

Finland as a Successful Forestry Nation

An overview of the success factors

Presentation By:

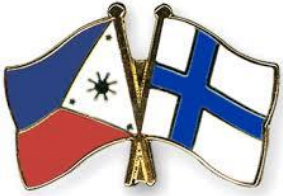
Petteri J. Makitalo

October 21, 2019

President - CocoLibre Corp.

Trustee - Philippine Finland Society

Co-Founder - Nordic Chamber of Commerce of the Philippines



Introduction to Speaker

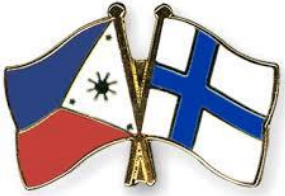
Petteri Makitalo



COCO LIBRE CO.



Founder and President of **CocoLibre Corporation**, producers of Coco Dolce Chocolates and organic coconut sugar. The company advocates fair trade and healthy consumer products since 2012.



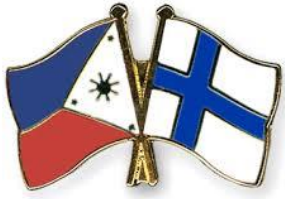
Introduction to Speaker

Petteri Makitalo



Trustee and Past President (2009-2012) of the **Philippine Finland Society**, an organization promoting business and cultural ties between the Philippines and Finland.

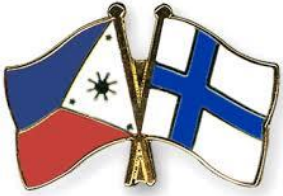




Petteri Makitalo



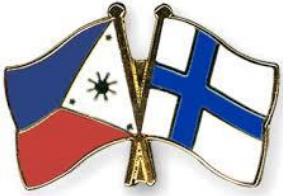
Co Founder and Vice President (2012-2019) of the Nordic Chamber of Commerce of the Philippines, chamber promoting and facilitating trade, commerce, industry, and investment between the Philippines and the Nordic (Denmark, Finland, Iceland, Norway, Sweden) and Baltic (Estonia, Latvia, Lithuania).



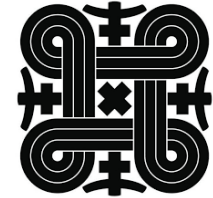
Finland as a Successful Forestry Nation

Summary of Contents

1. History - what events lead to Finland's leading role in forestry.
2. Environment and Climate - the seasons and the growth time of trees.
3. Forest Economy - High levels of forest harvesting in Finland
4. Sustainable Forestry - the framework of the forestry industry
5. Success Factors- what makes forestry so successful despite harsh conditions.
6. Climate Change Issues
7. Technology
8. Conclusion- Philippines as a Forestry Superpower



Finland as a Successful Forestry Nation



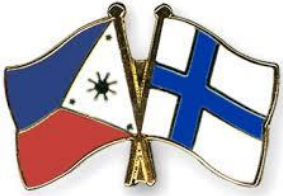
Finland Forestry – HISTORY

History of Finnish people and Finland's forests is ancient.

Nowhere in Europe has livelihood and the culture of humans been as dependent on forests than it has been in Finland.

Forest's have been and are an important source of food:
game, berries, herbs and mushrooms.

Hunting and the bartering of furs were the main livelihoods in this part of the world for thousands of years.



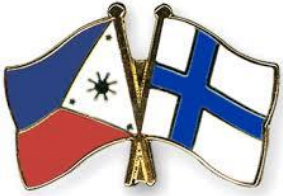
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Finland Forestry – HISTORY

Agriculture was first introduced in the form of slash-and-burn cultivation 4,000 years ago and developed into permanent agriculture 3,500 years ago.

Hunting, slash-and-burn agriculture and tar burning, later on forestry and the forest industry, and more recently also on forest-based and wood-based bioeconomy and related businesses.





