were the catalyst for land reforms and early agrarian reforms in the country, when commencing its journey as a liberated state.

In retrospect, some of the major issues that resided in the land and agrarian sector at the time of independence certainly portraited the inevitable motives for formulating land and agrarian reforms after independence. The prevailed circumstances to capture the contextual information of the land and agrarian reforms are discussed in the following section;

i. Population Pressure and Land Hunger in the Wet Zone

Between the periods of 1946-1972, the population of the wet zone was increased by 68 percent, whereas the cultivation area was increased by only five percent. Unsurprisingly, this happened since merely 30 percent of the total land of the country is scattered over the wet zone while the mainstream of the landscape belongs to the dry zone, where population density was too low compared to the land size. Nevertheless, in the wet zone 72 percent of lands were under agricultural operation while in the wet zone only 28 percent of the total land was allocated to agriculture. Further, 44 percent (1,599,697 acres) of total agricultural lands in the wet zone were apportioned to plantation crops (Wanigaratne and Samad, 1980), indicating the depth of the issue of land hunger among peasants.

Due to the vacuum between available land and population pressure in the wet zone population density was recorded as nearly four persons per acre of agricultural land. As a result of the increase of land scarcity, the issues of landlessness and small size holdings mounted (Wanigaratne and Samad, 1980). Further population pressure on limited agricultural lands created diverse socio-economic issues among peasants in the wet zone and particularly youth were disillusioned with an uncertain future. These

circumstances were demanded to address leading land and agricultural issues that prevailed among wet zone dwellers.

ii. Changes in the Tenorial Pattern

Changes in tenorial pattern were significantly visible in the paddy sector during the latter period of British rule. In the early 1930s nearly 75 percent of the paddy lands were cultivated by tenants while only 25 percent of lands were owner-operated (Department of Agrarian Services, 1965). By 1946 this condition had been reversed since 61 percent of paddy holdings were operated by the landholders (Department of Census and Statistics, 1946).

With the eviction of tenants from paddy lands and the development of novel owner-operated farming activities of early settlement areas, owner-operated paddy lands became a rapidly popularizing trend during this period (Wanigaratne and Samad, 1980). Though the reasons for the said change are unclear, a major driving factor for the said conversion could be the receiving of lands by the landless tenants from the new settlement schemes. At the same time, the most promising alternative way of fulfilling the staple food requirement for landowners could be moving towards owner operations.

iii. Employment Issues

As the Rural economy of Sri Lanka was largely based on an agricultural setting, a considerable reliance on farming activities was visible in both pre and post-independent eras. The major livelihood of an overwhelming rural majority was associated with agriculture.

Yet, the influential land-use changes during the colonization, high population growth, increase competition on limited livelihood resources, satisfactory education attainment among youth due to welfare policies, limited avenues for non-farming activities had contributed to arising employment issues among peasants. Particularly, the Interim Report of the Land Commission (1927) recognized the land transactions for capitalists as a crucial mode by which stakeholders become landless wage laborers.

Opportunities and access for promising income generation for the rural youth were mostly restricted owing to the poor resource base and labour market imperfections. The most deprived groups in the village sphere which consisted of landless tenants, poor peasants, and agricultural labourers, were largely suffered by the emerging challenges. This is one of the major dynamics observed soon after the independence.

This had in turn affected the arising abundance of socio-economic issues and created social unrest. The educated rural youths' perspective towards the system and rulers were antagonistic indicating the need for a drastic reform process.

iv. Long Negligence of the Domestic Agriculture Sector

With the colonization, the plantation economy was essentially supported by the colonial masters, particularly during the 19th century. As a result, dualistic nature of the agricultural sector emerged. Currently, the agriculture sector of Sri Lanka is comprised of two sectors namely, plantation and domestic agriculture sector.

At the time of independence, the economy of the country largely relied on plantation agriculture which consisted of Tea and Rubber. The production mainly targeted the foreign markets and contributed up to 90 percent of the export economy annually (Ratnaweera, n.d). Simultaneously infrastructure facilities were developed for the smooth functioning of operations of the plantation sector.

However, only little segments of the population were directly benefited by this prosperity. Substantial profits were largely enjoyed by the European owners, planters and/or local elites associate with the sector. On the other hand, the neighbouring villages in the plantation areas were severely deprived of many socio-economic privileges and were not accompanied by the fortune brought up by the plantation sector Also, there were "*Purana Villagers*"² which evolved over thousands of years in Sri Lanka (Farmer, 1957). Domestic agriculture was carried out by the peasants of these ancient villagers and the production was mainly for subsistence. Under this setting, long-term negligence of the domestic sector resulted in its downward development. This had created an unbalanced development in agricultural lands putting domestic agriculture sector into a more disadvantageous position.

3.2 Key Land and Agrarian Reforms in Post-Independence Era

i. The Paddy Lands Act of 1958

The Paddy Lands Act of 1958 supported the marginalized poor of the rural sector by increasing the tenure security of the tenant cultivators of paddy

² Traditional/ ancient villages in Sri Lanka having distinct characteristics and a long history.

lands and in regulating the rents paid to landlords. The bill facilitated tenants to purchase the paddy lands, provide protection against eviction, introduce a rent ceiling covering around 25 percent of the crop yield for paddy lands (ARTI,1978; Ellman,1975; Peiris,1975). By this act, farmers got more opportunities in decision-making in their cultivation. Accordingly, cultivation committees were established, giving responsibilities to rice farmers in regard to cultivation and controlling minor irrigation projects in their areas (*The association of the Paddy Land Act with the LC concept in the context of Sri Lanka is further discussed in chapter five*).

ii. Land Reforms - 1972

This was one of the revolutionary steps in the land reform process Sri Lanka. The main goals of the land reforms included limiting the ownership of agricultural lands to a particular ceiling and maximizing agricultural production and employment (Land Reform Law, 1972). It was also seeking to decline the inequalities in wealth and income (Peiris, 1975), particularly by using the acquired lands under ceiling for productive utilization. This was to address prevailing issues in the economy, and the social situation in Sri Lanka with the decolonization. The reform process had interwoven with certain legislative measures.

With Land Reform Law No.1 of 1972, land ceiling for private landowners was introduced and a Land Reform Commission (LRC) was set up with the authority of acquiring the private-owned lands which were above the ceiling (Peiris, 1975). The law was enacted with the concerns of the growing scarcity of land for new settlements in the wet zone and the mounting cost of developing land for colonization in the Dry Zone. To ensure the best possible use and development of all acquired lands the Agriculture Productivity Law No. 2 of 1972 was enacted. For this effort, government control was imposed over land transfers. This law provided provisions to formulate a regional basis of Agricultural Productivity Committees with the diverse powers and functions for ensuring optimum and proper utilization of lands. The State Agricultural Cooperation Act No 11, 1972 empowered the Ministry of Agriculture and Land to establish state cooperation for the purpose of planning, coordinating, and developing public sector agricultural accomplishments (Ellman et al., 1975; Peiris, 1978).

The Agricultural Lands Law No 42 of 1973 was enacted to replace the Paddy Land Act of 1958 and it also extended tenurial provisions of Paddy Land Act (Ellman et al., 1975; Peiris, 1978). It addressed similar objectives of giving security of tenures to tenant cultivators of paddy lands. The legal framework

for the sale of lands to individual cultivators was given by Sale of State Lands Law No. 43 of 1973. The law's primary goal was to ensure freehold tenure for allottees in various settlement schemes. The land ownership ceiling was also extended to estates owned by public corporations under Law No. 39 of 1975 (Ellman et al., 1975; Herath, 2006). The action was taken to nationalize the private companies however, provided compensation to dispossessed owners.

After the imposing of the law in 1972, around 5,600 people declared their land assets which were above the land ceilings to the Land Commission. These lands were both individual and jointly possessed. The total declared lands were around 1.2 million acres. LRC acquired only 563,411 acres of lands since the declared lands were included extents allowed to private ownership and certain other categories released from the declaring of lands (Peiris, 1975). The first phase of the acquisition had come around after two years since the enactment of the law.

After introducing the Land Reforms Act 1972, with the individual land ceiling, the government could acquire a sizable land portion. These portions were distributed among different segments of the society under the diverse land reform initiatives. Among them, the collective or cooperative farm concept which was primarily aimed at the rural youth seems to be a remarkable initiative (Ellman et al., 1975) that reflected a contrasting idea with the legacy of the preeminence of small farms. Land Reform amendment law extends the ceiling on land ownership for the land owned by the public companies as well.

3.2.1 Land and Agrarian Policies after 1977: Shifting Dynamics in the Policy Domains

Liberal economic measures were implemented in Sri Lanka in 1977, allowing opening up of the economy and ending the closed economic regime that had remained so far with socialist ideologies. In fact, liberalization has not merely opened the economy to free-market forces simultaneously, it reduced government intervention substantially.

The Agrarian Services Act of 1979, enacted with the formation of a new government in 1977, replaced the Agricultural Productivity Act of 1972 and the Agricultural Land Act of 1973. Agrarian Services Committees were formed under this new Act replacing the Productivity Committees established under the previous Act. The Act was enacted with the aims of to provide tenant cultivators of paddy lands with security of tenure; to specify

the rent payable by tenant cultivators to landlords; to ensure maximum productivity of paddy and other agricultural lands through proper use and management of agricultural crops and livestock.

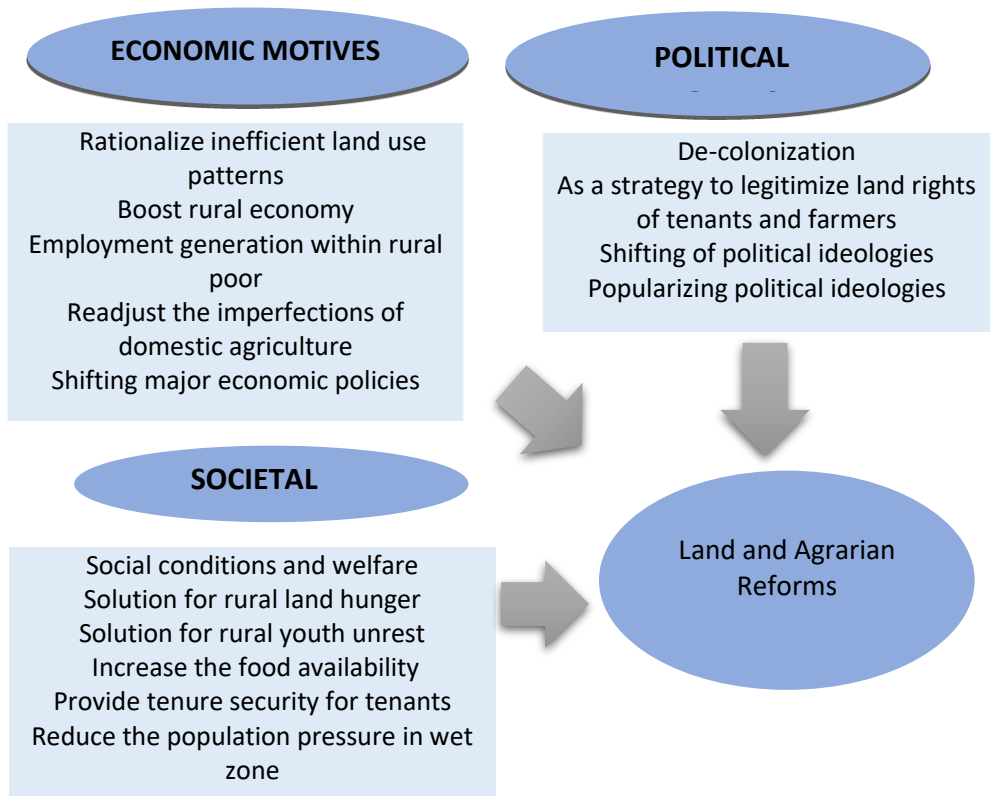
In line with the economic liberalization policies of the Government in 1980s, the Mahaweli Authority Act of 1979 was passed. This was a momentous landmark for the land and agricultural sector of Sri Lanka as with this Act "Accelerated Mahawelli Programmeme was implemented. This was addressing of long-felt need of multidisciplinary approach in development. It provides lands to landless farmers and peasants. The programmeme also emphasized on exploitation the potential of non-farm employment. Mahawelli Programmeme is the largest multipurpose irrigation project undertaken by the State since independence. Further, the Land Development (Amendment) Act was passed in 1981, to repeal the sale of state lands (special provisions) law, no. 43 of 1973.

After 1985, two major land alienation programmes were launched: the Mahaweli Project and the Presidential Task Force on Land Alienation. With this, nearly 1.2 million ha were distributed to farmers. In the beginning, land allotments were divided into 2 ha of paddy lands and 1.2 ha of other lands (for residential purposes). Due to the increasing demand for the land size of land distributed among settlers had to be limited later (Land Watch Asia, 2001).

In order to formulate farmer organizations with provisioning more authority to farmers, the Agrarian Services Act was amended in 1991. In addition, Agricultural Development Councils took the place of Agrarian Service Committees and were given the authority to take over and cultivate lands that were not being used productively.

In general, the impetus of land and agrarian reforms are multifaceted and shows complexities in implementation with the shifting ideologies. These reforms emerged in different forms which of periodic land commissions, encroachment regulations, tenancy reforms, land redistribution, land alienation, cooperative farming activities, youth settlement, middle-class allotments, and so forth.

Figure 3.1, summarizes major drivers and motives behind land and agrarian reforms in post-independent Sri Lanka.



Source: Compiled by authors

Figure 3.1: Motives Behind the Land and Agrarian Reforms

3.3 Remarkable Outcomes of Land and Agrarian Reforms

3.3.1 Changing the ownership of lands

After independence, trustee of the major share of the land has been the state. The state has the legislative power to determine the utilization of the lands. The state was able to determine, the priority uses to which land was to be placed in relation to the increasing needs for all awaiting landlessness, unemployment, and increasing food production (ARTI, 1978). Under this setting, changing the ownership as a result of land reform interventions emerged. Therefore, a considerable number of landless peasants became landowners.

