

# Creating Fair & Sustainable Value.



Louis Dreyfus Company is a leading merchant and processor of agricultural goods, leveraging its global reach and extensive asset network to deliver for our customers around the world – safely, responsibly and reliably.



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Unless otherwise indicated, "Louis Dreyfus Company", "LDC", "Group", "Louis Dreyfus Company Group" and related terms such as "our", "we", etc. used in this Sustainability Report refers to the Louis Dreyfus Company B.V. Group.

# Our CEO's Vision.



2017 saw the definition of the Louis Dreyfus Company purpose with sustainability at its core, supporting our Group vision. Our CEO, Gonzalo Ramírez Martiarena, reflects on what this means for LDC's prospects for, and contribution to, our shared future.

### Working with others

What does it mean to "work towards a safe and sustainable future"? For LDC, partnerships are at the core of how we do business. We say that a lot – and we mean it. In this report you will see that we believe the UN's Sustainable Development Goal n°17 – Working together towards the goals – very much describes the way we do things at LDC.

These are more than just words. Even something as comparatively simple as the production of this report would be impossible without collaborating with those commenting on our work, from NGOs to financial institutions. Our approach to reporting evolved in 2017 through a series of interactions with the World Business Council for Sustainable Development, which we officially joined last year. They suggested we highlight materiality more precisely, and show our stakeholders more clearly the areas we recognize as presenting the greatest challenges, helping us focus our efforts.

A readiness to collaborate is equally essential in more complex matters. Change in our palm sourcing is happening through our work with The Forest Trust (TFT) on traceability, and with every one of our suppliers and customers on making our policy a reality. Applying our new Soy Sustainability Policy will require the same kind of engagement.

You will find the rest of the report full of details on this kind of collaborative work. The future – LDC's and the world's – depends on companies like ours finding ways to work with others to transform how we feed everyone.

### New food

One of the ways we are transforming is in the products we sell. You may have seen in LDC's 2017 Annual Report that we have been rapidly expanding our portfolio of value-added products, such as lecithin and glycerin.

Using by-products of our "mainstream" processing activities to meet a range of customer needs is a great way to get more out of what we produce. It is good for the planet, using resources wisely and generating less waste, and it is good for our business.

Investing in the future of food requires more than expanding our existing operations. As more people demand more meat protein, for example, it will be extremely difficult to produce enough to feed the animals that provide the meat – and consequently the people who want a balanced diet.

## Our Vision

*To work towards a safe and sustainable future, contributing to the global effort of providing sustenance for a growing population*



Alternative protein sources and other, more efficient ways to produce protein are therefore of great interest to us, and we are exploring a number of potential investments. That is how we are participating in the future of food.

### Enabling transparency

Traceability is a fundamental building block of many of our sustainability efforts – and as things stand today, it is not always easy.

The ongoing efforts of our Palm team to attain 100% traceability to mill level in our palm activities deserve recognition. We've also learned a great deal. First, we saw the importance of working with partners like The Forest Trust, as highlighted previously. Secondly, even with hard work on all sides, that 100% target is difficult to reach – with spot purchases and the length of the purchase strings. Thirdly, our position in the value chain makes visibility all the way back to plantations very difficult.

These issues arise for LDC, and similarly placed agribusiness operators, in many areas. But what if we could make it easier?

Our recent experience with blockchain technology may provide an answer. Providing completely open chain of custody information for every product flow using that technology is some way off. We took part in the first agricultural commodity transaction where the entire chain of custody was recorded through blockchain. Time spent on document and data processing was reduced fivefold, and any person can then see every stage of the journey for that consignment of soybeans.

The possibilities are exciting, and further exploration is coming, but ultimately a lot of hard, collaborative work stands between us and an ideal world of complete, blockchain-enabled transparency.

### Stretching ourselves

LDC's own transparency is also very important. That is why we acknowledge our shortcomings as well as our successes in all areas, and why this year we have also expanded our reporting in the area of LDC freight activities.

Targets, where possible, assist greatly – holding ourselves to account, and allowing others to hold us to account. We have new, time-bound targets for reducing our environmental footprint, and relating to the roll out of our Soy Sustainability Policy, that demonstrate our progress. They come on the back of significant achievements in those areas in 2017.

Elsewhere, progress is not as fast as we would have liked. After 5 straight years of aiming, and mostly succeeding, to reduce the frequency and gravity of accidents by 20% year-on-year, we must acknowledge that the pace of improvement will slow down. The space for improvement is still there, but shrinking due to our success to date.

We invested an average of US\$24 million annually for the last 5 years on safety improvements across our assets. We are constantly reinforcing a safety-first culture for all LDC employees, delivering training and enhancing procedures. Our commitment to zero accidents remains strong, but after considerable analysis, we acknowledge that 10% reductions in our metrics will be appropriate stretch goals from 2018 onwards.

### Our performance against targets in 2017

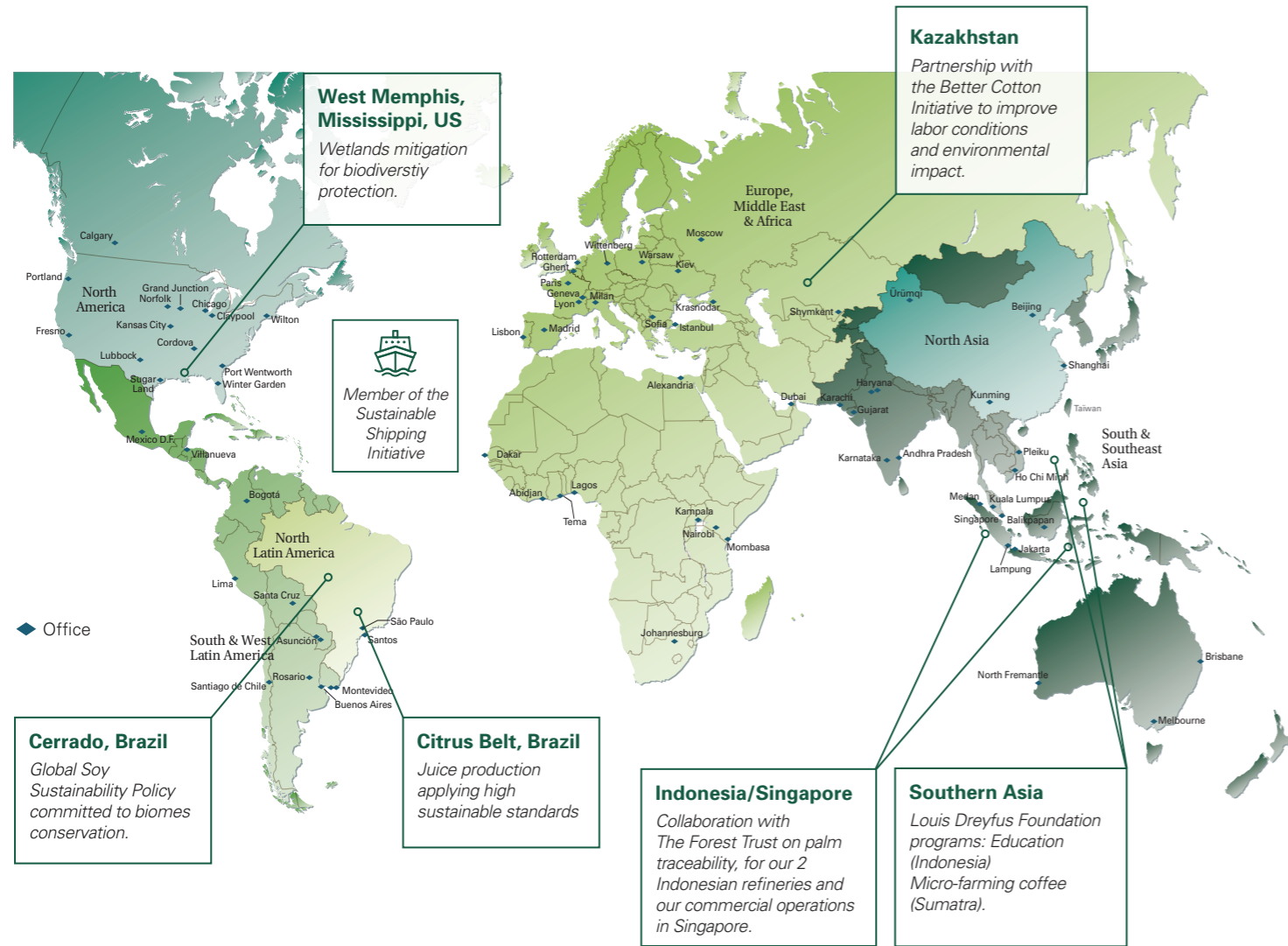
Completed	10
In Progress	5
Amended	2
Missed	2
Newly set	19

We will continue to stretch ourselves in service of the UN's Sustainable Development Goals, in parallel to our commercial goals. I am proud to see the progress in this year's report, I know that our teams will be driven, not daunted, by the challenges and issues we face, and I look forward to seeing what we can achieve together in 2018 and beyond.

**The Louis Dreyfus Company Purpose:**

We are committed to supporting the communities we serve, through fair and sustainable value creation.

**This is LDC.**



**Our vision**

To work towards a safe and sustainable future, contributing to the global effort of providing sustenance for a growing population.

**Our mission**

To use our know-how and global reach to bring the right product to the right location, at the right time.

**10 Platforms**

Our diversified activities span the entire value chain from farm to fork, across a broad range of business lines (platforms).

**The Value Chain Segment**

includes platforms that have a fully integrated asset network ranging from origination to distribution.

**The Merchandizing Segment**

includes platforms that have a more merchant-oriented business model.



# Working through the World's Challenges.

Many of the challenges the world faces in sustaining a growing population are well known, at a headline level. The detail of how those challenges come about and how we might, individually and collectively, contribute to solving them is often less well known.

This is particularly the case when it comes to the position of agribusiness operators such as Louis Dreyfus Company in relation to these issues. Over the last 5 years, our sustainability reporting has expanded on that detail to clarify what actions we can take, and why we take them.

Our reporting has evolved this year, based on very helpful feedback on our 2016 Sustainability Report from the World Business Council on Sustainable Development (WBCSD).

**Sustainable Development Goals (SDGs)**

- 1 NO POVERTY** No Poverty
- 2 ZERO HUNGER** Zero Hunger
- 3 GOOD HEALTH AND WELL-BEING** Good Health and Well-Being
- 4 QUALITY EDUCATION** Quality Education
- 5 GENDER EQUALITY** Gender Equality
- 6 CLEAN WATER AND SANITATION** Clean Water and Sanitation
- 7 AFFORDABLE AND CLEAN ENERGY** Affordable and Clean Energy
- 8 DECENT WORK AND ECONOMIC GROWTH** Decent Work and Economic Growth
- 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE** Industry, Innovation and Infrastructure
- 10 REDUCED INEQUALITIES** Reduced Inequalities
- 11 SUSTAINABLE CITIES AND COMMUNITIES** Sustainable Cities and Communities
- 12 RESPONSIBLE CONSUMPTION AND PRODUCTION** Responsible Consumption and Production
- 13 CLIMATE ACTION** Climate Action
- 14 LIFE BELOW WATER** Life Below Water
- 15 LIFE ON LAND** Life on Land
- 16 PEACE, JUSTICE AND STRONG INSTITUTIONS** Peace and Justice Strong Institutions
- 17 PARTNERSHIPS FOR THE GOALS** Partnerships for the Goals



## Our Challenges. continued



### Deforestation, Conversion & Biodiversity

The world needs more food, and the land to grow it on is diminishing. Incentives for agricultural commodities producers to clear land for agriculture are therefore strong – particularly for crops such as palm and soy.

