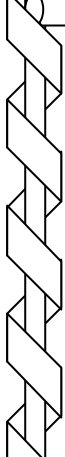

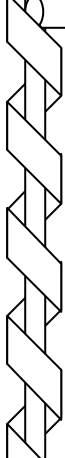
	<p>TREE RESOURCES OUTSIDE FOREST</p> <p>FSI started in 1991-92</p> <p>Objectives</p> <ul style="list-style-type: none"> ☉To assess extent of plantation raised under different forest schemes by different agencies and individuals
	<ul style="list-style-type: none"> ☉To estimate growing stock and species wise number of trees available in TOF
	<p>Consideration zone</p> <ul style="list-style-type: none"> ☉State in case of small states ☉Group of districts in case of large states
	<p>Definition</p> <ul style="list-style-type: none"> ☉All areas outside the traditional Reserved Forests and Protected Forests ☉Excludes area of Municipality, Corporation, Cantonment Board or a notified area Committee

	<p>TREE RESOURCES OUTSIDE FOREST</p> <p>Category of Plantation/tree</p> <ul style="list-style-type: none"> ☉Farm forestry: Trees along the farm bunds and in small patches up to 0.1 ha. in area.
	<ul style="list-style-type: none"> ☉Village woodlot: Naturally growing trees/Planted on community/private land.
	<ul style="list-style-type: none"> ☉Block plantation: Patches covering an area of more than 0.1 ha. and not falling in any of the above.
	<ul style="list-style-type: none"> ☉Roadside plantation ☉Pond side plantation ☉Railway side plantation ☉Canal side plantation ☉Others: Trees not falling in any of the above categories.

TREE RESOURCES OUTSIDE FOREST

Sampling Design

Stratified random sampling

Agro - Climatic Zones First stage strata.

Districts Second stage strata

Villages Sampling units

Estimation of sample size for the whole state. The given formula will be used with the Mean and Standard deviation, obtained from Non - forest areas of the selected villages and with permissible error (r) 15%.

$$n = \frac{\left(\frac{t_{\alpha/2} \times cv.}{r} \right)^2}{1 + \frac{1}{N} \left(\frac{t_{\alpha/2} \times cv.}{r} \right)^2}$$

Method of ratio estimation has been used to estimate different parameters like, species wise growing stock, number of stems in different categories of plantations.

TREE RESOURCES OUTSIDE FOREST

RESULTS

State	No. of Trees (000)	Volume (000 cu m)	Cover (Notional)* (sq. km)
Haryana	54,984	10,328	1,375
West U.P	1,33,982	30,306	3,350
West Bengal	1,96,000	---	4,900 [§]

* It is calculated on the basis of 400 trees per hectare.

§ It also includes the trees of 5 cm and above girth.

TREE RESOURCES OUTSIDE FOREST		
HARYANA RESULTS		
Non forest area		43,596 sq.km
No. of sample villages		219
Estimated no. of trees (000)		54,984
Estimated volume (000 cu.m)		10,328
No. of trees per hectare		13
	Percent	Percent
Category	of volume	No. of trees
Farm forestry	41	42.88
Village woodlot	23	19.49
	Species	
<i>Acacia nilotica</i>	22	25.12
<i>Eucalyptus spp.</i>	21	19.44
<i>Prosopis cineraria</i>	15	12.53

TREE RESOURCES OUTSIDE FOREST		
WEST U.P RESULTS		
Non forest area		762,518 sq.km
No. of sample villages		376
Estimated no. of trees (000)		133,982
Estimated volume (000 cu.m)		30,306
No. of trees per hectare		19.7
	Percent	Percent
Category	of volume	No. of trees
Farm forestry	70.08	67.56
Block plantation	17.53	26.40
	Species	
<i>Mangifera indica</i>	18.01	24.16
<i>Eucalyptus spp.</i>	13.15	17.22
<i>Dalbergia sissoo</i>	28.42	12.27

TREE RESOURCES OUTSIDE FOREST
WEST BENGAL RESULTS

Goographical area	88,700 sq. km
No. of sample villages	25
Estimated no. of trees (000)	196,000
No. of trees per hectare	25.41

Category	Percent of volume	Percent No. of trees
Block plantation	--	17.19
Pond	--	16.37
Species		
<i>Mangifera indica</i>	--	12.14
<i>Eucalyptus spp.</i>	--	10.74
<i>Acacia auriculliformis</i>	--	10.03

TREE RESOURCES OUTSIDE FOREST

It was found from the inventory of non-forest area of Haryana, West U.P. and West Bengal that there exists significant positive correlation (0.6-0.8) between non forest area of village and number of trees and also between population of a village and number of trees.

* More the non forest area more the number of trees in the villages

* More the population more the number of trees in the village

