

Estimación de los componentes “Plantados” y de “Regeneración natural asistida” de los Bosques semi-naturales

(Sírvese hacer referencia a la **Sección 2**, Documento de Trabajo FP35)

En las primeras filas de la tabla 2a, figuran las cifras absolutas suministradas en la tabla T4 del Informe nacional sobre los Bosques semi-naturales. Sírvese suministrar el porcentaje (%) del componente plantado y el porcentaje del componente de regeneración natural asistida de los Bosques semi-naturales durante los años 1990, 2000 y 2005²⁵ (Sus datos figurarán en la sección amarilla de la tabla).

Tabla 2a: FRA 2005 porcentaje del área de los Bosques semi-naturales y estimaciones de los componentes “Plantados” y de “Regeneración natural asistida” de los Bosques semi-naturales

Año	1990			2000			2005		
FRA Bosques semi-naturales	Cifras absolutas (1000 ha)								
	26			26			26		
Componentes de los Bosques semi-naturales	Cifras relativas (%)								
	plantados (%)	Asistidos (%)	Total (%)	plantados (%)	asistidos (%)	Total (%)	Plantados (%)	asistidos (%)	Total (%)
Estimaciones	97	3	100	97	3	100	97	3	100

Fuentes:

- Actualización de la Evaluación de los Recursos Forestales al 2005, FAO 2004/5, Informe nacional.
- El experto en Bosques plantados hará una lista de documentos de referencia en la sección bibliográfica.

²⁵ La última fila de la Tabla 4a debe ser completada por el experto en Bosques plantados.

Las estimaciones de los componentes plantados y de regeneración natural asistida de los Bosques semi-naturales deben totalizar el 100%.

Estimación del componente plantado de los Bosques semi-naturales para fines productivos y de protección

(Sírvese hacer referencia a la **Sección 3**, Documento de Trabajo FP35)

En la tabla 2b, sírvase estimar el porcentaje del área que abarca el componente plantado de los Bosques semi-naturales²⁶ destinado a fines de producción y de protección en los años 1990, 2000, 2005. Sus datos figurarán en la sección amarilla.

Tabla 2b: componente plantado de los Bosques semi-naturales para fines productivos y de protección

Año	1990			2000			2005		
Componente plantado de los Bosques semi-naturales	Cifras relativas (%)								
	de producción (%)	de protección (%)	Total (%)	de producción (%)	de protección (%)	Total (%)	de producción (%)	de protección (%)	Total (%)
	100		100	100		100	100		100

Fuente: El experto en Bosques plantados hará una lista de los documentos de referencia en la sección bibliográfica.

²⁶ Las estimaciones sobre los bosques para fines productivos y de protección deben totalizar el 100%.

Informe sobre el IMA (Incremento Medio Anual), la duración del ciclo de rotación, el rendimiento del volumen de aprovechamiento, y la distribución por clase de edad de las 10 especies principales del componente plantado de los Bosques semi-naturales (para la producción y para la protección) y de los bosques de plantaciones (para la producción y la protección).

(Sírvese hacer referencia a la **Sección 5**, del Documento de Trabajo FP35)

En las tablas 3 (a, b, c, d), sírvase suministrar los porcentajes de las 10 especies principales utilizadas en su país **sólo para el año 2005**.

En la tabla 3a: Sírvase suministrar las 10 especies principales para el **componente plantado de los Bosques semi-naturales para la producción**

En la tabla 3b: suministre las 10 especies principales del **componente plantado de los Bosques semi-naturales para la protección**

En la tabla 3c: suministre las 10 especies principales de los **Bosques de plantaciones para la producción**

En la tabla 3d: suministre las 10 especies principales en los **Bosques de plantaciones para la protección**

En cada tabla, sírvase agrupar las especies restantes dentro de la clasificación 11 denominada “Otros”.

El total de los porcentajes para las 11 clasificaciones debe sumar el 100%.

Sírvese suministrar los mejores datos en absoluto acerca de cada una de las especies en lo que se refiere al: Incremento Medio Anual (IMA), la duración del ciclo de rotación y el rendimiento del volumen de aprovechamiento.

Finalmente suministre una estimación porcentual (%) de la distribución por edad. **La distribución por edad debe sumar el 100%.**

Tabla 3a: Componente plantado de los bosques semi-naturales para la producción. Composición de las especies (%), Incremento Medio Anual (m³/ha/año), Duración del ciclo de rotación (años), rendimiento del volumen de aprovechamiento (m³/ha) y distribución por clase de edad (%). Sus datos figurarán en la sección amarilla

Año de referencia: 2005

10 principales especies plantadas	%	Incremento Medio Anual		Duración del ciclo de rotación predominante		Rendimiento vol. de aprovechamiento		Distribución por clase de edad %											
		m ³ /ha/año		años		m ³ /ha		0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total	
		Min	Max	Min	Max	Min	Max												
1) Prosopis tamarugo (*)	79											95		1	4				100
2) Prosopis chilensis (*)	17											100							100
3)																			
4)																			
5)																			
6)																			
7)																			
8)																			
9)																			
10)																			
11) Otros	4																		
Total	100																		

Fuente: el experto en Bosques plantados hará una lista de los documentos de referencia en la sección bibliográfica.

(*) En base a datos de inventario forestal del año 1983 (Instituto Forestal, INFOR, 1983). (Sujeto a confirmación).

Tabla 3b: Componente plantado de los Bosques semi-naturales para la protección. Composición de las especies (%), Incremento Medio Anual (m³/ha/año), Duración del ciclo de rotación (en años), rendimiento del volumen de aprovechamiento (m³/ha) y distribución por clase de edad (%). Sus datos figurarán en la sección amarilla

Año de referencia: 2005

10 principales especies plantadas	%	Incremento Medio Anual		Duración del ciclo de rotación predominante años		Rendimiento vol. de aprovechamiento m ³ /ha		Distribución por clase de edad %												
		m ³ /ha/año		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
		Min	Max																	
1)																				
2)																				
3)																				
4)																				
5)																				
6)																				
7)																				
8)																				
9)																				
10)																				
11) Otros																				
Total	100																			

Fuente: El experto en Bosques plantados hará una lista de los documentos de referencia en la sección bibliográfica.

Tabla 3c: Bosques de plantaciones para la producción. Composición de las especies (%), Incremento Medio Anual (m³/ha/año), Duración del ciclo de rotación (en años), rendimiento del volumen de aprovechamiento (m³/ha) y distribución por clase de edad (%). Sus datos figurarán en la sección amarilla.

Año de referencia: 2005

10 principales especies plantadas	%	Incremento Medio Anual		Duración del ciclo de rotación predominante años		Rendimiento vol. de aprovechamiento m ³ /ha		Distribución por clase de edad %												
		m ³ /ha/año		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
		Min	Max																	
1) Pinus radiata	70.6	14	34	18	28	260	580	24.3	24.9	38.7	11.4	0.7								100
2) Eucalyptus spp. (*)	24.5	15	36	8	12	130	400	54.2	31.3	13.1	1.1	0.3								100
3) Pseudotsuga menziesii	0.8	10	18	30	50	400	550													
4) Populus spp.	0.3	28	42	10	16	300	500	18.9	42.6	38.5										100
5) Acacia saligna	0.2																			
6) Acacia Melanoxydon	0.12	10	20	15	45	200	400													
7) Acacia Dealbata	0.08	10	20	15	45	200	400													
8)																				
9)																				
10) Otras spp.																				
Total	100																			

Fuente: el experto en bosques plantados hará una lista de los documentos de referencia en la sección bibliográfica.

Notas: La clase 30-40 incluye todas las clases de edad 31 y más. La distribución de edades en eucalipto es una estimación de la estructura de edades practicada para el año 2001.

La estructura de edades en *Populus* spp. se basa en inventarios recientes de existencias (2003-2004) en las dos principales regiones del país en las que están establecidas estas plantaciones (VI y VII Regiones, con ¾ partes de la superficie total plantada nacional con *Populus* spp., que asciende a aproximadamente 6.000 ha).

(**) La información para Acacia, corresponde a las especies *A. melanoxylon* y *A. dealbata*. La mayor superficie plantada en acacias corresponde a *A. saligna*, para uso forrajero en zonas semiáridas (Norte Chico de Chile).

Tabla 3d: Bosques de plantaciones para la protección. Composición de las especies (%), Incremento Medio Anual (m³/ha/año), Duración del ciclo de rotación (en años), Rendimiento del volumen de aprovechamiento (m³/ha) y distribución por clase de edad (%). Sus datos figurarán en la sección amarilla.

Año de referencia: 2005

10 principales especies plantadas	%	Incremento Medio Anual m ³ /ha/año		Duración del ciclo de rotación predominante años		Rendimiento vol. de aprovechamiento m ³ /ha		Distribución por clase de edad %											
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total	
1)																			
2)																			
3)																			
4)																			
5)																			
6)																			
7)																			
8)																			
9)																			
10) Otros																			
Total	100																		

Fuente: el especialista en bosques plantados hará una lista de los documentos de referencia en la sección bibliográfica.

Estimación de la propiedad de los Bosques plantados

(Sírvese hacer referencia a la **Sección 6**, del Documento de Trabajo FP35)

Se le solicita suministre en las tablas 4 (a, b, c, d), los detalles acerca de la propiedad en términos porcentuales“%” de: los componentes plantados de los Bosques semi-naturales (para la producción y para la protección) así como acerca de los bosques de plantaciones (para la producción y para la protección).

Los porcentajes totales de las categorías de propiedad deben sumar el 100%

Tabla 4a: Componente plantado de los Bosques semi-naturales para la producción. Sus datos figurarán en la sección amarilla.

Año de referencia	1990					2000					2005				
Componentes plantados del bosque semi-natural para la producción	Calculado en la Tabla 2b (%)														
	Cifras calculadas en la tabla 2b					Cifras calculadas en la tabla 2b					Cifras calculadas en la tabla 2b				
	Propiedad (%)														
Propiedad	Pública	Privada		Otros	Total	Pública	Privada		Otros	Total	Pública	Privada		Otros	Total
		Compañía	Pequeños propietarios				Compañía	Pequeños propietarios				Compañía	Pequeños propietarios		
	100 (*)				100	100				100	100				100

Fuente: el especialista en bosques plantados hará una lista de los documentos de referencia en la sección bibliográfica.

(*) Corporación Nacional Forestal, CONAF (SNASPE). Reserva Nacional Pampa del Tamarugal.

Tabla 4b: Componente plantado de los Bosques semi-naturales para la protección. Sus datos figurarán en la sección amarilla.

Año de referencia	1990					2000					2005				
Componentes plantados de los bosques semi-naturales para la protección	Calculado en % en la Tabla 2b (%)														
	Cifras calculadas en la tabla 2b					Cifras calculadas en la tabla 2b					Cifras calculadas en la tabla 2b				
	Propiedad (%)														
Propiedad	Pública	Privada		Otros	Total	Pública	Privada		Otros	Total	Pública	Privada		Otros	Total
		Compañía	Pequeños propietarios				Compañía	Pequeños propietarios				Compañía	Pequeños propietarios		
					100					100					100

Fuente: el experto en Bosques de plantaciones hará una lista de documentos de referencia en la sección bibliográfica.

Tabla 4c: Bosques de plantaciones para la producción. Sus datos figurarán en la sección amarilla.

Año de referencia	1990					2000					2005				
Plantación para la producción	Área indicada en la Tabla 1 (1000 ha)														
	1741					2354					2661				
Ownership (%)															
Propiedad	Pública	Privada		Otros	Total	Pública	Privada		Otros	Total	Pública	Privada		Otros	Total
		Compañía	Pequeños propietarios				Compañía	Pequeños propietarios				Compañía	Pequeños propietarios		
	0.5	64.9	34.6	-	100	0.3	70.4	29.3	-	100	0.3	72.1	27.6	-	100

Fuente: el experto en Bosques plantados hará una lista de los documentos de referencia en la sección bibliográfica.

Notas:

- ❖ Las plantaciones de propiedad pública están en su gran mayoría bajo la administración del servicio forestal nacional (Corporación Nacional Forestal, CONAF) y forman parte de algunas Reservas Forestales Nacionales (una de las categorías del Sistema de Areas Silvestres Protegidas del Estado, SNASPE).
- ❖ La propiedad de las plantaciones forestales en manos de compañías o empresas que se informan representan a los grandes holdings forestales (dos: Arauco y CMPC) y otras grandes empresas. En total suman unas siete compañías.
- ❖ El segmento pequeños propietarios, comprende en verdad, lo que en Chile se denomina PYMEs (pequeños y medianos propietarios o empresas).

Tabla 4d: Bosques de plantaciones para la protección. Sus datos figurarán en la sección amarilla.

Año de referencia	1990					2000					2005				
Plantación para la protección	Área que figura en la Tabla 1 (1000 ha)														
	0					0					0				
Propiedad (%)															
Propiedad	Pública	Privada		Otros	Total	Pública	Privada		Otros	Total	Pública	Privada		Otros	Total
		Compañía	Pequeños propietarios				Compañía	Pequeños propietarios				Compañía	Pequeños propietarios		
					100					100					100

Fuente: el experto en Bosques plantados hará una lista de los documentos de referencia en la sección bibliográfica.

Estimación de la finalidad predominante de los bosques plantados

(Sírvese hacer referencia a la Sección 7, Documento de Trabajo FP35)

En las tablas 5 (a, b) del cuestionario, relativas a las categorías destinadas a la producción y a la protección, sírvase estimar, en %²⁷ el área de los componentes plantados de los bosques semi-naturales, (tabla 5^a) **destinados a un fin predominante**, la cual está relacionada con las cifras calculadas en la tabla 2b. Así como el área de los Bosques de plantaciones (tabla 5b), la cual está relacionada con las cifras suministradas en la tabla 1.

Tabla 5a: Estimaciones detalladas acerca de la finalidad del componente plantado de los bosques semi-naturales en porcentaje del área. Sus datos figurarán en la sección amarilla.

Finalidad según FRA	1990	2000	2005	Finalidad predominante	1990	2000	2005
	Estimaciones tomadas de la tabla 2b (%)				%	%	%
de producción	Dato de la Tabla 2b	Dato de la Tabla 2b	Dato de la Tabla 2b	Madera aserrada industrial			
				Pasta/fibra industrial			
				Bioenergía industrial			
				Producto Forestal no maderero industrial (*)	100	100	100
				No especificado, industrial			
Total				100	100	100	
de protección	Dato de la Tabla 2b	Dato de la Tabla 2b	Dato de la Tabla 2b	Ambiental no industrial			
				Recreación no industrial			
				No especificado no industrial			
				Leña no industrial			
Total				100	100	100	

Fuente: el experto en Bsques plantados hará una lista de los documentos de referencia en la sección bibliográfica.

(*) Producción de forraje (fruto) para ganado de pequeñas comunidades de la Pampa del Tamarugal, Provincia de Iquique, I Región de Tarapacá.

²⁷ Las estimaciones de la finalidad predominante deben sumar el 100% en cada categoría.

Tabla 5b: Estimaciones detalladas acerca de la finalidad de los bosques de plantaciones por porcentaje del área. Sus datos figurarán en la sección amarilla.

Finalidad según FRA	1990	2000	2005	Fin predominante	1990	2000	2005
	Estimaciones tomadas de la Tabla 1 (000 ha)				%	%	%
de producción	1741	2354	2661	Madera aserrada industrial	49.07	46.67	48.47
				Pasta/Fibra industrial	18.20	32.92	35.03
				Bioenergía industrial	0.01	0.01	0.01
				Producto Forestal no maderero industrial			
				No especificado para fines industriales	32.72	20.40	16.49
Total					100	100	100
de protección	0	0	0	Ambiental no industrial			
				Recreación no industrial			
				No especificado, no industrial			
				Leña, no industrial			
Total					100	100	100

Fuentes:

- FAO 2004/5, Actualización de la Evaluación de los Recursos Forestales Mundiales al 2005, Informe Nacional
- El experto en bosques plantados hará una lista de los documentos de referencia en la sección bibliográfica.

Nota:

Para determinar los %, se toman como referencia los datos de consumo de madera en trozas en la industria forestal (m³ s.s.c.) de los cuadros 3.1 y 3.2 de las Estadísticas Forestales. En el rubro “No especificado...” se incluyen los rubros tableros y chapas, trozas aserrables de exportación, trozas pulpables de exportación, astillas y otros (ej. debobinado para cajones). Para el rubro “Bioenergía industrial” no se cuenta con la información precisa; se utiliza el dato sobre consumo de madera en trozas, particularmente el destinado a ser consumido como leña, en toneladas, transformado a metros cúbicos (con base en INFOR, 1992. Estudio del Balance de Energía, para Comisión Nacional de Energía).

Para favorecer la transparencia en materia de referencias, sírvase hacer una lista de todos los documentos que se demostraron apropiados para completar la información y los datos de este cuestionario de conformidad con la lista estándar suministrada en la sección bibliográfica del Documento de Trabajo 35.

Bibliografía (datos bibliográficos nuevos)

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Industrial para el Aprovechamiento Integral de las Plantaciones de Alamo de Pequeños y Medianos Productores de la Zona Central de Chile.

Compañía Agrícola y Forestal El Alamo, CAF. Bases de Datos de registros de rodales de plantaciones de álamo en el Fundo de El Retiro, Parral, VII Región. 2003. (Contacto: Gerente Forestal, Sr. Jaime Ulloa).



