2011

Strategies for improvement of Kosova's forest resources / [presentation given in May 2011]

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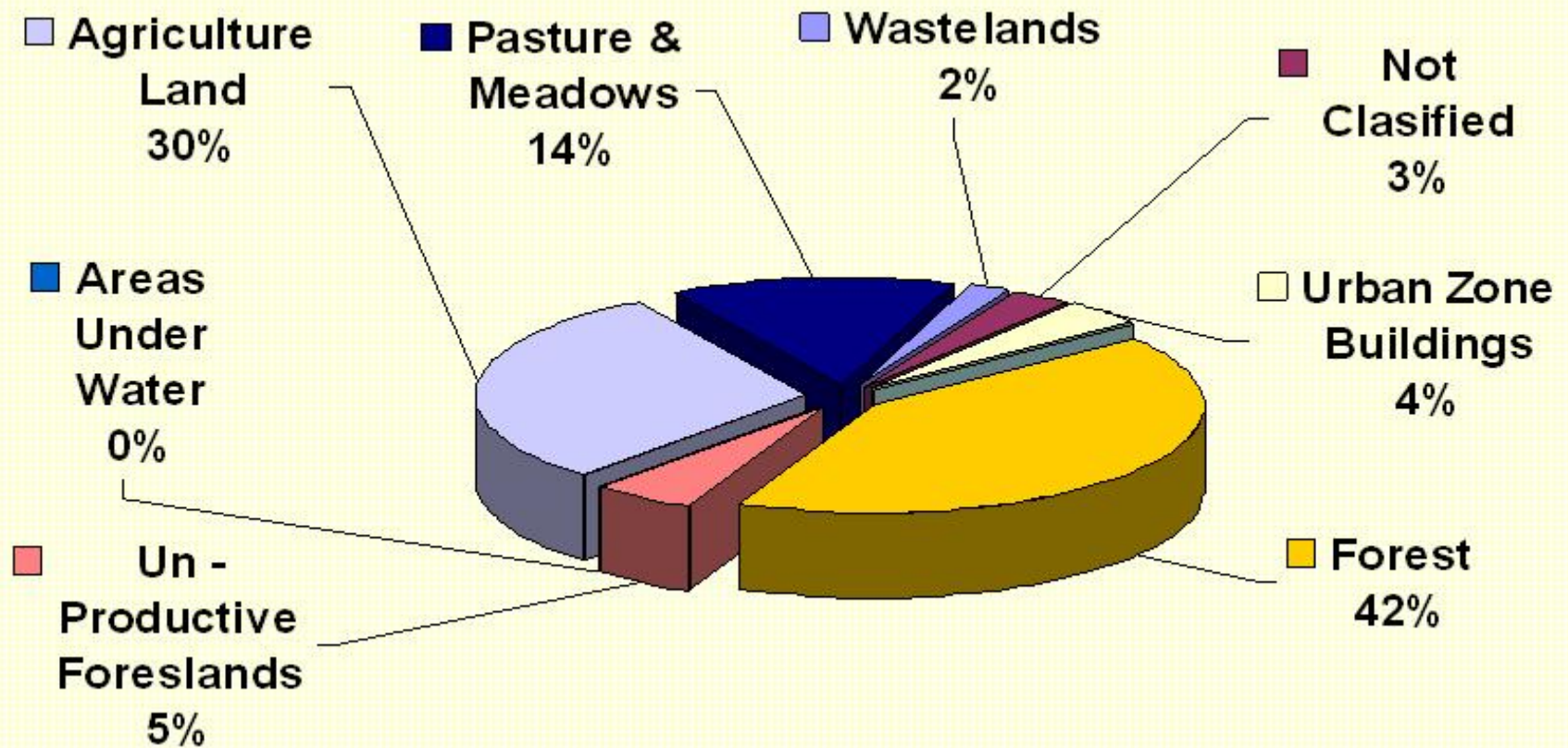Follow this and additional works at: http://scholarworks.rit.edu/theses

