

# Thematic Briefs

## Infrastructure



### Social Infrastructure and Inclusive Growth



# **Social Infrastructure and Inclusive Growth**

**Priyanthi Fernando and Mansi Kumarasiri**

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## **Foreword**

In 2010, the Centre for Poverty Analysis made a strategic decision to streamline its research focus along the lines of five thematic research areas. These are: Post conflict development, Infrastructure, Migration, Vulnerability and Environment. The Thematic briefs explore development issues falling within these five areas of research that do not have any direct connection with poverty. This is the first brief published under the Infrastructure Thematic of which Mansi Kumarasiri and Romeshun Kulasabanathan are co-champions.

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The views and opinions expressed in this brief are those of the authors and do not necessarily reflect those of the Centre for Poverty Analysis.

**Priyanthi Fernando**, MA (Leicester) has over 30 years experience in the development sector in Sri Lanka and overseas, coordinating a global network, leading the country team of an international NGO and working with local NGOs. Priyanthi has specialised in social development issues with special reference to the transport and energy sectors, gender analysis, networking and communications.

**Mansi Kumarasiri**, MA (Colombo) is a Research Professional attached to the Poverty Impact Monitoring team at the Centre for Poverty Analysis. Her major research interests are evaluating and assessing poverty impacts of infrastructure projects.

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## 1. Introduction

Efficient, reliable and affordable infrastructure and services are considered essential for economic growth, poverty reduction and sustainable development (Chen, 1996). The argument is that access to economic and social infrastructure will make people more productive, help the poor come out of poverty, enable them to contribute to economic development and to weather any economic or environmental shocks.

Transport, energy, water sanitation and telecommunications are usually referred to as economic infrastructure, and health and education facilities are considered social infrastructure. Within this dual classification, infrastructure can still refer to a variety of different things: it can mean limited access expressways or rural roads; it can refer to decentralised community grids or to large power plants; it can include piped water to urban underserved settlements, or irrigation for bio-fuel plantations.

In as much as the word infrastructure can mean different things to different people, the benefits and costs of infrastructure also are not distributed equally. So while we can say that prosperity is not possible without infrastructure, we also need to ask ourselves the question why, despite so many billions of dollars invested globally in economic infrastructure over the years, about 13% of the world population still has no access to clean water, 19% has no access to electricity and 39% no access to improved sanitation (International Rivers, 2012); or why, despite international commitment to achieving the much publicised MDGs (millennium development goals) one in eight people worldwide remain hungry and too many women continue to die in childbirth; or why it is that it is children from poor and rural households that are much more likely to be out of school than their rich and urban counterparts (Ban Ki Moon, Foreword to the MDG Report, UNDP, 2013).

Sri Lanka is a high achiever in the social sectors, with excellent headline indicators. GDP growth is 8% and the Poverty Head Count Index (measured as the percentage of people below a certain threshold, or poverty line, and calculated on the basis of the ability to consume a certain caloric intake) has dropped from 22.7% in 2002, to 8.9% in 2009. Sri Lanka has also achieved the MDG target of universal primary education. Health indicators are considerably more positive than many other developing countries: average life expectancy is 77 years for women and 72 for men; maternal mortality is 39.3 per 100,000 births; infant mortality is 1.3 infant deaths per 1,000 births; and almost 100% of births are assisted by health personnel.

Many of the development plans and strategies of the Government of Sri Lanka (GOSL) in the 21st century highlight the lack of infrastructure in Sri Lanka, and the need to improve connectivity and integrate lagging regions into the national and international economy. Since 1977, the development plans of successive Sri Lankan governments have emphasised economic infrastructure. Infrastructure projects of the 1980s concentrated on augmenting power generation capacity and irrigation. More recently,

and especially following the end of the war in May 2009, the emphasis has been on the transport sector projects. There is some evidence to show that improvement of infrastructure has contributed to a more inclusive growth (de Silva et al., 2012). Whilst investment in economic infrastructure has been increasing, investment in the social infrastructure is seen to be decreasing, and this can contribute to eroding Sri Lanka's social development and increasing inequality.