GLOBAL PLANTED FOREST
THEMATIC SUPPLEMENT TO
FOREST RESOURCES ASSESSMENT 2005

***QUESTIONNAIRE ON PLANTED FORESTS:
NATIONAL REPORTING TABLES***

To be read and filled in association with
Working Paper 35
to assist in definitions and explanatory notes

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COUNTRY NAME: United Kingdom

Availability of FRA 2005 data on forest cover area

(Refer to **Section 1**, Working Paper FP35*)

Forest type

Table 1 has been derived from Table 4 (T4) of National Report for FRA 2005

Table 1: Area of Forest as reported in Table T4 of FRA 2005

FRA 2005 Categories	Surface (1000 ha)		
	Forest		
	1990	2000	2005
Primary	0	0	0
Modified Natural	646	646	646
Semi-Natural	88	213	275
Productive Plantation	1862	1914	1902
Protective Plantation	15	20	22

Source: Derived from T4, in FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report

According to the FRA 2005 definitions Planted Forests include the planted component of Semi-Natural Forests and both Productive and Protective Plantation Forests.

* FAO. 2005. Planted Forests and Trees Working Papers: Global Planted Forest Thematic Supplement to Forest Resources Assessment 2005. *Guidelines for National Reporting Tables for Planted Forests*, Working Paper FP35, Forest Resources Development Service, Forest Resources Division. FAO, Rome

Estimate of “Planted” and “Assisted Natural Regeneration” components of Semi-Natural Forests

(Refer to Section 2, Working Paper FP35)

Table 2a, in top rows, reports absolute figures provided in T4 of the National report for Semi-Natural Forests. Please provide the % planted component and % assisted natural regeneration component of Semi-Natural Forests for years 1990, 2000 and 2005²⁸ (Your new data inputs in yellow on table).

Table 2a: FRA 2005 area of Semi-Natural Forest classification and estimates of “Planted” and “Assisted Natural Regeneration” components of Semi-Natural Forests

Year	1990			2000			2005		
FRA Semi-Natural Forest	Absolute figures (1000 ha)								
	88			213			275		
Semi-Natural Forest components	Relative figures (%)								
	planted (%)	assisted (%)	Total (%)	planted (%)	assisted (%)	Total (%)	planted (%)	assisted (%)	Total (%)
Estimates	100	0	100	99	1	100	96	4	100

Sources:

- **FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report for UK**
- **Planted Forests Specialist to list reference documents in the references section :** UK Indicators of Sustainable Forestry (Forestry Commission, 2002) – Indicator B7 (natural generation) used to estimate area of assisted natural regeneration.

²⁸ The bottom row of table 4a to be completed by the Planted Forests Specialist.

Estimates of planted and assisted natural regeneration components of Semi-Natural Forests must tally to 100%

Estimation of Planted component of Semi-Natural Forests to Productive and Protective purposes

(Refer to Section 3, Working Paper FP35)

In Table 2b estimate in % the area of Planted component of Semi-Natural Forests²⁹ allocated to Production and Protection purposes for years 1990, 2000, 2005. Your new data inputs

Table 2b: Planted component of Semi-Natural Forests to Productive and Protective purposes

Year	1990			2000			2005		
Semi-Natural Forests Planted component	88			211			264		
Estimates	Relative figures (%)								
	Productive (%)	Protective (%)	Total (%)	Productive (%)	Protective (%)	Total (%)	Productive (%)	Protective (%)	Total (%)
	0	100	100	0	100	100	0	100	100

Source: Planted Forests Specialist to list reference documents in the references section : No source for this breakdown, but the method of deriving the semi-natural category for FRA 2005 (described in UK report) implies that the woodland will normally be “protective”, as this includes provision of all services, including recreation and landscape objectives.

²⁹ **Estimates of Productive and Protective purposes must tally to 100%**

Report MAI, rotation length, harvest volume yield, and age classes distribution for the top10 species in the Planted component of Semi-Natural Forests (Productive and Protective) and Plantation Forests (Productive and Protective)

(Refer to **Section 5**, Working Paper FP35)

In tables 3 (a, b, c, d), **for year 2005 only**, please provide percentages of the top ten species used in your country.

In table 3a: Provide the top 10 species for **Productive Planted component of Semi-Natural Forests**

In table 3b: Provide the top 10 species for **Protective Planted component of Semi-Natural Forests**

In table 3c: Provide the top 10 species for **Productive Plantation Forests**

In table 3d: Provide the top 10 species for **Protective Plantation Forests**

For each table, please group other remaining species in class 11 named “Other”.

The total of percentages for the 11 classes must tally to 100%

For each species reported please provide best absolute data for Mean Annual Increment, Rotation Length and Harvest Volume.

Finally provide an estimate of the age distribution in %.

The Age distributions must tally to 100%.

Table 3a: Productive Planted component of Semi-Natural Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). Your new data inputs – 0 ha

Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
1)																		
2)																		
3)																		
4)																		
5)																		
6)																		
7)																		
8)																		
9)																		
10)																		
11) Other																		
Total	100																	

Source: Planted Forests Specialist to list reference documents in the references section

Table 3b: Protective Planted component of Semi-Natural Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). Your new data inputs – 264,000 ha

Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
1) Pinus sylvestris	13							23	23	23	0	0	0	0	1	3	27	
2)																		
3)																		
4)																		
5)																		
6)																		
7)																		
8)																		
9)																		
10)																		
11) Other	87							20	22	40	2	2	2	4	3	1	4	
Total	100																	

Source: Planted Forests Specialist to list reference documents in the references section : Total area and age distribution of *Pinus sylvestris* based on the Scots pine categories allocated to semi-natural, in text for Table 4 of UK report for FRA 2005: parts of pre-1920 plantings and of Caledonian pinewood planted 1990-2005. Total area and age distribution of Other (native broadleaves) based on text for Table 4 of UK report for FRA 2005. Unable to allocate to species, because most was recorded in Inventory as “mixed broadleaves”; the main species are likely to be birch (*Betula* spp), oak (*Quercus* spp), ash (*Fraxinus excelsior*) and beech (*Fagus sylvatica*).

Table 3c: Productive Plantation Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). Your new data inputs – 1,902,000 ha

Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
1) <i>Picea sitchensis</i>	36	6	24	40	60	130	1220	6	6	27	28	20	9	4	0	0	0	
2) <i>Pinus sylvestris</i>	11	4	14	55	75	120	240	3	3	6	9	21	26	19	8	1	4	
3) <i>Quercus</i> spp	8	2	8	120	160	210	300	3	3	3	2	2	6	14	23	6	39	
4) <i>Larix</i> spp	7	4	16	45	60	160	640	3	3	3	2	2	6	18	23	0	1	
5) <i>Pinus contorta</i>	6	4	14	45	60	130	710	3	3	24	33	26	11	1	0	0	0	
6) <i>Fraxinus excelsior</i>	5	4	10	60	80	130	320	3	3	4	5	10	15	27	21	3	11	
7) <i>Picea abies</i>	4	6	22	50	70	210	1330	3	3	5	12	29	26	18	3	0	0	
8) <i>Fagus sylvatica</i>	3	4	10	100	130	210	490	1	1	2	3	10	14	17	19	4	29	
9) <i>Betula</i> spp	3	2	10	40	60	100	280	5	5	12	11	18	21	21	5	0	2	
10) <i>Acer pseudoplatanus</i>	2	4	12	40	60	100	330	2	2	4	9	11	18	28	15	1	10	
11) Other	15	2	20	40	80	100	1500	6	6	10	10	16	16	16	12	1	7	
Total	100																	

Source: Planted Forests Specialist to list reference documents in the references section : Increment and rotation length from Forest Industry Yearbook 1998, except for Sycamore (assumed to be same as Birch, as in Yield Models for Forest Management). Harvest volume yield estimated as volume at end of rotation, using rotation lengths quoted and relevant tables from Forest Yield software 2005, for no-thinning management regime, based on Yield Models for Forest Management.

Age class distribution was based on planting year decades in Table 10a of GB National Inventory 1995-99 for High Forest Category 1; this category is the closest in National Inventory outputs to FRA productive plantation and has a similar total (1.85 million ha). The “mixed” categories were included in “other” here. Figures for 1991-1999 were scaled up to give planting estimates for the full decade, but no adjustment was made to earlier decades for additional areas harvested between the Inventory date and the end of the decade. This gave ages at 2000; no adjustment was made to roll this forward to 2005, and the decade 0-10 was assumed evenly split between 0-5 and 5-10 for each species.

Table 3d: Protective Plantation Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). Your new data inputs – 22,000 ha

Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %											
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total	
1)																			
2)																			
3)																			
4)																			
5)																			
6)																			
7)																			
8)																			
9)																			
10)																			
11) Other																			
Total	100																		

Source: Planted Forests Specialist to list reference documents in the references section : No source for this breakdown. These protective plantations are not identified in the Inventory. Much of the area planted recently is likely to be mixed broadleaves, mainly of native species, with the main species as footnoted for Table 3b above.

Estimate of Ownership for Planted Forests

(Refer to Section 6, Working Paper FP35)

We request you to provide in tables 4 (a,b,c,d), the breakdown of ownership in “%” for: Planted components of Semi-Natural Forests (Productive and Protective) and Plantation Forests (Productive and Protective).

The total percentages of ownership categories must tally to 100%

Table 4a: Planted component of Semi-Natural Forests Productive. Your new data inputs

Reference year	1990				2000				2005						
Planted components of Semi-Natural Forests Productive	Calculated in Table 2b (%)														
	0				0				0						
Ownership (%)															
Ownership	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
					100					100					100

Source: Planted Forests Specialist to list reference documents in the references section : (No area)

Table 4b: Planted component of Semi-Natural Forests Protective. Your new data inputs

Reference year	1990				2000				2005						
Planted components of Semi-Natural Forests Protective	Calculated % in Table 2b (%)														
	88				211				264						
Ownership (%)															
Ownership	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
	15	15	70	0	100	15	15	70	0	100	15	15	70	0	100

Source: Planted Forests Specialist to list reference documents in the references section : No source for this breakdown. Other set as zero, as zero total in UK report for FRA. For 1990, public % estimated based on Forestry Commission proportions of categories contributing to semi-natural estimate in UK report for FRA, rounded up for unknown amount in other public ownership. Arbitrary split between corporate and smallholders, noting the split in Table 4c, and expecting that the share might be expected to be higher for this category. For broadleaved planting since 1990, less than 10% has been FC new planting and restocking; adding in other public and FC planting in Caledonian pinewood may give a similar share to 1990, so % shares are rolled forward unchanged.

Table 4c: Productive Plantation Forests. Your new data inputs

Reference year	1990					2000					2005				
Productive Plantation	Reported Area from Table 1 (1000 ha)														
	1862					1914					1902				
Ownership	Ownership (%)														
	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
	41	16	43	0	100	36	17	47	0	100	34	18	48	0	100

Source: Planted Forests Specialist to list reference documents in the references section : No source for this breakdown for productive plantations. As this category makes up about 70% of total UK forest, the % breakdowns for all forest have been used to estimate this split. Public/private/other split from UK report for FRA Table 2 and rolled forward to 2005 using similar method. Private divided between corporate and smallholders using relative proportions from National Inventory 1995-99 for all years, taking “personal” to be equivalent to this category “smallholders” and all other non-public categories to be equivalent to “corporate” (but noting that some of these “personal” holdings are very large).

Table 4d: Protective Plantation Forests. Your new data inputs

Reference year	1990					2000					2005				
Protective Plantation	Reported Area from Table 1 (1000 ha)														
	15					20					22				
Ownership	Ownership (%)														
	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
	50	20	30	0	100	50	20	30	0	100	50	20	30	0	100

Source: Planted Forests Specialist to list reference documents in the references section: No source for this breakdown for protective plantations. The text describing the estimation of the total, in UK report for FRA table 4, notes that this includes plantations to stabilise sandy soils, shelterbelts for farms, and planting for recreation, particularly in community forests. The first of these is likely to have a high proportion public, the second mainly smallholders, and the third will be a mix of all three categories. This influenced the % split shown, but the figures shown are arbitrary.

Estimate of Predominant purpose for Planted Forests

(Refer to Section 7, Working Paper FP35)

In Questionnaire tables 5 (a, b), for productive and protective categories, please estimate, in %³⁰ of area, the **Predominant purpose** for: Planted components of Semi-Natural Forests (table 5a), for figures calculated in table 2b Plantation Forests (table 5b), for figures provided in table 1.

Table 5a: Detailed Purpose Estimates for Planted component of Semi-Natural Forests by % of Area. Your new data inputs

FRA Purposes	1990	2000	2005	Predominant Purpose	1990	2000	2005
	Estimates from table 2b (%)				%	%	%
Productive	0	0	0	Ind-Sawlog			
				Ind-Pulpwood/Fiber			
				Ind-Bioenergy			
				Ind-Non Wood Prod			
				Ind-Unspecified			
Total					100	100	100
Protective	88	211	264	Non-ind-Environmental	100	90	88
				Non-ind-Recreation	0	10	12
				Non-ind-Unspecified	0	0	0
				Non-ind-Fuelwood	0	0	0
Total					100	100	100

Source: Planted Forests Specialist to list reference documents in the references section: No breakdown given for productive, because no area. No source for the protective breakdown, but the method of deriving the semi-natural category for FRA 2005 (described in UK report) implies splits between environmental and recreation as indicated

³⁰ Estimates of Predominant purpose must tally to 100% for reach category

Table 5b: Detailed Purpose Estimates for Plantation Forests by % of Area. Your new data inputs

FRA Purposes	1990	2000	2005	Predominant Purpose	1990	2000	2005
	Estimates from table 1 (000 ha)				%	%	%
Productive	1862	1914	1902	Ind-Sawlog	100	100	100
				Ind-Pulpwood/Fiber	0	0	0
				Ind-Bioenergy	0	0	0
				Ind-Non Wood Prod	0	0	0
				Ind-Unspecified	0	0	0
Total					100	100	100
Protective	15	20	22	Non-ind-Environmental	50	40	40
				Non-ind-Recreation	50	60	60
				Non-ind-Unspecified	0	0	0
				Non-ind-Fuelwood	0	0	0
Total					100	100	100

Sources:

- FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report
- Planted Forests Specialist to list reference documents in the references section: No source for either of these breakdowns. The main production objective in the UK is normally to produce sawlogs, although pulpwood and fuelwood may also be produced (e.g. from thinnings). The definition of High Forest Category 1 (used for table 3c) is that the stands are, or could become, capable of producing wood of a size and quality suitable for sawlogs. The method of deriving the protective plantation category for FRA 2005 (described in UK report) implies splits between environmental and recreation as indicated

For transparency in referencing please list below all documents appropriate to completion of information and data for this questionnaire in conformity with the standard list provided in references section of Working Paper 35

References (Your new references inputs)

(Most are available on website <http://www.forestry.gov.uk/statistics> or <http://www.forestry.gov.uk/inventory>)

Forestry Commission, 1981, Yield Models for Forest Management, and supplements including electronic files (including Forest Yield software 2005)

Forestry Commission, 2002, UK Indicators of Sustainable Forestry (Indicator B7).

Forestry Commission, 2003, National Inventory of Woodland and Trees, Great Britain: (Table 10a)

Forestry Commission, 2004, Forestry Statistics 2004.

Forestry Commission /FAO, 2005, Global Forest Resources Assessment 2005, Country Report for United Kingdom of Great Britain & Northern Ireland (final draft, May 2005)

Forest Industry Council of Great Britain, 1998, Forest Industry Handbook 1998.

TURKEY

For each country, FRA 2005, Table 4, Forest Type, will provide the starting point for completion of this questionnaire.

COUNTRY NAME : **TURKEY**

Section 1. Availability of FRA 2005 data on forest cover area

Forest type

Explanatory table A has been derived from Table 4 (T4) of National Report for FRA 2005

We require supplementary information for three of the five FRA categories:

Semi-Natural Forest

Productive Plantation Forest

Protective Plantation Forest

Explanatory table A: Areas of Forest and Other Wooded Land as reported in Table T4 of FRA 2005

FRA 2005 Categories	Surface (1000 ha)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Primary						
Modified Natural	9680	10052	10175	10905	10728	10689
Semi-Natural			33			
Productive Plantation	1500	1789	1960			
Protective Plantation	254	419	594			

Source: FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report

It hasn't been carried out any study to determine primary and modified natural forests in Turkey. Generally, forest areas are modified natural. Therefore, all the forest areas have been given as modified natural.

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The questionnaire on the Planted Forests Thematic will focus on the "Forest" component of **Explanatory table A** which we will refer as **Questionnaire table 1**

Questionnaire table 1: Area of Forest as reported in Table T4 of FRA 2005

FRA 2005 Categories	Surface (1000 ha)		
	Forest		
	1990	2000	2005
Primary			
Modified Natural	9680	10052	10175
Semi-Natural			33
Productive Plantation	1500	1789	1960
Protective Plantation	254	419	594

Source: Derived from T4, in FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report

According to the FRA 2005 definitions Planted Forests include the planted component of Semi-Natural Forests and both Productive and Protective Plantation Forests.

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Section 2. Components of Semi-Natural Forests

To fully account for the goods and services of the Planted Forests Group it is necessary to differentiate the planted component of Semi-Natural Forests.

Questionnaire input

Estimate of "Planted" and "Assisted Natural Regeneration" components of Semi-Natural Forests

Questionnaire table 2a, in top rows, reports absolute figures provided in T4 of the National report for Semi-Natural Forests. Please provide the % planted component and % assisted natural regeneration component of Semi-Natural Forests for years 1990, 2000 and 2005¹ (Your new data inputs in yellow on table).

Table 2a: FRA 2005 area of Semi-Natural Forest classification and estimates of "Planted" and "Assisted Natural Regeneration" components of Semi-Natural Forests

Year	1990			2000			2005		
	FRA 2005 area estimates			Absolute figures (1000 ha)			FRA 2005 area estimates		
Semi-Natural Forest components	Relative figures (%)								
	planted (%)	assisted (%)	Total (%)	planted (%)	assisted (%)	Total (%)	planted (%)	assisted (%)	Total (%)
Estimates			100			100	45	55	100

Sources:

- FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report
- Planted Forests Specialist to list reference documents in the references section

¹ The bottom row of table 4a to be completed by the Planted Forests Specialist. Estimates of planted and assisted natural regeneration components of Semi-Natural Forests must tally to 100%

Section 3. Planted component of Semi-Natural Forests: Productive and Protective

Using the definitions below, classify the Planted component of Semi-Natural Forests into Productive and Protective purposes

Definition

- **Productive** Planted component of Semi-Natural Forests
Established through planting or seeding mainly for production of wood or non wood goods.
- **Protective** Planted component of Semi-Natural Forests
Established through planting or seeding mainly for provision of services.
Explanatory notes. Includes soil and water protection; conservation of biological diversity; social, cultural and other services.

