

Nedspice sustainability report

WORKING TOGETHER ON
SUSTAINABLE SPICING

2022



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We deliver
spices, herbs
and dehydrated
vegetables in a
sustainable way.

‘We understand that our objectives can only be achieved by working closely with other stakeholders.’

ALFONS VAN GULICK,
CHAIRMAN AND CEO NEDSPICE

Chairman's Letter

Herewith we present our Nedspice Sustainability Report 2022. During 2022 we continued to build on our sustainability strategy to achieve the targets laid down in the Nedspice Sustainability Report 2021. These targets not only revolve around our “Nedspice Farmers Partnership Program” (NFPP), which aims to build long-term relationships with smallholder farmers in the regions where we procure our product, but also encompass processing. The triple bottom line principle of People, Planet and Product, which we rephrased into Social Responsibility, Environment and Quality as well as the UN Sustainable Developments Goals provide the framework for defining our targets. We understand that the road to achieving our objectives will be long and windy and can only be achieved by working closely with other stakeholders. Hence our pay-off phrase “Working together on sustainability”.

During 2022 we fully eliminated the use of red label pesticides in all our NFPP operations and progress was made to reduce yellow label pesticides.

The number of farmers in our NFPP program increased, but at a slower pace than anticipated as farmers decided to switch to more rewarding crops. We initiated two biodiversity projects in Rajasthan, India and started work to calculate our climate footprint. Significant reduction was achieved in the use of firewood for heating our boilers in India. Project with customers were started, for example a project on living income in Andhra Pradesh, India.

Progress in other areas proved to be more challenging, for instance factory water use and electricity and gas consumption in our facilities in Vietnam, which needs further investigation.

We believe that ‘learning by doing’ is the best approach to make progress on our sustainability agenda. Hence, we keep on ‘doing’ and ‘learning’ as we go along.

I would like to thank our customers who join us in our efforts and all Nedspice employees who make this happen.

Alfons van Gulick
Chairman and CEO Nedspice

About Nedspice

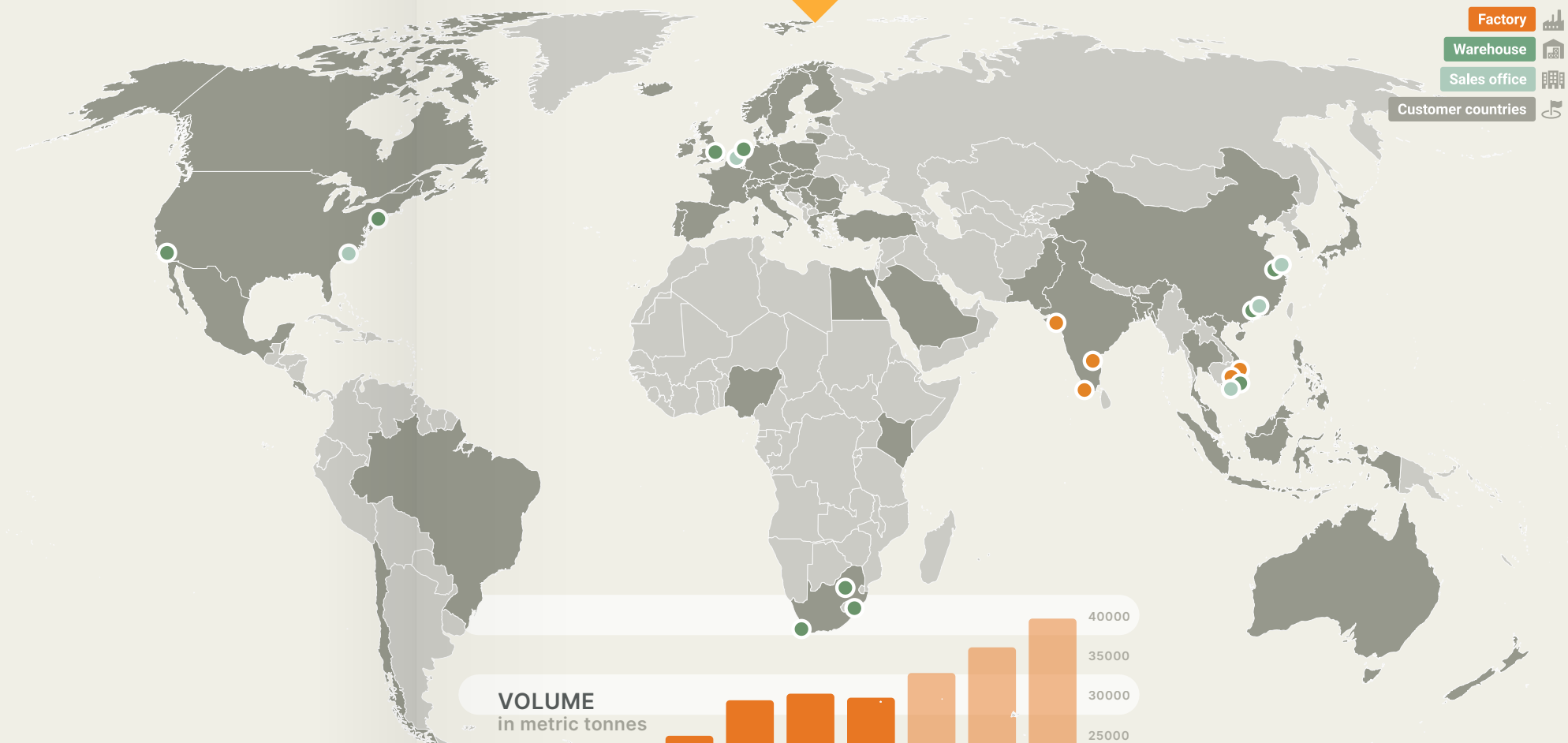
Nedspice is a privately-owned group of companies with worldwide activities in sourcing, processing and distribution of spices, herbs and dehydrated vegetables.

Our business activities include sourcing, cleaning, sterilisation, grinding, packing and distribution of single spices, herbs and dehydrated vegetables.

Nedspice is headquartered in the Netherlands and operates processing facilities in India and Vietnam. Sales offices, warehouses and distribution facilities are located in the Netherlands, India, Vietnam, the United States of America, the United Kingdom, South Africa, and China. We have close to 400 customers from 60 countries and we continue to grow each day.

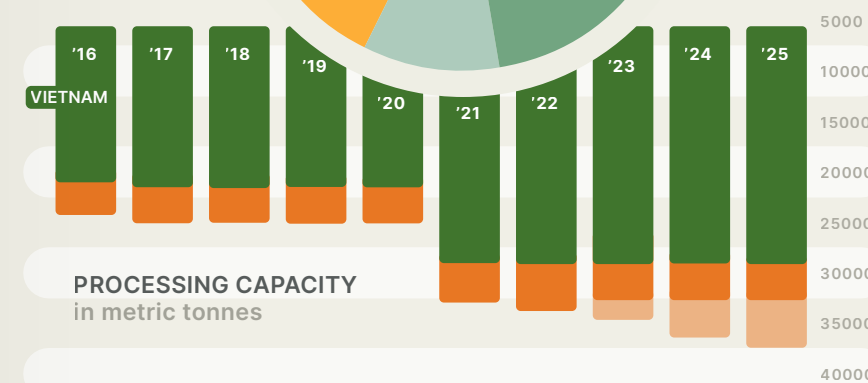
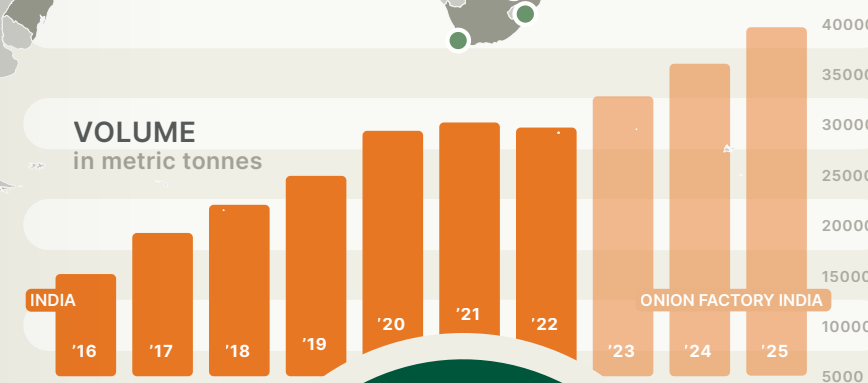
Whether it is whole black pepper for retail bottling or ground garlic powder to season ready-to-eat-food, we deliver our customers the carefree part of their product. We use only natural and high-quality ingredients. We ensure a carefree delivery of our customers' products by adhering to specifications and needs through enhanced traceability, transparency, quality assurance, timely delivery, and exemplary service levels.

WE HAVE CUSTOMERS IN **60** DIFFERENT COUNTRIES



868
EMPLOYEES
GLOBALLY

4500+
FARMERS
IN NEDSPICE FARMERS
PARTNERSHIP PROGRAMME



29,300
MT SALES VOLUME
IN 2022

TOP
PRODUCER
& EXPORTER
OF GROUND BLACK AND
WHITE PEPPER IN VIETNAM

It's in our pay-off

Sustainability at Nedspice is not just an idea, it's an integral part of who we are and how we function as an organisation. We've witnessed the effects that unsustainable methods can have on both nature and individuals. Our strong presence in Vietnam and India, from farm to factory, allows us to directly implement improvements, aiming towards a more sustainable spice supply chain.



working together on sustainable spicing

“To effectively address unsustainable practices and related issues, we understand the necessity of collaboration. Only through combined efforts can we bring about real change. To this end, Nedspice collaborates closely with farmers, clients, NGOs, governments, and industry platforms to enact sustainable transformation within the spice sector. The journey towards sustainability necessitates continuous improvement, striking a delicate balance between immediate requirements and long-term availability. We view ‘sustainable spicing’ not merely as an alliteration but as an action verb, an ongoing endeavor that we continually strive to perfect.

Ensuring long-term raw material availability necessitates prioritising sustainability throughout our supply chain. At the source, we aid farmers in enhancing their agricultural practices and improving their livelihoods through our Nedspice Farmers Partnership Programme (NFPP). As a member of the Sustainable Spices Initiative (SSI), we actively promote collective sector transformation. Moreover, we contribute to sustainable innovation via various projects undertaken in collaboration with governments, NGOs, research centers and, increasingly, our customers.

Perhaps most crucially, our expertise in sourcing and distribution, coupled with our presence in origins, equips us to undertake all these actions in a cost-efficient and consistently high-quality manner. This is what we term as true sustainable spicing.”

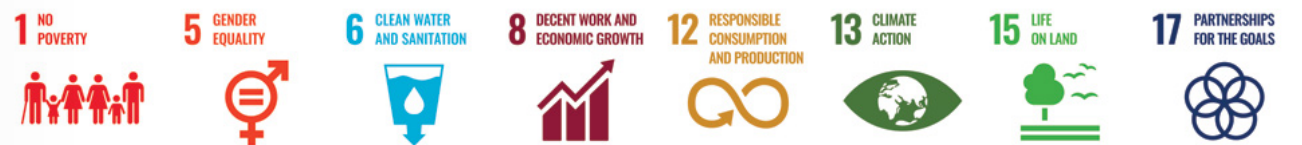
Sustainable spicing framework

Our aim is to be a spice ingredients company that not only grows profitably, but also contributes substantially to environmental, social, and economic development. To make this a reality, we are actively involved in various initiatives and partnerships with farmers, NGOs, and other business associates. To better

organise our diverse endeavors and aspirations, we've created the Nedspice Sustainable Spicing Framework. This framework is broken down into three main categories: Environment, Social Responsibility, and Quality, each with its own set of priority areas.



It's in line with the Sustainable Development Goals (SDGs) put forth by the United Nations in 2015. Our activities are directed towards supporting progress in the following Sustainable Development Goals (SDGs):



We have identified 8 SDGs that are relevant to our sector and resonate with our sustainability ambitions.

Memberships

Nedspice’s approach to sustainability is best encapsulated by our guiding principle: “working together on sustainable spicing.” Collaboration is integral to what we do. We participate in various sustainability-focused organisations, including the Sustainable Spices Initiative (SSI), SSI Indonesia (SSI’s local platform in Indonesia), and the National Sustainable Spice Programme (India’s national organisation). Nedspice’s CEO, Alfons van Gulick, has served as the global chairman of SSI for the past seven years, making significant strides towards our sustainability goals.

Additionally, Nedspice holds memberships in the European Spice Association (ESA), the American Spice Trade Association (ASTA), the Royal Dutch Spice Association (KSNV), the All India Spices Exporters Forum, the Vietnam Pepper and Spices Association (VPSA) and the German Fachverband der Gewürzindustrie e.V., all of which are increasingly focusing on sustainability.



Caring for our farmers

For millions of smallholders farmers it is difficult to secure an income above subsistence level. Income insecurity and poor living conditions pressure farmers into poor agricultural practices, such as uncontrolled use of agro-chemicals, continuous cropping and poor wastewater management. These practices are detrimental to their land as well as to the surrounding natural resources. Consequently, future crop yields and the environment are put at risk.

Sustainable Spices Initiative

Founded in 2012, the Sustainable Spices Initiative (SSI) is a member organisation dedicated to transitioning the mainstream spices sector towards a more sustainable marketplace. The sector has seen a rise in challenges related to spice production, particularly regarding future supply, food safety, and traceability, primarily due to inadequate agricultural practices, limited processing facilities, and farmers shifting to more lucrative crops or jobs. Sustainability concerns such as unchecked pesticide use, ineffective wastewater management, and labour conditions also loom large in the sector. However, in a pre-competitive setting, we can instigate much-needed reforms.

SSI unites an international group of companies and NGOs operating in the spices and herbs industry. Initiated by The Sustainable Trade Initiative (IDH), numerous companies pledged to source their products sustainably and create a positive impact within their supply chains. In collaboration with SSI members, we are committed to the following goals:

- 1 Achieve or exceed 25% of sustainable sourcing in at least our top three products categories by 2025.
- 2 Work towards a completely sustainable spice production and trade in the sector.

