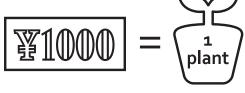
# **Activities** Tohoku : **lwate** In 2015, we planted about 200,000 trees in 10 different locations Miyagi with the help of more than 20,000 volunteers. **Fukushima** Our final goal is to plant 3 million trees.

Your donation will help us create forests.



A 1000 yen donation will buy a plant for the Tidal Barrier Bank Plantation.

Donations of 1000yen and above are welcome.

Online payment by credit card only.



credit cards

Please visit our website!

www.greatforestwall.com



## **Great Forest Wall Project**

Public Interest Incorporated Foundation

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### **Project Summary**

This project is a movement to create "life saving forests that function as tide embankments" along the northeastern coast of Japan affected by the Great East Japan Earthquake in 2011.

By organizing tree planting festivals, we first build five-meter-high embankments from soil and debris generated by the disaster, then with the help of volunteers and local residents, we plant pots of evergreen broadleaf trees that are indigenous to the area, such as castanopsis, machilus, and oak.

For example, 7000 people have planted 70000 tree pots during our largest tree planting festival so far.

The planted trees will strike root deep in the ground from four to six meters, and in 15 to 20 years they will grow into reliable forests that act as buffers against possible tsunami attacks. Following standards set by the Ministry of Environment of Japan, we do not use toxic debris but only finely crushed trees, concrete chips, and bricks.

#### **Board Members**

President:

Morihiro Hosokawa (Former Prime Minister of Japan)

Vice-President: Akira Miyawaki (Professor emeritus

at Yokohama National University)



## Miyawaki Method

Dr. Miyawaki has investigated both natural and already long-disturbed vegetation landscapes for over 40 years, not only in Japan but also around the world.

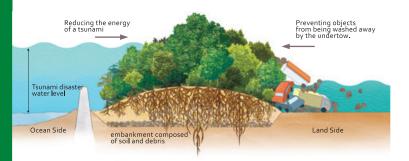
He promotes forest regeneration using the local potential natural vegetation.

Potential Natural Vegetation (PNV) is a concept used to investigate and evaluate the theoretical potential of the natural environment of an area that may have had its environmental and geographical conditions modified by human activities over time.

The idea of building a forest by closely planting together different types of trees based on the PNV concept is called the Miyawaki Method.

Using his method, we can create reliable forests in 20 years time.

## Six Advantages of the "life saving forests"





#### Reducing the energy of a tsunami

The forest with a multi-layered structure acts as a wall, breaking up and therefore reducing the energy of a tsunami.



## Preventing objects from being washed away by the undertow.

Deep- and axial-rooted trees that don't fall over easily catch drifting houses and cars, and prevent them from being carried away to the ocean.



#### No maintenance necessary

Once the forest wall is built, the strong tide embankment is maintained via a natural cycle and no additional care is necessary.



#### Fertilizing the ocean and rivers

Minerals produced in the forest run into the ocean through rivers and groundwater, and nurture various forms of life in the rivers and ocean.



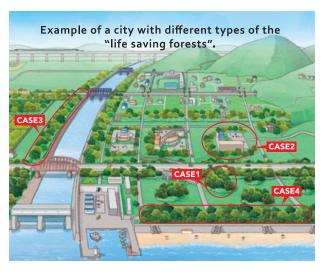
#### Preventing global warmings

"Life saving forests" contribute to the prevention of global warming.



#### Forest resistant to rain, wind and fire

With roots that grow deep in the ground, "Life saving forests" are resistant to severe environmental conditions like rain and wind. The main trees, machilus, contain a lot of water and therefore help preventing the spread of fire.



#### CASE1 "Mountains for evacuation" in plain areas



Build several small hills (mountains for evacuation) of around 5 meters high to reduce natural disasters. During the Great East Japan Earthquake, the scattered islands of "Matsushima" in Miyagi prefecture, belonging to the three most scenic spots in Japan, dampened

the Tsunamis and reduced damages.

Applied cases: The plain areas on the coast of Iwanuma city in Miyagi prefecture.

#### **CASE2** Private woods for each building



Build embankments around buildings, plant trees such as castanopsis, machilus, and oak that are indigenous to the area, and reproduce homestead woodlands and village shrines' groves.

Applied cases: The Aeon mall in Tagajo city, and the Yaegaki shrine in Yamamoto city, both in Miyaqi prefecture.

## **CASE3** Breakwaters made of forests, by taking advantage of embankments and slopes' surfaces



Plant trees on river banks and street slopes to create green breakwaters. Also reduce damages by planting trees on residential slopes built on elevated ground.

#### CASE4 Tide embankments made of forests on coastal areas



Strengthen the tide preventive functions by building concrete seawalls on the coasts, pine groves against winds and sands, and forests with broadleaf trees on the land side.