Strategies for Improvement of Kosova's Forest Resources

By: Arben Qerimi

Introduction

- **Relative Land Uses in Kosova**

Relative Land Uses in Kosova

- Agriculture Land 30%
- Pasture & Meadows 14%
- Wastelands 2%
- Not Clasified 3%
- Areas Under Water 0%
- Urban Zone Buildings 4%
- Un-Productive Foreslands 5%
- Forest 42%

Forests Structure

- **Resources**

Public Forests   280,092 ha

Private Forests   166,218 ha

Public & Private Forests   446,310 ha

Barren Forestlands   66,404 ha

Total   **510,710 ha**

Forests Structure

- **Resources** - **Species Class and Stand Structure**

No trees 1%

Conifer 4%

No data 18%

Mixed 1%

Broadleaf 76%
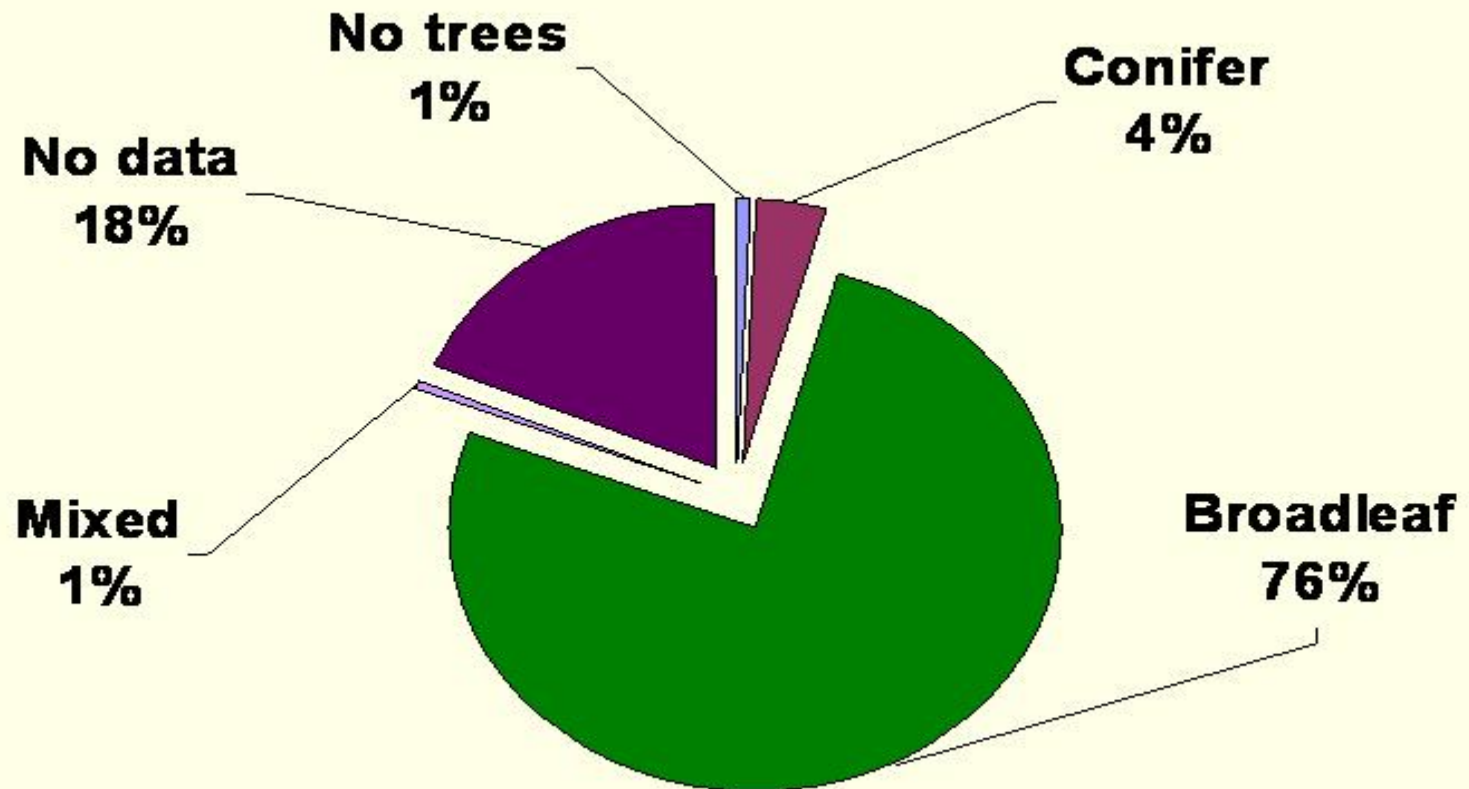
Forests Management Structure