1. Expansion of cultivated land area enhancing the food security

Increased crop production was one of the real achievements of land reforms. According to the statistics, the production of paddy and other crops increased noticeably due to settlement schemes. More than 400,000 acres of land had been asweddumised by the mid-1970s. In 1995, cultivable paddy areas, including the major, minor, and rained areas, increased by up to 865,000 ha (Ellman et al., 2005; Jogaratnam, 2001).

2. Enhance income security and living standards of the farmers

Income generation among the farmers was not in extremely poor conditions due to the government's intermediation in marketing at the initial stages. Furthermore, the cost of farming was reduced because the virgin areas were more fruitful. Furthermore, education, health, security, and other social living conditions were maintained at a satisfactory level due to the governments' robust support in the initial periods of the colonies. It had focused on the wellbeing of every peasant in early settlement schemes by providing them with diverse amenities.

3. Infrastructure development

Primarily infrastructure needed for better agricultural operations and systems were constructed with the commencement of settlement schemes. These features are almost visible in the latter development schemes which targeted agricultural and rural development. The multipurpose *Mahaweli* Development Programme is more reliable evidence for this.

4. Adapted diverse approaches in land reforms

Different models and approaches were adopted in various reform programmes notwithstanding the little success they had achieved in most programmes. There was a particular shift from land encroachments to land alienation, distributing land plots to individuals, the establishment of cooperative farm ventures, shifting to multi-purpose development schemes from agricultural land settlements and these are some of the examples for embracing diverse land reform models.

5. Gaps of land and agrarian reform programmes and prevailing challenges

It is evident that certain effects of the previous land and agrarian reforms are still visible in the agrarian sector even today, notwithstanding the drastic socio-economic and political changes that have taken place over time. The pressing need to move towards sustainable agricultural systems relies largely on agrarian and land reforms. However, the gaps and deep-rooted downsides of the reform process can be identified in various dimensions.

6. Absence of far-sighted goals and inconsistency of policies

Policy priorities and motives in the post-independence era, and the contemporary focus of land and agrarian reforms show merely the slight differences which in turn indicate the severe failures of achieving the early policy outcomes. The most conspicuous example of this is the inclusion of peasant landlessness issues in policy priorities over the period even up to now. Therein, it is evident that the key issues of the sector have remained unchanged and even aggravated along with the rapidly changing socio-economic, political, and ecological contexts. This has hindered both the rural and agricultural development and necessary transformations of the said sectors.

7. Absence of economically viable farming units

Many land reform programmes were focused on distributing small land plots. Since, independence, small farmers were known to be the backbone of agriculture of the country which indirectly promoted the subsistence agricultural system. Yet, the need to distribute more land to alleviate land hunger was the major impetus behind this. Even the collective farm programmes performed poorly and impeded the continuation, given less attention directed to overcome drawbacks of improper monitoring and evaluation, not addressing the surging needs and issues of the land users, and radical changes of political ideologies dwindling the policy focuses. However, with the small size of the land and the high cost of production, a considerable level of rural farmers has become subsistence farmers instead of turning into profitable farm ventures.

The micro character of the holding of the smallholder sector has become a serious issue. Even many contemporary land-related policies continuously focused on distributing small land plots. According to the Agricultural Census of 2002 and 2014, overwhelming majority of land holdings represented the smallholding sector showcasing the stagnant pace of the

situation. From all holding in 2014, nearly half of the acres were lands with the land extent less than or equal to 1/4 of an acre. These lands are often considered marginal holdings (Department of Census and Statistics in Sri Lanka, 2013/2014). The income of the mainstream of micro-operators is considerably lower than the subsistence requirements.

8. Marginalization of smallholders and poverty spikes among peasants

It is evident that most segments of the agrarian community are incapable of self-reliance. They are either representing the poor or are close to the poverty line. Hence, land policies at the macro level are coated with controversy as they have become incompetent in benefitting the poor and provided temporary solutions to lessen land hunger. Moreover, it is widely accepted that an apparently large population of rural poor exists amongst the landless, near landless, smallholders, and agricultural labours (Alailima, 2000). This portrays that the marginalization of rural communities is closely associated with the land factor.

Land encroachment data shows the actual land poverty of the country reflects the lack of foresight of the policymakers in relation to devising policy outcomes sans clear intentions and aims of overcoming deep rooted issues of the country (Maddumabandara, 2000). It is apparent that majority of smallholders have often undergone through complex challenges. The increasing cost of production and lack of attention towards the production process fueled their vulnerability. Therefore, despite the possible advantages of small farms, the agrarian sector was quite incapable in yielding adequate profit margins in the long run to compete with emerging marketing forces. Therein, it is high time Sri Lanka catalyze structural transformations and static policies to secure the sustainability of rural land and agricultural sectors.

9. Challenging issues of maintaining equitability and avenues to reduce poverty

Even though the government expected to overcome the poverty level of the poorest of the poor by alienating the lands, it has met the expected outcomes due to weaknesses related to land distribution. It was evident that certain distributed lands were unproductive, thus an adequate level of income was hardly generated using these poor lands (Maddumabandara, 2000).

Further, it is often claimed that land distributing practices were unarranged and politicized therein lacks in transparency. Hence, despite attempts made

over the decades through land reforms, inequity, landlessness and poverty still prevail as serious issues.

10. Inadequate attention to overcome deep-rooted and emerging issues of the sector

As far as the challenges of the peasant community are concerned, key issues are related to agrarian structures and agrarian livelihoods. Landlessness, tenancy, fragmentation, micro-units, joint ownership, semi-feudal land tenure relations are the menacing problems associated with the sector. Attempts at peasant re-settlement failed to ensue in a structural transformation in rural agrarian social relations. Programmes aimed at increasing production were also unable to yield the expected results (ARTI, 1978).

11. Less attention on environmental concerns

Environmental concerns have become increasingly imperative in the policy formulation process. With the growing need for environmental protection and sustainable resource consumption, there are concerns on the stewardship between the agrarian reforms and the environment. It is widely acknowledged, that agrarian reforms fuel the ideas of stewardship toward the environment (Jacobs, 2013). However, in Sri Lanka environmental concerns in land and agrarian reform process are poorly devised fueling complex environmental issues that leads to a severe imbalance between the society and the environment. Land encroachment, in particular, is among the serious issues that have arisen in settlement areas. Encroachment has had a deleterious impact on protected areas and environmentally sensitive lands. Even in mega settlement programmes and multi-purpose development programmes environmental concerns seem to be often less considered.

12. Land market imperfections

Land exchange is a major motive shaping land-use change in regions with high pressure on land (Bakker et al., 2015). Paradoxically, the Sri Lankan rural sector has long neglected the rural land market and, it has hindered the land transactions whilst stagnating its progress and failed in safeguarding inherent characteristics of the smallholder sector. In general, as in many south Asian countries lands are seen not only in productivity lenses particularly in the rural sector, it involves broader social factors. These inherent ideologies may have influenced to keep away lands from their optimum productivity.

CHAPTER FOUR

Land Consolidation Experience in Other Regional Countries

In many countries of the Asian region, socio-economic development is considered as a major determinant factor within the development trajectory. As part of this effort, rural development aims to restructure the rural landscape along with the upliftment of the socio-economic conditions of peasants that provide diverse benefits to achieve national development goals. As such, LC can be considered as one of the key strategies connected with land and agrarian reforms of many emerging nations.

The following section discusses the LC initiatives in different regional countries which can be considered as an integral component of the land and rural reform process.

4.1 Land Consolidation Experience in China

Applications of modern LC models in China date back to the 1950s and, application of the rational idea of LC in the traditional era commenced as early as 1066 B.C. However, modern approaches of LC have become a significant policy focus in 1987, with the surging need for food security and to assure the food supply to feed the growing population. These national food security concerns were the major impetus of launching the large-scale LC projects in the late 1980s. Accordingly, these needs were incorporated with the Chinese rural reforms. At the outset, LC initiatives aim the series of land tenure readjustments which comprise of land rearrangements, renewal of drainage systems, improving road infrastructure in order to improve land utilization of the country (Huang et. al, 2011). Particularly, the LC policy's primary goal was to increase overall agricultural productivity (Jin et al., 2017).

The consolidation was expanded towards rural settlements and efforts were combined with comprehensive development of rural environments covering farm-fields, water, roads, forests, and villages (Long, 2014; Yan et al., 2015), clearly reflecting a closer association between land and rural community development.

In the period from 1998-2012, with the rapid urbanization, the urban population has raised from 30.4 percent to 52.6 percent. Simultaneously during the same period, farmlands were decreased to 7.93 million ha

(Ministry of land and resources of China, 2013). The decreasing of fertile and cultivatable lands was a major challenge confronted by the country (Ho and Lin, 2003). Economic transformation and changes in population dynamics were the major impetus behind this. Urban-based industrialization largely contributed to the reduction of food production which in turn threatened the food security (Xu, 2004). In the given setting, food security became a top priority in national development plans in China (Jin et al., 2017; Rosegrant and Cline, 2003).

With the changes of the development path of China, expansion of constructions on the lands led to the emergence of micro holdings and continued land fragmentations. Micro-holdings have encountered operational issues such as labour shortages, limited access to irrigation systems, and difficulty carrying out agronomic practices. Negative environmental consequences also catalyzed land reforms. Excess fertilizer usage, water pollution, degradation of soil properties, endangering of wildlife and wild plants were critical issues that determined the alterations of agricultural land use. Even though the country has undergone major difficulties in feeding its rising population, these factors jeopardized the sustainability of the food systems and the food production (Yang and Li, 2000).

Further, poor planning of rural settlement to occupy the rural population largely contributed to the curtailment of productive and cultivable lands. Accordingly, 90 percent of rural settlements are constructed in cultivated lands and they are widely scattered and designed on a small scale. From 1996 to 2008, the rural population has dropped by around 129 million in number, rural settlements were created covering 100,000 ha. This portrays the wastage of valuable lands with the ad-hoc development plans which further enhanced the severity of Food Security issue (Huang et al., 2011).

To fulfil the desired expectations the Chinese LC projects have two key stages. In this stage, addressing the issues related to the small operational scale in agricultural production was a key impetus for LC initiatives. (Davis et al., 2001). These efforts were carried out with the Comprehensive Agricultural Development Programme (CAD) and no professional organizations, laws, and formalized projects were involved during the initial phases of the project (Huang et al., 2011). Consequently, a noticeable process was not visible at the evaluation process of the programme. In the mid-1990s, China launched the second stage of its LC policy. This was implemented with the rapid urban development and industrialization of China (Long, 2014).

Comprehensive Agricultural Development (CAD) is the national level land development programme which was combined with large scale LC projects. It was implemented in 1998. This programme was mainly designed to overcome the issues that arose owing to previous institutional reforms in the agricultural sector of China particularly in the 1970 and 1980s (Wu et al., 2005).

Land Degradation issues and decreasing of arable lands were the top most issues in the land sector before the second stage of LC. This created a myriad of social and ecological problems. Therefore, in the second stage, the key land management focus of the central government was to ease the problematic situations of lands through the implementation of LC (Long et al., 2019).

A sub-agency called National Land Consolidation and Rehabilitation Center (NLCRC) was established by the Chinese Ministry of Land and Resources in 1998. NLCRC is responsible for supervising LC projects. The main functions of NLCRC include commencing national LC projects, provision of technical guidance, handling the LC funds, rehabilitation, and researching as appropriate regarding the LC projects and rehabilitations (Huang et. al, 2011). The organizational structure of NLCRC was inclusive of branches at provincial and municipal levels under the behest of a central body functional at the national level. Accordingly, Regional Land Consolidation and Rehabilitation Centers were set up in every location. The first cluster of national-level LC projects was launched in the late 1990s by the NLCRC (Lio and Timothy, 2017). The first ten-year National Land Consolidation Programme (2000–2010) aimed to bring together fragmented and underutilized land. The programme was designed to reclaim wasteland or land that has been harmed by mining or natural calamities, and develop underutilized land resources whilst avoiding desertification and soil erosion (Huang et. al, 2011).

Even though the legislative focus was not seriously considered during the initial phase of LC activities, the legislative structures were given a prominent place in the Chinese LC projects later on. As a part of an extensive amendment to the New Land Law introduced in 1998, LC legislation was adopted by the State Council which was an appendage on adapting legal entities of LC. In particular, LC legislations were accentuated at the provincial level notwithstanding the fact that there are no direct laws attached with the LC projects at the national level (Huang et al., 2011; Lio

and Timothy, 2017). Within the legal setting, the implementation process of LC is regulated by the new land law. Village-level committees were also vested with responsibilities to provide their support as ground-level entities (Tong and Zhang,2020).

Rationalizing the rural land use pattern and improving the countryside with the new development paradigms have increasingly gained attention in rural restructuring. Food security was also prioritized as a major concern of interest. In this approach, more inclusive land-use systems have been anticipated. In 2005, an innovative land management policy was launched and aimed to link large proportions of land allocated to urban construction with the denting rural settlements. In this effort, urban construction is a necessary link with future development needs (Liu and Timothy, 2017).

In generally, LC efforts have emerged as farmland consolidation, land exploitation, and land reclamation. Farmland consolidation focused on the improvement of agricultural lands to overcome issues such as small parcels and land fragmentations. Land exploitation focuses on converting unused land for agricultural purposes and land reclamation targets to transform unoccupied lands and disaster-damaged farmlands back to agricultural lands. Most of the LC practices are associated with expanding plots, developing infrastructure, and conserving the environment (Jin et al., 2017).

The aforementioned efforts of LC paved the way to the management of issues associated with rural development and other associated goals as an effective land management tool. With the rising of the Chinese economy during the most recent decades, LC was an integral part of their development plans which supported to bridge their economic transformation and food security needs of the growing population. This facilitated to lessen the vacuum of rural and urban development priorities.

Table 4: 1 summarizes, rural restructuring that comprised the LC as an integral tool.