Through our shared commitment, we aim to secure future sourcing and stimulate economic growth in spice-producing countries.



Starting at the source

To create a more sustainable spice supply chain we start at source: the farmers. Running a small farm isn't easy, especially with global trends that demand cheaper but higher quality food production. Many young farmers leave agriculture to seek alternative employment. Those that remain are pressured into intensive farming, which promotes the use of chemical fertilisers, herbicides and pesticides. This negatively affects long term soil fertility and can harm the health of local communities through polluting water supplies.

Through the Nedspice Farmers Partnership Programme (NFPP), we encourage farmers to make their cultivation practices more environmentally, economically and socially sustainable to future-proof their livelihood.



NFPP growth and strategy

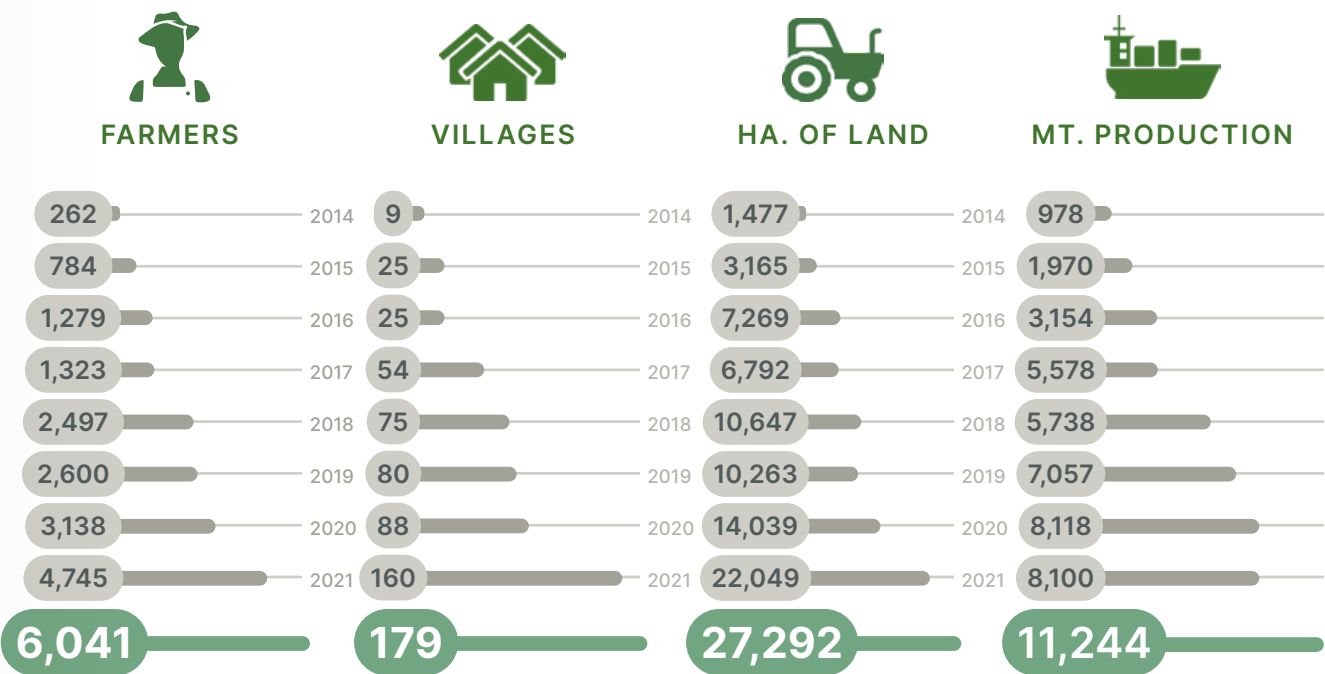
In 2013 we set up NFPP in the province of Binh Phuoc, Vietnam and the programme has since expanded to neighbouring provinces of Dak Nong and Dak Lak. Simultaneously we have set up NFPP in various areas in India. The success of NFPP is mainly owed to the fact that farmers are treated as partners and important stakeholders throughout the process, which results in truly sustainable relations. We started off with 262 farmers from six villages in crop season 2013/14 and have grown steadily in the last eight years. In 2022, we worked together with 6041 farmers from 456 villages in Vietnam and India. In 2030 we aim to grow to 10,000 farmers. Read more about our plans for NFPP on [page 13](#).

How it works

The Nedspice Farmers Partnership Programme invites farmers into a financially attractive and long-term partnership. Through trainings and on-farm support we help to develop sustainable and profitable farms, that produce high-quality and safe spices. Farmers that join NFPP can benefit from frequent trainings on Good Agricultural Practices, on-farm support from Nedspice agronomists and a price premium for quality products. Farmers receive a Package of Practice, which includes, among other things, relevant information on seed treatment and advice on nutrient solutions. We respond to

the wider needs of farmer communities through our outreach programme. More information on our outreach programme can be found on [page 23](#).

In India, crop and farmer details are collected with our NFPP mobile app, which streamlines data collection and helps our agronomists and NFPP staff to make informed decisions. For NFPP Onion we work together with a Farmers Producers Organisation (FPO), under which over one thousand onion farmers are registered. For more information on the onion dehydration factory see [page 18](#).



Certificates

All farmers who participate in NFPP benefit from frequent trainings, support from experienced agronomists, the latest technology and extensive agricultural research by Nedspice R&D department. In addition, many NFPP farmers are part of independently audited sustainability certification schemes.



Rainforest Alliance

In 2022, a total of 649 black pepper farmers from Binh Phuoc, Vietnam were Rainforest Alliance certified. The Rainforest Alliance Sustainable Agriculture Standard recognises four principles: effective planning and management system, biodiversity conservation, improved livelihoods and human wellbeing. These principles contain Critical & Continuous improvement criteria. In other words, the Rainforest Alliance Sustainable Agriculture Standard recognises the challenges posed by climate change and present-day agriculture practices and seeks to address these challenges by actively promoting sustainable practices and improving the resilience of farms and farming communities.



Farm Sustainability Assessment

In 2022, 813 cumin farmers from Rajasthan, India, 260 turmeric farmers from Andhra Pradesh, India and 288 black pepper farmers from Binh Phuoc, Vietnam were first Farm Sustainability Assessment (FSA) certified. FSA is an industry-harmonised assessment and assurance tool to promote agreed sustainable agricultural practices. All farmers have passed the FSA at Silver level or higher.



EU & US NOP Organic

In 2022, 35 black pepper farmers from Binh Phuoc, Vietnam were certified organic, passing both EU and the US NOP organic standard. The organic standard is based on the international principles of natural agriculture. Organic farming prohibits the use of genetically modified organisms (GMOs), harmful pesticides, antibiotics, growth hormones and synthetic fertilisers.



UEBT

In 2021, the Union for Ethical BioTrade (UEBT) and Rainforest Alliance (RA) started a joint Herbs & Spices Program. From 2022, Nedspice collaborated with UEBT and IDH to establish the first certified sourcing program for Vietnamese cassia. With some exceptions, all new RA and UEBT certifications for spices will fall under the new combined program.

INDIA

NFPP onion farmers are located in Gujarat. Cumin, fenugreek and fennel farmers can be found in Rajasthan, in Andhra Pradesh NFPP farmers cultivate turmeric and in Kerala ginger, nutmeg and turmeric farmers can be found.

NFPP sourcing area

VIETNAM

NFPP black pepper farmers can be found in the provinces of Binh Phuoc, Dak Lak and Dak Nong.



Number of certified farmers per certificate and spice in 2022

Setting targets

The Nedspice Sustainability Report explains our approach to help build a more sustainable spice sector and is published annually. It sets out Nedspice sustainability goals and reflects its progress against them. This document covers the reporting period of January - December 2022.

Sustainable ambition

Following our Sustainable Spicing Framework we have identified ten priority areas and 24 corresponding targets which we have committed to. These targets have been selected based on the importance of change and the impact we can make. An overview can be found on the next page.

Our targets contribute to the SSI ambitions on sustainable sourcing and beyond. Our presence in origin countries gives us both the opportunity and the responsibility to create impactful change.



Improving agricultural practices

Responsible waste disposal

Responsible water use

Conscious production and transport

ENVIRONMENT



Happy and healthy workplace

No child labour

Living income

Reaching out to community needs

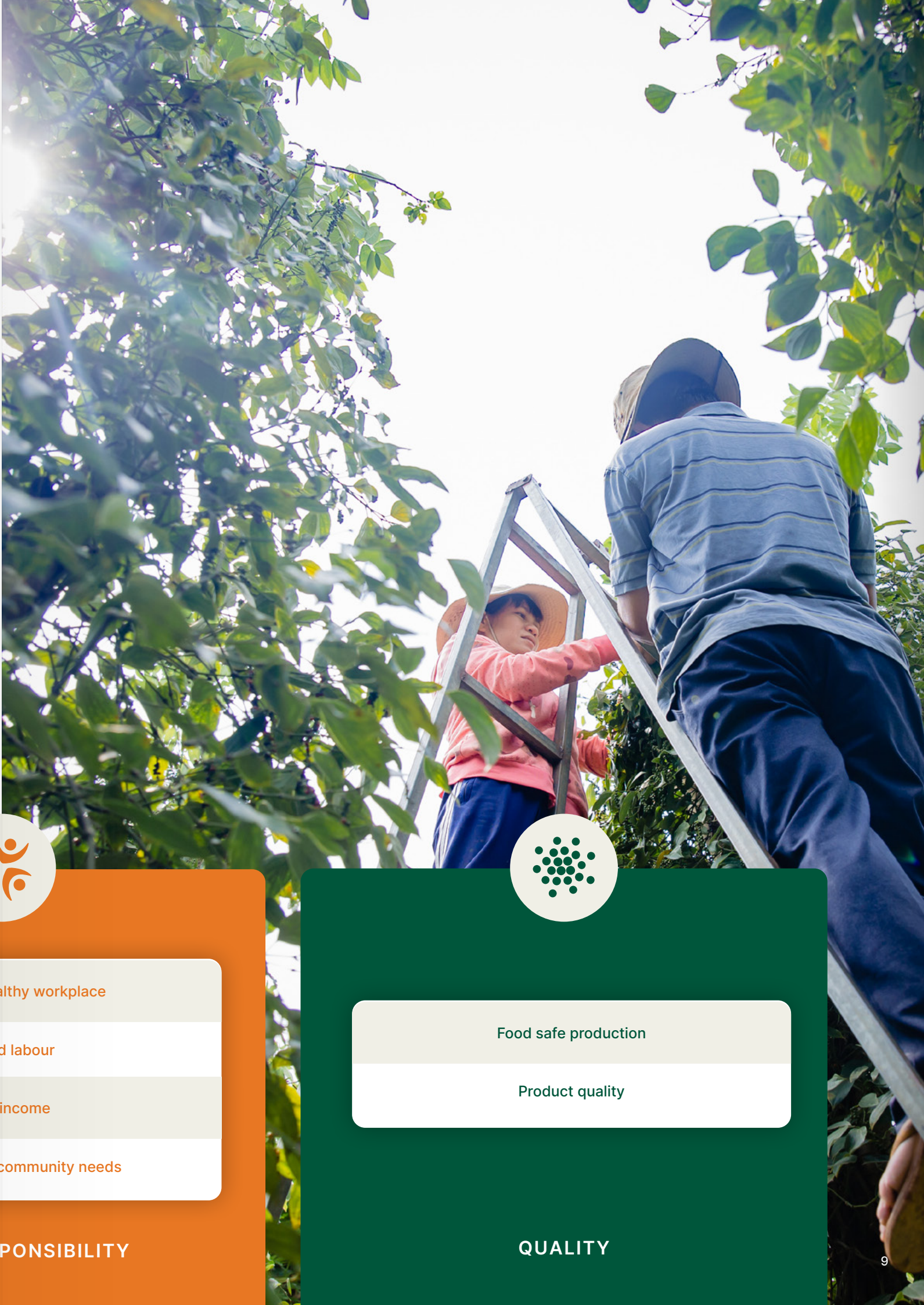
SOCIAL RESPONSIBILITY



Food safe production

Product quality

QUALITY



24 sustainability commitments

Improving agricultural practices

COMMITMENT #1

Pesticide use

A. Eliminate use of red label pesticide (highly hazardous) in all our NFPP operations by 2021.

B. Switch to no more than 15% yellow label pesticides and 85% blue label pesticides by 2025 for all NFPP black pepper.

C. Switch to better pesticide for NFPP India.

→ page 11

COMMITMENT #2

Fertiliser use

Implement a strategy to optimise sustainable fertiliser use in a joint effort with our NFPP farmers.

→ page 12

COMMITMENT #3

Nedspice Kisaan Club

Help farmers procure safe and affordable agro-inputs.

→ page 12

COMMITMENT #4

Farmer trainings

Increase the hours of trainings received with 15% each year.

→ page 12

COMMITMENT #5

NFPP Farmers

Source 70% of our products through NFPP. That would amount to 10,000 farmers with a projected volume of 75,000 MT per year by 2030.

→ page 13

COMMITMENT #6

NFPP ha.

Expand the NFPP area from 22,049 ha. to 40,000 ha. by 2023.

→ page 13

COMMITMENT #7

NFPP villages

Expand our NFPP outreach programme to encompass a minimum of 275 villages by 2025.

→ page 13

COMMITMENT #8

NFPP irrigation

Further sustainably improve irrigation systems within NFPP operations.

→ page 13

COMMITMENT #9

Biodiversity

Join at least 10 biodiversity projects by the end of 2025.

→ page 13

COMMITMENT #10

CO₂ footprint NFPP

Map the CO₂ footprint of our top 3 NFPP products by end '22.

→ page 14

COMMITMENT #11

Traceability NFPP

Increase the transparency of our traceability by end 2022.

→ page 15

Responsible waste disposal

COMMITMENT #12

Waste management

Implement waste management strategies in all processing facilities.

→ page 16

Responsible water use

COMMITMENT #13

Factory water use

Keep our water use under 1.2 m³ per MT of product.