- **Main Identified Actors**

  o Ministry of Agriculture, Forests and Rural Development (MAFRD)

  o Department of Forestry (DoF) and

  o Kosova Forest Agency (KFA)

Forest Areas According to the Form Cultivation

No	Forest	Total (ha)	Public Forests (ha)	Private Forests (ha)	Forests Structure		
					Total %	Public Forests %	Private Forests %
1	High forests	65,778	51,038	14,740	14.7	18.2	8.7
2	Low forests	179,170	115,839	68,331	40.1	41.4	38.2
3	**Degraded Forests**	**81,639**	**33,954**	**47,685**	**18.3**	**12.1**	**28.8**
4	**Shrubs**	**100,563**	**64,811**	**35,752**	**22.6**	**23.1**	**21.5**
5	Other	19,160	14,450	4,710	4.3	5.2	2.8
Total		446,310	280,092	166,218	100	100	100

Forestry Important Facts

Degraded & Shrub Forests   182,202 ha
Barren Forestlands   66,404 ha

Comprise about 40.9 % of total forest area

- **Scope of Forest Degradation**

  o Illegal logging
  o Conflict of year 1998 – 1999
  o Consecutive damage during the period from 1987 – 1999s & 1999 – 2010s
  o Forests fires

Forestry Important Facts

- **Wood Volume in Stock**

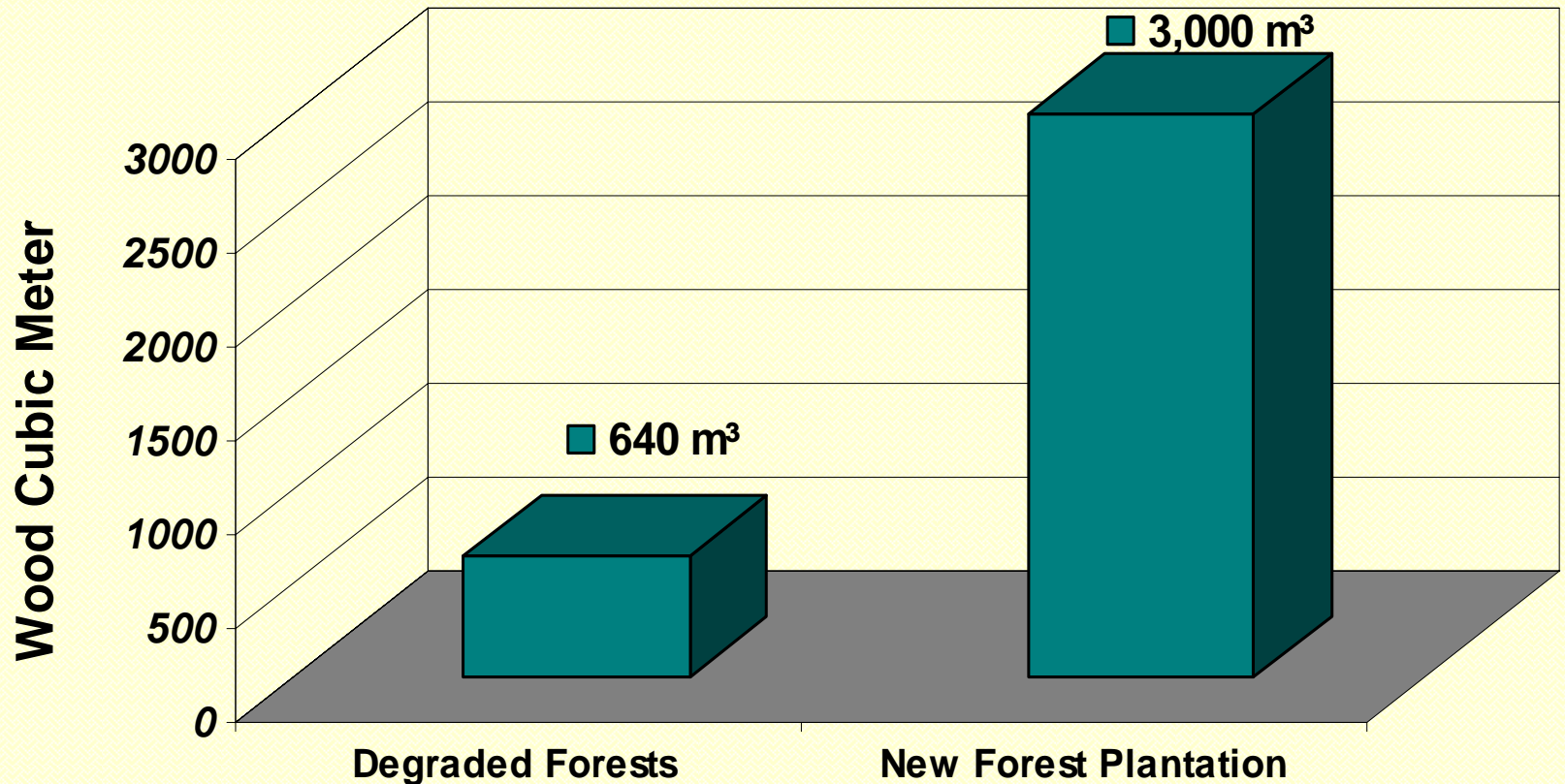| No	Forest	Public & Private (ha)	Wood Volume (m³ / ha)	Total (m³)
1	Degraded Forests	81,639	7.452	3,874,000
2	Shrub Forests	100,563	16.894	1,699,000

