



**FORM Ghana Ltd**  
*Reforestation of Degraded Forests*

## Services since 1992

- Certification assistance 700,000 ha FSC
- Country assessments PEFC worldwide
- Forest Management Plans 350,000 ha
- Reduced Impact Logging Training (Congo Basin TFF)
- Plantation Forestry (Africa)
- Valuations *NPV Tool* (Africa – Central America)

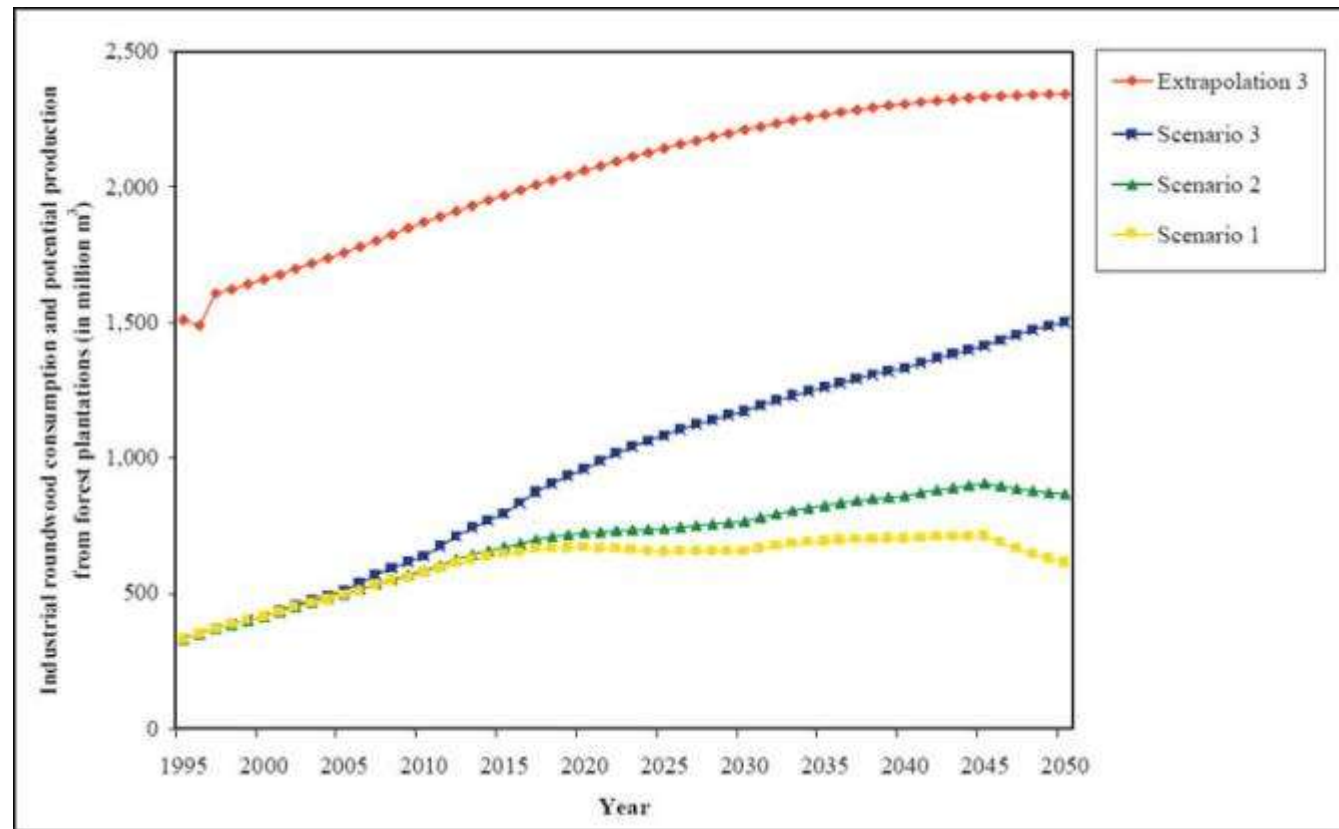


# PLANTATION PRODUCTION - CONSUMPTION

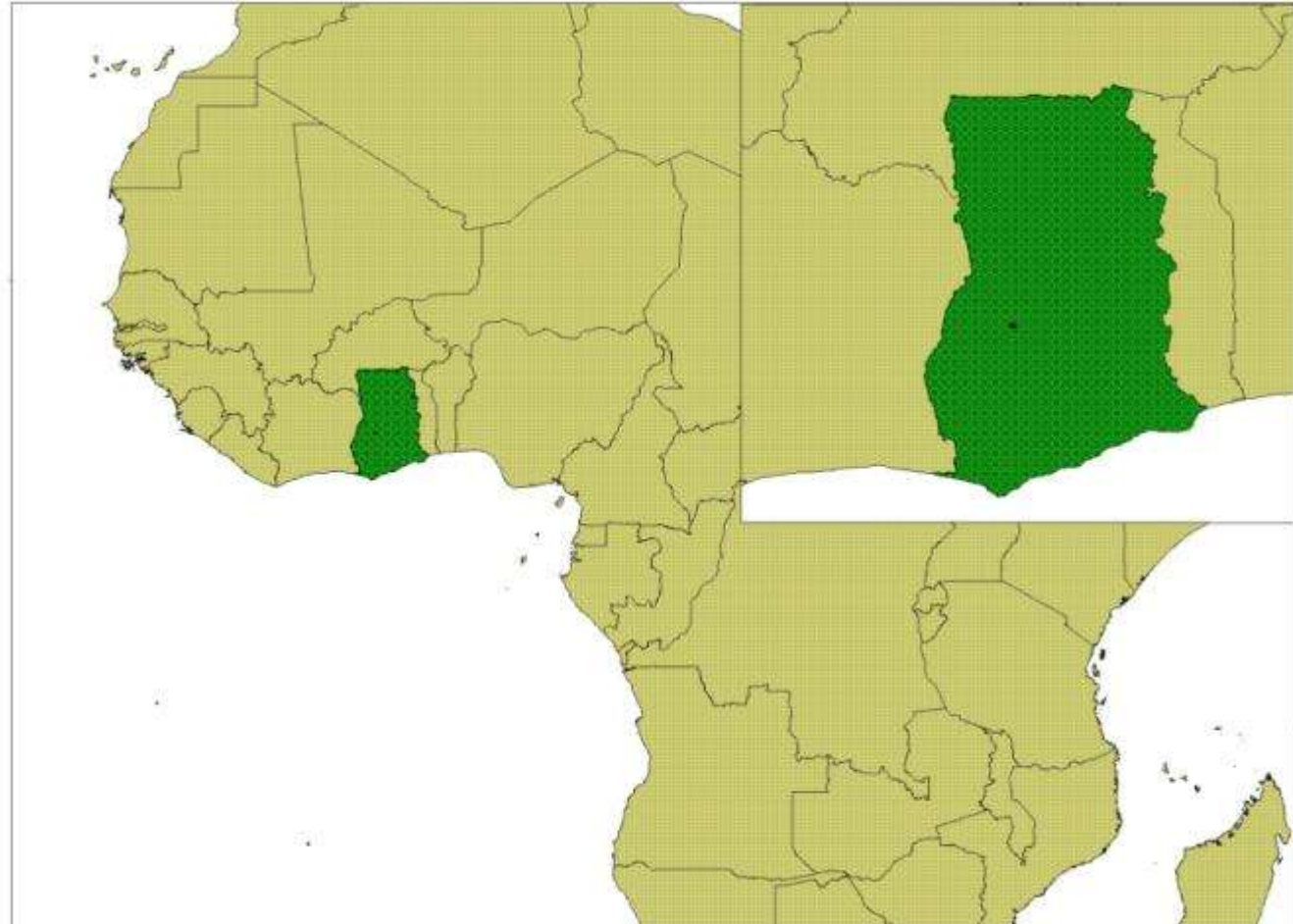
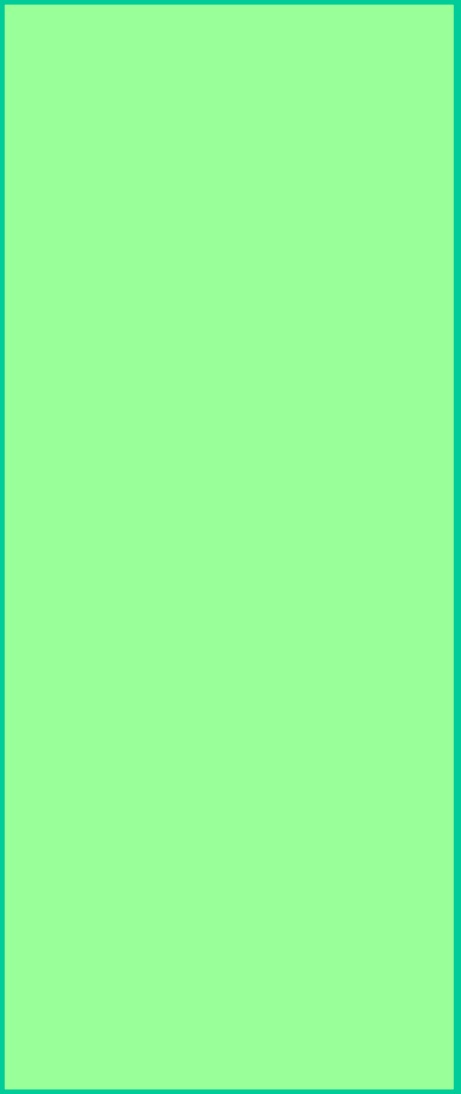