→ page 16

No child labour

COMMITMENT #22

No child labour

Keep our NFPP operations 100% free of child labour and contribute to sector- or country-wide initiatives to combat child labour.

→ page 22

Living income

COMMITMENT #23

Living income

We work toward realising a living income for all NFPP farmers.

→ page 22

Conscious production and transport

COMMITMENT #14

Electricity consumption

Sustainably reduce our electricity consumption by 2025.

→ page 17

COMMITMENT #15

Renewable energy

Have 15% of our total energy consumption derived from renewable sources by 2025.

→ page 19

COMMITMENT #16

Processing equipment fuel

Reduce the use of gas and firewood.

→ page 19

COMMITMENT #17

Other conscious production and transport

Make sustainable improvements wherever possible.

→ page 19

Healthy & happy workplace

COMMITMENT #18

Work-life balance

Promote a healthy work-life balance.

→ page 20

COMMITMENT #21

Gender equality

Contribute to achieving gender equality within the spice industry.

→ page 21

Food safe production

COMMITMENT #19

Noise level

Establish noise level of max. 80 dBA in open areas of all our processing facilities by 2025.

→ page 20

COMMITMENT #20

Temperature

Sustainably lower the temperature in our processing facilities by 2025.

→ page 21

COMMITMENT TO

Food safety

Continue to deliver food safe ingredients in accordance with the latest food safety certifications and regulations.

→ page 23

Quality

COMMITMENT TO

Quality products

Continue to provide high-quality products according to customer specifications.

→ page 23


COMMITMENT #24

Charity

Spend at least 2% of our net profit on charitable causes each year.

→ page 23

ENVIRONMENT

SOCIAL RESPONSIBILITY

QUALITY

Environment

In this chapter we identify the most important environmental impacts of our business activities and we outline our approach on how to minimise the negative impact in the coming years.



Improving agricultural practices

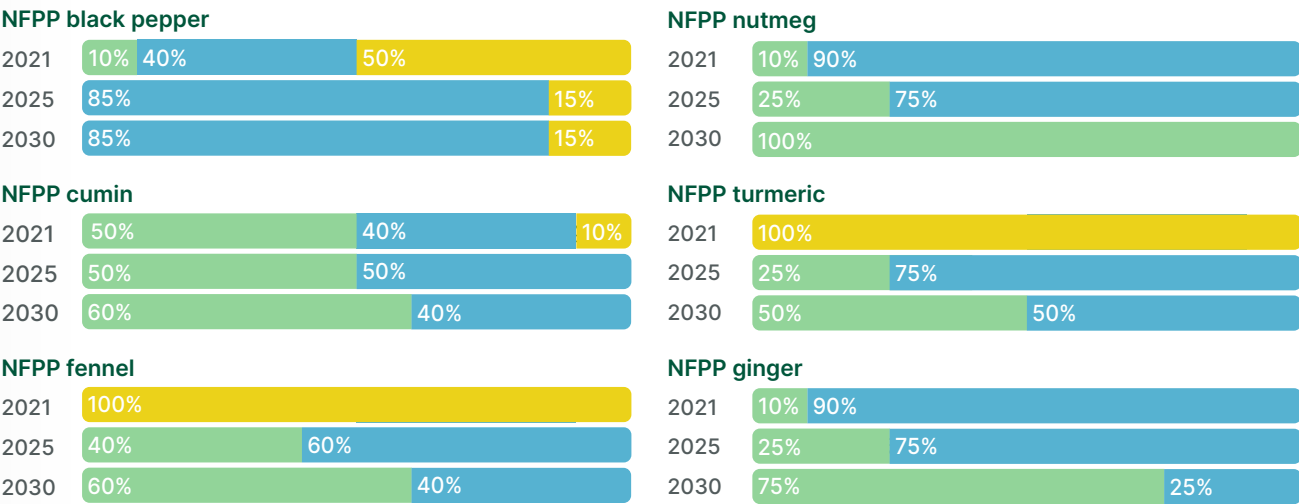
Through improvement of agricultural practices we can mitigate our environmental impact at farm level. Agriculture provides one of the greatest opportunities to address climate change and biodiversity loss. We have defined our aspirations for a more sustainable spice supply chain through 11 specific targets.

COMMITMENT #1 Pesticide use NFPP

- We have formulated three targets to reduce pesticide use within NFPP, with different time frames.
- A. By end 2021 we will eliminate the use of red label pesticide (highly hazardous) in all our NFPP operations.
 - B. For NFPP black pepper we strive to switch to no more than 15% yellow label pesticides, 85% blue label pesticides, or better, by 2025. For 2030 we aim to grow our farmer group while maintaining or improving on the 2025 targets.

COMMITMENT #1 (CONTINUED)

C. For NFPP India products we strive to switch to better pesticide use following these targets:



green label blue label yellow label

PROGRESS

Within NFPP, pesticide use is already low compared to conventional farmers. This because NFPP farmers are trained on integrated pest management (IPM), meaning that the farmers receive training on what type of pesticide should be used, when and in what quantity. IPM also includes training on optimising fertiliser use, for a healthy soil will limit the proliferation of pests and diseases and hence the use of chemical pesticides.

Target A was met, since end 2021 red label pesticides were eliminated in all NFPP operations, resulting in no findings throughout 2022. Compared to 2021, progress can be clearly seen within NFPP fennel: where 100% of the pesticide molecules found

in 2022 can be categorised as green label pesticides, compared to 100% blue label pesticides in 2021.

NFPP pepper and cumin have similar results in 2022. Given the curative nature of pesticides we need to consider that the achievement of targets is not necessarily linear but is subject to weather conditions, diseases and extreme pest attacks. In unavoidable situations NFPP farmer may have to resort to yellow label pesticides, as was the case in for turmeric in 2022.

Overall, the results show a gradual decrease in pesticide use within our NFPP operations, and we are well on track for the 2025 targets.

	pepper		cumin		fennel		fenugreek		turmeric	
results	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
red label	3%	-	-	-	-	-	-	-	-	-
yellow label	49%	51%	7,5%	6%	-	-	-	-	-	29%
blue label	40%	42%	40%	47%	100%	-	-	52%	100%	14%
green label	9%	9%	52,5%	47%	-	100%	-	58%	-	57%

COMMITMENT #2
Fertiliser use NFPP

In a joint effort with our NFPP farmers we have implemented a strategy to optimise sustainable fertiliser use. Optimised fertiliser use will lead to better quality crop for a longer period of time, while protecting the soil and reducing CO₂ emissions.

Optimising fertiliser use depends on various factors such as soil health, type of crop and farmland location. The most efficient fertiliser management must therefore be co-created with farmers. NFPP nutrition management serves as the basis for this assessment.

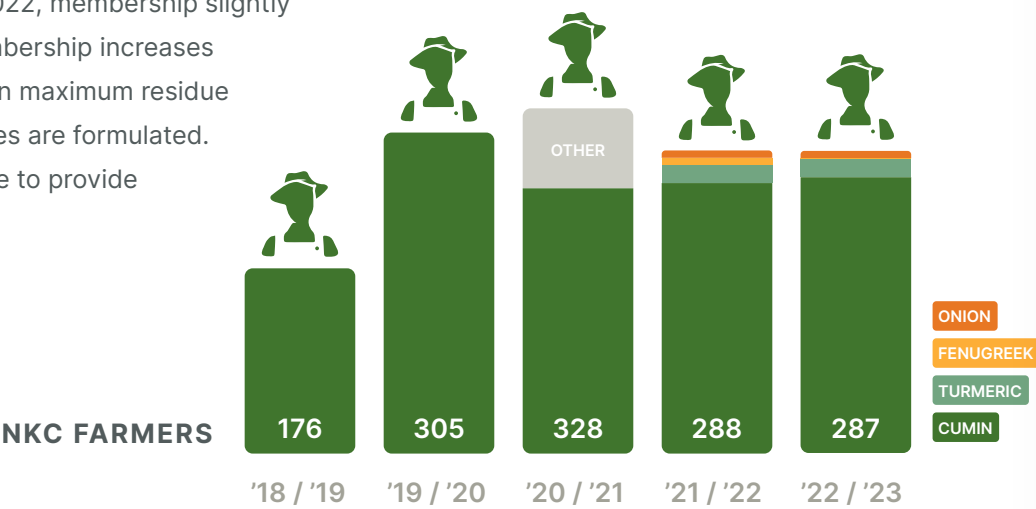
PROGRESS
To track the progress on optimising fertiliser use we look at the number of times the topic is discussed with farmers. For 2022 fertiliser use was discussed during the training of 235 farmers in India and 1109 farmers in Vietnam. For 2023 we work to increase this number.

COMMITMENT #3
Nedspice Kisaan Club

We assist farmers in procuring high quality, safe and affordable agro-inputs through the Nedspice Kisaan Club.

In 2018, we initiated the Nedspice Kisaan club to assist farmers in procuring high quality, safe and affordable agrochemicals. The Nedspice Kisaan Club (NKC) is open for NFPP farmers, who can receive an NKC smart card. This card can be used to procure agri-inputs at the Nedspice distribution centres at a reduced price. In 2022, membership slightly reduced. Typically, membership increases when bans or changes in maximum residue levels (MRL) of pesticides are formulated. NKC shops are then able to provide

suitable alternatives for farmers. Other shops tend to follow some years later, allowing farmers to buy the molecules at more places. This is in line with the Nedspice objective: to facilitate farmers to source compliant products. Growth in numbers will resume as we expand the concept to more areas and crops.



COMMITMENT #4
Farmer trainings

We want to increase the overall hours of trainings received with 15% each year.

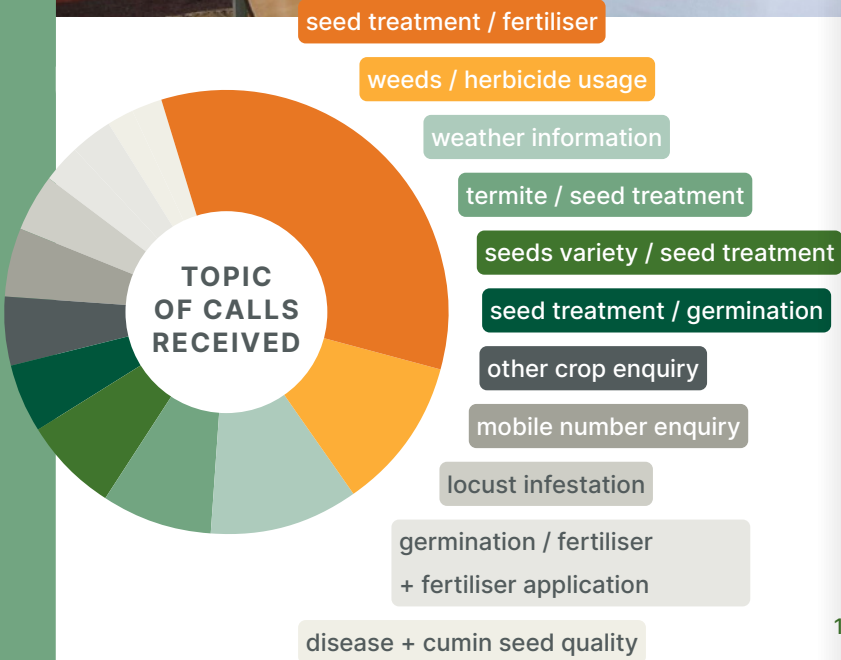
NFPP farmers follow three to four trainings per year, the trainings are dedicated to the various crop stages (typically: new crop, flower and berry setting, harvest, and post-harvest). The training material is regularly updated following the latest agricultural practices. In Vietnam, the total hours of training was slightly smaller in 2022. This was partly because trainings shifted from online to in-person again, and partly because a part of the farmers in the project region shifted to alternative crops. In India, the total training hours increased significantly, surpassing our 15% target.



NFPP hotline

In addition to the trainings and on-farm support, NFPP farmers in Rajasthan, India can make use of the NFPP Call Centre. The hotline receives over 500 calls during a crop season.

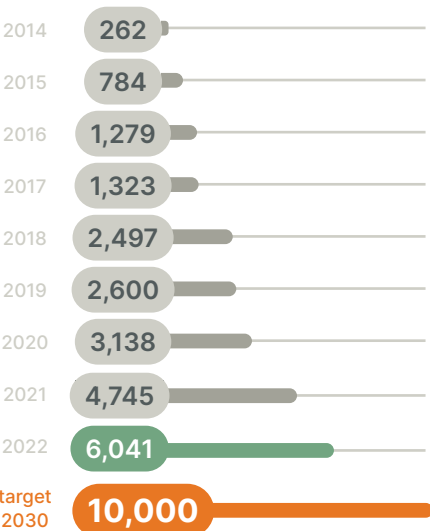
Thanks to the Nedspice Call Centre, farmers quickly receive answers to any urgent questions on crop input, weather forecasts, locust swarm threats or any other issues regarding cultivation they may have. The immediate response increased prevention of crop loss and overall quality of products.



We aim to source 70% of our products sustainably by 2030.
This translates to the following targets for NFPP:

COMMITMENT #5
NFPP farmers

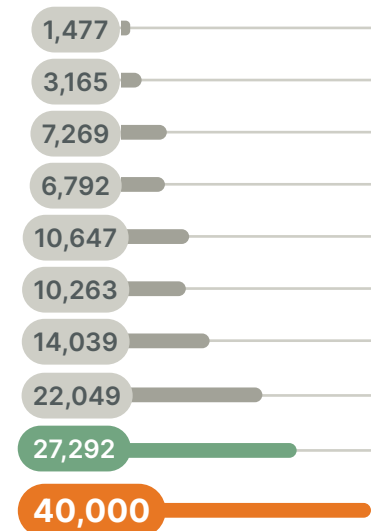
We aim to grow to 10,000 farmers with a projected volume of 75K MT per year by 2030.



We currently work together with 6,041 NFPP farmers, who collectively produced 11,744 MT of material in crop season '21/'22. On top of that, NFPP onion farmers produced 15,800 MT of fresh onion suitable for dehydration.

COMMITMENT #6
NFPP ha.