- **Annual Growth**

  Degraded Forests yield 1.28 m³ / ha / year

  New Forests Plantation yield 6 m³ / ha / year

Degraded Forests vs. New Forest Plantation

- **Annual Growth m^3 – 500 ha / Year**

Forests Structure Improvement

- **Goals set out**

- **Reforestation**

  Degraded Forests & Shrubs   182,202 ha
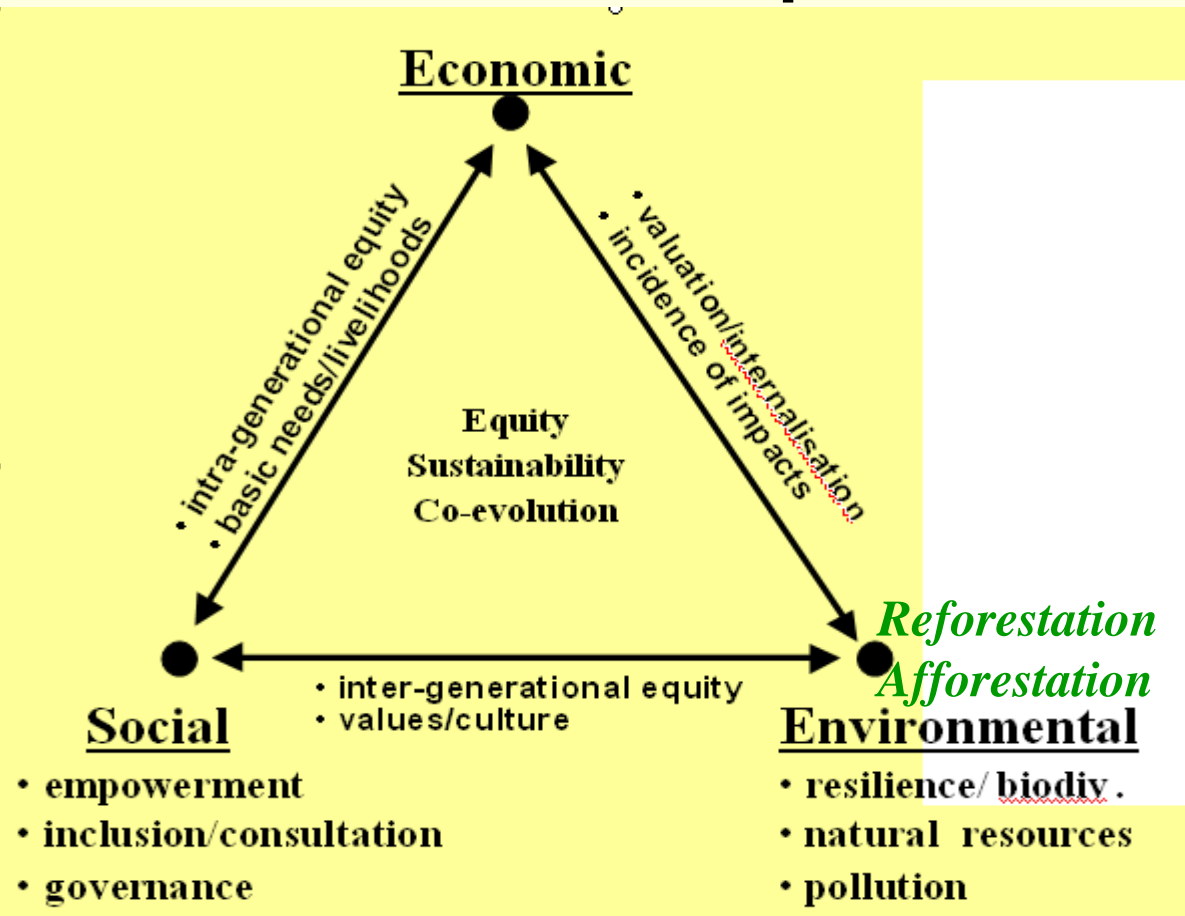
  60 % or 100,000 ha

