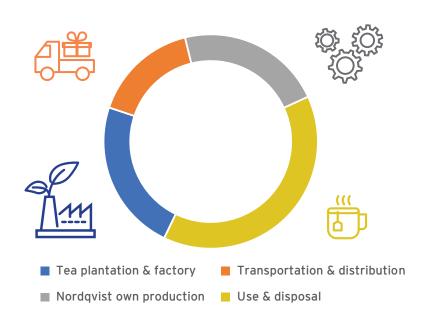




STUDY: ALMOST 40 PERCENT OF THE CLIMATE IMPACT OF TEA COMES FROM OUR KITCHEN

- Cradle-to-grave life cycle assessment
- Carbon footprint compensated
- NAMAKKAL: waste to energy project

The majority of carbon footprint through the life cycle of tea comes from the step of enjoying and disposal of tea. The second biggest impact on the climate occurs in the cultivation, processing and production, in the tea plantations and factories in the countries of origin, and in Finland. Followed by the impact from transportation and distribution. These are from the findings of our study on life cycle assessment of tea.



CARBON
FOOTPRINT OF
A CUP (2 DL) OF NORDQVIST
NATURAL TEA:

10-20

gCO2e

ACCORDING TO
NATURAL RESOURCES
INSTITUTE FINLAND,
CARBON FOOTPRINT OF
SAME AMOUNT (2DL)
OF FINNISH MILK:

200 gC02e



Project environment

With its rapidly growing economy and population most of India is in need of a secure and sustainable energy supply to sustain economic development and reduce alarming levels of pollution.

About 70% of India's electricity generation capacity derives from fossil fuels.



ABOUT THE PROJECT

As the first of its kind in India, this waste to energy project converts up to 120,000 tons/year of chicken litter and other organic residues from starch and sugar industries into renewable electricity, which is being fed into the southern electricity grid. By generating renewable power exclusively from biomass waste, competition with food production is avoided. Solid organic fertilizer is being produced as a by-product from the biogas generation, supporting local and regional smallholders in implementing sustainable agriculture.

PROJECT OBJECTIVES

- Annual power generation of 20,000 MWh
- Production of up to 10,000 tons of high quality organic solid fertilizer every year
- Biogas waste plant in Namakkal generating concrete employment opportunities for both, local rural population and skilled engineers (21 direct and 17 indirect jobs)



















60% - 70% of Tamil Nadu's total chicken and egg supply is produced in Namakkal district.

The traditional open storage of chicken litter results in severe environmental and hygienic problems as well as the release of methane emissions.

PROJECT FACTS	
Project type	Waste to energy
Location	India
Carbon standard	CDM, Gold Standard
CDM project ID	8288
GS project ID	3607
Registration date	29/12/2012
Installed capacity	2.4 MW
Annual CO2-eq reduction	20,000 tons



How to brew your tea in a climate friendly way

- Boil the water **only on demand**;
- Take small action, compost the tea-leaf, or discard it to the biowaste bin, returning the nutrient back to the nature;
- 'Upgrade' the tea-leaf, before let it compost. The tea-leaf contains vitamins and polyphenols, which can be used for skin cleaning. The leaves can also be used as odor removal, for example in the fridge;



CITIES & CIRCULAR ECONOMY FOR FOOD, 2019, ELLEN MACARTHUR FOUNDATION

Bio-based Packaging Material

We work together with our packaging material suppliers to nudge the packaging material towards a better performance regarding environmental impact.

Bio-based packaging material is widely seen as sustainable material, it reduces the depletion of finite fossil resources and CO2 emissions. In addition, compostable materials could offer environmental benefits in the end-of-life phase!. On the other hand, there are truly many questions arising along this topic, we want to get close to the truth.

Firstly, we had to confront the terms such as bioplastic, biobased, biodegradable, compostable, et cetera. They can be really misleading and confusing to most of us. We also try to look for the relations and differences among these terms.

