

# Social Protection in Sri Lanka: Current Status and Effect on Labor Market Outcomes

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Outcomes

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**2015**



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## Abstract

There are many social protection programs in Sri Lanka targeting vulnerable groups such as the poor, elderly, disabled, children and women. These programs vary from cash and in-kind transfers to pensions, insurance and livelihood development programs. Despite the multitude of programs, the current social protection system has many weaknesses. This study provides a detailed analysis of Sri Lanka's social protection system and further examines the relationship between social protection and labour market outcomes such as the labor force participation and employment status. The study uses both quantitative and qualitative analyses. The quantitative analysis reveals that social protection income as a share of household expenditure has a marginal negative effect on the probability of an individual's labour force participation. This relationship holds for the prime age (25-59 years) and the elderly categories of both genders while no significant effect is observed on the youth. With regard to the effect on employment status, the study reveal a positive effect on employment categories like own account workers, but the marginal effects are very small, hence no conclusive interpretations could be made. The study stresses the need for improving the current social protection system, particularly its efficiency and resource allocation within the system.

## I. INTRODUCTION

Sri Lanka has made a remarkable achievement with regard to social indicators such as the literacy ratio, primary school enrolment ratio, child and maternal mortality ratios and the life expectancy at birth. It is well 'on track' to achieve the majority of the Millennium Development Goals (MDGs). With a Human Development Index (HDI) value of 0.750, Sri Lanka is currently classified as a 'high human development' country – the only South Asian country in this category<sup>1</sup>.

Sri Lanka's poverty head count ratio (HCR) has declined significantly over the past decade. At the national level, it has fallen from 22.7 per cent in 2002 to 6.7 per cent in 2012/13. Considerable drop in poverty levels are observed across all the districts and all the three sectors of the country, i.e. urban, rural and estate. The poverty HCR of the urban sector declined to 2.1 per cent while the HCR for rural and estate sectors too showed a notable drop reaching 7.6 per cent and 10.9 per cent respectively by 2012/13. Consequently, Sri Lanka has achieved the MDG poverty target of halving poverty level between 1990 and 2015, well before the target year.

Furthermore, Sri Lanka has almost reached the MDG of achieving universal primary education. The net primary enrolment ratio reached 99.7 per cent by 2012/13 with almost 100 per cent of those who enter Grade 1 reaching Grade 5. The country has also achieved gender equality in education at all levels – primary, secondary and tertiary. At the secondary and tertiary levels, the ratios of girls to boys have reached over 100 per cent indicating that more girls than boys are enrolled for secondary and tertiary education. Moreover, Sri Lanka has already achieved or it is on track to achieve many other MDGs and targets such as reducing child mortality, improving maternal health, combating diseases like malaria and tuberculosis and improving access to drinking water and sanitation facilities. At present, Sri Lanka enjoys low levels of mortality rates that are in par with developed countries. The infant mortality rate has declined to 9.4 per 1,000 live births while under-five mortality rate was 11.3 (in 2009). The maternal mortality rate was 7.4 per 100,000 live births (in 2009). Nevertheless, Sri Lanka's progress in halving the proportion of population below the minimum level of dietary energy has been inadequate to meet the target by 2015. Moreover, a number of MDGs indicate regional disparities that need to be minimised<sup>2</sup>.

**Table 1.1: Sri Lanka's Progress in Selected Social Indicators**

Social Indicator	2012- 2013
Human Development Index (HDI)	0.750
Adult Literacy	95.6
National Poverty Head Count Ratio (per cent)	6.7
Under-five mortality rate	11.3*
Infant mortality rate	9.4*

Maternal mortality ratio	7.4*
Proportion of one-year-old children immunized against measles	95.0
Net primary school enrolment ratio	99.7
Youth Literacy rate (age group 15–24)	97.8
Ratio of girls to boys enrolled in primary school	99.4
Ratio of girls to boys enrolled at secondary level	102.6

*Notes: All figures are percentages; \* data for mortality rates are for 2009*

*Sources: United Nations (2015); UNDP Sri Lanka (2012); IPS (2010)*

Sri Lanka's notable achievement with regard to many social and human development indicators is largely due to the social welfare /social protection policies and programs carried out by the successive governments of Sri Lanka over the past several decades. Social protection policies such as the universal free education and health care policies and various welfare programs like food subsidy and food ration programs implemented by the governments since the 1940s have immensely contributed to this achievement. The universal free education policy implemented in 1945 and the compulsory education policy implemented in 1998 (under which the education was made mandatory for children aged 5-14 years) are two key initiatives by the Sri Lankan government that have contributed to the country's achievement in the universal primary school enrolment and primary completion and the gender parity in education at all levels. The free school textbook program, free school uniform, mid-day meal, and subsidised transportation programs for students that have been implemented over several decades have also helped improve school enrolment and attendance among children<sup>3</sup>.

Sri Lanka's progress with regard to child and maternal mortality ratios and high life expectancy at birth can be attributed, to a large extent, to the universal "free" health policy that was introduced over six decades ago, under which public health care and services are provided free of charge through government hospitals and dispensaries to all citizens throughout the country. Alongside free health care provision and improvement in the coverage of health services, the universal free education policy that resulted in higher literacy rates and educational attainment in the country, particularly among women, has also contributed to the significant reduction in infant, under-five, and maternal mortality rates since the 1950s.

Successive governments of Sri Lanka since late 1940s also carried out universal food subsidy/food ration programs which were changed to targeted programs focusing on low-income groups since the late 1970s. Moreover, the national supplementary food program known as Thripasha program was implemented in 1973 with the objective of improving the nutritional level of children and mothers. In addition to these social protection programs and policies, Sri Lanka also implemented social protection policies and programs such as pensions for (formal sector) employees several decades ago.

Despite the achievement in numerous social and human development indicators (as discussed earlier), Sri Lanka is currently faced with a number of demographic and labour market related challenges that pose challenges to the country's social protection system. Sri

Lanka is currently faced with a rapid aging of its population. The 60 years and above aged population accounted for 12.3 per cent of the total population in 2012, which is projected to rise to 24.8 per cent by 2031 making one in every four of Sri Lanka's population an elderly person.<sup>4</sup> Population ageing raises concerns on the ability of the social protection system to cater to the needs the increasing numbers of elderly. Moreover, as the longevity of females is expected to increase further relative to that of men, there will be a higher share of females among the elderly. This brings further concerns, as many females are less likely to have adequate social protection, particularly old-age retirement benefits, due to the continuing low female labour force participation rate in the country.

In addition, it should be noted that despite the decline in the unemployment rate in the country reaching below 4per cent by 2012, over 60per cent of those who are employed are in informal employment with little or no social protection benefits. Moreover, unemployment rate is much higher among the youth, particularly among females. For instance, the unemployment rate was 17.3 per cent in the age category of 15-24 years while it is 23.5 per cent among females in this age group. Furthermore, the female labour force participation rate in Sri Lanka continues to be very low (around 30 per cent in 2012) – one of the lowest rates in South Asia despite Sri Lanka's remarkable achievement in school enrolments and gender parity in education at primary, secondary and tertiary levels. These issues together bring several challenges to the social protection system of the country.

The next section provides a detailed analysis of Sri Lanka's social protection system. This is followed by an analysis on the relationship between social protection and labour market outcome such as the labour force participation and employment status in Section 3. Section 4 provides concluding remarks and the recommendations to improve the effectiveness of the current social protection system.

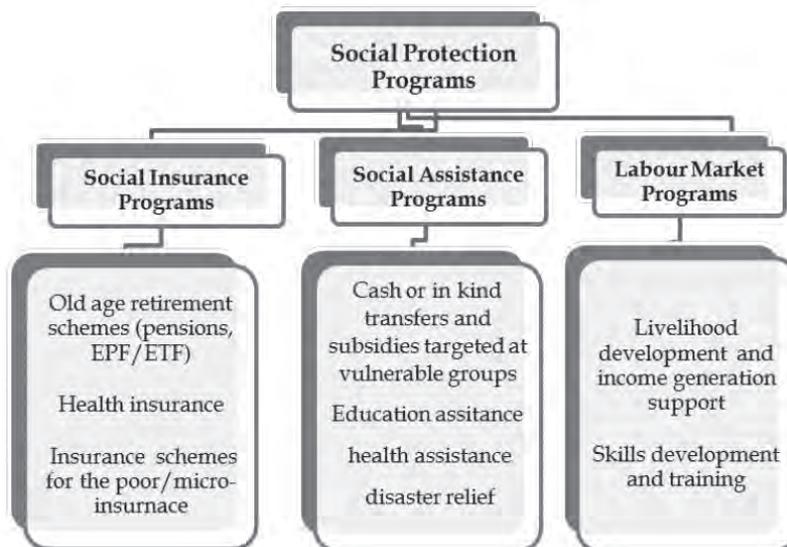
The paper uses both qualitative and quantitative methods. Section 2 is based on information on social protection programs collected from various implementing agencies such as Ministries and Departments and various secondary sources. Section 3 follows quantitative approach to examine the relationship between social protection and labour market outcomes, using a national level household survey dataset – Household Income and Expenditure Survey (HIES)-2009/10 of the Department of Census and Statistics (DCS). The methodology used in the quantitative analysis is discussed in detail in Section 3.

## II. Social Protection Programs in Sri Lanka

Social protection can be considered as the set of policies and programmes that enable vulnerable groups to prevent reduce and/or cope with risk, and that are targeted at vulnerable groups; and involve cash or transfers in kind. Social protection programs can generally be disaggregated in to three broad categories: (i) Social Insurance programs (including pensions and other retirement benefits and health insurance); (ii) Social Assistance (including cash and in-kind assistance for poor, disabled persons, etc., health assistance, disaster relief, education assistance for children, etc.) and Labour Market programs (that include support for income generation activities through public works, grants and subsidised loans and skills development).

In Sri Lanka, there are large numbers of social protection programs that are implemented by the government (e.g., Ministries and the Provincial Councils) and the non-governmental sectors. These programs are targeted towards various vulnerable segments of the population, such as the poor, elderly, disabled, children, and women. They vary from cash and in-kind transfers to education programs, pensions, micro-insurance, and livelihood development programs. This chapter provides an in-depth analysis of the current social protection programs in the country under the three broad categories of social protection.

**Figure 2.1: Social Protection Programs in Sri Lanka**



Source: Tilakaratna (2014)

## 2.1 Social Insurance

Social insurance programs generally cover against contingencies such as old age, death, permanent disability and other life cycle events. They are largely employment related and involve provision of old-age retirement incomes (e.g. pensions, EPF/ETF) medical insurance, maternity benefits, etc. Social insurance programs available for different groups of population in Sri Lanka are briefly discussed in this section.

### **i. Social Insurance for Public Sector Workers**

The Public Servants' Pension Scheme (PSPS), implemented by the Department of Pensions is a non-contributory scheme, financed by the government budget. It is the largest social insurance programme in Sri Lanka, both in terms of expenditure and the number of beneficiaries. To be entitled to a monthly pension, the government officer should be holding a pensionable post with a gross service period of a minimum of 120 months. The PSPS is a defined benefit scheme where the monthly pension is calculated as a percentage of the final salary, in proportion to the period of service. Public servants also receive numerous benefits provided under the PSPS such as a death gratuity where dependents are eligible to receive twice the unreduced annual pension or the annual salary of the deceased public servant, whichever is greater, following the death of the public servant. Public servants who become incapacitated owing to accidents occurred while on duty are also entitled to a lump sum gratuity under special compensation. In the event of the death of a public servant, the dependents are entitled for a pension under the Widows, Widowers and Orphans Pension Scheme (W&OP) – a mandatory contributory scheme under the PSPS.