- **Afforestation**

  Barren Forestlands   66,404 ha

  40 % or 40,000 ha

Benefits

- **Sustainable Development**

ECONOMIC
Timber Products
Wood Productivity
Diversify Local Economy

ENVIRONMENTAL
Carbon Sequestration
Production of Oxygen
Stabilization of Soil
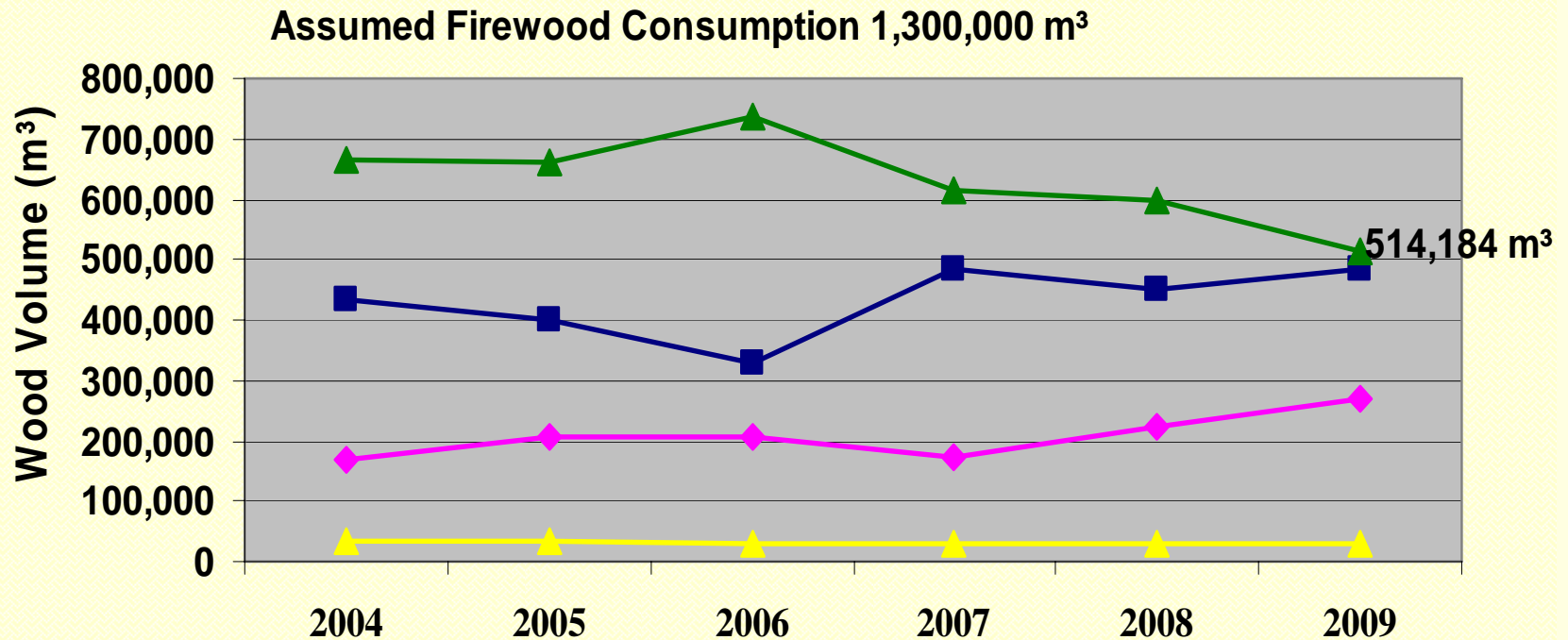Watershed Protection
Landscape / Biodiversity
Restoration