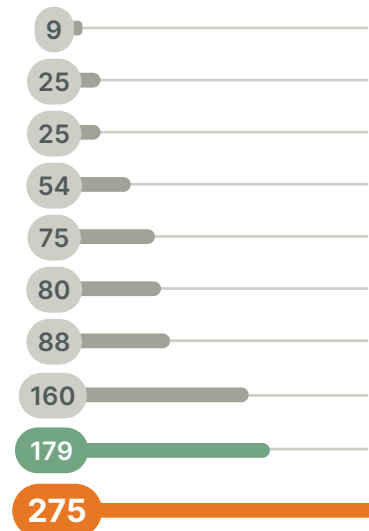
We strive to expand the NFPP area from 27,292 ha. to 40,000 ha. by 2030.



The NFPP sourcing area in India and Vietnam covers a total of 27,292 ha. We plan to grow to 40,000 ha. in 2030, driven by expanding our crop portfolio.

COMMITMENT #7
NFPP villages

We aspire to expand our NFPP outreach programme to encompass a minimum of 275 villages by 2025.



The NFPP outreach programme currently encompasses 179 villages, we aspire to reach 275 villages by 2025. For more information on our community outreach programme see [page #23](#).

COMMITMENT #8
Irrigation

We commit to further sustainably improve irrigation systems within NFPP operations.

As the demand for food continues to increase, it propels a corresponding rise in water consumption. The agriculture sector stands as the predominant user of water worldwide, accounting for approximately 70% of freshwater withdrawals. While many spices like clove, nutmeg, mace, cassia and cinnamon are naturally rain fed crops, black pepper and a set of other spices are grown using irrigation. The most efficient irrigation method depends on the local soil

conditions, water source and climate, amongst other factors. NFPP trainings include best practices on irrigation and we are continuously working with farmers to implement solutions like drip irrigation to reduce water use. We also keep a close eye on changing climate conditions, including El Nino patterns, to aid farmers with the best irrigation strategies that help to save water and increase yields where possible.

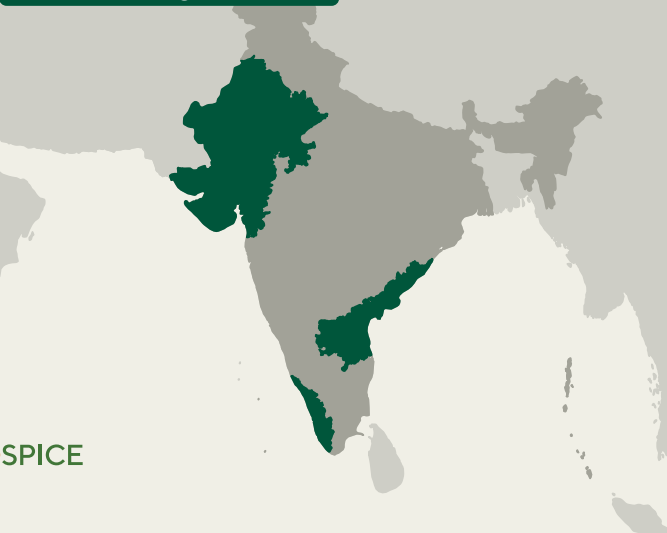
COMMITMENT #9
Biodiversity

We commit to initiate or contribute to two new biodiversity projects each year. By the end of 2025 we will have joined at least ten biodiversity projects.

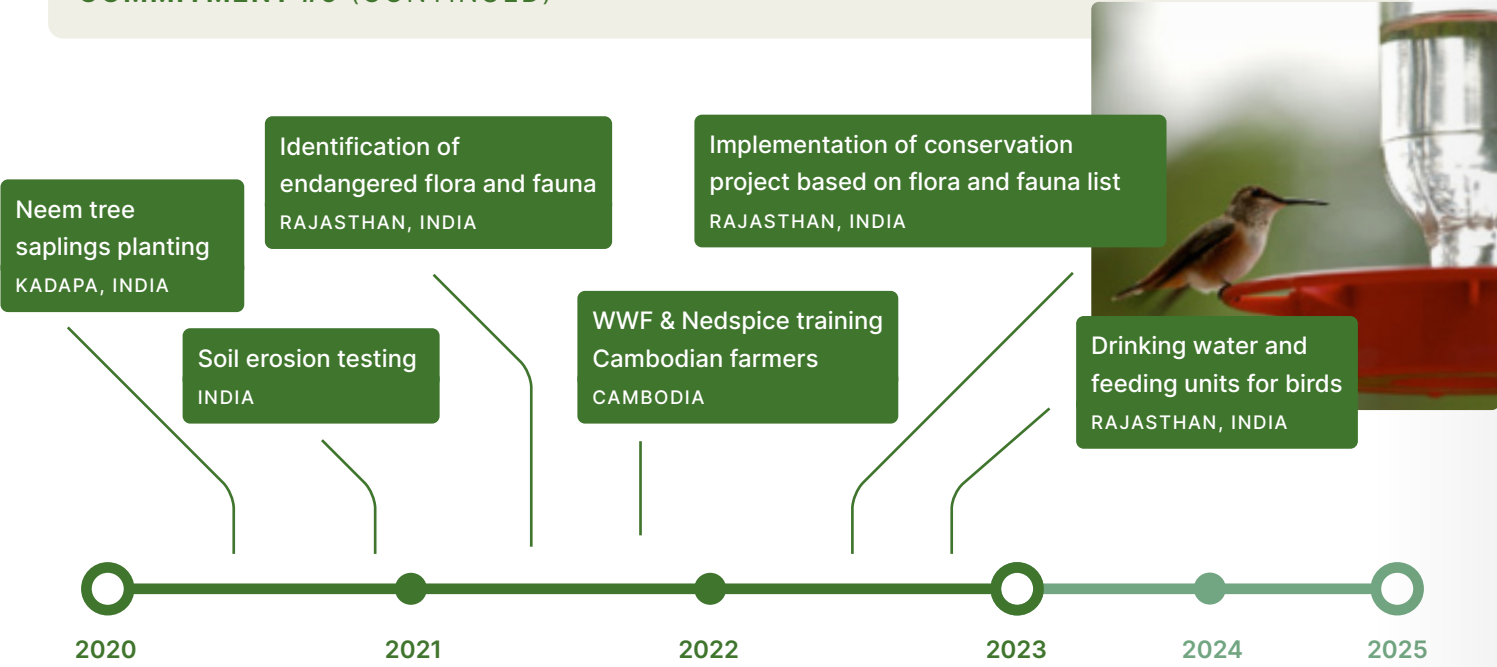
In 2022, Nedspice initiated two biodiversity projects in Rajasthan, India. First, a study was conducted on the endangered flora and fauna present in our NFPP project area. After establishing this list, measures were taken to promote their protection. This includes planting of native trees on multiple locations and farms, and educating farmers on sustainable farming practices.

Second, drinking water and feeding units were distributed and installed to provide small mammals and birds with targeted nutrition during the harsh summer months in the desert. Bird presence on the farm has the added benefit of aiding in preventing the outbreak of pest insects.

NFPP sourcing area 2022



COMMITMENT #9 (CONTINUED)



	PROJECT	BIODIVERSITY GOALS	ACTION	DETAILS
2020	Neem tree saplings planting	→ Maintaining soil fertility → Improving ground water level → Natural insecticide → Afforestation	Free neem tree saplings were provided to turmeric farmers in Kadapa, Andhra Pradesh, India.	Neem trees were planted near turmeric plots. See our website for more info.
	Soil erosion testing	→ Soil fertility	Soil analysis was conducted, based on soil's nutritional value farmers received advise on agri-inputs.	No abnormalities were found.
2021	WWF & Nedspice training Cambodian farmers	→ Reforestation → Sustainable cultivation	Cambodian black pepper farmers are trained to use living trees as supporting poles for the pepper vines.	Training was provided to Cambodian farmers to prevent deforestation. See our website for more info.
	Identification of endangered flora and fauna	→ Protection of species	NFPP staff identified endangered native flora and fauna in the NFPP cumin growing area.	Based on the RED book list of endangered species, a list of flora and fauna is compiled.
2022	Drinking water and feeding units for birds	→ Natural pest control → Endangered species protection	Support birds with portable water and feed units during extreme summer heat.	Project is still ongoing, water units as support for bird's species native to Rajasthan, India. Birds serve as insects' natural enemy.
	Implementation of conservation project based on flora and fauna list	→ Biodiversity protection → Species protection	Planting of native trees, educating farmers on sustainable farming practices.	Based on list compiled in 2021 implementation of project to protect endangered flora and fauna.

COMMITMENT #10
CO₂ footprint

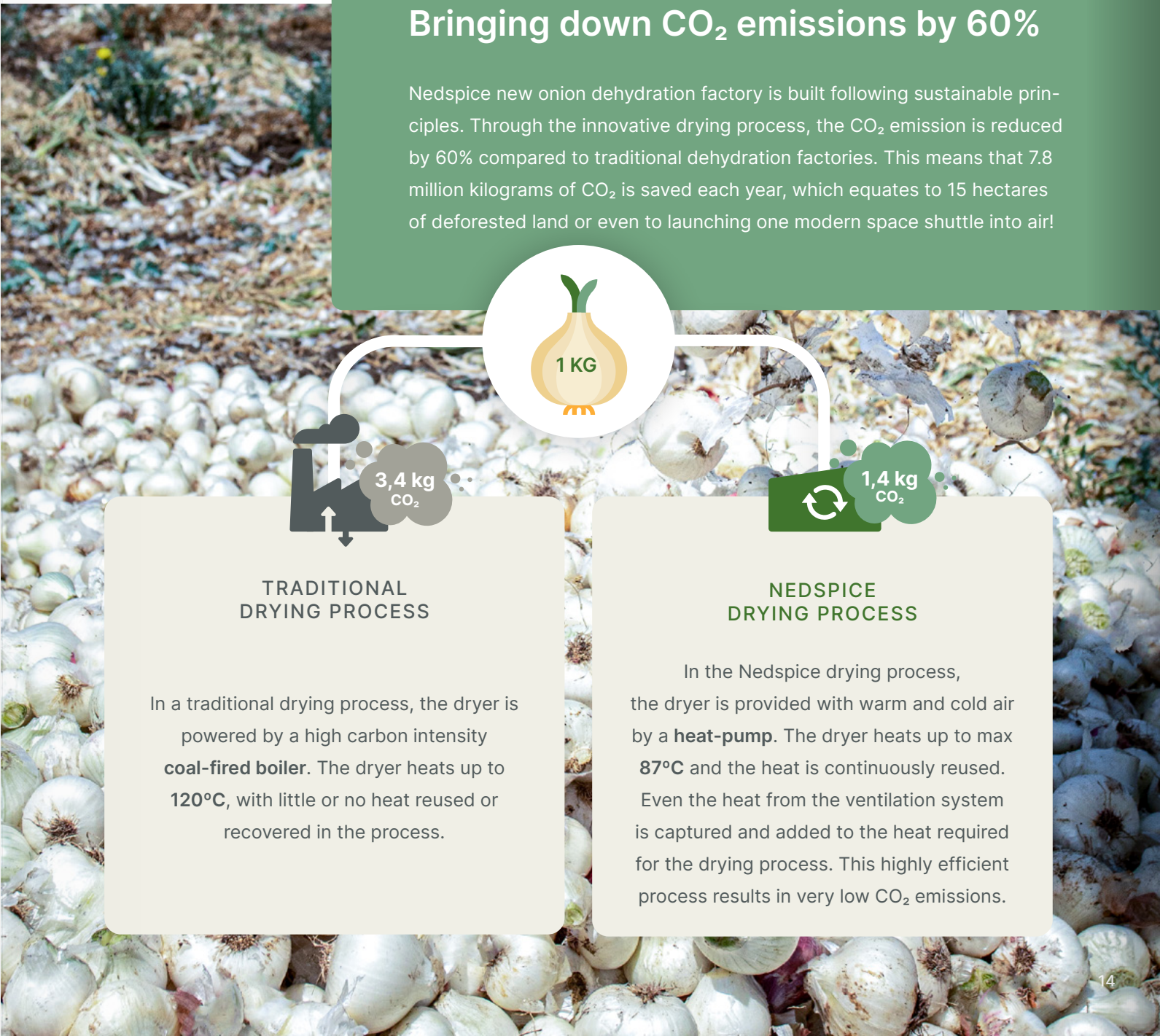
We commit to map the CO₂ footprint of our top 3 NFPP products.

In 2023, we initiated a new direction in our climate footprint calculation project. We are now working with Climate Partner to not only map the footprint of conventional and NFPP pepper, but also our corporate carbon footprint (Scope 1, Scope 2 and limited Scope 3 data) to aid in further reducing our CO₂ footprint.

We will also conduct a carbon footprint analysis on cassia cinnamon in Vietnam, in collaboration with the Vietnam National University of Forestry. Field data will be collected in Yen Bai province and analysed using the SSI CO₂ footprint tool.

Bringing down CO₂ emissions by 60%

Nedspice new onion dehydration factory is built following sustainable principles. Through the innovative drying process, the CO₂ emission is reduced by 60% compared to traditional dehydration factories. This means that 7.8 million kilograms of CO₂ is saved each year, which equates to 15 hectares of deforested land or even to launching one modern space shuttle into air!



