09 MARCH, 2011

Private Forest management through Forest Certification in Hokkaido Region by Sumitomo Forestry , and its characteristics

－Management of company forest－

SUMITOMO FORESTRY CO.,LTD.
Forestry & Environment Division
Forestry Department

SUMITOMO FORESTRY CO.,LTD.

- **HEAD OFICE : TOKYO,JAPAN**
- **ESTABLISHMENT : 1948/ 2/ 20 (Founded : 1691)**
- **BUSINESS SCOPE: (1) Forestry/Environmental Business**
  : (2) Timber & Building Materials Distribution Business
  : (3) Housing & Housing-Related Business
  : (4) Overseas Operation
  : (5) Real Estate Business

< GROUP COMPANIES > （31） In Japan ,（26） Overseas (Mar/2010)

- **COMPANY OWN FOREST in Japan : 42,642ha (Mar/2010)**
- **HOMEPAGE : http://sfc.jp/english/**

Operations of Sumitomo Forestry Group

Upstream → Downstream

Domestic ↓ International

Forestry	Production	Distribution	Housing









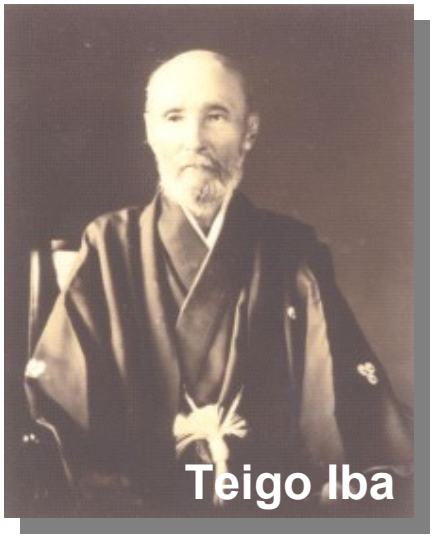


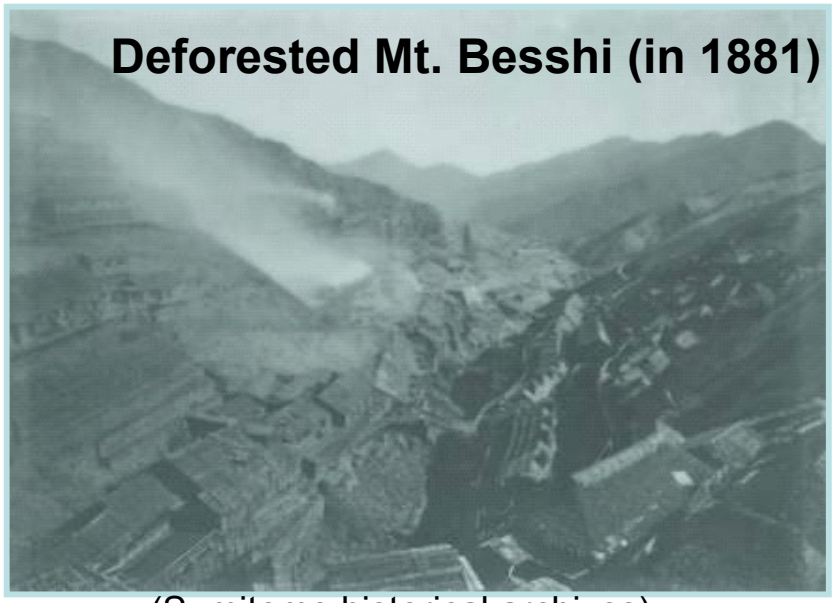

Origin of Sumitomo Forestry's environment conservation activities

In 1894,

Teigo Iba (2nd General manager of Sumitomo family) established the "Large-Scale Reforestation scheme" with the slogan, "Restore the forests to the original lush green state"