Forest plantation production versus plantation timber consumption  
source: FAO

An unbalanced situation



# GHANA



# DEFORESTATION IN GHANA

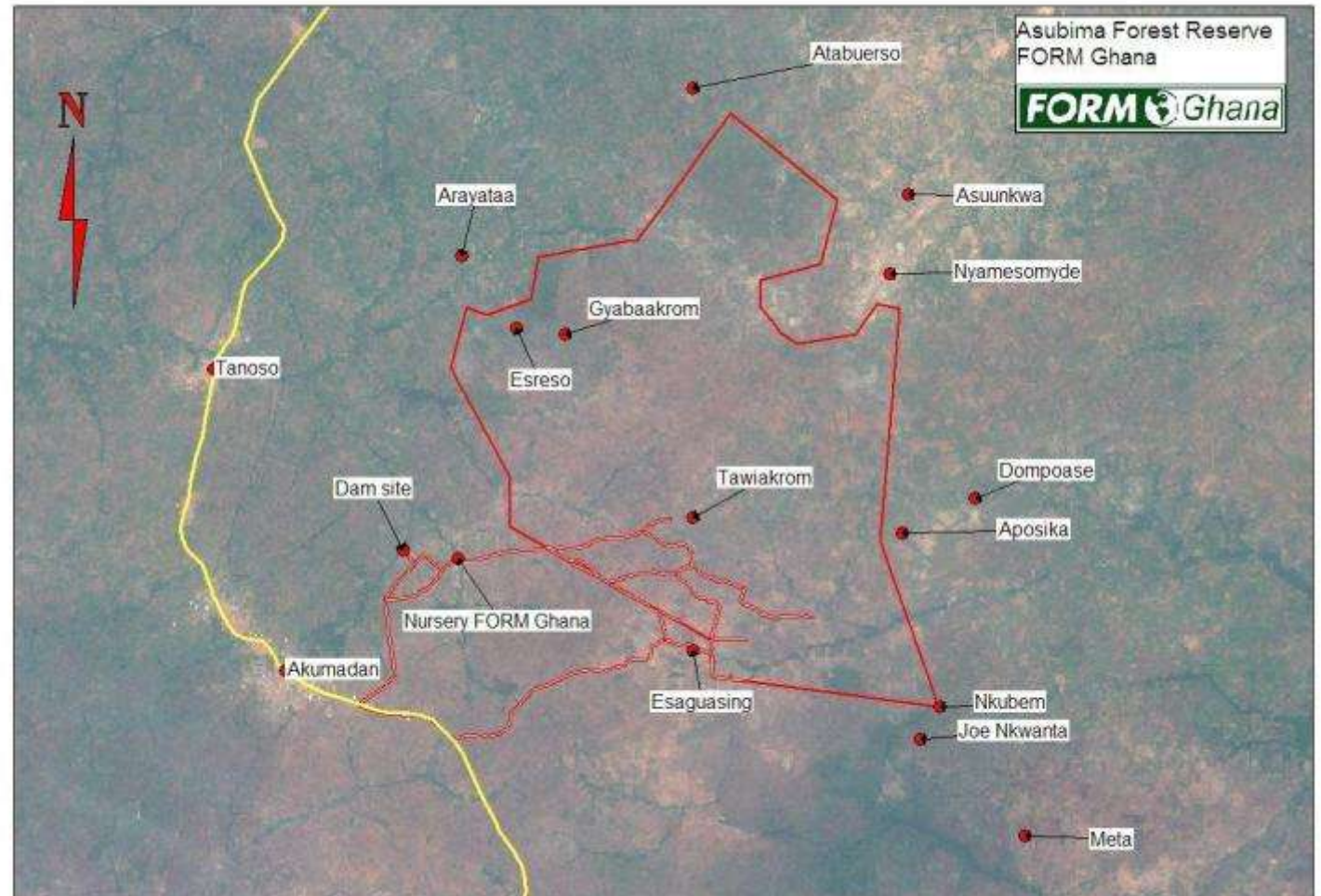


- **Forest Cover 1980: 8.2 M Ha**
- **Forest Cover 2010: 1.2 M Ha**
- **AAC- Annual Allowable cut: 1 M**
- **Production capacity timber industry: 2-3 M m<sup>3</sup>/year**

# ASUBIMA FOREST RESERVE

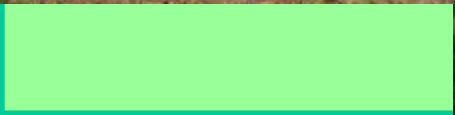
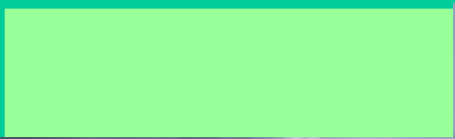


7700 HA >85%  
DEGRADED





# FORM Ghana Ltd - reforestation



# BACKGROUND



## Why Ghana ?

- **Stability**
- **Presidential Policy to stimulate foreign investment in the restoration of degraded FR: 30,000 ha/yr**
- **Land lease concept developed by the GoG to enable a sound agreement between all parties involved**
- **Good soil & climate conditions**