SOCIAL
Employment; Recreation
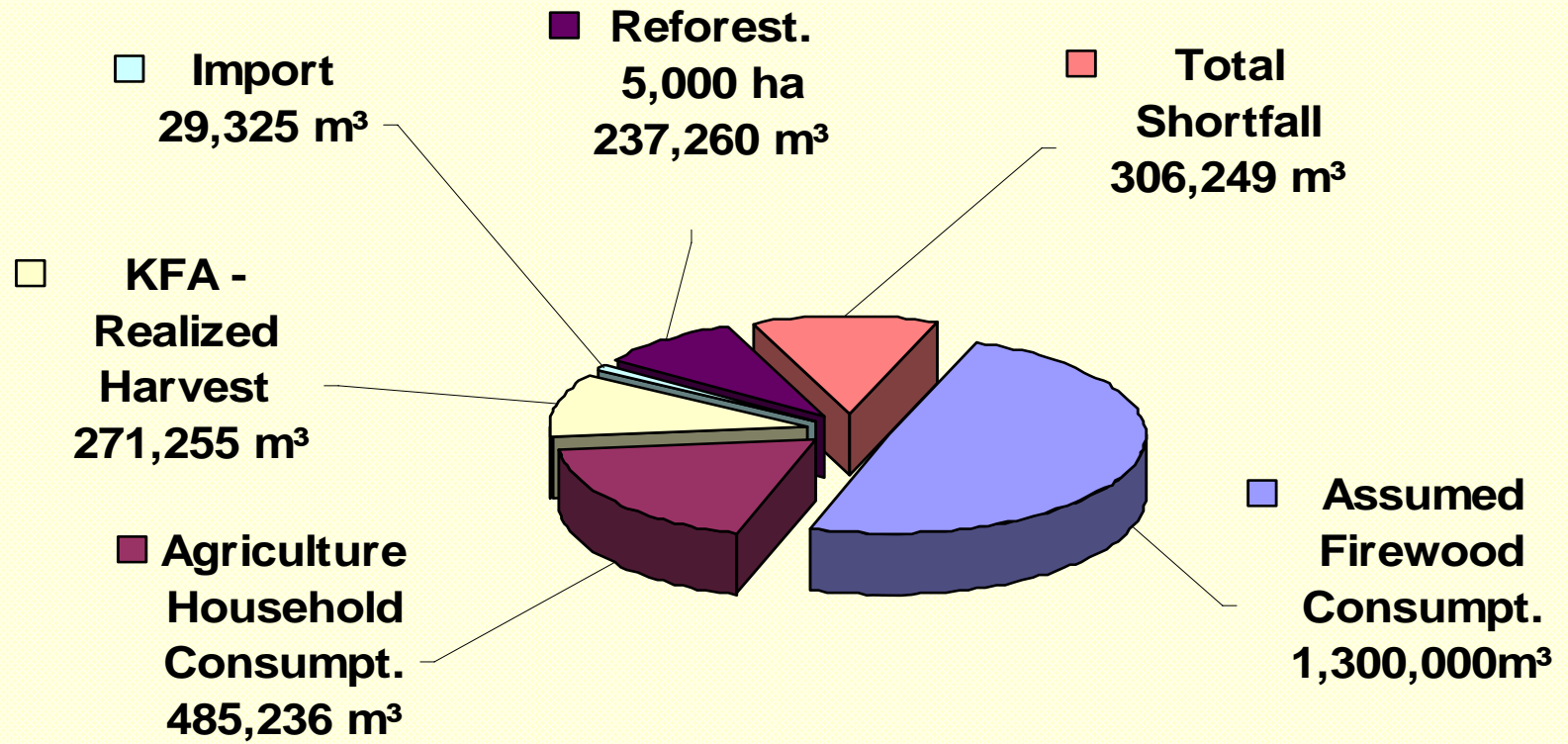Fuel Wood; Income.