"Repay our debt to the land" sprit

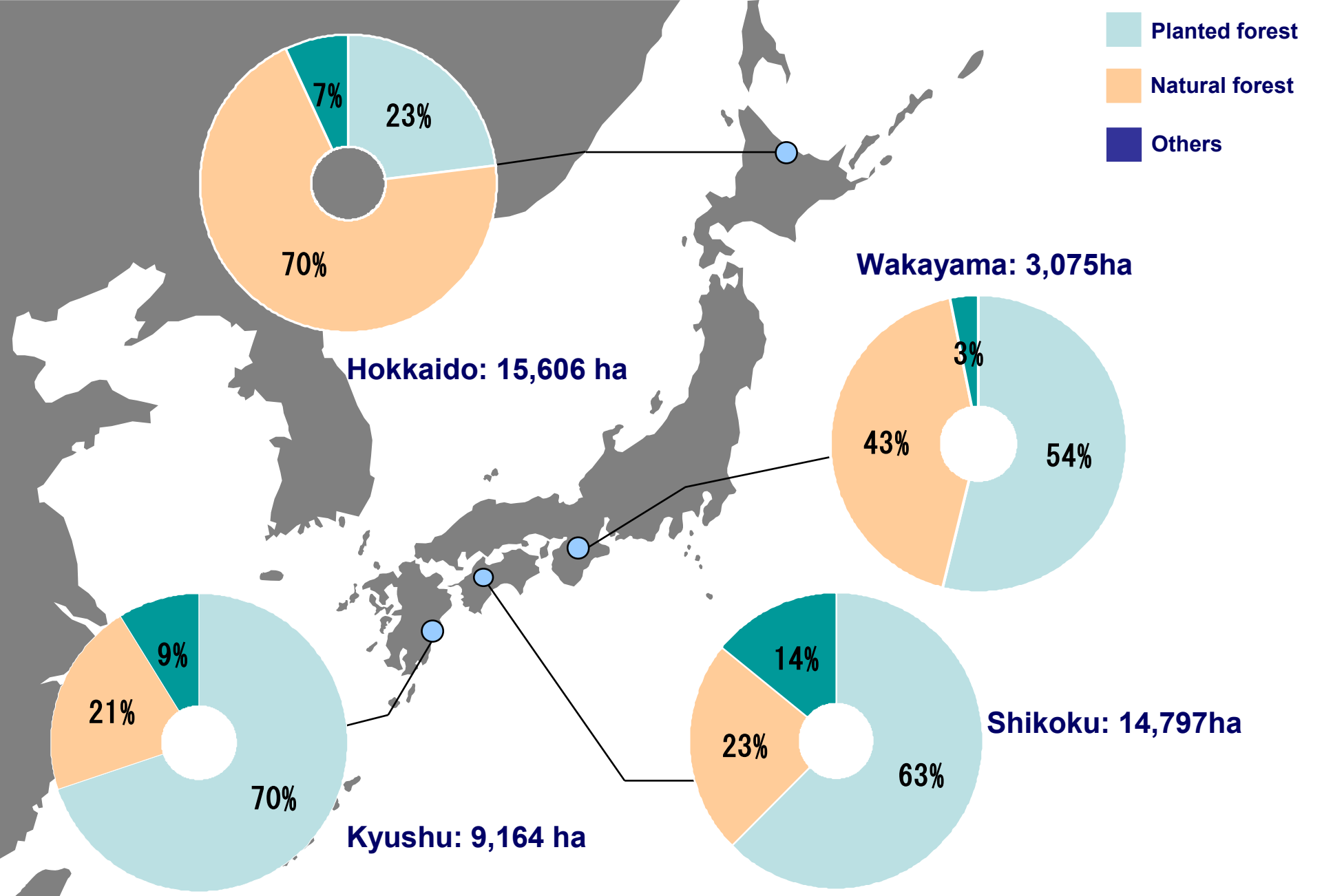




(Sumitomo historical archives)

Outline of Sumitomo Forestry's Timberland

- Other history
  - In 1904, we drew up a forestation plan at Shikoku forest as the first such proposal in the private sector in Japan.
  - After that, in the 1900's we expanded forestry operations to other regions in Kyushu and Hokkaido, and presently manages about 42,600ha which is approximately 1/900 of Japan's total land area.



Total area of Sumitomo Forestry's forests: 42,642 ha (1/900 of the area of Japan)
as of Mar 2010


Sumitomo Forestry own forest in Kyushu

Outline of Sumitomo Forestry's Timberland

- **Operational Policy**
  - Increasing stand volume and enhancing value of forest resources.
  - Using timber resources effectively.
  - Sustainable forest management for continuous profits.

- **Methods of Operations**
  - Zoning based on tree growth, income and efficiency.
  - Introduction of a small-bloc clear-cutting system in areas of high site-quality.

Outline of Sumitomo Forestry's Timberland

- Annual harvested volume ： 50,000～60,000 cubic meters

  (totaled of final cutting and thinning)
- Silviculture
  - Weeding/Vines cutting/Improvement cutting/Pruning
- Maintenance
  - Forest roads/ Boundary/ forest fire prevention etc.

Outline of Sumitomo Forestry's Timberland

- **Forest management system**
  - Management staff
    - Head office staff 9 peoples
      - establishing operation plan
    - Regional staff 24 peoples
      - Managing regional forests and working in forests
  - Plan - Do
    - Forest Operation Plan for 5 years
    - Annual plan
    - Carrying out forestry operations based on Annual plan
  - Tools for management
    - GIS（Combination of Mapping system and Forest database and Operational history)

Procedure for silviculture

Thinning(bucking)


Seeding cultivation


Planting


Thinning(cutting)


Salvage cutting


Pruning

What is the issue in forestry at Japan to maintain sustainable forest management?

- Inaccurate boundary of private forests, which becomes obstruction to timberland transaction.
- Low density of forest roads to extract/haul logs.
- Low labor productivity, due to various reasons.
- High Production Cost compared to overseas forest products.
- Labor problems – Advanced age, lack of forestry work manpower.
- A animal damages, especially deer and rats in some area.

Japan has a big mass of forest planted 40-55years ago. (As timber market was heating up after the World war 2 due to high housing rate , people rushed to Plant Japanese Cedar and other commercial species..