# INVESTMENT OBJECTIVE



- Large scale reforestation of degraded forest reserves in Ghana
- FSC certified 15,000 ha high quality plantation
- Carbon credits certified

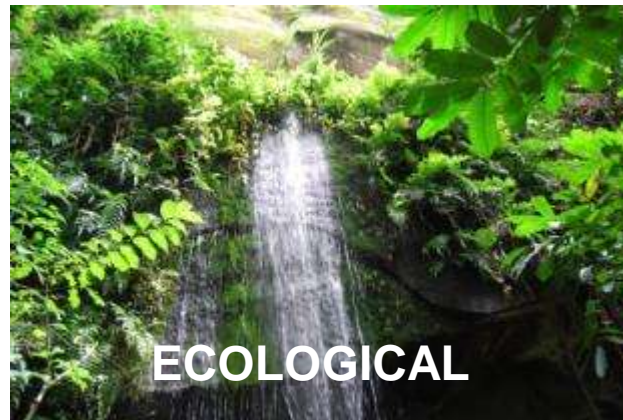
# CURRENTLY

Investment of > 5 M euro since 2007

- Nursery production max 5 M trees/yr
- Plantation expansion of 700 ha/yr
- 1,600 ha plantation
- FSC certified - CO2 credits audited
- Secured land lease (50 years) with FC and traditional landowners
- Investments secured: expansion to 5,000 ha in 2015
- Employment for 300 people



# FSC - SUSTAINABILITY OBJECTIVES



# ECONOMICAL



- Teak 90% - indigenous 10%
- MAI –Main Annual Increment 15 m<sup>3</sup>/ha/yr
- Final harvest at 20 years
- Total production 300 m<sup>3</sup>/ha
- Natural forest 15-25 m<sup>3</sup>/ha in 30 years cycle !