COMMITMENT #11 Traceability

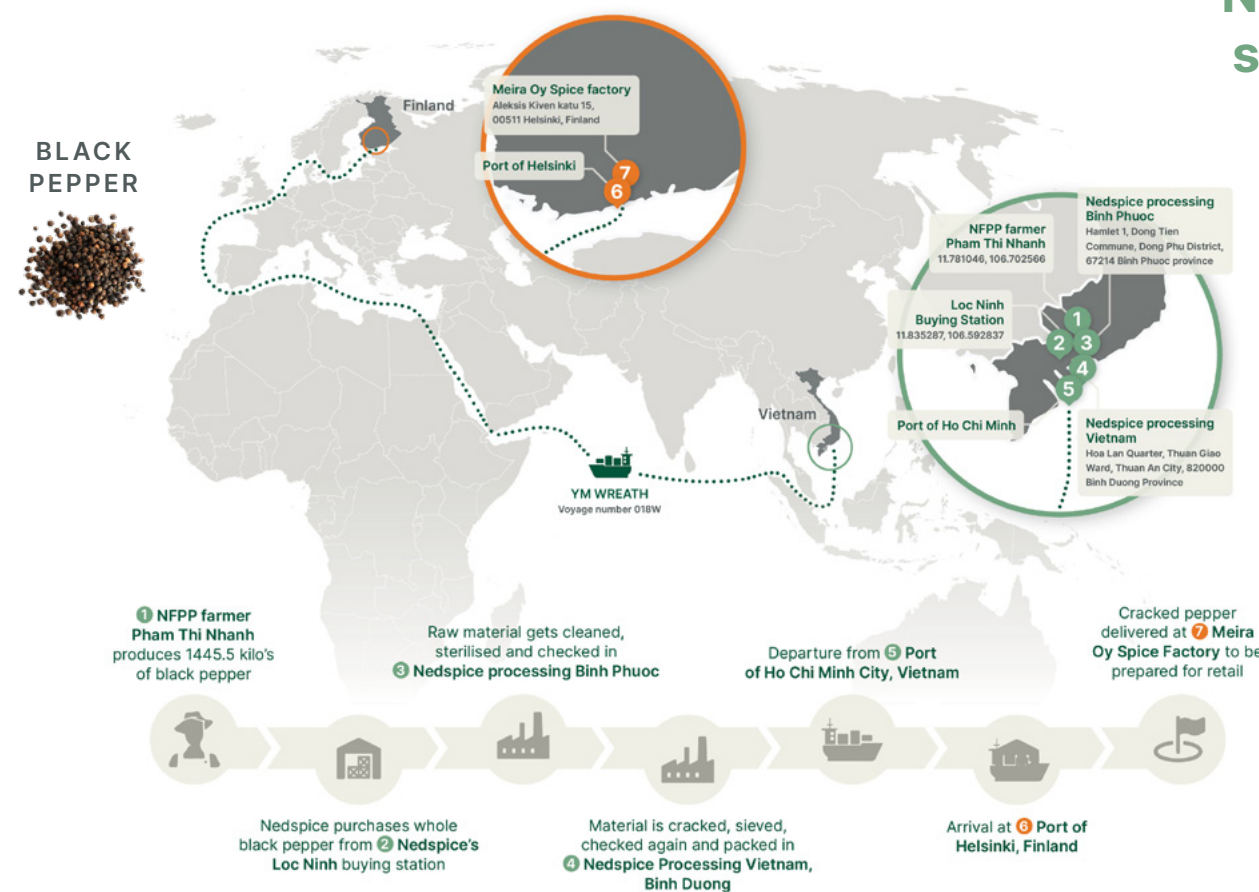
We commit to increase the transparency of our traceability by end 2022.

All of our NFPP products are fully traceable back to farm level. This means that we can pinpoint the exact locations of the farms we source from. Traceability is vitally important to food safety, quality assurance and sustainability. A traceable product and transparent supply chain is a prerequisite to make true environmental or social impact.

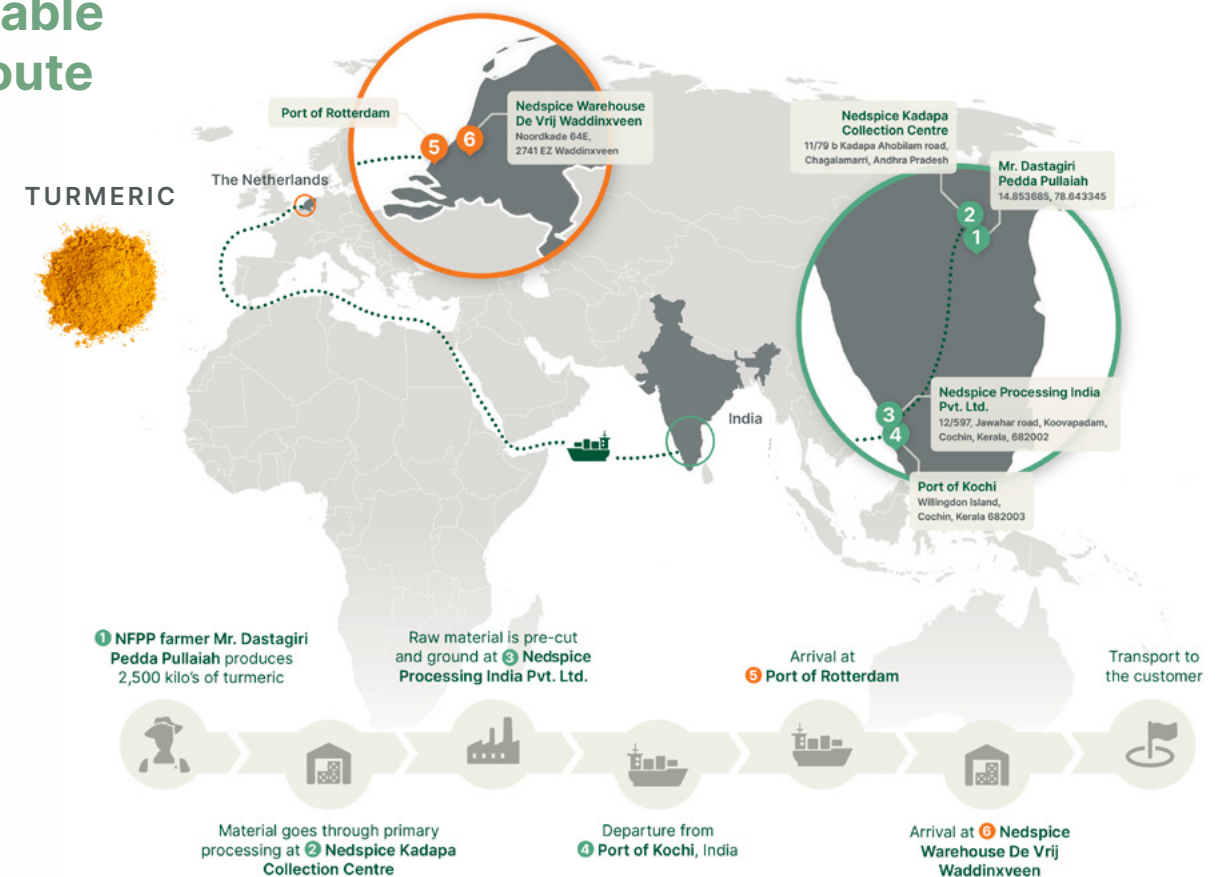
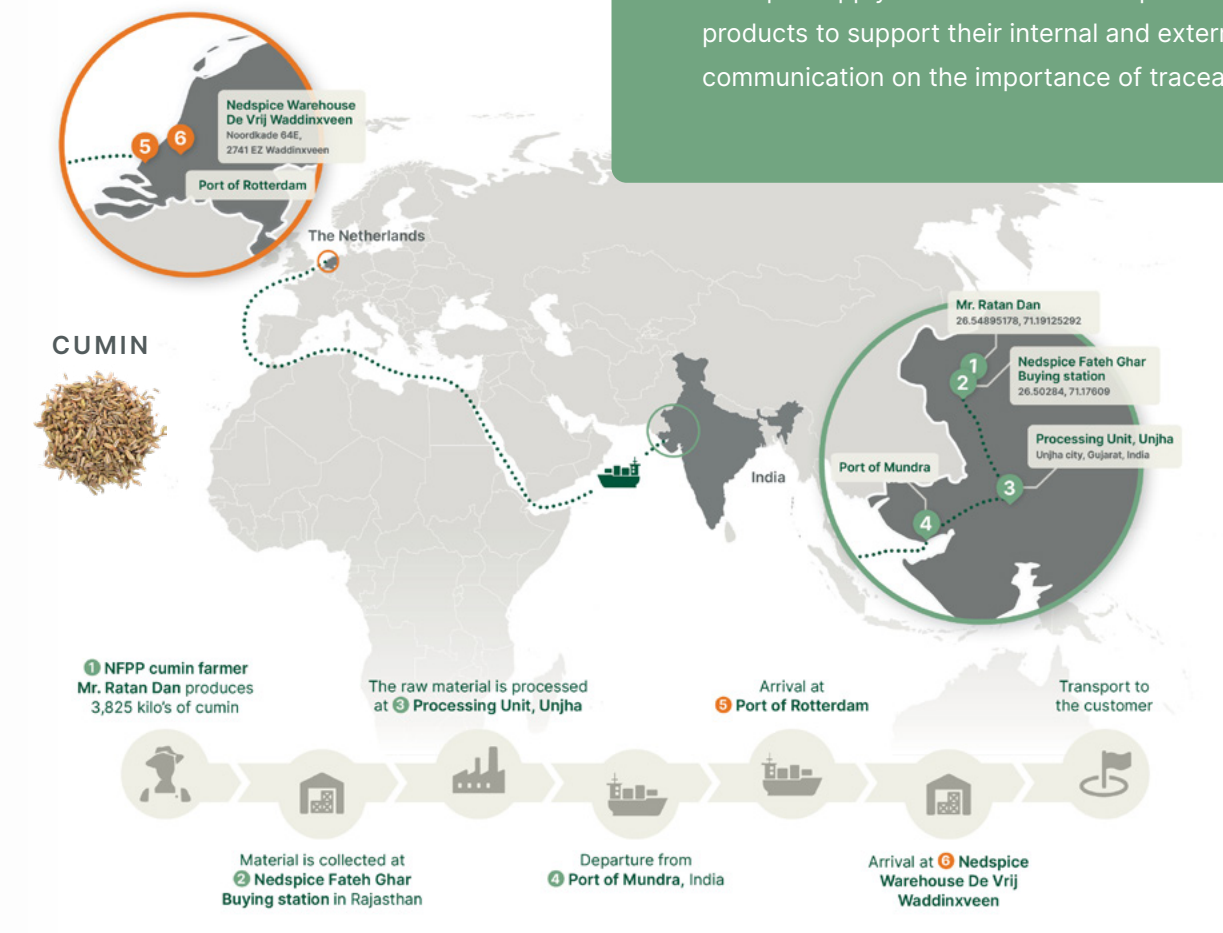
To increase the transparency of our traceable supply chain, we have mapped the supply chain routes for our top three products: black pepper, cumin and turmeric. By visualising the supply chains we aim to foster dialogue on the importance of traceable ingredients and create insight into the different steps of the supply chain.

For 2023 and the coming years, we aim to keep our NFPP supply chain fully traceable back to farm level, even when we grow our NFPP operations.

We encourage all NFPP customers to request an example supply chain route for their purchased products to support their internal and external communication on the importance of traceability.



Nedspice traceable supply chain route



Responsible waste disposal

Responsible waste management is essential for any company aiming to operate sustainably. Like other processing companies, agricultural businesses generate unwanted by-products and residual waste during their production processes. This agricultural waste encompasses natural waste like crop residues, as well as non-natural waste from e.g. packaging.

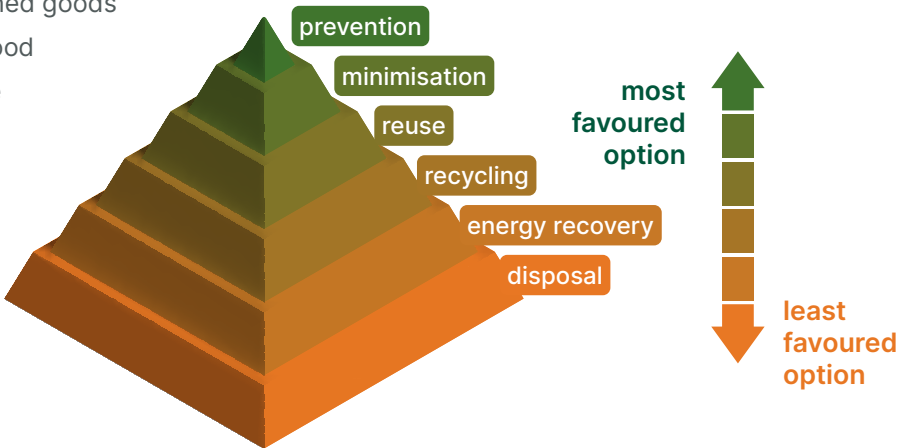
COMMITMENT #12 Waste management

We commit to implement waste management strategies in all processing facilities in 2023.

- Waste management policies / strategy should be known at all locations.
- Quantifying waste streams turns out to be more difficult than anticipated.

While our original goal was to implement new waste strategies in the end of 2022, quantifying waste streams turned out to be more difficult than anticipated. Consequently, developing new strategies with solid factual basis was delayed, with 2023 as new target year. Strategies will follow the waste hierarchy pyramid, aiming to minimise waste and reuse as much as possible. At the same time, it is crucial to maintain uncompromised standards of food safety and hygiene. For instance, plastic big bags used to transport finished goods are not suitable for reuse with food ingredients but work well for the transport of non-food products.

On-farm, our rainforest alliance certified farmers follow Rainforest Alliance guidelines on waste management, while farmers in our NFPP programme follow all national legislation and, in addition, are transitioning to RA-standard waste management.

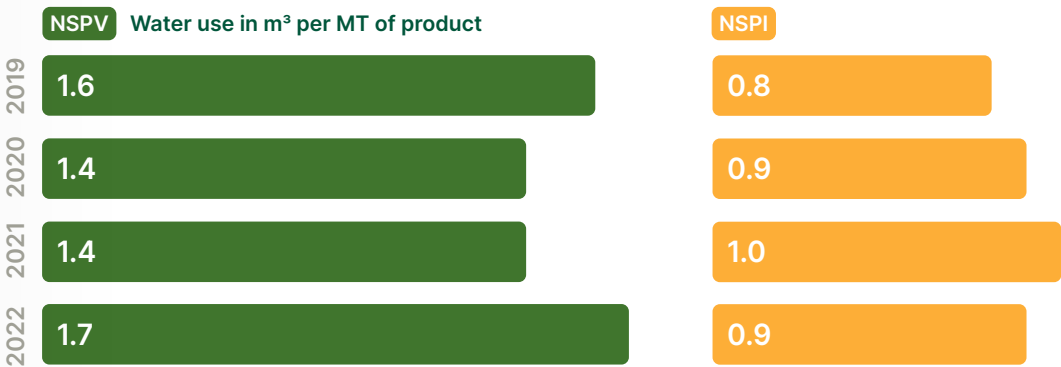


Responsible water use

Water security is crucial for every agricultural business, serving purposes from crop irrigation to post-harvest operations and processing. This dependence inherently imposes upon us the responsibility to utilise global freshwater resources with care. In commitment #8 (irrigation), we detail our contributions to responsible water use at the farm level. Here, we exhibit our commitment to responsible and efficient water usage in post-harvest practices.