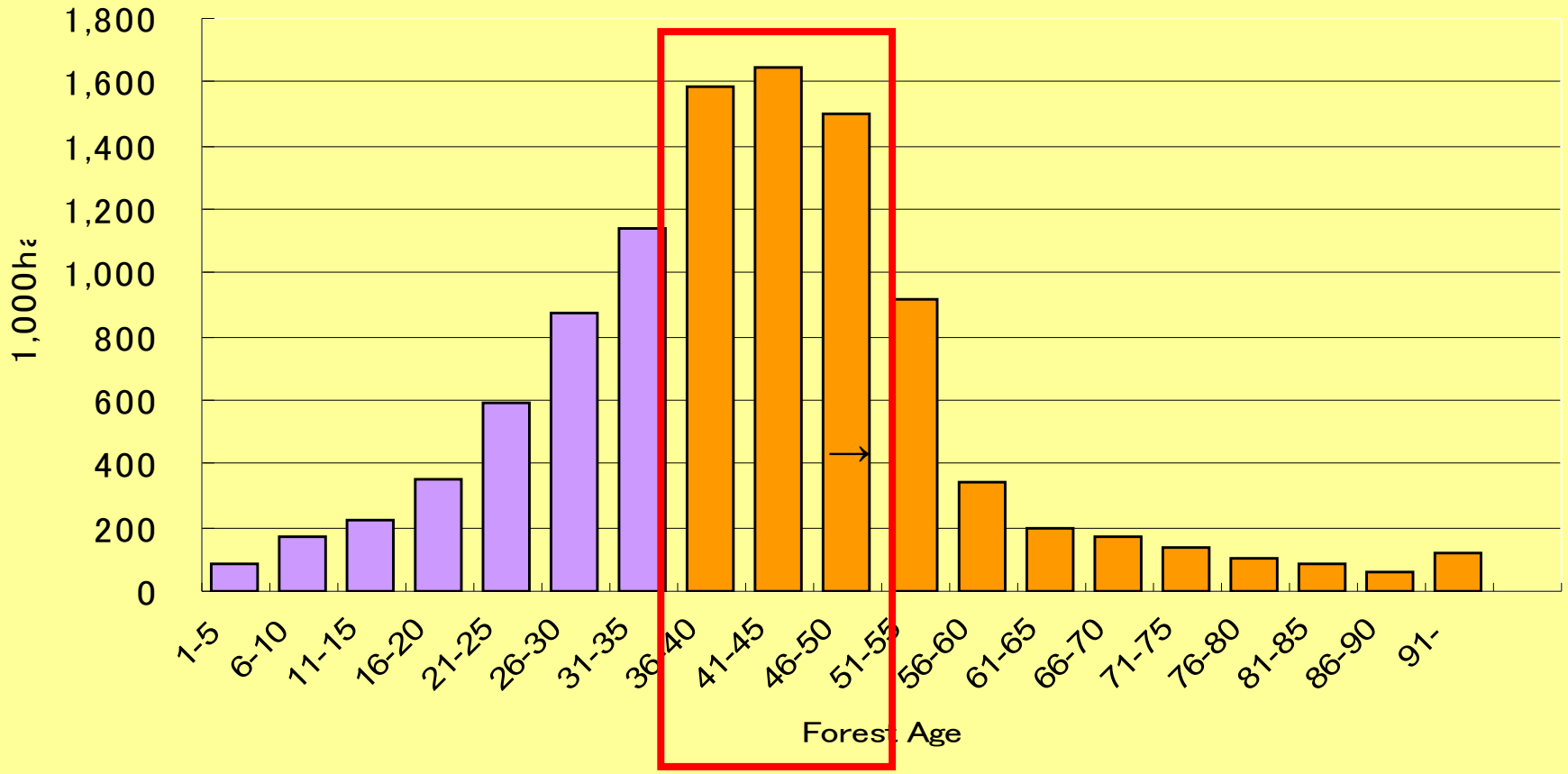
Now in Japan long rotation harvesting system is recommended.

So not much forest is replanted because not many areas are clear cut.

On the other hand , Japanese housing now does not require high quality lumber, due to choice of the consumer.

By this reason, old growth, big diameter ,high quality timber now cannot get it's value in price, as it use to be. Big logs are valued similar prices as small logs in the market.

Planted Forests in Japan (by stand age)