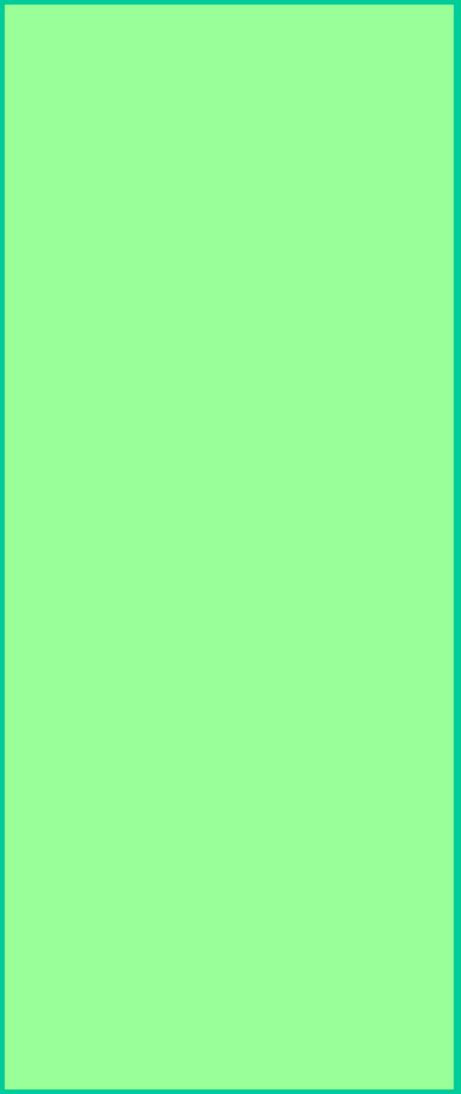




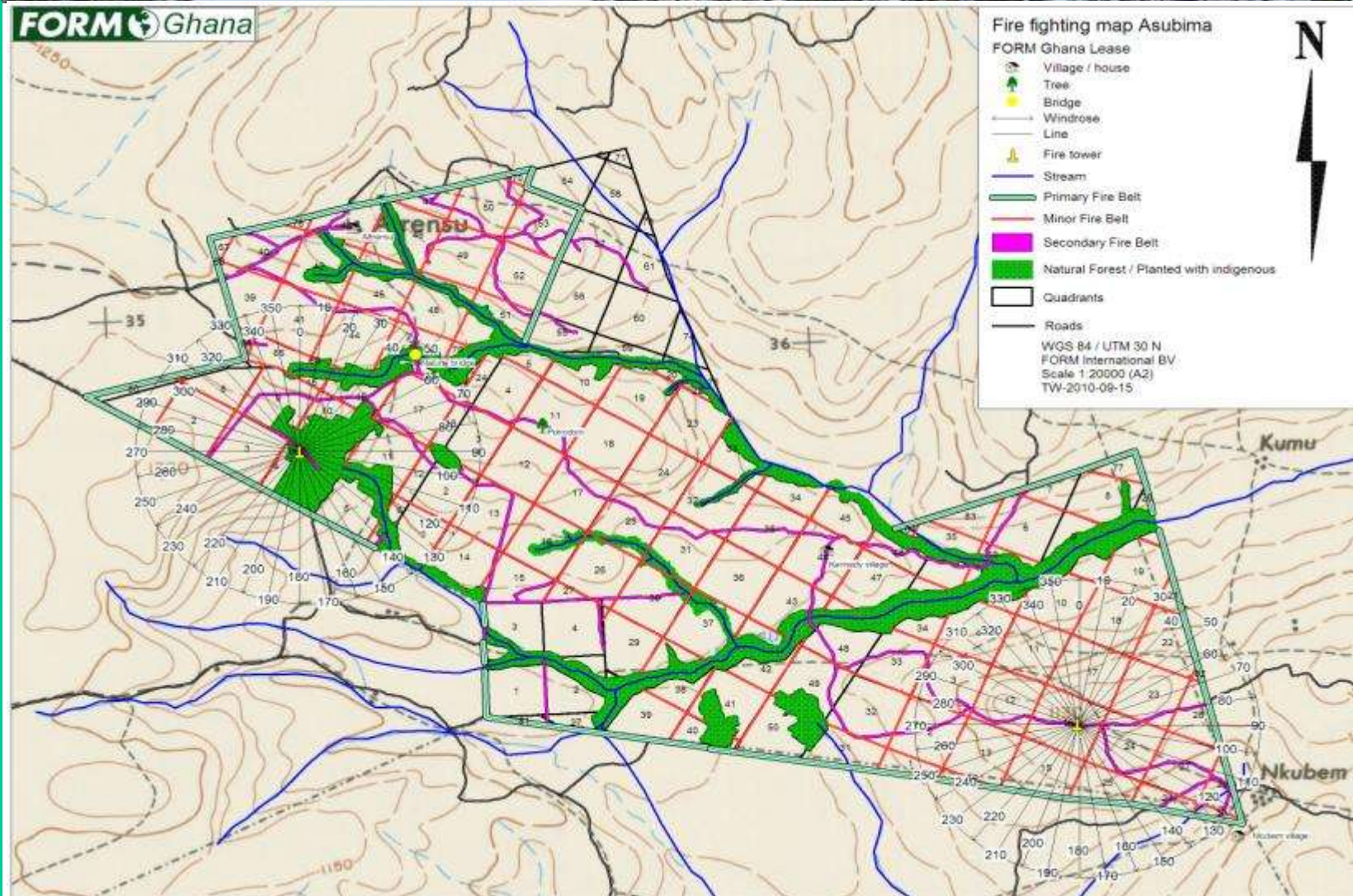
## PRIORITY IS ON EMPLOYEES AND POPULATION IN AREA

- Intercropping : 90% of area 1-2 years
- Outgrowing
- Awareness raising in region
- Health & Safety
- Relationship chiefs