## **2. What is Social Infrastructure and Inclusive Growth?**

Sri Lanka's achievements in the social sectors are derived largely from historical public policies that emphasised human development and were universal. Education in government schools was made free of charge in 1938 following the granting of universal franchise in 1931. The colonial education policies had created socio-economic, ethnic, religious and regional disparities in the provision of education and its outcomes, and the advocates of free education aimed to address these inequalities. From 1943, subsidies on the cost of food were begun, and a food ration system was introduced in 1948. A little over two decades later, in 1973, the government began the Thripasha programme, targeting pregnant mothers and young children. By 1951, the government had introduced free health services (Rannan-Eliya & de Mel, 1997, p.27).

In the 1950s and 1960s, about one third of the budgetary expenditure, was allocated for welfare (Ratnayake, 1998) and expenditure on health and education constituted 9.96% of Gross Domestic Product (GDP) in the 1960s and 9.5% of GDP in the 1970s. Following the 1971 insurrection, the government introduced more measures for reducing inequality and disparities, such as land reform, a ceiling on housing ownership, compulsory savings and nationalisation of private enterprise. The welfare/socialistic system has been criticised because of its negative impact on economic growth, especially in the years when the revenue from the plantation economy was no longer able to support it (Amirthalingam, 2008). It has also been seen as a covertly political agenda, a consequence of universal franchise, and targeted at securing the majority vote.

Recent Central Bank Annual reports suggest that even though the government expenditure on education and health have been increasing in monetary terms, their value as a percentage of GDP has been declining. Chatterton & Puerto (undated) determine that South Asian countries growing at a rate of 7.5 percent would create a demand for infrastructure services that require an investment of 7 percent of GDP in economic infrastructure and 2.5% of the GDP in social infrastructure. . Table 1 below shows the changes that in investment in social infrastructure from 2008 and 2011, well below the Chatterton & Puerto estimate.

From a purely economic perspective, investment in the social sector of a country can be justified since it is what creates the productive and skilled workforce that is able to meet the demands of the country's economy. The reduction in the proportion of

**Table 1: Public expenditure on Education and Health 2008-2011**

	% of GDP on education	Total Expenditure on Education (Rs billion)	% of GDP on health	Total Expenditure on Health (Rs billion)
2011	1.9	121.3	1.4	89.2
2010	1.9	104.2	1.3	73.8
2009	2.1	100.5	1.5	71.5
2008	2.3	100.1	1.7	74.5

Source: Annual Reports of the Central Bank of Sri Lanka

government investment in health and education can at a national level undermine the quality of the workforce, while at the same time increase citizens' out of pocket expenses for accessing education and health care. Historically, health and education spending has been funded by government revenue, generated from taxes that are mostly indirect and regressive, but the benefits of these services have largely reached the more disadvantaged. In terms of health, 30% of government health spending has gone to the poorest 20% compared with less than 10% reaching the richest 20%. Wealthier Sri Lankans have tended to pay for accessing private social infrastructure services, while widespread provision of services has enabled many poor families to access government health and education (Rannan-Eliya & de Mel, 1997). If citizens from the more disadvantaged groups are also required to spend on education and health, then the equitable character of the free system is likely to be eroded.

The concept of inclusive growth refers to a development process in which every member of society participates and benefits from economic growth on an equitable basis, with growth broad-based across sectors, and inclusive of a large part of the country's labour force (Lundstorm & Ianchovichina, 2009). The concept "inclusive growth" differs from the notion of pro-poor growth. The pro-poor approach is mainly interested in the welfare of the poor while inclusive growth is concerned with opportunities for the majority of the labour force, poor and middle-class alike. It calls for the creation of an environment conducive to improved productivity levels, labour inclusion and broad-based social policies, and as the term implies is about tackling inequality.