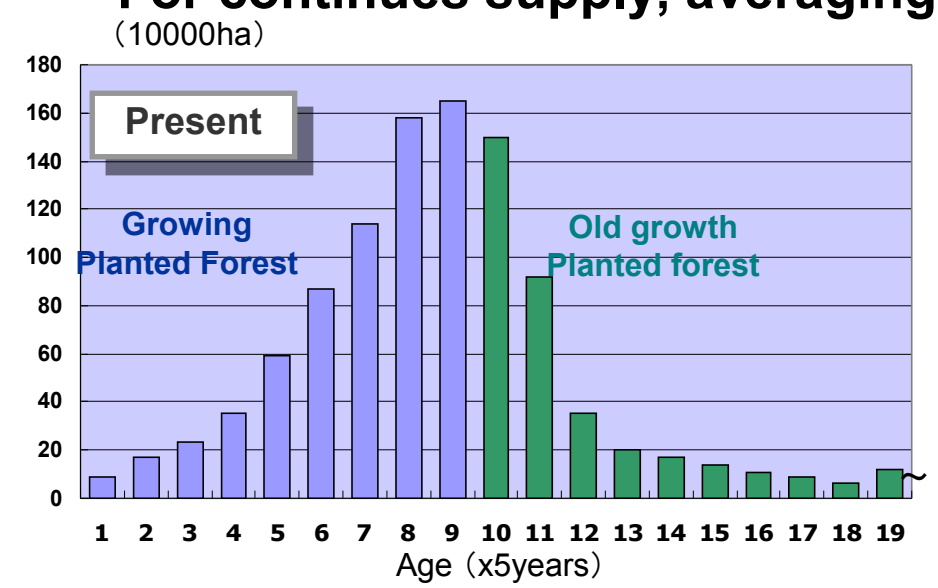


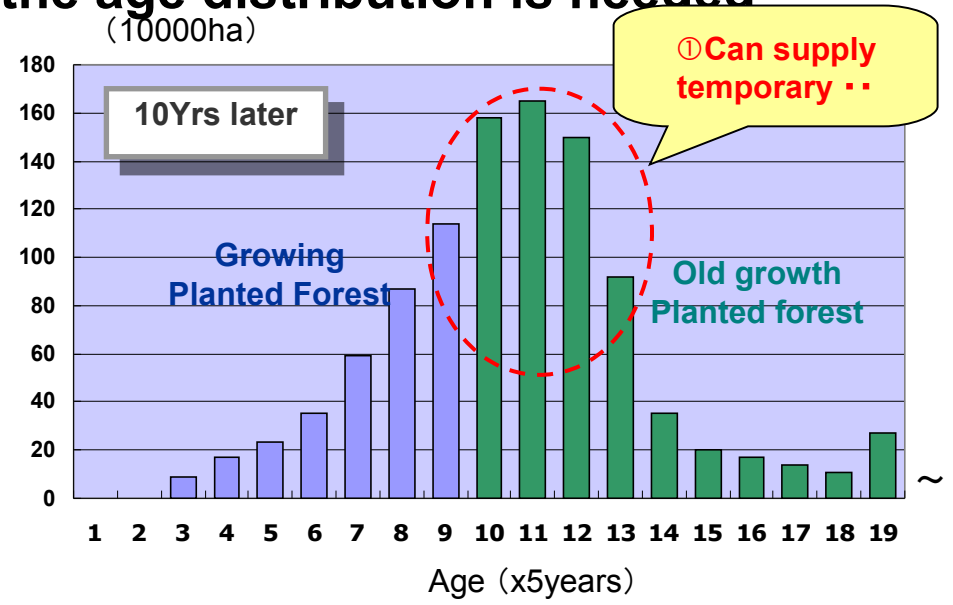
（林野庁統計資料）

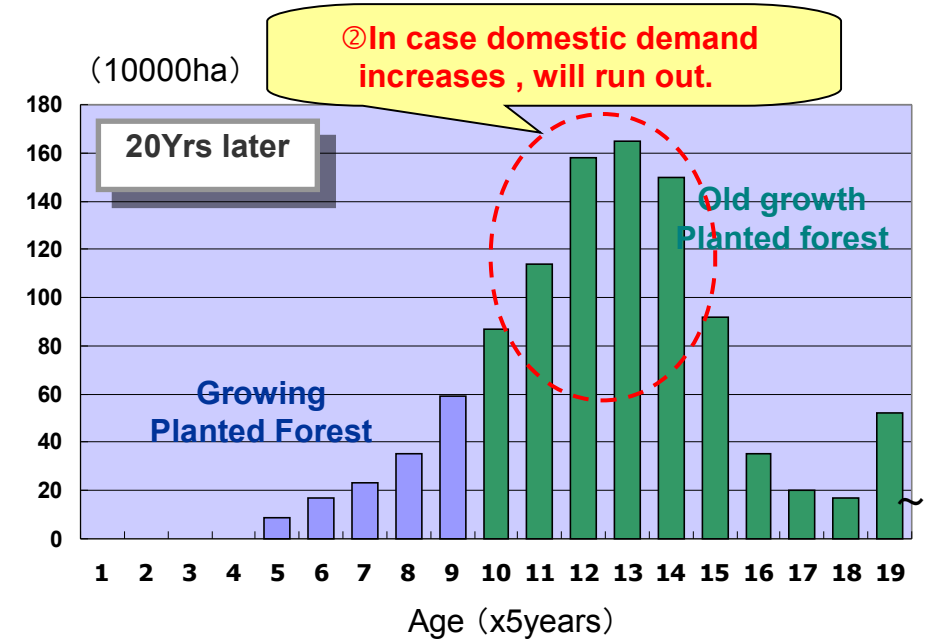
46%of these forests need some kind of care (thinning etc)

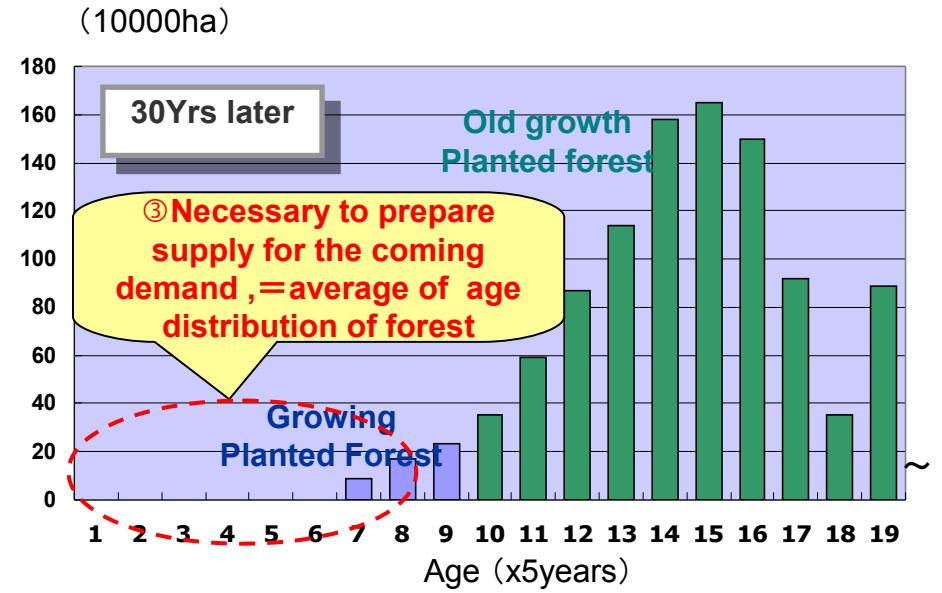
Age distribution of Planted Forest in Japan