Questionnaire input

Estimation of Planted component of Semi-Natural Forests to Productive and Protective purposes

In Questionnaire table 2b estimate in % the area of Planted component of Semi-Natural Forests² allocated to Production and Protection purposes for years 1990, 2000, 2005. Your new data inputs

Table 2b: Planted component of Semi-Natural Forests to Productive and Protective purposes

Year	1990			2000			2005		
Semi-Natural Forests Planted component	Relative figures (%)								
	Productive (%)	Protective (%)	Total (%)	Productive (%)	Protective (%)	Total (%)	Productive (%)	Protective (%)	Total (%)
Estimates			100			100	30	70	100

Source: Planted Forests Specialist to list reference documents in the references section

² Estimates of Productive and Protective purposes must tally to 100%

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Questionnaire table 4b: Planted component of Semi-Natural Forests Protective. Your new data inputs

Reference year	1990					2000					2005				
Planted components of Semi-Natural Forests Protective	Calculated % in Table 2b (%)														
	Figures calculated in table 2b					Figures calculated in table 2b					Figures calculated in table 2b				
	Ownership (%)														
Ownership	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
	100				100	100				100					100

Source: Planted Forests Specialist to list reference documents in the references section

Questionnaire table 4c: Productive Plantation Forests. Your new data inputs

Reference year	1990					2000					2005				
Productive Plantation	Reported Area from Table 1 (1000 ha)														
	FRA 2005 estimates					FRA 2005 estimates					FRA 2005 estimates				
	Ownership (%)														
Ownership	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
				100		99		0,5		100	0,5		0,5		100

Source: Planted Forests Specialist to list reference documents in the references section

Questionnaire table 4d: Protective Plantation Forests. Your new data inputs

Reference year	1990					2000					2005				
Protective Plantation	Reported Area from Table 1 (1000 ha)														
	FRA 2005 estimates					FRA 2005 estimates					FRA 2005 estimates				
	Ownership (%)														
Ownership	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
	100				100	100				100					100

Source: Planted Forests Specialist to list reference documents in the references section

Questionnaire table 5a:

Detailed Purpose Estimates for Planted component of Semi-Natural Forests by % of Area. Your new data inputs

FRA Purposes	1990	2000	2005	Predominant Purpose	1990	2000	2005
	Estimates from table 2b (%)				%	%	%
Productive	Tab 2b INPUT	Tab 2b INPUT	Tab 2b INPUT	Ind-Sawlog			
				Ind-Pulpwood/Fiber			
				Ind-Bioenergy			
				Ind-Non Wood Prod			1
				Ind-Unspecified	100	100	99
Total					100	100	100
Protective	Tab 2b INPUT	Tab 2b INPUT	Tab 2b INPUT	Non-ind-Environmental			
				Non-ind-Recreation			
				Non-ind-Unspecified			
				Non-ind-Fuelwood			
Total					100	100	100

Source: Planted Forests Specialist to list reference documents in the references section

Questionnaire table 5b:

Detailed Purpose Estimates for Plantation Forests by % of Area. Your new data inputs

FRA Purposes	1990	2000	2005	Predominant Purpose	1990	2000	2005
	Estimates from table 1 (000 ha)				%	%	%
Productive	FRA 2005 estimates (tab 1)	FRA 2005 estimates (tab 1)	FRA 2005 estimates (tab 1)	Ind-Sawlog			
				Ind-Pulpwood/Fiber			
				Ind-Bioenergy			
				Ind-Non Wood Prod			1
				Ind-Unspecified	100	100	99
Total					100	100	100
Protective	FRA 2005 estimates (tab 1)	FRA 2005 estimates (tab 1)	FRA 2005 estimates (tab 1)	Non-ind-Environmental	60	70	85
				Non-ind-Recreation	40	30	15
				Non-ind-Unspecified			
				Non-ind-Fuelwood			
Total					100	100	100

Sources:

- FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report
- Planted Forests Specialist to list reference documents in the references section

MALAYSIA

Forest type

Explanatory table A has been derived from Table 4 (T4) of National Report for FRA 2005

We require supplementary information for three of the five FRA categories:

Semi-Natural Forest

Productive Plantation Forest

Protective Plantation Forest

Explanatory table A: Areas of Forest and Other Wooded Land as reported in Table T4 of FRA 2005

FRA 2005 Categories	Surface (1000 ha)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Primary	3820	4030	4930			
Modified Natural	0	0	0			
Semi-Natural	16600	15902	14387			
Productive Plantation	1956	1659	1573			
Protective Plantation	0	0	0			

Source: FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report

The questionnaire on the Planted Forests Thematic will focus on the “Forest” component of Explanatory table A which we will refer as **Questionnaire table 1**

Questionnaire table 1: Area of Forest as reported in Table T4 of FRA 2005

Surface (1000 ha)						
FRA 2005 Categories	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Primary	3820	4030	4930			
Modified Natural	0	0	0			
Semi-Natural	16600	15902	14387			
Productive Plantation	1956	1659	1573			
Protective Plantation	0	0	0			

Source: Derived from T4, in FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report

According to the FRA 2005 definitions Planted Forests include the planted component of Semi-Natural Forests and both Productive and Protective Plantation Forests.

Section 2. Components of Semi-Natural Forests

To fully account for the goods and services of the Planted Forests Group it is necessary to differentiate the planted component of Semi-Natural Forests.

Questionnaire input

Estimate of “Planted” and “Assisted Natural Regeneration” components of Semi-Natural Forests

Questionnaire table 2a, in top rows, reports absolute figures provided in T4 of the National report for Semi-Natural Forests. Please provide the % planted component and % assisted natural regeneration component of Semi-Natural Forests for years 1990, 2000 and 2005¹ (Your new data inputs in yellow on table).

Table 2a: FRA 2005 area of Semi-Natural Forest classification and estimates of “Planted” and “Assisted Natural Regeneration” components of Semi-Natural Forests

Year	1990			2000			2005		
FRA Semi-Natural Forest	Absolute figures (1000 ha)								
	1956			1659			1573		
Semi-Natural Forest components Estimates	Relative figures (%)								
	planted (%)	assisted (%)	Total (%)	planted (%)	assisted (%)	Total (%)	planted (%)	assisted (%)	Total (%)
	0	100	100	0	100	100	0	100	100

Sources:

- FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report
- Planted Forests Specialist to list reference documents in the references section

¹ The bottom row of table 4a to be completed by the Planted Forests Specialist.

Estimates of planted and assisted natural regeneration components of Semi-Natural Forests must tally to 100%

Section 3. Planted component of Semi-Natural Forests: Productive and Protective

Using the definitions below, classify the Planted component of Semi-Natural Forests into Productive and Protective purposes

Definition

- Productive Planted component of Semi-Natural Forests
Established through planting or seeding mainly for production of wood or non wood goods.
- Protective Planted component of Semi-Natural Forests
Established through planting or seeding mainly for provision of services.
Explanatory notes. Includes soil and water protection; conservation of biological diversity; social, cultural and other services.

Questionnaire input**Estimation of Planted component of Semi-Natural Forests to Productive and Protective purposes**

In Questionnaire table 2b estimate in % the area of Planted component of Semi-Natural Forests² allocated to Production and Protection purposes for years 1990, 2000, 2005. Your new data inputs

Table 2b: Planted component of Semi-Natural Forests to Productive and Protective purposes

Year	1990			2000			2005		
FRA Semi-Natural Forest Semi-Natural Forest components Estimates	Absolute figures (1000 ha)								
	1956			1659			1573		
	Relative figures (%)								
	Prod (%)	Prot (%)	Total (%)	Prod (%)	Prot (%)	Total (%)	Prod (%)	Prot (%)	Total (%)
	0	0	0	0	0	0	0	0	0

Source: Planted Forests Specialist to list reference documents in the references section

² Estimates of Productive and Protective purposes must tally to 100%

Section 5. Species, MAI, rotation length, harvest volume yield and age classes distribution

This information is important for future policy, planning and management.

Questionnaire input

Report MAI, rotation length, harvest volume yield, and age classes distribution for the top10 species in the Planted component of Semi-Natural Forests (Productive and Protective) and Plantation Forests (Productive and Protective)

In Questionnaire tables 3 (a, b, c, d), for year 2005 only, please provide percentages of the top ten species used in your country.

In Questionnaire table 3a: Provide the top 10 species for Productive Planted component of Semi-Natural Forests

In Questionnaire table 3b: Provide the top 10 species for Protective Planted component of Semi-Natural Forests

In Questionnaire table 3c: Provide the top 10 species for Productive Plantation Forests

In Questionnaire table 3d: Provide the top 10 species for Protective Plantation Forests

For each table, please group other remaining species in class 11 named “Other”.

The total of percentages for the 11 classes must tally to 100%

For each species reported please provide best absolute data for Mean Annual Increment, Rotation Length and Harvest Volume.

Finally provide an estimate of the age distribution in %.

The Age distributions must tally to 100%.

Questionnaire table 3a: Productive Planted component of Semi-Natural Forests. Species composition (%), Mean Annual Increment ($m^3/ha/year$), Rotation Length (years), Harvest volume yield (m^3/ha) and age class distribution (%). Your new data inputs
Reference year: 2005

Top 10 species planted	%	Mean Annual Increment $m^3/ha/year$		Predominant Rotation Length years		Harvest Vol.Yield m^3/ha		Age class distribution %											
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total	
n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a											

Source: Planted Forests Specialist to list reference documents in the references section

Questionnaire table 3b: Protective Planted component of Semi-Natural Forests. Species composition (%), Mean Annual Increment ($m^3/ha/year$), Rotation Length (years), Harvest volume yield (m^3/ha) and age class distribution (%). Your new data inputs

Top 10 species planted	%	Mean Annual Increment $m^3/ha/year$		Predominant Rotation Length years		Harvest Vol.Yield m^3/ha		Age class distribution %											
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total	
n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a											

Source: Planted Forests Specialist to list reference documents in the references section

Questionnaire table 3c: Productive Plantation Forests. Species composition (%), Mean Annual Increment (m^3 /ha/year), Rotation Length (years), Harvest volume yield (m^3 /ha) and age class distribution (%). Your new data inputs
Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m^3 /ha/year		Predominant Rotation Length years		Harvest Vol.Yield m^3 /ha		Age class distribution %											
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total	
1) Acacia mangium	77.4	n.a	n.a	n.a	n.a	n.a	n.a	n.a											
2) Eucalyptus grandis	7.2	n.a	n.a	n.a	n.a	n.a	n.a	n.a											
3) Paraserianthes falcataria	4.7	n.a	n.a	n.a	n.a	n.a	n.a	n.a											
4) Gmelina arborea	2.5	n.a	n.a	n.a	n.a	n.a	n.a	n.a											
5) Pinus caribaeae	2.2	n.a	n.a	n.a	n.a	n.a	n.a	n.a											
6) Tectona grandis	1.6	n.a	n.a	n.a	n.a	n.a	n.a	n.a											
7) Hevea	1.2	n.a	n.a	n.a	n.a	n.a	n.a	n.a											
8) Azadirachta excelsa	0.8	n.a	n.a	n.a	n.a	n.a	n.a	n.a											
9) Other species	2.4	n.a	n.a	n.a	n.a	n.a	n.a	n.a											
Total	100																		

Source: Planted Forests Specialist to list reference documents in the references section

Questionnaire table 3d: Protective Plantation Forests. Species composition (%), Mean Annual Increment (m^3 /ha/year), Rotation Length (years), Harvest volume yield (m^3 /ha) and age class distribution (%). Your new data inputs

Top 10 species planted	%	Mean Annual Increment m^3 /ha/year		Predominant Rotation Length years		Harvest Vol.Yield m^3 /ha		Age class distribution %											
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total	
n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a											

Source: Planted Forests Specialist to list reference documents in the references section

Section 6. Ownership: supplement to FRA2005 data

Explanatory table E (below) reports the total forest area by ownership classes as reported by Table 2 (T2) of the FRA 2005 National Country Report.

Explanatory table E: Area of Forest by Ownership as reported in Table T2 of FRA 2005

FRA 2005 Categories	Area (1000 hectares)	
	Forest	
	1990	2000
Private ownership	1836	1431
Public ownership	20540	20160
Other ownership	0	0
TOTAL	22376	21591

Source: FAO 2004/5, GLOBAL FOREST RESOURCES ASSESSMENT UPDATE 2005,
NATIONAL COUNTRY REPORT

According to FRA ownership categories are defined as:

Private ownership

Land owned by individuals, families, private co-operatives, corporations, industries, private religious and educational institutions, pension or investment funds, and other private institutions.

Explanatory note

1. Private owners may be engaged in agriculture or other occupations including forestry.

Public ownership

Land owned by the State (national, state and regional governments) or government-owned institutions or corporations or other public bodies including cities, municipalities and villages.

Other ownership

Land not classified as Public or Private ownership.

Explanatory note

1. Includes land where ownership is not defined or unknown.

In the Planted Forest thematic study we have a further breakdown for Private Ownership into Corporate and Smallholders according to the definition:

Private ownership Corporate

Land owned by private companies, co-operatives, corporations, industries, private religious and educational institutions, pension or investment funds (generally large scale)

Private ownership Smallholders

Land owned by individuals or families (generally small scale)

Questionnaire input

Estimate of Ownership for Planted Forests

We request you to provide in Questionnaire tables 4 (a, b, c, d), the breakdown of ownership in “%” for: Planted components of Semi-Natural Forests (Productive and Protective) and Plantation Forests (Productive and Protective). The total percentages of ownership categories must tally to 100%

Questionnaire table 4a: Planted component of Semi-Natural Forests Productive. Your new data inputs

Reference year	1990					2000					2005				
Planted components of Semi-Natural Forests Productive	Calculated in Table 2b (%)														
	Figures calculated in table 2b					Figures calculated in table 2b					Figures calculated in table 2b				
	Ownership (%)														
Ownership	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
	n.a	Corpo rate	Small holder			n.a	Corpo rate	Small holder			n.a	Corpor ate	Small holder		

Source: Planted Forests Specialist to list reference documents in the references section

Questionnaire table 4b: Planted component of Semi-Natural Forests Protective. Your new data inputs

Reference year	1990					2000					2005				
Planted components of Semi-Natural Forests Productive	Calculated in Table 2b (%)														
	Figures calculated in table 2b					Figures calculated in table 2b					Figures calculated in table 2b				
	Ownership (%)														
Ownership	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corpo rate	Small holder				Corpo rate	Small holder				Corpor ate	Small holder		
	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a

Source: Planted Forests Specialist to list reference documents in the references section

Questionnaire table 4c: Productive Plantation Forests. Your new data inputs

Reference year	1990					2000					2005				
Planted components of Semi-Natural Forests Productive	Calculated in Table 2b (%)														
	1956					1659					1573				
	Ownership (%)														
Ownership	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corpo rate	Small holder				Corpo rate	Small holder				Corpor ate	Small holder		
	6.1	17.8	76.1	0	100	13.7	13.4	72.9	0	100	16.7	14.4	68.9	0	100

Source: Planted Forests Specialist to list reference documents in the references section

Questionnaire table 4d: Protective Plantation Forests. Your new data inputs

Reference year	1990					2000					2005				
Planted components of Semi-Natural Forests Productive	Calculated in Table 2b (%)														
	Figures calculated in table 2b					Figures calculated in table 2b					Figures calculated in table 2b				
	Ownership (%)														
Ownership	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corpo rate	Small holder				Corpo rate	Small holder				Corpor ate	Small holder		
	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a

Source: Planted Forests Specialist to list reference documents in the references section

Section 7. Predominant purpose: supplement to FRA2005

FRA does not detail specific predominant purposes of forests. A more detailed breakdown on predominant purposes is needed for the Planted components of Semi-Natural Forests and Plantation Forests. Explanatory table F reported below shows the breakdown of predominant purposes by productive and protective categories.

Explanatory table F: Predominant purposes, definitions and abbreviations

FRA Purpose	Planted forests end use and definition	Abbreviation
Productive	Production of saw logs	Ind-Sawlog
	Production of chips, pulpwood and fibre for cellulose and paper	Ind-Pulpwood/Fiber
	Production of wood to be used as bio-energy on large scale	Ind-Bioenergy
	Production of Non wood products (Arabic gum, rubber, palm fibres, cork...) large scale	Ind-Non Wood Prod
	Production of wood for industrial uses but unspecified	Ind-Unspecified
Protective	Provision of protective services for soil, water, biodiversity (can include Non wood forest products on small scale)	Non-ind-Environmental
	Provision of social and cultural services (recreation, religious, amenity...)	Non-ind-Recreation
	Provision of unspecified services	Non-ind Unspecified
	Provision of wood for fuel on small scale (farmers, villages, rural communities)	Non-ind-Fuelwood

Source: Del Lungo, A., Carle, J.B., 2005 (present Paper)
Questionnaire input

Estimate of Predominant purpose for Planted Forests

In Questionnaire tables 5 (a, b), for productive and protective categories, please estimate, in %³ of area, the Predominant purpose for:
Planted components of Semi-Natural Forests (table 5a), for figures calculated in table 2b
Plantation Forests (table 5b), for figures provided in table 1.

