Martyn Eustace, CEO of Two Sides (an NPO in the UK)



Let's tell the world the good news about paper and the environment.

Martyn Eustace is the head of Two Sides, an NPO (a non-profit organization) that delivers the good environmental story of paper on a global scale, with a focus on the United Kingdom. While working in the UK paper and printing industries for many years, he saw the need to tell the world about the paper industry's positive effects on the environment. That led to the establishment of Two Sides.

University in the suburbs of London, Martyn Eustace became involved in so it was a seller's market. However, advocate. investment by the papermaking supply exceeded demand, and Sales more difficult.

At this time, in the UK at least, there was little concern in the paper industry about environmental issues. By around 1980, the public's interests began to change. Martyn remembers "chlorine free bleaching" as being the first environmental product feature to be promoted. After that, various issues such as recycling and forest certification became advertised features too.

By this time, Martyn had risen to be CEO of the company. It was a time, he recalls, of dramatic changes in the

world's perception of paper. Up till then, paper was just a part of life and alternatives were unthinkable.

However, digital devices for providing information were now appearing. Nowadays, we must consider how people, especially the younger generation, feel about digital verses paper convenience.

After graduating from Surrey The world has become more concerned about environmental issues. People are aware of the dramatic destruction of rain forests, and associate that with paper makers. The truth, of sales work for a Canadian-based paper course, is more about plantations, proper forest management, company. At that time (in the late and recycling and reuse. It was to tell this true side of the story 1970s), there was a shortage of paper, that Martyn launched "Two Sides" and became its worldwide

companies in large-scale equipment Two Sides' members are forest owner, papermakers and increased production of paper. Soon, merchants, printers, publishers, and all their supply chain. Members unite together to "promote paper as an attractive and Marketing became more and and sustainable communication medium", "to convey the correct knowledge about the impact of paper on the environment", and "the increase of forests in Europe".

> Two Sides was established in 2008, and now has branches in the United States, Australia, and other countries, mainly in English-speaking countries as well as Europe.



Campaigning Published in a major

Each country is different. yet the paper industry's message is the same. The members all try to deliver a consistent message.

Each company seems to think that this is an efficient and inexpensive way to communicate facts about the paper and the environment.

Martyn believes activities will continue till paper's reputation as a friend of the environment is known all over the world.

CSR Report 2015" Receives "19th Environmental Communication (Excellent) Award"



Based in Europe, where environmental awareness is high, Martyn Eustace travels the world trying to convey the good environmental qualities of paper. I was able to hear his message when he came to

Forests are the raw material for paper, but deforestation and degradation are becoming serious social issues worldwide,

We hope this issue will tell you more about promoting forest conservation and good forest management and how they can help to mitigate the effects of climate change

Keiko Fuiita



Climate change problems and forests

Various worldwide climate change problems, such as global warming, are being caused by the use of fossil fuels.

UN scientists* suspect that greenhouse gas (GHG) emissions are very likely to be the cause. In order to respond to this problem, it is important to not increase the concentration of GHG in the atmosphere, and when possible to reduce it.

This volume will focus on the new international movement for climate change and the role forests are playing by absorbing CO₂ (the most abundant GHG in the atmosphere)

* The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for providing the world with a scientific view of all aspects of climate change.





Global Action to Mitigate Climate Change

2015 global climate change issue

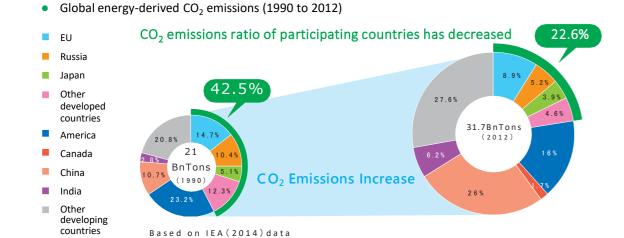
The 2015 United Nations Climate Change Conference (Conference of the Parties 21) agreed to set goals to combat Climate Change for after 2020. A major feature of this Paris Agreement was that developed and developing countries would work with "allinclusive participation" to mitigate climate change.

The conference recognised that the 40% emissions reduction required of developed countries under the Kyoto Protocol might not lead do an international solution to climate change issues. This was because developing countries such as China and India, which had not been obliged to reduce emissions, had in fact sharply increased greenhouse gas (GHG) emissions.

In addition, the Paris Agreement has set a long-term common world goal that the temperature rise, compared to pre-industrial revolution times, should be kept significantly lower than 2C.

The Paris agreement was designed to reduce emissions worldwide, and to accelerate the international community's progress in addressing climate change.