For continues supply, averaging the age distribution is needed

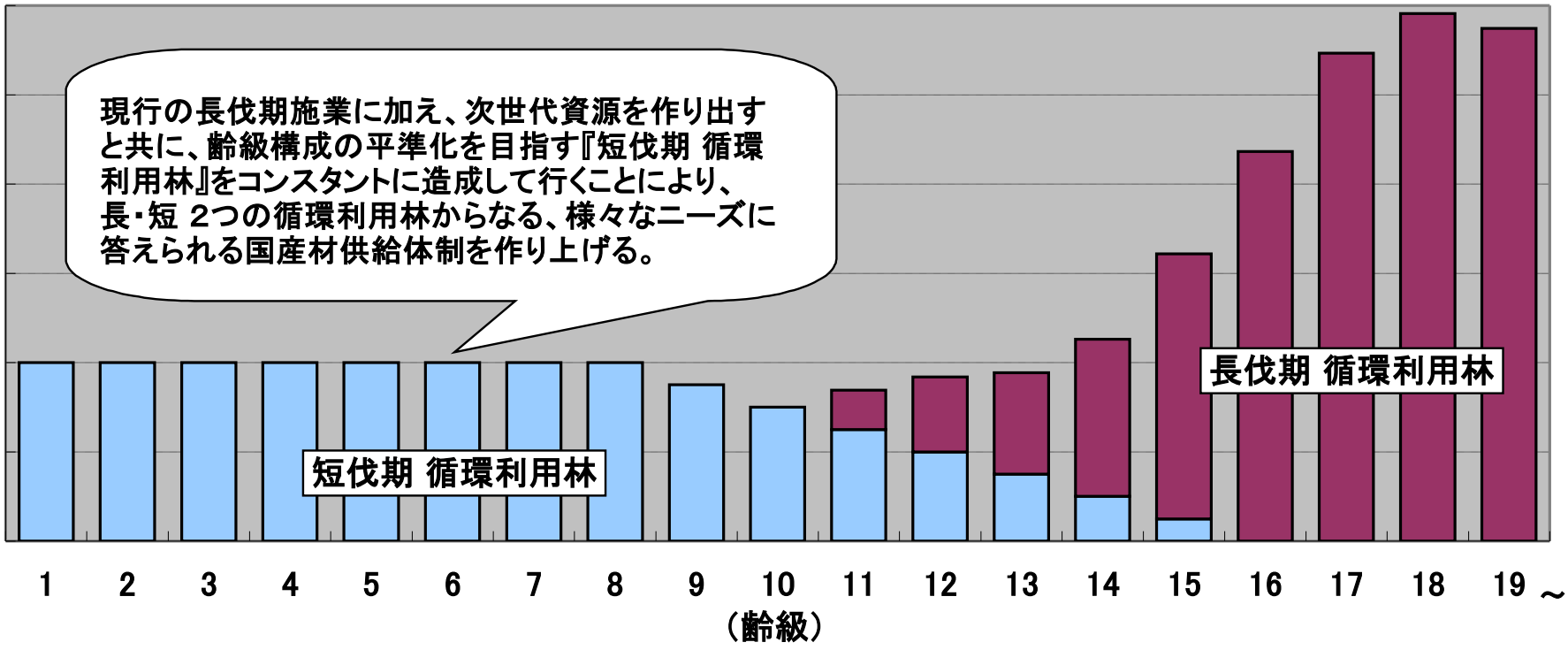








『将来の齢級構成イメージ』



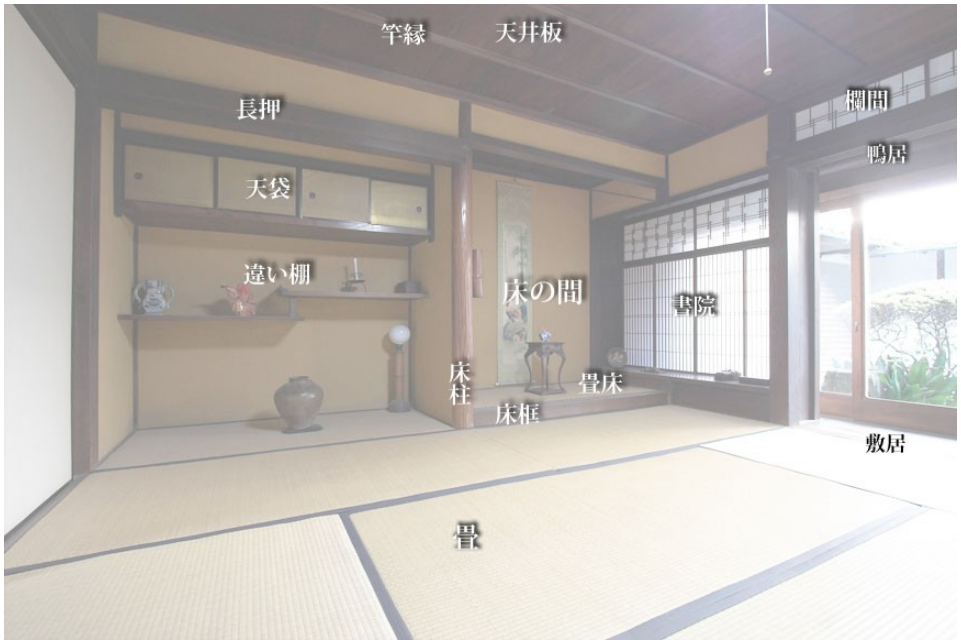
Taking time, and less volume at the time of clear cutting due to too many thinning, and poor prices, reduces the income from old growth forest.

It might be better to shift to middle range rotation harvesting system to increase the income and decrease the total cost.

But on the other hand, this trend in market started recently. There might be a chance that market trend may return to prefer large logs?

Best wayout might be preparing various forest types or increase mid term harvesting system and prepare diversity of forests.

For this, we need to prepare system to replant the harvested forest, for this low cost replanting and enough supply of planting stocks.

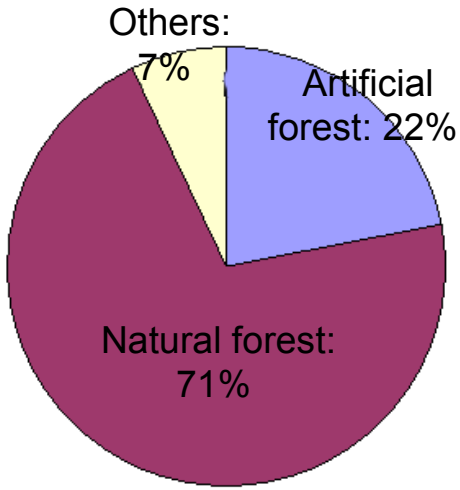


Typical Japanese traditional room.

New Western Style Housing by Sumitomo Forestry

Typical “tokonoma” style in traditional Japanese rooms. (Decoration for New Year)

Sumitomo Forestry Hokkaido Forest



Planted forest area: 3,564 ha

Total area: 15,606 ha

- **Planted Forest Karamatsu(Larch), Todo (Fir), Ezo(Spruce)**
- **Natural forest operation is familiar, harvesting various types of Hardwoods together with these Softwoods.**

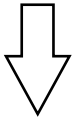
Overview of the Company-Owned Forests in Hokkaido

- Company-owned forests in Hokkaido
  - Coastal hilly areas of 40-400m above sea level
    Annual average temperature: 6.1℃
  - Annual rainfall: 836mm
  - Natural secondary forest after the forest fire that occurred around 1900
  - Operations of natural forest such as Todo firs, birches and Japanese oaks are mainly conducted.
  - As for artificial forest, thinning of Japanese larches and Todo firs is mainly conducted, and commenced small area clear cutting .
  - Forest road density: 51m/ha
  - Staff: 7 person.

Operational divisions of natural forest in Hokkaido

Operational divisions
Natural Todo fir forest
Mixed forest of softwood and hardwood
High volume hardwood forest
Forest of cutting and regeneration in strips
Non commercial forest

We categorized our forests into 5 divisions based on tree species, tree height and crown canopy density by using Aerial photograph.