Inequality is becoming the key development challenge of the 21st century. The impetus for tackling it comes from both the developing countries and the more advanced economies, and is driven by both research and popular social movements such as the Arab Spring, Occupy Wall Street or the 2013 protests in Brazil. Much of the conversations around inclusive growth assume that sound market institutions, education, regulation and the rule of law are the best way to bring people out of poverty and create hope and opportunities. 'Inclusive capitalism' is a term that is being bandied around. At the same time there are other conversations about the inadequacy of the

current development paradigm, which recognise that the development path followed by many countries benefits only some, and that the economists' idea of trickle down doesn't always happen. This paper is not about discussing these different positions. (OECD, 2013)<sup>1</sup>. It will only highlight inequalities in education and health provision that continue to exist in Sri Lanka at the time of writing which, despite Sri Lanka's positive social development history, present a challenge to inclusive growth.

### **3. Inequality in education provision and quality of service**

The right to education has been recognised for over six decades in Sri Lanka and free education and incentives that include free textbooks, free school uniforms, subsidised transport and special education programmes for disadvantaged students have promoted equality in the access to education for girls and boys at all levels. As a result, Sri Lanka's headline indicators of education (e.g. universal primary education and high school enrolment figures) are significantly better than those of her South Asian neighbours. But this masks some of the disparities in the spatial distribution of educational services, and in the quality of education provision.

Government schools in Sri Lanka are classified into four types: schools with classes only up to grade 5 or 8 (Type 3), schools with classes only up to grade 11 (Type 2), schools with classes up to Grade 13 but with no science teaching at A/Levels (Type 1C) and schools with classes up to Grade 13 with science teaching at A/Level (Type 1AB). In 2009, only about a quarter of all the government schools island wide provided science teaching at A/Levels (Tilekaratne, 2009).

The distribution of the different types of schools in the different districts varies significantly. The Northern, Eastern, North Central and Sabaragamuwa Provinces in comparison to the other Provinces have a lower number of schools in types 1AB and 1C. In Nuwara Eliya, Vavuniya, Mannar, Mullaitivu, Jaffna and Batticaloa over 40% of the schools have classes only up to grade 5 or 8, and around 20% of the schools have A/Level classes. Unsurprisingly, the Colombo District has 4.3% of all schools and 10.6% of all the schools with A/Level science classes. Colombo, Gampaha, Galle, Hambantota, Jaffna and Kalutara have a higher share of schools with A/Level science teaching (Ministry of Education, 2012).

On average, in Sri Lanka there is one school in every 6 square kilometres but the density between districts varies. In Colombo, there is a school in every 1.6 square kilometres, whereas in Moneragala, Mannar or Mullaitivu, the density of schools is one in every 20 square kilometres. In Moneragala, Nuwara Eliya, Killinochchi and Vavuniya, over a third of the schools have no drinking water and over half have no electricity. There is also no electricity in over 50% of the schools in Mannar, Trincomalee and Mullaitivu. The lack

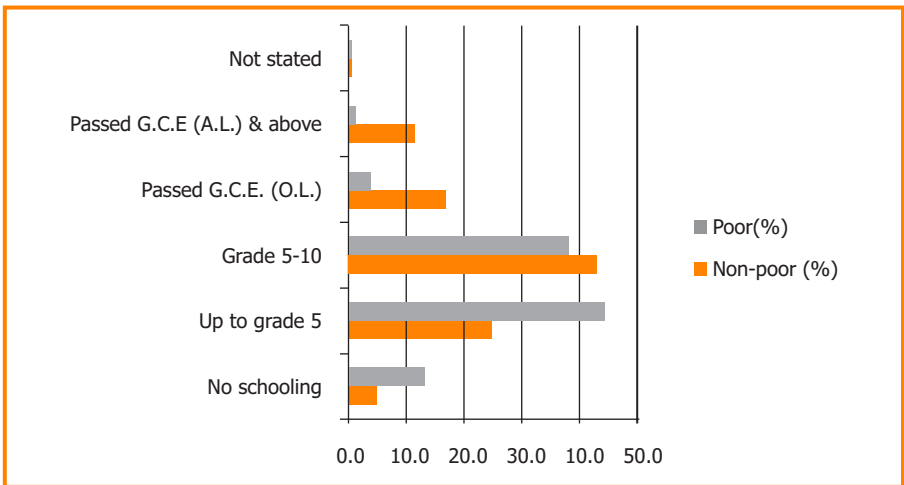
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<sup>1</sup> See *Opinion Notes for the Workshop on Inclusive Growth*, April 2013 of the Organisation for Economic Cooperation and Development (OECD) for a range of views.

of toilets for teachers in schools in these districts reduces their ability to attract teachers (Tilekaratne, 2009). While there are no district level differences in student teacher ratios, the student graduate teacher ratios vary significantly. A quarter of the graduate teachers are in the Western Province and over 50% are in 6 districts (ibid).