³ Estimates of Predominant purpose must tally to 100% for reach category

Questionnaire table 5a: Detailed Purpose Estimates for Planted component of Semi-Natural Forests by % of Area. Your new data inputs

FRA Purposes	1990	2000	2005	Predominant Purpose	1990	2000	2005
	Estimates from table 2b (%)				%	%	%
Productive	Tab 2b INPUT	Tab 2b INPUT	Tab 2b INPUT	Ind-Sawlog	n.a	n.a	n.a
				Ind-Pulpwood/Fiber	n.a	n.a	n.a
				Ind-Bioenergy	n.a	n.a	n.a
				Ind-Non Wood Prod	n.a	n.a	n.a
				Ind-Unspecified	n.a	n.a	n.a
Total					100	100	100
Protective	Tab 2b INPUT	Tab 2b INPUT	Tab 2b INPUT	Non-ind-Environmental	n.a	n.a	n.a
				Non-ind-Recreation	n.a	n.a	n.a
				Non-ind-Unspecified	n.a	n.a	n.a
				Non-ind-Fuelwood	n.a	n.a	n.a
Total					100	100	100

Source: Planted Forests Specialist to list reference documents in the references section

Questionnaire table 5b: Detailed Purpose Estimates for Plantation Forests by % of Area. Your new data inputs

FRA Purposes	1990	2000	2005	Predominant Purpose	1990	2000	2005
	Estimates from table 2b (%)				%	%	%
Productive	Tab 2b INPUT	Tab 2b INPUT	Tab 2b INPUT	Ind-Sawlog	n.a	n.a	n.a
				Ind-Pulpwood/Fiber	n.a	n.a	n.a
				Ind-Bioenergy	n.a	n.a	n.a
				Ind-Non Wood Prod	n.a	n.a	n.a
				Ind-Unspecified	n.a	n.a	n.a
Total					100	100	100
Protective	Tab 2b INPUT	Tab 2b INPUT	Tab 2b INPUT	Non-ind-Environmental	n.a	n.a	n.a
				Non-ind-Recreation	n.a	n.a	n.a
				Non-ind-Unspecified	n.a	n.a	n.a
				Non-ind-Fuelwood	n.a	n.a	n.a
Total					100	100	100

Sources:

- FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report
- Planted Forests Specialist to list reference documents in the references section

For transparency in referencing it is necessary to list all documents appropriate to completion of information and data for the questionnaire. Please conform with the reference format as detailed below.

References

FAO 2004, Global Forest Resources Assessment update 2005, Specification of National Reporting Tables for FRA 2005, Forest Resources Assessment Programme Working Paper 81, Forest Resources Development Service, Forest Resources Division. FAO, Rome, 36 pp

FAO 2004, Global Forest Resources Assessment update 2005, Guidelines for Country Reporting to FRA 2005, Forest Resources Assessment Programme Working Paper 82, Forest Resources Development Service, Forest Resources Division. FAO, Rome, 51 pp

FAO 2004, Global Forest Resources Assessment update 2005, Terms and Definitions (Final version), Forest Resources Assessment Programme Working Paper 83, Forest Resources Development Service, Forest Resources Division. FAO, Rome, 33 pp

FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report(s), Forest Resources Assessment Programme, Forest Resources Development Service, Forest Resources Division. FAO, Rome

FAO 2005, Global Planted Forest Thematic Supplement to Forest Resources Assessment 2005 Guidelines for National Reporting Tables for Planted Forests. Based on the work of A. Del Lungo and J.B. Carle. Planted Forests and Trees Working Paper 35, Forest Resources Development Service, Forest Resources Division. FAO, Rome, 21 pp

VIET NAM



GLOBAL PLANTED FOREST
THEMATIC SUPPLEMENT TO
FOREST RESOURCES ASSESSMENT 2005

***QUESTIONNAIRE ON PLANTED FORESTS:
NATIONAL REPORTING TABLES***

To be read and filled in association with
Working Paper 35
to assist in definitions and explanatory notes

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COUNTRY NAME: Viet Nam

Availability of FRA 2005 data on forest cover area

(Refer to **Section 1**, Working Paper FP35*)

Forest type

Table 1 has been derived from Table 4 (T4) of National Report for FRA 2005

Table 1: Area of Forest as reported in Table T4 of FRA 2005

FRA 2005 Categories	Surface (1000 ha)		
	Forest		
	1990	2000	2005
Primary	384	187	85
Modified Natural	8012	9488	10151
Semi-Natural			
Productive Plantation	664	1384	1792
Protective Plantation	303	666	903

Source: Derived from T4, in FAO 2004/5, **Global Forest Resources Assessment update 2005, National Country Report**

According to the FRA 2005 definitions Planted Forests include the planted component of Semi-Natural Forests and both Productive and Protective Plantation Forests.

* FAO. 2005. **Planted Forests and Trees Working Papers: Global Planted Forest Thematic Supplement to Forest Resources Assessment 2005. Guidelines for National Reporting Tables for Planted Forests**, Working Paper FP35, Forest Resources Development Service, Forest Resources Division. FAO, Rome

Estimate of “Planted” and “Assisted Natural Regeneration” components of Semi-Natural Forests

(Refer to Section 2, Working Paper FP35)

Table 2a, in top rows, reports absolute figures provided in T4 of the National report for Semi-Natural Forests. Please provide the % planted component and % assisted natural regeneration component of Semi-Natural Forests for years 1990, 2000 and 2005³¹ (Your new data inputs in yellow on table).

Table 2a: FRA 2005 area of Semi-Natural Forest classification and estimates of “Planted” and “Assisted Natural Regeneration” components of Semi-Natural Forests

Year	1990			2000			2005		
FRA Semi-Natural Forest	Absolute figures (1000 ha)								
	Relative figures (%)								
Semi-Natural Forest components	planted (%)	assisted (%)	Total (%)	planted (%)	assisted (%)	Total (%)	planted (%)	assisted (%)	Total (%)
Estimates			100			100			100

Sources:

- FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report
- Planted Forests Specialist to list reference documents in the references section

Semi-Natural forest is a kind of Natural forest, so that Vietnam can not fill

the tables number 2a, 2b, 3a, 3b, 4a, 4b.

³¹ The bottom row of table 4a to be completed by the Planted Forests Specialist.
 Estimates of planted and assisted natural regeneration components of Semi-Natural Forests must tally to 100%

Estimation of Planted component of Semi-Natural Forests to Productive and Protective purposes

(Refer to Section 3, Working Paper FP35)

In Table 2b estimate in % the area of Planted component of Semi-Natural Forests³² allocated to Production and Protection purposes for years 1990, 2000, 2005. Your new data inputs

Table 2b: Planted component of Semi-Natural Forests to Productive and Protective purposes

Year	1990			2000			2005		
Semi-Natural Forests Planted component	Relative figures (%)								
	Productive (%)	Protective (%)	Total (%)	Productive (%)	Protective (%)	Total (%)	Productive (%)	Protective (%)	Total (%)
Estimates			100			100			100

Source: Planted Forests Specialist to list reference documents in the references section

Report MAI, rotation length, harvest volume yield, and age classes distribution for the top10 species in the Planted component of Semi-Natural Forests (Productive and Protective) and Plantation Forests (Productive and Protective)

(Refer to Section 5, Working Paper FP35)

In tables 3 (a, b, c, d), **for year 2005 only**, please provide percentages of the top ten species used in your country.

In table 3a: Provide the top 10 species for **Productive Planted component of Semi-Natural Forests**

In table 3b: Provide the top 10 species for **Protective Planted component of Semi-Natural Forests**

In table 3c: Provide the top 10 species for **Productive Plantation Forests**

In table 3d: Provide the top 10 species for **Protective Plantation Forests**

For each table, please group other remaining species in class 11 named “Other”.

The total of percentages for the 11 classes must tally to 100%

For each species reported please provide best absolute data for Mean Annual Increment, Rotation Length and Harvest Volume.

Finally provide an estimate of the age distribution in %.

The Age distributions must tally to 100%.

³² **Estimates of Productive and Protective purposes must tally to 100%**

Table 3a: Productive Planted component of Semi-Natural Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). Your new data inputs
 Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %											
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total	
1)																			
2)																			
3)																			
4)																			
5)																			
6)																			
7)																			
8)																			
9)																			
10)																			
11) Other																			
Total	100																		

Source: Planted Forests Specialist to list reference documents in the references section

Table 3b: Protective Planted component of Semi-Natural Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). Your new data inputs
 Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %											
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total	
1)																			
2)																			
3)																			
4)																			
5)																			
6)																			
7)																			
8)																			
9)																			
10)																			
11) Other																			
Total	100																		

Source: Planted Forests Specialist to list reference documents in the references section

Table 3c: Productive Plantation Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). **Your new data inputs**

Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
Eucalytus spp.	32.6	7	10	6	8	42	80	222	286	67	7	3						584
Styrax tonkinnensis	6.1	6	9	7	10	42	90	45	49	12	3	0						109
Rhizophora apiculata	3.7	3	4	12	15	36	60	37	10	8	10	2						67
Acacia spp.	16.0	8	12	6	8	48	96	186	79	17	5	0						287
Pinus spp.	10.2	3	5	15	30	45	150	71	34	40	29	10						183
Melaleuca cajuputi	14.1	3	4	12	15	36	60	67	79	32	74	0						252
Manglietia connifera	4.7	4	6	15	30	60	180	54	15	10	5	0						84
Bambusae (ton/ha/year)	5.0	3	5	7	10	21	70	27	59	0	3	0						89
Melia azedazach	0.7	5	8	7	12	60	96	10	3	0	0	0						13
Tectona grandis	1.1	4	6	20	30	80	180	15	5	0	0	0						20
Others	5.7							47	35	12	8	0						102
Total	100							781	654	198	144	15						1792

Source: Planted Forests Specialist to list reference documents in the references section

Source: [- Forest census of Vietnam in 1999](#)
[- Forest land and unused land for forestry in 2004](#)

Table 3d: Protective Plantation Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). **Your new data inputs**

Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
Rhizophora apiculata	9.9	x	x	x	x	x	x	49	13	11	13	2	0					89
Acacia spp.	14.1	x	x	x	x	x	x	83	36	9	0	0	0					127
Senna siamea	2.7	x	x	x	x	x	x	20	4	0	0	0	0					25
Casuarina equisetifolia	10.9	x	x	x	x	x	x	60	27	9	2	0	0					98
Cunminghamia lanceolata	3.5	x	x	x	x	x	x	25	2	2	2	0	0					31
Dipterocarpaceae	6.7	x	x	x	x	x	x	56	4	0	0	0	0					60
Pinus spp.	27.0	x	x	x	x	x	x	94	45	54	38	13	0					244
Bambusae	16.6	x	x	x	x	x	x	47	78	0	18	7	0					150
Chukrasia tabularis	2.2	x	x	x	x	x	x	16	0	4	0	0	0					20
Canaria spp.	0.7	x	x	x	x	x	x	7	0	0	0	0	0					7
Others	5.7	x	x	x	x	x	x	27	13	4	4	2	0					51
Total	100							483	224	94	78	25	0					903

(Logging on protective plantation forest is not allowed)

Source: Planted Forests Specialist to list reference documents in the references section

Source: **- Forest census of Vietnam in 1999**
 - Forest land and unused land for forestry in 2004

Estimate of Ownership for Planted Forests

(Refer to **Section 6**, Working Paper FP35)

We request you to provide in tables 4 (a,b,c,d), the breakdown of ownership in “%” for: Planted components of Semi-Natural Forests (Productive and Protective) and Plantation Forests (Productive and Protective).

The total percentages of ownership categories must tally to 100%

Table 4a: Planted component of Semi-Natural Forests Productive. Your new data inputs

Reference year	1990					2000					2005				
Planted components of Semi-Natural Forests Productive	Calculated in Table 2b (%)														
	Figures calculated in table 2b					Figures calculated in table 2b					Figures calculated in table 2b				
	Ownership (%)														
Ownership	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
					100					100					100

Source: Planted Forests Specialist to list reference documents in the references section

Table 4b: Planted component of Semi-Natural Forests Protective. Your new data inputs

Reference year	1990					2000					2005				
Planted components of Semi-Natural Forests Protective	Calculated % in Table 2b (%)														
	Figures calculated in table 2b					Figures calculated in table 2b					Figures calculated in table 2b				
	Ownership (%)														
Ownership	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
					100					100					100

Source: Planted Forests Specialist to list reference documents in the references section

Table 4c: Productive Plantation Forests. Your new data inputs

Reference year	1990					2000					2005				
Productive Plantation	Reported Area from Table 1 (1000 ha)														
	664					1384					1792				
Ownership	Ownership (%)														
	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
	47.5	3.7	45.6	3.2	100	32.7	4.4	51.8	11.1	100	27.4	5.2	63.8	3.6	100

Source: Planted Forests Specialist to list reference documents in the references section

Source: - Forest census of Vietnam in 1999
- Forest land and unused land for forestry in 2004

Table 4d: Protective Plantation Forests. Your new data inputs

Reference year	1990					2000					2005				
Protective Plantation	Reported Area from Table 1 (1000 ha)														
	303					666					903				
Ownership	Ownership (%)														
	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
	54.2	0.3	31.5	14.0	100	44.9	0.5	39.3	15.3	100	70.2	1.7	27.5	0.6	100

Source: Planted Forests Specialist to list reference documents in the references section

Source: - Forest census of Vietnam in 1999
- Forest land and unused land for forestry in 2004

Estimate of Predominant purpose for Planted Forests

(Refer to Section 7, Working Paper FP35)

In Questionnaire tables 5 (a, b), for productive and protective categories, please estimate, in %³³ of area, the **Predominant purpose** for:

Planted components of Semi-Natural Forests (table 5a), for figures calculated in table 2b

Plantation Forests (table 5b), for figures provided in table 1.

Table 5a: Detailed Purpose Estimates for Planted component of Semi-Natural Forests by % of Area. Your new data inputs

FRA Purposes	1990	2000	2005	Predominant Purpose	1990	2000	2005
	Estimates from table 2b (%)				%	%	%
Productive	Tab 2b INPUT	Tab 2b INPUT	Tab 2b INPUT	Ind-Sawlog			
				Ind-Pulpwood/Fiber			
				Ind-Bioenergy			
				Ind-Non Wood Prod			
				Ind-Unspecified			
Total					100	100	100
Protective	Tab 2b INPUT	Tab 2b INPUT	Tab 2b INPUT	Non-ind-Environmental			
				Non-ind-Recreation			
				Non-ind-Unspecified			
				Non-ind-Fuelwood			
Total					100	100	100

Source: Planted Forests Specialist to list reference documents in the references section

Table 5b: Detailed Purpose Estimates for Plantation Forests by % of Area. Your new data inputs

FRA Purposes	1990	2000	2005	Predominant Purpose	1990	2000	2005
	Estimates from table 1 (000 ha)				%	%	%
Productive	664	1384	1792	Ind-Sawlog	5	15	20
				Ind-Pulpwood/Fiber	80	70	65
				Ind-Bioenergy	10	10	10
				Ind-Non Wood Prod	3	3	3
				Ind-Unspecified	2	2	2
Total					100	100	100
Protective	303	666	903	Non-ind-Environmental	75	75	75
				Non-ind-Recreation	10	10	10
				Non-ind-Unspecified	10	10	10
				Non-ind-Fuelwood	5	5	5
Total					100	100	100

Sources:

- FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report
- Planted Forests Specialist to list reference documents in the references section

³³ Estimates of Predominant purpose must tally to 100% for reach category

For transparency in referencing please list below all documents appropriate to completion of information and data for this questionnaire in conformity with the standard list provided in references section of Working Paper 35

References *(Your new references inputs)*

SOUTH AFRICA



GLOBAL PLANTED FOREST
THEMATIC SUPPLEMENT TO
FOREST RESOURCES ASSESSMENT 2005

*QUESTIONNAIRE ON PLANTED FORESTS:
NATIONAL REPORTING TABLES*

To be read and filled in association with
Working Paper 35
to assist in definitions and explanatory notes

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CONTACT PERSONS

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or

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COUNTRY NAME: South Africa

Availability of FRA 2005 data on forest cover area

(Refer to **Section 1**, Working Paper FP35*)

Forest type

Table 1 has been derived from Table 4 (T4) of National Report for FRA 2005

Table 1: Area of Forest as reported in Table T4 of FRA 2005

FRA 2005 Categories	Surface (1000 ha)		
	Forest		
	1990	2000	2005
Primary			
Modified Natural	8 014	7 866	7 792
Semi-Natural			
Productive Plantation	1 370	1 331	1 339
Protective Plantation			

Source: Derived from T4, in FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report

According to the FRA 2005 definitions Planted Forests include the planted component of Semi-Natural Forests and both Productive and Protective Plantation Forests.

* FAO. 2005. Planted Forests and Trees Working Papers: Global Planted Forest Thematic Supplement to Forest Resources Assessment 2005. *Guidelines for National Reporting Tables for Planted Forests*, Working Paper FP35, Forest Resources Development Service, Forest Resources Division. FAO, Rome

Estimate of “Planted” and “Assisted Natural Regeneration” components of Semi-Natural Forests

(Refer to **Section 2**, Working Paper FP35)

Table 2a, in top rows, reports absolute figures provided in T4 of the National report for Semi-Natural Forests. Please provide the % planted component and % assisted natural regeneration component of Semi-Natural Forests for years 1990, 2000 and 2005³⁴ (Your new data inputs in yellow on table).

Table 2a: FRA 2005 area of Semi-Natural Forest classification and estimates of “Planted” and “Assisted Natural Regeneration” components of Semi-Natural Forests

Year	1990			2000			2005		
FRA Semi-Natural Forest	Absolute figures (1000 ha)								
	FRA 2005 area estimates			FRA 2005 area estimates			FRA 2005 area estimates		
Semi-Natural Forest components	Relative figures (%)								
	planted (%)	assisted (%)	Total (%)	planted (%)	assisted (%)	Total (%)	planted (%)	assisted (%)	Total (%)
Estimates	79.9	20.1	100	77.9	22.1	100	84.1	15.9	100

Sources:

- FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report
- Planted Forests Specialist to list reference documents in the references section

³⁴ The bottom row of table 4a to be completed by the Planted Forests Specialist.