COMMITMENT #13 Factory water use

We aim to keep our use of water under 1.2 m³ per MT of product.



This target details the water use per ton (MT) of produced final product in our factories. In our Vietnamese factories, the water use increased in 2022. This is partly related to the installation of a new additional steriliser and the associated reduced efficiency linked to lower utilisation %. In addition, water use per MT is strongly dependent on the product mix, with some material groups requiring much more water than others. For 2023, we aim to identify usages rates per material group and report on this basis. This will allow us to make targeted improvement to reduce water use. In India, we reduced our water use from 1.0 to 0.9 m³ per MT, and expect to further improve our efficiency for 2023.



Fish are used as natural indicators of factory wastewater quality.

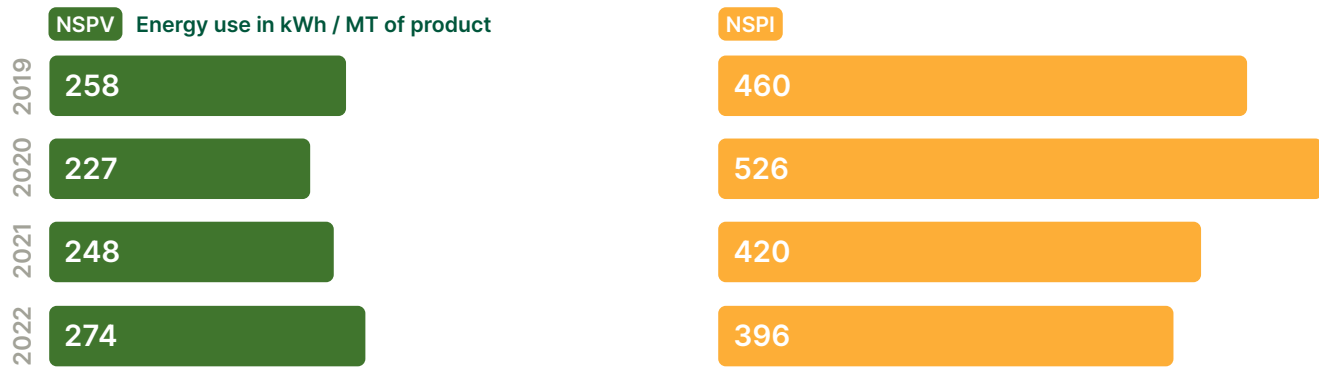
Sustainable energy use

COMMITMENT #14

Electricity consumption

We aim to sustainably reduce our electricity consumption by 2025.

This target shows the ratio of electrical power consumed to process (for industrial facilities) and handle (for inhouse warehousing facilities) Nedspice products. It is measured in kilowatt-hours per metric tonnes (kWh/MT).



For 2022 we have included data from our new processing and warehouse facility in Binh Phuoc, Vietnam. This increases the energy use per tonnes of product significantly. For the coming year we expect a lower number, both because of efficiency in product planning in the new processing facility increased and because of an expect increase in shipped materials for 2023.

For our Indian processing facility we can see a reduction of 5.7% compared to 2021.

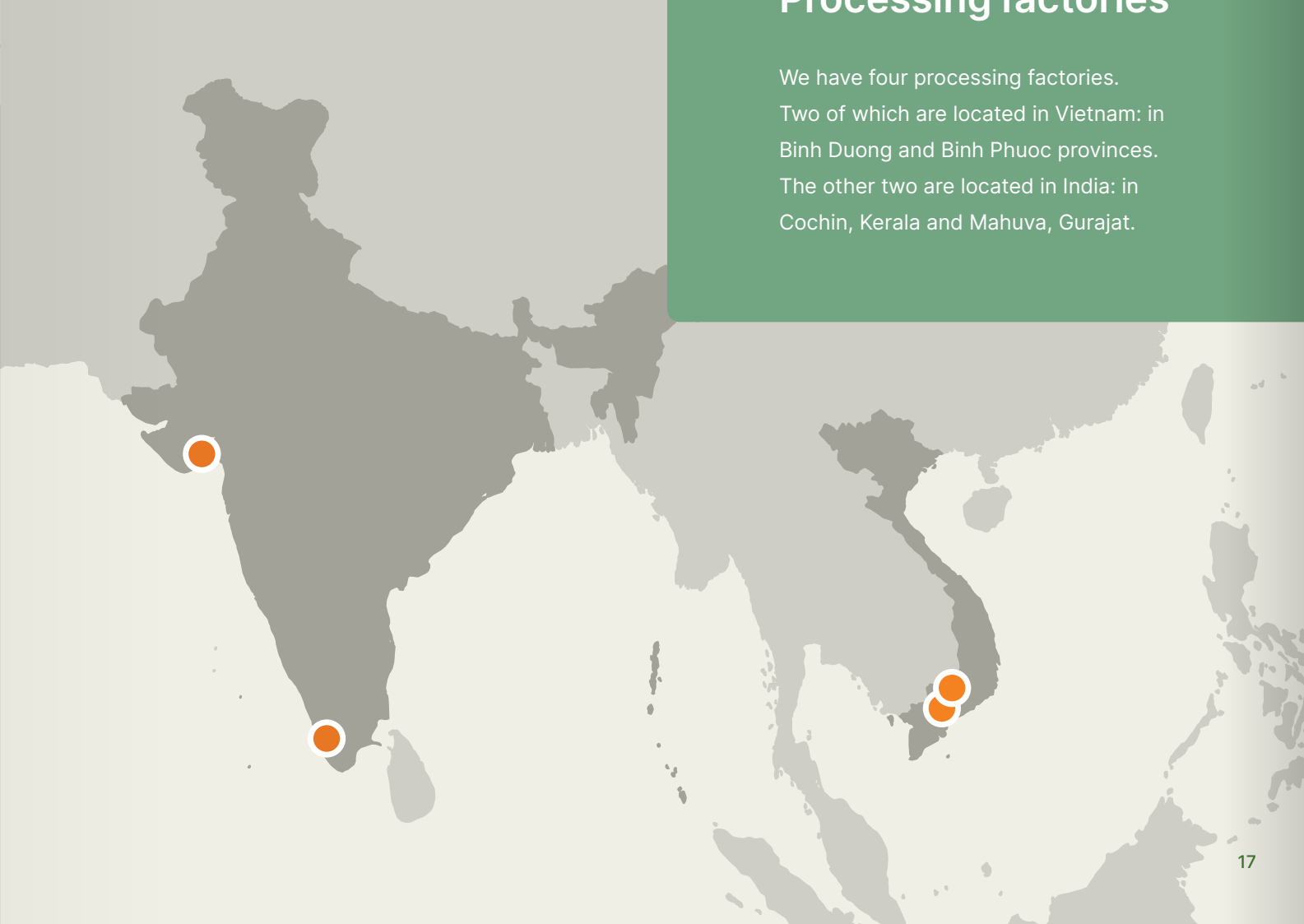
For 2023, we have planned an energy audit in the Vietnam factory, detailing our current electricity use and identifying areas for optimisation and energy savings.

“By conducting a detailed energy audit in 2023 we will get valuable insights into our current energy performance and will be able to pin-point opportunities to reduce our energy consumption.”

TIM VAN ACKER
OPERATIONAL EXCELLENCE MANAGER

Processing factories

We have four processing factories. Two of which are located in Vietnam: in Binh Duong and Binh Phuoc provinces. The other two are located in India: in Cochin, Kerala and Mahuva, Gurajat.

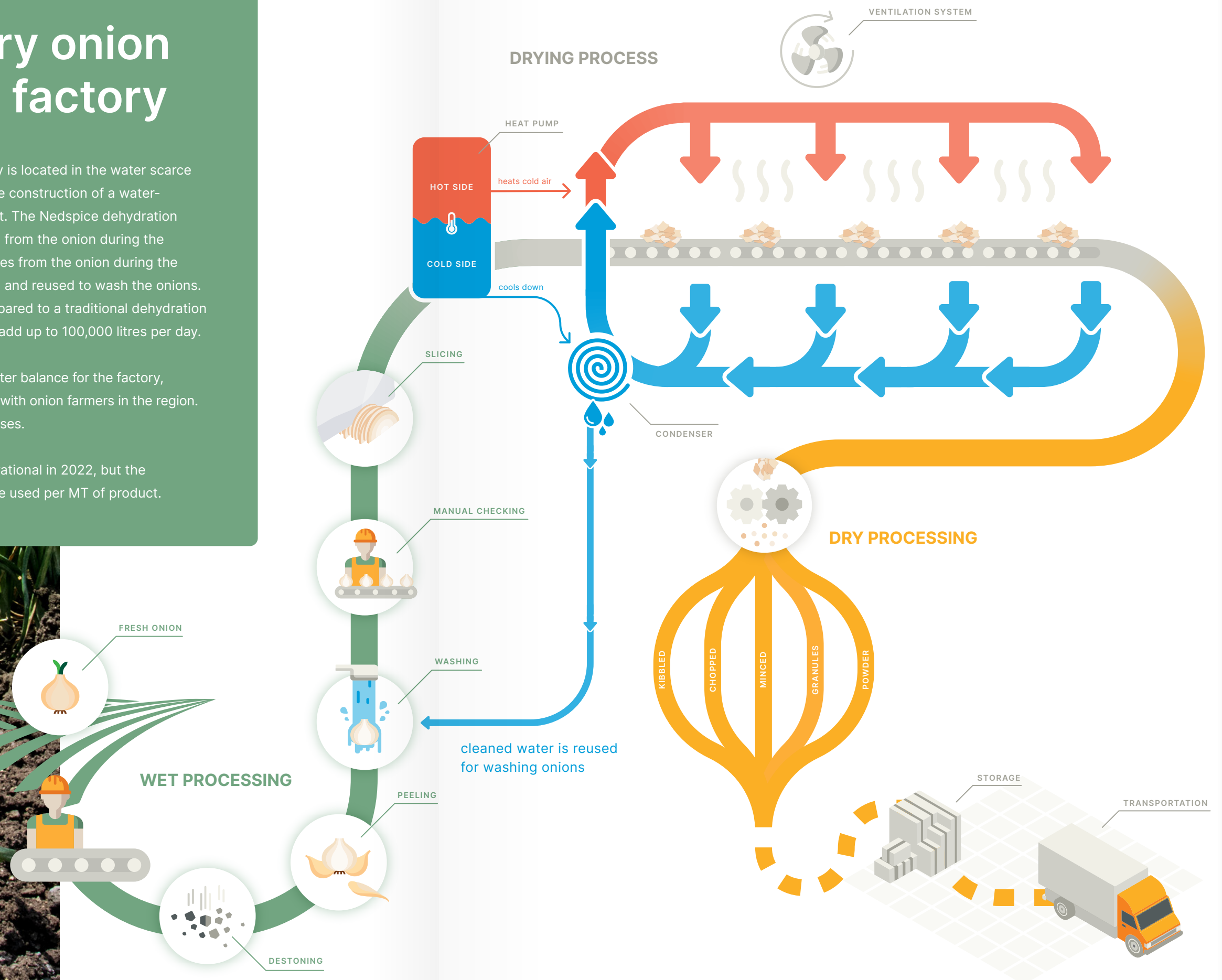


Revolutionary onion dehydration factory

Nedspice's new onion dehydration factory is located in the water scarce province of Gujarat in India. This made the construction of a water-efficient dehydration factory very relevant. The Nedspice dehydration factory reuses the water that is extracted from the onion during the dehydration process: water that evaporates from the onion during the dehydration process is collected, cleaned and reused to wash the onions. By doing this, 67% of water is saved compared to a traditional dehydration factory. Running at full capacity, this can add up to 100,000 litres per day.

In the future we even expect a positive water balance for the factory, which allows us to share the excess water with onion farmers in the region. Who can use the water for irrigation purposes.

The new drying process was not yet operational in 2022, but the prognosis is less than 1 m³ of water will be used per MT of product.



COMMITMENT #15
Renewable energy

By 2025 we aim to have 15% of our total energy consumption derived from renewable sources at Nedspice processing facilities.

Preparations for installing solar panels on our processing facility roofs are in full swing. This includes a roof assessment to determine the structural suitability of the roof, energy consumption analysis, solar potential analysis and a financial evaluation. We aim to start the transition to solar energy generation in 2024.

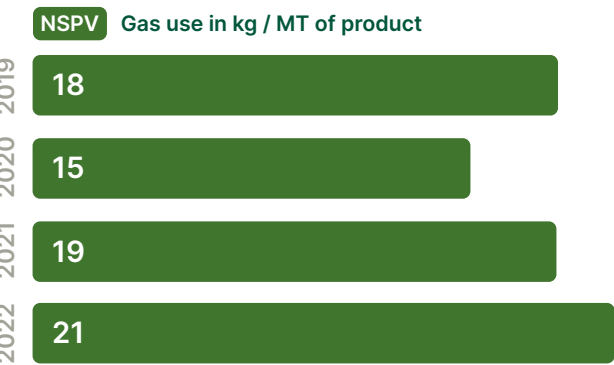
Renewable energy certificates (REC) or green energy credits can be bought and sold separately from the actual physical electricity used and are often purchased to support claims on renewable

energy. At this point in time we have consciously decided to not pursue any renewable energy certificates or green energy credits. Because we feel that purchasing RECs or similar may discourage us from making a real and local contribution to the production of renewable energy. What is more, a tangible and visual contribution, such as solar panels, greatly helps to foster the dialogue and understanding of sustainability amongst our employees, customers and suppliers.