The disparities in educational service provision are reflected in participation rates and in educational outcomes. Even though enrolment is relatively high, 9% of schoolchildren do not complete primary education, only 80% of a cohort is enrolled in secondary education, and 39% of those in secondary school make it to the university entrance class. Most of the children not completing primary education are from poorer households, are differently-abled, come from economically disadvantaged geographical regions, conflict affected areas or from the tea and rubber plantations. Work by researchers at the Institute of Policy Studies indicates that primary education completion is lowest in the Uva, Central, North Western and Eastern Provinces (Arunatilake, 2010). The relationship between material deprivation and lack of access to education can be illustrated with the statistics that show that poverty incidence is high among households where the household head has a low educational achievement.

**Chart 1: Poor and non-poor households by educational achievement of the head of household (2006/7)**



Source: *Poverty in Sri Lanka* (based on HIES 2006/7), DCS, 2009

The inability to break from the interaction between inequitable access to education and poverty could cause intergenerational or chronic poverty among certain groups.

In addition to inequitable access, the differences in the quality of education and its relevance to the formal job market, exemplified by the limited provision of science teaching in many schools restricts the usefulness of the education imparted, and

contributes to the existence of a relatively significant percentage of educated unemployed (Table 2 below). Studies carried out by the University Grants Commission and the Southern Provincial Council in 1999 and 2004 respectively, show that Arts graduates comprise a significantly large proportion of all unemployed graduates (Ariyawansa 2008). Sri Lanka has already paid a heavy price for the lack of opportunities for those graduating from the education system: the two southern insurrections in the 1970s and 1980s and to some degree the frustrations of the Tamil youth, were all related to the inequities of the education system (Fernando, 2013).

**Table 2: Unemployment rate by level of education**

Level of Education	Total	Gender	
		Male	Female
Total	4.9	3.5	7.7
Grade 5 & Below	0.7	0.6	0.8
Grade 6-10	3.6	2.8	5.8
G.C.E. (O/L)	6.9	5.4	10.1
G.C.E. (A/L) & above	11.6	7.9	15.8

Source: Labour Force Survey Annual Report 2010, DCS, 2011.

#### 4. Inequality in the provision of health services

The Government of Sri Lanka has been providing free health care for all its citizens for more than half a century, resulting in exceptionally good health indicators (see Box 1).

##### Box 1: Sri Lanka Health Indicators

- Life expectancy has risen steadily to around 77 for females and 72 for males (2002).
- The average number of children that a woman will bear during her lifetime fell below replacement level fertility of 2.1 in 1994.
- MMR ratio for Sri Lanka is 39.3 per 100,000 live births in 2006 and is the lowest in South Asia.
- Infant Mortality Rate (IMR) in Sri Lanka is 8.5 infant deaths per 1,000 live births; the IMR is lower than that achieved by countries wealthier than Sri Lanka

Responsibility for public health services is a devolved subject, and so in addition to the national Ministry of Health, there are also nine provincial ministries of health, plus a Ministry of Indigenous Medicine that oversees ayurvedic medicine provision. The public health sector continues to dominate the health sector. Almost 90-95 percent of

inpatients are served by the government medical facilities at national and sub-national levels, whilst 50 percent of outpatients are served by private sector health services providers (Illangasekera & Fonseka, 2013). Whilst government provides free curative and preventive health services, including medication, the costs incurred by households due to illnesses is seen to be high. Increasing instances of non-communicable diseases and the need for continued expenses related to such chronic diseases, transport costs and the lack of linkages/ interactions between social services and the health services results in these increasing out of pocket expenses (Jayasinghe, 2010/2011).

