



# Kenya Forestry Research Institute (KEFRI)

## CONTRIBUTION OF PELIS IN INCREASING TREE COVER AND COMMUNITY LIVELIHOODS IN KENYA

### 1.0 Introduction

Plantation Establishment and Livelihood Improvement Scheme is a system whereby Kenya Forest Service (KFS) allows forest adjacent community, through community forest associations the right to cultivate agricultural crops during the early stages of forest plantation establishment. Cultivation is often allowed to continue for 3 to 4 years until tree canopy closes. PELIS scheme is meant to improve

economic gains of participating farmers while ensuring success of planted trees. Plantation Establishment and Livelihood Improvement Scheme (PELIS) has been used to establish forest plantations in Kenya since 2007. PELIS was first rolled out in 24 forest stations in Mau, North Rift, Central and Eastern conservancies. This brochure reviews the status of PELIS and lessons learnt in its implementation.

### 2.0. Review of PELIS

#### 2.1. Area under PELIS

The area under PELIS increased from 2933 ha in 2010/2011 financial year to 9939 ha in 2012/2013 (Figure 1). The area under PELIS in conservancies and counties is as shown in Table 1.

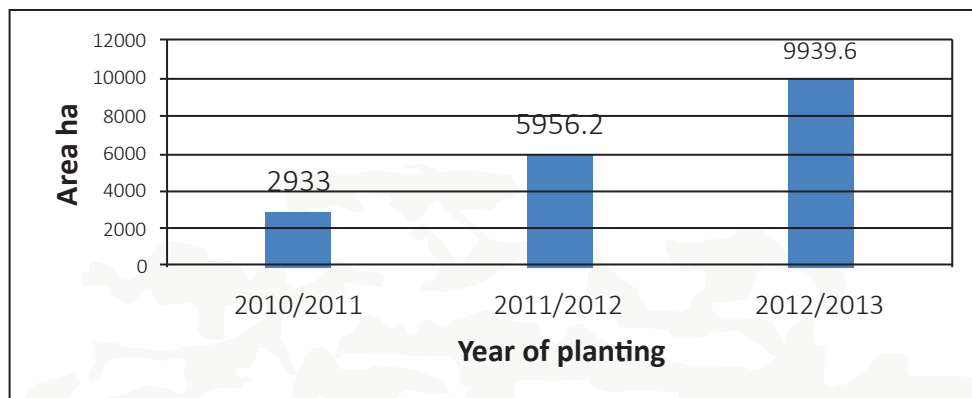


Figure 1: Trend of total new area under PELIS

Table 1: Area of plantation under PELIS

Conservancy	County	Area Ha	Seeding survival %
Central Highlands	Kiambu	1185.6	70
	Nyandarua	2188.98	79.2
	Nyeri	1017.6	74
Mau		4392.18	74.4
	Baringo	3816.2	56
	Kericho	1624.7	65
	KFC	165	
	Nakuru	1784.9	64
		7588.4	62.5
Nairobi	Kajiado	126.6	78
North Rift	Elegeyo Marakwet	1291.9	
	Nandi	245.1	77
	Tranzoia	818.3	51
	Uasin Gishu	1973.35	54
		4455.25	65
Nyanza	Migori	75	
Western	Bungoma	1035.8	55
	Kakamega	1259.4	55

## 2.2. Tree seedling survival

Tree seedling survival under PELIS is generally good. Case studies done in Gathiuru, Kamae and Thogoto registered over 75% survival compared to Bahati, Timboroa and Dundori that had survival below 75% (Figure 2).

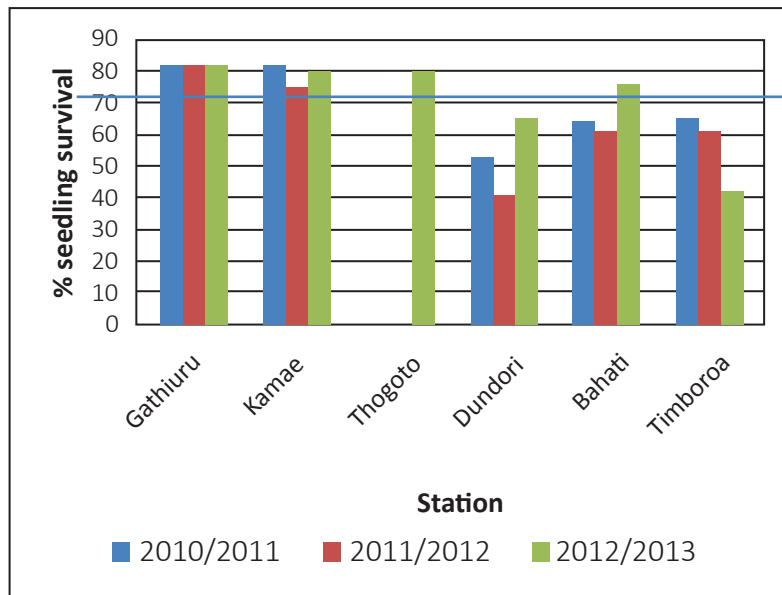


Figure 2: Tree seedling survival from different forest stations

## 2.3. Cost benefit analysis

PELIS has economic benefits to both Kenya Forest Service and farmers. Kenya Forest Service benefits from; low plantation establishment costs and high tree seedling survival. Case studies on cost benefit analysis have shown farmers benefiting from PELIS with a net present value for 4 years at Ksh. 1,272,573/ha. In the case study potato growing was about four times more profitable than maize and beans (Table 2).

Main food crop	NPV / HA for 4 yrs	Area ha	Income Kshs
Potatoes	1,002,931	8,413	8,437,207,184
Maize & Beans	269,642	22,239	5,996,527,992
Toatal	1,272,573	30,651	14,433,735,176

## 3.0. Lessons learnt

- Farmers will participate in PELIS if they perceive a positive economic gain.
- Contribution of PELIS to the economy is in the range of Ksh. 14 billion.
- Implementation of PELIS through Community Forest Associations has been successful due to their governance structures and joint agreements with KFS.
- Raising plantation under PELIS is cost effective.
- PELIS can play a major role in ensuring national food security.

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