Estimates of planted and assisted natural regeneration components of Semi-Natural Forests must tally to 100%

Estimation of Planted component of Semi-Natural Forests to Productive and Protective purposes

(Refer to **Section 3**, Working Paper FP35)

In Table 2b estimate in % the area of Planted component of Semi-Natural Forests³⁵ allocated to Production and Protection purposes for years 1990, 2000, 2005.

Your new data inputs

Table 2b: Planted component of Semi-Natural Forests to Productive and Protective purposes

Year	1990			2000			2005		
Semi-Natural Forests Planted component Estimates	Relative figures (%)								
	Productive (%)	Protective (%)	Total (%)	Productive (%)	Protective (%)	Total (%)	Productive (%)	Protective (%)	Total (%)
	100	0	100	100	0	100	100	0	100

Source: Planted Forests Specialist to list reference documents in the references section

³⁵ Estimates of Productive and Protective purposes must tally to 100%

Report MAI, rotation length, harvest volume yield, and age classes distribution for the top10 species in the Planted component of Semi-Natural Forests (Productive and Protective) and Plantation Forests (Productive and Protective)

(Refer to **Section 5**, Working Paper FP35)

In table 3c: Provide the top 10 species for **Productive Plantation Forests**

In table 3d: Provide the top 10 species for **Protective Plantation Forests**

For each table, please group other remaining species in class 11 named “Other”.

The total of percentages for the 11 classes must tally to 100%

For each species reported please provide best absolute data for Mean Annual Increment, Rotation Length and Harvest Volume.

Finally provide an estimate of the age distribution in %.

The Age distributions must tally to 100%.

Table 3c: Productive Plantation Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). Your new data inputs

Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
1) <i>Pinus patula</i>	25.2	12	18	25	35	300	450	28.4	24.1	36.1	9.9	1.5						
2) <i>Eucalyptus grandis</i>	23.5	18	24	7	9	160	240	46.0	45.9	15.4	1.1	0.5						
3) <i>Eucalyptus nitens</i>	16.2	22	28	7	9	160	240	51.2	46.8	10.4	0.3	0.8						
4) <i>Pinus elliotii</i>	14.5	12	18	25	35	300	450	21.9	20.3	42.6	12.6	2.6						
5) Wattle	8.6	10	12	9	12	90	120	52.5	45.6	8.6	0.2	1.5						
6) <i>Pinus radiata</i>	4.5	12	16	28	35	280	450	26.1	19.4	30.2	15.8	8.5						
7) Pine Other	3.6	10	14	25	30	280	380	43.0	36.2	14.3	3.8	2.7						
8) <i>Pinus taeda</i>	1.9	10	14	25	30	280	380	20.2	12.6	16.1	44.9	6.2						
9) <i>Pinus pinaster</i>	1.1	10	14	25	30	280	380	5.1	1.6	14.0	45.3	34.0						
10)																		
11) Other	0.9	12	16	10	12	140	200	19.3	21.1	29.9	4.5	25.3						
Total	100																	

Source: Planted Forests Specialist to list reference documents in the references section

Table 3d: Protective Plantation Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). Your new data inputs

Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
1)N/A																		
2)																		
3)																		
4)																		
5)																		
6)																		
7)																		
8)																		
9)																		
10)																		
11) Other																		
Total	100																	

Source: Planted Forests Specialist to list reference documents in the references section

Estimate of Ownership for Planted Forests

(Refer to Section 6, Working Paper FP35)

We request you to provide in tables 4 (a,b,c,d), the breakdown of ownership in “%” for Plantation Forests (Productive and Protective).

The total percentages of ownership categories must tally to 100%

Table 4c: Productive Plantation Forests. Your new data inputs

Reference year	1990					2000					2005				
Productive Plantation	Reported Area from Table 1 (1000 ha)														
	1370					1 331					1 339				
Ownership	Ownership (%)														
	Public	Private Corporate	Small holders	Other	Total	Public	Private Corporate	Small holders	Other	Total	Public	Private Corporate	Small holders	Other	Total
	30.5	69.5	0	0	100	11.5	76.6	11.5	0.4	100	6.3	78.8	14.5	0.4	100

Source: Planted Forests Specialist to list reference documents in the references section

Source :South African Forestry Handbook Vol 1 page 4

Table 4d: Protective Plantation Forests. Your new data inputs Not Applicable

Reference year	1990					2000					2005				
Protective Plantation	Reported Area from Table 1 (1000 ha)														
	-					-					-				
Ownership	Ownership (%)														
	Public	Private Corporate	Small holders	Other	Total	Public	Private Corporate	Small holders	Other	Total	Public	Private Corporate	Small holders	Other	Total
				100					100					100	

Source: Planted Forests Specialist to list reference documents in the references section

Estimate of Predominant purpose for Planted Forests

(Refer to **Section 7**, Working Paper FP35)

In **Questionnaire tables 5 (a, b)**, for productive and protective categories, please estimate, in %³⁶ of area, the **Predominant purpose** for:

Plantation Forests (table 5b), for figures provided in table 1.

Table 5b: Detailed Purpose Estimates for Plantation Forests by % of Area. **Your new data inputs**

FRA Purposes	1990	2000	2005	Predominant Purpose	1990	2000	2005
	Estimates from table 1 (000 ha)				%	%	%
Productive	FRA 2005 estimates (tab 1)	FRA 2005 estimates (tab 1)	FRA 2005 estimates (tab 1)	Ind-Sawlog	27.4	38.4	43.1
				Ind-Pulpwood/Fiber	63.5	55.9	53.4
				Ind-Bioenergy	1.9	0.5	0.7
				Ind-Non Wood Prod			
				Ind-Unspecified	7.2	5.2	2.8
Total					100	100	100
Protective	FRA 2005 estimates (tab 1)	FRA 2005 estimates (tab 1)	FRA 2005 estimates (tab 1)	Non-ind-Environmental	N/A		
				Non-ind-Recreation			
				Non-ind-Unspecified			
				Non-ind-Fuelwood			
Total					100	100	100

Sources:

- FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report
- Planted Forests Specialist to list reference documents in the references section

³⁶ **Estimates of Predominant purpose must tally to 100% for reach category**

For transparency in referencing please list below all documents appropriate to completion of information and data for this questionnaire in conformity with the standard list provided in references section of Working Paper 35

References *(Your new references inputs)*

1. Detailed Analysis Report of Forestry Operations in South Africa : 2004
Economics Services Published by: Forestry
2. Detailed Analysis Report of Forestry Operations in South Africa : 2004
Economics Services Published by: Forestry
3. Detailed Analysis Report of Forestry Operations in South Africa : 2004
Economics Services Published by: Forestry
4. Commercial Timber Resources & Roundwood Processing in South Africa : 2003/2004
Published by: Forestry Economics Services
5. Commercial Timber Resources & Roundwood Processing in South Africa : 1999/2000
Published by: Forest Economics Services
6. Source: South African Forestry Handbook Vol 1 page 4

NEW ZEALAND



GLOBAL PLANTED FOREST
THEMATIC SUPPLEMENT TO
FOREST RESOURCES ASSESSMENT 2005

***QUESTIONNAIRE ON PLANTED FORESTS:
NATIONAL REPORTING TABLES***

To be read and filled in association with
Working Paper 35
to assist in definitions and explanatory notes

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CONTACT PERSONS

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Jim Carle, Jim.Carle@fao.org

or

Alberto Del Lungo, Alberto.DelLungo@fao.org

COUNTRY NAME: New Zealand

Availability of FRA 2005 data on forest cover area

(Refer to **Section 1**, Working Paper FP35*)

Forest type

Table 1 has been derived from Table 4 (T4) of National Report for FRA 2005

Table 1: Area of Forest as reported in Table T4 of FRA 2005

FRA 2005 Categories	Surface (1000 ha)		
	Forest		
	1990	2000	2005
Primary	2914	3506	3506
Modified Natural	3545	2951	2951
Semi-Natural			
Productive Plantation	1261	1767	1832
Protective Plantation		2	20

Source: Derived from T4, in **FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report**

According to the FRA 2005 definitions Planted Forests include the planted component of Semi-Natural Forests and both Productive and Protective Plantation Forests.

* **FAO. 2005. Planted Forests and Trees Working Papers: Global Planted Forest Thematic Supplement to Forest Resources Assessment 2005. *Guidelines for National Reporting Tables for Planted Forests*, Working Paper FP35, Forest Resources Development Service, Forest Resources Division. FAO, Rome**

Estimate of “Planted” and “Assisted Natural Regeneration” components of Semi-Natural Forests

(Refer to Section 2, Working Paper FP35)

Table 2a, in top rows, reports absolute figures provided in T4 of the National report for Semi-Natural Forests. Please provide the % planted component and % assisted natural regeneration component of Semi-Natural Forests for years 1990, 2000 and 2005³⁷ (Your new data inputs in yellow on table).

Table 2a: FRA 2005 area of Semi-Natural Forest classification and estimates of “Planted” and “Assisted Natural Regeneration” components of Semi-Natural Forests

Year	1990			2000			2005		
FRA Semi-Natural Forest	Absolute figures (1000 ha)								
	FRA 2005 area estimates			FRA 2005 area estimates			FRA 2005 area estimates		
Semi-Natural Forest components	Relative figures (%)								
	planted (%)	assisted (%)	Total (%)	planted (%)	assisted (%)	Total (%)	planted (%)	assisted (%)	Total (%)
Estimates			100			100			100

Sources:

- FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report
- Planted Forests Specialist to list reference documents in the references section

Note

New Zealand did not report any areas of Semi Natural Forest

³⁷ The bottom row of table 4a to be completed by the Planted Forests Specialist.
Estimates of planted and assisted natural regeneration components of Semi-Natural Forests must tally to 100%

Estimation of Planted component of Semi-Natural Forests to Productive and Protective purposes

(Refer to Section 3, Working Paper FP35)

In Table 2b estimate in % the area of Planted component of Semi-Natural Forests³⁸ allocated to Production and Protection purposes for years 1990, 2000, 2005. Your new data inputs

Table 2b: Planted component of Semi-Natural Forests to Productive and Protective purposes

Year	1990			2000			2005		
Semi-Natural Forests Planted component Estimates	Relative figures (%)								
	Productive (%)	Protective (%)	Total (%)	Productive (%)	Protective (%)	Total (%)	Productive (%)	Protective (%)	Total (%)
			100			100			100

Source: Planted Forests Specialist to list reference documents in the references section

³⁸ Estimates of Productive and Protective purposes must tally to 100%

Report MAI, rotation length, harvest volume yield, and age classes distribution for the top10 species in the Planted component of Semi-Natural Forests (Productive and Protective) and Plantation Forests (Productive and Protective)

(Refer to **Section 5**, Working Paper FP35)

In tables 3 (a, b, c, d), **for year 2005 only**, please provide percentages of the top ten species used in your country.

In table 3a: Provide the top 10 species for **Productive Planted component of Semi-Natural Forests**

In table 3b: Provide the top 10 species for **Protective Planted component of Semi-Natural Forests**

In table 3c: Provide the top 10 species for **Productive Plantation Forests**

In table 3d: Provide the top 10 species for **Protective Plantation Forests**

For each table, please group other remaining species in class 11 named “Other”.

The total of percentages for the 11 classes must tally to 100%

For each species reported please provide best absolute data for Mean Annual Increment, Rotation Length and Harvest Volume.

Finally provide an estimate of the age distribution in %.

The Age distributions must tally to 100%.

Table 3a: Productive Planted component of Semi-Natural Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). **Your new data inputs**

Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %											
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total	
		1)																	
2)																			
3)																			
4)																			
5)																			
6)																			
7)																			
8)																			
9)																			
10)																			
11) Other																			
Total	100																		

Source: Planted Forests Specialist to list reference documents in the references section

Table 3b: Protective Planted component of Semi-Natural Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). **Your new data inputs**

Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %											
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total	
		1)																	
2)																			
3)																			
4)																			
5)																			
6)																			
7)																			
8)																			
9)																			
10)																			
11) Other																			
Total	100																		

Source: Planted Forests Specialist to list reference documents in the references section

Table 3c: Productive Plantation Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). Your new data inputs

Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
1)Radiata pine	89	17	20	25	32	440	620	18	28	30	23	1						100
2)Douglas fir	6	13	16	30	60	400	930	34	23	13	14	13	2	1				100
3)Other Softwoods	2	8	11	25	40	200	410	16	19	23	19	10	5	8				100
4) Hardwoods	3	12	15	12	40	140	510	25	41	22	8	1	1	2				100
11) Other																		
Total	100																	

Source: Planted Forests Specialist to list reference documents in the references section

Note:

Radiata pine and Douglas fir are the main plantation species used in New Zealand. No data for other species planted are available.

The average rotation length for Radiata pine in 2004 was 27.6 years; for Douglas fir it was 38.4 years.

The average harvest yield for Radiata pine was 460 m³/ha in 2004.

The MAI figures were calculated from the Total Recoverable Volume figures in the NEFD generalised yield tables.

The Minimum and Maximum harvest volume yields were also taken from the generalised yield tables at the given minimum and maximum rotation ages.

There are approx 20,000 hectares of hardwood grown on a short rotation basis. This will explain the wide range of rotation lengths for Hardwoods.

The East Coast Forestry Project (the area of Protective plantation) did not begin until 1992.

Table 3d: Protective Plantation Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). Your new data inputs

Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
1)Radiata pine	95			30	60			22	62	16								100
2)Douglas fir	2																	
3)Hardwoods	3																	
11) Other																		
Total	100																	

Source: Planted Forests Specialist to list reference documents in the references section

Estimate of Ownership for Planted Forests

(Refer to **Section 6**, Working Paper FP35)

We request you to provide in tables 4 (a,b,c,d), the breakdown of ownership in “%” for: Planted components of Semi-Natural Forests (Productive and Protective) and Plantation Forests (Productive and Protective).

The total percentages of ownership categories must tally to 100%

Table 4a: Planted component of Semi-Natural Forests Productive. Your new data inputs

Reference year	1990					2000					2005				
Planted components of Semi-Natural Forests Productive	Calculated in Table 2b (%)														
	Figures calculated in table 2b					Figures calculated in table 2b					Figures calculated in table 2b				
	Ownership (%)														
Ownership	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
					100					100					100

Source: Planted Forests Specialist to list reference documents in the references section

Table 4b: Planted component of Semi-Natural Forests Protective. Your new data inputs

Reference year	1990					2000					2005				
Planted components of Semi-Natural Forests Protective	Calculated % in Table 2b (%)														
	Figures calculated in table 2b					Figures calculated in table 2b					Figures calculated in table 2b				
	Ownership (%)														
Ownership	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
					100					100					100

Source: Planted Forests Specialist to list reference documents in the references section

Table 4c: Productive Plantation Forests. Your new data inputs

Reference year	1990					2000					2005				
Productive Plantation	Reported Area from Table 1 (1000 ha)														
	1261					1767					1832				
Ownership	Ownership (%)														
	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
	33	40	27	Nil	100	8	64	28	nil	100	8	63	29	nil	100

Source: Planted Forests Specialist to list reference documents in the references section

Table 4d: Protective Plantation Forests. Your new data inputs

Reference year	1990					2000					2005				
Protective Plantation	Reported Area from Table 1 (1000 ha)														
	-					2					20				
Ownership	Ownership (%)														
	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
	Nil	Nil	Nil	Nil	100	0	0	100	0	100	0	0	100	0	100

Source: Planted Forests Specialist to list reference documents in the references section

Estimate of Predominant purpose for Planted Forests

(Refer to Section 7, Working Paper FP35)

In Questionnaire tables 5 (a, b), for productive and protective categories, please estimate, in %³⁹ of area, the **Predominant purpose** for: Planted components of Semi-Natural Forests (table 5a), for figures calculated in table 2b Plantation Forests (table 5b), for figures provided in table 1.

Table 5a: Detailed Purpose Estimates for Planted component of Semi-Natural Forests by % of Area. Your new data inputs

FRA Purposes	1990	2000	2005	Predominant Purpose	1990	2000	2005
	Estimates from table 2b (%)				%	%	%
Productive	Tab 2b INPUT	Tab 2b INPUT	Tab 2b INPUT	Ind-Sawlog			
				Ind-Pulpwood/Fiber			
				Ind-Bioenergy			
				Ind-Non Wood Prod			
				Ind-Unspecified			
Total					100	100	100
Protective	Tab 2b INPUT	Tab 2b INPUT	Tab 2b INPUT	Non-ind-Environmental			
				Non-ind-Recreation			
				Non-ind-Unspecified			
				Non-ind-Fuelwood			
Total					100	100	100

Source: Planted Forests Specialist to list reference documents in the references section

Table 5b: Detailed Purpose Estimates for Plantation Forests by % of Area. Your new data inputs

FRA Purposes	1990	2000	2005	Predominant Purpose	1990	2000	2005
	Estimates from table 1 (000 ha)				%	%	%
Productive	1261	1767	1832	Ind-Sawlog	100	99	99
				Ind-Pulpwood/Fiber		1	1
				Ind-Bioenergy			
				Ind-Non Wood Prod			
				Ind-Unspecified			
Total					100	100	100
Protective	-	2	20	Non-ind-Environmental		50	50
				Non-ind-Recreation			
				Non-ind-Unspecified		50	50
				Non-ind-Fuelwood			
Total					100	100	100

Sources:

- FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report
- Planted Forests Specialist to list reference documents in the references section

³⁹ Estimates of Predominant purpose must tally to 100% for reach category

Note:

The figures for 2000 and 2005 reflect the approximately 20,000 hectares of short rotation hardwood plantations that have been established in both the North and the South Islands.

The percentage figures for the Protective plantation reflect the fact that production is not the first objective, but some Saw log-predominant production will be possible from those plantations. It is not possible to be more precise at this stage.