Saving data on GIS ⇒ Establishing plan of management.

Overview of the Company-Owned Timberland in Hokkaido

Right side →Planted Karamatsu(Japanese larch) forest
Left side →Planted Todomatsu(fir) forest

Overview of the Company-Owned Timberland in Hokkaido

Planted Karamatsu (Japanese larch)forest during winter.

Overview of the Company-Owned Timberland in Hokkaido

北海道殺別　住友林業社有林　天然林施業地

Natural forest

Obtaining SGEC forest certification

- Sustainable Green Ecosystem Council (SGEC)
  - Japan's own forest certification / certified forest products distribution system by the Sustainable Green Ecosystem Council
  - Sustainable forest management is conducted in accordance with seven criteria and 36 indicators.
  - The SGEC enables certification with the cost and procedure in line with the current conditions of Japan's forestry.
  - SGEC certifies forest managements as environmentally-friendly and legally.

SGEC

Obtaining SGEC forest certification

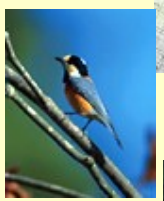
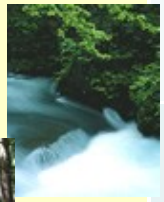
- Sustainable Green Ecosystem Council (SGEC)
  - It is certified that we manage the forest appropriately by a external institution.
  - We accelerate an action about the conservation of biodiversity.
  - Not only forests but also logs and lumbers produced from our forests have SGEC certification. The SGEC labels certified forest products.

    →They have specialty in the wood market.
  - Our forest obtained SGEC certification in September 2006.

「SGEC」 Seven standard and 35 indicators

In 2003、together with a official「Forest Management Plan」system, matching to actual situation of Japanese forestry (like cost, procedure etc) forest certification system「SGEC」was launched.

Showing seven Standards ：



	Contents of Criteria
Standard1.	Identification of Forest and their Management Policy. (Which forest is targeted to certify, and what is its management direction.)
Standard2.	Conservation of Biological diversity.
Standard3.	Conservation and maintenance of Soil and Water resources.
Standard4.	Maintenance of the Productivity and Health of the forest ecosystem.
Standard5.	Legal and Institutional framework for Sustainable Forest Management.
Standard6.	Maintenance and promotion of Social and Economic benefits.
Standard7.	Monitoring and disclosure of information.

About Forest Certification

Comparison between 「SGEC」and 「FSC」

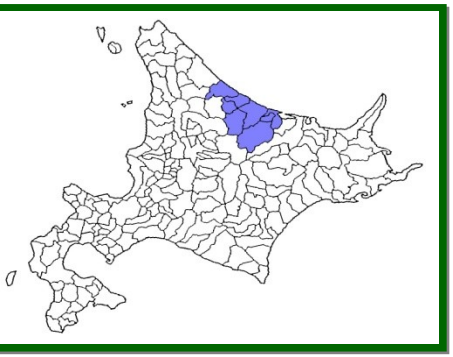
Certification System	SGEC (Sustainable Green Ecosystem Council) 緑の循環森林認証	FSC Forest Stewardship Council 森林認証制度
Established	Established 2003 Japanese Original Certification Sustainable Green Ecosystem Council (SGEC)	Established 1993 Worldwide Certification Forest Stewardship Council (An International NPO)
Standard	7 standards and 35indicators	10Criteira and 56 indicator
Characteristics	Leveling up the forest management quality, to be consistent in Natural environmental and continuous wood supply, and guarantee the growth of sound forests. Activating「Forest Management Plan」system, simplizing certification, certification suitable to Japanese Forestry conditions. From upper stream to lower stream, creating「Green circulation」 Term of Validity 5 years.	Applied to forests by 10 principal and 56 criteria. Certification system with world wide standards. **protection of Virgin forests** Mainly targeting in Tropical rain forests, and rather strict to harvesting timber. Term of Validity 5 years.
Recent Situation	Certification situation in Japan（May 2010 ） **818,785 ha** 94 locations(April 2010) 356 certified entities	Certification situation in Japan（May 2010 ） **366,337 ha** 32Locations COC 1054cases.

SGEC

FSC

網走西部流域の概要

Location of West Abashiri Area



The West Abashiri area is located in the north side of the Okhotsk synthesis Promotion Bureau located in the east of Hokkaido.

This is the area that has alms from the rich sea by drift ice. Combined with the power of the forest, during the winter time many Raptores, a seals, clione etc arrives with drift ice. .

Rough figure of West Abashiri Area

人口：平成２２年２月現在（各市町村HP参照）
区域：オホーツクの民有林参照（平成２１年１０月）
森林面積・内訳・素材生産：北海道林業統計（平成２０年度）

Name of	Population (1000people)	Total Area(ha)	Forest Area (ha)	Details of Forest(ha)			Tbr Stand	Forest Ratio
				Natural	Planted	Others	(m^3)	
Monbetsu City	24.9	83,070	65,804	37,396	27,547	860	9,986	79.2%
Takinoue Town	3.2	76,689	68,651	48,785	18,999	867	9,000	89.5%
Okoppe Town	4.3	36,245	25,583	15,027	9,850	707	3,478	70.6%
West Okoppe Vlg.	1.2	30,812	27,502	19,590	7,004	907	3,785	89.3%
Oumu Town	5.9	63,706	47,316	30,721	15,440	1,156	5,229	74.3%
Engaru Town	22.5	133,232	117,269	75,378	38,319	3,572	19,324	88.0%
Yubetsu Town	10.2	50,574	27,706	10,661	16,180	865	5,252	54.8%
合　計	71.2	474,328	379,831	237,558	133,339	8,934	56,054	80.1%

