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SMALLHOLDER RUBBER SECTOR IN THE MONERAGALA DISTRICT: POTENTIALS AND CONSTRAINTS

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SUMMARY

As a timely and appropriate initiative to increase the national rubber production, the Government has taken steps to expand the rubber cultivation into the intermediate agro-climatic zones of Sri Lanka. These non-traditional areas have great potential for profitable rubber cultivation. Yet, there are constraints for rubber cultivation, which can affect the profitability. This article attempts to highlight these potentials and constraints in the smallholder rubber sector in the Moneragala area in the low country intermediate zone of Sri Lanka.

INTRODUCTION

Moneragala district is the second largest district in Sri Lanka with an extent of 565930 ha. However, only about 5% of this area is utilized for permanent crops. As a result, Moneragala district has the lowest contribution from agricultural crops for the Gross Domestic Product (GDP). Further, it is among the poorest districts of Sri Lanka where nearly 37% of the population receiving a per capita monthly income less than Rs.1366 (Department of Census & Statistics, 2004). Therefore, it is a timely requirement to motivate the farmers on permanent crop covers for optimum land use and sustainability. In this connection promoting rubber growing comes into the forefront, which is a friendly environmental initiative and a regular source of income to the farmers.

In this article an attempt is made to compile the information on potentials and constraints collected in a study titled "An innovative initiative to address poverty through enhancing the productivity" focused on the smallholder rubber sector of the Moneragala district.

METHODOLOGY

Data collection was done through secondary sources and by employing participatory approaches. The available reports of Land Use Division and Rubber Development Department (RDD) were reviewed for necessary data collection. Discussions were held with extension personnel of the RDD at the initiation of the project in May 2003 and participatory studies were conducted with smallholder farmers in 4 selected areas in Moneragala, Bibile, Medagama and Badalkumbura Divisional Secretariat (DS) divisions during the period; May to December 2003.

Rubber cultivation in the Moneragala district

Rubber plantations were initially established by the European Companies in the Moneragala district during the mid of 20th century. There were nearly 2804 ha of rubber lands in1956. This amount has been reduced to 2298 ha in 1984 mainly due to acquisition of rubber lands to the state government, which resulted in abandoning some of these lands. However, during the 1993/94 period, a considerable increase was observed in the rubber extent mainly as a result of new planting carried out by smallholder farmers. The establishment of a regional extension office of the RDD in 1993 has also contributed a lot towards this motivation. As a result, the rubber extent has increased to 3035 ha in 2002 (Land Use Planning Division, 2001), which can be regarded as a significant landmark and a new trend in land use pattern in the Moneragala district. The distribution of rubber lands in the divisional secretariat (DS) divisions is listed in Table 1. Rubber plantations are found in 8 of the 11 DS divisions in the Moneragala district.

Table 1. *Distribution of rubber lands in DS divisions of the Moneragala district*

	DS Division	Rubber lands (ha)		Total (ha)
		Replanting	New planting	
01	Badalkumbura	419.2	566.2	985.4
02	Bibila	412.7	133.5	546.2
03	Buttala	80.0	2.4	82.4
04	Moneragala	854.4	134.1	988.5
05	Madulla	3.0	53.2	56.2
06	Siyambalanduwa	-	27.3	27.3
07	Medagama	38.0	171.8	209.8
08	Wellawaya	138.7	-	138.7
	Total	**1946.0**	**1088.5**	**3034.5**

Source: Land use and Planning Division, 2001

Potential for expansion of rubber cultivation

The result of SWOT (Strengths-Weaknesses-Opportunities-Threats) analysis conducted with extension personnel and several smallholder representatives of the area is given in Table 2.

Strengths

Land availability

The areas those were abandoned after sugarcane and shifting cultivation coming under the intermediate zone of the Moneragala district are suitable for the rubber cultivation. The DS divisions such as; Moneragala, Badalkumbura, Medagama, Bibile and some parts of Buttala, Wellawaya and Madulla can be further explored for the expansion of rubber cultivation. There is about 20000 ha (Table 3) of land still available for rubber cultivation coupled with abundant labour supply in

this district. Hence, there is also a great socio-economic benefit through expansion of rubber cultivation in the Moneragala district.