Briefly, 'bio-based' does not equal 'biodegradable', whereas 100% bio-based plastic may be non-biodegradable (i.e. biobased PE), and 100% fossil-based plastics may biodegrade (i.e. PBAT, PCL)².

We also care about how does each type of the material flows in our local recycling system. Plastic packaging with partially bio-based plastic material can be recycled as plastic in Finland, but it ends up to the energy production as other mixed type of plastics. On the other hand, if the material is made from 100% single type of plastic (PET or PP, etc.), it is preferable by recycling company that they can manufacture small granules from the recycled plastics, thus being utilized in a closed cycle in

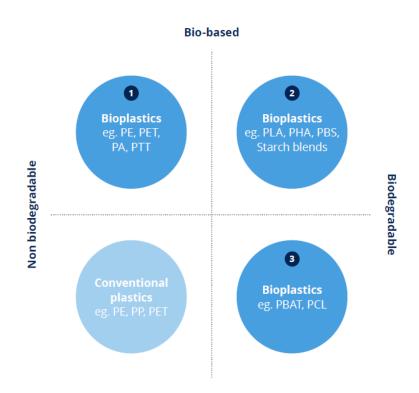
principle.

It is crucial for everyone to know that no matter being biodegradable, compostable or bio- based material, none of them can be used as one-stop solution.

For example, compostable packaging material should not be left to our environment carelessly, it biodegrades only under certain conditions that the composting facilities can meet. If disposed correctly, the compostable packaging material can have a minimal impact on the planet and can be re-integrated into soil within weeks or months. If disposed incorrectly, for example sent to landfill, they may break down without (sufficient) oxygen, result to create more greenhouse gas (for example: methane).

To fulfill the 'environment friendly' declare, we do need to communicate even closer and clearer with our consumers to dispose the packages responsibly. In summary, we need to take both biodegradability and compostability, together with recyclability into consideration while developing our packaging material. Right, the work continues.

Study more about bioplastic, please visit: www.european-bioplastics.org



Picture from source 3.

- 1 Wageningen UR. 2015.Biobased Packaging catalogue. URL: http://edepot.wur.nl/343774. Accessed: 15.4.2019
- 2 European bioplastics. What are bioplastics?. URL: https://www.european-bioplastics.org/bioplastics/. Accessed: 15.4.2019
- The Waste and Resources Action Programme (WRAP). Understanding plastic packaging and the language we use to describe it. URL: http://www.wrap.org.uk/sites/files/wrap/Understanding%20plastic%20packaging%20FINAL.pdf. Accessed: 10.10.2019

OUR WORK CONTINUES

For Nordqvist, acting responsibly has always been the leading way to do business. We celebrate our 40th anniversary in 2019 and we have seen the world change in these decades through climate change and people's changing values. As a company we want to continue acting responsibly and we are ready to take the next step towards sustainability. The work has started with our new energy-efficient facility in Nurmijärvi and we are now constantly seeking ways to make our supply chain more sustainable.

Our stakeholders (consumers, suppliers, employees, etc.) are the key element on our journey to sustainability, so collaboration with them is vital for us. We believe that great things can be achieved when people are willing to work together towards a greater, common good. Sustainability in every way is something that has to become a part of every company and household. Producing sustainable products for consumers means that every step of the supply chain is taken care of. We wanted to start this CSR-project because we wanted to write down

our current situation and the risks that lie in to our supply chain and be open about these issues. Nord-qvist is on the right path, but the work doesn't end after this report. Working for sustainability is constant observing and finding out better solutions and that is what we promise to do every day.

BY MAY 2020,
70% NORDQVIST PRODUCTS
ARE LABELLED WITH RAINFOREST
ALLIANCE, FAIRTRADE OR
EU ORGANIC SEALS.

GOAL: 80% BY THE END OF YEAR 2020,

90% BY YEAR 2021.

CERTIFICATIONS AND LOGOS IN NORDQVIST





Fair Trade

Fair trade aims to achieve a world in which the farmers and employees of developing countries have an opportunity to a secure and sustained income, as well as an opportunity to personally decide on their own future. Fair trade aims to reduce poverty through trade.