Table 4.1: Key Motives of LC efforts in China

KEY MOTIVES	DESCRIPTION
Sub-division of lands and micro holdings	Small scale operations, fragmentations of agricultural lands, scattered lands were amongst the major concerns of prior attempts
Restoring irrigation networks and technologies	As a solution to overcome issues that reside with the prior institutional reforms
Food security concerns	The population pressure, declining of cultivated lands in a rapid phrase and inability to cater to the food demands of a rapidly growing urban population
Balance development of rural and urban sectors	Need of Improving rural-socio-economic conditions in line with the rapid urbanization, improve land-use efficiency, improving quality of life, and enhancing farm-based employments

Source: Compiled by authors based on Huang et al., 2011; Lio and Timothy, 2017; Long, 2014

LC efforts have emerged as farmland consolidation, land exploitation, and land reclamation. Farmland consolidation focused on the improvement of agricultural lands to overcome issues such as small parcels and land fragmentations. Land exploitation focuses on converting unused land for agricultural purposes and land reclamation targets to transform unoccupied lands and disaster-damaged farmlands back to agricultural lands. Most of the LC practices are associated with expanding plots, developing infrastructure, and conserving the environment (Jin et al., 2017).

4.2 Land Consolidation Experience in Japan

In Japan, modern LC plans began in 1947, along with the agrarian reforms in the post-war period. Prior to this in the traditional system, Land Consolidation Act (LCA) was commenced in 1899 with the semi-feudal system. After the Second World War, as a result of the demolishing of feudalistic land-use systems, rise of the class small-scale individual farmers was visible in Japan. Former tenants received ownership rights after the government purchased farmland from landowners for approximately 80

percent of the land under the tenancy. In the semi-feudal system to improve land productivity, plots were subdivided through traditional LC practices with the participation of tenant farmers. In 1949, Land Improvement Act (LIA) was formed and with this modern LC policy was institutionalized through formal policy process. This has been accepted as the core legislation entity to implement LC and, provisions to safeguard farmers' rights and wellbeing are co-existed with the LIA (Hashimoto and Nishi, 2016).

By 1960s, with its economic miracle, the urban population increased at a rapid pace in Japan. The Agriculture Basic Act focused on the crucial circumstances that appeared along with changing dynamics in the socio-economic structures. Boosting food production, strengthening farmers' income, and responding to urban-rural income disparities were the major motives of this policy shift. Although the policy reforms have taken revolutionary steps to change the distribution of land ownership, the distribution of operational holding remained almost the same. During the last seven decades, LIA has adopted several amendments to satisfy the shifting of priorities in the socio-economic and environmental spheres. In this setting, the policy continues to adapt to the transforming national interests by incorporating necessary targets into policy formulation which is consistent with the development paradigm of the country (Hashimoto and Nishi, 2016).

Industrialization has widened the gap between the industrial and agricultural sectors in Japan, akin to many other developing countries. Sustaining equality between farmers and industrial workers was one of the challenges faced by the Japanese economic sector in that particular period. Transforming agricultural land for other purposes was increasingly popular with these drastic changes in the economy. The demand and value for agricultural lands surpassed the farming income, therefore farmers were inclined to sell their lands to a higher price. In this setting, expanding farmlands through purchasing, unrealistic landscape operations for small-scale farmers, and obtaining the lands for lease emerged as the most promising alternative ways for intensifying farmlands (Takahashi et al., 2018).

In 1970 necessary amendments were introduced to the land law for smooth functioning of leasing transactions. In 2009, it was further amended. In particular, the act for promoting farmland banks was enacted clearing the way for farmland expansion by facilitating a sound institutional framework for banks (Hashimoto and Nishi, 2016).

In 1970, embarking on another milestone landholding cooperation, a public organization body was formed seeking the new approaches for expanding the land market. The core expectation of forming the landholding cooperation was to purchase or obtain farmland on a lease basis from the retired farmers and facilitate to sale and lease of those farmlands for the capable and interested farmers even though there were certain gaps with the initiation (Hashimoto and Nishi, 2016).

Further expanding the application of the cooperative farming concept in 2012, a special plan was introduced providing direction and supervision for consolidation of farmlands towards principal farms and then allowing progression as community farming. A series of discussions and periodic reviews with regional and local farmers were held during the planning process of this attempt (Takahashi et al., 2018).

Farmland improvement projects were crucial in LC and land improvement projects in Japan. Maintaining and repairing irrigation and draining channels, reshaping the plots, assisting to enhance labour efficiency, developing rural amenities for tourism, and developing infrastructure in under-privilege areas were key components which were included in those projects. Most of the rural improvement projects were often focused on top-down approaches and considered more on infrastructure improvements. Yet under the fiscal retrenchment, the government took steps to promote bottom-up and soft approaches to land and rural improvement projects (Hashimoto and Nishi, 2016). From the outlook of LC, reshaping and merging of farmlands were ensured, and farmers were allowed to negotiate reallocate their plots to a solitary land. Several farm plots were merged into one or two plots.

Japan's current agriculture policies have placed a greater emphasis on farmers' capabilities and emphasized the importance of collective engagement in the LC process. Via the farmland consolidation approach, the role of a principal farmer who is a certified farmer was entrusted along with village-based farming organizations. Through strengthening the LC and enhancing the scope of the land reforms, it was expected to assure equal economic situations of agricultural employees and others in the better-off economic sectors (Takahashi et al.,2018).

The village-based farmer organizations have also been authorized by the government and their core purpose is regional conservation which encompasses agriculture. They share work in farming operations, as well as

machinery and marketing operations. The government is responsible for authorizing the certified farmers based on their motivation and capacity to maintain farming operations. Further, reform management plans are also considered (Oda et al., 2018).

To formalize farming operations in a more competitive manner, the government introduced an agriculture subsidy policy which showed the remarkable difference between ordinary farmers and principal farmers. In this process, the government encourages uncertified farmers to abandon farming and ensures that the LC runs smoothly through the operations of the principal farmers (Oda et al., 2018).

Through this strategy, the Japanese government expected to sustain only large-scale farmers in the agricultural sector and convert farming as a lucrative venture. It also seeks farmer organizations to keep their revenues in parallel to other well-off sectors. In fact, the scale of economies is considered as one of the major determinants for Japanese LC and income differences of small-scale and larger size farms drive towards key policy shifts.

Table 4: 2 Key Motives of LC Efforts in Japan

KEY MOTIVES	DESCRIPTION
Secure land rights of the farmers	It was established that farmlands should be owned by the farmers. Early reforms paid considerable attention on tenant farmers.
Boost food production and food security	Certain planes launched to overcome domestic food scarcity
Lessen the income disparity between the agriculture and manufacturing sector	The LC initiatives focus on enlarging the plots integrating with the infrastructure development and strategies to make farmland ventures more profitable
Global competitiveness	Ensure supply-demand equilibrium, address trade liberalization, and global environment concerns
Environmental conservation	Water, land, and environmental concerns
Broader aspects of rural development	Infrastructure and environment protection as basic prerequisites for rural development

Source: Compiled by authors based on Hashimoto and Nishi, 2016; Takahashi et al., 2018

Currently, LC-related policies are highly prioritized with soft and bottom-up approaches instead of top-down approaches.

4.3 Land Consolidation Experience in South Korea

Small family farms were the common feature of Korean agriculture sector as visible in many Asian Countries. “*Land Reform Programme*” introduced in 1950 can be considered as an important turning point in the modern Korean Agricultural journey. In the colonial period most lands of the peasants were acquired forcefully by the colonial regime. Due to myriad of upheavals faced during the transition periods between 1948-1950, the mainstream farmlands were small family farms. However, it is apparently evident that the average farm size has continued increase progressively with time (Korthals and Bong, 2011).

Parallel to many East Asian countries with the rise of industrialization, manufacturing had surpassed the Korean agricultural sector in terms of economic importance from early 1970s. The disparity between the two sectors began to take place like many other countries in the region. LC projects were first commenced with the enactment of Rural Modernization Act. The focus of the project includes improving farm transportation, facilitating irrigation systems and combining fragmented agricultural plots. Expenses of the initiative endured by the stakeholders consist of central government, municipalities, and owners of the farms. Eighty percent of the expenses was borne by the government and the rest were invested by the farmers (Choi, 2004). However, in general, structural changes failed to address issues that reside in the Korean rural sector of satisfactorily which consisted of unplanned village settlements, low income, population issues (depopulation, aging) widening the rural-urban gap (FAO, 2003).

As per the said context, the major impetus behind the initialization of LC is the unjust land distribution among peasants as a result of long-established feudal systems and complex issues surfaced during colonization. However, prominence of LC rose owing to the structural changes that transpired in the economy in 1970.

Agriculture became less attractive to the farmers since the acceleration of industrialization and the average income of urban labourer surpassed that of farmer in 1970’s. Despite the country’s rapid industrialization, regional development progressed unevenly (Korthals and Bong, 2011). On the other hand government policy to ensure food security by providing sufficient

government subsidies for the consolidation projects and enhanced use of machinery for farming purposes lessened the need for labour force and increased crop yield (Choi, 2004).

Lack of association between the LC and rural development projects have encumbered the development of agricultural sector since there was tendency of transforming farmlands into non-agricultural purposes. Further, absence of common regulation for land acquisition had negatively influenced the implementation of village development projects (Im et al., 2008). Further, rural and agricultural development paradigms are not adequately integrated with the holistic development process (Korthals and Bong, 2011).

There was a lacuna in attention given to environmental concerns in LC projects until National Planning Act declared Natural Environment Conservation Zone. Further, farmland banking system was not adapted even though land reserves are sporadic in rural areas. Since majority of farmers represent old age groups younger generation suffered with landlessness and the absence of ownership rights leading to a delay in village development initiatives (Korthals and Bong, 2011).

4.4 Land Consolidation Experience in South Asian Countries

Diverse perspectives exist in relation to small farms in Asia. Particularly, productivity issue of small farms has often gained attention among policy makers and development practitioners. In particular, small farms are a common phenomenon in the agricultural sector of South Asian countries (Niroula and Thapa, 2005). The issue of sustainability is often prevalent as small farms sustain the comparative advantage of agricultural activities (Otsuke et al., 2016). The landholding size is gradually lessening with the expansion of the numbers of fragmented land parcels. There is a tendency towards further subdivision of lands which has a possibility of worsening the situation. Accordingly, South Asian countries also introduced measures to overcome issues of micro holdings, land fragmentation, productivity matters in their land and rural reform processes. Yet, it is evident that most of the programmes performed less fruitfully.

In India, the history of LC efforts is dated back to the early 1900 since British rulers initiated certain LC programmes. This effort was continued even after independence in 1950 with their macro level policies (Bonner, 1987; Niroula and Thapa, 2005).

Accordingly, a LC programme was introduced with the first five-year plan after independence in 1950s with the aim of increasing agricultural production. Though the target was 325 million acres, only 23 million lands were under implementation during the ten years period. Farmer resistance, mutual conflicts and administrative weaknesses were the major hindrances which curtailed the success of the project. It is noteworthy that the farmers' opposition and their perceptions on lands made a substantial impact (Khanna, 1991).

These perceptions were interwoven with factors such as fear of landlessness, anxieties of land insecurity and land rights, lack of trust and their deep-rooted emotional bond with lands. Many of the smallholders and tenants had undergone fears of losing their lands due to possible mechanization and job redundancy (Khanna,1991). Tenants were fretful on possible eviction from the lands since marked absence of their tenancy rights. Further, the farmers had great emotional bond to lands which is well visible in almost all the South Asian countries. As evident in India voluntary LC failed to meet its expected outcome. It was revealed that due to LC projects, the mean plot size had risen from 0.11 to 0.29 hectares, while the average number of plots per holding decreased from 45.5 to 16.3 hectares (Zaheer, 1975).

Given difficulties in obtaining the consent of farmers on a voluntary basis, government resorted to the use of force and authority to impose compulsory LC considering public interests. In this effort, government considered the areas where one third of lands distributed among one third of farmer populations for the consolidation. This programme was introduced in 16 states and was effective only in areas of Uttar Pradesh, Punjab and Harayana while little achievement was gained Madhya Pradesh, Gujarat, Rajasthan and Karnataka (Bonner, 1987). In general, one of the principals implemented in LC globally is the uniformity of land value or size of the land. In this view, size value or size of the land should be similar. Yet, in the places where farmlands are scanty the farmers were provided with compensations incentivizing their departure. In addition, a model for cooperative cultivation was introduced in West Bengal to overcome the issues of land fragmentation. However, since joint farming is not a conventional practice in the area the initiation was failed (Ghosh, 1983).

According to the normal process, land holders normally acquired lands considering where their largest land plot was located of his original, areas where fragmented land parcels were located, and settlement patterns

around his farmhouse. Every plot was provided necessary facilities and to fulfill these facilities, rural planning works which encompass roads, paths, and irrigation works was established. In some occasions, minimum land holdings are fixed and the land holdings below that received compensation. However, certain drawbacks and significant features can be identified in the LC efforts in India. In India, consolidation schemes also mingled with irrigation and water-use projects (Wade, 1975). This is more or less common to other Asian countries (Salmanzadeh and Jones, 1981).

Adopting inclusive rural development goals and certain Indian consolidation schemes go in line with overall village development programmes (Trivedi and Trivedi, 1973). Further, in the Indian case, LC projects showed a gap between rich and poor, as communities belonging to lower casts were deprived from benefitting from the policy. Indians belonging to higher casts were able to invest tube-wells and Persian-wheel wells for irrigating their compact holdings (Elder, 1962). This denotes the deep-rooted cultural features that impacts development programmes in the South Asian region, contrary to other countries.

In Pakistan, the first land reform programme started as early as 1959. It was expected to address the land fragmentation issue. It focused on both consolidation and restrictions measures for subdivision. Regulations for land fragmentation were stipulated which was 12.5 acres for subsistence holdings and 50 acres for economic holdings. Only 1.8 million hectares of farmland were consolidated during the period of 1977–1983 and expected benefits could not be achieved due to diverse reasons. The absence of capable human resources with proper training, skills, and motivation weakened the administration task. The semi-judicial nature of administration system created a lengthy, slow and expensive service delivery (Shaukat, 1999).

There was a pilot project on cooperative farming in Nepal in the 1970s, which was similar in nature to Sri Lanka. Small groups were formulated without processing the ownership of the resources (van den Noort, 1987). Even though, subsidies and operational funds provided for large segments of groups attracted many people initially the programme could not sustain for long, due to conflicting interests and management inefficiencies. In this case, the disparity in obtaining the benefits by the better off than others was prominent (Niroula and Thapa, 2005). As a result, the cooperative farming system was collapsed.