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Finland Forestry – HISTORY

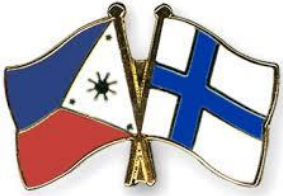
16th Century: Slash and Burn Cultivation

Slash-and-burn cultivation, human settlements spread to central and eastern Finland, especially from the 16th century onwards.

1700's and 1800's

Tar production- for mining, shipbuilding industries, home use and construction
Agriculture and grazing within the slash-and-burn culture.

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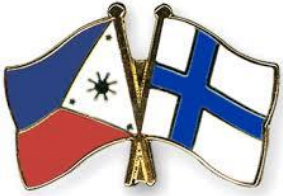
Finland Forestry – HISTORY

De-Forestation Crisis 1850's to 1900's

Between 50% and 75% of the forests in southern Finland, depending on the area, had been subjected to slash-and-burn cultivation by the beginning of the 20th century. Denudation was rampant.

Since then, the greatest impact on the structure of forests has come from use of wood as raw material for the forest industry.

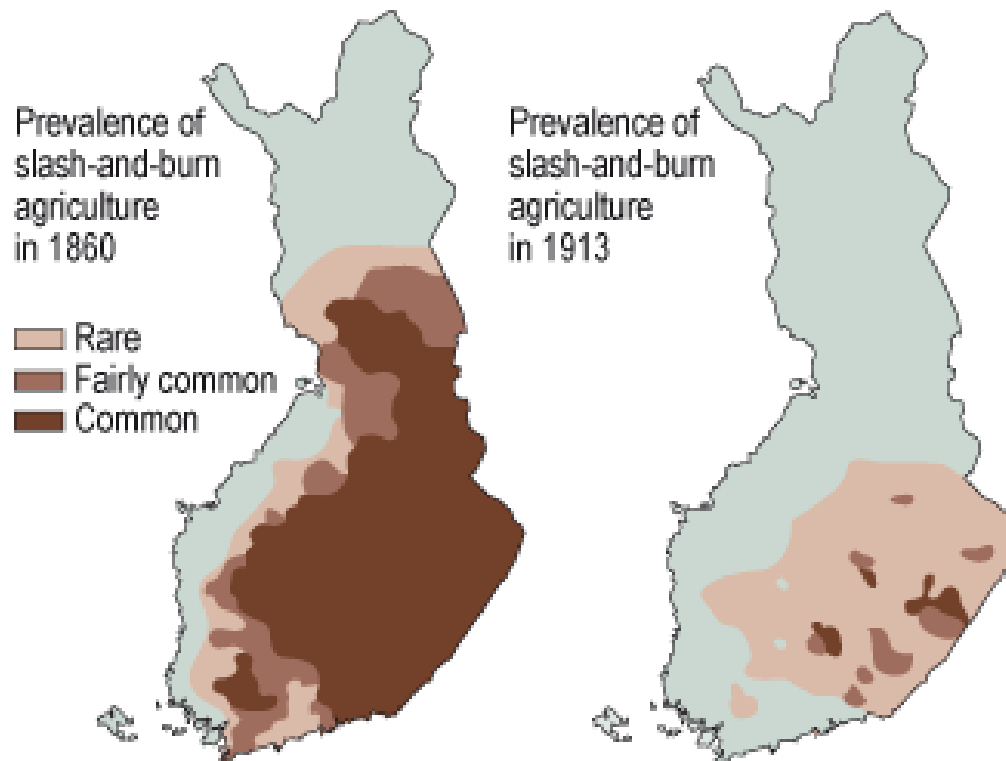


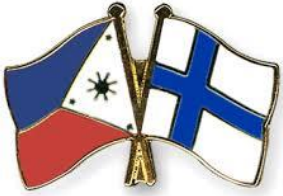


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Finland Forestry – HISTORY

De-Forestation Crisis 1850's to 1900's





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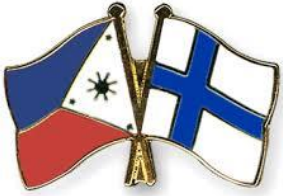
Finland Forestry – Environment and Climate

The climate of Finland is harsh similar but more favorable to same latitudes in Russia and Canada.