Forest Area of Japan

25、097（100%）

Area of Hokkaido

5、538（22%）

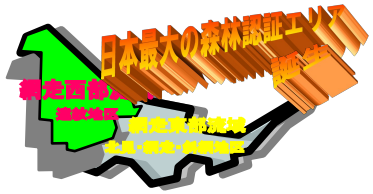
Unit：1000ha

Area of West Abashiri

379（2%）

Sustainable Green Ecosystem Council （SGEC）

Areas of Forest Certification in West Abashiri



Unit：ha

Jan 2011

認証取得年	National Forest	Hokkaido Pref Forest.	City,Town Forest	Sato Lbr	Nippon Paper	Oji Paper Group	Sumitomo Forestry	Forest Owner Association	Minato Estate	Forest Certification Area	(%)
	H19	H19	H18・20	H16	H17	H17	H18	H18	H21		
Abashiri	25,886.30	—	2,275.48	574.89	2,629.11	5,070.53	12,795.54	191.61	10.60	54.467.04	83
Takinoue	58,530.46	—	2,947.45	53.52	508.12	65.66	—	—	202.16	62,323.17	91
Okoppe	—	10,270.56	—	—	789.73	2,700.07	2,518.34	111.36	-	20,142.16	79
W.Okoppe	—	22,664.48	—	—	—	601.82	—	12.56	-	24,637.38	90
Ohm	—	33,330.72	—	—	1,001.88	653.29	292.03	—	-	35,277.92	75
Engaru	99,885.17	—	—	—	446.79	276.13	—	—	-	100,608.09	86
Yubetsu	6,314.42	—	—	—	—	3,690.60	—	—	-	10,005.02	36
TTL	**190,616.33**	**66,265.76**	**5,222.93**	**628.41**	**5,375.63**	**13,058.10**	**15,605.91**	**315.53**	**212.76**	**307,460.78**	**81**

All Japan, total Hokkaido from HP of「Sustainable Green Ecosystem Council」（SGEC） (As of Dec 2010)

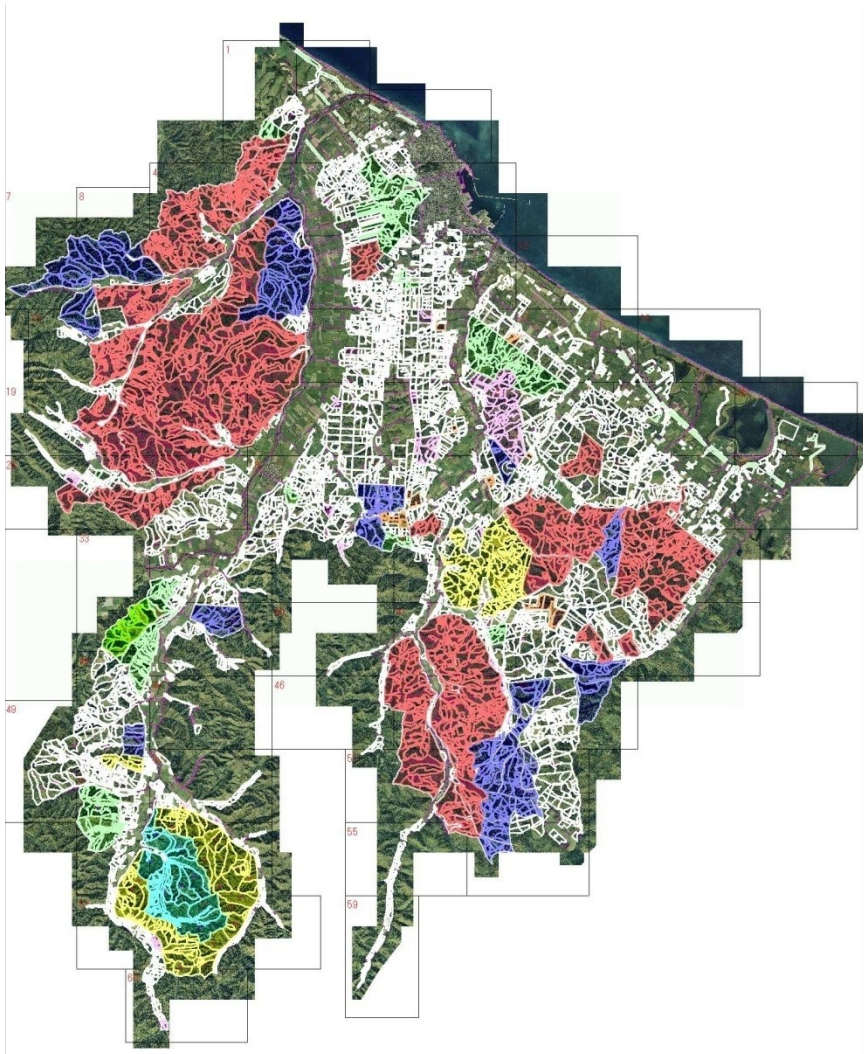
1.35times Tokyo Area

SGEC Area in All Japan 864.351.26ha（100%）

Forest Certification area Hokkaido 523,265 ha（61%）

West Abashiri Forest Certification Area 307,461ha（36%）

Details Area Certified Forest in Monbetsu City



- Sumitomo Forestry
- Oji Paper
- Oji Lumber
- Nippon Paper
- Sato Lumber
- Okhotsk Central Forest Owner's Coop
- Monbetsu City
- Takinoue Town

2004 Sato Lumber Industries

6th in all Hokkaido Area

2005 Nippon Paper, Oji Lumber

2006 Sumitomo Forestry ,

Monbetsu City Forest, Okhotsk

Central Forest Owners

Association

2007 National Forest, Hokkaido

Prefecture Forest

2008 Takinoue Town Forest

(Monbetsu City Forest expaned)

2010 Minato Estate(Private sector)

(Sato Lumber expanded)