It is well known that deforestation destroys habitats, releases carbon into the atmosphere, reduces the planet's capacity to convert carbon dioxide and diminishes the ability of converted land to retain water. It also disrupts, and in some cases displaces, rural communities.

**Preserving forests and other high conservation value natural habitats**, as agribusiness seeks to meet food demand, is therefore a priority.

That is why, since 2015, we have had a **global no-deforestation commitment** (see Environment section, page 21). It lies at the heart of our efforts to agriculture, while contributing to *ending hunger* (SDG 2).

However, with the exception of our Juice team, LDC is not a farmer. **So our activities must focus on working with partners, and using purchasing power and influence with our suppliers, to encourage sustainable practices.** In fact, engaging stakeholders is so fundamental to our ability to make an impact that we feel that SDG 17 *Partnerships to achieve the Goal* is, practically speaking, one of the most important Sustainable Development Goal for our work.

**Traceability is also key.** Our Palm teams have been working particularly hard in this vein (see pages 40-43). **Partnerships with external organizations, such as with The Forest Trust** on our palm supply chain, have been essential. **Third party certification schemes also play a major role**, and our Coffee (p47), Juice (p45), Cotton (p49) and Sugar (p29) platforms have also been very active in this space.

As highlighted by our CEO, **innovation in blockchain technology could revolutionize traceability in the future.** For the present, making policies on traceability a reality requires relentless, granular work to educate, persuade and monitor.

Meanwhile, we must continue to meet demand in a world where not all customers prioritize the sustainability challenge. That is why global, multi-stakeholder, multi-commodity forums are so important. We hope that as part of the **Soft Commodities Forum at the WBCSD**, we can be a driving force for change.

Though the general trend has been towards greater consumption of meat protein, primarily as a result of growing populations with rising incomes in developing countries, two countervailing trends may help ease the strain on available land. First, it appears that the trend towards meat-free or reduced meat diets in developed markets will continue. Secondly, as our CEO observes, momentum is building for **alternative protein sources** and we are exploring investments in that space.

### Climate Change

The potential impacts of climate change are wide-ranging. For agriculture, changes in temperature and weather patterns will severely challenge the planet's ability to produce enough food.

**Across LDC we are always looking for ways to do more, and better, with less** – that is the underlying aim of SDG 12 on *Responsible Consumption and Production*.

Our position in the value chain allows us to redress supply and demand imbalances by connecting the two. Our responsibility is to achieve this with as little environmental impact as possible. Meeting that responsibility is also a vital issue for LDC – an optimal environmental footprint is in our interest, since resources cost money.

The Environment section (pages 20-27) outlines the system we have put in place **to optimize resource-usage.** It includes **time-bound performance targets** for which we are accountable.



With a large part of our geographic footprint in processing and logistic assets, this work lies at the core of our contribution to *climate action* (SDG 13) and *responsible consumption and production* (SDG 12). Proper use of inputs also ties in with the good agricultural practices that must contribute to SDG 2: *Zero Hunger*.

**Our efforts are LDC-wide**, but additional elements arise for some platforms specifically. The Freight Platform (pages 54-55), for example, is now at the cutting edge of making global shipping sustainable, through membership of the Sustainable Shipping Initiative. All platform certification activity also carries a strong environmental element.

In other instances, **we are able to actively help others reduce their emissions, and produce or consume energy more efficiently.** Our community projects often include environmental elements, such as helping smallholder farmers install solar panels and biogas units (projects conducted in collaboration with the Louis Dreyfus Foundation). Where partners are available locally, we also contribute to waste reduction by supplying waste from our processing plants to power stations as a low-carbon alternative fuel.

### Water Scarcity

Reducing water usage and recycling wastewater are a critical priority. Agriculture uses 70% of the world's freshwater resources.<sup>1</sup> In 2014, 50 countries experienced water stress or scarcity<sup>2</sup> and demand for water is projected to grow over 55% by 2050.<sup>3</sup> This is why water is one of the main considerations in SDG 12 on *Responsible Consumption and Production*.

Other than in our citrus cultivation activities in Brazil, our water impact is in our network of processing assets. As you will see in the Environment section (pages 23-27), **we have initiatives to use less water, recycle more water back into processes, or return it to natural watercourses rather than dispose of it as waste.** We now have time-bound targets to maintain momentum in this sense.

Keeping water clean is also a major imperative, for both people (SDG 6 *Clean Water and Sanitation*) and underwater ecosystems (SDG 14 *Life Below Water*).

A number of our processing assets take responsibility for cleaning wastewater before returning it to watercourses. Where recycling is not possible and wastewater is generated, we have a strong focus on wastewater processing (see pages 23 and 27).

Water stewardship is a significant element of all sustainability certification schemes that our platforms engage in. We are also in a position to promote better water usage with producers. We make citrus and coffee farmers aware of smarter irrigation techniques and train smallholders in water stewardship, often in partnership with the Louis Dreyfus Foundation (see for example the project in Argentina on page 37).

### Waste

It is well known that a third of all food is wasted, and predominantly at the retail and consumer level.<sup>4</sup> And SDG 12 on *Responsible Consumption and Production* drives us **to eliminate waste across the food value chain.**

Although our ability to effect change in this space is small, we nevertheless take waste very seriously. **We act to both reduce the waste we cause, and help producers do the same.** The steps we take are:

- Eliminating waste of inputs to our processes, with time-bound reduction targets – see Environment section (pages 22-27)
- Making logistics as efficient as possible – Freight is taking a global approach (pages 54-55) and individual platforms have initiatives such as the road freight project in Brazil, reported in the Partners section (page 29)

<sup>1</sup> FAO (2011) The State of the World's Land and Water Resources for Food and Agriculture: Managing Systems at Risk. Earthscan.

<sup>2</sup> WWF Living Planet Report 2016: Risk and resilience in a new era (WWF International, Gland, Switzerland)

<sup>3</sup> OECD (2010) OECD Environmental Outlook to 2050: The consequences of inaction (OECD Publishing, Paris)

<sup>4</sup> FAO, 2011, Global food losses and food waste – Extent, causes and prevention (Rome)

## Our Challenges. continued

- Investing in greater origination reach, to source more food from primary producers and reduce post-harvest waste – the Soy river freight project (page 52) is an excellent example of how investing responsibly for commercial purposes helps get more of what farmers produce to destination markets
- Innovating with by-products – as our CEO observes (see page 2), it is both environmentally beneficial and commercially sound to invest in value-added products such as lecithin, glycerin and dry peel (oilseed and juice processing by-products, respectively)
- Working with smallholders – several projects run at any one time, to cut post-harvest waste and help farmers work more sustainably, with current examples on pages 37, 45, 47 and 49

Beyond these efforts, we are also considering how partnerships might contribute to waste reduction at the consumer end of the value chain.

### Economic Development

There are less obvious ways in which LDC contributes to Sustainable Development Goals 8 and 9, by creating jobs and investing in infrastructure.

We invest in assets across all our regions, with significant infrastructure built in every region in the last 5 years. This includes opening routes to international markets that were otherwise challenging, or resource-intensive, for farmers to access. The Pará State river terminal project in Brazil (see page 52) is an excellent example.

Similarly, in some instances we help educate people, recognizing that education (SDG 4) is fundamental to improving living conditions sustainably.

Our community projects, and those in partnership with the Louis Dreyfus Foundation, often involve building or supporting schools in the vicinity of our assets, and a number of adult education initiatives, especially for smallholder farmers. All of these are well represented this year – see pages 34-37.

### Safety at Work

Safety for our employees and contractors is LDC's first priority. It is also a key target within SDG 8 on *Decent Work and Economic Growth* and SDG 3 on *Good Health and Well-being* for all.

Our robust safety policy and ambitious targets are set out in the People section (see pages 15-17). The ultimate aim is to reduce lost time injuries to zero, and we see that commitment as the most basic building block for ensuring that everyone who works at an LDC site has decent work and returns home safely each day.

### Human Rights

There are human rights challenges in many agricultural labor settings. Their elimination is a target within SDG 8, which includes a global goal to end child labor in all its forms by 2025.

Both child labor and forced labor can be issues in parts of agricultural supply chains. There were 108 million children working in agriculture in 2016, primarily in farming and mostly on a family farm<sup>5</sup> – this represents 70.9% of the global number of children in labor.

At farm level, this can only be applied directly to citrus fruit farms operated by our Juice Platform. However, we work strongly in partnership with others, including the International Labour Organization (ILO) to raise awareness and eliminate such labor practices from our supply chains.



5 ILO, Global Estimates of Child Labour: Results and Trends, 2012-2016 (Geneva, 2017)

This is reflected in our policies for sourcing palm, soy (page 51) and coffee, on which we actively engage operators in our supply chains. The ILO's expectations for our work (see page 31) are instructive and we will consider how best to live up to them, reporting back next year on measures we will be taking.

Our Cotton Platform's work in Kazakhstan (page 49) to promote Better Cotton production illustrates this work. In an area where our suppliers are predominantly ginneries, we have committed since 2012 to a project gathering evidence, educating Kazakh officials and promoting better practices.

Once again, collaboration is key to our efforts as a merchant. Sustainability certification is one tool that facilitates our work in this space, driving toward better labor rights, as certification schemes have robust rules in that area. Certification therefore supports the work we otherwise conduct, with input from the ILO.

### Diversity

LDC monitors data across a number of different factors to identify disparities that might require further investigation.

We are presently particularly focused on gender diversity within our workforce. We share the global concern, reflected in SDG 5 on *Gender Equality*, regarding discriminatory imbalances related to seniority, pay, flexibility, working environment or other matters.

Our People section (page 18) sets out our work so far in this space. We are currently undertaking a series of studies to understand where and how imbalances that are potentially discriminatory exist within LDC. We will then move to design measures that will address those imbalances.



### Land Rights

Secure land rights are vital to economic development, allowing farmers to invest in production. Without such rights, people are at risk of being dispossessed and losing their homes and livelihoods.

Outside of our 38 citrus farms in Brazil, the scope for our direct contact with land rights issues is limited. This said, and as set out in our Environment section (page 21), LDC does not build or expand an asset without conducting an impact assessment that takes into account the land rights of local people.

### Working in Partnership

It will be plain, from all of the references above, just how important Sustainable Development Goal 17, on working together towards all the other goals, really is when operating as a merchant of agricultural commodities.

Understanding our complex value chains, influencing other stakeholders and changing what happens from farms to forks is impossible without working with others – no operator can be sufficiently vertically integrated to have the level of control required every step of the way.

SDG 17 is therefore central to almost every section of this report. Our work with The Forest Trust on traceability (page 42), and with other traceability and certification schemes, is an excellent illustration. We simply cannot map, influence and change supply chains without collaboration.

Whether leaning on the expertise of others, or discussing policies and challenges with suppliers and other stakeholders, we must engage as widely and as deeply as we can.





## Pillars of Sustainability

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# Our People.

LDC aims for business growth to benefit employees and their families. That means day-to-day business should automatically build in elements that support the pursuit of SDGs to eliminate poverty, create decent jobs and aid economic growth.



More than that, we value each person who works for, and with us. That makes safety for everyone working at LDC sites our prime concern.

With 19,000 people employed on average, and several thousand contractors working across over 180 assets worldwide, the impact of our robust Safety, Health and Environment (SHE) system is considerable.

We must also promote an inclusive environment. We therefore analyze a range of diversity data, looking particularly at gender inequality within our workforce, in line with SDG 5 on gender equality, to improve our contribution to wider societal change.