The health machinery is very extensive: at the end of 2007, Sri Lanka had 608 hospitals, and it is estimated that free allopathic medical services can be obtained within 4.8 kilometers of any home. The number of medical officers per 100,000 people increased from 41.1 to 55.1, in the period 2000 to 2007 and the number of nurses per 100,000 people from 78 to 157.3 in the same period (UNDP, 2012). But the structure is however not distributed equally across the different geographical areas. The Sri Lanka Human Development report says that there are fewer government hospitals in the Northern and Eastern provinces in 2007 compared to the western province, even though the situation is improving (ibid.).

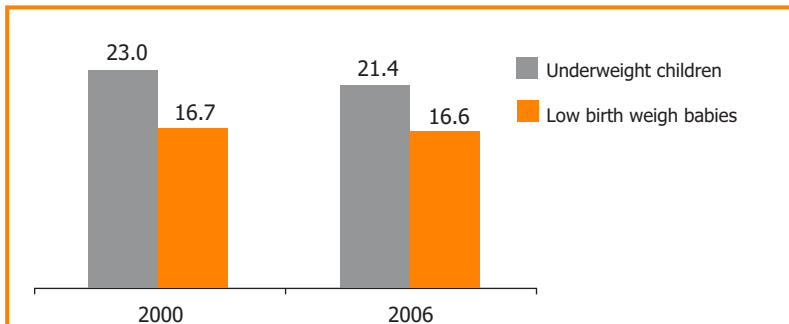
There continue to be several challenges that need to be addressed through increased government investment and/or reform of health services delivery. These are: the persistence of malnutrition, the need to deal with an ageing population, improving health and nutrition services to the different forms of communities such as the war affected communities and the plantation worker communities.

#### 4.1 Malnutrition

Despite many achievements in the health sector, a relatively high level of female education and countless initiatives to address malnourishment, malnutrition continues to be a persistent problem in Sri Lanka (Jayawardene, 2011).

**Chart 2: Underweight children and low birth weight babies, 2000 and 2006**

(Graph sourced from Jayawardene, 2011)

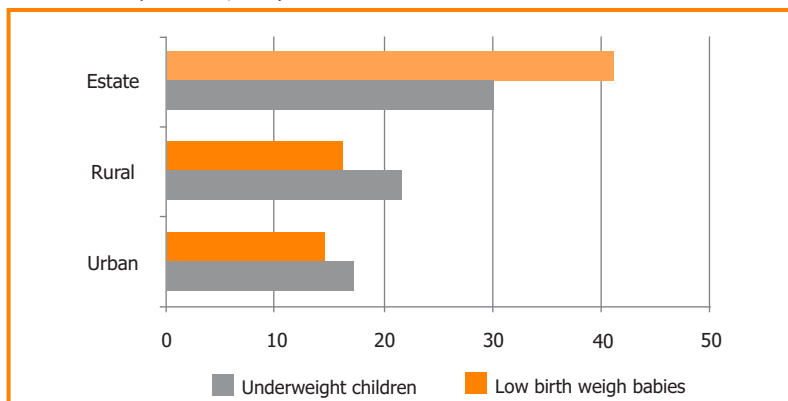


Source: Constructed using DHS-2000 and DHS-2006/07 survey data

Chart 2 shows that the situation hasn't changed much over a six year period, and is worse for some groups. For instance, children in the estate sector are particularly worse off (Chart 3) and in the Nuwara Eliya and Badulla districts, 41% and 35% of children under five are stunted (DCS, 2009) (Department of Census and Statistics). Malnutrition is also related to household income (Chart 4), to mothers' nutritional status, and to mothers' level of education (Jayawardene, 2011).