Conditions for growth vary considerably between the southern and northern parts of the country.

Towards the north, the climate gets increasingly colder and more humid, and precipitation exceeds evaporation.

The growth period is about five months in the south and three months in the north. The average increment of growing stock in southern Finland, 6.1 cubic metres per hectare per year, is twice as much as in northern Finland.

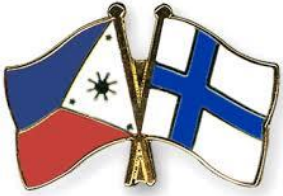


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Finland Forestry – Environment and Climate

Finland has winter and trees normally take 30 years and up to 50 years to grow, so **15 cum/ha/year** is a very high yield.



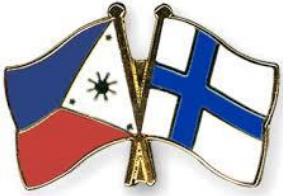


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Forest Economy - High levels of forest harvesting in Finland

Yet **Finland** with its difficult environment is an undisputed forestry superpower with:

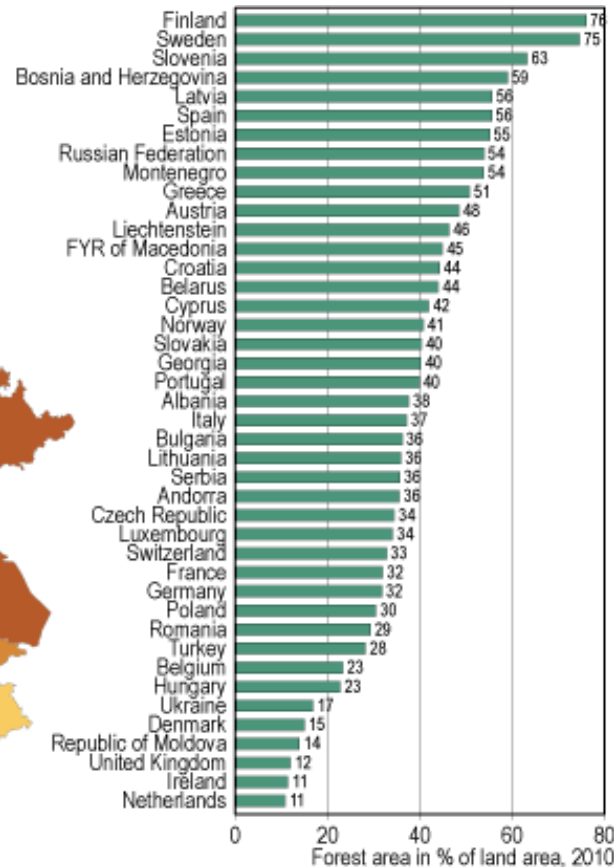
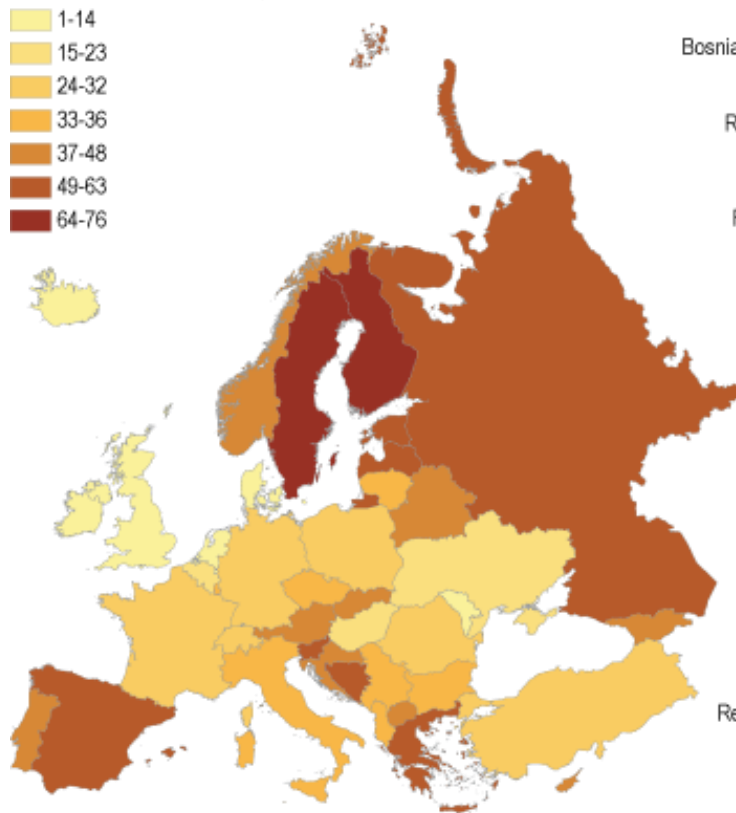
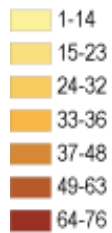
1. Forest industry production at EUR 20 billion (Php 1.2 trillion) (2013)
2. 20% of export revenue from forestry (EUR 11 billion 2014) and
3. 18% of its industrial output from the forestry cluster
4. 15% of all industrial jobs are in forestry sector
5. 2.8% of entire workforce or about 80,000 are employed in the forestry cluster.
6. Forestry cluster also employs 46,000 people in other countries.