## Targets

Target	Completion	Result	
Reduce lost time injuries to zero	Ongoing	Ongoing	✔
Reduce frequency of workplace accidents by 20% YOY	2017	Missed <sup>1</sup>	!
Reduce gravity of workplace accidents by 20% YOY	2017	Missed <sup>2</sup>	!
Start study examining gender inclusion challenges across all LDC Regions	2017	Amended	✔

<sup>1</sup> Reductions were achieved but reached 11.8%  
<sup>2</sup> Reductions were achieved but reached 3.2%

**Committed to zero**



## Getting to Zero, Relentless Focus

Our SHE policy, renewed in 2016, sets out what our 'commitment to zero' means. It has been rolled out globally to all our people, across all our sites. The focus is on embedding a safety culture in the day-to-day work of every single person that works with or for our company, making it a habit.

This passion for continual improvement is reflected in our ambitious targets to reduce both the frequency and the gravity of accidents by 20% year-on-year. It can be seen in the leadership, operational and process safety initiatives implemented in 2017.

Though we achieved reductions in our key safety metrics, we missed our reduction targets this year. Given the pace of our improvements over the previous 5 years, we have shrunk the space for making gains as high as 20%.

After review, we are therefore revising annual reduction targets to 10% on each metric. These will remain a real stretch for us, continuing our drive towards zero.

### Year-on-Year Reduction in Frequency

↓ 11.8%

### Year-on-Year Reduction in Gravity

↓ 3.2%

### Year-on-Year Reduction in Severity

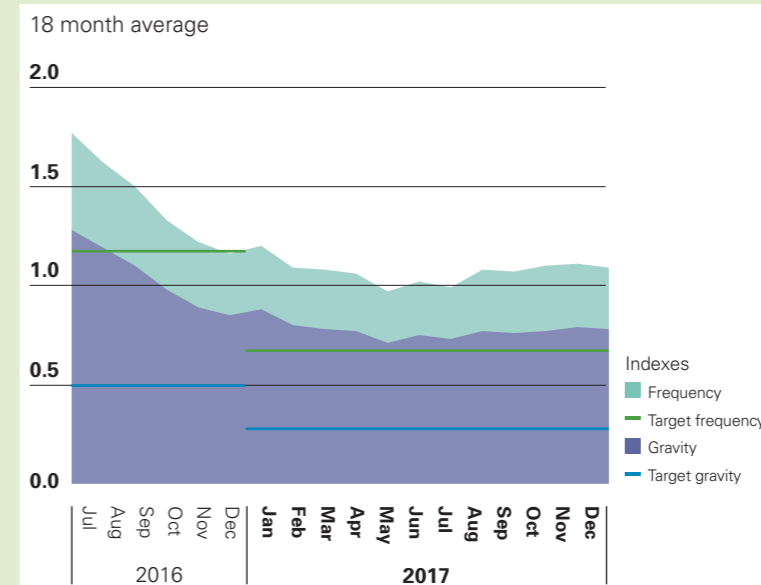
↓ 34.1%

The Frequency Index shows the relation between the number of workplace injuries requiring medical attention and hours worked. The ratio expresses the number of employees in every 100 that experienced an injury needing medical attention during the year.

The Gravity Index is a subset showing the relation between the number of workplace injuries serious enough to result in time away from work and hours worked.

The Severity Index shows the relation between the number of days away from work employees needed due to injury and hours worked. It is expressed per 100 employees for 1 working year.

## Global Frequency & Gravity Indexes



# Our People. continued

## Zero Lost Time Injuries 2012 to 2017

In 2017 we reduced the number of days lost due to injury by over 1200 days compared to 2016, as reflected in our Severity Index. We also managed to maintain a similar number of assets with no injuries requiring time off work, which represents 80% of our assets. We continue to push forward on both these measures in the drive towards a zero accident environment.

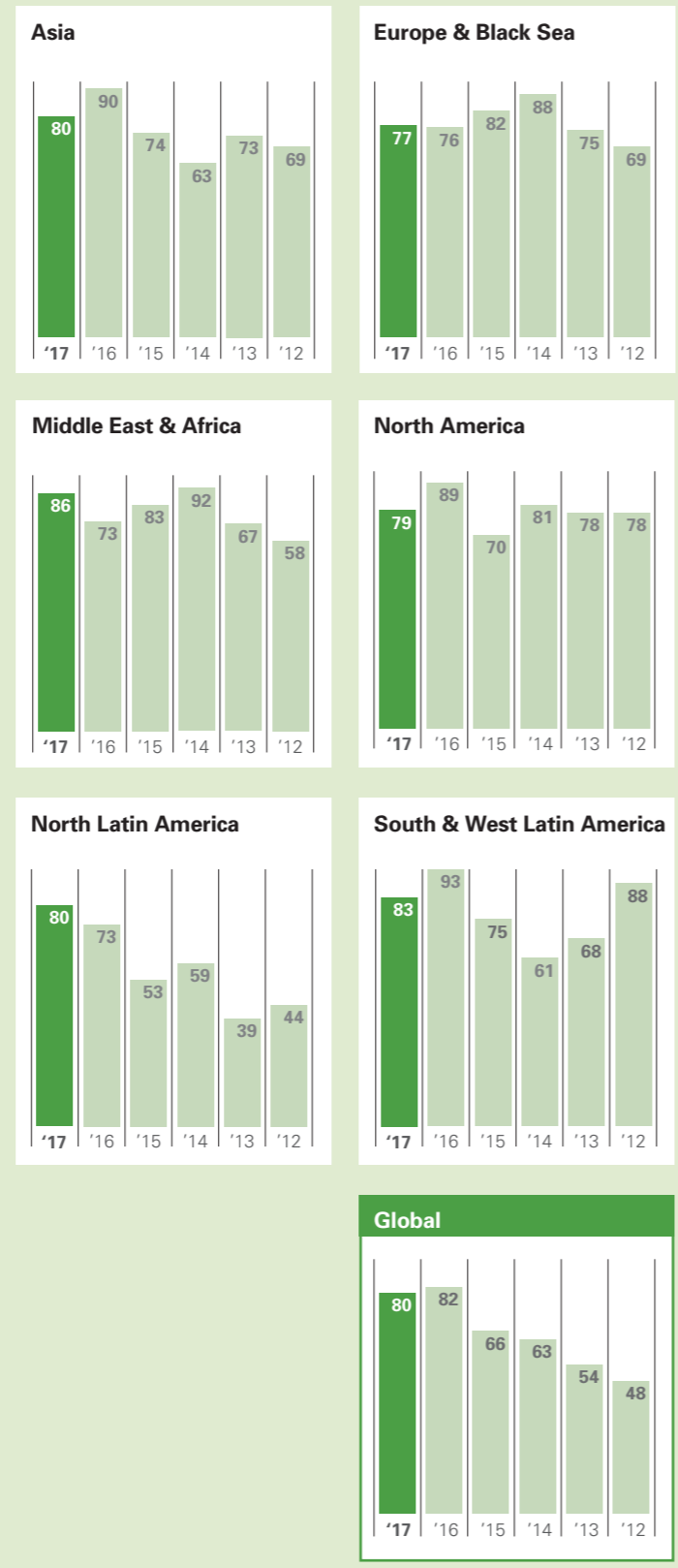
Despite our progress in safety, some accidents still occur. Tragically, this year we have to report the death of 1 of our employees, 1 contractor and 1 person not contractually engaged by LDC.

The first of these incidents, involving an employee, took place while loading a vessel at our river port terminal in St. Louis, Missouri, US. In the second, our contractor lost his life while conducting maintenance at our oilseeds processing plant in General Lagos, Argentina. The third incident was a road traffic accident at the entrance of our port facility in Bahia Blanca, Argentina, in which we deplored the loss of a driver. Though this accident is not considered by the national safety agency as relating directly to LDC, we consider it a serious matter for improvement of safety measures at the site, and so report on it here.

We have identified the lessons from these incidents, and put in place the necessary measures to ensure that they can never happen again.

We believe that all fatalities are preventable and will redouble our efforts to protect the lives of our employees, contractors and third parties. Being the only company in our industry to report on fatalities of all third parties visiting our premises is part of that commitment and our efforts in this particularly important area.

### % of Facilities Recording Zero Lost Time Injuries



## Pushing Forward in 2017

In 2017 we introduced numerous measures to enhance our SHE Management Systems:

- Launched a new, long-term, operational safety strategy, simplifying processes and improving efficiency by:
  - Training local LDC managers on SHE leadership, to better understand and address risks in their day-to-day operations
  - Introducing a suite of mini-audits on our High Risk Activity Standards, for all assets to use
- Created a new process safety program:
  - Roll-out began across all regions from January 2017 and will continue throughout 2018
  - The objective is the prevention of fires, explosions, toxic gas releases, environmental pollution and the collapse of equipment or structures
  - It includes deploying new Critical Safety Device standards for immediate detection of deviation from operating parameters in solid-handling and biodiesel equipment

## Safety Day

Our annual Safety Day is a platform to share our safety messages and commitments with all employees and third parties.

We are happy to report that our Safety Day in March 2018 saw the participation of more than 12,000 employees (85% attendance rate) and the involvement of more than 2,000 contractors. This accounted for nearly 50,000 hours of events, training and recognition.

# Our People. continued

## Diversity

Because diversity is one of our core values, we continue to monitor data across the main metrics of gender, age and nationality, to assess how we put this into practice.

This year we are providing additional detail on the gender profile at LDC, comparing our commercial and office locations with our industrial facilities. The graphs below illustrate the significantly higher proportion of female employees in offices versus industrial sites.

Although it is firmly rooted at LDC in terms of nationalities, with 52 represented within the company overall, there is still room to further leverage diversity across other dimensions.

Recent employee feedback has highlighted the importance of embracing different leadership styles and work preferences as enablers of increased performance and engagement. A specific survey among women working at LDC shed light last year on the need for action on the gender dimension.

A number of initiatives sponsored right from the top of the company are now in motion to address these challenges, with an approach based on 2 key pillars:

1. Promoting respect and diversity in LDC's talent management and leadership development frameworks, as well as more broadly to embed these into our company culture and leverage diversity as a lever for innovation

2. Creating a more supportive work environment, where professional success is fully compatible with family responsibilities and personal commitments

Actions are already ongoing in this direction, across several key areas including:

- Family-oriented benefits such as schemes for flexible time or work from home, and childcare arrangements aligned with business needs
- Efforts to build awareness of issues relating to diversity among business managers through educational programs
- Greater engagement of senior leaders with a network of high-potential women (identified through our talent management framework), to foster their career development, integrate their perspectives and contributions in our approach to gender issues, and thus support the emergence of a new generation of women at LDC.