# ECOLOGICAL: IDENTIFICATION- PROTECTION OF ENDANGOURED SPECIES



# ASSISTED NATURAL REGENERATION



# ASSISTED NATURAL REGENERATION

Regeneration  
near seed trees  
10% of area  
indigenous



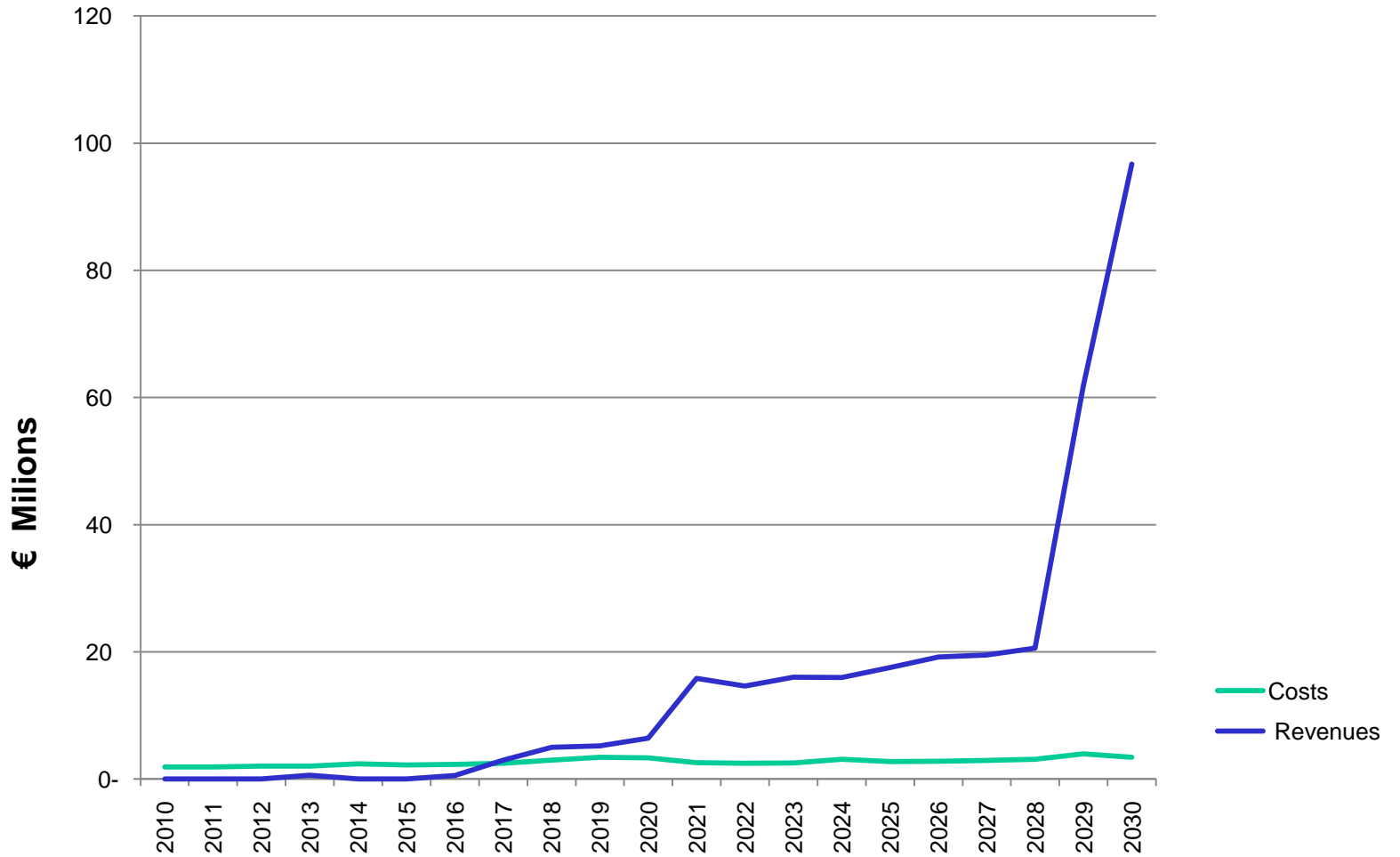
# MARKET



- **Focus on log production**
- **Sales agreement secured with international timber trade group**
- **Teak for components (for example window frames)**
- **Local and export market for small dimensions (Asia)**

# COST-REVENUE PROGNOSIS

- Price increase 4,5%
- Non-discounted cashflows
- Scenario based on 8,000 ha.



# INVESTMENT NEEDS AND RETURN

- Investment of 40- 50M euro required for expansion to 10,000-15,000 ha
- IRR of ~20% (including 4.5% price increase)
- Positive cash flow within 8 years

# SWOT ANALYSIS

## STRENGTHS

- High Return of 20%
- Excellent presence & network in Ghana since 1995
- Pioneer phase of company completed
- Substantial investments realised (>35% of total)
- Trade agreement

## WEAKNESSES

- Long term investment: positive cash flow after 8 years, final harvest after 20 years
- Fire and illegal logging
- Country risks (landlease, regulations)

# SWOT ANALYSIS



**OPPORTUNITIES**

**THREATS**

- Expansion to 15,000 ha can be realised at low costs
- Hardwood market with opportunities

- Political climate
- Social context
- Government regulations

# CONCLUSIONS

- REFORESTATION IS NEEDED AT LARGE SCALE
- LONG TERM INVESTMENT WITH HIGH RETURNS
- SUSTAINABILITY & TOP MANAGEMENT IS KEY TO MITIGATE RISKS

**THANK YOU**

**FORM Ghana Ltd**

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*[www.formghana.com](http://www.formghana.com)*