**Chart 3: Underweight births and underweight children, 2006**

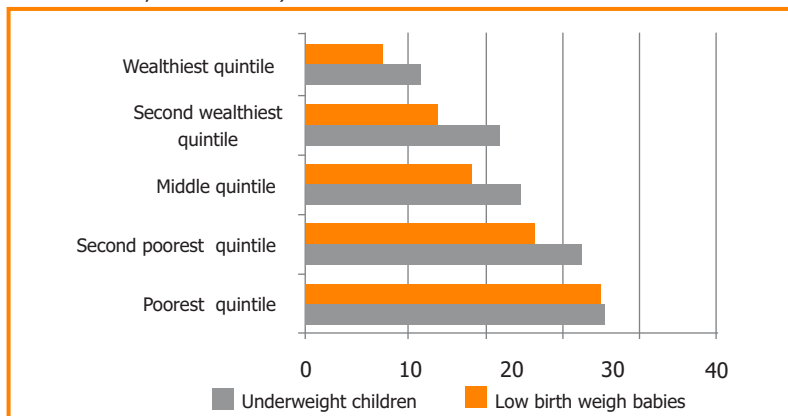
(Graph sourced from Jayawardene, 2011)



Source: Constructed using DHS-2006/07 survey data

**Chart 4: Underweight births and underweight children by wealth quintiles, 2006**

(Graph sourced from Jayawardene 2011)



Source: Constructed using DHS-2006/07 survey data



## **4.2 Dealing with an ageing population**

Sri Lanka's improved health indicators have created their own challenges. Women and men are living longer and the health sector now faces the problem of dealing with non-communicable diseases (NCDs) of a growing cohort of older people. This means re-orienting the health services to reach the elderly, and paying more attention to disability. A World Bank Health, Nutrition and Population discussion paper (Engelgau et al., 2010) says that during the past half-century in Sri Lanka, the proportion of deaths due to circulatory disease (such as heart disease and stroke) has increased from 3 percent to 24 percent, while that due to infectious diseases has decreased from 42 percent to 20 percent. It also goes on to say that mortality rates from NCDs are currently 20–50 percent higher in Sri Lanka than in developed countries. The incidence of NCDs varies between the rich and the poor with heart disease higher among the rich and asthma higher among the poor.

The Government of Sri Lanka (GOSL) recognises the need to reduce the morbidity from NCD, and the importance of getting health services to older people. A primary health care system that is targeted to the elderly is now a priority since many older people are left to care for themselves in their village homes, because their children are either working or have moved to a town (Ministry of Healthcare and Nutrition, 2009) (Ministry of Healthcare and Nutrition). The health care system as it exists will be stretched to provide this support since it is already working with significant shortfalls in staff (CEPA, unpublished, 2013).

## **4.3 The conflict affected areas of the North and East and the Plantation sector**

The health statistics of the North and East, and of the plantation workers lag behind the national averages. Table 3 shows some of the differences for the North and East. There are no official statistics for the North, the Demographic and Health Survey of 2006/07 (DCS, 2009) sampled only the districts of the East. The war affected the health of the people, and damages to facilities, lack of qualified staff and displacement severely disrupted the health service provision. Breakdown of family units has also meant a greater need for other types of social services such as programmes for child protection, assistance for the elderly and disabled, and support for persons affected by psychosocial trauma (UNDP, 2012).

**Table 3: Comparative Indicators of health status: Sri Lanka and the North East**

Health Indicators	Sri Lanka	North-East
Maternal Mortality Rate / 10.000 live births	23	80
Infant Mortality Rate/1.000 live births	15.4 ('98)	30 (2000)
Under five mortality rate	12.9	Not available
Crude Birth Rate/1.000 Population (2000)	17.3	16.82
Life Expectancy at Birth	70.7 / 75.4	Not available
Home deliveries *Muslim communities	4.0%	19.4%
	(31.4% in Batticaloa*) (39.4% in Mannar*)	
Maternal Malnutrition	48%	(24% Severe)
Access to Sanitation	72.6%	48.2%
Total fertility rate	1.9	2.6%
Immunization coverage (under 5 years with a health card)	80.7%	74.5%

Source: *Health System Assessment in North and East of Sri Lanka*, WHO Sri Lanka, 2002 extracted from *Annual Health Bulletin 1999, 2000 and Statistical Health Book NEP 2000, DHS survey 2001* (Wickramage, undated).