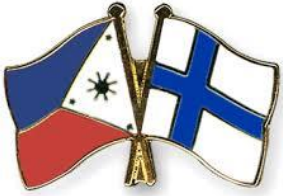
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Forest Economy

Forest area in % of land area, 2010



© State of Europe's Forests 2011



Finland as a Successful Forestry Nation

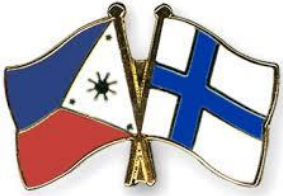
Sustainable Forestry - the framework of the forestry industry

Forest programmes have played an important role in Finland for more than 50 years both as an instrument of forest policy and in the provision of funding for forestry. The first actual forest program was started in 1961.

The most recent forest programme is the **National Forest Programme (NFP)** in 2015.

NFP merges forest products and services considered with greatest potential for economic success with sustainable forest management

NFP was prepared in extensively broad-based cooperation with interest groups and drawing on the operating strategies of those interest groups. NFP is supported by the Forest Foresight project funded by the Ministry of Agriculture and Forestry.



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Success Factors - what makes forestry so successful despite harsh conditions.

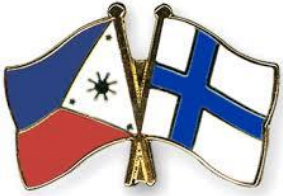
Forests in Finland are mainly owned by private people and families.

Private forestry is in fact the linchpin of the Finnish forest economy, as the growing stock volume, annual increment and logging in private forests each account for between 64% and 83% of the total.

In south and central Finland, about 75% of all forests are in private ownership, and in some areas in southern Finland the percentage can exceed 90%.

Private forests produce over 80% of the round wood purchased annually by the forest industry in Finland.

State forests are for the most part situated in northern and eastern Finland.



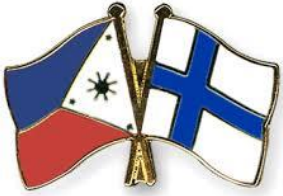
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Success Factors – Forest Management - Silviculture

Forest management according to experience-based best practices is the principal means for helping forests adapt to climate change.

Managing seedling stands in a timely manner, carrying out first logging and avoiding excess density in the growth phase help secure the vitality of forests, along with genetic resource protection and tree breeding.