In 2012, there were 379, 927 beneficiaries of the PSPS and 130, 416 beneficiaries of the W&OP scheme. The annual expenditure of these two programs together was around Rs 110 billion in 2012 accounting for about 1.5 per cent of the GDP (Table 2.1).

In addition to the PSPS, there is a contributory old age benefit scheme known as the Public Servants' Provident Fund (PSPF) for the public servants who are not eligible for the PSPS. Government servants working on temporary contracts are also eligible for PSPF. It may also act as a transition scheme until they become eligible to the PSPS. The PSPF is a defined contribution scheme where members contribute 8 per cent of their salary and the government contributes 12 per cent of the salary to the fund as a contribution.

There is also a medical insurance scheme known as the Agrahara scheme implemented by the National Insurance Trust Fund (under the purview of the Ministry of Finance and Planning) providing medical insurance for the pensionable government employees. A monthly premium of Rs.125 is collected from the public servants' salary while the coverage includes medical care coverage for the entire family up to Rs.150,000. In addition, the member is covered for heart surgery up to Rs.400,000, cancer up to Rs.150,000, disability /death up to Rs.600,000. In 2012, there were around 655,000 beneficiaries while the total expenditure was nearly Rs 1.2 billion (Table 2.1).

**Table 2.1: Social Protection for Public Sector Workers -2012**

<b>Program</b>	<b>Beneficiaries</b>	<b>Expenditure (Rs millions)</b>
Public Servants Pension Scheme (PSPS)	379,927	90,500
Widows, Widowers and Orphans Pension Scheme (W&OP)	130,416	20,117
Public Servants Provident Fund	6,845	1,000
Agrahara Medical Insurance Scheme	655,000	1,197

*Source: Department of Pensions: Ministry of Public Administration and Home Affairs*

Female workers in the public sector are also entitled for maternity benefits. The Ministry of Public Administration is responsible for enforcing maternity leave for government employees. Female workers in the public sector are entitled to 84 days of leave with full payment (they are not allowed to work 4 weeks before the day of confinement). They are entitled to an additional 84 days of leave on half-pay. Further, female public sector employees can take an additional 84 days of leave on no pay after completing the half-pay period.

Women in the public sector who only take the first 84 days of leave are allowed to leave work 30 minutes prior to the end of standard working hours until the child is six months of age. In addition, employees who are on their fifth month of pregnancy are allowed to deduct an hour from standard working hours, until maternity leave becomes applicable.

## **ii. Social Insurance for formal Private Sector Workers**

The Employee's Provident Fund (EPF) and the Employee's Trust Fund (ETF) are the main retirement benefit schemes for formal private sector employees. The EPF is administered by the Department of Labour with the fund is managed by the Central Bank of Sri Lanka (CBSL). It is a defined contribution scheme where the contributions from employees and employers are 8 per cent and 12 per cent of the member's gross earnings respectively. Members are eligible to claim their retirement benefits as a lump sum upon reaching the retirement age of 55 years for males and 50 years for females. EPF benefits can also be claimed for other reasons, such as females retiring after marriage and migration.

The ETF is administered by the Employee Trust Fund Board where every employer must make a mandatory contribution of 3 per cent of the total monthly earnings. The ETF covers all employees in the formal private sector. ETF could be claimed upon cessation of employment regardless of the age.

**Table 2.2: Social insurance for formal private sector workers - 2012**

Programs	Beneficiaries	Expenditure (Rs millions)
The Employee's Provident Fund (EPF)	115,654	48,700,
Employee's Trust Fund (ETF)	147,915	8,739,

Sources: Department of Labour, Ministry of Labour and Labour Relations & Central Bank of Sri Lanka

In addition, the ETF also offers health and education related welfare benefit schemes. All members are covered by a life insurance scheme, where in case of death of a member, legal heirs are eligible to claim the contributions (along with interest and dividend) lying to the credit of the deceased member's account. Moreover, an insurance benefit based on the members salary (with a maximum of Rs.100,000) will be paid to the legal heir of the deceased. The permanent disablement scheme also provides financial assistance in case to loss of employment due to disablement. The maximum amount received is Rs.200,000, depending on the degree of disablement. The ETF health related assistance also comprise of insurance that covers heart surgery, cataract surgery as well as kidney transplants. Furthermore, members are also covered for hospitalization. There is also a scholarship program under which an assistance of Rs.15,000/- is provided to 7000 children who pass grade 5 examination based on their marks.

In addition, female workers in the formal private sector are also entitled for maternity leave. The Department of Labour is responsible for enforcing the Maternity Ordinance No.32 of 1939, which governs the maternity benefits provided to the private sector. A female employee is entitled to 12 weeks of maternity leave if she has no child or one child at the time of confinement. Maternity leave could be taken 2 weeks up to the day of confinement and 10 weeks immediately following the day of confinement. Women with two or more children at the time of confinement are only eligible for 6 weeks of maternity leave. Women on maternity leave are entitled to 6/7th of their wage for the period of leave.

### **iii. Social Insurance for Informal Sector Workers**

Although around 60 per cent of those employed are in the informal sector, only a handful of social security programs are available to them which together covers only a smaller share of the informal sector workers. Informal sector workers often lack maternity and medical benefits and retirement benefits like EPF/ETF and pensions. There are a handful of contributory pension schemes (and insurance schemes) designed for specific groups of informal sector workers like farmers and fishermen. The farmers' and fishermen's pension and social security schemes and Surekuma Pension Scheme of the Social Security Board are the existing social security programs for informal sector workers. These are voluntary, contributory schemes where the benefit amounts are based on the contributions of the individual members. However, these schemes suffer from a number of issues such as low coverage, inactive membership, low level of benefits; high administration costs and weak financial sustainability.

In addition, the Samurdhi social security program is carried out under the country's main poverty alleviation program - Samurdhi program, by the Department of Commissioner General of Samurdhi (DCGS), with the objective of providing insurance coverage to low-income families in the event of illness, death, child birth and marriage. In addition, financial assistance is provided in the event the beneficiaries' children perform well in Grade 5 and Ordinary Level Exams. The beneficiaries of the Samurdhi social security program are primarily the beneficiaries of the Samurdhi cash transfer program and an amount of Rs 45 is deducted from the monthly Samurdhi cash transfer (as a premium) to finance the social security program.

The Sri Lanka Bureau of Foreign Employment (SLBFE) carries out the Migrant Workers Insurance Programme for the Sri Lankan migrant workers registered with the SLBFE. Premiums are deducted from the registration fee (Rs.900 for 2 years, Rs.1100 for 3 years). Benefits are given in the event of repatriation (due to harassment, illness, accident etc.), death whilst working abroad, and death in Sri Lanka within 3 months of arriving, permanent disablement and partial disablement.

## 2.2 Social Assistance

Sri Lanka has a large number of social assistance programs such as Samurdhi/Divineguma cash transfer program, elders' assistance program, disability assistance, education assistance programs such as free school textbook, school uniforms, scholarships and midday meal programs, nutritional programs for children and mothers and disaster relief programs. These programs are discussed in detail in this section.

### i. Assistance for Low- Income Families

The Samurdhi /Divineguma program is the main social protection initiative for the poor in Sri Lanka. It comprises of multiple components, including the subsidy (or the cash transfer) program, social security program and the nutrition program - designed to achieve its short term objective of reducing the vulnerability of low income families, and the microfinance program and livelihood development geared towards the long term objective of poverty reduction. Under the Samurdhi/Divineguma subsidy component, identified families receive a monthly cash transfer that depends on their family size. Until the end of 2014, the maximum amount given to a family under this subsidy program was Rs 1500 (while the minimum was Rs 210). However, these amounts were increased twice in 2015 in January and again in April. The details of the benefit amounts received by households under the Samurdhi/Divineguma subsidy program at present are shown in Table 2.3. In 2015, the subsidy was received by nearly 1.5 million families (approximately 25-30 per cent of the households in Sri Lanka). The total expenditure of the subsidy program was about Rs 15 billion in 2014 but it is expected to rise to around Rs 40 billion in 2015 (with the increase of the benefit amounts).

**Table 2.3: Benefits of the Samurdhi/Divineguma Subsidy Program -2015**

Category of Beneficiary Families	Total Monthly Subsidy (Rs.)	Net Subsidy that can be withdrawn (Rs.)	Compulsory Savings	Contribution to Social Security Fund (Rs.)	Contribution to Housing Fund (Rs.)
Less than 3 family members	1500	1345	100	45	10
3 family members	2500	2245	200	45	10
4 or more family members	3500	3145	300	45	10
Empowered families*	420	n.a.	365	45	10

Source: Department of Divineguma Development

Note \*'Empowered families are those who are considered to have graduated out of poverty over time

Currently, this program suffers from a number of limitations such as poor targeting, inadequate benefits, and lack of entry and exit mechanism – these are discussed in detail in Section 2.4.

## ii. Assistance for Elderly

In addition to the social insurance programs such as pensions, EPF/ETF discussed in Section 2.1, a number of social assistance programs for the elderly are carried out by the central government and provincial councils. The National Secretariat for Elders (NSE) of the Ministry of Social Services (MSS) implemented a cash assistance program in 2012 under which identified persons above 70 years of age without any source of income are given a monthly allowance of Rs 1000. In 2013, there were 179,910 elders and the total expenditure was nearly Rs 180 million. This monthly allowance was raised to Rs 2000 from end of 2014. Other programs carried out by the NSE include establishment of day centers for elderly, financial assistance for elders' homes and elders' committees, medical assistance and conducting medical clinics. Moreover, many elders (above the age of 60) who are not qualified for the monthly allowance of provided by the NSEs and who do not have any source of income are often eligible for Samurdhi/Divineguma or assistance under the Public Assistance Monthly allowance (PAMA).

## iii. Assistance for Persons with Disabilities

The National Secretariat for Persons with Disability (NSPD) provides a monthly allowance of Rs 3000 for identified low-income families with disabled persons. In 2013, this program covered approximately 16,600 families with disabled persons and total expenditure was around Rs 598 million. Moreover, the NSPD carries out a number of programs for disabled persons including medical assistance for surgeries, housing assistance and, financial assistance for self-employment activities for disabled persons. The low coverage of eligible persons owing to budgetary constraints is the main weakness of the disability assistance program.

**Table 2.4: Major Social Protection Programs for Persons with Disabilities -2013**

Type of Assistance	Beneficiaries	Expenditure (Rs '000)
Rs. 3000/- monthly assistance	16,600	598,000
Housing assistance program	523*	63,000
Medical assistance program	350	7,300
Mobile service to distribute assistive devices	94,569	24,630

Source: National Secretariat for Persons with Disability

Note: \* Families

#### iv. Assistance for Children

The successive governments since as early as 1940s implemented various social programs to increase educational opportunities among children from low income families. The 'Universal Free Education Policy' (introduced in 1945) is designed to provide education free-of-charge to all students from kindergarten to university and is the most far-reaching measure taken by the Sri Lankan government to improve school enrolment and attendance among children. Moreover, the compulsory education policy for all children between 5-14 years of age (ensuring a minimum of nine years of education for all children) was implemented in 1998. The compulsory education has increased up to the age 16 since recently.