COMMITMENT #16
Processing equipment fuel

We aim to reduce the use of gas and firewood (to fuel our processing equipment).

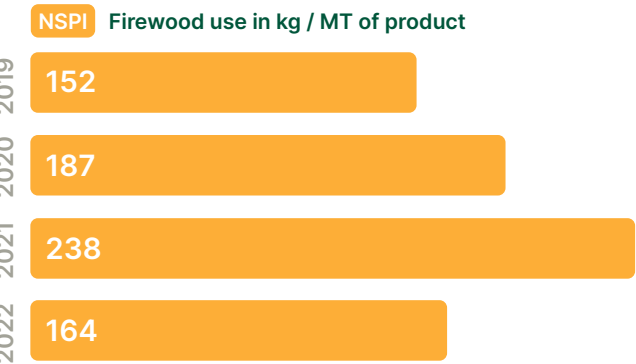
For 2022 we have included data from Nedspice's new processing and warehouse facility in Binh Phuoc, Vietnam. Although the efficiency of the steriliser in Binh Phuoc is equal to the steriliser in Binh Duong, the gas use in kg per tonnes of product is higher when including the new processing facility. This is mainly due to the fact that two sterilisers have a higher baseload gas use. In the coming years we expect a gas use to be lower, mainly owed to increased efficiency in product planning.



COMMITMENT #16 (CONTINUED)

The steriliser boiler in Nedspice processing facility in India relies on firewood, rather than gas. Luckily, the firewood consumption is greatly reduced since last year. This is achieved through improved production planning, which minimised the need of product changeovers and resulted in fewer boiler start and stop cycles. A deactivated boiler cools down and consumes more firewood to heat up, a streamlined production process thus results in lower fuel consumption. The consumption of firewood was further reduced through improved feeding practices, such as timely feed, appropriate quantity (limited at 50% capacity as opposed to a full furnace previously) and an induced fan that automatically cuts off when

the desired temperature is reached. This is a great example of measures developed by our processing staff and management, which are relatively easy to implement and have a great impact.



COMMITMENT #17
Other conscious production and transport

We aim to operate sustainably, and we will make sustainable improvements wherever possible.

In addition to the targets mentioned above we strive to make sustainable improvements within our processing facilities and transportation activities where possible.

In our Binh Duong factory in Vietnam we have substantially decreased our plastic consumption use by reducing the amount of plastic used to wrap finished goods pallets in. Initially, 20 meters of blue plastic bands were used per pallet, but by adjusting the wrapping techniques just five meters per pallet were sufficient to secure the pallets with. With approximately 30.000 pallets wrapped per year, this results in an annual reduction of 450 kilometers of plastic.

In 2023 we started to measure our corporate carbon footprint over 2022 data. Based on these results we will implement a reduction strategy that aims to



From 20 meters of plastic... ... to 5 meters of plastic band

minimise the overall carbon emissions associated with production and transport activities. By doing so, the reduction strategy will revise the previous targets set under conscious production and transport. See also commitment #10 on CO₂ footprint.

Social responsibility



Healthy & happy workplace

We are committed to provide a healthy workplace where our colleagues and employees feel happy and safe. This dedication extends beyond our immediate workforce to encompass farmers and contractors, promoting the development of a connected social supply chain. To create a healthy and happy workplace we have commitments on four different topics: work-life balance, noise level, temperature and gender equality.

COMMITMENT #18 Work-life balance

We promote a healthy work-life balance, while providing the opportunity to earn more.

Within Nedspice we actively promote a healthy work-life balance. The opportunity for factory workers to work more is available would they want to secure additional income, but their working hours are strictly monitored to prevent long working days.

Creating a healthy and safe work environment is further demonstrated by the fact that we monitor and report the accidents in our processing facilities. In case an accident occurs – after providing immediate response and care – thoroughly incident investigation takes place, followed by a root cause analysis and corrective actions to prevent similar incidents from happening again in the future. We have updated our accident free days metric based

on internal information, and report two accidents in our Vietnam factories in 2022. In our Cochin factory we reported three accidents over 2022. We continue to strive towards zero accidents in our factories.

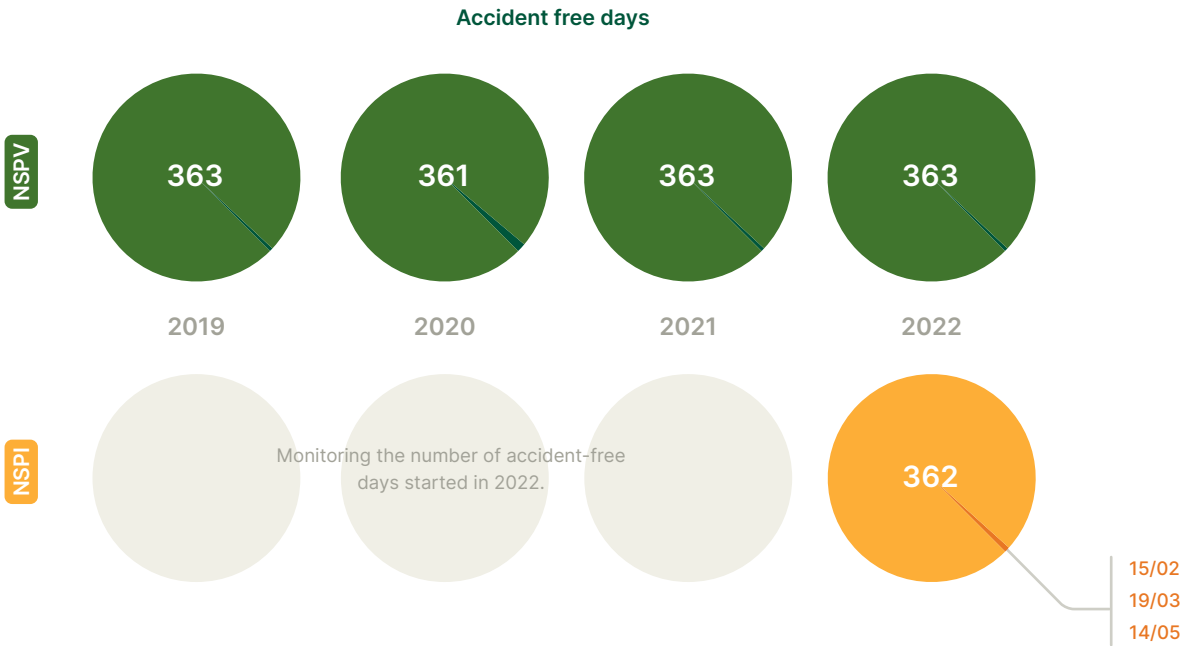
At Nedspice we work hard to create an environment where individuals feel accepted, empowered and motivated to be their best self, leading to increased innovation, productivity and employee well-being. Such a working culture can only be cultivated when diversity is celebrated and there is zero tolerance for discrimination or disrespectful practices. We are proud that we have created such a working culture and continue to maintain this culture whilst we grow our business.

COMMITMENT #19 Noise level

We work towards a noise level of max. 80 dBA in open areas for all our processing facilities by 2025.

Legal limits of noise exposure in the workplace are set at 85 dBA for eight hours. With our employees' health in mind, we are working towards an average of 80 dBA in open areas of our facilities by 2025. For our Indian processing facilities we are well below

that number. For our Vietnam facility we are working to lower the noise level. In the meantime, we have enforced more stringent checks to ensure that hearing protection is being worn consistently.



COMMITMENT #20
Temperature

We aim to sustainably lower the temperature in our processing facilities by 2025.



We have opted to not set a target for maximum temperature for our processing facilities, instead to always comply with local laws and strive for a temperature that is reasonably achievable considering the local situation. We aim to do so by environmental solutions in construction and design rather than by incorporating power-consuming air conditioning to lower the temperature.

For example, in our processing facilities in India we will switch to LED lights which generate less heat and consume less power. Under the conscious production and transport chapter we mentioned the installation of solar panels. When installed on rooftops, solar panels can also mitigate the heat generated by solar radiation, leading to naturally cooler processing facilities.



COMMITMENT #21
Gender equality

We actively encourage all efforts that contribute to achieving gender equality within the spice industry.

At Nedspice we believe that contributing to equal opportunities for all individuals within our operations, and the spice industry as a whole, is not only the right thing to do but is also essential for sustainable development and business success. We are convinced that gender diversity leads to a more inclusive and balanced work environment, brings fresh perspectives, and enriches the collective intelligence of our workforce. We also acknowledge that women often face unique challenges and systemic barriers that hinder their full participation. Therefore, we have taken a proactive stance to address these inequalities and foster an inclusive supply chain that values and supports women at every level.

In line with this, from 2022 onwards, we have always applied a gender lens when preparing for farm-level projects and activities. This means that we take into consideration the ways in which the project or activity might impact men and women differently. An example of this can be found under [commitment #23](#) where we explain more about our project on living income for turmeric farmers.

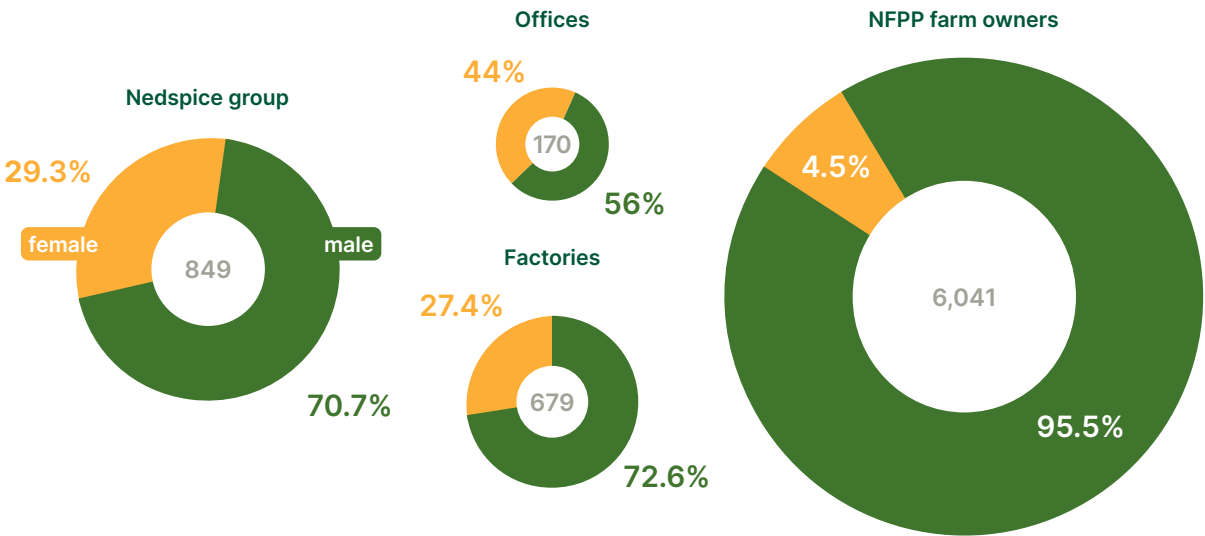


Female colleagues at Nedspice Processing India are put in the spotlight.

To promote gender equality, International Women's Day is celebrated in all Nedspice locations. On this important occasion, we honor the achievements and contributions of our female colleagues. The day also marks a call to action for accelerating gender parity.

To advance gender equality within our operations and direct sourcing programme we have compiled data of the number of men and women working. The aggregated overview can be viewed below.

GENDER RATIO 2022



COMMITMENT #22 No child labour

We continue to work to keep our NFPP operations 100% free of child labour and we contribute to sector- and countrywide initiatives to combat child labour wherever we can.

After a year of strict monitoring, we see an increased risk of child labour for migrant workers, especially during harvest season. That is why we have implemented extra controls and heightened attention during harvest season.

→ **Whatsapp group, heightened attention during harvest season**

→ **Projects**

- › SSI project child labour (large group of companies)
- › Living income project ([see #23](#)): prevent need for child labour
- › Our direct sourcing efforts as part of NFPP enable better control and more influence on the ground.

A three level based approach to combat child labour.

Preventive

Through education, monitoring and reporting we continue to keep our NFPP operations free of child labour, even as the program expands. We view poverty as the root cause of child labour and are therefore committed to work towards a living income for all NFPP farmers, see also [commitment #23](#).

Remedial

If any instances of child labour are found, we immediately look for remediation for the child and engage in a long-term education and monitoring programme with the farmer involved. We have shifted away from zero-tolerance policy, as we believe simply removing the farmer from the programme will not prevent repetition.

Structural

We drive and join sector wide initiatives that aim to eradicate child labour in the herbs and spice sector and associated industries. We do this through awareness raising, advocacy activities and due diligence management.

COMMITMENT #23 Living income

We work towards realising a living income for all NFPP farmers.

Ensuring a living income for smallholder farmers is crucial for farmers' well-being and the social and economic stability of rural communities. By working towards a living income for farmers, spice farming remains a financially attractive profession and as such we can secure the next generation of farmers and contribute to the long-term availability of spices.

Contrarily, when farmers earn an income below substance level, farmer offspring will look for other ways to earn an income and usually try their luck in nearby cities. Resulting in a brain drain from rural areas. What's more, low incomes may pressure farmers into unsustainable practices like excessive use of chemical fertilizers and pesticides to

What is a living income?

A living income is defined as sufficient income to afford a decent standard of living for all household members – including a nutritious diet, clean water, decent housing, education, health care and other essential needs, plus a little extra for emergencies and savings – once farm costs are covered.