Labour availability

The total population of the Moneragala district according to the census done in 2001 was 396,173 heads and 98% of this population resides in rural areas. Male population consists of 50.6%. The portion under 18 years is about 39%. Moneragala district has the second lowest population according to the census. However, there is an increase from 49 heads per km^2 in 1981 to 72 heads per km^2 in 2001. Generally, Moneragala district has a high land to man ratio of 1.4 ha (Table 4) when compared to other districts, which gives an indication of the land availability and scope for the expansion of rubber industry.

When the employment pattern is considered, 74% of the population is involved in agriculture while the rest is involved in other employment. Nearly 60% of the families are *Samurdhi* recipients, which is an indirect indicator of the poverty status of this district. Fig.1 depicts percentages of *Samurdhi* recipient families in each DS division. Madulla has the highest number of *Samurdhi* recipients followed by Wellawaya, Buttala and Medagama.

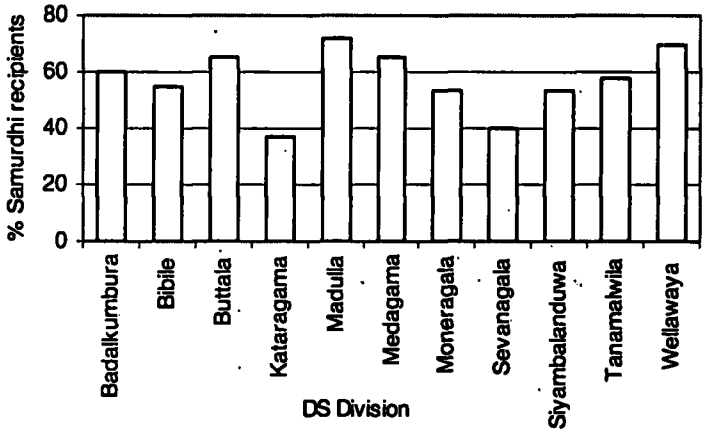

Fig. 1. Distribution of Samurdhi recipients in different DS divisions in the Moneragala district

Low rain interference for tapping

Moneragala district has lower number of wet days compared to traditional rubber growing areas (Fig. 2). In addition, the morning relative humidity was reported to be low, which is a significant factor that helps a speedy drying of tapping panels.

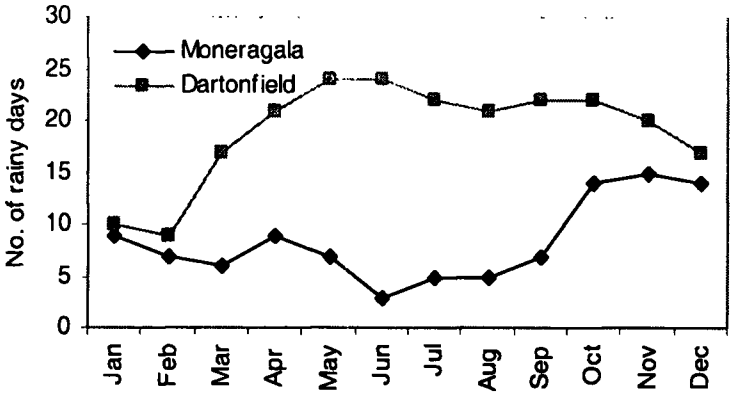

Fig. 2. A comparison of monthly rainy days in Moneragala (IL1c) and Dartonfield (WL1) Low Country Intermediate Zone (IL – Low Country Intermediate Zone, WL – Low Country Wet Zone)

Opportunities

The opportunities listed in Table 2 are the driving forces of the strengths identified for rubber growing in Moneragala district, where national requirement to increase the rubber production and Government sponsorship were identified as the major opportunities. There is a growing demand for rubber in the international and local markets as well. However, the annual production is still below 100000 MT. As a consequence, the Government has taken up an initiative to expand rubber cultivation to comparatively drier areas of Sri Lanka, where the land and labour is available, and interferences to harvesting of rubber due to rain is minimum. The Moneragala Rubber Project (MRP) consists of 3 planting systems; namely, nucleus rubber estates, out-growers and smallholders. The MRP, if properly implemented will be in a win-win situation, which addresses directly, two of the themes 'poverty alleviation' and 'environmental sustainability' laid down in the Millennium Development Goals (MDGs). Rubber prices are satisfactory at present and for the last two years as well. It is also an inducing factor for rubber cultivation and makes people more enthusiastic and positive on rubber planting.