In addition, successive governments over past several decades implemented various programs. These include (i) the free text-book program started in 1980 under which all students from Grade 1 to 11 in the government school are provided with free school text books; (ii) free school uniform material program (introduced in 1993) under which all students in the government schools are provided with free school uniform materials on an annual basis; (iii) school and higher education season ticket (transport subsidy) to all school and university students and, (iv) scholarship programs for students from low income families. Moreover, a mid-day meal program is carried out in selected schools covering students of Grades 1-5, with the aim of improving the nutritional status of school children from low-income groups (See Table 2.5).

**Table 2.5: Major Social Protection Programs for Children -2013**

Program	Beneficiaries	Expenditure (Rs. '000)
Programs for school Children		
School Text Books	4,100,000	2,700,000
School Uniforms	3,998,890	199,945
School and Higher Education Bus Season Tickets	3,242,761	1,618,953
Grade 5 Scholarship*	80,142	400,000
Mid-day meal for school children & Glass of milk program	1,301,788	3,089,000
Nutrition programs for Children		
National Supplementary Food – "Thriposha	944,047	1,750,000
Food For Education	175,258	65,000

Sources: Ministry of Education, Ministry of Economic Development and Ministry of Health

Note: \* Data for 2012

In addition, nutrition programs for children are carried out by various ministries. The largest among these programs is the ‘Thriposha’ National Supplementary Food Program carried out by the Ministry of Economic Development. Under this program, Thriposha (cereal) packs are provided for identified infants and children between 6-59 months and pregnant and lactating mothers. Moreover, under the Food for Education (FFE) program, cooked meals are provided for students in grades 1-9 in selected schools in the Northern Province.

#### v. Assistance for Disaster Affected

The Disaster Relief program is implemented by the Ministry of Disaster Management and Relief with the objective of providing relief services to victims of natural and man-made disasters. Relief services such as cooked meals, dry rations, and vocational tools are provided to disaster affected victims. Moreover, a number of programs such as Vulnerable Group Feeding Program (VGF) are carried out by the Ministry of Economic Development and the Ministry of Disaster Management to help the internally displaced persons (including those affected by natural disasters) and resettling families. In 2013, about 40,212 families benefited from the VGF program.

**Table 2.6: Major Social Protection Programs for Children -2013**

Program	Beneficiaries	Expenditures (Rs. '000)
Disaster relief program	717,282	136,254
Vulnerable Group Feeding program	40,212	515,640

*Source: Ministry of Disaster Management and Relief , Ministry of Economic Development*

#### vi. Health Assistance

In Sri Lanka, public health care is provided free of charge in government hospitals and dispensaries. By 2012, there were 593 government hospitals with 73,437 beds, which amount to 3.6 beds per 1,000 persons excluding beds in private hospitals. There were 17,129 qualified doctors in the state health sector: a doctor for every 1,187 persons, and 29,781 qualified nurses: a nurse for every 683 persons, by the end 2012 (CBSL, 2012). However, the public health service has not been adequate to meet the demand and consequently the private expenditure on health has been increasing in Sri Lanka. Currently, government expenditure on health accounts for about 1.3 per cent of GDP. However, the total expenditure on health is much higher – 4.15 of GDP in 2008 (UNDP, 2012). In 2011, household out-of-pocket expenditure accounted for 41.7 percent of total health expenditure and 83.5 percent of total private health expenditure (IPS,2014).

## 2.3 Labour Market Programs

Labour market programs include livelihood development programs carried out by the Department of Divineguma Development, livelihood development and training programs for vulnerable groups such as persons with disability, and disaster affected persons.

### i. Livelihood Development

The Department of Divineguma Development carries out livelihood development programmes under which assistance is provided to low income families (who are largely the recipients of the Samurdhi/ Divineguma cash transfers). There are five types of programmes under which assistance is provided to individual or village level projects. These include agriculture development, livestock development, fisheries sector development, microenterprise development and marketing development. Assistance under these programmes takes the form of grants, loans, equipment or training.

Under the Agricultural Development Programme, assistance is provided for various activities such as plant nursery management, domestic food crop cultivation, floriculture, home gardening, medicinal plant cultivation and development of agricultural infrastructure facilities. The Livelihood Development Programme provides assistance for value added dairy production, establishment of animal breeding centres, community based farms, etc. Under the Micro-Enterprise Development Programme assistance is provided for a wide range of activities including hand crafts, carpentry and hand loom industry. Moreover, support is given for establishment of collection centres for fruits and vegetables and for export agricultural centres under the Market Development Programme.

In 2014, livelihood assistance was provided to 94,797 projects with a total expenditure of around Rs 1715.8 million. The details of the number of projects and the expenditure is given in Table 2.7.

**Table 2.7: Divineguma Livelihood Development Programme -2014**

Programmes	Number of Projects	Expenditure (Rs '000)
Agriculture	32,524	388, 720
Livestock	19,240	363, 980
Fisheries	17,86	36, 610
Industry	30,571	795, 060
Marketing	10,676	131, 450
Total	94,797	1,715, 800

Source: Department of Divineguma Development, Divineguma Livelihood Development Programme – Annual Report 2014

## ii. Labour Market Programs for Vulnerable Groups

The NSPD carries out a self-employment assistance programme for disabled persons from low-income families whose monthly income is less than Rs.6000. Selected beneficiaries are provided with financial assistance, subject to a maximum of Rs.25, 000. In addition, the Department of Social Services implements a vocational training programme for persons with disabilities. To be eligible, the beneficiary must be between 16-35 years old, unmarried and suffering from a disability. A daily allowance of Rs.110 per external trainee and Rs.50 per residential trainee is provided under this program. In addition, a toolkit worth Rs.10,000 is provided under this programme..

The Ministry of Social Services (MSS) implements the Single Parent Rehabilitation project targeting low-income earning single parents (with an income of earning less than Rs.6000 per month). Priority is given to single parents with school-going children and disabled children. Self-employment assistance is also provided to families of prisoners. Financial assistance of Rs.10,000 is provided to the beneficiary. The ministry also facilitates the development of beneficiary groups to encourage them to engage in ventures together, where they can collectively buy materials at a discount and collectively market their product. In addition, the Ministry provides training on small enterprise development.

**Table 2.8: Labour market programmes for vulnerable groups - 2013**

Program	Beneficiaries	Expenditure ('000)
Self-employment assistance programme - NSPD	401	8,000
Vocational Training Programme for Disabled Young Men and Women	612	16,713
Single Parent Families Rehabilitation Project	3,000	7,000
Food for Work (FFW) / Food for Training (FFT)	27,635	166,800

Sources: Department of Social Services - Ministry of Social Services

The Ministry of Economic Development also carries out the Food for Work (FFW) / Food for Training (FFT) for resettled internally displaced families. The programme is funded by the World Food Programme (WFP). Under the FFW programme, beneficiaries are given dry rations based on the number of days worked on community projects. On average, 2.95 kg of food rations are given for a family per day. The FFT programme is targeted towards the youth, where food rations are offered in exchange for training in numerous fields such as computing, carpentry and home gardening.

## 2.4 Gaps and Weaknesses of Sri Lanka's Social Protection System

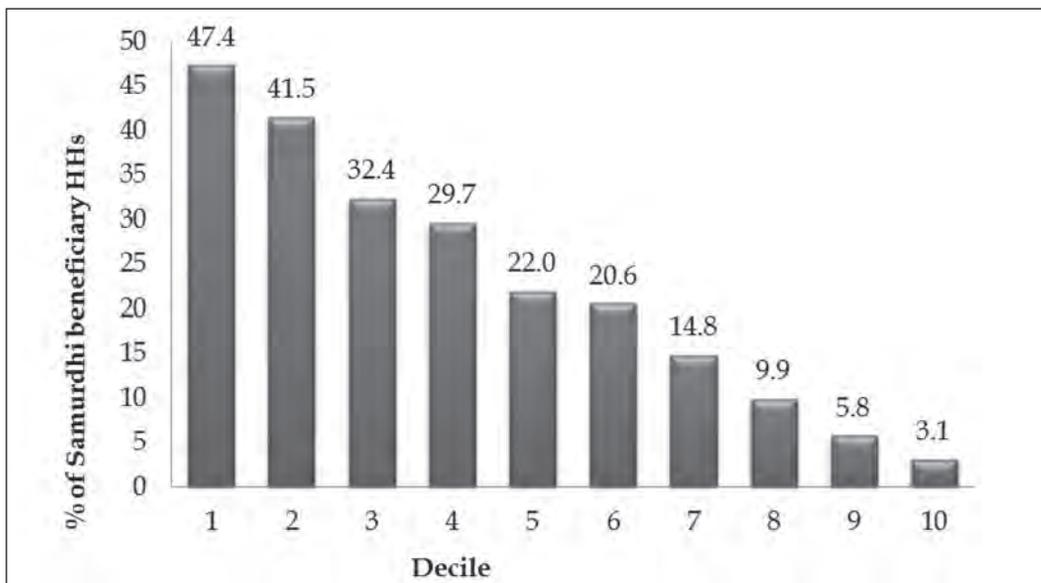
Despite the multitude of social protection programs ranging from cash and in-kind transfers, insurance, old-age retirement benefits like pensions, education welfare programs, nutrition programs and livelihood development programs, a number of gaps and weaknesses exist in the Sri Lanka's social protection system.

### **i. Targeting and Coverage**

Poor targeting and low coverage are two most common problems of many social protection programs in Sri Lanka (Tilakaratna, 2014, Tilakaratna et al, 2013)<sup>5</sup>. With the exception of welfare programs for school children such as free school textbook program, free uniform program and the subsidized transport program that are almost universal in coverage, many programs designed for the poor, elderly, disabled and other vulnerable groups cover only a smaller share of the eligible persons.

Moreover, many programs suffer from targeting problems. Tilakaratna et al (2013) finds that only less than a half of the households (47.4 per cent in 2009/10) in the poorest decile receive benefits under the Samurdhi cash transfer/subsidy program, while between 3 per cent to 15 per cent of households in each of the top four deciles also receiving benefits under this program (see Figure 2.2). The study further reveals that on the one hand, only around 49 per cent of the poor households (as per the official poverty line) were receiving Samurdhi benefits while on the other hand, only around 15 per cent of the Samurdhi beneficiary households are poor. These figures clearly indicate the severity of the targeting issues of the Samurdhi program – both inclusion and exclusion errors. Targeting errors of the other social protection programs are difficult to measure owing to the lack of data.

In addition, many programs lack clearly defined eligibility criteria and an entry and exit mechanisms which too have contributed to the existing targeting errors in some social protection programs.

**Figure 2.2: Share of Households received Samurdhi Cash Transfer by Decile -2009/10**

Source: Tilakaratna, G., A. Galappattige, R. Jayaweera (2013), "Safety Nets in Sri Lanka: An Overview," report prepared for and funded by the World Bank

Note: Estimates are based on the HIES 2009/10 of the DCS.