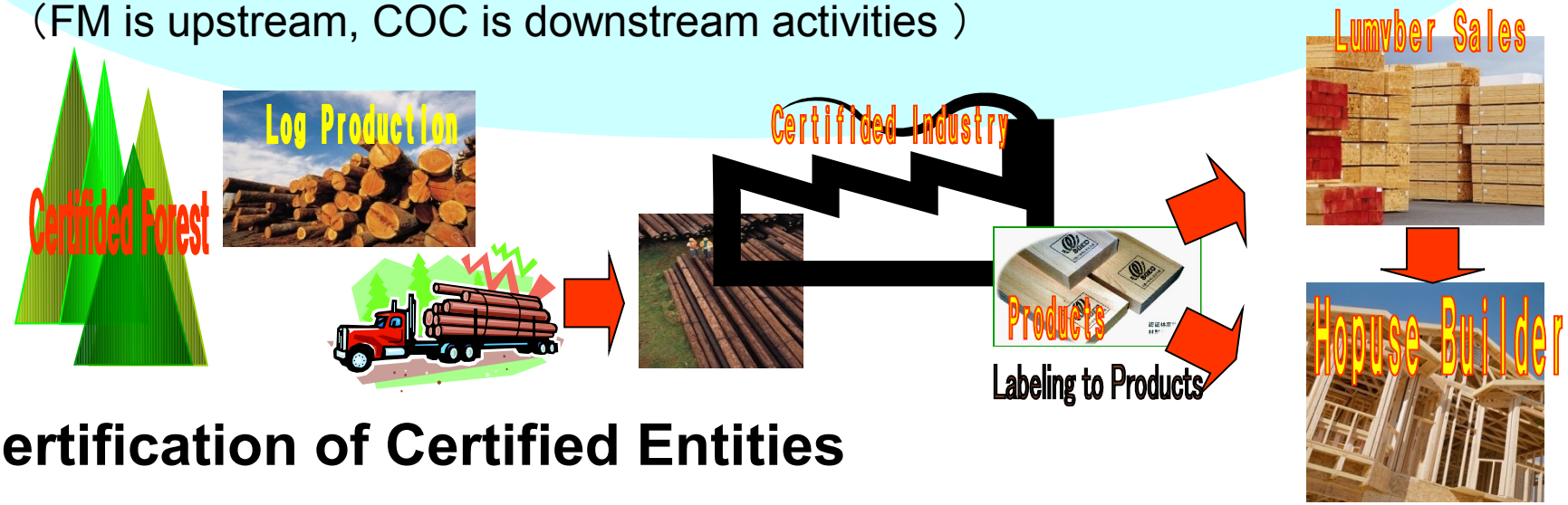
･･･Still scheduled to expand･･･

SGEC Separation and Labeling System

Similar to【Chain Of Custody】in FSC certification

SGEC promotes both separation control and label control so that forest products from SGEC certified forests (“certified wood products”) are properly supplied to consumers.

（FM is upstream, COC is downstream activities ）



Certification of Certified Entities

Logging Operating Entities
Transportation/Purchase Transportation
Log Process, Products Sales
House Builders (in case to provide Certified housing)

Uses and applications of domestic timber

Engineered wood for use as poles (Japanese cypress)

Uses and applications of domestic timber

Lattice panels for use as wall linings (Japanese cedar)

Uses and applications of domestic timber

Engineered wood
for use as poles and beams
(Japanese larch)

紋別市・網走西部流域の取組

SGECの家

木健（紋別市）
ナラのフロアー

江別市展示場

ＳＧＥＣ森林認証製品

佐藤木材（紋別市）
柱（カラマツ）

佐藤木材（紋別市）
梁（カラマツ）

林産加工協（紋別市）
間柱（トドマツ）

鈴木エブリハウス（紋別市）
クロスパネル（カラマツ）

緑の循環森林認証制度

SGEC認定事業体(COC)

認定事業内容	事　業　体　名
	横内林業(株)紋別事業所、鈴木建設(株)エブリーハウス、(株)木健、協和木材(株)、紋別林産加工協同組合、茶木建設(株)、オホーツク中央森林組合、紋別木材協同組合、滝上町森林組合、
佐藤木材工業グループ (4社)	佐藤木材工業(株)、やまさ協同組合、(有)伊藤木工場、やまさ林業(株)
北見地方SGECネットワーク ((34社の内)網走西部流域内にある事業体)	(株)横山興林、興雄地区森林育成(協)、王子木材(株)道北出張所雄武事業所、(株)グリーンたきのうえ、(有)眞貝林工、矢口産業、滝上運輸(株)、(株)エコ・グリーンおこっぺ、江本木材産業(株)、井上産業(株)、加藤木材工業(株)、(株)湧別林産、北見木材(株)、渡瀬木材(株)、丸瀬布林産協同組合、(協)オホーツクウッドテック、丸高産業(株)、
オホーツクSGEC建築推進ネットワーク (12社)	北栄建設産業(株)、北一土建(株)、(株)川村建設、高桑建設(株)、(株)大和、(有)和田建設、(有)板谷建設、北出建設(株)、(株)丸晃阿部建設、成鈴工務店、(有)匠建設、島田建具製作所、

Conclusion and recommendation

-1) By continuing our practice of sustainable forest management and maintain to create different types of forest (diversification) in compliance with the SGEC certification, we, at Sumitomo Forestry, wish to strive to become a model case in Japan's forestry industry.

-2) In light of the current situation of Japan's forestry , we wish to advocate even normal Japanese private forest owners also carry out a proper area size (small-bloc) of clear cutting and in order to average the age distribution of Japanese forests.

-3) Replanting after clear-cutting is essential to Japan's forest because natural reforestation cannot be expected due to climatic and topographic conditions. So we wish to seek low cost method of timberland regeneration, and establish a system that ensures necessary supply of high quality nursery stock of young trees to forest owners willing to regenerate their forests.

-4) Forest certification is likely to lead to vitalization of local economy. Sumitomo Forestry obtained certification of the entire timberland we own, and in Hokkaido we have been working with local businesses to dig out demands for products from the certified forest products. We should pursue mandatory inclusion of building materials from certified forests in bidding proposals for the construction of public buildings and facilities. This will not only promote forest certification but also contribute to the elimination of the use of illegally harvested products regardless of their origins is overseas or domestic.