### Gender, by Region, with comparison to 2016

% of employees

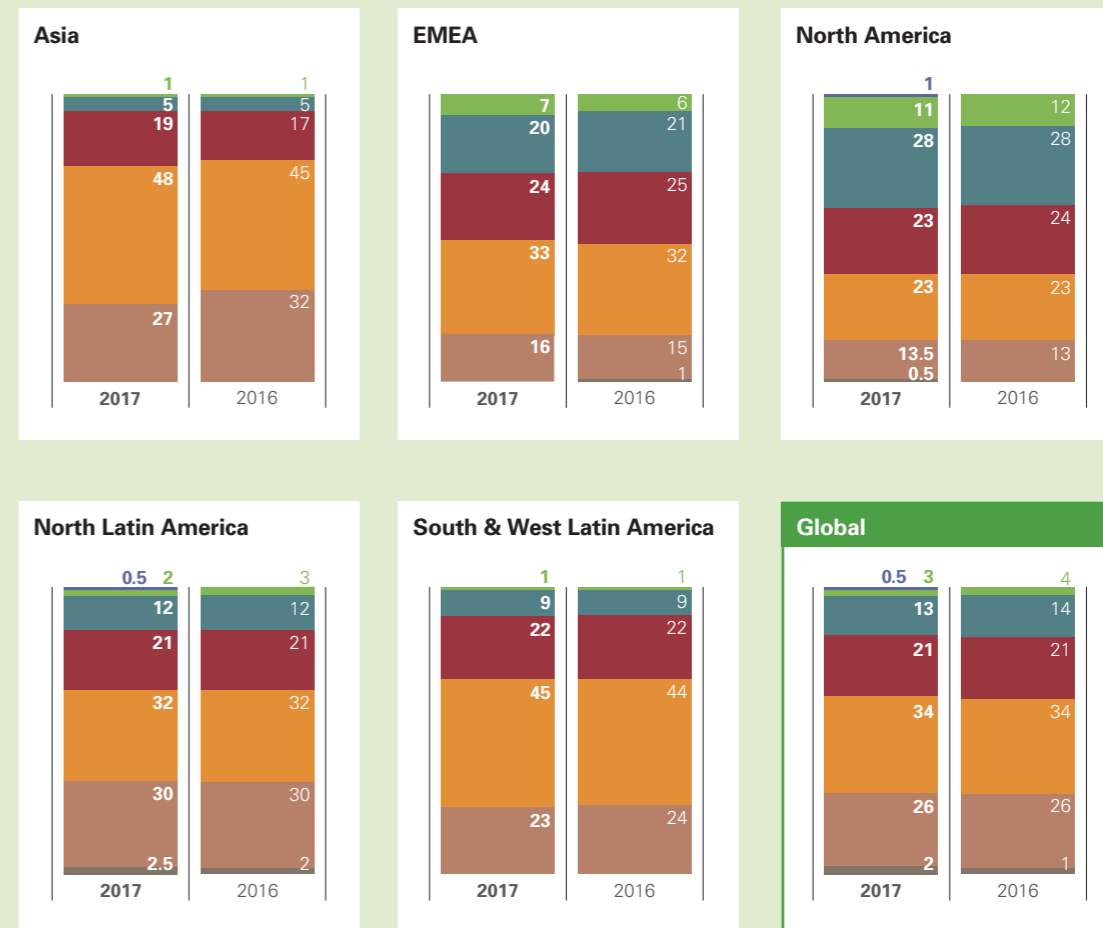
■ Male ■ Female



### Age, by Region, with comparison to 2016

% of employees

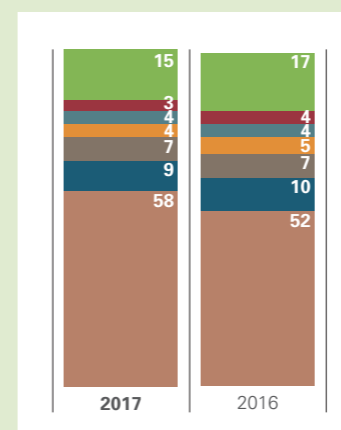
■ Under 20 ■ 50-59  
 ■ 20-29 ■ 60-69  
 ■ 30-39 ■ 70+



### Nationality, Globally, with comparison to 2016

% of employees

■ Brazil ■ United States of America  
 ■ Argentina ■ China  
 ■ Russian Federation ■ India  
 ■ Other



The discrepancy between the 2016 data shown here and in LDC's previous Sustainability Report comes from a change in measurement methodology.

### 2018 Targets

Target	Completion
Reduce frequency of workplace accidents by 10% YOY	2018
Reduce gravity of workplace accidents by 10% YOY	2018
Complete gender diversity reviews across all LDC Regions	2018

# Our Environment.

Climate change will have a major impact on many aspects of life on earth, including the planet's ability to feed an increasing population.



## Targets

Target	Completion	Result
Roll out Energy Champions reduction strategy across all metrics	2018	Completed
Set global time-based targets for reducing energy consumption	2018	Completed
Set global time-based targets for reducing GHG emissions	2018	Completed
Set global time-based targets for reducing waste	2018	Completed
Set global time-based targets for reducing water consumption	2018	Completed

By 2050, it is estimated that feeding a planet of 9 billion people will require 50% more agricultural production and a 15% increase in water withdrawals.<sup>1</sup>

That must happen although agriculture already uses 70% of all the freshwater consumed globally,<sup>2</sup> and although a third of all food (1.3 billion tonnes) is wasted each year.<sup>3</sup>

The need to feed an increasing number of people potentially competes against the need to conserve land that has a high ecological value and plays a vital role in the global ecosystem, such as forests.

There are a number of areas where LDC can make an impact, leveraging our place in the value chain, as a merchant with a significant network of processing and logistic assets but limited farming operations:

**Biodiversity** – preventing our activities from causing habitat destruction, especially through No Deforestation, No Peat, No Exploitation (NDPE) policies that apply to all our own assets and to how we deal with suppliers

**Emission and energy usage** – aiming for reductions across all our assets, particularly processing and logistics

**Water usage and wastewater** – this is predominantly a focus for our processing assets, both in terms of minimizing freshwater use and ensuring that wastewater does not pollute surrounding land or watercourses

**Solid waste** – here again, this is more a focus in our processing activities, and can help save resources (through recycling) and avoid pollution by properly disposing of waste products.

*Protecting ecosystems that might be impacted by our operations is a priority*



## Biodiversity

**Protecting ecosystems that might be impacted by our operations is a priority, both in the expansion and day-to-day running of our business.**

Loss of any land with high ecological value doesn't just destroy habitats and impact climate change, but can lead to disruption of rural communities and a loss of water retention. So in 2016, we launched the LDC company-wide No Deforestation, No Peat, No Exploitation commitment.

For more details on how we are working towards these goals in palm and soy specifically, see pages 41 and 51 respectively.

Regarding our own assets, we engage in a number of activities:

- Environmental and social impact assessments must be concluded before commencing any projects in areas where there are possible sensitivities. Our approach to the river logistics project in Pará State, Brazil is an excellent example (see page 52).
- Training farmers to preserve habitats through responsible farming practices, with examples in the Community (pages 34-37) and Coffee (page 47) sections.
- Replacing habitats that we build over to extend or develop new LDC assets, if possible with more than we have removed, such as our work in West Memphis, Mississippi, US (see page 35).
- Creating Biodiversity Protection and Conservation Plans at our citrus farms in Brazil (see page 45)

<sup>1</sup> The World Bank, 2017 (blog, <https://blogs.worldbank.org/opendata/chart-globally-70-freshwater-used-agriculture>)  
<sup>2</sup> ibid.  
<sup>3</sup> FAO, Global Initiative on Food Loss and Waste Reduction, 2017; Food Losses and Food Waste, FAO, 2011

## Our Environment. continued

### Environmental Footprint

2018 brings LDC's first set of time-bound targets to reduce our environmental footprint. This follows extensive work to understand the areas of impact, and build the teams and processes to make a real difference. The targets themselves are outlined below, and we expect to add more medium- to long-term targets in the coming year.

In 2017, we achieved overall reductions in GHG emissions, energy consumption, waste and water consumption, with small increases in renewable fuel usage and solid waste offset by reductions elsewhere.

The volume of feedstock processed across LDC was higher in 2017 than 2016. This meant that our total solid waste increased. We also increased our consumption of renewable fuel. In other areas, we managed to hold total consumption flat or even reduced it.

Our performance against ratios based on metric tons of feedstock processed or handled was generally encouraging, with reductions reported in all areas save for solid waste and the energy use and emissions from renewable fuels. Further details for each metric are presented here.



### Greenhouse Gas (GHG) Emissions



**GHG Emission index** (KG CO<sub>2</sub>e/MT)

Fossil Fuel	Renewable Fuel
<p>↓ <b>12%</b></p> <p>2017: 18.56 KG CO<sub>2</sub>e/MT 2016: 21.04 KG CO<sub>2</sub>e/MT</p>	<p>↑ <b>10%</b></p> <p>2017: 22.50 KG CO<sub>2</sub>e/MT 2016: 20.46 KG CO<sub>2</sub>e/MT</p>

Our greenhouse gas emissions (GHG) index shows the quantity of GHGs emitted per ton of feedstock either crushed or processed for each region in which we operate. Measured in kilograms of carbon dioxide-equivalent per metric ton of feedstock (kg CO<sub>2</sub>e/MT).

Globally, our GHG emissions from fossil fuels reduced, both in absolute terms and on a per metric ton basis. As with energy consumption, and for the same reasons, Asia was the main driving force behind the reduction.

Similarly, GHG emissions from renewables increased in line with the increase in energy usage from those sources.



### Energy Consumption



**GHG Emission index** (GJ/MT)

Fossil Fuel	Renewable Fuel
<p>↓ <b>7%</b></p> <p>2017: 0.32 GJ/MT 2016: 0.35 GJ/MT</p>	<p>↑ <b>11%</b></p> <p>2017: 0.15 GJ/MT 2016: 0.14 GJ/MT</p>

Our energy consumption index shows the ratio of fossil fuels consumed to process feedstock in each business region. For industrial facilities, the feedstock element of this ratio represents feedstock processed, and in the case of a warehouse or logistic facility, it is feedstock handled. The unit of measurement is gigajoules per metric ton (GJ/MT).

Energy consumption from fossil fuels was down, with the major driver coming from reductions in Asia. This derives from a shift in the balance of fuels used away from coal, which has the highest energy usage value, to gas and wood. We also purchased more steam from third parties, reducing our direct energy usage. We are in the process of securing sufficient data from third parties to allow reporting on energy use from activities like the production of steam.

Asia's reductions were supported by significant efficiency gains in Europe, the Middle East and Africa (EMEA) and lesser gains in South and West Latin America. These reductions offset a 10% increase in North Latin America, caused by handling 2017's larger citrus harvest that required operating all 4 of our juice processing plants at full capacity.

Energy consumption from renewable fuel usage increased by 10% on a GJ/MT basis. This reflects a 25% increase in Asia, which is a 52% increase in absolute terms, and the fact that most renewable fuels have lower energy values. The main driver for the increase in Asia came from our oilseeds port facility in Indonesia, where longer wait times before loading ships meant that the boiler had to provide steam for longer to keep transfer pipe lines and tank storage ready.



### Waste



**Waste Index**

Wastewater (m <sup>3</sup> /MT)	Solid Waste (MT/MT)
<p>↓ <b>2%</b></p> <p>2017: 0.17 m<sup>3</sup>/MT 2016: 0.17 m<sup>3</sup>/MT</p>	<p>↑ <b>5%</b></p> <p>2017: 0.0017 MT/MT 2016: 0.0016 MT/MT</p>

The ratio given here shows the amount of waste produced for every ton of feedstock crushed or processed. Measured in metric tons (MT/MT) for solid waste and cubic metres (m<sup>3</sup>/MT) for wastewater produced per metric ton of feedstock.

The wastewater index was flat year-on-year, with the effects of increased processing volumes offset by a series of water recycling initiatives, especially by the Sugar Platform in Asia and the Juice team in EMEA. Our figures also benefited from a regulatory correction in North America, where a change to reporting on water previously incorrectly classified created a 15.5% reduction on our metrics.

Solid waste, however, increased slightly. The primary causes arose in the EMEA Region, where our new grain processing facility in Azov, Russia, came online during the year. One of our waste disposal partners in the region also improved its reporting mechanisms, which contributed to the increase.



### Water Consumption



**Water Consumption Index** (m<sup>3</sup>/MT)

Industrial Water Consumption
<p>↓ <b>7%</b></p> <p>2017: 0.26 m<sup>3</sup>/MT 2016: 0.28 m<sup>3</sup>/MT</p>

Our water consumption index shows the ratio of water used for each metric ton of feedstock crushed or processed. Measured in cubic metres per metric ton (m<sup>3</sup>/MT).