Constraints for expansion of rubber cultivation

Being a non-traditional rubber growing area, the main problem with regard to rubber cultivation in this district is the lack of awareness on recommended agronomic practices on rubber growing. Low capital availability and inefficient extension service affect on the adoption of these agronomic practices. Several other reasons were identified as 'threats' to the industry in a discussion with the officers in the Moneragala region of RDD as listed in Table 2.

Table 2. *Strengths, weaknesses, opportunities and threats for the rubber industry in Moneragala district*

Strengths, weaknesses, opportunities and threats		Marks out of 10
Strengths		
1.	High land availability	8
2.	More number of tapping days (low rain interference)	7
3.	More number of people without a permanent income	5
4.	High labour availability	4
5.	More number of people with high tendency for agriculture	3
6.	Low incidences of diseases	2
Weaknesses		
1.	Low capital availability	8
2.	Inefficient extension service	7
3.	Low technical knowledge on rubber industry	6
4.	Uncertainty on new technologies (unwillingness give up traditional approaches)	3
Opportunities		
1.	National requirement to increase the rubber production	8
2.	Government sponsorship	7
3.	High rubber prices	6
4.	Being an opportunity to receive state owned lands for the landless people	5
5.	Enthusiasm of people	4
6.	Low availability of alternative crops	3
Threats		
1.	No proper market	7
2.	Sugarcane plantations being a threat	5
3.	Natural hazards - such as fire	3
4.	Political interference	2

Table 3. *Land availability for rubber cultivation in the Moneragala district according to agro-ecological regions*

	DS Division	Agro-ecological region	Extent (ha)
01	Badalkumbura	IM2b, IL1c	4114
02	Bibila	IL1c, IL2	2836
03	Buttala	IL1c	488
04	Moneragala	IM2b, IL1c	3553
05	Madulla	IL2	3116
06	Siyambalanduwa	IL2	2296
07	Medagama	IM2b, IL1c	5516
08	Wellawaya	IM2b, IL1c	614
	Total		**22533**

Source: Land Use and Planning Division, Moneragala. 2001.

Table 4. *Land to man ratios of different DS divisions in the Moneragala district – 2001*

	DS Division	Land to Man ratio (ha.)
01	Badalkumbura	0.7
02	Bibila	1.4
03	Buttala	1.4
04	Moneragala	0.8
05	Madulla	2.5
06	Siyambalanduwa	2.2
07	Medagama	0.8
08	Wellawaya	1.2
09	Kataragama	3.6
10	Sevanagala	0.7
11	Tanamalwila	2.3
	Average	**1.4**

Source: Dept. of Census and Statistics, 2004

The profitability of smallholder rubber farming in the Moneragala area is debatable due to poor technical know-how and market facilities, although blessed with more number of tapping days. Further, according to a recent study done in the smallholder sector covering 4 villages in the Moneragala district by Wijesuriya *et al.* (2004), the living conditions are reported to be low indicating insufficient capital to invest on technical recommendations. Further, awareness and adoption of recommendations is low which can result in long immature period where the farmers cannot get any income from rubber due to poor growth and will give poor yields during the mature phase. Hence, there is a risk of resource wastage unless proper attention is paid at initial stages. Moreover, there may be a tendency to diversify into other crops or uses unless rubber farming is productive. Thus, the institutions involved in research and development in the rubber sector, have a major role to play in various aspects; *viz.* formulating appropriate policy measures, establishing a better marketing network, introducing improved appropriate technologies, creating awareness on them and improving adoption through proper extension services.

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REFERENCES

Department of Census and Statistics (2004). Household income and expenditure survey – 2002. Department of Census and Statistics, Colombo 7.

Department of Census and Statistics (2004). Official poverty line for Sri Lanka. Department of Census and Statistics, Colombo 7.

Land use and Planning Division (2001). Identification of lands for rubber cultivation in the Moneragala district, Land use planning division. District Secretariat, Moneragala.

Wijesuriya, Wasana, Dissanayake, D M A P, Herath, H M L K, Edirisinghe, J C and Abeywardana, V (2004). Strategies for enhancing the productivity in smallholder units of non-traditional rubber growing areas in Sri Lanka, Final Report submitted to Centre for Poverty Analysis (CEPA) under Innovative Initiatives to Address Poverty, Rubber Research Institute of Sri Lanka.