Agreed measures to address climate change include GHG emission control and GHG absorption. This relates directly to Nippon Paper Group's business, since the world's principle absorbers of CO₂ (a major GHG) are forests. Article 5 of the Paris Agreement also stated that "each country will take measures to conserve GHG sinks and storage", in other words to maintain and nurture



The Role of Forests and Timber to Mitigate Climate Change

During photosynthesis, trees absorb CO₂ from the air, generate wood that the amount of CO₂ emissions at the time of oxygen, and store carbon as organic growth matter in branches and trunks. On the other hand, trees emit CO₂ by breathing in the same way as humans, but as long as trees grow, photosynthesis uses more CO₂ than is produced by respiration, so the difference is made up by absorption of atmospheric CO₂.

Even after trees are harvested and used for housing, furniture, paper, and so on, the carbon remains stored in the products created. In addition, when making a house, it is a major feature of

Schematic of photosynthesis mechanism

Absorb CO₂ From the atmosphere CO₂ Exhaust O2

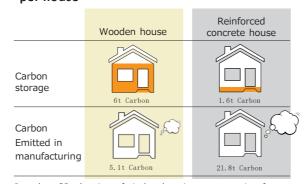
Organic C is Generated

Created based on the Forestry Agency "for the prevention of global warming"

manufacturing and processing is less than materials such as iron.

In addition to the environmental characteristics of wood itself, the Tokyo Olympics and Paralympics of 2020, will require all forest materials to have come from forests certified as sustainably managed.

> Carbon storage amount and carbon emission amount at the time of material production per house



Based on "Evaluation of timber housing construction from the viewpoint of carbon stock and CO, emission" The Wood Industry Vol.53, No.4, 1998

Toward Mitigation of Climate Change by Forests

Afforestation can be an effective way of absorbing and fixing for over 10% * of global emissions. In order to mitigate climate atmospheric CO₂ into trees. Unfortunately, in Japan, about 70% of the land is occupied by forests, and it is difficult to find space for new tree planting. The Japanese government's approach is to promote CO₂ absorption and fixation through appropriate forest

Meanwhile, in various parts of the world, mainly in developing countries such as those in Southeast Asia and South America, forest deterioration is in progress. Conversion to farmland, nontraditional slash-and-burn farming, excessive logging for firewood, excessive commercial logging, forest fires, etc all take their toll on forests. Additionally, GHG emissions from these activities account

change, it follows that efforts to prevent the decline and deterioration of forests in developing countries are extremely

At the same time, restrictions on forest use to prevent deforestation and degradation in developing countries can extend to the traditional use by local people. It is important to maintain the customary rights and income of local people, but it is also necessary to establish good forest management methods.

*Based on the data of the IPCC fifth assessment report

Annual deforestation and deterioration worldwide (2010 to 2015)

■ Up to 250,000 ha ■ 250 to 500 thousand ha ■ 500,000 ha or more

Reference> Japanese forest area = 25 million ha



Based on FAO Global Forest Resources Assessment (2015)

REDD + ** Suppression of Slash and Burn Cultivation in INDONESIA

In Indonesia, Japanese companies are collaborating with local government bodies and leading local companies to curb deforestation due to slash-and-burn cultivation. The aim is to improve the profitability of local farmers through conversion to high quality cacao farming.

Originally, farmers in this area mostly cultivated cacao, which is a raw material for chocolate. Cacao was popular, but there was no technology for increasing the added value of harvested

Corn cultivation, which can easily increase profits has emerged as the dominant crop. This resulted in the surrounding forests being destroyed one after another by slash-and-burn to keep expanding the cultivated land.

In this project, we have been receiving locally selected, highly skilled farmers who aim to improve their technologies, and have begun efforts to teach high-quality cacao cultivation methods and technologies to increase added value.

> ** REDD+ :Reduced of emissions from deforestation, degradation, etc. in developing countries, plus aggressive measures to increase carbon storage.

Nippon Paper Group's Initiatives

 Nippon Paper Group's own domestic and foreign forests (as of the end of December 2015)

TOTAL 179,000ha



acquisition rate of forest certification in company forests .. 1 0 0 0

tons of fixed CO₂ in company forests 32 Million t

Proper forest management is important for the absorption and fixation of CO₂ by forests. Nippon Paper Industries has received acquired appropriate third party forest certification in all domestic and overseas forests in recognition of its good forest management. In total, 32 million tons of CO₂ are fixed in Nippon Paper forests worldwide, thanks to sustainable forest management.

One of the government's efforts to support domestic forest sink activities is the "J Credit System," by which the country endorses the company's figures for the amount of CO₂ absorbed by its forests. The Nippon Paper Group applied for J-credit for Nippon Paper Industries Kitayamasha Forest Co., Ltd. Shizuoka and Nippon Paper Wood Co., Ltd. Sudakaisha Forest Co., Ltd. (Gunma).

These credits are used to offset CO₂ emissions such as , those caused by movement of a professional soccer team, and the CO2 generated when using forestry machinery.



Sudagai company owned forest (Nippon Paper Lumber)



Kitavama company owned forest (Nippon Paper Industries)