We managed to reduce water consumption per metric ton, primarily in line with the increase in feedstock crushed. Significant savings were made in Asia, particularly in China, with measures such as buying in steam for processes at our Dongguan oilseeds processing plant, rather than heating water with our own boiler. Consumption increases related to processing the large citrus crops in Brazil were offset by the Oilseeds Platform handling more volumes through logistic assets, which use much less water in their activities.

Our Environment. continued

**Global Environmental Comparison by Region**

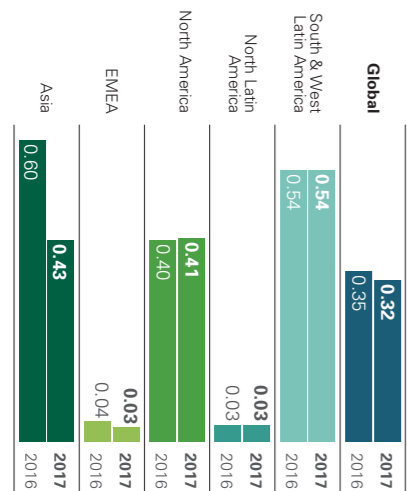
Each LDC region has its own targets to contribute to our global reduction goals, with its own systems for encouraging efficiency and innovation at every asset within the region.

The breakdown of how each region contributes to our footprint helps to understand where we can act to make a difference, and the case studies illustrate how focused, autonomous innovation can help us hit our targets.

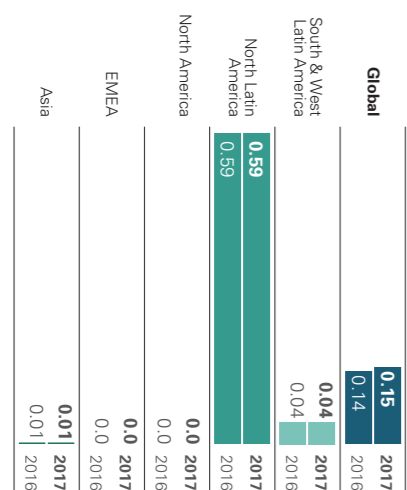
**Energy Consumption Index**  
(GJ/MT)



**Fossil Fuel**



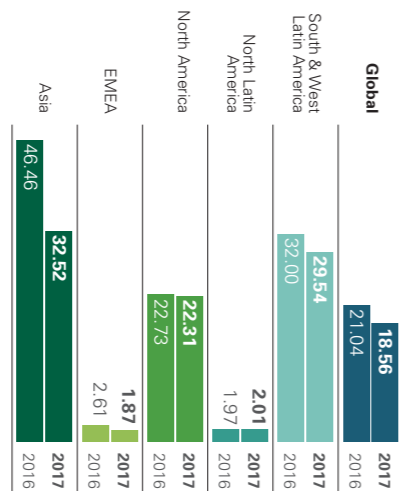
**Renewable Fuel**



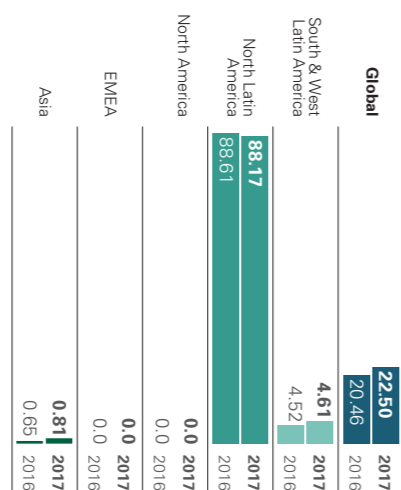
**GHG Emission Index**  
(KG CO<sub>2</sub>e/MT)



**Fossil Fuel**



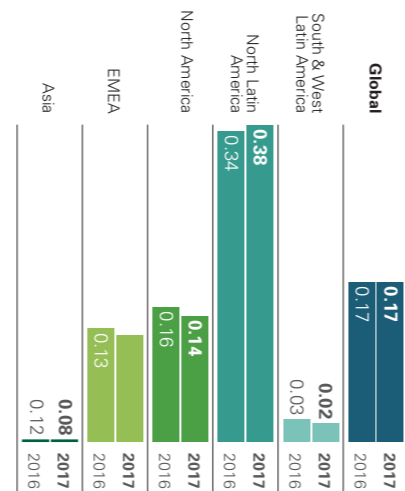
**Renewable Fuel**



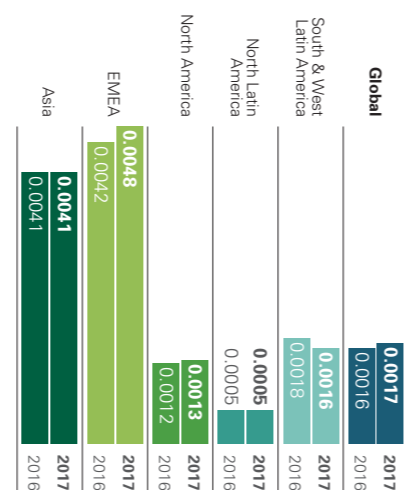
**Waste Index**



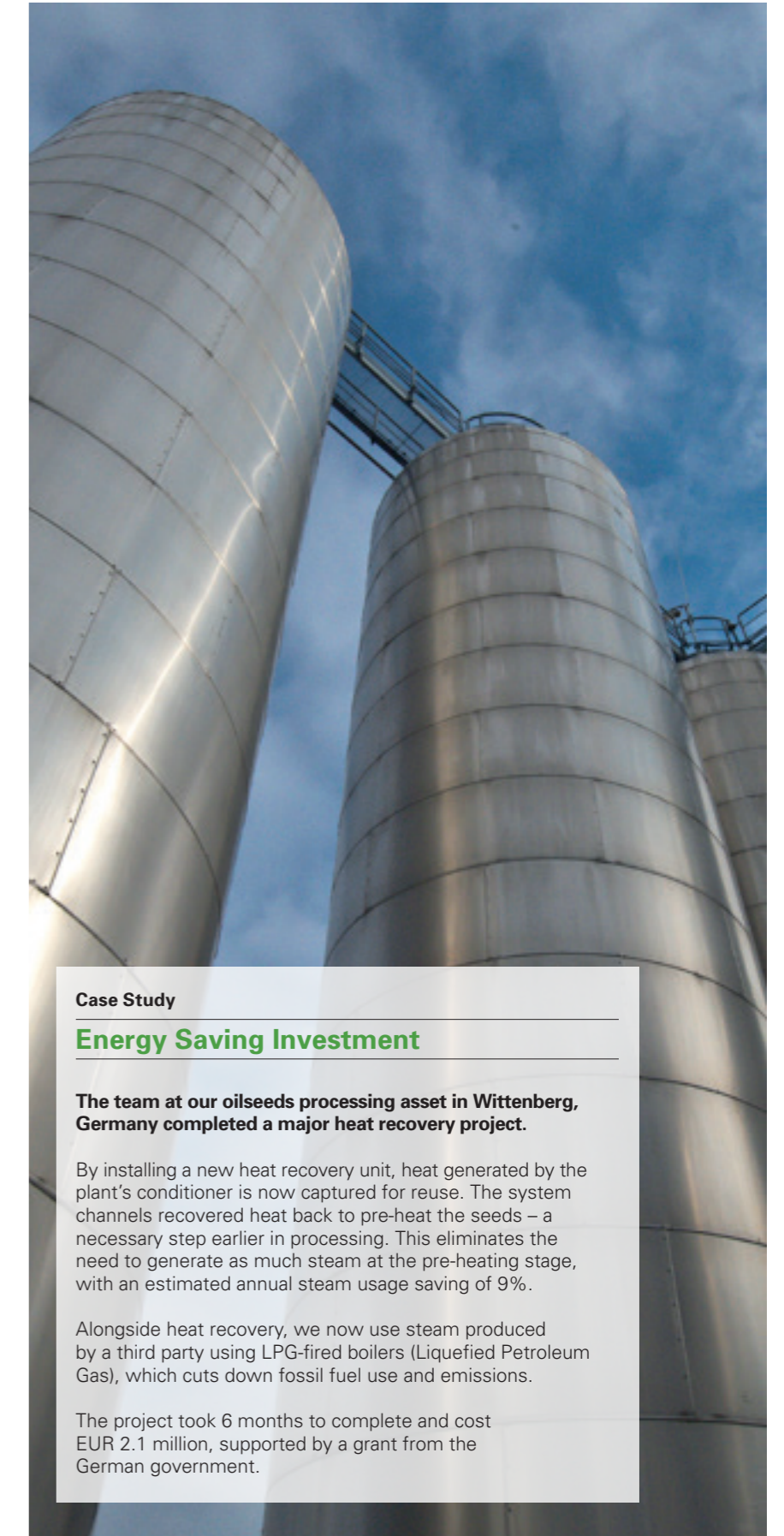
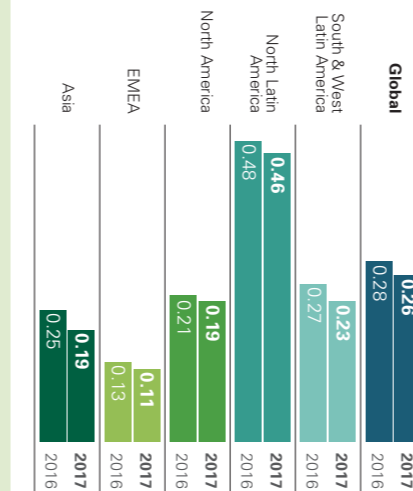
**Wastewater (m<sup>3</sup>/MT)**



**Solid Waste (MT/MT)**



**Water Consumption Index**  
(m<sup>3</sup>/MT)



**Case Study**

**Energy Saving Investment**

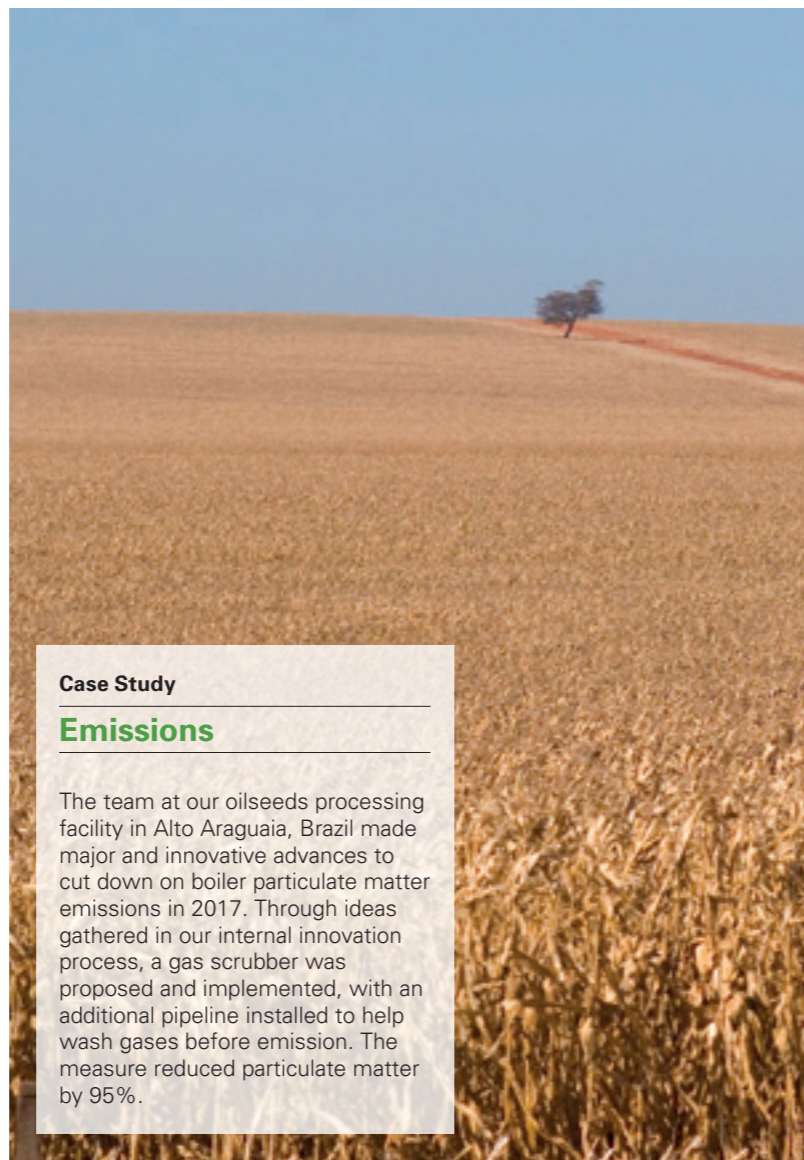
**The team at our oilseeds processing asset in Wittenberg, Germany completed a major heat recovery project.**

By installing a new heat recovery unit, heat generated by the plant's conditioner is now captured for reuse. The system channels recovered heat back to pre-heat the seeds – a necessary step earlier in processing. This eliminates the need to generate as much steam at the pre-heating stage, with an estimated annual steam usage saving of 9%.

