Effects and possibilities of Forest Therapy at local hospitals -Case studies utilized local abandoned artificial forest in Japan-

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#### I have begun Forest Therapy since 1993 at special schools for students with disabilities in Nagano, Japan





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#### There are two technical terms

Shinrin-yoku: 森林浴 →Forest Bathing 1982 (Japan Forestry Agency)
Shinrin-ryoho:森林療法

→Forest Therapy 1999 (Iwao UEHARA, Japanese Forest Society)

#### If you think to practice forest therapy,

<u>1Purpose</u>: Why do clients need it?

For Rehabilitation, Treatment, Care, Counseling, Exercise, and so forth

**<u>2</u>Method:** Appropriate programs for each clients

<u> 3 What kind of forests ?</u>

Conifer, Deciduous, Artificial, Natural, Blight, Dark, Dry, Wet, Humid, Cool....

**4**Clients' reaction

Very important ! You must estimate appropriately.

# Many Forest Therapy activities have been attempted... Forest Therapy is making both of forest and human beings healthier !



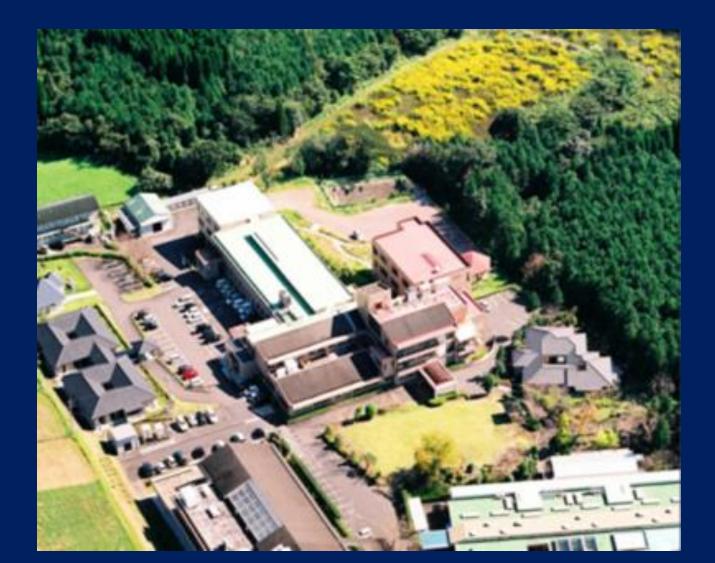


#### Abandoned forests for medical utilization

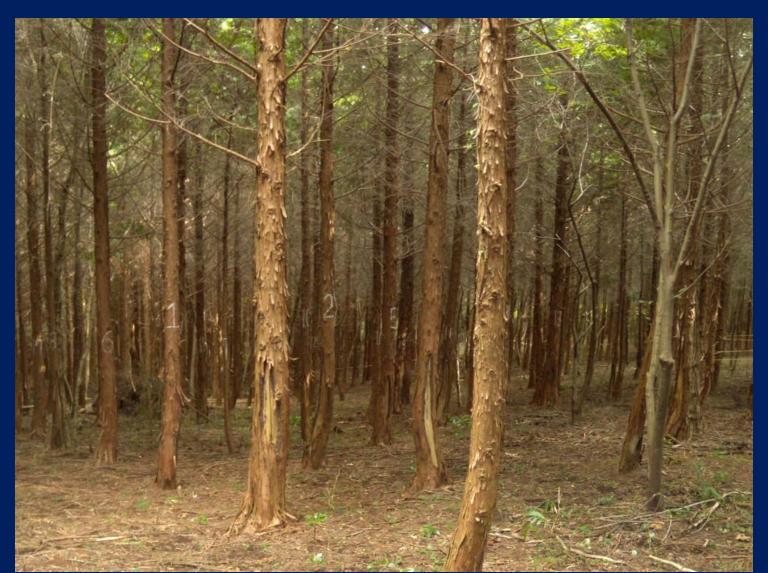




### A local hospital has forests (Kyushu island, Japan)



# But they were typical abandoned artificial forest!



Abandoned artificial forests sometimes cause land and water disaster!



### We began to tend the forests and prepare for Forest Therapy



#### Forest survey with medical staff





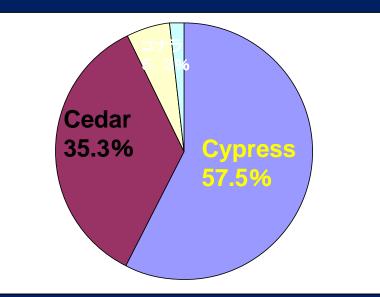
# We tried to recover the abandoned forest!





### Summary of the Forest

- Altitude: 450m
- Area: 1.6 ha
- Geography: flat  $\sim 10^{\circ}$
- Artificial stand 30-year-old
- Cryptomeria japonica : Average H. 18.4m Average DBH 26.8cm
- Chamaecyparis obtusa:
   A.H. 15.3m
   A.DBH 14.8cm
- Stand Density 2000~2200/ha





### Treatment method



- Thinning cutting
- From 2200/ha  $\rightarrow$  1700/ha
- Cutting Suffered trees

#### The forest was changed brighter!





#### Vegetation has come back!

# Utilized branches for occupational therapy



Utilized branches and leaves →making aroma water! →It stimulates clients' memories!



## Rehabilitation for Dementia



#### Client (dementia)

#### Set occupational and recreation space



- Made plural spaces
- Easy access from the hospital
- Walking = Rehabilitation
- Enjoyed forest amenity through the year

### Effects of this forest therapy case

- Decreased BPSD (Behavioral and Psychological Symptoms of Dementia!
   1) By combination with other therapies
   2) Many choices of therapies (more than 30 kinds)
- 3 Multiple estimation (mental, behavior, daily life)





#### Conclusion





Utilized and treated abandoned forest Made forest and human being s healthier! Thank you very much for your attention !

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