CHAPTER FIVE

Land Consolidation at the Farmer Level: Sri Lankan Experience

5.1 Introduction

This chapter construes the Sri Lankan experience of LC by discussing the policy reforms that are favourable to LC and LC practices adopted from over time. It focuses on the application of the rational basis of the modern LC idea inside traditional agricultural techniques, as well as legal enactments to support LC, farmer-level implementation, and certain farmer experiences at the ground-level.

5.2 Sri Lankan Experience of Land Consolidation: Historical Contexts, Approaches and Farmer Experience in Ground Level Scenario

5.2.1 Features of Land Consolidation in Traditional Land Use Systems

When considering the rational and scientific basis of modern LC approaches of many countries, certain features of LC can be identified with their traditional land tenure systems even in feudal or semi-feudal systems. In this sense, Sri Lanka, as a predominantly agricultural country is not exceptional.

The traditional agricultural system of the country is largely flourished by the land-use components that have been synergized with indigenous water management techniques. Further, land use patterns were well rationalized with the climatic conditions of the dry zone, which is the mainstream agricultural area of the country.

One example of shared cultivation and way of maintaining optimum utilization of lands to secure food supply in the traditional system is “*Bethma*” cultivation. This method has several rules and regulations for water and land sharing. *Bethma* is a form of a sharecropping practice. This system is used for water conservation practice during the dry spells. Under the *Bethma* system, the available water is equally allocated to all farmers in the command area. Therefore, proportionally similar-sized land plots are redistributed among rice field owners considering the water availability. This method was also used by the community to obtain optimum utilization

of water and land to realize agricultural productivity during the dry spells through practicing shared farming activities.

In addition, traditional *Thattumaru* and *Kattimaru* systems could incorporate significant characteristics to the modern LC concept, such as sharing lands to cultivation (on a rotation basis) to prevent further fragmentation of fertile agricultural fields and to improve land and agricultural productivity in a sustainable way. Weerawardena (1972), quoted D'Oyly (1827) defined both *Thattumaru* and *Kattimaru* as follows;

Thattumaru is

“Alternation where an estate is too small to be divided among the heirs or coparceners or where it comprises several fields of various degree of productiveness, the possession is so arranged by compact that each in his turn either enjoys the whole land or by rotation cultivates the more and the less fertile portions”

Kattimaru is

“Under these traditional methods of land tenure, the lands are not divided but held jointly by a number of cultivators (owners and tenants), each of whom take over a small area in rotation depending on his share in joint holding. The cultivators keep changing every year and there is no single cultivator always working the land”

In reality, it should be admitted that as broader rural restructuring goals are connected with complex socio-economic and political structures, the traditional practices cannot be entirely incorporated into modern systems and most of the comprehensive features of modern LC concept are not apparent. Yet, certain primary characteristics of the modern LC concept have been somewhat visible in the traditional systems. In particular, through the practice of traditional LC mechanisms at the ground-level, there is a better chance of integrating agricultural lands and avoiding further fragmentation by adapting collective farming principles whenever needed.

5.1.2 1958 Paddy Land Act

The Paddy Land Act was enacted in 1958. Even though this act sought to enhance the tenure security of tenant cultivation as its key focus, the covered certain layers of the LC concept. Certainly, it can be considered a far-sighted effort to enhance the productive goals of micro-scale farming operations to an extent, which was one of the pressing concerns at that time. The Paddy Land Act introduced a form of an innovative step to make a change in the existing system of cultivation and tenancy. Providing legal provisions to the establishment of cultivation committees, a self-governing organization of farmers was one of the steps taken under this Act. It also intended to foster the objectives of the Act through the functionalization of the cultivation committees.

The Paddy Land Act: “An act to provide security of tenure to tenant cultivators of paddy lands; to specify the rent payable by tenant cultivators to landlords; to enable the wages of agricultural labourers to be fixed by cultivation committees and agricultural labourers to be appointed as tenant cultivators and collective farmers; to provide for the consolidation of holdings of paddy lands, the establishment of collective farms for paddy cultivation, and..... (Chapter 453 of Paddy Lands Act)”

Alongside this effort, it was expected to have a reliable record of the holdings' size, which in turn encourages the cultivators of fragmented paddy lands to consolidate their paddy holdings, whilst attempting to embrace cooperative farming in whatever setting that was deemed as feasible with these efforts (Gold, 1977). This can be considered as a pioneering effort of LC at the farming level through legal enactment. The effort may not be planned under the deep consideration of the comprehensive and fundamental base of LC however, it can be considered as a rational strategy for addressing crucial issues that reside in the sector in relation to strengthening agricultural productivity, boosting food production, and ultimately, the wellbeing of most deprived segments of the rural society.

Even though this was an impressive initiative that opened up a fruitful path towards enhancing agricultural productivity among most disfranchised groups in agrarian communities, it endured several flaws, resulting in lack of performance. Politicization was one of the common issues residing in

promoting cultivation committees under the operationalization process. It seeks active and vibrant participation of farmers who deserve to receive the true benefits of this task. When it progressed, one-fourth of the members of the committee (out of a total of 12 members) consisted of the landlord and the rest was represented by the tenant cultivators and agricultural labourers. The primary aims of forming cultivating committees were skewed due to unfavorable actions by people in positions of authority, in fact by reason of politicization (Dunham and Fernando, 1991; Gold, 1977). Members of the cultivation committees were appointed by the Ministry of Agriculture and Land on the recommendation of a member of parliament, putting them in touch with the political power structure of the villages. Liaison between the agriculture productivity committee and the cultivation committee was done by the administrative secretary of the cultivation committee (Narayanasami et al., 1977). Inevitably, the majority of efforts failed to produce the desired results (Gold, 1977).

Relative to other areas, success of these committees was recorded somewhat higher in dry zone areas owing to the necessity of maintaining the irrigation and water supply in the water scare dry-zone continuously. Particularly in the places where the small tanks were the typical source of irrigation, the role of the farmers was crucial to satisfy water needs. This situation was particularly notable in *Purana* villages (Narayanasami et al., 1977).

Cultivation committees performed well in the mid-1960s. In 1964, an amendment was made to the Paddy Land Act for the deduction of an acreage levy from the payments made to producers for the sale of rice to the government under the Guaranteed Price Scheme (GPS). This resulted in the increase of levy collected from farmers. However, since the market price exceeded the GPS, an open market mechanism was strengthened and yet the mechanism failed to bear fruitful results (Dunham and Fernando, 1991; Gold, 1977).

The Paddy Lands Act established the National Agrarian Services Department to oversee its implementation. In this context, an attempt was made by the Department of Agrarian Services to ameliorate the functioning of 13 cultivation committees of Anuradhapura District. The scheme was operationalized with the vigorous involvement of farmers and government agents. Yet, the fundamental aim of this activity had once again lost its focus as the responsibilities of the officers in charge were shifted to other alternative activities. It was recorded in some sources that successful schemes were progressive due to dynamic leadership. In some places,

farmers adapted to indigenous water management and collective practices to cope with risks such as *Bethma* System (Dunham and Fernando, 1991; Siriwardena, 1970). In such places, cultivation committees had little voice and farmers engaged in trustworthy practices to keep their livelihoods less vulnerable.

5.1.3 Land Consolidation under the *Dewahuwa*³ Project

This was a project carried out with the support of the Japanese Government in Matale District, which belongs to the Intermediate zone in Sri Lanka. Under the project, an attempt was made to consolidate paddy lands. LC activities were done in Japan during the same time period as part of rural restructuring and land reform initiatives. However, with a clearer understanding of the output that should be derived in the context of Sri Lanka, it was expected to address the following concerns more systematically through the commencement.

1. *Improvement of productivity of the land. Consolidation was seen as a way to increase the efficiency of water use through better land arrangement and the unification of Liyadda⁴ inlets, soil dressing. Understanding draining and sub-soil compacting etc;*
2. *Improving labour productivity. It was seen as a way of facilitating the use of mechanical energy, by extending the size of Liyadda and improving road conditions.*
3. *Conserving agricultural land. It was seen as a way of stabilizing land permanently, modifying and gradient, and strengthening the borders and inlets of individual Liyaddas (Land Commissioner's Department and JICA. 1977,1977:118)⁵*

The need of suitable selection before commencing commencement of LC projects in Asian countries was highlighted. This rationality was also applied in this particular project. Accordingly, with the commencing of this effort in

³ *Dewahuwa* is a village situated in Matale District which belongs to intermediate zone of Sri Lanka

⁴

The paddy tract is divided into discernible sections of land known as '*Liyadis*,' (The folkloristic term) where paddy is cultivated. *Liyadda* is also known as "a plot" or "a farm lot"

⁵ The original information has taken from "*The engineering on agricultural lands*" written by Dr.M.Yamazaki

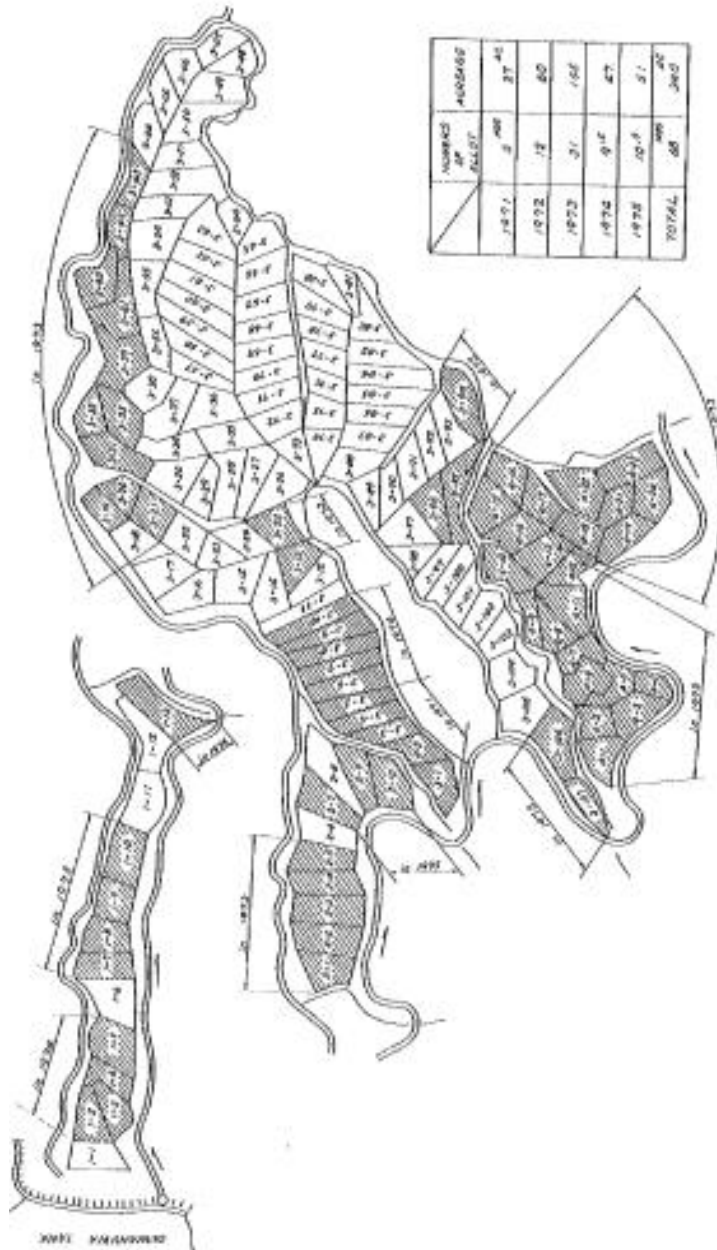
Yala Season of 1971, there was a total of 771 acres of paddy lands in the project area which consisted of 14, 000 paddy tracts calls "*Liyadi*" (This area was the upper stream acreage of *Devahuwa* Tank) This proportion of *Liyadi* portrays the gravity of the land fragmentation issue that prevailed even at that time. In fact, one acre of rice fields comprised approximately 18 micro parcels (Land Commissioner's Department and JICA. 1977). The proposed land allocated for LC work was 435 acres. However, it is claimed that the selection and adaptation were not always appropriate for the conditions of the country where LC was intended to be implemented. Japanese LC methods were sometimes easily adapted considering the cost-effectiveness, which true in the case of Sri Lanka as well.

From 1950 with the colonization of dry zone areas, irrigation infrastructure has been renovated. With regard to *Dewahuwa* project, according to the density of channel, drainage and roads were considered as adequate in quantity from the commencement of the scheme in comparison with the standard of Asian Development Bank (ADB). However, the condition of paddy fields was said to be in bad condition, which was mostly cultivated manually and field conditions were considered extremely poor.

Manual reclamation is recognized as the reason behind this. However, the topography of the area and rice fields was more similar to Terrace paddy fields, and the characteristics of the borders and inlets of paddy fields were crucial factors that resulted in the poor condition of the farm fields. LC work is planned and carried out in this context, as a relief effort to improve farming and increase agricultural production

The durability of the LC work is projected to be 15–100 years when using the basic principle of investment decision-making based on return on investment to an LC project. In 1972, work was commenced, after initial work done in the *yala* season of 1971. The cost was calculated for the effort and, it was essential to sign an agreement with farmers (Land Commissioner's Department and JICA, 1977). This portrays the importance of farmers' consent as a direct beneficiary of the effort. On one hand, this furnished some assurance in order to avoid unfavourable situations in the future while dealing with farmers. Farmers' willingness, on the other hand, was critical for obtaining desired advantages rather than directing in an authorized method. In addition, a kind of legal security had also been embraced with the signing of this agreement.

Figure 5.1, depicts the progress of consolidation work over time. It reflects how LC work was planned and conducted in a systematic manner under the supervision of Japanese experts.



Source: Final Report: Sri Lanka-Japan Rural Development Project, *Dewahuwa*, 1977

Figure 5.1: Performance of LC work at Dewahuwa Village-1971 to 1975

In fact, in the implementation process, some issues were observed with the project.

One of the major purposes of the LC project was to improve agriculture infrastructure. As a technical prerequisite of this endeavour, consolidation of some allotments should be required. Farmers' consent and applications were sought at the beginning of the project. Some farmers, however, did not adhere. As a result, the project was unable to perform essential work activities owing to the fact that unapplied allotments were in poor condition, disrupting the effective and orderly operation of irrigation infrastructure, agro machinery, and labour inputs, and so forth.