Alongside heat recovery, we now use steam produced by a third party using LPG-fired boilers (Liquefied Petroleum Gas), which cuts down fossil fuel use and emissions.

The project took 6 months to complete and cost EUR 2.1 million, supported by a grant from the German government.

## Our Environment. continued



### Case Study

#### Energy across North America

**A variety of smaller interventions helped us make strides across North America.**

A number of steam-related energy saving projects were adopted at several processing assets in 2017. Insulation (valves/pipes) and steam trap upgrades and replacements were made, and are reviewed regularly for rolling improvements.

Other electricity usage reductions came through lighting and electric motor load improvements. For example, we installed efficient LED units and solar powered lighting at the rail yard of our oilseeds processing plant in Claypool, Indiana, US. Many assets also installed or upgraded to variable frequency drives (VFD) that provide a reduction in electric motor loads, thus reducing electricity demand. Our grain elevator at Port Allen, Louisiana, US has made particularly large strides in using VFD technology.

### Case Study

#### Emissions

The team at our oilseeds processing facility in Alto Araguaia, Brazil made major and innovative advances to cut down on boiler particulate matter emissions in 2017. Through ideas gathered in our internal innovation process, a gas scrubber was proposed and implemented, with an additional pipeline installed to help wash gases before emission. The measure reduced particulate matter by 95%.



### Case Study

#### Water Consumption

Larger volumes handled through our juice processing plant in Ghent, Belgium increased water usage and waste. To ease strain on the system and reduce usage and waste, we introduced polymer dosing. This improves separation of solids from the water, and allows us to reuse water.

In addition to significant water savings generated this year, we plan to upgrade wastewater treatment further in 2019.

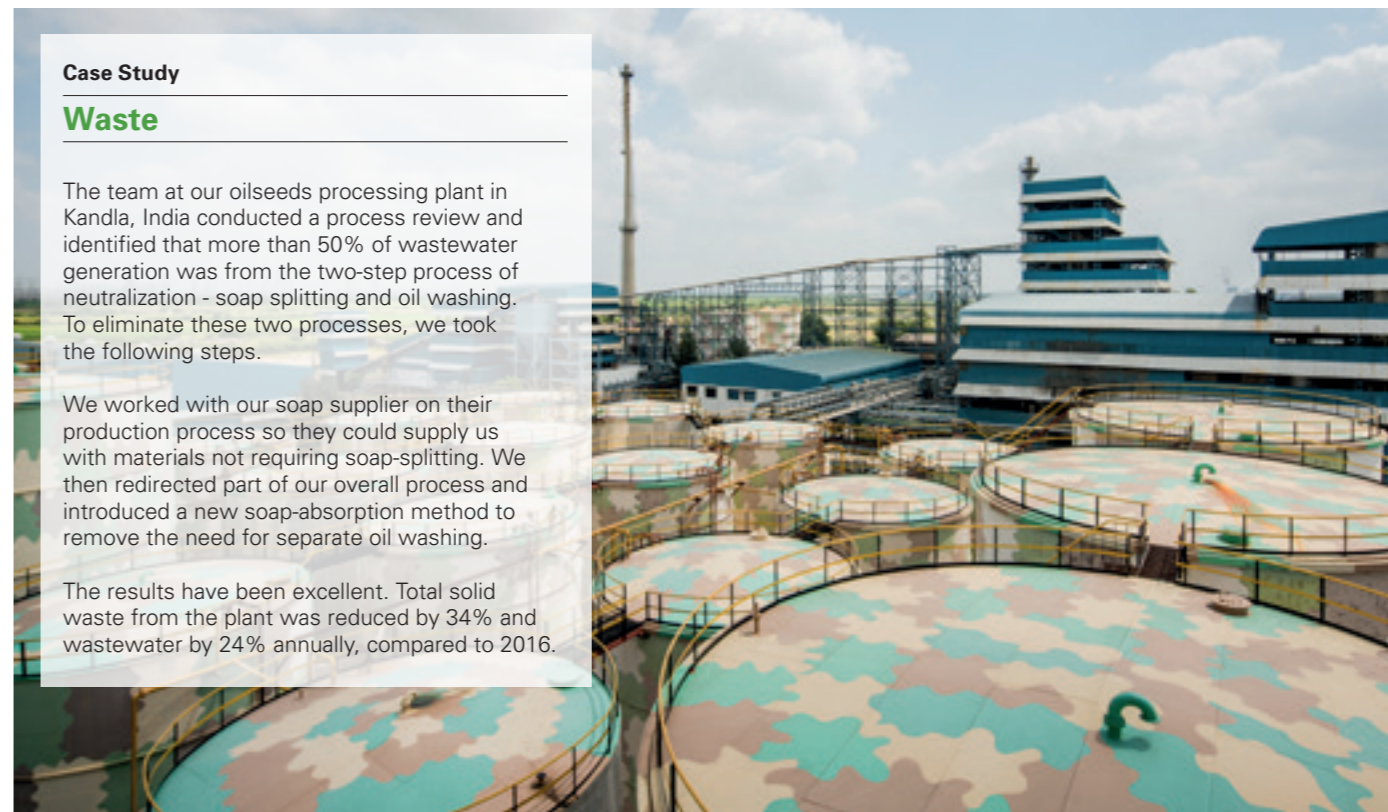
### Case Study

#### Waste

The team at our oilseeds processing plant in Kandla, India conducted a process review and identified that more than 50% of wastewater generation was from the two-step process of neutralization - soap splitting and oil washing. To eliminate these two processes, we took the following steps.

We worked with our soap supplier on their production process so they could supply us with materials not requiring soap-splitting. We then redirected part of our overall process and introduced a new soap-absorption method to remove the need for separate oil washing.

The results have been excellent. Total solid waste from the plant was reduced by 34% and wastewater by 24% annually, compared to 2016.



### Case Study

#### Wastewater

**Since 2015 we have been working to improve wastewater discharge quality, and reduce total and per ton wastewater emissions, at several assets in Brazil.**

In 2017, two processing assets developed brand new solutions with a combined investment of US\$5 million. Our facility in Apucarana installed a new water treatment plant. At our juice processing facility in Matão, we upgraded water treatment and redirected water discharge as part of a partnership with the local government to improve water quality in local rivers.

Further improvements are planned for 2018 and beyond, such as a new treatment plant at processing assets in Paranaíba and Rio Verde, and an upgrade in Bebedouro.

### Our Targets for 2018 and Beyond

Our day-to-day focus is on identifying gains on a process-by-process, asset-by-asset basis, through our local Industry teams. Targets from each asset feed into these, our new global targets to reduce our environmental footprint.

With the long-term focus of the Sustainable Development Goals in mind, we are also working to set targets through to 2030 or beyond, and will report on the conclusion of that process next year.

Target	Completion
Reduce our global energy consumption by 1% year-on-year	2018
Reduce our global greenhouse gas emissions by 1% year-on-year	2018
Reduce our global water consumption by 1% year-on-year	2018
Reduce the solid waste we send to landfill by 1% year-on-year	2018
Reduce our global energy consumption by 1% year-on-year each year from 2018-2022	2022
Reduce our global greenhouse gas emissions by 1% year-on-year each year from 2018-2022	2022
Reduce our global water consumption by 1% year-on-year each year from 2018-2022	2022
Reduce the solid waste we send to landfill by 1% year-on-year each year from 2018-2022	2022

## Our Partners.



Working together to achieve global change is Sustainable Development Goal 17 and, to us, one of the most important. The goal reflects our long-held practice of working in partnership, and the fact that no actor can singlehandedly create the change the world needs.

Our position as a leading global merchant and processor of agricultural goods gives us influence throughout our value chain. We leverage this to learn from others, build collective knowledge and effect change collaboratively.

You will find examples of how we use our merchant role to work towards sustainability goals in partnership with others, in our platforms' section:

**Palm** (pages 40-43)

**Juice** (pages 44-45)

**Coffee** (pages 46-47)

**Cotton** (pages 48-49)

**Soybeans** (pages 50-53)

**Freight** (pages 54-55)



### Global Collaboration Highlights

This year we enriched LDC's collaborative approach in a range of ways, as shown in the table overleaf. In addition to the examples detailed in the platform sections listed above, we form other partnerships to drive towards more sustainable practices.

#### Bonsucro

Because we are committed to working towards more sustainable sugar, we partner with leading industry standard Bonsucro to certify our plants, and promote their work with our customers and partners along our value chain.

Bonsucro's mission is to ensure that responsible sugarcane production creates lasting value for people, communities, businesses, economies and ecosystems in all cane-growing origins.

In 2017, we achieved two Bonsucro Chain of Custody (ChoC) certifications:

- In March, for our sugar trading entity Louis Dreyfus Company Suisse SA in Geneva, Switzerland
- In June, for Imperial Sugar Company and the sugar trading operations of Louis Dreyfus Company Sugar Merchandising LLC

This certification also helps us meet the needs and expectations of our customers and end consumers. Beyond ChoC certification, we also engaged with our US customers around traceability and sustainability issues.

#### Changing road freight

Making logistics more environmentally sustainable is often beyond one single company's capabilities. This is particularly true in sectors such as the truck freight market in Brazil, which is fundamental to moving goods around the country's interior.

Accordingly, we are working with a group of stakeholders at the leading edge of making more efficient use of open available tonnage. The project aims to transform truck shipment operations via a new, open platform that will allow market participants to hire and manage truck freight through their mobile devices. It should help reduce costs significantly and increase efficiencies for all participants – in environmental and practical terms.

#### Innovative finance

LDC is engaged with key banks like Rabobank on developing innovative finance solutions for the advancement of sustainable agricultural supply chains.