For transparency in referencing please list below all documents appropriate to completion of information and data for this questionnaire in conformity with the standard list provided in references section of Working Paper 35

References

- 1. Ministry of Agriculture and Forestry 2004.** A National Exotic Forest description as at 1 April 2003. Edition 20. MAF, Wellington, 55 pp
- 2. Ministry of Agriculture and Forestry 2005.** The 2005 Review of the East Coast Forestry Project, A discussion paper for the 2005 Review. Discussion paper No 37 MAF, Wellington, 34pp
- 3. New Zealand Forest Owners Association 2005.** The New Zealand Forest Industry Facts and Figures, 2004/05. NZFOA, Wellington, 25 pp
- 4. Ministry of Agriculture and Forestry 2000,** NEFD National and Regional Wood Supply Forecasts 2000. Edition 3. MAF, Wellington, 152 pp
- 5. Ministry of Forestry 1996,** NEFD Regional Yield Tables as at 1 April 1995, Edition 2. MOF, Wellington, 190 pp

AUSTRALIA

Note: In the questionnaire Australia only provided silvicultural parameters, ownership and end use data related to the figures on Plantation Area previously reported to FRA 2005

Table 3c

(a) The growth (MAI) and volume estimates were sourced from Ferguson et al. (2002) Plantation Wood Availability report 2001 to 2044. Bureau of Rural Sciences, Canberra

(b) The species age class distributions were sourced from Wood et al. (2001) Plantations of Australia. (Nb data as at end of 2000 includes plantings in year 2000).

(c) Age class was only collected and reported to age 60 years in Wood et al. (2001) Plantations of Australia 2001. All plantations greater than 60 years were summed together.

(d) An unknown age category was required due to not all plantations types being known at the time of the Plantations of Australia 2001 report.

(e) *Eucalyptus pilularis* and *E. grandis* were grouped and reported together in Wood et al. 2001, Plantations of Australia report.

Reference year: 2005

Top 10 species planted	%	Age class distribution (b)									
		2001	1995	1985	1975	1965	1955	1940	before	Unknown (d)	90-100
		2005	2000	1995	1984	1974	1964	1954	1939		
		0-5	6-10	11-20	21-30	31-40	41-50	51-66	>66 (c)		
1) <i>Pinus radiata</i>	44%	64.862	115.715	207.024	226.183	134.356	13.664	7.007	1.594	11.000	NA
2) <i>Eucalyptus globulus</i>	25%	130.794	259.309	48.521	1.145	403	5	5	2	1.954	NA
3) <i>Pinus elliottii</i>	5%	7.129	17.449	12.807	28.440	18.328	1.185	541	8	0	NA
4) <i>Pinus caribaea</i>	4%	5.236	1.220	25.644	23.820	4.724	1.400	7	22	1.010	NA
5) <i>Araucaria</i> spp.	3%	4.217	3.598	4.821	7.879	13.389	8.074	7.754	1.072	0	NA
6) <i>Pinus pinaster</i>	2%	3.586	12.225	2.998	7.696	10.064	3.812	1.974	845	0	NA
7) <i>Eucalyptus nitens</i>	2%	11.815	13.993	9.943	435	1	0	0	0	3.752	NA
8) <i>Eucalyptus pilularis</i> and <i>E. grandis</i> (e)	2%	11.103	11.610	1.114	2.889	9.778	710	152	56	120	NA
9) <i>Eucalyptus regnans</i>	1%	5.157	185	2.737	3.659	4.672	856	157	9	0	NA
10) <i>Eucalyptus dunni</i>	1%	3.098	7.182	126	0	7	0	0	0	60	NA
11) Other	11%	34.432	73.778	53.039	15.937	7.405	1.535	836	2.933	4.383	NA
Total	100%	281.428	516.265	368.772	318.084	203.128	31.241	18.432	6.543	22.279	0

Notes:

(a) The growth (MAI) and volume estimates were sourced from Ferguson et al. (2002) Plantation Wood Availability report 2001 to 2044. Bureau of Rural Sciences, Canberra

(b) The species age class distributions were sourced from Wood et al. (2001) Plantations of Australia. (Nb data as at end of 2000).

(c) Age class was only collected and reported to age 60 years in Wood et al. (2001) Plantations of Australia 2001. These are now 5 years older so all plantations greater than 60 years are now 65 years.

(d) An unknown age category was required due to not all plantations types being known at the time of the Plantations of Australia 2001 report.

(e) Eucalyptus pilularis and E. grandis were grouped and reported together in Wood et al. 2001, Plantations of Australia report.

In 2000, softwoods made up 63% of the total plantation area, known hardwoods were 26% and unknown species were 11%.

At the end of 2004 there were 58% softwood species and 42% hardwood species (NPI update 2005).

(f) For 2005 Table 2 assumes the 58% SWD and 42% HWD (includes the 11% other) and proportions within the HWD/SWD groupings stay the same as they were in 2000. Other includes unknown species.

Wood, M. S., N. C. Stephens, et al. (2001). Plantations of Australia - A report from the National Plantation Inventory and the National Forest Inventory. Canberra, Bureau of Rural Sciences: 108pp.

Ferguson, I. F., J. Fox, et al. (2002). Plantations of Australia - Wood availability 2001-2044. Canberra, Australia, Bureau of Rural Sciences: 108pp.

Table 4c

Reference year	1990(1)					2000 (2)					2005				
Productive Plantation	Reported Area from Table 1 (1000 ha)														
	1.023					1.485					1.766				
Ownership	Ownership (%)														
	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
	Corporate	Small holders				Corporate	Small holders				Corporate	Small holders (3)			
	71	29	NDA	NDA	100	46	36	5	14	100	36	58	ID	6	100

Reference: 1990 Forest and Wood Products Statistics, ABARE 1991

(1) The figures for public and corporate were calculated from the total plantation area for 1990. It was not possible to report on small holders as an inventory has not been done.

Reference: National Forest Inventory. *Plantations of Australia* - a report from the National Plantation Inventory and the National Farm Forestry (abridged version), Bureau of Rural Sciences, Canberra

(2) The figures for public, corporate and small holders were calculated from *Plantations of Australia* - a report from the National Plantation Inventory and the National Farm Forestry (abridged version). The small holders figure was calculated by subtracting the farm forestry component from the Corporate figure reported

Reference: National Forest Inventory 2005.

National Plantation Inventory 2005 Update, Bureau of Rural Sciences, Canberra.

(3) Detailed data on farm forestry small holders was not available.

Table 5b

FRA Purposes	1990	2000	2005	Predominant Purpose	1990	2000	2005
	Estimates from table 1 (000 ha)				%	%	%
Productive	955	1.485	1.766	Ind-Sawlog	NDA	74	69
				Ind-Pulpwood/Fiber	NDA	26	31
				Ind-Bioenergy	NDA	ID	ID
				Ind-Non Wood Prod	NDA	NDA	NDA
				Ind-Unspecified	NDA	NDA	NDA
Total					100	100	
Protective	NDA	NDA	-	Non-ind-Environmental	NDA	NDA	NDA
				Non-ind-Recreation	NDA	NDA	NDA
				Non-ind-Unspecified	NDA	NDA	NDA
				Non-ind-Fuelwood	NDA	NDA	NDA
Total							

Method

The percent value for sawlog and pulpwood was derived using 'Sawlogs from Australia's eucalypt plantations' percentage values by state then aggregated by product, sawlog or pulpwood.

Reference: National Forest Inventory 2005. *Sawlogs from Australia's eucalypt plantations, poster for IUFRO conference*. Bureau of Rural Sciences, Canberra.

Age Classes at year 2000

Species rank	Age in 2005	5years old	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65
1	<i>P. radiata</i>	15.271	100.444	82.028	124.995	115.177	111.005	92.243	42.113	10.762	2.901	3.420	2.054	1.5
2	<i>E. globulus</i>	116.357	142.952	40.711	7.810	1.051	94	327	76	1	3	0	3	
3	<i>P. elliotii</i>	2.219	15.230	8.262	4.544	7.490	20.950	14.381	3.947	577	608	503	38	
4	<i>P. caribaea</i>	70	1.149	4.823	20.821	15.763	8.058	2.902	1.822	1.037	363	4	3	
5	<i>Araucaria</i> spp.	17	3.581	2.180	2.641	3.058	4.821	6.914	6.475	4.628	3.446	4.239	2.547	9
6	<i>P. pinaster</i>	4.836	7.389	1.026	1.972	3.438	4.258	4.253	5.811	2.552	1.260	1.665	178	1
7	<i>E. nitens</i>	3.958	10.036	7.723	2.220	431	4	0	1	0	0	0	0	
8	<i>E. pilularis</i> and <i>E. grandis</i>	5.029	6.582	755	360	444	2.445	7.121	2.658	589	121	64	72	
9	<i>E. regnans</i>	44	141	783	1.954	1.281	2.378	2.712	1.960	829	27	8	149	
10	<i>E. dunnii</i>	2.640	4.541	91	35	0	0	0	7	0	0	0	0	
11	Minor Eucalypt spp.	2.399	6.523	1.933	1.987	3.084	1.309	691	692	144	67	16	70	
11	Minor hardwood spp. ⁽¹⁾ Unidentified hardwood spp.	3.553	7.899	98	25	10	3	4	12	7	17	14	8	
11	Minor <i>Pinus</i> spp. ⁽²⁾ Unidentified softwood spp.	12.158	29.688	23.716	12.321	2.971	811	350	228	108	154	183	46	
11	Minor <i>Pinus</i> spp. ⁽²⁾	150	1.670	1.079	1.692	1.280	290	1.266	799	386	172	206	29	
11	Minor softwood spp. Unidentified softwood spp.	0	10	3	51	16	76	1.088	1.399	432	15	11	13	
11	Mixed spp. ⁽³⁾⁽⁴⁾	505	3.230	4.540	3.445	3.574	2.375	537	282	10	18	28	4	
11	Unknown	563	4.319	1.754	179	54	69	0	30	0	0	0	0	
	Total	169.775	346.490	181.543	187.229	159.137	158.946	134.803	68.325	22.064	9.176	10.367	5.215	2.8

BULGARIA



GLOBAL PLANTED FOREST
THEMATIC SUPPLEMENT TO
FOREST RESOURCES ASSESSMENT 2005

***QUESTIONNAIRE ON PLANTED FORESTS:
NATIONAL REPORTING TABLES***

To be read and filled in association with
Working Paper 35
to assist in definitions and explanatory notes

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CONTACT PERSONS

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COUNTRY NAME: Bulgaria

Availability of FRA 2005 data on forest cover area

(Refer to **Section 1**, Working Paper FP35*)

Forest type

Table 1 has been derived from Table 4 (T4) of National Report for FRA 2005

Table 1: Area of Forest as reported in Table T4 of FRA 2005

FRA 2005 Categories	Surface (1000 ha)		
	Forest		
	1990	2000	2005
Primary	267	396	NDA
Modified Natural	2028	2046	NDA
Semi-Natural	992	885	NDA
Productive Plantation	21.9	30.7	NDA
Protective Plantation	18.6	17.0	NDA

Source: Derived from T4, in **FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report**

According to the FRA 2005 definitions Planted Forests include the planted component of Semi-Natural Forests and both Productive and Protective Plantation Forests.

* **FAO. 2005. Planted Forests and Trees Working Papers: Global Planted Forest Thematic Supplement to Forest Resources Assessment 2005. *Guidelines for National Reporting Tables for Planted Forests*, Working Paper FP35, Forest Resources Development Service, Forest Resources Division. FAO, Rome**

Estimate of “Planted” and “Assisted Natural Regeneration” components of Semi-Natural Forests

(Refer to Section 2, Working Paper FP35)

Table 2a, in top rows, reports absolute figures provided in T4 of the National report for Semi-Natural Forests. Please provide the % planted component and % assisted natural regeneration component of Semi-Natural Forests for years 1990, 2000 and 2005⁴⁰ (Your new data inputs in yellow on table).

Table 2a: FRA 2005 area of Semi-Natural Forest classification and estimates of “Planted” and “Assisted Natural Regeneration” components of Semi-Natural Forests

Year	1990			2000			2005		
FRA Semi-Natural Forest	Absolute figures (1000 ha)								
	992			885			NDA		
	Relative figures (%)								
Semi-Natural Forest components	planted (%)	assisted (%)	Total (%)	planted (%)	assisted (%)	Total (%)	planted (%)	assisted (%)	Total (%)
Estimates	100	0	100	100	0	100	NDA	NDA	100

Sources:

- FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report
- Planted Forests Specialist to list reference documents in the references section

⁴⁰ The bottom row of table 4a to be completed by the Planted Forests Specialist. Estimates of planted and assisted natural regeneration components of Semi-Natural Forests must tally to 100%

Estimation of Planted component of Semi-Natural Forests to Productive and Protective purposes

(Refer to Section 3, Working Paper FP35)

In Table 2b estimate in % the area of Planted component of Semi-Natural Forests⁴¹ allocated to Production and Protection purposes for years 1990, 2000, 2005. Your new data inputs

Table 2b: Planted component of Semi-Natural Forests to Productive and Protective purposes

Year	1990			2000			2005		
Semi-Natural Forests Planted component	Relative figures (%)								
	Productive (%)	Protective (%)	Total (%)	Productive (%)	Protective (%)	Total (%)	Productive (%)	Protective (%)	Total (%)
Estimates	53	47	100	48	52	100	NDA	NDA	100

Source: Planted Forests Specialist to list reference documents in the references section

⁴¹ Estimates of Productive and Protective purposes must tally to 100%

Report MAI, rotation length, harvest volume yield, and age classes distribution for the top10 species in the Planted component of Semi-Natural Forests (Productive and Protective) and Plantation Forests (Productive and Protective)

(Refer to **Section 5**, Working Paper FP35)

In tables 3 (a, b, c, d), **for year 2005 only**, please provide percentages of the top ten species used in your country.

In table 3a: Provide the top 10 species for **Productive Planted component of Semi-Natural Forests**

In table 3b: Provide the top 10 species for **Protective Planted component of Semi-Natural Forests**

In table 3c: Provide the top 10 species for **Productive Plantation Forests**

In table 3d: Provide the top 10 species for **Protective Plantation Forests**

For each table, please group other remaining species in class 11 named “Other”.

The total of percentages for the 11 classes must tally to 100%

For each species reported please provide best absolute data for Mean Annual Increment, Rotation Length and Harvest Volume.

Finally provide an estimate of the age distribution in %.

The Age distributions must tally to 100%.

Unfortunately for this section we do not have any data. The organization of the forest management in Bulgaria is according to the forest types, but not according their functions. The data for rotation length, age structure, etc. are respectively for needle forests, broadleaf forests, forests for reconstruction, etc.

Table 3a: Productive Planted component of Semi-Natural Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). **Your new data inputs**

Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
1)																		
2)																		
3)																		
4)																		
5)																		
6)																		
7)																		
8)																		
9)																		
10)																		
11) Other																		
Total	100																	

Source: Planted Forests Specialist to list reference documents in the references section

Table 3b: Protective Planted component of Semi-Natural Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). **Your new data inputs**

Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
1)																		
2)																		
3)																		
4)																		
5)																		
6)																		
7)																		
8)																		
9)																		
10)																		
11) Other																		
Total	100																	

Source: Planted Forests Specialist to list reference documents in the references section

Table 3c: Productive Plantation Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). **Your new data inputs**

Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
		1)																
2)																		
3)																		
4)																		
5)																		
6)																		
7)																		
8)																		
9)																		
10)																		
11) Other																		
Total	100																	

Source: Planted Forests Specialist to list reference documents in the references section

Table 3d: Protective Plantation Forests. Species composition (%), Mean Annual Increment (m³/ha/year), Rotation Length (years), Harvest volume yield (m³/ha) and age class distribution (%). **Your new data inputs**

Reference year: 2005

Top 10 species planted	%	Mean Annual Increment m ³ /ha/year		Predominant Rotation Length years		Harvest Vol. Yield m ³ /ha		Age class distribution %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
		1)																
2)																		
3)																		
4)																		
5)																		
6)																		
7)																		
8)																		
9)																		
10)																		
11) Other																		
Total	100																	

Source: Planted Forests Specialist to list reference documents in the references section

Estimate of Ownership for Planted Forests

(Refer to Section 6, Working Paper FP35)

According to Bulgarian Forestry Act all Semi-natural forests are state forests (100% state property). Semi-natural forests were and are not under restitution.

We request you to provide in tables 4 (a,b,c,d), the breakdown of ownership in “%” for: Planted components of Semi-Natural Forests (Productive and Protective) and Plantation Forests (Productive and Protective).

The total percentages of ownership categories must tally to 100%

Table 4a: Planted component of Semi-Natural Forests Productive. Your new data inputs

Reference year	1990					2000					2005				
Planted components of Semi-Natural Forests Productive	Calculated in Table 2b (%)														
	Figures calculated in table 2b					Figures calculated in table 2b					Figures calculated in table 2b				
	Ownership (%)														
Ownership	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
	100				100	100				100	100				100

Source: Planted Forests Specialist to list reference documents in the references section

Table 4b: Planted component of Semi-Natural Forests Protective. Your new data inputs

Reference year	1990					2000					2005				
Planted components of Semi-Natural Forests Protective	Calculated % in Table 2b (%)														
	Figures calculated in table 2b					Figures calculated in table 2b					Figures calculated in table 2b				
	Ownership (%)														
Ownership	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
	100				100	100				100	100				100

Source: Planted Forests Specialist to list reference documents in the references section

Table 4c: Productive Plantation Forests. Your new data inputs

Reference year	1990				2000				2005						
Productive Plantation	Reported Area from Table 1 (1000 ha)														
	21.9				30.7				NDA						
Ownership	Ownership (%)														
	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
	100			100	100				100	100				100	

Source: Planted Forests Specialist to list reference documents in the references section

Table 4d: Protective Plantation Forests. Your new data inputs

Reference year	1990				2000				2005						
Protective Plantation	Reported Area from Table 1 (1000 ha)														
	18.6				17.0				NDA						
Ownership	Ownership (%)														
	Public	Private		Other	Total	Public	Private		Other	Total	Public	Private		Other	Total
		Corporate	Small holders				Corporate	Small holders				Corporate	Small holders		
	100			100	100				100	100				100	

Source: Planted Forests Specialist to list reference documents in the references section

Estimate of Predominant purpose for Planted Forests

(Refer to Section 7, Working Paper FP35)

In Questionnaire tables 5 (a, b), for productive and protective categories, please estimate, in %⁴² of area, the **Predominant purpose** for: Planted components of Semi-Natural Forests (table 5a), for figures calculated in table 2b
Plantation Forests (table 5b), for figures provided in table 1.