Furthermore, there was a tendency for agricultural land productivity to suffer from a reduction in fertility in the topsoil and experience inefficient labour input productivity due to unsatisfactory leveling conditions in tracts (*liyadda*) at the outset of LC operations for the short run. However, this was considered a temporary situation. The time to obtain the rewards of better farming was believed to be five years since the commencement. The project struggled with these shortcomings since the objectives of better farming were not reached within a short period of time (Land Commissioner's Department and JICA, 1977).

5.1.4 Sri Lankan Experience in Cooperative Farming

Along with gaining independence, ownership patterns of agricultural ventures in Sri Lanka started to change. In particular, the emergence of state-owned agricultural enterprises has been a significant feature. From the mid-1960s, the emergence of cooperative ventures in agriculture was apparent in Sri Lanka.

Accordingly, in 1965, youth schemes were established and members of such schemes were educated youth. It was speculated that the farms functioned under collective principles. In the youth settlements, new trials related to operational forms were implemented from time to time. These attempts were closely related to organizing the farming activities on a cooperative basis. The lands were allocated for youth groups however not for individuals. Further, no claims were made for the ownership of any demarcated plots. It was expected that all members of the group be collectively responsible for the cultivation and management of the lands by these initiatives. Yet, most of these attempts failed to obtain their

objectives. Even though the failures were evident, certain settlements endured for a rather long period. Energetic leadership and competencies of responsible officers were considered as core-reasons behind the sustenance of those settlements. Despite many downright failures and unrewarding attempts, the concept of cooperative farms was stepped to the fore with constructive alternations in the policy domains (Ellman et al., 1975; Ratnaweera, n.d).

Particularly, a little success was noticed of the land distribution programmes that aimed individual entities over the period. At the same time, agricultural-related productivity goals which synchronized with Land Reforms did not achieve the expected level. Therefore, attention has been paid towards substitute strategies and approaches to enrich the output of Land Reform programmes at the national level (Wanigaratne and Samad, 1980).

With this context, making remarkable steps in collective land operations in corporative farms became a major institutional device for decentralized agricultural planning and rural development. In the Divisional Development Council Programme commenced in 1971. The right of establishing cooperative farms was vested with the government as per the land policy reforms in early 1972.

Stressing on the attention on establishing collective system of farming, Land Reform Commission in their interim report issued in 1972 highlighted the following concerns;

“In dealing with individual units, the mere allocation of farms to the landless peasants or to existing small holders would not be adequate. An important objective of the land redistribution programme is to obtain an increase in the productivity in the large number of intensively cultivated small holdings that would be established. It is virtually necessary to ensure that the smallholdings are initially organized and planned in such a manner that would make the transition to collective system of production smooth and effective”.

In the land reform programme a significant consideration was given to address the issue of rural youth unemployment. Particularly, one of the major reasons behind the youth insurrection in 1971 was the rising unemployment amongst educated rural youth with the progress of the education system (Kearney,1980). As a step to lessen youth unrest,

government had taken actions to provide lands for the landless youth under diverse initiatives such as collective settlements, young farmers' agricultural cooperatives (Samaraweera, 1982; Shrestha et al., 2020). This initiative was supported by a plethora of government establishments. Until then cooperative farming remained underrated even though it carries a legacy of several decades (Peiris, 1978).

In 1973, Land Reform Commission established a system of cooperative youth farms known as "*Janawasa*"⁶. The idea of collective ownership and self-management rationalized this settlement strategy. It aimed to optimize productivity through profit-sharing, which was based on collective effort (Peries, 1975). Farms under the *Janawasa* Programme were established largely in developed or partially developed lands.

According to the *Janawasa* Bill, its objectives are as follows;

- a)
 - i. *To foster collective management development of agricultural lands and the collective development of animal husbandry and agro-based cottage industries*
 - ii. *To ensure maximum productivity and maximum utilization of agricultural lands for maximum employment and profit-sharing in proportion to the quality and quantity of the work output.*
 - iii. *To promote social and cultural development of members*
 - iv. *To promote and foster group farming among owners or cultivators of neighbouring agricultural lands or:*
- b) *To promote agricultural machinery, implements and inputs, and other such services to members*

(Janawasa Law, No. 25 of 1976- Section 9)

Janawasa scheme is a special co-operative society of the members which is similar to co-operative farms. Farm management is mainly done by the members. In *Janawasas*, the members should hold the power. Involvements of different committees (planning, sales, and discipline etc.) allowed members to take part in management activities to a greater extent. It was expected to obtain better production from the lands and resources by applying more intensive cultivation practices compared to private enterprises. Further, it was also expected to use modern methods in cultivating (Ratnaweera, n.d).

⁶ *Janawasa*: Settlements

Land and other capital assets were communally owned under this programme (Peiris, 1975). By 1973, 18 *Janawasas* covering the total extent of 5240 acres and enlisting 1161 members were established. Land grantees were also inclusive of unemployed rural youth (Both men and women). Initially, the programme was fruitful thus, it was further expanded. LRC claimed that in 1975, 50,000 acres of land were distributed for settling 15,000 unemployed youth. However, this land area was only 5.1 percent of land vested with LRC (Samaraweera, 1982) and there were contestations over the rationality of these initiatives on both economic and social grounds.

5.1.5 Motives Behind the Co-operate Farms

Certain motivations can be traced back to the country's cooperative farming effort. It includes a wide range of strategic goals of the country and ways of dealing with current obstacles. It also had a rational base for increasing agricultural production, assuring food security, promoting equity, sovereignty principles, and political ideologies. The key impetus behind the establishment of cooperative farms is described below.

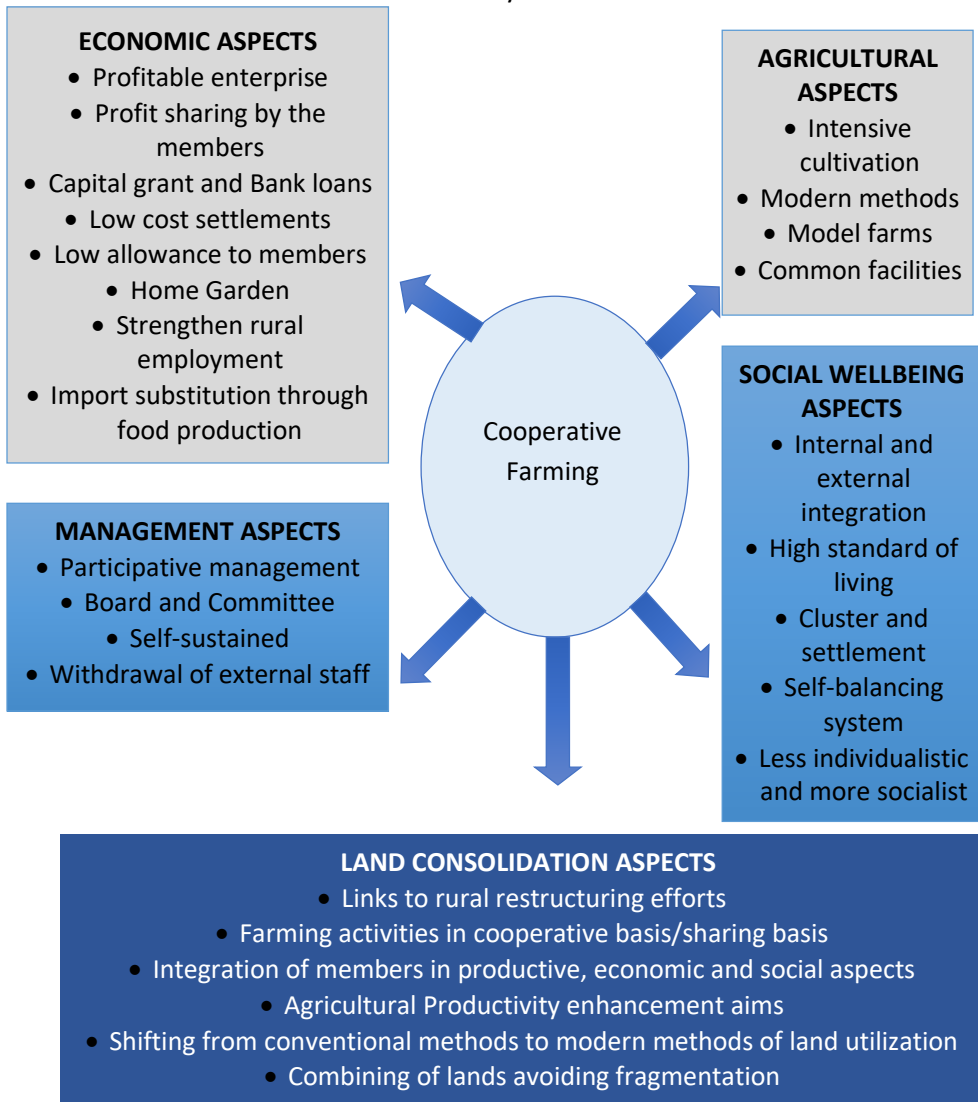
Provide employment ventures for youth and enhance agricultural productivity: The majority of youths had been brought up in rural areas. Since the Sri Lankan education system has been under government patronage for many years, most youth have completed 10-12 years of schooling. At the time, the government was struggling since half of its foreign exchange earnings were spent on basic food products such as rice, sugar, and flour. As a result, import substitution policies were put in place. As a result, increasing food production became the country's top priority. There were many underlying drives with providing employment opportunities through agricultural development

Ensure Equality in income among youth: It was hypothesized that educated young people prefer white-collar jobs due to relatively attractive income and was used to popularize agriculture amongst the youth. Therein, it was assumed that unemployed youth could have attracted towards agriculture by enabling them to earn an income as high as that of a white collar job.

Foreign exchange savings and earnings: The economy has been suffering from the adverse effects of foreign exchange. Therefore, import substitution for food items had significant importance to the national economy. There were many prerequisites for food production like cultivable lands and labour.

Reducing expenditure on agriculture settlements: Spending high capital cost for establishing dry-zone settlement was a heavy financial outlay to the government. Therefore, attention was paid to reduce the capital expenditure (Ratnaweera, n.d).

However, these agriculture cooperatives initiatives almost collapsed in line with the liberalization of the economy in 1977.



Source: Compiled by Authors, adapted and modified from Peiris (1975), Ratnaweera (n.d) and Wimaladharmma, 1982

Figure 5.2: Key Components of Co-Operative Farms Initiatives in Different Lenses and Reflections of LC Concept

5.1.6 Farmers' Experience and Perceptions at the Ground Level

In this section, 'collective stories' of farmers in adapting LC strategies in their rice fields are illustrated. This section covers farmers' experiences in two case study areas located in the dry zone and intermediate zone where paddy farming is well-established.

5.1.6.1 Background

This initiative was launched under the sponsorship of the CORIGAP project and it was implemented with the partnership of Rice Research and Development Institute (RRDI). The CORIGAP, stands for Closing Rice Yield Gaps in Asia which targets Low Environmental Footprint aiming to promote Food Security, gender equity, and poverty alleviation in China, Myanmar, Thailand, Vietnam, Indonesia, and Sri Lanka by optimizing the productivity and sustainability of irrigated rice production systems. CORIGAP is also supported by the Swiss Agency for Development and Cooperation (CORIGAP, 2021).

Under the financial support of CORIGAP project, LC efforts were undertaken in several phases covering small farmer groups among rice farmers in the Intermediate and the Dry Zones in Sri Lanka with the technical support of the RRDI. The following section explains farmers experience in LC activities in two case study areas.

5.1.6.2 Case Study One: Farmer Group in Intermediate Zone

In this case study, a first-hand experience related to LC sustained by a group of farmers in the *Ihalahena*⁷, located in the *Kurunegala* district, representing the intermediate zone is discussed. The major work done under this project was to enlarge farm plots by combining the existing plots and providing technical guidance to perform better with the consolidated lands. Yet, it was not easy to obtain farmer participation at the outset although the proposed initiative would provide many benefits to farmers.

The initial attempt of this initiative stalled before recommencing the initiative in this particular location, given the difficulties in obtaining the consent of farmers and aligned issues of getting optimistic participation of the community. Less awareness of the benefits of LC and non-existence of

⁷ Village name is used pseudonymously

trust between the farmers and officers posed as major hurdles. With the realization of difficulties to resolve issues that exist, primarily planned project was interrupted.

The next strategy adopted following the failures was to cooperate with the farm organizations that have been formed by the agriculture instructor. Beneficiaries were selected after enhancing awareness about this project and using trustworthy connections.

As initially discussed, it was agreed upon to provide Rs. 10, 000 for each farmer after consolidating their lands as instructed by the authorities. First, pattern of the plots scattered over the rice field and the elevation of the plots were inspected. Then the dimensions of the plots were measured and marked. Farmers were supposed to merge their plots accordingly. In this process gradient of the paddy fields was taken into consideration and plots with very high elevation variances were not considered for consolidation. At least half an acre of land should be processed with the landowner to initiate this operation.

The significant physical modifications that occurred with this initiation were the elimination of micro parceling, curved boundaries, and the readjustment of plots with the correct configuration. However, as informed farmers have reaped greater benefits as a result of this technological innovation which aimed at making farm operations more profitable.

The number of paddy tracts in the land was reduced by almost half as a result of this exercise. By combining the land plots appropriately, a paddy land consisting of 20 micro tracts was converted to 7-8 relative larger tracks with proper configuration (mainly to square shape). Productivity of the cultivation has improved by around 8 percent. In addition, in the view of the farmers, time and labour efficiency has been improved several times adding few more hours to their spare time in a busy day.

When considering the cultivation practices in the land preparation and harvesting, machinery use has become easier after the plots were combined with reshaping the paddy tracks. Harvesting efficiency was increased, providing farmers a comfort during harsh farming operations.

Farmers' Experience

*Namal Bandara*⁸ is a young farmer in *Ihalahena* village. He is enthusiastic about farming operations and is an exceptionally hard worker. By participating in farmer training programmes multiple times, he was already aware of the advantages of LC and plot merging in agricultural fields. Yet he lacked the assistance of a responsible institute and a helping hand.