## 2017 Stakeholder Engagements.

The table below outlines how we work with stakeholders, as well as some great examples of successful outcomes:

Stakeholder	Type of Engagement	Main Issues	Examples / Areas of Interaction
<b>Customers</b>	<ul style="list-style-type: none"> <li>Meetings</li> <li>Internet</li> </ul>	<ul style="list-style-type: none"> <li>Certification</li> <li>Project development</li> </ul>	Coffee, New Initiative with Jacobs Douwe Egberts, <a href="#">p47</a>
<b>Suppliers</b>	<ul style="list-style-type: none"> <li>Meetings</li> <li>Forums</li> </ul>	<ul style="list-style-type: none"> <li>Codes of conduct</li> <li>Environment</li> <li>Human rights</li> </ul>	Palm, Sustainability Policy, <a href="#">p41</a> Soy, Sustainability Policy, <a href="#">p51</a> Juice, Compartilhar Program, <a href="#">p45</a>
<b>Financial Community</b>	<ul style="list-style-type: none"> <li>Meetings</li> <li>Regular calls</li> </ul>	<ul style="list-style-type: none"> <li>Annual progress discussions</li> </ul>	BNP Paribas external stakeholder contribution, <a href="#">p33</a> Developing finance solutions to support sustainable supply chains with Rabobank, <a href="#">p29</a>
<b>NGOs</b>	<ul style="list-style-type: none"> <li>Meetings</li> <li>Calls</li> </ul>	<ul style="list-style-type: none"> <li>Campaigns</li> <li>Progress reports</li> <li>Meetings</li> <li>Roundtable discussions</li> </ul>	See Global Forest Watch Pro contribution, <a href="#">p31</a>
<b>Employees</b>	<ul style="list-style-type: none"> <li>Intranet</li> <li>Forums</li> </ul>	<ul style="list-style-type: none"> <li>Volunteering</li> <li>Safety training</li> </ul>	People, Gender Diversity and Family, <a href="#">p18</a>
<b>Communities</b>	<ul style="list-style-type: none"> <li>Open days</li> <li>Volunteering</li> </ul>	<ul style="list-style-type: none"> <li>Health</li> <li>Education</li> <li>Nutrition</li> </ul>	Community, various initiatives, <a href="#">pp35-37</a>
<b>Peers</b>	<ul style="list-style-type: none"> <li>Meetings</li> <li>Calls</li> </ul>	<ul style="list-style-type: none"> <li>Pre-competitive collaboration opportunities</li> </ul>	Working through the World's Challenges, WBCSD Soft Commodities Forum, <a href="#">p8</a>
<b>Multilateral Bodies</b>	<ul style="list-style-type: none"> <li>Meetings</li> <li>Forums</li> </ul>	<ul style="list-style-type: none"> <li>Human rights</li> <li>Environment</li> </ul>	ILO external stakeholder contribution, <a href="#">p31</a> Cerrado Working Group, <a href="#">p51</a>
<b>Donors</b>	<ul style="list-style-type: none"> <li>Calls</li> <li>Meetings</li> <li>Field visits</li> </ul>	<ul style="list-style-type: none"> <li>Project design and implementation</li> </ul>	Coffee, New Initiative and Sumatra program, <a href="#">p47</a> Community, Louis Dreyfus Foundation projects, <a href="#">pp36-37</a>

## What our Stakeholders Say.

### International Labour Organization (ILO)

**Worldwide, agriculture is a major source of jobs: some 1.3 billion people are engaged in it, accounting for a third of global employment. However, the sector faces major challenges, starting with the sheer numbers of the working poor.**

Inadequate skills, exclusion of agricultural workers from national labour laws, low wages and widespread informality are common. Women (who earn 40% less than men in the sector), youth, indigenous peoples and migrant workers represent the largest proportion of the rural workforce yet they face discrimination and legal or practical obstacles relating to access to training, credit, information and land – and to the right to organise themselves – and, like all agricultural workers, dangerous working conditions. Ironically and tragically, many are food insecure.

What's more, 71% of the 152 million children in child labour are in agriculture, most in unpaid work on family farms (which account for nearly 90% of all farms), where low productivity and incomes leave farmers unable to hire adults to replace the child labour of their children. There is a high incidence of forced labour, often linked to unscrupulous recruitment practices, and the level of organisation of those who work in agriculture, whether in rural workers', small farmers'/ producers' or employers' organisations, is lower than in any other sector.

Against this daunting backdrop, what can be done to secure productive, dignified and decent work in agriculture?

Governments have the responsibility to provide public goods, to extend the coverage of labour and social protection to informal workers and, through that and other measures, to create an enabling environment for sustainable formal enterprises. Employers' and workers' organizations have a key role, including in holding governments to account in upholding labour rights, by engaging in "tripartite social dialogue" and establishing the international labour standards that underpin sustainable rural development, and by bargaining for fair incomes that allow rural workers a decent livelihood.

It is a trust-building formula that has worked even in seemingly intractable situations. In Uzbekistan, a legacy of the Soviet Union was the mass mobilization of children to harvest cotton – hazardous work and a worst form of child labour. The problem was addressed through a tripartite process in which the government



**Benjamin Smith**  
Senior Specialist  
Child Labour  
ILO

ratified ILO Conventions on child labour, opening the door to independent ILO monitoring and technical assistance to improve the organization of the harvest. The systematic use of child labour has ended, and the focus of monitoring is now on tackling forced labour among adults.

Recognizing the link between decent work and sustainability, companies such as LDC contribute by conducting human rights due diligence and supporting remedies, as called for by the UN Guiding Principles on Business and Human Rights and the ILO Multinational Enterprises Declaration.

Ensuring compliance with labour standards is needed, but capacity-building measures can be just as important. Supporting skills training, productivity enhancements and technology transfer, greater local procurement, improved occupational safety and health, and stronger and more inclusive producers' organizations to increase bargaining power, access to markets and resources – and cooperating with workers' organizations that share these objectives – are just some of the steps companies can take. Through dialogue with small producers' organizations, including cooperatives, with rural workers' organizations and their global federations – and with rural communities and local authorities – problems can be identified and addressed before they mushroom, and sustainable solutions found.

Particularly for companies with long and complex supply chains, which may have little direct leverage, partnerships are crucial. LDC is a longstanding member of the ILO-UN Global Compact Child Labour Platform (CLP), a business-led, cross-sectoral initiative for exchange and collaboration in tackling child labour in supply chains. Companies learn from each other about what works, and what doesn't, in preventing and eliminating child labour. They benefit from decades of accumulated experience of their peers, as well as from the ILO's global presence and expertise, and collaborate in initiatives on the ground.

Through the CLP, companies become involved with processes linked with the Sustainable Development Goals, such as SDG Alliance 8.7, which seeks to end forced labour and child labour, and with opportunities for exchange with governments and relevant trade union bodies.

Business has a vital stake in the achievement of the Sustainable Development Goals, which include decent work for all, including the end of child labour by 2025. It is obvious that business will not achieve it alone, and neither will it be achieved without business. The ILO greatly values partnership with companies such as LDC, as we are convinced that only through collaborative action will the eradication of child labour and the achievement of decent work for all become a reality.



### Global Forest Watch Pro

**While essential for human well-being, the agricultural industry is often associated with harmful tropical deforestation. To solve this problem, many companies have responded by making zero-deforestation commitments, pledging to eliminate deforestation from their commodity supply chains.**

Global Forest Watch Pro (GFW Pro) is an online management platform that utilizes advancements in technology for more precise and efficient forest and land monitoring to support the implementation of these commitments.

GFW Pro delivers critical decision-making analysis at the property, supply shed and portfolio levels. The platform empowers users, from commodity field officers to financial Chief Risk Officers, to identify and manage deforestation risks, monitor deforestation and fires in near real time and more effectively measure and report progress over time. The application is built upon best-in-class, timely data from the Global Forest Watch Partnership and World Resources Institute's scientific research.

With analytical functionality designed for supply chain actors, a palm oil buyer can for example, identify deforestation related risks of their supplying mills, in terms of "threats" or "values" in the surrounding sourcing areas. This type of analysis enables buyers, particularly those with a large number of direct and indirect suppliers, to easily prioritize the most urgent areas for follow up engagement.

Another example is an analysis feature that compares soy production data for Brazil's Cerrado with annual tree cover loss data, to produce an index which tells users how recently an area of planted soy was cleared. Soy buyers can use this information to identify areas that may not meet their sustainable sourcing criteria and to make sourcing decisions to discourage further expansion of soy in the Cerrado's remaining forests.



Global Forest Watch Pro brings industry actors together through a unified and accessible management system that supports alignment of data and methodologies for tracking and reporting internally, B2B, and/or publicly.

One example of this is the creation of the "Universal Mill List" which integrates palm oil mill location data contributed by roughly a dozen palm oil buyers, as well as PalmTrace, into a single, harmonized list of verified mill points with "Universal IDs" that can be cross-referenced between various systems.

For a company like Louis Dreyfus Company, with an extensive portfolio that spans multiple regions, commodity sectors, and points in supply chains, GFW Pro helps to make the otherwise daunting task of keeping a pulse on deforestation related risks around the world more manageable.

The platform can simultaneously provide a high-level snapshot of deforestation trends across the globe or daily alerts in a specific farm or plantation area. This, in turn will be able to help the company to more effectively deliver what its commitments to sustainability are all about – broad scale, tangible impacts on the ground.



### BNP PARIBAS

#### BNP Paribas

**In the current context of rapid urban sprawl and global warming, companies and governments must act together to promote economic growth that is fairer, more ecological and more respectful of human rights. This is all the more true for banks that have always accompanied and even accelerated major changes in modern life, from mechanization and domestic comforts to transportation and energy.**

A growing number of companies have strengthened their commitments to society, notably in line with the United Nations' 17 Sustainable Development Goals (SDGs). As a leading financial institution we have strong expectations from our stakeholders – our clients, investors and employees – to support and even lead sustainability initiatives. In that respect, sustainability is more and more often perceived as one of the few pervasive disruptive trends in our society.

We believe that LDC and BNP Paribas both share the view that corporate and social responsibility, ethics, diversity and inclusion, are the key pillars of the behaviours expected from a responsible company eager to apprehend sustainability challenges.

BNP Paribas' Engagement Department, including its CSR teams, works with all BNP Paribas business lines in order to define and implement the company's engagement strategy across sustainability topics. This strategy is built around the United Nations' SDGs, and in line with the COP21 Framework and the Paris Agreement, and is based on four pillars and twelve commitments.<sup>1</sup> As a bank, BNP Paribas is a connector of capital between financial markets on one hand and project and companies on the other hand. We have therefore a key role in supporting projects and companies that change the world in the right direction. By working with various stakeholders from civil society, corporate world and governments, we try to make sure that our financial products and services can be leveraged by our clients and partners to achieve the United Nations' SDGs.

Through our Economic Responsibility pillar we are committed to strict business ethics. We operate under a stringent ESG risk management framework, applying constantly updated CSR policies.

This rigorous approach has also led us to stop working with companies significantly involved in unconventional Oil & Gas,<sup>2</sup> thermal coal mining and coal power generation, in order to accelerate our support to the energy transition. BNP Paribas also stopped working with tobacco companies, the first avoidable cause of death by the United Nations World Health Organisation.<sup>3</sup>

Moreover, we have developed other complementary ESG analysis frameworks, such as the CSR Screening for our Corporate & Institutional Banking division, helping to analyse corporate clients in medium-risk sectors that are not covered by our CSR policies.



**Patrick Bader**  
Head of Corporate Social Responsibility  
Corporate and Institutional Banking  
BNP Paribas

We aim, therefore, to fully embed our environmental and social commitments into internal decision-making processes.

In that regard, we have broadened our approach to make it more collaborative and proactive and accompany our clients on their journey to sustainability, encouraging them to deeply engage with the international community regarding sustainability matters – which, in our view, makes perfect business sense. Dialogue between BNP Paribas and our clients has enabled several of them to clarify their positions vis-à-vis our sector policies and to express their commitment to be in line with their industry's best practices. In certain cases, in agreement with the clients, this information has been shared with third parties. This made clients' efforts more visible to their stakeholders and simultaneously made them more aware of the issues surrounding sector-specific sustainability challenges.