Table 5a: Detailed Purpose Estimates for Planted component of Semi-Natural Forests by % of Area. Your new data inputs

FRA Purposes	1990	2000	2005	Predominant Purpose	1990	2000	2005
	Estimates from table 2b (%)				%	%	%
Productive	Tab 2b INPUT	Tab 2b INPUT	Tab 2b INPUT	Ind-Sawlog	31	30.5	32 33
				Ind-Pulpwood/Fiber	16	16.5	18
				Ind-Bioenergy	25	23	27 28
				Ind-Non Wood Prod	3.5	4	4
				Ind-Unspecified	24.5	26	17
Total					100	100	100
Protective	Tab 2b INPUT	Tab 2b INPUT	Tab 2b INPUT	Non-ind-Environmental	35	36.5	36
				Non-ind-Recreation	19	19	19.5
				Non-ind-Unspecified	46	44.5	44.5
				Non-ind-Fuelwood	-	-	-
Total					100	100	100

Source: Planted Forests Specialist to list reference documents in the references section

Table 5b: Detailed Purpose Estimates for Plantation Forests by % of Area. Your new data inputs

FRA Purposes	1990	2000	2005	Predominant Purpose	1990	2000	2005
	Estimates from table 1 (000 ha)				%	%	%
*Productive	21.9	30.7	NDA	Ind-Sawlog			
				Ind-Pulpwood/Fiber			
				Ind-Bioenergy			
				Ind-Non Wood Prod			
				Ind-Unspecified	100*	100*	100*
Total					100	100	100
Protective	18.6	17.0	NDA	Non-ind-Environmental			
				Non-ind-Recreation	100	100	100
				Non-ind-Unspecified			
				Non-ind-Fuelwood			
Total					100	100	100

Sources:

- FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report
- Planted Forests Specialist to list reference documents in the references section

*All of the forests from the category "Productive plantation" are designated for production of seeds.

⁴² Estimates of Predominant purpose must tally to 100% for reach category

For transparency in referencing please list below all documents appropriate to completion of information and data for this questionnaire in conformity with the standard list provided in references section of Working Paper 35

References *(Your new references inputs)*

***All the data are from National forest fund report (look in FRA 2005 – Bulgaria)**

FRANCE



SUPPLÉMENT THÉMATIQUE SUR LES FORÊTS
PLANTÉES MONDIALES À
L'ÉVALUATION DES RESSOURCES FORESTIÈRES
2005

***QUESTIONNAIRE SUR LES FORÊTS PLANTÉES:
TABLEAUX NATIONAUX D'INFORMATIONS***

Pour remplir le questionnaire veuillez consulter le Document de travail 35 afin de compter sur l'assistance des définitions et des notes explicatives fournies par ce document

VERSION DU 3/08/2005

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CONTACTS

Pour poser des questions sur le complètement des tableaux, veuillez contacter:

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où

Alberto Del Lungo, Alberto.DelLungo@fao.org

NOM DU PAYS: France

Disponibilité des données de FRA 2005 sur la superficie du couvert forestier

(Veuillez consulter la **Section 1**, du Document de travail FP35*)

Type de forêt

Le tableau 1 a été tiré du Tableau 4 (T4) du Rapport par pays de FRA 2005

Tableau 1: superficie de la forêt d'après le tableau T4 de FRA 2005

Catégories de FRA 2005	Superficie (1000 ha)		
	Forêt		
	1990	2000	2005
Forêts primaires	30	30	30
Forêts naturelles modifiées			
Forêts semi-naturelles	12 666	13 385	13 556
Plantation de production	1 842	1 936	1 968
Plantation de protection			

Source: tableau T4, de la Mise à jour de l'Évaluation des ressources forestières mondiales 2005, FAO 2004/5,
Rapport par pays

Selon les définitions fournies par FRA 2005, les forêts plantées comprennent le composant planté des forêts semi-naturelles, et les plantations forestières destinées à la production ou à la protection.

* FAO. 2005. Documents de travail sur les forêts et les arbres plantés: Supplément thématique sur les forêts plantées mondiales à l'Évaluation des Ressources forestières 2005. *Directives pour l'élaboration des tableaux nationaux d'informations sur les forêts plantées*, Document de travail FP35, Service de la mise en valeur des ressources forestières, Division des ressources forestières. FAO, Rome.

Estimation du composant “planté” et du composant de “régénération naturelle assistée” des forêts semi-naturelles

(Veuillez consulter la **Section 2** du Document de travail FP35)

Les premières lignes du tableau 2a, montrent les chiffres absolus fournis par le tableau T4 du rapport par pays sur les forêts semi-naturelles. Veuillez fournir le pourcentage (%) du composant planté et celui du composant de régénération naturelle assistée des forêts semi-naturelles au cours des années 1990, 2000 et 2005⁴³ (**Vos données doivent figurer dans la section jaune du tableau**).

Tableau 2a de FRA 2005 : pourcentage de la superficie des forêts semi-naturelles et estimations des composants “plantés” et de “régénération naturelle assistée” des forêts semi-naturelles

Année	1990			2000			2005		
Forêts semi-naturelles selon FRA	Chiffres absolus (1000 ha)								
	12 666			13 385			13 556		
Composants des forêts semi-naturelles	Chiffres relatifs (%)								
	Plantés (%)	Assistés (%)	Total (%)	Plantés (%)	Assistés (%)	Total (%)	Plantés (%)	Assistés (%)	Total (%)
	1	99	100	1	99	100	1	99	100
Estimations									

Sources:

- Mise à jour de l'Évaluation des ressources forestières 2005, FAO 2004/5, Rapport par pays.
- L'expert en forêts plantées fera une liste des documents de référence dans la section bibliographique.

⁴³ La dernière ligne du tableau 4a doit être complétée par l'expert en forêts plantées.

Les estimations du composant planté et du composant de régénération naturelle assistée des forêts semi-naturelles doivent totaliser 100%.

Estimation du composant planté des forêts semi-naturelles de production et de protection

(Veuillez consulter la **Section 3** du Document de travail FP35)

Dans le tableau 2b veuillez faire une estimation du pourcentage de la superficie occupée par le composant planté des forêts semi-naturelles⁴⁴ destinées à la production et à la protection au cours de 1990, 2000 et 2005. Vos données doivent figurer dans la section jaune.

Tableau 2b: composant planté des forêts semi-naturelles destinées à la production et à la protection

Année	1990			2000			2005		
Composant planté des forêts semi-naturelles	Chiffres relatifs (%)								
	De production (%)	De protection (%)	Total (%)	De production (%)	De protection (%)	Total (%)	De production (%)	De protection (%)	Total (%)
	94	6	100	95	5	100	95	5	100

Source : l'expert en forêts plantées fera une liste des documents de référence dans la section bibliographique.

⁴⁴ Les estimations respectives des forêts de production et des forêts de protection doivent totaliser 100%.

Rapport AMA (Accroissement Moyen Annuel), durée du cycle de rotation, rendement du volume de récolte, et distribution par classe d'âge des 10 espèces principales du composant planté des forêts semi-naturelles (de production et de protection) et des plantations forestières (de production et de protection).

(Veuillez consulter la **Section 5**, du Document de travail FP35)

Veuillez fournir les pourcentages correspondant aux 10 espèces principales utilisées dans votre pays **en 2005** dans les tableaux 3 (a, b,c,d).

Veuillez fournir les 10 espèces principales du **composant planté des forêts semi-naturelles de production** dans le tableau 3a.

Veuillez fournir les 10 espèces principales du **composant planté des forêts semi-naturelles de protection** dans le tableau 3b.

Veuillez fournir les 10 espèces principales des **plantations forestières destinées à la production** dans le tableau 3c.

Veuillez fournir les 10 espèces principales des **plantations forestières destinées à la protection** dans le tableau 3d.

Dans chaque tableau, veuillez inscrire les espèces restantes dans la classification 11 "Autres".

Le total du pourcentage de chacune des 11 classifications doit totaliser 100%.

Veuillez fournir les meilleures données possibles sur chacune des espèces en ce qui concerne: l'accroissement moyen annuel (AMA), la durée du cycle de rotation et le rendement du volume de récolte.

Finalement, veuillez fournir une estimation des pourcentages de distribution par classe d'âge. **La distribution par âge doit totaliser 100%.**

Tableau 3a: composant planté des forêts semi-naturelles de production. Composition des espèces (%), Accroissement Moyen Annuel (m³/ha/année), Durée du cycle de rotation (années), rendement du volume de récolte (m³/ha) et distribution par classe d'âge (%). Vos données doivent figurer dans la section jaune

Année de référence: 2005

10 espèces principales plantées	%	Accroisse-ment Moyen Annuel m ³ /ha/année		Durée prédominante du cycle de rotation (années)		Rendement du volume de récolte m ³ /ha		Distribution par classe d'âge %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
1) pin sylvestre	28			70	140			5	8	15	32	40						100
2) sapin pectiné	23			80	130			2	5	25	44	24						100
3) hêtre	9			90	120			22	25	30	20	3						100
4) chêne pédonculé	8			100	140			28	33	31	5	3						100
5) chêne sessile	7			170	210			30	43	24	3							100
6) mélèze d'Europe	5			140	220			29	12	24	18	17						100
7) frênes	5			50	70			32	39	26		3						100
8) mersier/cerisiers	3			60	70			42	30	23	5							100
9) pin pignon	3			60	90			20	32	38	10							100
10) grands érables	2			60	70			60	23	12	5							100
11) Autres	7			60	90			17	24	31	18	10						100
Total	100																	

Source: l'expert en forêts plantés fera une liste des documents de référence dans la section bibliographique.

Tableau 3b: composant planté des forêts semi-naturelles de protection. Composition des espèces (%), Accroissement Moyen Annuel (m³/ha/année), Durée du cycle de rotation (années), rendement du volume de récolte (m³/ha) et distribution par classe d'âge (%). Vos données doivent figurer dans la section jaune.

Année de référence: 2005

10 principales espèces plantées	%	Accroisse-ment Moyen Annuel m ³ /ha/année		Durée prédominante du cycle de rotation (années)		Rendement du volume de récolte m ³ /ha		Distribution par classe d'âge %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
1)																		
2)																		
3)																		
4)																		
5)																		
6)																		
7)																		
8)																		
9)																		
10)																		
11) Autres																		
Total	100																	

Source: l'expert en forêts plantées fera une liste des documents de référence dans la section bibliographique.

Tableau 3c: plantations forestières de production. Composition des espèces (%), Accroissement Moyen Annuel (m³/ha/année), Durée du cycle de rotation (en années), rendement du volume de récolte (m³/ha) et distribution par classe d'âge (%). Vos données doivent figurer dans la section jaune.

Année de référence: 2005

10 principales espèces plantées	%	Accroissement Moyen Annuel m ³ /ha/année		Durée prédominante du cycle de rotation (en années)		Rendement du volume de récolte M ³ /ha		Distribution par classe d'âge %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
		1) pin maritime	48	4,7	13,8	40	70			8	11	16	17	13	17	14	3	1
2) épicéa commun	19			60	120			3	6	26	40	25						100
3) Douglas	17			40	75			11	13	34	29	13						100
4) pin laricio	5			80	200			16	18	31	23	12						100
5) pin noir	4			80	130			6	13	27	34	20						100
6) épicéa de Sitka	2			40	60			3	6	27	47	17						100
7) sapin de Vancouver	1			80	100			5	4	17	48	26						100
8) chêne rouge d'Amériq.	1			60	80			27	37	27	3	6						100
9) cèdre de l'Atlas	1			70	80			17	30	40	9	4						100
10) mélèze du Japon	1			50	70			3	7	16	33	41						100
11) Autres	1			80	100			11	14	31	36	8						100
Total	100																	

Source: l'expert en forêts plantées fera une liste des documents de référence dans la section bibliographique.

Tableau 3d: plantations forestières de protection. Composition des espèces (%), Accroissement Moyen Annuel (m³/ha/année), Durée du cycle de rotation (en années), Rendement du volume de récolte (m³/ha) et distribution par classe d'âge (%). Vos données doivent figurer dans la section jaune.

Année de référence: 2005

10 principales espèces plantées	%	Accroissement Moyen Annuel m ³ /ha/année		Durée prédominante du cycle de rotation (années)		Rendement du volume de récolte m ³ /ha		Distribution par classe d'âge %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
		1)																
2)																		
3)																		
4)																		
5)																		
6)																		
7)																		
8)																		
9)																		
10)																		
11) Autres																		

Total	100								
--------------	------------	--	--	--	--	--	--	--	--

Source: l'expert en forêts plantées fera une liste des documents de référence dans la section bibliographique.

Estimation de la propriété des forêts plantées

(Veuillez consulter la **Section 6** du Document de travail FP35)

Vous êtes prié de fournir les pourcentages (“%”) concernant la propriété des composants plantés des forêts semi-naturelles (de production et de protection) et des plantation forestières (de production et de protection) dans les tableaux 4 (a, b, c, d).

Le pourcentage total de chaque catégorie de propriété doit totaliser 100%

Tableau 4a: Composant planté des forêts semi-naturelles de production. Vos données doivent figurer dans la section jaune.

Année de référence	1990					2000					2005				
Composants plantés des forêts semi-naturelles de production	Calculé dans le Tableau 2b (%)														
	150 (milliers d'ha)					173 (milliers d'ha)					191 (milliers d'ha)				
	Propriété (%)														
Propriété	Publique	Privée		Autres	Total	Publique	Privée		Autres	Total	Publique	Privée		Autres	Total
		Entreprise	Petits propriétaires				Entreprise	Petits propriétaires				Entreprise	Petits propriétaires		
	35	65		100	44	56		100	45	55		100			

Source: l'expert en forêts plantées fera une liste des documents de référence dans la section bibliographique.

Tableau 4b: Composant planté des forêts semi-naturelles de protection. Vos données doivent figurer dans la section jaune.

Année de référence	1990					2000					2005				
Composants plantés des forêts semi-naturelles de protection	Calculée en % dans le tableau 2b (%)														
	9 (milliers d'ha)					9 (milliers d'ha)					9 (milliers d'ha)				
	Propriété (%)														
Propriété	Publique	Privée		Autres	Total	Publique	Privée		Autres	Total	Publique	Privée		Autres	Total
		Entreprise	Petits propriétaires				Entreprise	Petits propriétaires				Entreprise	Petits propriétaires		
	100			100	100			100	100			100			

Source: l'expert en forêts plantées fera une liste des documents de référence dans la section bibliographique.

Tableau 4c: plantations forestières de production. Vos données doivent figurer dans la section jaune.

Année de référence	1990				2000				2005						
Plantation de production	Superficie indiquée dans le Tableau 1 (1000 ha)														
	1 813 (milliers d'ha)				1 907 (milliers d'ha)				1 937 (milliers d'ha)						
	Propriété (%)														
Propriété	Publique	Privée		Autres	Total	Publique	Privée		Autres	Total	Publique	Privée		Autres	Total
		Entreprise	Petits propriétaires				Entreprise	Petits propriétaires				Entreprise	Petits propriétaires		
	13	87		100	15	85		100	15	85		100			

Source: l'expert en forêts plantées fera une liste des documents de référence dans la section bibliographique.

Tableau 4d: plantations forestières de protection. Vos données doivent figurer dans la section jaune.

Année de référence	1990				2000				2005						
Plantation de protection	Superficie indiquée au tableau 1 (1000 ha)														
	29 (milliers d'ha)				29 (milliers d'ha)				31 (milliers d'ha)						
	Propriété (%)														
Propriété	Publique	Privée		Autres	Total	Publique	Privée		Autres	Total	Publique	Privée		Autres	Total
		Entreprise	Petits propriétaires				Entreprise	Petits propriétaires				Entreprise	Petits propriétaires		
	100			100	100			100	100			100			

Source: l'expert en forêts plantées fera une liste des documents de référence dans la section bibliographique.

Estimation de la finalité prédominante des forêts plantées

(Veuillez consulter la **Section 7** du Document de travail FP35)

Dans les **tableaux 5 (a, b) du questionnaire** concernant les catégories destinées à la production et à la protection, veuillez estimer en %⁴⁵ la superficie des composants plantés des forêts semi-naturelles, (tableau 5^a) **destinées à une finalité prédominante**, celle-ci sera en rapport avec les chiffres calculés dans le tableau 2b. Veuillez calculer aussi la superficie des plantations forestières (tableau 5b), celle-ci sera en rapport avec les chiffres fournis dans le tableau 1.

Tableau 5a: Estimations détaillées de la superficie du composant planté des forêts semi-naturelles selon leur finalité prédominante.

Vos données doivent figurer dans la section jaune.

Finalité selon FRA	1990	2000	2005	Finalité prédominante	1990	2000	2005
	Estimations tirées du tableau 2b (%)				%	%	%
de production	Donnée du Tableau 2b	Donnée du Tableau 2b	Donnée du tableau 2b	Grume de sciage industriel	100	100	100
				Pâte/fibre industrielle			
				Bioénergie industrielle			
				Produit Forestier non ligneux industriel			
				Non spécifié industriel			
Total					100	100	100
de protection	Donnée du tableau 2b	Donnée du tableau 2b	Donnée du tableau 2b	Environnement non industriel	100	100	100
				Récréation non industrielle			
				Non spécifié non industriel			
				Bois de feu non industriel			
					100	100	100

Source: l'expert en forêts plantées fera une liste des documents de référence dans la section bibliographique.