## ii. Inadequacy of benefits

The value of the monthly cash transfers received under many social protection programs including the Samurdhi subsidy, elder's assistance and PAMA remain low. Under the Samurdhi income transfer program, the maximum amount received by a family is Rs. 3,500 per month (and it was Rs 1500 until end of 2014) which is far below the minimum requirement to meet their basic needs. According to the national poverty line, a person requires around Rs. 3,815) per month to cover his/her consumption expenditure (at a minimum)<sup>6</sup>. Moreover, as shown in Table 2.9, the net cash value received by these beneficiaries is much lower than the above amounts as there are deductions for compulsory savings, social security fund, and housing fund. The monthly allowances given under the elder's assistance programme and the PAMA programme are also very small and generally inadequate to cover the basic expenses such as food and medical costs.

**Table 2.9: Monthly Benefits Received under selected Social Protection Programs -2015**

Program	Monthly Benefits (Rs)	
	Total amount	Net amount
Samurdhi/Divineguma subsidy program		
Less than 3 members in family	1500	1345
3 member families	2500	2245
4 or more members	3500	3145
Empowered families	420	0
PAMA	Rs 250 – Rs 500	
Elders assistance program	Rs 2000	
Disability Assistance	Rs 3000	

Source: Department of Divineguma Development, National Secretariat for Elder and National Secretariat for Persons with Disability.

### iii. Lack of coordination among programs and duplication of programs

Lack of coordination among the institutions involved in the provision of social protection and duplication of programs targeted towards certain vulnerable groups is another gap in Sri Lanka's social protection system. Currently there are several ministries, departments and the provincial councils carrying out different social programs for various vulnerable groups. Lack of coordination among the institutions/programs also leads to overlap of beneficiaries served by these programs.

### iv. Budgetary Constraints

Many social protection programs suffer from budgetary constraints, which restrict them from expanding their coverage and improving the benefit amounts. For instance, the number of beneficiaries of the disability assistance program at present is far below the total eligible persons who have applied for this assistance, primarily due to the budgetary constraints. In addition, a recent study (Tilakaratna et al, 2014)<sup>7</sup> shows that over 80 per cent of the total social protection expenditure (including social assistance programs, social insurance programs and labour market projects and excluding the general education and health expenditure) is spent on retirement benefits for formal sector workers (e.g. PSPS, W&OP, EPF/ETF). In particular, the study finds that pensions for public sector workers account for nearly 56 per cent of the total social protection expenditure. Nevertheless, these retirement benefits are received by only about 20-30 per cent of the total elders in the country. Furthermore, sustainability of programs such as the PSPS which is a fully-funded (non-contributory) pension scheme is an issue of concern particularly with the rapid ageing of population in Sri Lanka.

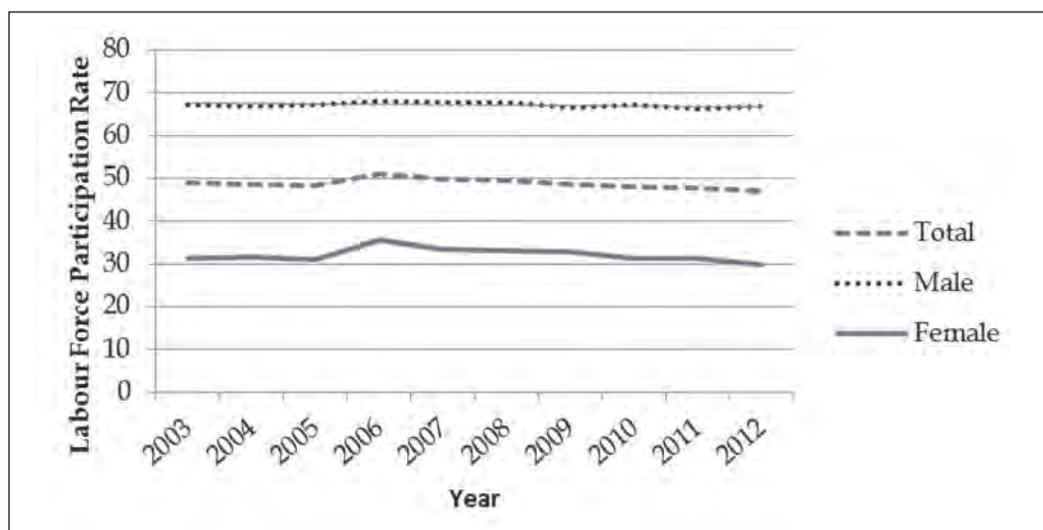
### 3. Does Social Protection Improve Labour Market Outcomes?

This section examines the relationship between social protection and labour market outcomes in Sri Lanka. Section 3.1 provides a brief overview the labour market situation in Sri Lanka while Section 3.2 analyses the link between social protection and labour market outcomes such as labour force participation and employment status based on secondary household survey data.

#### 3.1 Labour Market Situation of Sri Lanka

In 2012, the economically active population in Sri Lanka amounted to around 8.5 million people of which 66.6 per cent were male and 33.4 per cent were female.<sup>8</sup> As can be seen in Figure 3.1, male labour force participation has been relatively high, staying at an average rate of 67.1 per cent from 2003-2012. In contrast, female labour force participation has remained low, remaining at an average rate of 32.1 per cent for the same period. A particular feature that stands out in the labour force participation trend in Sri Lanka is that it has remained constant over the past two decades with the female participation remaining consistently low.

**Figure 3.1: Labour force participation trend in Sri Lanka**



Source: Labour Force Survey Annual Report 2012, DCS

As shown in Table 3.1, labour force participation rates for females remain less than half of that of males across all age categories above 25 years. Participation rate among males remain high (94 per cent-96 per cent) among those between 25-39 years, where the respective rates for females remain around 40 per cent.

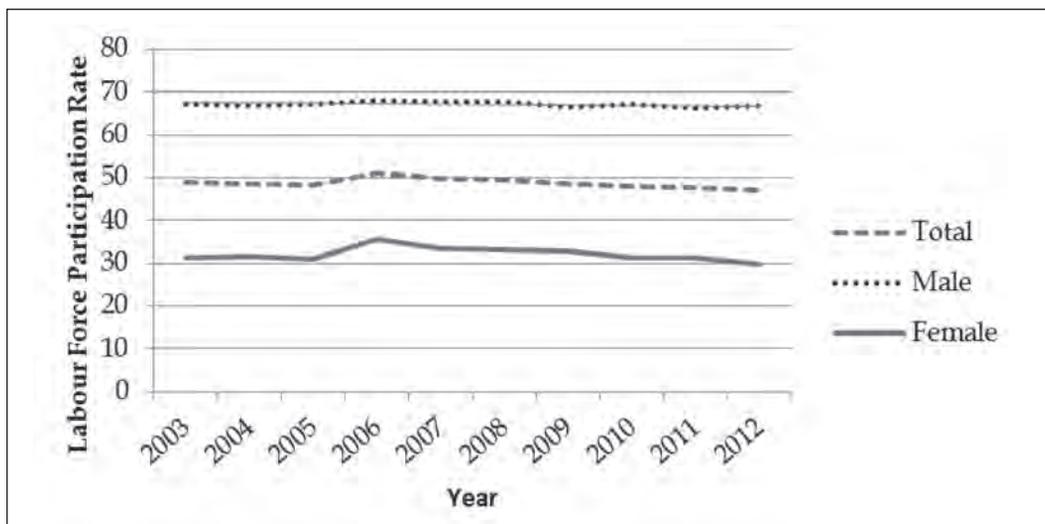
**Table 3.1: Labour force participation rates by age groups -2012**

Age group	Male	Female
15 - 19	20.8	8.7
20 - 24	73.6	37.7
25 - 29	94.0	39.4
30 - 39	96.2	40.3
40 +	75.9	32.7

Source: Labour Force Survey Annual Report 2012, DCS

The unemployment rate in the country has been steadily falling over the past decade and it stood at 3.9 per cent in 2012 (Figure 3.2). However, the female unemployment rate is twice as high and it stood at 5.8 per cent in 2012 compared to 2.8 per cent for men and this has been a consistent trend over the last decade.<sup>9</sup> Youth unemployment remains high in Sri Lanka, and it stood at 17.3 per cent for the 15-24 age groups in 2012, with the female rate once again being higher at 23.5 per cent compared to 14 per cent for men.

**Figure 3.2: Unemployment rate trend in Sri Lanka**



Labour Force Survey Annual Report 2012, DCS

The employed population in Sri Lanka was 8.1 million in 2012, of which 67.4 per cent were males and 32.6 per cent were female. Table 3.2 provides the employed population by employment status for selected years. As it shows, the largest category of employment is private employees followed by own account worker. Employer is the smallest category. In 2012, private employees accounted for 41.3 per cent of the total employed population while own account workers accounted for nearly 32 per cent. Interestingly, this composition of employed population has remained largely unchanged over the past two decades.

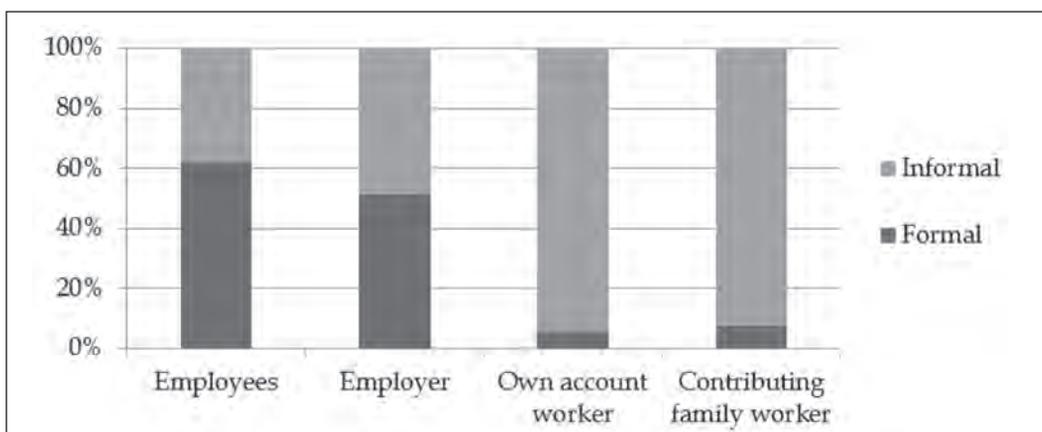
**Table 3.2: Employed population by employment status (percentage)**

Year	Public employee	Private employee	Employer	Own account worker	Contributing family worker
1990	21.5	33.7	1.0	29.2	13.8
1995	15.6	44.3	2.5	28.3	9.4
2000	13.4	42.9	2.3	28.4	13.0
2005	13.3	46.1	3.1	29.7	7.9
2011	14.4	40.5	2.9	31.5	10.8
2012	15.1	41.3	2.8	31.9	8.9

*Labour Force Survey Annual report 2012, DCS*

Despite the low unemployment rate, about 60 per cent of that employment is still in the informal sector. As shown in Figure 3.3, a large proportion of own account workers and contributing family workers consists of informal sector workers. While over 60 per cent of the employees are in the formal sector, employers are more or less equally split between the two sectors.

**Figure 3.3: Contribution of informal/formal sector employment by employment status 2012**



*Labour Force Survey Annual Report 2012*

### 3.2. Relationship between Social Protection and Labour Market Outcomes

#### i. Literature review

The empirical literature on the relationship between social protection and labour market outcomes has provided mixed evidence.