He is an owner of a two-acre paddy land inherited by his father in this *Yaya*. Farming operations have become much easier with the implementation of plot combining. Proper configuration of lands particularly squire-shaped lands spared them lots of time and energy. There were formerly 20 plots, but with this work, the number was decreased to nine. Bund clearing and preparation time has been reduced by almost half and two people were quite sufficient to bundle clearing now. It can be accomplished in six man-days, as opposed to the previous 12 man-days. This has been hailed as a great relief and, it helps to reduce the time spent on the farm.

Weed controlling has become efficient and the land preparation practices become a more relaxed operation when compared to previous conditions. Accordingly, the cost of certain field activities such as the making of field canals became cost-effective. Converting water from one field to another is way simpler than it was previously.

Since the better configuration of the shape, handling machinery over the edges has been easier. The loss of harvest in the rice field has been reduced. He could gain fuller benefits since he followed the advice received from the experts. Some people who have not followed the guidelines and instructions faced certain complications.

We can't readjust the plots leaving aside the technical guidance received from the experts. Farmers who ignored the instructions underwent certain consequences. This is something we can't do merely with our own judgments even though we have years of farming experience. If we do so we won't get the full benefits of this exercise.

With regard to the cost factor, even though farmers receive Rs.10, 000 after completion of plot combining and other indispensable activities, necessarily

⁸ Name is used pseudonymously

real cost is higher than the grant. The cost factor is largely determined by the site-specific traits of the rice field. Accordingly, the cost incurred for one acre was Rs, 70,000 and for another acre, it was Rs. 40,000/- (the area that had already been leveled to a certain extent).

After LC work quantity harvested has slightly improved, whilst the ability to engage in farming operations at ease was considered as a great benefit. Further, the cost of production has been lessened in many aspects. Plots were not always alternated during harvesting operations after plot adjustments, making farming activities easier than before.

5.1.6.3 Case Study Two: Farmer Group in Dry Zone

This LC area belongs to Polonnaruwa District, which is a major irrigation area situated in the Dry Zone of Sri Lanka. The LC project followed the same procedure as conducted in the intermediate zone. However, it was obtained the farmer participation of the first selected farmer group in this area.

The primarily intention of this intervention was to reduce the yield gap. RRDI introduced new rice varieties to farmers and technology mainly aiming to reduce the yield gap. Accordingly, Parachute technology and efficient weed management practices have been implemented. Along with these initiatives it was reshaped the micro tracts with proper configurations. This exercise was carried out in 2018/2019 *Maha* season.

Initially, farmers had little awareness of the LC activities. Before this, some farmers had combined their plots, but without technical guidance. At the outset, even though some farmers were reluctant to participate, they later realized the advantage. Furthermore, in the commencement, this exercise was carefully handled since getting positive farmer participation is considered so crucial for achieving success without intervening space.

Under this programme, farmers received advice and technical guidance to combine their plots and associated LC practices. This initiative provided certain benefits which compasses improve productivity by around 15 percent, reduce the production cost, and enhance efficiency of machinery use (particularly increase the use of combined harvesters). As evidence of the initiative's success, many farmers who are not project beneficiaries are using this approach in the area, as revealed.

I. Farmer's Experience

*Wickramsuriya*⁹ is a farmer who lives in *Pathagama*¹⁰ which is a village in the dry-zone. He was informed of the LC project by the farmer organization, and he was willing to be a participant in this initiative upon the request made by the Agriculture Instructor. He processed two and a half acres of rice fields, yet the total consolidated land size was one acre which was comprised of 20 fragmented land plots. The number of paddy lots was reduced to six paddy lots making farm operations easier. Prior to combining the plots and levelling them appropriately, water management was a challenging task in the fragmented lands with different elevations.

Since then, water distribution and conversion between inlets have improved, which he sees as a huge benefit as a farmer in a dry zone with limited water. It guarantees consistent water flow from one paddy lot to the other. Consolidation of land improves the efficiency of farming operations in terms of both time and labour. It used to take eight man-days (four people working two days), but now it only takes four man-days.

First-hand instructions were given by the experts, yet he altered fragmented lands on his own accord to a certain extent with the experience he gained on his own rice fields. The total cost for consolidating fragmented paddy lands was Rs. 15,000.

Rice had grown adequately in some liyaddas where the topsoil had remained relatively undisturbed. However, I noticed a significant decrease in soil fertility in several liyaddas that had undergone reshaping and readjustment. So, after combining the plots, I added more fertilizer to produce the normal rice yield. In fact, right after the consolidation practice, there was a drop in the harvest. But now I can get almost the same harvest after a few seasons.

According to *Wickramsuriya*, the most significant advantage is the savings in workload. As a farmer, he expects continuous technical guidance.

⁹ Farmer name is used pseudonymously

¹⁰ Village name is also pseudonymous

II. Farmer's Experience

Ratnasena¹¹ received the opportunity to participate in this programme through the Agricultural Instructor of the area. Even before this initiative, he has an idea of merging plots since he handled a larger number of fragmented land parcels in his rice field within his two and a half acres of paddy land. LC was applied to only one acre of land that had 21 paddy lots, which was later converted to six paddy plots.

Fragmented plots have been measured, and consultants have given advice on how to adapt and reshape them appropriately. He also used his experience to determine the most efficient way of combining the plots. As a result of this programme, labour efficiency has been improved. The aid of a large number of workers is no longer needed after the implementation of LC. Land preparation for the onset of the season should not necessarily be done after this. What is needed is the unification of the paddy plots. Therefore, both wastages of the harvest and the cost of land preparation are reduced.

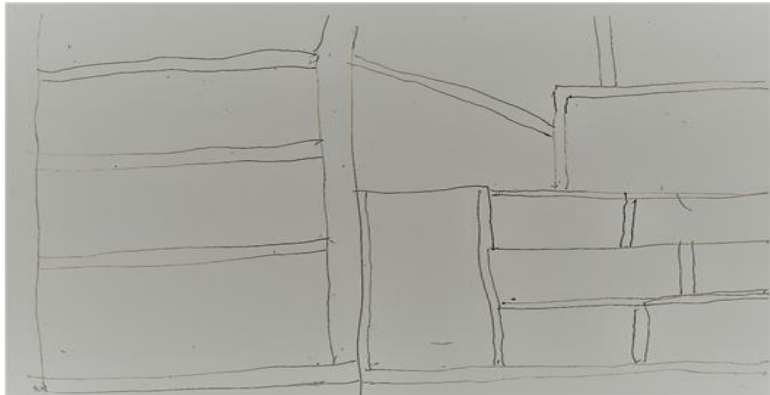
Simultaneous to plot combining, the size of the bunds has been widening from one foot to three feet. Cultivation is done in the bund which is called "*Niyara Wagawa*"¹² providing an additional income to the farmers while enhancing food security in their households.

Figure 5.3, 5.4 & 5.6 depict the Paddy fields of the farmers – Before and after consolidation.

Beneficiary farmers sketched these illustrations based on land plot adjustments before and after consolidation work.

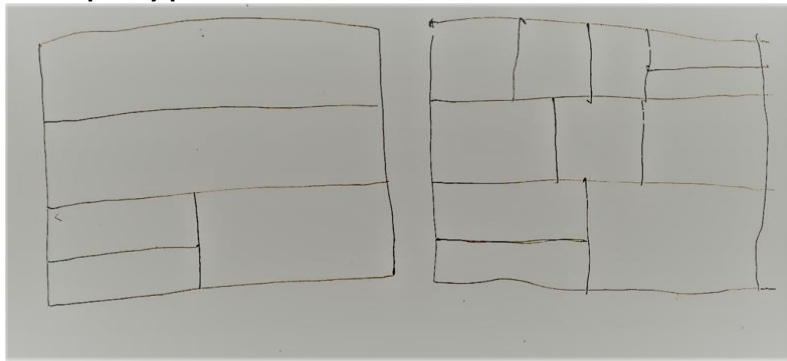
¹¹ Farmer name is used pseudonymously

¹² Cultivation on the wide bunds of paddy fields. Mostly vegetables and OFC are grown on the bunds



After Consolidation

Before Consolidation

Figure 5.3: paddy plots of farmer 1: Before and After Consolidation

After Consolidation

Before Consolidation

Figure 5.4: Paddy Plots of Farmer 2: Before and After Consolidation

After Consolidation

Before Consolidation

Figure 5.5: Paddy Plots of Farmer 3: Before and After Consolidation

Source: The sketches were drawn by three farmers' who benefited from LC activities. These sketches are based on the changes in land plots before and after consolidation work.

According to the given facts, the majority of the LC efforts have been directed toward similar objectives. These intentions were also rather common to the objectives of land and agrarian reforms, such as improving equal land rights, increasing agricultural output, and increasing food production. However, it is clear that broader rural development goals and rural restructuring, as well as global competitiveness or even environmental concerns have not received substantial attention. This suggests that land reforms and comprehensive LC initiatives should place a greater emphasis on broad, inclusive rural development goals in the future.

CHAPTER SIX

Summary and Recommendation

6.1 Summary

Being a predominantly agricultural country even before the independence, myriad of land and agrarian policies have been set up for achieving a diverse array of development aims. Economic dynamics, social forces, and political ideologies fueled the formulation of strategies through land and agrarian reforms creating contradictions and consistencies in rural development and restructuring paradigms over time.

The Agrarian and Land Reforms of Sri Lanka can be identified throughout the pre-independence and post-independence eras in Sri Lanka. The long-remained feudal and semi-feudal land arrangements of Sri Lanka have begun to undergo radical changes, since the dawn of colonization, mostly in the British period. With the enactment of the Crown Land Encroachment Ordinance (CLEO) in 1840, the Crown gained control of nearly 90 percent of the total land area. This marked a revolutionary shift in the traditional land-use system, resulting in profound complexities among peasants. Even after independence, Sri Lankan society suffered from these complexities, necessitating efforts to address these issues through the implementation of various land reforms rather than focusing on sensible and long-term socio-economic goals.

Notably, landlessness and insecure land rights were among the serious issues that prevailed in the rural sector at the time of independence. Certain fundamental challenges in the land and agrarian sector had been inextricably linked to the formulation of post-independence land and agrarian reforms. Population pressure and land hunger in the wet zone, changes in the traditional land tenure systems, employment concerns, and prolonged negligence of the domestic agricultural sector were the major drives behind the land reforms.

In the case of Sri Lanka, like many emerging economies in Asia, prior land reforms focused on the surging needs of the country such as maintaining food supply and securing land rights. Throughout the policy reform process in the early stages, there were rationalized objectives.

When it comes to implementation, the majority of reforms achieved little success or failed to fulfil intended outcomes. Influence of political ideologies along with unnecessary interference of political authorities, management failures, lack of commitment, failures of convincing the benefits of the programmes and encouraging confidence-building between the beneficiaries and authorities, shifting priorities owing to the absence of far-sighted and long-term static policies can be considered as major obstacles in achieving sustainable outcomes of the reforms. These circumstances have also impeded the implementation of LC, as prudent land development and rural restructuring strategies. Deep-rooted challenges in the land and agrarian sector have remained nearly unchanged over the last decades further exacerbating the situation.

When looking at the global experience, LC policies are inclusive of land-use schemes to rearrange farm plots in line with the structural changes in the economy. In most emerging economies in East Asia, industrial sectors have surpassed agriculture in different eras. Certainly, these revolutionary changes in the economic sphere can be considered as the turning point of LC projects of those countries.

In many countries, modern LC initiatives are evolved along with rural modernization projects and rural restructuring programmes. Further, LC projects were well integrated with short and long-term national policies and socio-economic priorities along with rural development plans. Those policies were commenced in accordance with the pressing needs of the country such as satisfying food demand, reaching the food security goals, and providing tenure security for resource-deprived rural communities.

With the evolution of land reforms and rural restructuring, LC work has brought up a wider array of development goals. Accordingly, LC initiatives involved the restructuring process, which integrated a series of rural improvement projects. These projects have been comprised of the objectives of enhancing rural living environments and improving rural infrastructures. Later, broadening the horizons of LC initiatives, most countries began to focus on internationally sensitive priorities under rising global competition, particularly in response to the expansion of trade liberalization and broader environmental concerns.

Strong government and policy support with clear intentions have always been a reason for the success of LC projects in the global context. When considering the successful LC endeavour in many countries, obtaining strong farmer participation and consent for LC work and related rural reform

procedures was impressive. Good stewardship was prevalent among farmers, policymakers, relevant government officials, and private stakeholders under the umbrella of the long-term and short-term national policy frameworks. Participation of farmers and other stakeholders was sought as a collective activity through various means across the process. According to the lessons of many developed economies 'transition of the agriculture emphasized improvement of productivity and efficiency of the sector while positively restructuring in the rural sector.

In many countries, certain features of LC can be identified with their traditional land use systems. Sri Lanka is not an exceptional case in this regard. The traditional agricultural system of Sri Lanka was flourished by the land-use components that have been synergized with indigenous water management techniques. Particularly, the land use patterns were well rationalized with the climatic conditions and resource limitations. These traditional systems consisted of certain features of the modern LC concept even though these practices are not directly related to the modern LC approaches, which consist of a comprehensive set of features.

The Paddy Land Act was enacted in 1958, sought to enhance the tenure security of tenant cultivation as its key focus. However, the act covered certain layers of the LC concept. The Act can be recognized as a somewhat far-sighted effort to enhance the productive goals of micro-scale farming operations, which was one of the pressing concerns at that time. The emphasis on consolidation of paddy lands, was the first-ever policy concern on LC in Sri Lanka.

Later on, several attempts were made to promote LC and collective farming activities under the national reform process and the foreign funds. However, gaining realistic outcomes of these initiatives has been impeded or slowed down owing to diverse reasons particularly due to the absence of long-term policy to promote LC and political interferences.

Inability to obtain farmers 'consent for the implementation of LC, lack of confidence related to the return of invested money, higher probability of increasing the cultivation cost during the transition period following the implementation of LC, difficulties of reallocation of allotments due to technical reasons and the tendency of emerging temporary issues such as fertility reduction of the topsoil, were considered as major impediments for achieving success of the LC project implemented in *Dewahuwa* area.

One of the fundamental bases of the LC concept is collective farming with the intention of avoiding further fragmentation of agricultural lands. Accordingly, Sri Lanka initiated the application of collective principles in land reform during the 1960s and 1970s. Youth settlements and *Janawasas* were the pioneering experiences in this regard. Both programmes were designed to reach out to educated rural youth with the intention of optimizing agricultural productivity.