Morbidity and mortality rates have been very high on the estates from the beginning of the plantation economy. Since 1930, there were some concerted efforts to improve maternal and infant health by establishing maternity facilities on the estates, and increasing registered estate midwives, but the rates remained high into the early 1970s. With the nationalisation of the plantations in the early 1970s, health service provision to the estates increased and became more comprehensive. The Social Development Division (SDD) of the two government agencies managing the plantations, the Janatha Estates Development Board (JEDB) and the Sri Lanka Plantations Corporation, managed the welfare facilities on the estates with guidance from the Ministry of Health. In 1992, the plantations were restructured and management of 23 regional plantation companies were handed over to the private sector. A Plantation Housing and Social Welfare Trust (PHSWT) was established to provide social welfare services and funded through a levy paid by the private companies and donor funding, but unlike the SDD it had no direct authority over the provision of health care and welfare on the estates and had to work through the different welfare programmes of the companies. A study carried out by CEPA in 2005, recorded some dissatisfaction with the health care provided post-privatisation (Gunetileka, N. et al., 2008). However, the PHSWT has been able to engender a positive change in health status, through monitoring health standards, implementing national health programmes, and introducing special initiatives to address health needs, and also to improve housing, water supply and sanitation facilities.

**Table 4: Health Statistics in the Estate Sector**

Year	agency	population	infant mortality rate	maternal mortality rate	institutional births (%)
1985	JEBD/SLSPC	738,025	49.6	1.2	60.8
1992	JEBD/SLSPC	809,096	27.9	1.2	85.5
1995	PHSWT	849,646	28.5	1.5	90.3
2000	PHSWT	886,936	19.1	1.8	96.0

Source: Sri Lanka Human Development Report, UNDP, 2012, Box 12, p. 7

The efforts have led to a fall in infant mortality from 49.6 per 1,000 live births in 1985 to 19.1 in 2000, which is an improvement of over 60% in 15 years (UNDP, 2012). This is a major achievement, even though the statistics still lag behind the other sectors and national averages. It needs to be noted that much of this improvement is a result of the changes in the Regional Plantation Companies, mainly in the tea sector, and that privately owned estates and rubber plantations are significantly more disadvantaged.

## 5. Conclusions

Inclusive growth has been defined as growth that is based on broad-based social policies, together with improved productivity levels and labour inclusion (Lundstorm & Ianchovichina, 2009). This paper has examined the evolution of social policies in Sri Lanka, with particular reference to social infrastructure in areas of health and education. The sections above have indicated that despite significant levels of social infrastructure provision, and positive social development indicators, Sri Lanka still has significant challenges to meet to continue providing education and health services equitably to all of its citizens.

Equity in the provision of education and health service provision means that all Sri Lankans, irrespective of where they live in Sri Lanka, their ethnicity, age or sex, or how much they earn, should have universal access to basic standards of health and education services. This is an obligation that the government is finding difficult to meet, even though GDP figures are high, the economy is growing at 8% and the country is now in a low middle income status. Providing equitable services would mean reducing the geographical disparities in service provision that continue to exist, as well as improving the quality and relevance of the service provided. This paper did not explore differences in access to social infrastructure in terms of horizontal inequality i.e. by women and men, or by different ethnic groups. But equity in social infrastructure provision would mean ensuring that these inequalities are also considered, and addressed, if everyone is to have an equal chance in benefitting from economic growth. To achieve this, the government may need to increase its investment in social infrastructure through government funds raised from taxes and with a greater sensitivity to the needs of the changing demographic in the case of health service provision and in the case of education, to the needs of the employment market. There appears to be an orientation towards greater private sector involvement in social infrastructure provision. If this is the path being followed, it is important to ensure that services are not clustered in urban and more prosperous areas, and scarce in deprived, rural and plantation sectors and that providers, both state and private, will strive to put the same commitment into the services they deliver for all sections of the community so that everyone can expect the same standard of professional health care and educational services.

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