##### *Social assistance programmes and labour market outcomes*

Evidence from OECD countries suggests that generous social assistance benefits may have a disincentive effect on labour force participation. More generous social assistance benefits were found to significantly reduce the employment probability of men. The effect was more pronounced for less educated men without dependent children (Lemieux & Milligan, 2008). A meta-analysis performed on sixteen OECD countries on the effect of changes in the level of disability benefits on the employment outcomes of disabled people found that benefit levels had a significant negative association with employment outcomes in a majority of the studies under analysis. The most robust study showed a small but significant negative association. The meta-analysis did not find firm evidence that changes in the eligibility criteria for disability benefits affected employment outcomes. The studies suggest that if the benefit levels are close to the wage rates in low-paid jobs, social assistance programmes might have a disincentive effect on employment (Barr et al., 2010).

The evidence on the impact of social assistance programmes on labour market outcomes in countries outside of the OECD is mostly mixed. Conditional cash transfer (CCT) programmes have become hugely popular in Latin American countries. Most studies looking at the impact of these programmes on labour market outcomes have found no significant effects. PROGRESA, the CCT programme in Mexico has been found to not have a significant effect on adult labour supply choices based on experimental evaluations (Skoufias & Di Maro, 2008 ; Alzua et al., 2010). Similar results were evident from impact evaluation studies conducted on Bolsa Familia, the CCT programme implemented in Brazil, where the programme has been successful in reducing poverty and inequality with no negative effects on work incentives. However, there is evidence to suggest that female headed households that receive Bolsa Familia are less likely to participate in the labour market compared to male headed households that receive it (Medeiros et al., 2008). A World Bank report analysed the impact of CCT programmes on various outcomes including labour market outcomes based on impact evaluation studies and found no effect on labour force participation in most countries while in a few countries, CCTs had at most, modest disincentive effects on adult labour market participation (Fiszbein & Schady, 2009).

Outside of Latin America, an impact evaluation study conducted on the Family Benefit programme in Armenia found no effects on labour force participation and work effort (Ersado & Levin, 2011). However, a similar study conducted to assess the impact of receiving targeted social assistance on labour market outcomes in the Republic of Georgia found evidence of work disincentives for women. The study did not find a significant impact on men (Kits et al., 2013).

### *Pensions and labour market outcomes*

Impact evaluation studies conducted on the Old Age Pension (OAP) in South Africa has demonstrated mixed results in terms of its impact on labour market outcomes. Bertrand et al (2003) found that the labour force participation of prime-aged men sharply drops when a member of the household becomes eligible to receive OAP. However, other studies have found results to the contrary, with pension receipts to elderly South Africans leading to increased employment among prime-aged members in the household (Ardington et al., 2009). The non-contributory pension scheme in Mexico, targeted at those above 70 has had a disincentive effect on the labour force participation of elderly men, particularly those living alone and relatively poor. However, the effect was much weaker for elderly women. There was no statistically significant effect on the labour force participation of prime-aged men and women living in households receiving pension benefits (Gonzalez & Pfitze, 2014).

## **ii. Methodology**

The empirical analysis in this section relies on data from the Sri Lanka Household Income and Expenditure Survey (HIES 2009/10). The survey has been carried out in the period of July 2009 – June 2010 and includes data from all the districts of the country except the districts of Mannar, Kilinochchi and Mullaitivu in the Northern Province. The survey covers 22,581 households and includes household data on demographic features, household income and expenditure and employment related characteristics.

### *A) Models*

The empirical models look at the relationship between receipt of social protection and labour market outcomes such as labour force participation and employment status

#### *1) Impact of social protection on labour force participation*

The determinants of labour force participation will be estimated using probit models based on the specification listed below (equation 1).

$$\gamma_i = \beta_0 + \beta_1 \chi + \varepsilon \quad (1)$$

$\gamma = 1$  if the individual participates in labour force and  $\gamma = 0$  otherwise.  $\chi$  is a vector of demographic, individual and household level variables determining  $\gamma$  such as level of education, age, marital status, dependants (children and elderly) and social protection income. In addition, sector and regional dummies are used to control for spatial characteristics.

The determinants of labour force participation are estimated for all individuals aged 15 years and above by gender. In addition, estimations are made by sub-samples of age groups - youth (15-24), prime age individuals (25-59) and elderly (60+).

## II) Impact on Employment Status

The factors determining the employment outcomes of the employed individuals in the sample will be assessed using a maximum-likelihood multinomial logistic model based on the linear functional form

$$Y_{ij} = \beta_1 \chi_{1i} + \beta_2 \chi_{2i} + \dots + \beta_k \chi_{ki} + \varepsilon_{ij} \quad (2)$$

The dependent variable  $Y_{ij}$  is a multinomial variable where  $j$  takes on four different employment categories (private employee, employer, own account worker and unpaid family worker) while public employee is taken as the base category. Independent variables  $\chi_{ki}$  represent individual and household level characteristics as well as spatial controls that determine the kind of employment an individual is likely to be in.

### *B) Sample selection and classification of labour force and employment*

Only individuals aged 15 years and above are considered for this study. People who are employed and unemployed are considered as participating in the labour force (dependent variable in equation 1). People not participating in the labour force are those engaged in household work, students, disabled people and old/ retired persons.

**Table 3.3: Labour force status**

Labour force status	Sample size (persons)
Not in labour force	26,164
In the labour force	32,578
Total	58,742

Source: Authors' calculations based on HIES 2009/10

The HIES 2009/10 categorises employed individuals (dependant variable in equation 2) as public sector employee, private sector employee, employer, own account worker and unpaid family worker.

**Table 3.4: Employment status**

Employment status	Sample size(persons)
Public employee	4,585
Private employee	13,348
Employer	540
Own account worker	7,509
Unpaid family worker	1,539
Total	27,521

Source: Authors' calculations based on HIES 2009/10

As seen in Table 3.4, the private sector employees is the largest category representing 48.5 per cent of employed individuals. Own account worker is the second largest category (27.3 per cent) followed by public sector employee (16.7 per cent). The own account worker and unpaid family worker categories largely comprise of informal sector workers respectively accounting for 47.2 per cent and 15.4 per cent of the informal sector in 2010.<sup>10</sup>

### C) Description of Variables

The independent variables consist of individual and household characteristics. In addition spatial variables are used to control for regional and community fixed effects. The variables used in the analysis are described in Table 3.5.

**Table 3.5: Description of variables**

List of variables	Definitions
Labour force participation	Dependent variable: Binary indicator that equals 1 if the person is in the labour force. Labour force: Employed + Unemployed 15 years and above. Not in labour force: those engaged in household work, students, disabled persons and old/retired persons
Employment status	Dependent categorical variable for status of employment for all persons employed. Public employee[Reference category], private employee, employer, own account worker, unpaid family worker
Male	Binary variable that equals 1 if the person is male
Age	Variable indicating the persons age
Age squared	The persons age squared
Disabled	Binary variable that equals 1 if the person reports a chronic illness/disability
Household head	Binary variable that equals 1 if the person is the head of the household
Household size	Variable indicating number of members in household
Education group dummies	GCE-A' Levels & above [Reference category], primary level and below, Secondary level and below, GCE O' Levels
Marital status dummy	Never married[reference category], Married, Widowed/divorced
Child under 6	Binary variable that equals 1 if household has child 5 years and below
Elder above 65	Binary variable that equals 1 if household has elder aged 65 and above
Remittances from abroad	Binary variable that equals 1 if household receives remittances from abroad
Poor household	Binary variable that equals 1 if household is categorized as poor based on the official poverty line 2009/10.
Sector dummies	Urban[reference category], Rural, Estate
Province dummies	Western province[reference category], Central, Sothern, Eastern, North Western, North Central, Uva, Sabaragamuwa
Household social protection income	Monthly household social protection income (sum of Samurdhi, pension and disability benefit transfers) as a percentage of monthly household expenditure

As described earlier demographic and household level variables that were deemed to affect an individual's participation choice in the labour force as well as the employment status of employed individuals were used in the analysis. In addition to the usual variables that capture demographic and socio-economic characteristics, such as age, marital status and level of education, the variable household social protection income was added to assess the effect of social protection income on labour force participation and employment status. This is the key variable of interest in this study. The variable comprises of monthly Samurdhi benefits, pension income and disability benefit transfers. These are the only social protection income variables available in the HIES 2009/10. The household social protection income variable is calculated as a percentage of monthly household expenditure to account for the importance of social protection income at the household level.

### **iii. Summary Statistics**

Table 3.6 presents the summary statistics for the independent variables used in the analysis of the determinants of labour force participation. In terms of individual characteristics, there are proportionately more males amongst those who are active in the labour force. People who are not in the labour force have a higher average age while also having a higher proportion of disabled/chronically ill individuals compared to people who are active in the labour force. Labour force participants have a higher proportion of married individuals compared to those who are out of the labour force, while a higher proportion of individuals who are not in the labour force are divorced or widowed compared to individuals who are active in the labour force.

In terms of the level of education, those who are active in the labour force stand out as having a higher proportion of individuals with a level of education at GCE-A' Levels or above compared to people who are not in the labour force. Among those who are not in the labour force, there is a slightly higher proportion of individuals with a level of education below primary level, compared to those who are active in the labour force. However, the two groups do not differ much in terms of other levels of education.

In terms of household characteristics, a larger proportion of labour force participants were heads of households compared to those out of the labour force. Individuals out of the labour force had a higher proportion of elders above the age of 65 compared to labour force participants.

**Table 3.6: Summary statistics of independent variables - (Means)**

Variable	Not in labour force		In labour force	
	Mean	SD	Mean	SD
Male	0.23	(0.42)	0.66	(0.47)
Age	42.99	(20.48)	38.71	(13.80)
Disabled	0.24	(0.43)	0.13	(0.34)
Never married	0.26	(0.44)	0.26	(0.44)
Married	0.58	(0.49)	0.68	(0.47)
Widowed/divorced	0.16	(0.36)	0.06	(0.24)
GCE-A' Levels & above	0.10	(0.30)	0.17	(0.37)
Less than primary level	0.18	(0.38)	0.14	(0.35)
Secondary level	0.51	(0.50)	0.53	(0.50)
GCE O' Levels	0.21	(0.41)	0.16	(0.37)
Household size	4.63	(1.87)	4.60	(1.81)
Household head	0.21	(0.41)	0.44	(0.50)
Child under 6	0.36	(0.48)	0.35	(0.48)
Elder above 65	0.34	(0.47)	0.22	(0.42)
Poor household	0.07	(0.26)	0.08	(0.27)
Household social protection income	5.33	(16.80)	2.82	(10.40)
Remittances from abroad	0.09	(0.29)	0.05	(0.23)
Urban	0.30	(0.46)	0.26	(0.44)
Rural	0.64	(0.48)	0.64	(0.48)
Estate	0.06	(0.24)	0.11	(0.31)
Western	0.30	(0.46)	0.28	(0.45)
Central	0.11	(0.31)	0.11	(0.31)
Southern	0.18	(0.39)	0.18	(0.38)
Northern	0.04	(0.20)	0.03	(0.17)
Eastern	0.11	(0.31)	0.10	(0.29)
North Western	0.09	(0.28)	0.09	(0.28)
North Central	0.05	(0.22)	0.07	(0.25)
Uva	0.05	(0.22)	0.07	(0.25)
Sabaragamuwa	0.07	(0.26)	0.09	(0.28)

Note: Standard deviations in parentheses

Source: Authors' calculations based on HIES 2009/10

Individuals out of the labour force receive a higher mean value of social protection income as a percentage of household expenditure compared to individuals participating in the labour force. There is a slightly higher proportion of remittance recipients among those who are not in labour force as compared to those who are in labour force.

