Let's Think About SDGs

Issue 6 Goal 9 Industry, Innovation, and Infrastructure

Since Issue 2, we have addressed the goals of the SDGs that are closely related to the Nippon Paper Group. In this issue, we will explore Goal 9 "Industry, innovation, and infrastructure."

Goal 9 "Industry, Innovation, and Infrastructure" and its Background

(Goal)
To build resilient infrastructure, to promote inclusive and sustainable industrialization, and to foster innovation

Goal 9 and all targets
https://bit.ly/2FkmKGL

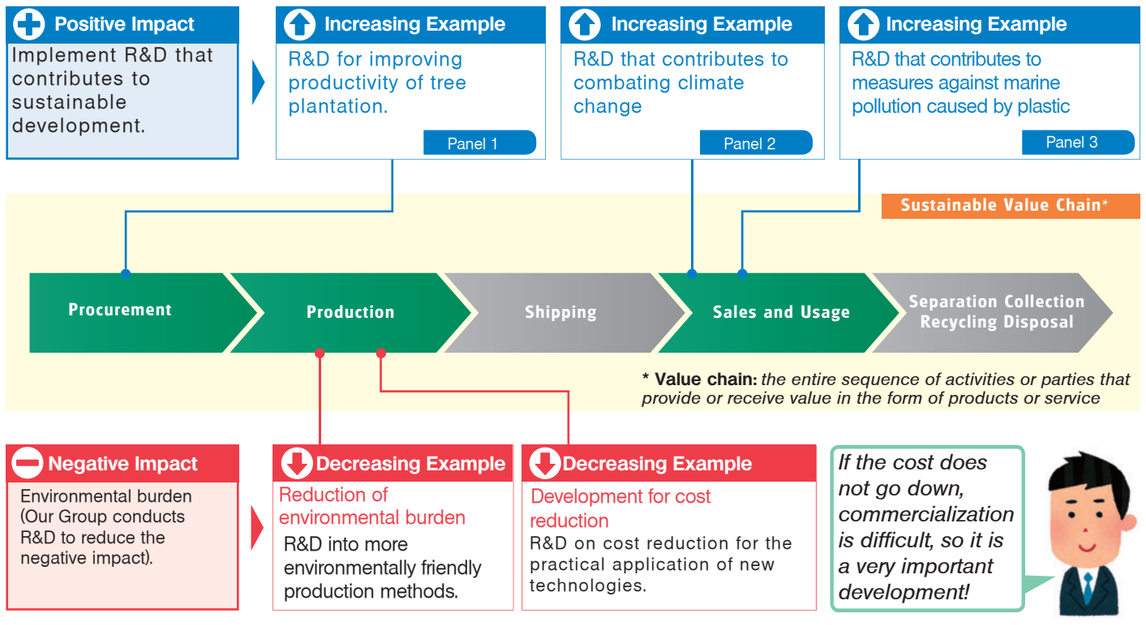
Targets (SDG 9 targets related to our group)

- 9.4 To upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes.
- 9.5 To enhance scientific research, and to upgrade the technological capabilities of industrial sectors.

Background In order to solve the problems facing the world, it is important to promote the development and diffusion of environmentally friendly technologies. The technological development capabilities of companies are also required to achieve the SDGs.

Nippon Paper Group and Goal 9

Research and Development (R&D) is related to the entire value chain of our Group. We've highlighted some examples of our work that are in line with the SDGs.



Panel 1

Improve productivity of afforestation project by utilizing the latest technology

Using the latest breeding techniques using DNA information (big data), we are working on the early selection of eucalyptus trees with excellent growth potential and a high ability to absorb CO_2

DNA analysis | Big data processing (wood volume, pulping yield etc.) | Early selection of Eucalyptus elite trees

Panel 3

Development of paper products leading to expanded use of wood resources

Marine pollution by disposable plastic has become a global social issue. We have developed a paper with barrier properties, "Shield Plus ®", that suppresses the permeation of oxygen and water vapor. This material is expected to partially substitute for petroleum resource-derived products.

Expected usage example

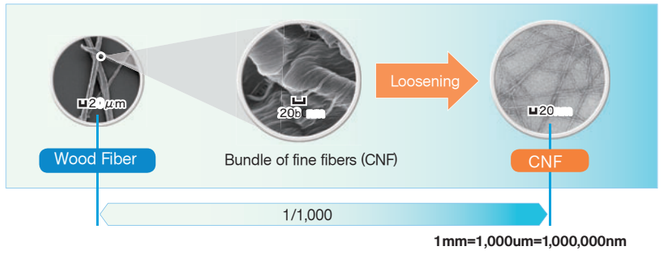
Relating to Goal 12
https://bit.ly/2TR5qS3

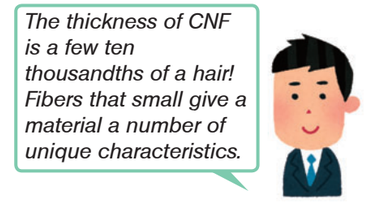
Panel 2 Development of "cellulose nanofibers (CNF)", a new material made from wood

We are a leading company in the development of CNF, a new material made of nano-sized wood fibers.

What is CNF?

Examining wood fibers under an electron microscope shows them to be bundles of fine fibers bundled. These fine fibers are CNF. By loosening the fibers, small numbers of strands of CNF, or even single strands, can be isolated.





Characteristics of CNF and application example

- Light and strong: Light and strong components filled with resin and rubber
- High specific surface area: A filter that can adsorb fine dust particles
- High oxygen barrier property: Film for keeping food fresh
- Has unique physical properties in water: Cosmetics and paints

QR code for more information about our CNF (Cellenpia ®)
https://bit.ly/XX

Example CNF utilization project contributing to SDGs

Ministry of the Environment led NCV (Nano Cellulose Vehicle) project

This project aims to reduce the weight of automobiles by 10% by using CNF (which leads to the reduction of CO_2 when driving). We offer CNF samples for this project, which involves universities and auto parts manufacturers.

Replacement of resin, metal, tire and glass of car body with CNF weight reduction element

Questions or Suggestions?
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