A social movement that supports fair trade can be found throughout Finnish society. It includes companies, communities and citizens who make consumption decisions.

www.reilukauppa.fi

Organic FI-EKO-201

Organic combines the best production methods in terms of the environment, strict requirements on the wellbeing of animals, as well as the consumers' wishes for high-quality and natural products.

The purity of organic food stems from two sources: the paucity of pesticides and additives. Organic production also promotes the diversity of the agricultural nature and recycles nutrients.

www.proluomu.fi



Rainforest Alliance

Rainforest Alliance is an international non-profit organisation which, over the past thirty years, has worked towards promoting biological diversity and a sustainable economy. Tea plantations that are Rainforest Alliance certified use methods that safeguard the health and income of farmers, their land, as well as surrounding waterways. To earn a Rainforest Alliance certificate, a tea plantation must pass an annual audit in which detailed environment. economy and social criteria, which support the comprehensive vision of sustainable development, are reviewed.

www.rainforest-alliance.org

CERTIFICATIONS AND LOGOS IN NORDQVIST



Member of amfori, the leading global business association for open and sustainable trade. For more information visit www.amfori.org





amfori

We are a member of amfori, the leading global business association for open and sustainable trade. Its mission is to enable each of its members to enhance human prosperity, use natural resources responsibly and drive open trade globally.

amfori provides amfori BSCI to improve the social performance of their member's supply chains, amfori BEPI to improv environmental performance, and amfori Advocacy, to advance open and sustainable trade globally.

www.amfori.org

Finnish Association for Nature Conservation

The aim of the Finnish Association for Nature Conservation is to stop the loss of biodiversity. The basis for the conservation work of the Finnish Association for Nature Conservation is respect for nature, preservation and strengthening of the human-nature relationship, as well as the enhancement of a healthy, safe and pleasant living environment. Three cents of the profits for each package from Nordqvist's Organic Tea is donated to the Finnish Association for Nature Conservation for the conservation work of Finnish forests.

www.sll.fi

Key Flag

The Key Flag symbol can be issued to a product produced in Finland or a service produced in Finland. In addition, the domestic content of the product or service must be at least 50 percent. On average, the domestic content of Key Flag products is more than 80 percent. Domestic content refers to the proportion of the Finnish cost of the break-event cost of a product or service. The calculation considers all production costs of the product or service.

The majority of Nordqvist's products are seasoned and packaged in Nurmijärvi. The Emperor's Bride and Tiger's Daydream products have a Key Flag symbol.

www.avainlippu.suomalainentyo.fi







FSSC 22000

FSSC 22000 is an international certificate system which helps companies guarantee food safety. The FSSC certificate includes a vast number of criteria, which Nordqvist as a company fulfills. We put a lot of effort into the quality of our tea and packaging, as well as the processes of production. Product safety is monitored on a daily basis and is developed continuously. We implement the principle of continuous improvement in terms of both the quality of our products and food safety, so that our customers can always enjoy high quality and safe tea.

www.fssc22000.com

Strongest in Finland

A company that has achieved the Strongest in Finland certificate creates power for the Finnish economy now and in the future. The certificate is a sign of the company's positive financial figures, creditworthiness, background history and good payment behaviour. The Strongest in Finland certificate tells customers, partners, credit providers and other stakeholders that cooperation with the company is built on a strong foundation. The certificate is based on the Rating Alfa classification by Suomen Asiakastieto.

www.asiakastieto.fi

Oiva

Oiva is a food safety information publication system coordinated by the Finnish Food Safety Authority Evira. Oiva supports companies in taking care of food hygiene and the safety of products. In the everyday lives of companies, Oiva is mostly present in the fact that Oiva reports are published on the audits carried out by food control inspectors. The inspections are carried out in accordance with Oiva assessment guidelines. Oiva is based on the current provisions concerning food legislation, and Oiva does not set out any additional requirements in terms of the company's activities or the operator's responsibility. Oiva unifies the inspection procedures throughout Finland.

www.oivahymy.fi

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