As described in section 3.2.2, social protection income variable comprises of Samurdhi benefits, pension income and disability benefit transfers. Table 3.7 presents the sample size and mean monthly values of the benefits received. As can be seen, in terms of the amount received, pensions is the largest social protection variable in the sample while Samurdhi is received by the most number of households.

**Table 3.7: Social protection income composition**

Variable	Sample size(Individuals)	Mean value(Rs.)
Samurdhi	4,594	513.29
Pension	1,612	13477.31
Disability benefit	549	1047.26

Source: Authors' calculations based on HIES 2009/10

Table 3.8 presents the summary statistics for employment outcomes amongst employed individuals. In terms of individual characteristics, family workers largely comprise of females compared to the other employment outcome groups. Own account workers are the oldest amongst the five employment outcome groups under consideration. A higher proportion of individuals are single in the private and family worker groups in comparison to other employment groups.

**Table 3.8: Summary statistics(Means)**

Variables	Public	Private	Employer	Own account worker	Unpaid family worker
Male	0.61 (0.49)	0.72 (0.45)	0.88 (0.32)	0.77 (0.42)	0.34 (0.47)
Age	40.19 (10.33)	37.83 (13.12)	44.79 (12.33)	45.31 (12.95)	38.76 (14.00)
Disabled	0.11 (0.32)	0.11 (0.32)	0.21 (0.41)	0.19 (0.39)	0.15 (0.36)
Never married	0.16 (0.36)	0.25 (0.43)	0.07 (0.25)	0.10 (0.29)	0.27 (0.45)
Married	0.81 (0.39)	0.68 (0.47)	0.87 (0.33)	0.82 (0.38)	0.69 (0.46)
Widowed/ divorced	0.04 (0.19)	0.07 (0.25)	0.06 (0.24)	0.08 (0.28)	0.03 (0.18)
GCE-A' Levels & above	0.46 (0.50)	0.11 (0.31)	0.17 (0.38)	0.08 (0.27)	0.08 (0.26)

<b>Variables</b>	<b>Public</b>	<b>Private</b>	<b>Employer</b>	<b>Own account worker</b>	<b>Unpaid family worker</b>
Less than primary level	0.07	0.19	0.05	0.16	0.16
	(0.25)	(0.40)	(0.22)	(0.36)	(0.37)
Secondary level	0.28	0.56	0.53	0.61	0.62
	(0.45)	(0.50)	(0.50)	(0.49)	(0.49)
GCE O' Levels	0.19	0.13	0.25	0.16	0.15
	(0.40)	(0.34)	(0.43)	(0.36)	(0.35)
Household size	4.47	4.61	4.63	4.39	4.60
	(1.53)	(1.88)	(2.00)	(1.74)	(1.74)
Household head	0.47	0.46	0.74	0.67	0.05
	(0.50)	(0.50)	(0.44)	(0.47)	(0.22)
Child under 6	0.38	0.37	0.39	0.36	0.27
	(0.49)	(0.48)	(0.49)	(0.48)	(0.44)
Elder above 65	0.24	0.21	0.26	0.23	0.22
	(0.43)	(0.41)	(0.44)	(0.42)	(0.42)
Poor household	0.02	0.10	0.02	0.06	0.07
	(0.15)	(0.30)	(0.13)	(0.24)	(0.26)
Household social protection income (% hh expenditure)	3.22	2.45	2.36	2.65	2.09
	(11.65)	(9.09)	(10.41)	(10.22)	(8.25)
Remittances from abroad	0.03	0.05	0.07	0.05	0.03
	(0.18)	(0.23)	(0.25)	(0.22)	(0.18)
Urban	0.29	0.26	0.38	0.22	0.12
	(0.45)	(0.44)	(0.49)	(0.41)	(0.32)
Rural	0.57	0.58	0.61	0.75	0.86
	(0.50)	(0.49)	(0.49)	(0.43)	(0.35)
Estate	0.14	0.16	0.01	0.03	0.02
	(0.35)	(0.36)	(0.10)	(0.17)	(0.15)
Western	0.24	0.35	0.35	0.24	0.12
	(0.43)	(0.48)	(0.48)	(0.43)	(0.33)
Central	0.17	0.09	0.12	0.10	0.11
	(0.38)	(0.29)	(0.32)	(0.30)	(0.32)
Southern	0.16	0.17	0.20	0.17	0.15
	(0.37)	(0.38)	(0.40)	(0.38)	(0.36)

Variables	Public	Private	Employer	Own account worker	Unpaid family worker
Northern	0.04 (0.19)	0.03 (0.16)	0.06 (0.24)	0.03 (0.18)	0.02 (0.14)
Eastern	0.10 (0.30)	0.09 (0.29)	0.07 (0.26)	0.08 (0.28)	0.05 (0.22)
North Western	0.07 (0.26)	0.08 (0.28)	0.07 (0.25)	0.11 (0.31)	0.10 (0.29)
North Central	0.08 (0.27)	0.03 (0.17)	0.03 (0.18)	0.10 (0.30)	0.19 (0.39)
Uva	0.06 (0.24)	0.05 (0.21)	0.02 (0.15)	0.09 (0.28)	0.17 (0.37)
Sabaragamuwa	0.07 (0.26)	0.10 (0.30)	0.08 (0.27)	0.08 (0.27)	0.09 (0.28)

Note: Standard deviations in parentheses

Source: Authors' calculations based on HIES 2009/10

Public sector employees stand out as having the largest proportion of individuals with a level of education at or above GCE-A' Levels compared to the other employment categories. The employment outcomes groups do not differ much in terms of other levels of education.

In terms of household characteristics, a majority of employers and own account workers are heads of households compared to the other employment outcome groups. Own account workers also largely comprise of household heads. There are a higher proportion of individuals belonging to poor households in the private employee group compared to the other groups.

In terms of spatial characteristics, a majority of own account workers and family workers seem to come from rural areas compared to individuals from the other groups.

#### iv. Estimated results of the empirical models

##### A) Results of the labour force participation model

Table 3.9 presents the results of the probit estimations for labour force participation. Column 1 reports the marginal effects of the maximum likelihood estimations for all individuals in the sample aged 15 years and above. In terms of individual characteristics, being male increases the likelihood of labour force participation. Having a disability is significantly associated with a decline in the probability of labour force participation. Marriage and widowhood are also significantly associated with a decline in the probability of labour force participation relative to being single (but this negative association holds only for the females as shown in Column 5).

The likelihood of labour force participation declines with lower levels of education relative to the highest level of education (GCE-A'Levels).

Looking at household characteristics, being the head of the household, being from a poor household and having an elder above the age of 65 are all associated with the likelihood of labour force participation increasing. Having a child under the age of 6 has a negative effect on the probability of labour force participation –however, the gender disaggregated results in Columns 5 and 6 show that this negative relationship holds only for women. In addition, being from a remittance receiving household reduces the likelihood of labour force participation.

The findings reveal that social protection income as a share of household expenditure appears to have a marginal negative impact on the probability of labour force participation. A one percent increase in the share of household social protection income reduces the probability of an individual's labour force participation by 0.17 percentage points.

In terms of spatial characteristics, individuals from the rural and estate sectors are more likely to participate in the labour force relative to individuals from the urban sector.

**Table 3.9: Results of maximum likelihood estimations from probit models for labour force participation**

	(1)	(2)	(3)	(4)	(5)	(6)
	Total LF	Prime Age	Youth	Elderly	Women	Men
Individual characteristics						
Male	0.331***	0.459***	0.229***	0.185***		
	(0.0054)	(0.0071)	(0.0124)	(0.0155)		
Age	-0.000366	-0.0031***	0.130***	-0.0191***	-0.000205	-0.00029***
	(0.0002)	(0.0004)	(0.0029)	(0.0012)	(0.0004)	(0.0001)
Disabled	-0.115***	-0.126***	-0.164***	-0.0800***	-0.0839***	-0.0694***
	(0.0077)	(0.0102)	(0.0336)	(0.0108)	(0.0108)	(0.0062)
Never married	b	b	b	b	b	b
Married	-0.0743***	-0.0837***	-0.307***	0.00455	-0.224***	0.0570***
	(0.0068)	(0.0093)	(0.0207)	(0.0291)	(0.0122)	(0.0075)
Widowed/divorced	-0.0856***	-0.0309**	-0.248**	-0.0842***	-0.142***	0.0159
	(0.0121)	(0.0142)	(0.101)	(0.0305)	(0.0188)	(0.0121)
Education characteristics						
GCE-A' Levels & above	b	b	b	b	b	b
Less than primary level	-0.0626***	-0.105***	0.295***	0.0611**	-0.129***	-0.00311
	(0.0086)	(0.0108)	(0.0456)	(0.0238)	(0.0149)	(0.0049)
Secondary level	-0.0790***	-0.124***	0.325***	0.0442**	-0.181***	0.00747**
	(0.006)	(0.0072)	(0.0191)	(0.0216)	(0.0105)	(0.0032)
GCE O' Levels	-0.124***	-0.111***	-0.00232	0.0254	-0.199***	-0.0259***

	(1)	(2)	(3)	(4)	(5)	(6)
	Total LF	Prime Age	Youth	Elderly	Women	Men
	(0.0076)	(0.0093)	(0.0192)	(0.024)	(0.0123)	(0.0047)
Household characteristics						
Household size	-0.000585 (0.0014)	0.00206 (0.0019)	0.0150*** (0.0042)	-0.0160*** (0.0034)	-0.0067*** (0.0025)	-0.00239*** (0.0007)
Household head	0.148*** (0.006)	0.104*** (0.0086)	0.230*** (0.0324)	0.146*** (0.0139)	0.0806*** (0.0139)	0.0170*** (0.0044)
Child under 6	-0.0369*** (0.0055)	-0.0777*** (0.0074)	-0.0817*** (0.0183)	-0.0143 (0.014)	-0.0841*** (0.0091)	0.00423 (0.0027)
Elder above 65	0.0394*** (0.0053)	0.0214*** (0.0074)	-0.0486*** (0.0177)	0.0376** (0.0149)	0.0252*** (0.0095)	0.0178*** (0.0022)
Poor household	0.0234*** (0.0083)	0.00037 (0.0115)	0.0970*** (0.0218)	0.0275 (0.0227)	0.0536*** (0.015)	0.00103 (0.0039)
Household social protection income (% hh expenditure)	-0.0017*** (0.0002)	-0.0016*** (0.0003)	-6.64E-05 (0.0005)	-0.00247*** (0.0003)	-0.0011*** (0.0003)	-0.00083*** (0.0001)
Remittances from abroad	-0.125*** (0.0112)	-0.154*** (0.0158)	-0.0613** (0.026)	-0.0734*** (0.0166)	-0.127*** (0.0156)	-0.0493*** (0.0082)
Spatial variables						
Urban	b	b	b	b	b	b
Rural	0.0140** (0.0062)	0.00204 (0.0083)	-0.00537 (0.0166)	0.0379*** (0.0137)	0.00767 (0.0104)	0.00481 (0.003)
Estate	0.111*** (0.0087)	0.132*** (0.0109)	0.143*** (0.0269)	-0.0271 (0.02)	0.220*** (0.0158)	0.00431 (0.005)
Western	b	b	b	b	b	b
Central	-0.00591 (0.0081)	-0.00297 (0.0107)	-0.0446** (0.0222)	0.0261 (0.0175)	-0.0171 (0.0131)	0.00568 (0.0039)
Southern	0.0274*** (0.0073)	0.0295*** (0.0099)	0.00699 (0.0206)	0.0502*** (0.0164)	0.0397*** (0.0124)	0.00884** (0.0036)
Northern	-0.0137 (0.0156)	-0.011 (0.0208)	-0.115*** (0.038)	0.0114 (0.0341)	-0.0586** (0.0271)	0.0114* (0.006)
Eastern	-0.0240*** (0.0092)	-0.0437*** (0.0122)	-0.0476** (0.0223)	0.0357 (0.0259)	-0.0654*** (0.0148)	0.0143*** (0.0037)
North Western	0.0160* (0.0082)	0.0125 (0.0109)	0.00799 (0.0234)	0.0149 (0.0186)	0.000527 (0.0141)	0.0131*** (0.0039)
North Central	0.0686***	0.0956***	0.0626**	0.0211	0.121***	0.0140***