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Estimated Firewood Consumption

Assumed Firewood Consumption 1,300,000 m³

- Agriculture Households Consumption
- KFA - Realized Harvesting
- Import
- Total Shortfall (m³)

514,184 m³

Benefits

- ## Reforestation Impact

- Import 29,325 m³
- Reforest. 5,000 ha 237,260 m³
- Total Shortfall 306,249 m³
- KFA - Realized Harvest 271,255 m³
- Agriculture Household Consumpt. 485,236 m³
- Assumed Firewood Consumpt. 1,300,000 m³

Costs & Benefits

- **Costs of Reforestation** - preparation of land area, planting, stock, labor and care of forests.

  500 ha * € 2,141 = € 1,070,625

- **Wood Mass & Expected Profit**

  126,000 m^3 * € 100 = € 12,600,000

- **Market Price**
  - o Industrial Wood   - € 100 per m^3
  - o Wood for Burning   -   € 30 per m^3

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Costs & Benefits

Profit Value $C_1 = €12,600,000$

Discount Rate $r = 8\%$

$PV = (1/1 + r) * C_1$

$PV = (1/1.08) * €12,600,600 = €11,666,666$

$NPV = C^o * (C_1 / 1 + r)$

$NPV = - €1,070,625 * (€11,666,666 / 1.08) =$

$$= \underline{€9,731,844}$$

Recommendations

- **Reforestation / afforestation law**
- **Forest restoration fund**
- **Select sites to be reforested / afforested**
- **Establishment of new nurseries**
- **Preservation of forest after seedling**
- **Support private sector**

Recommendations

- **Reforestation / afforestation law**

  MAFRD shall promulgate a law in accordance with the goals and standards that specifies the methods and principles of Reforestation / Afforestation.

- **Forest restoration fund**

  Providing a reforestation / afforestation activity is necessary to be established.

  - € 1 million – 3 million for 2012
  - € 2 million per year

Recommendations

- **Identify sites to be reforested / afforested**
  - 100,000 ha of degraded and shrub forests
  - 40,000 ha of barren forestlands

- **Establishment of new nurseries**

  Government should support the establishment of new nurseries in the country.
  - 2 (two) Nurseries

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Recommendations

- **Preservation of forest after seedling**
  Government shall establish a program of cooperation and coordination with the governing bodies of localities to assist in preservation of the reforested / afforested areas.

- **Support private sector**

  Promote the establishment of associations that represent the interests of private forests owners and work on forests state improvement of privately-owned

Discussion

- **47 % Forest & Forestlands**

  - 40.9 % Degraded Forests & Shrubs
  - Low Wood Mass Productivity

- **Reforestation / Afforestation Programs**

  - Supply of wood and other wood products
  - Reduction of land degradation & increase biodiversity

Thank You

Questions!!!????