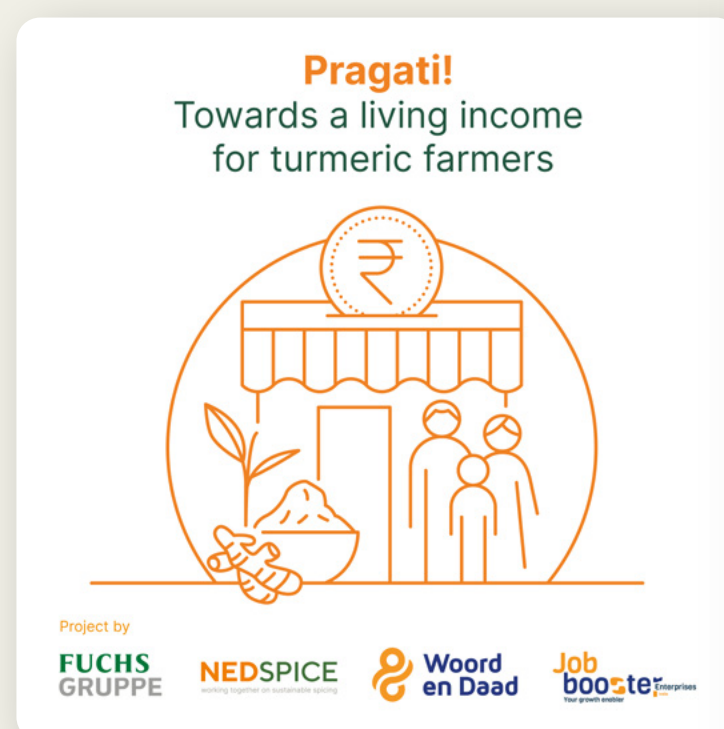
temporarily increase their yield. Insufficient income can furthermore increase the risk of farmers not paying their workers a proper wage or they may even feel inclined to employ children to lower their costs.

Working towards a living income is therefore crucial to ensure a viable and sustainable spices supply chain. To this end, Nedspice is an active member of SSI's Living Income working group and works on living income projects together with customers.

Did you know **Pragati** is the Hindi word for progress? It is also one of the more well-known turmeric varieties.

Together with our customer Fuchs Gruppe we have initiated a living income project for turmeric farmers in Andhra Pradesh, India. NGO Woord en Daad and social enterprise Job Booster India joined the consortium to respectively handle the administrative parts of the three-year project and conduct the research. Through this project we hope to get a better understanding of the socio-economic situation of turmeric farmers in Andhra Pradesh, India and find solutions that contribute to turmeric farmers earning a living income. While the project's main focus is living income, child labour and gender equality also fall within the scope of the project, as these three topics are closely connected.

The project consists of a research phase and an implementation phase. The field research takes place in the districts of Kurnool, Kadapa and Guntur in Andhra Pradesh, India. The research outcomes will form the basis for the second phase of the project, which will focus on implementing solutions that contribute to a living income for turmeric farmers. 400 farmers will be interviewed for the research phase, but possible solutions will be made available for a larger group of farmers. The Pragati Project is co-founded by the Netherlands Enterprise Agency (RVO).



Reaching out to community needs

COMMITMENT #24 Charity

We commit to spend at least 2% of our net profit on charitable causes each year.

Our dedication to allocating a minimum of 2% of our annual net profit to charitable causes is motivated by our sense of obligation and the social responsibilities we bear toward the individuals and communities with whom we collaborate and rely upon. A significant factor in the effectiveness of our philanthropic initiatives is the strong bond we maintain with farmers and their local communities. This connection empowers us to conduct a comprehensive evaluation of how we can genuinely and directly address the unique needs of villages or individual residents. In 2022, one of the causes we supported was education in India.



School bag distribution at Government high school, Bhimda, Rajasthan, India.

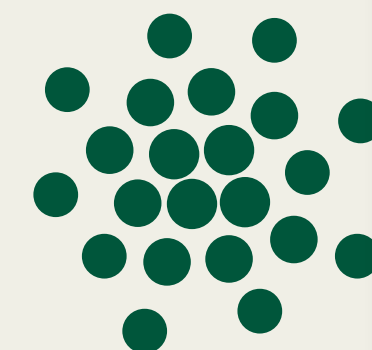
As part of the company's commitment to the local community, school bags were distributed to 850 students enrolled at the school. This initiative is closely linked to the Nedspice Farmer Partnership Program (NFPP) for cumin crop, which operates in the vicinity of Bhimda, Rajasthan.

Guidelines

2% net profit in 2022 reflects a potential changemaking capital. Criteria below give direction to the way the resources should be spent:

- Links with one or more areas of Nedspice Sustainable Spicing Framework
- In proximity of Nedspice operations
- Focus on children
- Non-political
- Preferably initiated by a local non-profit organisation

Product quality



Food safe production and product quality

We are proud to contribute to a more sustainable supply chain, but our first priority is to deliver high quality and food safe ingredients. This starts at farm level but is continued throughout our supply chain.

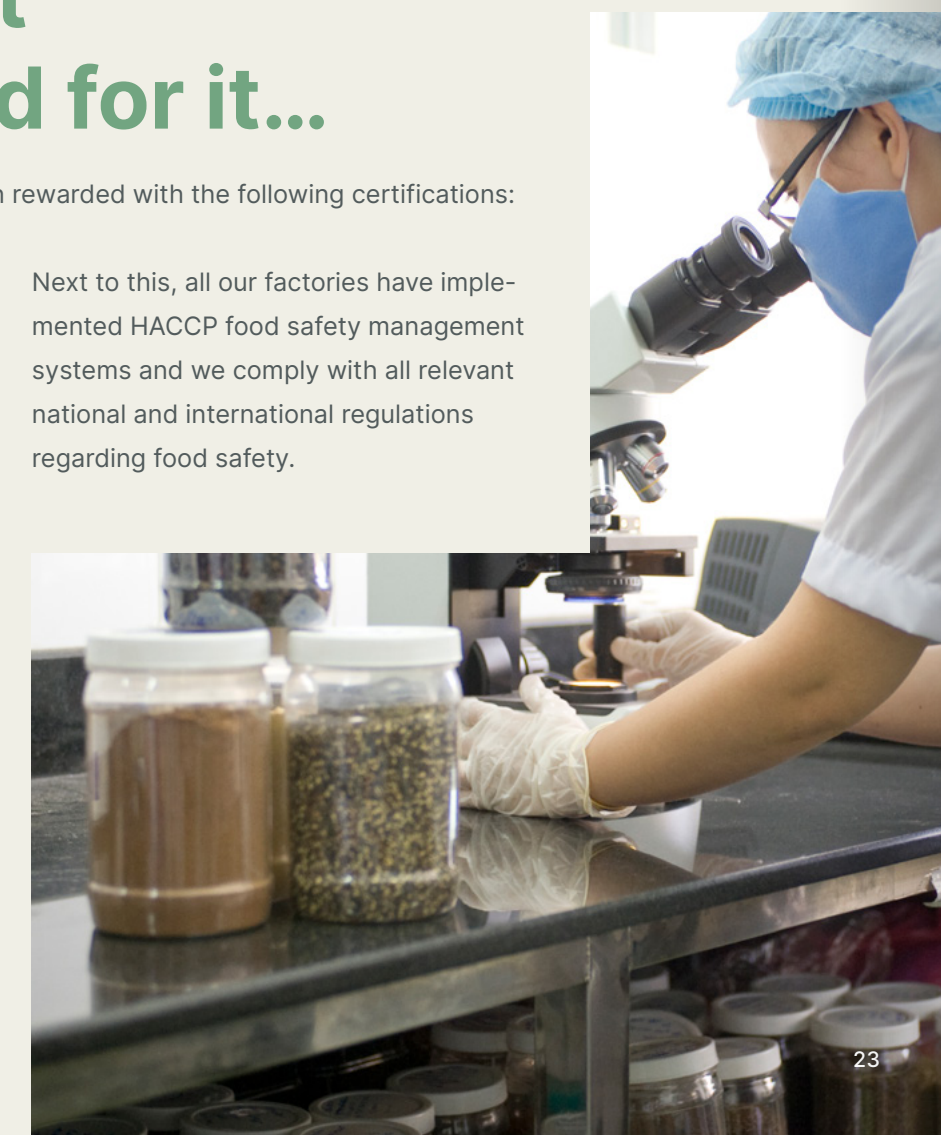
Whether it concerns adulteration, contamination or allergen risks, our highly integrated supply chain combined with comprehensive microbiological testing at Nedspice quality assurance departments, ensures that all food safety risks are controlled. Therefore, we can say that we deliver the carefree part of your product.

But don't just take our word for it...

After independent verification we have been rewarded with the following certifications:

- **BRC – Grade A and AA**
Global Standard for Food Safety
- **FSSC22000**
Food Safety System Certification 22000
- **ISO22000**
Food Safety Management System
- **ISO17025**
Laboratory Testing and Calibration Requirements
- **VALID-IT Spices Protocol**
for chilli powder and turmeric
- **Halal and Kosher certifications**
- **M&S approval**
Marks & Spencer approved supplier
- **SMETA Certification**
SEDEX Members Ethical Trade Audit

Next to this, all our factories have implemented HACCP food safety management systems and we comply with all relevant national and international regulations regarding food safety.



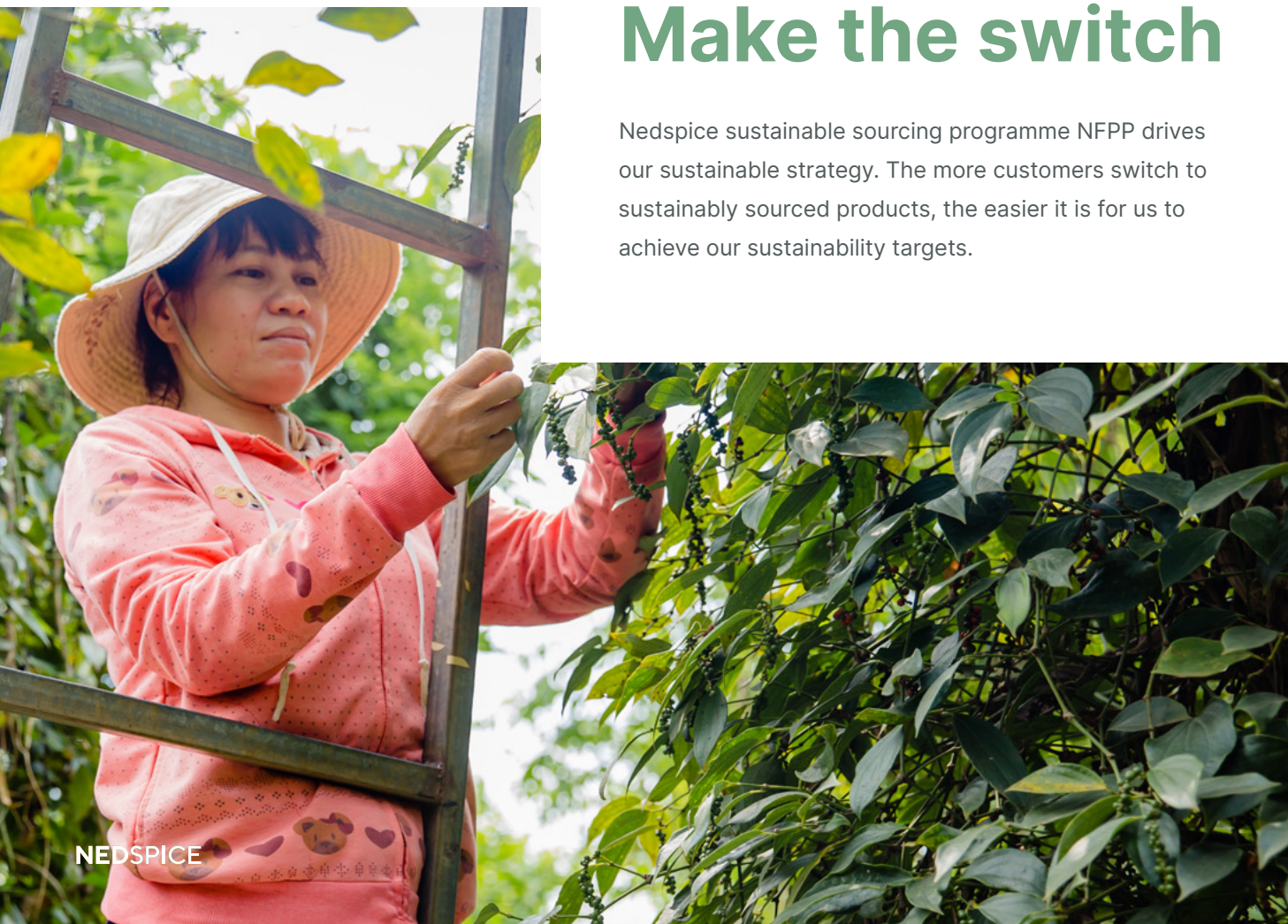
Looking ahead

This is Nedspice's second annual sustainability report. We started in 2021, with a focus on formulating our targets and gathering data. This year, our efforts were focused on furthering our progress on the targets we set. We're also proceeding with external verification of our targets and we embarked on a journey to map our environmental footprint. From next year, we will start reporting following the format of the EU CSRD legislation, ahead of the legal requirements that aren't due before 2025.

We encourage our customers and suppliers to join us on our sustainability journey, and they will be asked to sign our Codes and Policies.

Make the switch

Nedspice sustainable sourcing programme NFPP drives our sustainable strategy. The more customers switch to sustainably sourced products, the easier it is for us to achieve our sustainability targets.



Questions?

Do you have questions on the data sources or require clarification as to how we monitor our progress? Please contact us at sustainability@nedspice.com.

Would you like to know more about our sustainably sourced products? Please contact spices@nedspice.com or your local sales manager.

Want to join?

We feel that by working together we can make a bigger impact. That is why Nedspice is always looking for partners to join our sustainability projects. A partnership can take many forms, for more information please contact us at sustainability@nedspice.com.

Stay updated

If you want to stay updated, please subscribe to our NFPP and Market Updates via Nedspice.com. And while you visit our site, we have plenty of information on sustainable products, certifications, and other relevant industry news.

We are also active on [LinkedIn](#), but if you prefer an old-fashioned phone call, feel free to reach us at any time (during working hours).



Interested to learn what Nedspice can do for your supply chain?

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