	(1)	(2)	(3)	(4)	(5)	(6)
	Total LF	Prime Age	Youth	Elderly	Women	Men
	(0.0082)	(0.0103)	(0.0248)	(0.0244)	(0.015)	(0.004)
Uva	0.0659***	0.0896***	-0.00736	0.111***	0.113***	0.0162***
	(0.0085)	(0.011)	(0.0263)	(0.0261)	(0.0152)	(0.0041)
Sabaragamuwa	0.0372***	0.0525***	-0.00623	0.0430**	0.0800***	0.0042
	(0.0083)	(0.0109)	(0.0237)	(0.0201)	(0.0142)	(0.0043)
Observations	58,742	36,825	12,779	9,138	31,307	27,435
Pseudo R2	0.2882	0.3227	0.289	0.234	0.113	0.358

Notes : Robust standard errors in parentheses

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Source: Authors' calculations based on HIES 2009/10

Columns 2, 3 and 4 report the marginal effects of the maximum likelihood estimations of the probit model of labour force participation by age groups. As can be seen, the marginal effect of social protection income as a share of household expenditure on the probability of labour force participation is negative but very small, for prime aged and elderly individuals. A one percent increase in the share of social protection income to the household reduces the probability of labour force participation by only 0.16 percentage points for prime aged and by only 0.24 percentage points for the elderly. There is no effect on the youth category.

Columns 5 and 6 report the marginal effects of the maximum likelihood estimations of the probit model of labour force participation for women and men respectively. Disability is associated with a negative effect on the probability of labour force participation for both genders. For women, marriage and widowhood are associated with a decline in the probability of labour force participation relative to being single, but marriage has the opposite effect for men, where the probability of labour force participation increases relative to being single.

Having a lower level of education relative to the highest level (GCE-A' Levels) reduces the likelihood of labour force participation for women. The effect is the same for men with an education level up to GCE O' levels. However, the effect changes for men with an education level at secondary level, with them being more likely to participate in the labour force compared to the highest level of education (GCE- A' Levels).

In terms of household characteristics, household size has a significant negative effect on the probability of labour force participation while being the head of the household has a positive effect on labour force participation for both genders. Having a child under the age of 6 has a negative effect on female labour force participation with the likelihood declining by 8.4 percentage points. The variable is not significant for men.

Looking at spatial variables, sector variables are not significant for men, but women from the

estate sector are more likely to participate in the labour force relative to those in the urban sector.

Moreover, the findings reveal that the household social protection income as a share of household expenditure has a very small negative effect on the likelihood of labour force participation for both genders (0.11 and 0.08 percentage points for females and males respectively). Remittances too have a negative effect on labour force participation for both genders, but the effect size is larger for women, with the likelihood of female labour force participation reducing by 12.7 percentage points (compared to 4.9 percentage points for men).

Table 3.10 presents the marginal effects of the maximum likelihood estimations of the probit model for the probability of labour force participation by age sub-groups and gender. Columns 1,2 and 3 present the marginal effects from the probit regressions for women of prime age, youth and elder age categories respectively. Columns 4,5 and 6 present the marginal effects from the probit regressions for men for the same age categories respectively.

As can be seen, household social protection income as a share of household expenditure has a very small negative association with the likelihood of labour force participation for prime age category and elders of both gender groups. However, it does not have any significant effect on labour forces participation for both men and women in the youth category.

**Table 3.10: Results of maximum likelihood estimations from probit models by age groups for labour force participation**

VARIABLES	Women			Men		
	(1)	(2)	(3)	(4)	(5)	(6)
	prime age(25-59)	youth(15-24)	Elder(60+)	prime age(25-59)	youth(15-24)	Elder(60+)
Individual characteristics						
Age	-0.00181*** (0.000567)	0.110*** (0.00409)	-0.00994*** (0.000981)	-0.00216*** (0.000237)	0.129*** (0.00451)	-0.0324*** (0.00272)
Disabled	-0.0907*** (0.0125)	-0.0570 (0.0396)	-0.0312*** (0.0100)	-0.0670*** (0.00697)	-0.286*** (0.0645)	-0.143*** (0.0199)
Never married	b	b	b	b	b	b
Married	-0.270*** (0.0160)	-0.329*** (0.0219)	-0.0230 (0.0299)	0.0441*** (0.00853)	0.145*** (0.0340)	0.0654 (0.0554)
Widowed/ divorced	-0.133*** (0.0236)	-0.283*** (0.0958)	-0.0653** (0.0299)	0.0105 (0.0127)	0.120 (0.0940)	-0.0983* (0.0576)
Education characteristics						
GCE-'A' Levels & above	b	b	b	b	b	b
Less than primary level	-0.182***	0.270***	0.0383	-0.0140***	0.376***	0.0745*

	Women			Men		
	(1)	(2)	(3)	(4)	(5)	(6)
	(0.0177)	(0.0637)	(0.0244)	(0.00504)	(0.0657)	(0.0444)
Secondary level	-0.236***	0.203***	0.0210	-0.00275	0.483***	0.0686*
	(0.0128)	(0.0249)	(0.0231)	(0.00337)	(0.0294)	(0.0399)
GCE O' Levels	-0.206***	-0.0243	-0.000922	-0.00592	0.0655**	0.0557
	(0.0155)	(0.0229)	(0.0238)	(0.00440)	(0.0305)	(0.0459)
Household characteristics						
Household size	-0.00303	0.00433	-0.0123***	0.00143*	0.00561	-0.0245***
	(0.00308)	(0.00528)	(0.00327)	(0.000842)	(0.00570)	(0.00649)
Household head	0.0665***	-0.0449	0.0909***	0.0375***	0.0106	0.165***
	(0.0160)	(0.0801)	(0.0179)	(0.00652)	(0.0871)	(0.0280)
Child under 6	-0.127***	-0.0930***	0.00691	-0.00568*	0.0283	-0.0348
	(0.0108)	(0.0241)	(0.0131)	(0.00335)	(0.0220)	(0.0268)
Elder above 65	0.0131	-0.0429*	0.0270**	0.00937***	-0.0286	0.0862***
	(0.0118)	(0.0230)	(0.0122)	(0.00292)	(0.0230)	(0.0323)
Poor household	0.0265	0.115***	0.0501**	-0.00807	0.0705***	-0.0186
	(0.0188)	(0.0318)	(0.0239)	(0.00547)	(0.0248)	(0.0381)
Household social protection income	-0.00102***	1.59e-06	-0.000804***	-0.000728***	-0.000456	-0.00444***
(% hh expenditure)	(0.000395)	(0.000666)	(0.000266)	(0.000119)	(0.000699)	(0.000702)
Remittances from abroad	-0.150***	-0.0372	-0.0275*	-0.0504***	-0.0656**	-0.142***
	(0.0181)	(0.0346)	(0.0158)	(0.0120)	(0.0325)	(0.0327)
Spatial variables						
Urban	b	b	b	b	b	b
Rural	0.00404	-0.0275	0.0283**	-0.00197	0.00512	0.0483*
	(0.0128)	(0.0226)	(0.0116)	(0.00324)	(0.0194)	(0.0271)
Estate	0.280***	0.138***	0.00256	-0.00855	0.115***	-0.0668
	(0.0203)	(0.0389)	(0.0180)	(0.00636)	(0.0302)	(0.0411)
Western	b	b	b	b	b	b
Central	-0.00757	-0.0817***	0.00718	0.00680	0.00366	0.0551*
	(0.0155)	(0.0293)	(0.0163)	(0.00437)	(0.0286)	(0.0322)
Southern	0.0573***	-0.0350	0.0266*	0.00138	0.0474*	0.0844***

	Women			Men		
	(1)	(2)	(3)	(4)	(5)	(6)
	(0.0152)	(0.0276)	(0.0155)	(0.00458)	(0.0254)	(0.0302)
Northern	-0.0550*	-0.144***	-0.0299	0.0120*	-0.0448	0.0901
	(0.0323)	(0.0484)	(0.0313)	(0.00729)	(0.0458)	(0.0597)
Eastern	-0.0790***	-0.0949***	0.00250	0.00836	0.0289	0.0888*
	(0.0170)	(0.0299)	(0.0240)	(0.00513)	(0.0271)	(0.0480)
North Western	0.00864	-0.0421	-0.0164	0.00677	0.0680**	0.0684*
	(0.0167)	(0.0311)	(0.0162)	(0.00451)	(0.0284)	(0.0363)
North Central	0.167***	0.0259	-0.00964	0.0108**	0.0878***	0.0586
	(0.0181)	(0.0354)	(0.0224)	(0.00472)	(0.0301)	(0.0446)
Uva	0.157***	-0.00194	0.0421*	0.0115**	0.0138	0.193***
	(0.0190)	(0.0348)	(0.0253)	(0.00452)	(0.0341)	(0.0438)
Sabaragamuwa	0.0981***	0.0177	0.0253	0.00266	-0.00556	0.0687*
	(0.0175)	(0.0328)	(0.0191)	(0.00500)	(0.0297)	(0.0368)
Observations	19,646	6,673	4,988	17,179	6,106	4,150
Pseudo R2	0.0898	0.1963	0.1072	0.1989	0.4162	0.1925

Notes: Standard errors in parentheses

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Source: Authors' calculations based on HIES 2009/10

## B) Results of the employment status model

Table 3.11 presents the results of the multinomial logit model that compares the characteristics of employed individuals in different employment categories to those in the public sector, the base category (see table A1 in the appendix for results with unpaid family worker used as base category). The key variable of interest is household social protection income and assessing if it has an effect on employment status.