Through these initiatives, it was expected to obtain a better production from the lands and resources by applying more intensive cultivation practices compared to private ventures. Further, it was also expected to use modern methods in cultivating, fostering the collective management, developing agricultural lands and related industries, reaching maximum productivity, assuring food security, optimum utilization of the resources, employment opportunities for educated youth, income stability, promoting the wellbeing of the members were the major motives behind this effort. As such these initiatives included a wide range of strategic goals of the country and ways of dealing with prevailed obstacles.

However, there were controversial debates on the rationality of these initiatives on both economic and social grounds as those failed to reach most of the objectives. Particularly with the economic liberalization in the late 1970s, these attempts have mostly withered away.

When considering the ground scenarios and farmers' experience in regard to basic approaches of LC, most farmers were satisfied with what they have gained through participating in LC programmes. Hence, their perception was rather positive. The elimination of micro parceling, curved borders, and the readjustment and plots with the correct configuration were the key physical modifications that occurred with recent initiation. Receiving technical assistance throughout the process has also been regarded as a significant benefit.

Simplification of farming operations that led to the reduction of the hard work, enhancing time and labour efficiency, minimizing wastage, easy mechanization, productivity improvement, enhancing water use efficiency were considered as major benefits enjoyed by the farmers. It is noteworthy to mention that, following the experience of beneficiary farmers, some farmers choose to consolidate their holdings and fragmented land parcels showing farmers' willingness to implement LC for their smallholding paddy fields.

When considering the previous LC operations, the sustainability seemed to be lacking. One of the key reasons for this is most of the LC-related initiatives were accompanied by short-term objectives and, not carried out as a part of long-term and national policy framework. However, the question that can be raised again is whether the country had such a long-term national policy agenda to integrate LC aims. However, due to the absence of long-term focus and a proper development plan most efforts ended up as failures.

Sri Lanka was one of the prosperous economies at the time of independence in the region. Similar kinds of land and agrarian reform policies of other regional countries were introduced to fulfil pressing needs, such as maintaining food supply and securing land rights of deprived peasants (as a colonized state). However, many other countries in Asia which were in the same position or poorer position in the late 1940s in comparison to Sri Lanka had been experienced the structural transformation of the economy with their economic prosperity later on. Therefore, favourable grounds surfaced to implement LC efforts along with their national restructuring, modernization programmes, and systematic policy reforms.

However, since Sri Lanka stagnated with a worse situation after a few years of gaining independence, structural changes did not take place leading to an imbalance between economic sectors. Since Sri Lankan economic policies have been mostly based on political agendas and short-term policy directions, the country was far behind in achieving long-term development objectives as desired. This has led to the pressurizing of limited land resources in rural areas. Under these circumstances, the implementation of a comprehensive LC initiative is not realized so far.

Further in most of the countries, most reforms were originated through static policy objectives and continued under the long-term policy agendas. Lessons of these initiatives were captured to further the development of the reforms and to achieve rural and national development objectives. However, in Sri Lanka, proper evaluation and monitoring process had not been carried out throughout the policy process except in certain cases. Therefore, rather than gaining lessons from previous experiences, most reforms were carried out in accordance with the political ideologies and as ad-hoc policy decisions. This has led to irreversible problems in the rural land sector impeding sustainable land use in the long run.

6.2 Recommendation

Ad-hoc land development practices and incautious decisions on rural lands resulted in inevitable mistakes in the productive utilization of limited lands. Further, unsuitable land practices applied in the rural land sector impeded prudent land use planning and utilization, stressing the need for rationalization of land reforms. Land reforms should be combined with long-term national development goals driven by proper planned structural adjustments. It is not practical to achieve rural development goals merely through land adjustments without linking them to national development paradigms and emerging challenges in the agricultural and rural sectors.

Recent land reforms have not been adequately addressed to build up enough competencies to face national and global challenges. Policies should design to adapt continuously to meet changes and socio-economic and environmental priorities. In this endeavour, it is of paramount importance to understand the changes in the country and global situations. Being a small country, highly vulnerable to environmental hazards, policy makers should essentially link to environmental stewardship with reforms.

When specifically considering LC, facilitating an enabling policy environment for LC initiatives along with the land and agrarian reforms is much needed. With this, possible ways to initiate LC activities along with land and agrarian reforms which are appropriate for country-specific situations can be suggested

1. Initiate LC Programmes: The Simplest way as a First Step of Implementation

In Sri Lanka, particularly in the paddy sector, land fragmentation and micro holdings are among the major issues that impede agricultural and land productivity. Therefore, a vigorous policy initiative at national and regional levels should be implemented with short and long-term policy objectives to solve the issue of fragmentation. Therefore, in the initial stage, it can be applied the simplest way of LC which is plot combining to minimize the fragmentation issue.

In this effort, focusing on the correct configuration of paddy plots with the proper technical guidance throughout the project period is essential to support the smallholders as the initial step to adapt LC. Further, infrastructure development must be integrated with such projects, as rural and agricultural infrastructure leaves much to be desired. Further, it should be ensured that the right focus is on the particular programme, since many

such projects were impotent in keeping their focus continuously, which has led to damaging the trust of the beneficiaries and ending up as unsuccessful efforts.

2. Obtain Contribution of Farmer Companies and Farmer Organizations for Implementing LC

The presence of many abundant and underdeveloped paddy fields, particularly in the wet zone is common in Sri Lanka (Even though implementing LC in Wet Zone is challenging to an extent and the practicability is doubtful). Through the implementation of LC, these paddy lands can be effectively utilized. In the circumstances where the landowner is unable to cultivate their lands, cultivation can be done by farmer companies, farmer organizations, individual farmers, or by a registered external organization with government support. These institutions or individuals should be necessarily authorized by the government to sustain smooth functioning and enhancing trustworthiness.

In Sri Lanka, there are previous experiences in forming farmer companies. For this effort, it can learn lessons from those efforts and develop the kinds of farmer organizations for the purpose of LC, and then these efforts can broaden towards implementation of the comprehensive way of LC as appropriate while assuring the benefits.

Before initiation, a national-level institutional body could be formulated under the responsible organization to bring the fragmented and underutilized land for the LC projects (to purchase or obtain in a lease basis). Introducing a suitable approach for a land market or a land bank can be done under this initiative to enable the distribution of lands in a systematic manner for implementing LC work while assuring land rights of both lenders and landowners.

Planning, Implementation, monitoring and evaluation and build up relevant links with other national development agendas could be done through such institutional body. Particularly LC projects should be designed as a national-level initiative with the regional and rural level coordination network along with rationalized land and agrarian reforms.

3. Build up Trust Between the Farmers and Other Stakeholders and Ensure the Benefits

Building trust is critical in gaining a successful LC experience, which could be more challenging in the Sri Lankan setting. Therefore, obtaining farmers' consent and willingness to participate in the consolidation work should be prioritized. It should be a mechanism to create awareness among farmers on benefits of LC, where those benefits could be practically enjoyed as an outcome. Therefore, building of community ownership and trustworthiness are key factors leading to the success of LC projects.

4. Implement LC as an Integrated Effort Focusing on Land, Agrarian Community, and Rural Development

There is a closer association between land and rural community development. Accordingly, the rural development efforts should be expanded and integrated with land reforms, rural restructuring and livelihood development of the peasants. Consolidation of the rural lands could be an integral part of this, since it has features of inclusive rural development. These efforts should be combined with comprehensive development objectives of rural environments covering farm fields, natural resources, rural settlement, infrastructure, secure employment, and better living standards of the rural communities.

In the context of Sri Lanka, rural development projects should be focused on integrated aspects to obtain the right balance in the land and rural sector. Therefore, land, agrarian and rural reforms and, consolidation should be carefully planned under the umbrella of a long-term policy framework which is always lacking. Since rationalization of land use is needed, available land has to be allocated for competing demands with the focus on achieving inclusive and sustainable development goals.

Way Forward

Since there is a recent policy thrust on efficient land-use practices in the rural sector and enhance agricultural productivity to reduce prevailing issues among smallholder farmers, it is crucial to identify the possible grounds for implementing LC at the grass-root level. In this effort, obtaining smallholder farmers' perspectives on LC initiatives would provide a good pathway to design LC projects and reduce conflicts that can be arise at the ground level. Farmers' concerns can be collected from two farmer groups: those who benefited from LC initiatives and those who are new to LC in order to implement LC with a rather balanced approach.

REFERENCES

- Alailima, P.J.2000. The human development perspective. Sri Lanka's Development since Independence: Socio-Economic Perspectives and Analyse, Lakshman, W.D. and Tisdell, C.A. (Eds), New York: Nova publishers.
- ARTI. 1978. *Agrarain Reform and Rural Development in Sri Lanka*, Country Review Report, Colombo: Agrarain Research and Training Institute
- Ashkar-Ahangarkolae, M.A., Asadpour, H. and Alipour, A. 2006. Investigating farmer attitude toward land consolidation Scheme in paddy of Mazandaran. *Agric. Econ. and Deve. Quarterly J*, 14(55), pp.135-153.
- Aslan, S.A., Gundogdu, K.S., Yaslioglu, E., Kirmikil, M. and Arici, I. 2007. Personal, physical and socioeconomic factors affecting farmers' adoption of land consolidation. *Spanish journal of agricultural research*, (2), pp.204-213
- Bakker, M.M., Alam, S.J., Van Dijk, J. and Rounsevell, M.D. 2015. Land-use change arising from rural land exchange: an agent-based simulation model. *Landscape Ecology*, 30(2), pp.273-286.
- Bandarage, A.1982. The establishment and consolidation of the plantation economy in Sri Lanka. *Bulletin of Concerned Asian Scholars*, 14(3), pp.2-22.
- Barraclough, S.L.1970. Agricultural policy and land reform. *Journal of Political Economy*, 78(4, Part 2), pp.906-947
- Bonner, J.P. 1987. Land Consolidation and Economic Development in India: A Study of Two Harayana Villages, New Delhi: Allied Publishers
- Borras Jr, S.M. and Franco, J.C.2010. Contemporary discourses and contestations around pro-poor land policies and land governance. *Journal of Agrarian Change*, 10 (1), pp.1-32.
- Childress, Malcolm D., P. Siegel, and M. Törhönen. 2014. "Linking land policy with climate change: A multi-dimensional landscape approach to territorial development with a focus on the europe and central asia (eca) region." In *Second Central Asia Climate Knowledge Forum: Moving Towards Regional Climate Resilience, Almaty, Kazakhstan*.

- Choi, W. 2004. Farmland consolidation in Korea.
Available at:
https://www.fig.net/resources/proceedings/2004/france_2004_comm7/papers_symp/ts_02_choi.pdf [Accessed on 10 August 2021]
- Conway, G.R. and Barbier, E.B.1990. *Indicators of agricultural performance*. Earthscan
- CORIGAP.2021. Closing Rice Yield Gaps In Asia with reduced environmental footprint (CORIGAP). Available at <https://corigap.irri.org> [Accessed 18 November 2021]
- Crecente, R.; Alvarez, C., Fra, U. 2002. Economic, social and environmental impact of land consolidation in Galicia. *Land Use Policy* 2002, 19, 135–147
- Davis, K.F., Gephart, J.A. and Gunda, T.2016. Sustaining food self-sufficiency of a nation: The case of Sri Lankan rice production and related water and fertilizer demands. *Ambio*, 45(3), pp.302-312.
- Davis, J., Wang, L., and Chen, F. 2001. Land Reform Initiatives in China, G. Peters (Ed.), *Proceedings of the XXIV International Conference of Agricultural Economists* Proceedings of the XXIV International Conference of Agricultural Economists, Ashgate Press (2001)
- Dekker H. 2003. *The Invisible Line: Land Reform, Land Tenure Security and Land Registration*. Aldershot: Ashgate
- Demetriou, D.2014. Land fragmentation. In *The Development of an Integrated Planning and Decision Support System (IPDSS) for Land Consolidation* (pp. 11-37). Springer, Cham.
- Dent D.L. and Goonewardene L.K.P.A. 1993. *Resource assessment and land use planning in Sri Lanka: a case study*, environmental planning issues no. 4, The environmental planning group, London: The international institute for environment and development,
- Department of Agrarian Services.1965. *Ceylon: Agrarian Problems and Perform Measures*
- Department of Census and Statistics in Sri Lanka. 1946. *Census of Ceylon, Vol 1, Part 1*
- Department of Census and Statistics. 2002. *Census of Agriculture*, Department of Census and Statistics, Sri Lanka
- Department of Census and Statistics. 2014. *Paddy Statistics. Agriculture and Environment Statistics Division*. Available from:

from <http://www.statistics.gov.lk/agriculture/Paddy%20Statistics/PaddyStats.htm> [Accessed 2 February 2021].

- Dunham, D. and Fernando, N. 1991. *Consolidation of Fragmented Paddy Land: Is it Really Necessary?* (No. 1), Colombo: Institute of Policy Studies.
- Eberlin, R. 2015. FAO's approach to Land Tenure and Land Consolidation in Transition Countries. *Exchange and Expert Discussion on Land Consolidation*, 2 November 2015. Beijing, China.
- Elder, J.W. 1962. Land consolidation in an Indian village: a case study of the Consolidation of Holdings Act in Uttar Pradesh. *Economic Development and Cultural Change*, 11(1), pp.16-40.
- Ellman A.O.,Ratnaweera, D. de S.,Silva,K.T., Wickramasinghe,G. 1975. Land Settlement in Sri Lanka 1940-1975, Colombo: Agrarian Research and Training Institute
- Farmer, B. H. 1957. *Pioneer Peasant Colonization in Ceylon*, London : Oxford University Press
- FAO. 2003. *The Design of Land Consolidation Pilot Projects in Central and Eastern Europe*; FAO-Land Tenure Studies, Rome, Italy: Food and Agriculture Organization of the United Nations
- FAO. 2008. Opportunities to mainstream land consolidation in rural development programmes of the European Union, FAO Land Tenure Policy Series, Rome: Food and Agriculture Organization of the United Nations
- Gedefaw, A.A., Atzberger, C., Seher, W. and Mansberger, R. 2019. Farmers Willingness to Participate In Voluntary Land Consolidation in Gozamin District, Ethiopia. *Land*, 8(10), p.148.
- Ghimire, K.B. 2001. *Land reform and peasant livelihoods: the social dynamics of rural poverty and agrarian reforms in developing countries*. ITDG Publishing
- Ghosh, A.K. 1983. Agrarian reform in West Bengal-objectives, achievements and limitations. In: Ghosh, A.K. (Ed.), *Agrarian Reform in Contemporary Developing Countries*, Geneva: International Labor Organization
- Gold, M.E. 1977. *Law and social change: A study of land reform in Sri Lanka*. Nellen.