Most of Finland's forests are under continuous management, which is why their productivity and vitality remain good.



Finland as a Successful Forestry Nation

Success Factors

Industrial Efficiency

Forestry activities are therefore a common sight all over the country and throughout the seasons.

Social Consensus

90% of all Finns continue to view the forest industry as the foundation and guarantor of their welfare.

Forest Ownership

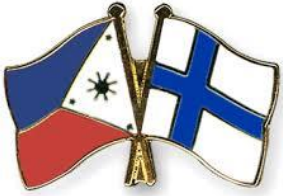
440 000 private holdings in Finland with an average size of 30 ha (FFRI, 2002).

Regular and Rigorous Studies

The Finnish Forest Association (FFA) – is a cooperative organization representing forest-related organizations in Finland such as:

Private forest owners,
Forest industries,
Finnish State Forest Enterprise
Research, Recreation and Education Organizations

Important observations arising from these studies is that most Finns today have a clear opinion concerning forest issues.



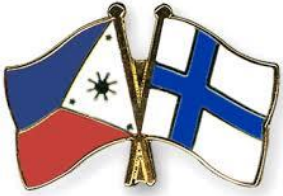
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Climate Change - threats to forest development are extreme weather phenomena.

Drought, forest fires, storms and snow damage may cause widespread tree destruction, preventing forest regeneration, resulting large amounts of deadwood and proliferation of forest pests.

Research regarding future impacts of climate change in the boreal zone indicate:

1. The growing season will lengthen
2. Forest growth may actually increase. This increase could be as much as 20% to 50%, depending on the tree species.



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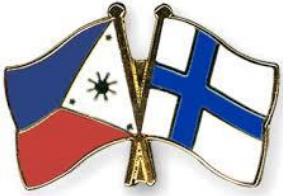
Climate Change - threats to forest development are extreme weather phenomena.

Innovation and Technology are the most powerful tool to fight climate change.

Example:

Fire fighting technology has made breakthroughs.

Newly developed fire retardants and suppressants used by the Finnish military successfully extinguish ground fires, such as peat fire, or fires smouldering in a thick layer of humus or in stumps.

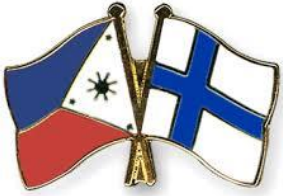


Finland as a Successful Forestry Nation

Conclusion- Philippines as a Forestry Superpower

The forestry potential of the Philippines is massive.

In the Philippines the soil and climate are good and studies prove that production can be **100++ cum/ha/year**.

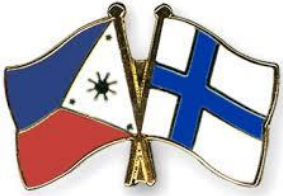


Philippines Finland Forestry Cooperation

Food Security Criteria

- Cereal production,
- GDP per capita,
- Risk of extreme weather events,
- Quality of agricultural and distribution infrastructure,
- Conflict and
- Effectiveness of government.

Based on the criteria, the Philippines was rated a “high risk” country for food security, ranking 52nd. The most favourably-placed countries were the developed economies of North America and Western Europe, with Finland the most food-secure, followed by Sweden, Denmark and Norway.

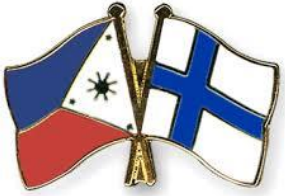


Philippines Finland Forestry Cooperation

PALAWAN FORESTS

Challenging task, but a business opportunity, to plant hundreds of thousands of extremely rare hardwood tree species in Palawan, Philippines.

“The Ironwood – Stronger than Steel!”, *Xanthostemon verdugonianus*, the heaviest, hardest and the most durable tree species of the Philippines. There are 24 species, + tens of subspecies, of almost as excellent species for all kinds of construction purposes on our target list.



Philippines Finland Forestry Cooperation





Thank You