In terms of individual characteristics, being male increase the likelihood of being a private employee, employer and own account worker and reduces the likelihood of being an unpaid family worker compared to a public sector employee. Being older reduces the likelihood of being in all categories compared to the public sector. Having a disability increases the likelihood of being an employer and own account worker. Being married increases the chance of being an employer and reduces the likelihood of being a private employee compared to a public sector employee.

Having lower levels of education compared to G.C.E. (Advanced Level) increases the likelihood of being in all other employment categories like private employee, employer, own account worker and unpaid family worker, compared to a public sector employee.

In terms of household characteristics, being the head of the household increases the likelihood of being an employer and reduces the likelihood of being an unpaid family worker

(compared to a public sector employee). Having a child under 6 reduces the chance of being a private employee and a family worker compared to a public sector employee. Individuals from a poor household are more likely to be private sector employees, own account workers or family workers, compared to public sector employees. Being from a remittance receiving household increases the likelihood of an individual being a private sector employee or own account worker, compared to a public sector employee.

Household social protection income is not a significant determinant of employment status for private sector workers and employers, compared to individuals in the public sector. A significant positive relationship is observed with household social protection income and own account workers, relative to public sector workers. There is a significant negative relationship between household social protection income and unpaid family workers, relative to public sector workers. However, the marginal effects for these relationships are very small (see table A2 in the appendix), and therefore no conclusive interpretations could be made regarding the effect of household social protection income on employment status based on the data.

**Table 3.11: Results for multinomial logistic estimates for all employed individuals**

Variables	Private	Employer	Own account worker	Unpaid family worker
Individual characteristics				
Male	0.3725***	1.1525***	0.3937***	-0.7171***
Age	-0.2414***	-0.1992***	-0.1777***	-0.2616***
Age squared	0.0026***	0.0024***	0.0023***	0.0033**
Disabled	-0.0125	0.3182**	0.1914**	0.2208
Never married	b	b	b	b
Married	-0.2693***	0.8081***	0.1214	-0.1340
Widowed/divorced	0.4192***	1.5906***	0.5819***	-0.0684
Education characteristics				
GCE-A' Levels & above	b	b	b	b
Less than primary level	3.3583***	1.0359***	3.1380***	3.8739***
Secondary level	2.4183***	1.8038***	2.6285***	3.2003***
GCE O' Levels	1.0324***	1.0989***	1.4644***	1.7314***
Household characteristics				
Household size	-0.0060	0.0388	-0.0059	0.0392
Household head	-0.0451	0.4037**	0.1283	-3.2213***
Child under 6	-0.1369**	-0.0374	0.0124	-0.4937***
Elder above 65	-0.1325**	0.0713	-0.0146	-0.4003***
Poor household	1.2131***	-0.5681	0.6544***	0.5992***

Variables	Private	Employer	Own account worker	Unpaid family worker
Household social protection income(% hh expenditure)	0.0031	0.0003	0.0046*	-0.0087*
Remittances from abroad	0.6052***	0.5197	0.4720***	0.1917
Spatial variables				
Urban	b	b	b	b
Rural	-0.2250***	-0.3095**	0.0360	0.5947***
Estate	-1.4119***	-3.4259***	-2.8615***	-3.7845***
Western	b	b	b	b
Central	-1.1944***	-0.3606*	-0.4514***	0.5290***
Southern	-0.4564***	-0.0332	-0.0860	0.5476***
Northern	-1.0838***	-0.8330**	-0.7668***	-0.2756
Eastern	-1.3592***	-1.2082***	-0.8573***	-0.3488
North Western	-0.4616***	-0.4722**	0.2848***	0.9809***
North Central	-1.6308***	-1.4527***	0.0018	1.5424***
Uva	-0.9295***	-0.8018**	0.5096***	2.0614***
Sabaragamuwa	-0.3309***	-0.0253	0.2057**	0.8796***
Constant	5.4711***	-0.8979	1.4897***	1.7076***
Observations	27521			
Pseudo R <sup>2</sup>	0.1961			

Notes: The base category is public sector employee. Significance levels \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Source: Authors' calculations based on HIES 2009/10

## 4. Conclusions

This study provided a detailed analysis of the social protection system in Sri Lanka. It examined various social protection programs in the country and the relationship between social protection and labour market outcomes such as the labour force participation rate and employment status. The study used both qualitative and quantitative analysis.

As discussed in the report, Sri Lanka has a long history of providing social protection to various segments of its population. Social protection policies such as universal free education and health care policy and food subsidy and food ration programs have been implemented by the successive governments since the 1940s. At present, there are numerous social protection programs targeted towards vulnerable groups such as the poor, elderly, disabled persons, children and disaster affected families. These social protection programs can be broadly categorized as social insurance programs, social assistance programs and labour market programs. Social insurance programs in Sri Lanka are largely employment related and involve provision of old-age retirement benefits, medical insurance and maternity benefits. The main social insurance programs include pensions, EPF, ETF and maternity benefits for the formal sector workers and a handful of pension and insurance schemes for informal sector workers. Social assistance programs are large in number and include Samurdhi/Divineguma cash transfer program, elders' assistance program, disability assistance, and education assistance programs such as free school textbook, school uniforms, scholarships and midday meal programs, nutritional programs for children and mothers and disaster relief programs. Furthermore, there are several labour market programs that include livelihood development programs for the poor and vulnerable groups.

Despite the multitude of social protection programs in the country, there are number of gaps and weaknesses in the current system and programs. Many social protection programs including the Samurdhi cash transfer program - the largest programs for the poor- suffer from targeting issues, i.e. both inclusion errors and exclusion errors. Many programs also lack clearly defined eligibility criteria and entry and exist mechanisms, which too have contributed to the poor targeting of these programs. Moreover, the coverage of many programs with the exception of education welfare programs such as school textbooks and school uniform programs were low, with only a fraction of the deserved groups receiving benefits. Furthermore, the study revealed that the value of monthly cash transfers received under many social protection programs including the Samurdhi and PAMA remain low – much lower compared to the national poverty line which identifies the minimum level of income required for a person per month to meet his /her basic needs. Moreover, lack of coordination among programs implemented by different bodies and duplication or multiplicity of programs targeted towards certain vulnerable groups is another weakness in the current system. Budgetary constraints and inequitable distribution of limited resources across programs and population segments is another issues highlighted in the study.

The study stresses the need for improving 'targeting' in programs like Samurdhi/Divineguma, and make better use of the limited resources available for social protection for the benefit of the 'most needy' groups. This would help not only to improve the coverage of the programs

but also to improve the benefit amounts given to beneficiaries. Moreover, strengthening coordination among the programs implemented by various institutions in order to minimize duplications is important to improve resource efficiency (financial and human) and thereby improve the coverage and benefit levels. Given the rapid ageing of population, reforms are also required for the non-contributory pension scheme to reduce the burden on the government budget and to sustain the program. As discussed in the study, cost of the PSPS accounts for a larger share of the total government spending on social protection. Yet, it covers only a smaller share of the elderly in the country.

The quantitative analysis of the study examined the relationship between social protection and labour market outcomes such as the labour force participation and employment status. The findings reveal that social protection income as a share of household expenditure has a marginal negative effect on the probability of an individual's labour force participation. This relationship holds for the prime age and elderly categories of both genders, while no significant effect is observed on the youth category. Although these findings imply that an increase in the share of social protection income in the household income/ expenditure, in particular increase in non-contributory cash income to the household, could reduce the likelihood of an individual's participation in the labour force, given that the marginal effects are very small, it is difficult to draw strong conclusions based on these results. With regard to the effect on employment status, the findings reveal a positive effect on employment categories like own account workers, but again, the marginal effects are very small and hence it is difficult to draw strong conclusions.

The findings of the study further stresses the need to re-look at the structure of the current social protection system and give more emphasis on social protection programs such as skills and livelihood development programs that would help addressing the continuing low labour force participation particularly among females, high level of informal employment, and higher rates of unemployment among youth (and females). Currently, a larger share of the total social protection expenditure in Sri Lanka is spent on the non-contributory pension scheme for the public servants that benefit only a small share of the elderly population, while only a small share of social protection expenditure goes to programs that help improving labour force participation and employment status.

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## Appendix

Table A1: Results for multinomial logistic estimates for all employed individuals

Variables	Public	Private	Employer	Own account
Individual characteristics				
Male	0.7171***	1.0896***	1.8696***	1.1108***
Age	0.2616***	0.0202	0.0624	0.0839***
Age squared	-0.0033***	-0.0007***	-0.0008**	-0.0009***
Disabled	-0.2208	-0.2332**	0.0974	-0.0293
Never married	b	b	b	b
Married	0.1340	-0.1353	0.9422***	0.2554**
Widowed/divorced	0.0684	0.4877**	1.6590***	0.6503**
Education characteristics				
GCE-A' Levels & above	b	b	b	b
Less than primary level	-3.8739***	-0.5156***	-2.8380***	-0.7359***
Secondary level	-3.2003***	-0.7821***	-1.3965***	-0.5718***
GCE O' Levels	-1.7314***	-0.6990***	-0.6325**	-0.2670
Household characteristics				
Household size	-0.0392	-0.0452**	-0.0004	-0.0450*
Household head	3.2213***	3.1763***	3.6250***	3.3497***
Child under 6	0.4937***	0.3569***	0.4563***	0.5061***
Elder above 65	0.4003***	0.2679***	0.4717***	0.3857***
Poor household	-0.5992***	0.6139***	-1.1673***	0.0552
Household social protection income(% hh expenditure)	0.0087*	0.0117**	0.0090	0.0133***
Remittances from abroad	-0.1917	0.4135**	0.3280	0.2803
Spatial variables				
Urban	b	b	b	b
Rural	-0.5947***	-0.8197***	-0.9042***	-0.5587***
Estate	3.7845***	2.3726***	0.3586	0.9230***
Western	b	b	b	b
Central	-0.5290***	-1.7234***	-0.8896***	-0.9805***
Southern	-0.5476***	-1.0040***	-0.5808**	-0.6336***
Northern	0.2756	-0.8082**	-0.5574	-0.4911
Eastern	0.3488	-1.0104***	-0.8594**	-0.5085**
North Western	-0.9809***	-1.4426***	-1.4531***	-0.6961***
North Central	-1.5424***	-3.1732***	-2.9951***	-1.5406***

Variables	Public	Private	Employer	Own account
Uva	-2.0614***	-2.9909***	-2.8632***	-1.5518***
Sabaragamuwa	-0.8796***	-1.2105***	-0.9049***	-0.6739***
Constant	-1.7076***	3.7635***	-2.6055***	-0.2179
Observations	27521			
Pseudo R2	0.1961			

The base category is unpaid family worker. Significance levels \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Source: Authors' calculations based on HIES 2009/10

Table A2: Average marginal effects (continuous) of household social protection income (% household expenditure) from multinomial logistic estimates for employment outcomes of all employed individuals

Employment Outcome	dy/dx	std.error	z	p>z
Public	-0.0003	0.0002	-1.24	0.214
Private	0.0003	0.0003	0.87	0.384
Employer	0.0000	0.0001	-0.42	0.68
Own account worker	0.0006*	0.0003	1.98	0.05
Unpaid family worker	-0.0006**	0.0002	-2.42	0.016

Notes: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Source: Authors' calculations based on HIES 2009/10

## End Notes

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with support from International Development  
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addresses the ways of achieving the  
development priorities of inclusive growth or  
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