- Griffin, K., Khan, A.R. and Ickowitz, A. 2002. Poverty and the Distribution of Land. *Journal of Agrarian change*, 2(3), pp.279-330.
- Hashimoto, S. and Nishi, M. 2016. Policy evolution of land consolidation and rural development in postwar Japan. *Geomatics, Land management and Landscape*
- Herath, J. 2006. Distributional impacts of land policies in Sri Lanka. *Sri Lankan Agriculture Economics Association (SLEA) and Movement for National Land and Agricultural Reform (MONLAR)*
- Ho, S.P. and Lin, G.C. 2003. Emerging land markets in rural and urban China: policies and practices. *The China Quarterly*, 175, pp.681-707.
- Hoggart, K. and Paniagua, A. 2001. What rural restructuring?. *Journal of rural studies*, 17(1), pp.41-62.
- Huang, Q., Li, M., Chen, Z. and Li, F. 2011. Land consolidation: An approach for sustainable development in rural China. *Ambio*, 40(1), pp.93-95.
- Im, S. B., Kom, Y., Lee, K. Y., Park, Y. H., Han, G. S., Cheon, T. K., Kim, K. S., Lee and, J. W. & Kim, M. Y. 2008. A Study on the Masterplan of Rural Village Redevelopment in Gyeongbuk Korea (Daegu: Korea Rural Community and Agriculture Corporation).
- Im, Bin Jeong. 2013. Overview of agriculture situation and policy in Korea, FFTC agriculture policy platform Available at : <https://ap.fttc.org.tw/article/489> [Accessed on 4 September 2021]
- Ito, J., Nishikori, M., Toyoshi, M. and Feuer, H.N. 2016. The contribution of land exchange institutions and markets in countering farmland abandonment in Japan. *Land Use Policy*, 57, pp.582-593.
- Jacobs, S. 2013. Agrarian Reforms. *Current Sociology*, 61(5-6), pp.862-885.
- Jin, X., Shao, Y., Zhang, Z., Resler, L.M., Campbell, J.B., Chen, G. and Zhou, Y. 2017. The evaluation of land consolidation policy in improving agricultural productivity in China. *Scientific reports*, 7(1), pp.1-9.
- Jogaratham, T. 2001. Allocation of State Land for Peasant Agriculture in Sri Lanka. In *Background Paper for Workshop: Towards an Employment Strategy Framework in Sri Lanka*.
- Kearney, R.N. 1980. Youth protest in the politics of Sri Lanka. *Sociological Focus*, pp.293-313.
- Khanna, B.S. 1991. Rural Development in South Asia—India, New Delhi: Deep and Deep Publications,

- Korthals Altes, W.K. and Bong Im, S. 2011. Promoting rural development through the use of land consolidation: The case of Korea. *International Planning Studies*, 16(2), pp.151-167. <http://dx.doi.org/10.1080/13563475.2011.561060>
- Kupidura, A., Łuczewski, M., Home, R. and Kupidura, P. 2014. Public perceptions of rural landscapes in land consolidation procedures in Poland. *Land use policy*, 39, pp.313-319.
- Land Commissioner's Department and JICA. 1977. Final Report- Sri Lanka Japan Rural Development Project, Dewahuwa
- Lin, GCS., and Ho, S.P.S. 2003. China's land resources and land-use change: Insights from the 1996 land survey. *Land Use Policy*. 2003; 20:87–107.
- Lipton, Michael. 1974. "Towards a Theory of Land Reform," in David Lehmann (ed.), *Peasants, Landlords and Governments: Agrarian Reform in the Third World*. New York
- Liu, H. and Luo, X. 2018. Understanding farmers' perceptions and behaviors towards farmland quality change in northeast China: A structural equation modeling approach. *Sustainability*, 10(9), p.3345.
- Long, H. 2014. Land consolidation: An indispensable way of spatial restructuring in rural China. *Journal of Geographical Sciences*, 24(2), pp.211-225.
- Long, Hualou. 2020. Land Consolidation: A Way of Rural Restructuring and Vitalization. 10.1007/978-981-15-4924-3_10.
- Long, H., Zhang, Y. and Tu, S.2019. Rural vitalization in China: A perspective of land consolidation. *Journal of Geographical Sciences*, 29(4), pp.517-530.
- Maddumabandara, C. M. 2000. Land Resources: Conditions and Trends. Natural Resources of Sri Lanka, National Science Foundation, Sri Lanka.
- Mapa, R.B., Kumaragamage, D., Gunarathne, W.D.L. and Dassanayake, A.R. 2002. Land use in Sri Lanka: past, present and the future. In *Proceedings of the 17th World Congress of Social Science (WCSS), Bangkok, Thailand* (pp. 14-21). *Land use in Sri Lanka: past, present and the future*. Available at :https://www.researchgate.net/publication/309803692_Land_use_in_Sri_Lanka_past_present_and_the_future [Accessed 26 January 2021].
- Mapa, R. B. 2020. *The Soils of Sri Lanka*, World Soils Book Series, Spangler

- Ministry of land and resources of China. 2013. China land & resources almanac, Beijing: Geological Publishing House
- Ministry of Mahaweli, Agriculture, Irrigation and Rural Development(MMAIRD) and UNDP.2019. *National guidelines for climate smart agricultural technologies and practices for the dry and intermediate zones in Sri Lanka*
- Ministry of Agriculture. 2021. Available at: <https://www.agrimin.gov.lk/web/index.php/home-1/12-project/841-agriculture-sector-modernization-project>[Accessed 22 May 2021)
- Narayanasamy, C., Amunugama, S., Lebbe, I., Wanigaratne, R.D. 1977. The Role of Rural Organizations in Rural Development in Sri Lanka. Part II -Indepth Study, Colombo:Agrarian Research and Training Institute
- Niroula, G.S. and Thapa, G.B. 2005. Impacts and causes of land fragmentation, and lessons learned from land consolidation in South Asia. *Land use policy*, 22(4), pp.358-372.
- Oda, M., Umetsu, C. and Shen, J. 2018. The impacts of regional differences on farmland consolidation in Japan: The case of Tohoku, Hokuriku and Kinki.
- O'Keeffe, B., Creamer, C., Blair, N., Driscoll, J. and Keaveney, K. 2009. Rural restructuring: local sustainable solutions to the rural challenge.
- Oldenburg, P. 1990. Land consolidation as land reform, in India. *World Development*, 18(2), pp.183-195.
- Peiris, G. H. 1975. 'Current Land Reforms and Peasant Agriculture in Sri Lanka', South Asia
- Peiris, G.H. 1978. Land reform and agrarian change in Sri Lanka. *Modern Asian Studies*, 12(4), pp.611-628.
- Perera, G. M.C.A. 2016. Paddy Field Area Consolidation For Saving Resources And For Better Yields In Sri Lankan Socio-Economic Context, 2 nd World Irrigation Forum (WIF2), 6-8 November 2016, Chiang Mai, Thailand W.1.2.10
- Putzel J. 1992. *A Captive Land: Politics of Agrarian Reform in the Philippines*. London: Catholic Institute for International Relations.
- Ratnaweera, D.De.S. n.d. *New agricultural settlement schemes: A research study proposed by the Konard Adenauer Stiftung on selected Agricultural Settlement Schemes*

- Rosegrant, M. W. and Cline, S. A. 2003. Global food security: challenges and policies. *Science*. 302, 1917–1919.
- Rosman, F.B. and Sonnenberg, J.K.B. 1998. New method for the design of the reallocation plan in land consolidation projects. In *Proceedings of the XXI FIG Congress*.
- Sabates-Wheeler, R. 2002. Consolidation initiatives after land reform: responses to multiple dimensions of land fragmentation in Eastern European agriculture. *Journal of International Development*, 14(7), p.1005.
- Salmanzadeh, C. and Jones, G.E. 1981. Transformations in the agrarian structure in Southwestern Iran. *The Journal of Developing Areas*, 15(2), pp.199-214.
- Samaratunga P.A. and T.D. Marawila. 2006. Rural land sector in Sri Lanka: Major characteristics, determinants and implications for land policy. Institute of Policy Studies of Sri Lanka.
- Samaraweera, V. 1982. Land Reform in Sri Lanka. *Third World Legal Studies*: Vol. 1, Article 7. Available at: <https://scholar.valpo.edu/cgi/viewcontent.cgi?article=1160&context=twls> [Accessed 21 May 2021)
- Sayilan, H. 2014. Importance of land consolidation in the sustainable use of Turkey's rural land resources. *Procedia-Social and Behavioral Sciences*, 120, pp.248-256.
- Shanmugaratnam, N. 1981. Impact of plantation economy and colonial policy on Sri Lanka peasantry. *Economic and Political Weekly*, pp.69-80.
- Shaukat, M. 1999. Agricultural land tenure system in Asia and the Pacific. Proceedings of the international seminar. Asian Productivity Organization, Tokyo, 262–268.
- Shi, Y., Cao, X., Fu, D. and Wang, Y. 2018. Comprehensive Value Discovery of Land Consolidation Projects: An Empirical Analysis of Shanghai, China. *Sustainability*, 10(6), p.2039.
- Shrestha, R.B., Ali, Y., Bhandari, H. and Islam, A. 2020. Family Farmers' Cooperatives: Ending Poverty and Hunger in South Asia. SAARC Agriculture Center, Bangladesh; Asian Farmers' Association, Philippines; and National Dairy Development Board, India. 228 p

- Siriwardhana, S. 1970. *A Note on an Experiment in Voluntary Land Consolidation*, (Mimeo) December 1970
- Takahashi, D., Chang, T. and Shobayashi, M. 2018. The role of formal and informal institutions in farmland consolidation: The case of Shiga Prefecture, Japan. *International Journal of the Commons*, 12(2).
- Tennakoon, M. U. A. 1972. A note on some social and economic problems of subsistence farming in rural settlements of the Dry Zone of Ceylon. *Staff Studies* (Central bank of Ceylon) 2(1):1-55
- Thapa, G.B. and Niroula, G.S. 2008. Alternative options of land consolidation in the mountains of Nepal: An analysis based on stakeholders' opinions. *Land use policy*, 25(3), pp.338-350.
- Thibbotuwawa, R.M.M.I. and Weerahewa, J. 2004. Policy Options for Sustainable Paddy Farming: Scope for Land Consolidation in Sri Lanka. *Proceedings of the Peradeniya University Research Sessions*, Sri Lanka. Vol. 9. November 10, 2004
- Thomas, J. 2006. Attempt on systematization of land consolidation approaches in Europe. *Zeitschrift für Vermessungswesen*, 3, pp.156-161.
- Tong, W., Lo, K. and Zhang, P. 2020. Land consolidation in rural China: Life satisfaction among resettlers and its determinants. *Land*, 9(4), p.118.
- Trivedi, K. and Trivedi, K. 1973. Consolidation of holdings in Uttar Pradesh: a study in policy implementation. *Journal of Administration Overseas* 12, 179-87
- Tu, S. and Long, H. 2017. Rural restructuring in China: Theory, approaches and research prospect. *Journal of Geographical Sciences*, 27(10), pp.1169-1184.
- Tuma, Elias H. 2013 "land reform". *Encyclopedia Britannica*, 3 Oct. 2013, Available at: <https://www.britannica.com/topic/land-reform>. [Accessed 17 January 2022]
- Van den Brink, A. and Molema, M., 2008. The origins of Dutch rural planning: a study of the early history of land consolidation in the Netherlands. *Planning Perspectives*, 23(4), pp.427-453.
- Van den Ploeg, J. 2008. *The New Peasantries: Struggles for Autonomy and Sustainability in an Era of Empire and Globalization*. London: Earthscan.

- Van den Noort, P.C. 1987. Land consolidation in the Netherlands. *Land Use Policy*, 4(1), pp.11-13
- Vitikainen, A. 2004. An overview of land consolidation in Europe. *nordic Journal of Surveying and real Estate research*, 1(1).
- Wade, R. 1975. Water to the fields: India 'changing strategy. *South Asian Review* 8, 301-321.
- Wanigaratne R.D. and Samad M. 1980. Land Alienation under Present Land Reform, Agrarian Research and Training Institute: Colombo
- Wickramaarachchi, N.C. and Weerahewa, J. 2016. Land Fragmentation and Land Productivity: Empirical Evidence from Land Distribution Schemes of Sri Lanka.
- Wilden, R. 2006. October. Land consolidation in Forest Areas: The German approach in terms of sustainability. In *Proceedings of the XXIII FIG Congress, Shaping the Change, October* (pp. 8-13).
- Wimaladharm, K.P. 1982. Land Settlement Experience in Sri Lanka, K.P. Wimaladharm (Eds), US-AID and Ministry of Lands and Land Development, Colombo
- Woods, M. 2004. *Rural geography: Processes, responses and experiences in rural restructuring*. Sage.
- Wu, Z., Liu, M. and Davis, J. 2005. Land consolidation and productivity in Chinese household crop production. *China Economic Review*, 16(1), pp.28-49.
- Xu, W. 2004. The changing dynamics of land-use change in rural China: a case study of Yuhang, Zhejiang Province. *Environment and Planning A*, 36(9), pp.1595-1615.
- Yan, J., Xia, F. and Bao, H.X. 2015. Strategic planning framework for land consolidation in China: A top-level design based on SWOT analysis. *Habitat International*, 48, pp.46-54.
- Yang H, Li XB. 2000. Cultivated land and food supply in China. *Land Use Policy*. 2000;17:73–88.
- Zhang, Y., Li, X., Song, W. and Zhai, L. 2016. Land abandonment under rural restructuring in China explained from a cost-benefit perspective. *Journal of Rural Studies*, 47, pp.524-532.