⁴⁵ L'estimation de la finalité prédominante de chaque catégorie doit totaliser 100%.

Tableau 5b: Estimation détaillée de la superficie des plantations forestières selon leur finalité prédominante.

Vos données doivent figurer dans la section jaune.

Finalité selon FRA	1990	2000	2005	Finalité prédominante	1990	2000	2005
	Estimations tirées du Tableau 1 (000 ha)				%	%	%
de production	1 813 (milliers d'ha)	1 907 (milliers d'ha)	1 937 (milliers d'ha)	Grume de sciage industriel	100	100	100
				Pâte/Fibre industrielle			
				Bioénergie industrielle			
				Produit forestier non ligneux industriel			
				Non spécifié industriel			
Total					100	100	100
de protection	29 (milliers d'ha)	29 (milliers d'ha)	31 (milliers d'ha)	Environnement non industriel	100	100	100
				Récréation non industrielle			
				Non spécifié, non industriel			
				Bois de feu non industriel			
Total					100	100	100

Sources

- Mise à jour de l'Évaluation des ressources forestières mondiales 2005, FAO 2004/5, Rapport par pays
- L'expert en forêts plantées fera une liste des documents de référence dans la section bibliographique.

Pour faciliter la transparence en matière de références, veuillez faire une liste de tous les documents dont vous avez tiré les informations et les données utiles pour le complètement du questionnaire suivant le modèle fourni dans la section bibliographique du Document de travail 35.

Bibliographie (nouvelles données bibliographiques)

Inventaire forestier national : base de données dendrométriques

Pignard (G., Thivolle-Cazat (A.), Hamza (N.), Disponibilités en bois résineux en France – Réévaluation après les tempêtes de 1999, 2004, 427 p.

Office national des Forêts, Bulletin technique n° 31, 1996

Office national des Forêts, Forêts et risques naturels en montagne, 1990

Inventaire forestier national – France. Observations concernant le questionnaire sur les forêts plantées

Observation générale : l’Inventaire forestier national ne notait jusqu’à présent l’origine artificielle des peuplements que pour ceux qui étaient âgés de moins de 40 ans au moment de l’inventaire. Cette limite nous a paru correspondre à la définition des plantations de la FAO (espacement régulier, gestion intensive, ...) sauf pour le pin maritime du Sud-Ouest géré intensivement sur l’ensemble de son cycle : l’estimation de la surface des plantations du tableau T4 du GFRA2005 est donc basée sur ces données (voir § 4.2.2 du GFRA2005). De même, l’estimation du composant planté des forêts semi-naturelles est limité aux boisements et reboisements de moins de 40 ans, en l’absence d’autres éléments.

Page 2 : une estimation approximative de la part des plantations de production et de protection a pu être réalisée à partir des données de l’IFN et de l’Office national des forêts (ONF). Les résultats sont les suivants :

Surface (milliers d’ha)

	1990	2000	2005
Plantations de production	1 813 (98%)	1 907 (98%)	1 937 (98%)
Plantations de protection	29 (2%)	29 (2%)	31 (2%)
Total	1 842	1 936	1 968

Page 4 : l’estimation de la part entre production et protection est également approximative (IFN et ONF)

Pages 6 et 7, tableaux 3a à 3d : il n’a pas été possible de distinguer la production et la protection : compte tenu du très faible % classé en protection, on a indiqué les résultats des 2 catégories confondues dans les tableaux « production ».

Comme signalé plus haut, seules les données sur le pin maritime concernent les peuplements quel que soit leur âge : on a ainsi pu renseigner le % par classe d’âge, l’AMA et les rotations.

Le fait d'avoir limité aux peuplements de moins de 40 ans les autres essences implique qu'il y a discordance entre les rotations pratiquées et les classes d'âge annoncées : c'est pourquoi les % figurent en italiques. Par ailleurs, les AMA des peuplements à l'âge d'exploitabilité ne sont pas connus.

Enfin, les rendements du volume de récolte ne sont pas disponibles.

Pages 8 et 9, tableaux 4a et 4c : il n'a pas été possible de distinguer la part entre petits propriétaires et entreprises pour la forêt privée.

Pages 10 et 11, tableaux 5a et 5b : les peuplements plantés pour la production sont généralement destinés à la production de grumes mais ils fournissent également une part importante de bois d'industrie tout au long de la vie du peuplement (éclaircies) : c'est pourquoi les 2 finalités ont été fusionnées et mises à 100%.

Les peuplements plantés pour la protection sont destinés à la protection des sols et des eaux et ont donc été classés dans la catégorie « environnement non industriel ».

ARGENTINA

Note: In the questionnaire Argentina only provided silvicultural parameters, ownership and end use data related to the figures on Plantation Area previously reported to FRA 2005



**SUPLEMENTO TEMÁTICO SOBRE LOS BOSQUES
PLANTADOS MUNDIALES
PARA LA EVALUACIÓN DE LOS RECURSOS
FORESTALES
2005**

***CUESTIONARIO SOBRE LOS BOSQUES
PLANTADOS:
TABLAS INFORMATIVAS NACIONALES***

A ser leído y llenado haciendo referencia al Documento
de Trabajo 35
para contar con asistencia acerca de las definiciones y notas
explicativas

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PERSONAS DE REFERENCIA

Para hacer consultas sobre cómo llenar estas tablas sírvase ponerse en contacto con:

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NOMBRE DEL PAÍS: Argentina

Disponibilidad de datos del FRA 2005 sobre el área de la cubierta forestal

(Sírvasse hacer referencia a la **Sección 1**, Documento de trabajo FP35*)

Tipo de bosque

La tabla 1 es el producto de la Tabla 4 (T4) del Informe Nacional para FRA 2005

La Tabla 1: Área de Bosque según figura en la Tabla T4 de FRA 2005

Categorías de FRA 2005	Superficie (1000 ha)		
	Bosque		
	1990	2000	2005
Primarios			
Naturales modificados			
Semi-naturales			
Plantación para la producción	769	1078	1229
Plantación para la protección			

Fuente: producto de la tabla T4, en la Actualización de la Evaluación de los Recursos Forestales Mundiales al 2005, FAO 2004/5, Informe Nacional

De acuerdo a las definiciones de FRA 2005 los Bosques plantados comprenden el componente plantado de los Bosques semi-naturales, y los Bosques de plantaciones, tanto para la producción, como para la protección.

* FAO. 2005. Documentos de trabajo sobre Bosques y árboles plantados: Suplemento temático sobre los bosques plantados mundiales para la Evaluación de los Recursos Forestales 2005. *Directrices para la elaboración de las tablas informativas nacionales sobre Bosques plantados*, Documento de Trabajo FP35, Servicio de Desarrollo de Recursos Forestales, Dirección de Recursos Forestales. FAO, Roma.

Data provided by Mirta Larrieu	Superficie (1000 ha)		
	Bosque		
	1992	2000	2005
Primarios			
Naturales modificados			
Semi-naturales			
Plantación para la producción	710.4	1083	1204.3
Plantación para la protección			

Informe sobre el IMA (Incremento Medio Anual), la duración del ciclo de rotación, el rendimiento del volumen de aprovechamiento, y la distribución por clase de edad de las 10 especies principales del componente plantado de los Bosques semi-naturales (para la producción y para la protección) y de los bosques de plantaciones (para la producción y la protección).

(Sírvese hacer referencia a la **Sección 5**, del Documento de Trabajo FP35)

En las tablas 3 (a, b, c, d), sírvase suministrar los porcentajes de las 10 especies principales utilizadas en su país **sólo para el año 2005**.

En la tabla 3a: Sírvase suministrar las 10 especies principales para el **componente plantado de los Bosques semi-naturales para la producción**

En la tabla 3b: suministre las 10 especies principales del **componente plantado de los Bosques semi-naturales para la protección**

En la tabla 3c: suministre las 10 especies principales de los **Bosques de plantaciones para la producción**

En la tabla 3d: suministre las 10 especies principales en los **Bosques de plantaciones para la protección**

En cada tabla, sírvase agrupar las especies restantes dentro de la clasificación 11 denominada “Otros”.

El total de los porcentajes para las 11 clasificaciones debe sumar el 100%.

Sírvese suministrar los mejores datos en absoluto acerca de cada una de las especies en lo que se refiere al: Incremento Medio Anual (IMA), la duración del ciclo de rotación y el rendimiento del volumen de aprovechamiento.

Finalmente suministre una estimación porcentual (%) de la distribución por edad. **La distribución por edad debe sumar el 100%.**

Tabla 3c: Bosques de plantaciones para la producción. Composición de las especies (%), Incremento Medio Anual (m³/ha/año), Duración del ciclo de rotación (en años), Rendimiento del volumen de aprovechamiento (m³/ha) y distribución por clase de edad (%). Sus datos figurarán en la sección amarilla.

Año de referencia: 2005

10 principales especies plantadas	%	Incremento Medio Anual m ³ /ha/año		Duración del ciclo de rotación predominante años		Rendimiento vol. de aprovechamiento m ³ /ha		Distribución por clase de edad %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
1)Pinus taeda	13.4	22	27	18	27													
2)Pinus eliottii	13.4	22	27	18	27													
3)Pinus caribea	13.4	22	27	18	27													
4)Pinus ponderosa	13.4	22	27	18	27													
5) Eucalyptus grandis	8.02	26	38	10	13													
6) Eucalyptus saligna	8.02	26	38	10	13													
7) E. camaldulensis	4.01	26	38	10	13													
8) E. tereticornis	4.01	26	38	10	13													
9) E. viminalis	4.01	26	38	10	13													
10) E. globuluss	4.01	26	38	10	13													
11) E. globuluss	4.01	26	38	10	13													
12) Salix babilonica var sacramenta	2.80	20	25	8	10													
13) Salix alba	2.80	20	25	8	10													
13) Salix babilonica	0.93	20	25	8	10													
14) Salix hibrido	0.93	20	25	8	10													
15) Auracaria angustifolia	1.47	18	20	30														
16) Melia azedarach	0.11	12	18	10	15													
17) Populus x canadensis	0.65	23	28	10	12													
18) Populus deltoides	0.24	23	28	10	12													
19) Populus alba	0.24	23	28	10	12													
20) Populus nigra	0.24	23	28	10	12													
21) Populus I 63	0.24	23	28	10	12													
22) Other Broadleaves	3.55																	
22) Other Conifers	0.10																	
Total	100																	

Fuente: SAGPyA – Inventario de Plantaciones Forestales de Argentina

FINAL Tabla 3c: Bosques de plantaciones para la producción. Composición de las especies (%), Incremento Medio Anual (m³/ha/año), Duración del ciclo de rotación (en años), Rendimiento del volumen de aprovechamiento (m³/ha) y distribución por clase de edad (%). Sus datos figurarán en la sección amarilla.

Año de referencia: 2005

10 principales especies plantadas	%	Incremento Medio Anual m ³ /ha/año		Duración del ciclo de rotación predominante años		Rendimiento vol. de aprovechamiento m ³ /ha		Distribución por clase de edad %										
		Min	Max	Min	Max	Min	Max	0-5	5-10	10-20	20-30	30-40	40-50	50-70	70-90	90-100	>100	Total
1) Pinus taeda	13.4	22	27	18	27			4	21	40	35	1						100
2) Pinus eliottii	13.4	22	27	18	27			4	21	40	35	1						100
3) Pinus caribea	13.4	22	27	18	27			4	21	40	35	1						100
4) Eucalyptus grandis	8.02	26	38	10	13			17	33	35	12	4						100
5) Salix (S. babilonica var sacramenta, S. alba, S. babilonia, S. híbridos)	7.47	20	25	8	10			22	32	24	12	10						100
6) Auracaria angustifolia	1.47	18	20	30				0	19	41	24	16						
7) Melia azedarach	0.11	12	18	10	15			16	11	50	20	2						100
8) Populus (x canadensis, P. deltoides, P. alba, P. nigra, I 63)	1.62	22.5	27.5	10	12			23	25	32	11	9						
9) Other Broadleaves	27.6	26.3	37.5	13	12.75			26	21	25	15	12						100
10) Other Conifers	13.5	21.2	25.6	23	26			62	9	21	3	6						100
Total	100																	

Fuente: SAGPyA – Inventario de Plantaciones Forestales de Argentina Adjusted by Mirta Larrieu and Alberto Del Lungo

Estimación de la propiedad de los Bosques plantados

(Sírvese hacer referencia a la **Sección 6**, del Documento de Trabajo FP35)

Se le solicita suministre en las tablas 4 (a, b, c, d), los detalles acerca de la propiedad en términos porcentuales“%” de: los componentes plantados de los Bosques semi-naturales (para la producción y para la protección) así como acerca de los bosques de plantaciones (para la producción y para la protección).

Los porcentajes totales de las categorías de propiedad deben sumar el 100%

Tabla 4c: Bosques de plantaciones para la producción. Sus datos figurarán en la sección amarilla.

Año de referencia	1990					2000					2005				
Plantación para la protección	Área que figura en la Tabla 1 (1000 ha)														
	Propiedad (%)														
Propiedad	Pública	Privada		Otros	Total	Pública	Privada		Otros	Total	Pública	Privada		Otros	Total
		Compañía	Pequeños propietarios				Compañía	Pequeños propietarios				Compañía	Pequeños propietarios		
	0.7	70.1	8.5	20.7	100	0.7	70.1	8.5	20.7	100	0.7	70.1	8.5	20.7	100

Fuente: el experto en Bosques plantados hará una lista de los documentos de referencia en la sección bibliográfica.

Estimación de la finalidad predominante de los bosques plantados

(Sírvese hacer referencia a la Sección 7, Documento de Trabajo FP35)

En las tablas 5 (a, b) del cuestionario, relativas a las categorías destinadas a la producción y a la protección, sírvase estimar, en %⁴⁶ el área de los componentes plantados de los bosques semi-naturales, (tabla 5^a) **destinados a un fin predominante**, la cual está relacionada con las cifras calculadas en la tabla 2b. Así como el área de los Bosques de plantaciones (tabla 5b), la cual está relacionada con las cifras suministradas en la tabla 1.

Tabla 5b: Estimaciones detalladas acerca de la finalidad de los bosques de plantaciones por porcentaje del área. Sus datos figurarán en la sección amarilla.

Finalidad según FRA	1990	2000	2005	Fin predominante	1990	2000	2005
	Estimaciones tomadas de la Tabla 1 (000 ha)				%	%	%
de producción	769	1078	1229	Madera aserrada industrial	63.8	63.1	69.3
				Pasta/Fibra industrial	36.2	36.9	30.7
				Bioenergía industrial			
				Producto Forestal no maderero industrial			
				No especificado para fines industriales			
Total					100	100	100
de protección				Ambiental no industrial			
				Recreación no industrial			
				No especificado, no industrial			
				Leña, no industrial			
Total					100	100	100

Fuentes:

- FAO 2004/5, Actualización de la Evaluación de los Recursos Forestales Mundiales al 2005, Informe Nacional
- El experto en bosques plantados hará una lista de los documentos de referencia en la sección bibliográfica.

⁴⁶ Las estimaciones de la finalidad predominante deben sumar el 100% en cada categoría.

Para favorecer la transparencia en materia de referencias, sírvase hacer una lista de todos los documentos que se demostraron apropiados para completar la información y los datos de este cuestionario de conformidad con la lista estándar suministrada en la sección bibliográfica del Documento de Trabajo 35.

Bibliografía (datos bibliográficos nuevos)

TO BE FILLED

MYANMAR



GLOBAL PLANTED FOREST
THEMATIC SUPPLEMENT TO
FOREST RESOURCES ASSESSMENT 2005

***QUESTIONNAIRE ON PLANTED FORESTS:
NATIONAL REPORTING TABLES***

To be read and filled in association with
Working Paper 35
to assist in definitions and explanatory notes

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COUNTRY NAME: Myanmar

Availability of FRA 2005 data on forest cover area

(Refer to **Section 1**, Working Paper FP35*)

Forest type

Table 1 has been derived from Table 4 (T4) of National Report for FRA 2005

Table 1: Area of Forest as reported in Table T4 of FRA 2005

FRA 2005 Categories	Surface (1000 ha)		
	Forest		
	1990	2000	2005
Primary			
Modified Natural	38825	33858	31373
Semi-Natural			
Productive Plantation	323	571	696
Protective Plantation	71	125	153

Source: Derived from T4, in **FAO 2004/5, Global Forest Resources Assessment update 2005, National Country Report**

According to the FRA 2005 definitions Planted Forests include the planted component of Semi-Natural Forests and both Productive and Protective Plantation Forests.

* **FAO. 2005. Planted Forests and Trees Working Papers: Global Planted Forest Thematic Supplement to Forest Resources Assessment 2005. *Guidelines for National Reporting Tables for Planted Forests*, Working Paper FP35, Forest Resources Development Service, Forest Resources Division. FAO, Rome**

Table 2a: FRA 2005 area of Semi-Natural Forest classification and estimates of “Planted” and “Assisted Natural Regeneration” components of Semi-Natural Forests

Year	1990			2000			2005		
FRA Semi-Natural Forest	FRA 2005 area estimates			FRA 2005 area estimates			FRA 2005 area estimates		
	Relative figures (%)								
Semi-Natural Forest components	planted (%)	assisted (%)	Total (%)	planted (%)	assisted (%)	Total (%)	planted (%)	assisted (%)	Total (%)
Estimates	-	-	-	-	-	-	-	-	-

Note to table 2a:

- National information is not available in FRA 2005 classes. Therefore modifications has been made.
- Semi-natural forest = Proptected Areas System Working Circle area plus forest area not included in WCS.
- The Natural Regeneration has been done only in modified natural forest.