As a signatory to the Soft Commodities Compact of the Banking Environment Initiative and a member of the Consumer Goods Forum, BNP Paribas is committed to several environmental pledges, as evidenced by our CSR Sector Policies on wood pulp, palm oil and agriculture. The latter two are particularly important to reinforce the strong relationship between LDC and BNP Paribas.

LDC is a key player in these two sectors, which present significant ESG challenges that LDC is committed to addressing, also working alongside other champions in its sector to foster best practices, transparency and disclosure. In that regard, over the last few of years, LDC and BNP Paribas have met and exchanged on several occasions, maintaining a fruitful dialogue and engagement process.

BNP Paribas is keen to work with its clients like LDC (upstream and downstream companies, farmers, producers, distributors, traders of agriculture products and palm oil) to encourage the implementation of best practices and the application of the highest sustainability standards.

<sup>1</sup> <https://group.bnpparibas/en/group/corporate-social-responsibility-section-7-of-our-registration-document>: <https://invest.bnpparibas.com/en/registration-documents-annual-financial-reports>  
<http://media.bnpparibas.com/fluidbook/document-de-reference-2017-EN/#/485>  
<sup>2</sup> <https://group.bnpparibas/en/press-release/bnp-paribas-takes-measures-accelerate-support-energy-transition>  
<sup>3</sup> <https://group.bnpparibas/en/press-release/bnp-paribas-announces-measures-financing-tobacco-companies>

# Our Communities.

Making a positive difference in the communities in which we operate contributes to progress on Sustainable Development Goals (SDGs) around poverty, health, education and life on earth.

These are major global issues, and we are committed to playing our part in finding solutions. Our strategy is to empower our people, at each asset and office, and wherever we are active worldwide, to think and work both globally and locally.

Our contributions to meeting these SDGs include creating meaningful jobs that take people out of poverty, supporting health projects, educating whole communities and protecting local environments.



### Local knowledge

Louis Dreyfus Company employs some 19,000 people globally, all of whom bring us a wealth of knowledge and local insight.

We encourage them to identify where and how we can have the greatest impact, giving them time to design initiatives or adapt existing projects to local needs.

Everyone at LDC can propose initiatives and programs, both for the company to pursue itself and for support from the Louis Dreyfus Foundation.

Our aim is to drive change and empower local communities to live increasingly sustainable lives and run more resilient, responsible businesses.

Here are some examples of our recent initiatives.



## A selection of our community projects

### Wetlands Mitigation in West Memphis

This initiative is a prime example of competing sustainability goals. In order to move freight in a more environmentally sensitive way via waterways and create local jobs, we needed to build a new barge loading facility on the banks of the Mississippi. Rather than just replace the 3 acres of natural wetlands we built on, we worked with NGO Ensafe to add an extra 11, creating a total of 14 acres for wildlife to thrive.

We also attached a restriction to the land title, to ensure that the area remains protected for the future. We will continue to actively monitor this important new wetland area for the next five years.



14 acres for wildlife to thrive

### Education in Argentina

Sustainability is about the future, so we are proud of our work supporting local schools in Timbúes, Argentina.

215 primary school graduates from eight schools were invited to our local site to learn about the agroindustry, chemistry, petrochemical, paper and service industries. LDC volunteers ran educational classes to explain agricultural production chains in the region to the students.

These children being mostly from disadvantaged backgrounds, the objective is to encourage them to pursue their studies into secondary education. By explaining our issues, challenges and achievements, and emphasizing the need for study, we want to open these children's eyes to a wider world and a productive future.



Inspiring 250 students



### Useful Uniforms in Brazil

Orange farms around Franca in São Paulo State, Brazil, employ 400 rural workers; and this number can triple in the harvest season. This generates a large volume of used uniforms, which were previously thrown away.

Keen to avoid this waste, we found a company that turned these washed uniforms into handicrafts. Beyond avoiding landfill, this extracts value from discarded items to create more local jobs. Even better, the crafts are bought by the farms and presented as awards each month to outstanding employees.



1 Bolivia  
2 Argentina



## Louis Dreyfus Fondation d'entreprise

### Louis Dreyfus Foundation

This is our fourth year working alongside the Louis Dreyfus Foundation, which funds and supports selected projects driven by LDC employees. Together we continue to build and improve our initiatives around the world.

The Louis Dreyfus Foundation aims to alleviate hunger and poverty by helping smallholder farmers improve their production and prepare for the future in a sustainable way. So far, initiatives have predominantly taken place in Africa and Asia, and engage subsistence family farms – particularly those run by women.

Our collaboration with the Louis Dreyfus Foundation enables our employees to propose initiatives that have both a positive impact on communities and benefit the environment. Once initiatives are selected, the employees lead projects through to completion.

We currently have 8 projects running within this partnership, and are pleased to provide updates on the projects highlighted in last year's report.

## Louis Dreyfus Foundation projects

### School of the Future

In Lampung, Indonesia, our team wanted to do more than just donate money to local schools. First, we renovated the buildings and donated school supplies to create an environment more conducive to learning.

We then teamed up with WeTheTeachers, a non-profit organization dedicated to teacher training, who worked with local teachers and parents. In 2017, we got:

- 439 students (between 6 and 13 years old) attending classes at the school
- 20 teachers completing WeTheTeachers training modules
- 270 parents educated on how to support their children's learning

LDC employees supported this work by mentoring students and sharing their own professional journeys to inspire them.

The project saw improvements in students' grade point averages, lower student drop-out rates and a higher level of engagement and motivation. After this successful pilot phase, LDC will expand the project for 2018 and beyond, with the support of the Foundation.

### Micro-farming in Sumatra

Indonesian coffee yields are among the lowest in the world. In an attempt by farmers to increase revenues, deforestation is becoming more common. What is more, women make up 60% of those working in the fields – but they rarely receive training.

Focusing on women in North Sumatra, our coffee agronomists ran a project to train farmers and help lift them out of poverty, while protecting the land. The main update on this project is set out in the Coffee section (see page 47).

### Female Maize Farmer Training in Limpopo

An outbreak of cutworm could have ruined our female-focused farmer training program in South Africa. Instead, it provided an opportunity for practical training in disease control and management.

- 108 female farmers attended the first economics module
- 4 groups completed the full 7 modules and 5 practical lessons

### Sustainable Farming in Argentina

This initiative is bringing water to 60 families in 10 communities in Argentina, building boreholes and water storage capacity in a highly water-stressed environment. As well as providing water for people in the local community and their animals to drink, it is changing lives by enabling the cultivation of forage crops for animals and potatoes for local people.

We have also introduced microcredit to give opportunities to rural farmers, who previously had no access to funding.

### Vocational Education in Bolivia

This agricultural college training for young adults in rural parts of Bolivia is run in partnership with Fundación Cristo Vive. Phase 1 ended in December 2017, with a further 2-year extension approved for Phase 2:

- 99 students from Phase 1 have graduated
- New educator found to improve quality of teaching
- Phase 2 starts with 70 students set to take part in 2018 – 50% are female
- 9 students live in the boarding house to facilitate full engagement in the program



## Platforms' Insight

Palm	40
Juice	44
Coffee	46
Cotton	48
Soybeans	50
Freight	54

# Palm.

We commit to no deforestation, no peat, no exploitation and 90-100% traceability to mill level.



## Targets

Target	Completion	Result
Incorporate palm policy into all contracts	2017	In progress
Complete profiles and risk assessments on all our main palm suppliers	2017	In progress
Trace 90-100% of the palm supplied to us back to the mill	2017	Completed
Sell 400,000 metric tons of certified sustainable palm oil	2017	Completed
Certify all relevant LDC origin and trading palm-related assets and entities	2018	Completed

## LDC Challenges in Palm

Deforestation, Conservation & Biodiversity

Partnership Working

Land Rights

## Our Response

Palm is versatile, odorless, has a low melting point and a huge variety of uses. Add an efficient yield per hectare and it is easy to see why it makes up two thirds of the global vegetable oil trade.

However, its dominance, combined with a growing population, brings challenges. Deforestation is a major contributor to carbon emissions and climate change, and we have a responsibility to engage with our supply chain to eliminate it. We are in a position to help balance the competing Sustainable Development Goals of *zero hunger* (SDG 2) and *responsible consumption and production* (SDG 9).

By doing so in partnership with multiple stakeholders, can have a significant impact on:

- The vital role of forests in the health of our global ecosystem
- Biodiversity, and maintaining local plant and animal life
- Preventing displacement of local communities who live in forested areas
- Helping local communities to develop through opportunities to attain higher incomes and a better quality of life

Demand for edible oils is expected to double by 2050, making these efforts even more vital.



Palm demand to double by 2050

## No Deforestation, No Peat, No Exploitation

In 2016 we launched our NDPE (No Deforestation, No Peat, No Exploitation) Policy. This is a commitment to protecting carbon-rich, high conservation value areas, treating people fairly and keeping them safe.

While we don't have plantations or mills of our own, we originate around 2.5 million metric tons of palm oil each year, which allows us to engage with a diverse supplier base.

We have communicated our palm policy to our direct suppliers and engaged with them on its requirements on numerous occasions. Those suppliers are therefore aware that we will apply our policy to all our dealings with them.

In addition, we aimed to incorporate this policy in all contracts in 2017. We have not yet met this target, though we managed to include traceability-specific terms in 90% of contracts and embedded our policy in its entirety into all long-term offtake agreements.

Where commercial relationships are less frequent, such as when we purchase only on a spot or one-off basis, including the policy in agreements is more challenging. In such circumstances, and where we do not manage to include the policy explicitly in the contract, we use best efforts to ascertain that the purchase is from a reliable source.

To reflect this situation, we therefore continue to work towards the original target (whole policy, all contracts), accepting that this is an ideal we may not be able to achieve, and adding a further target to incorporate the whole policy into all major, long-term contracts, to provide granularity to our reporting.

## Palm. continued

We also built a significant body of new processes, setting out how our team:

- Screens new suppliers
- Establishes initial risk assessment frameworks and then engages in detailed analyses and rolling review of risks
- Handles situations where individual suppliers fall short of our policy's requirements
- Decides on when to cease all trade with a given supplier

In 2017, we managed to complete the majority of profiles and initial risk assessments as targeted, but not for all our main palm suppliers. We therefore aim to finish that process in 2018. We have also added a target to clarify that we will conduct further, more detailed, ongoing risk assessments. These will continue for as long as we maintain a relationship with a supplier.

### 90-100% traceability

Without transparency, improving supply chains is impossible. That is why we set a challenging target last year, given our position in the value chain, to trace our palm oil back to each mill. Like all major challenges, it is better done in partnership – and in all this work, we are supported by our partner The Forest Trust (TFT).

Traceability involves sourcing data for each mill in our supply chain (including GPS coordinates) and then verifying them. It is a rolling process, requiring reporting from suppliers every 6 months and publication through TFT's transparency platform.

We aim for near-100% traceability. Barriers arise because we do not own our plantations, reporting is every 6 months and purchase strings are very long. Overall we hit 92% in 2017, up from 81% in 2015. This includes 100% traceability to mill level on all the oil we originate through our own refineries.



### Partnerships for change

The knowledge and expertise of a broad range of stakeholders is critical for industry transformation, which is why we engage with the following organizations:

- The Forest Trust
- Roundtable for Sustainable Palm Oil (RSPO)
- International Sustainability & Carbon Certification (ISCC)
- Responsible Business Forum
- PISAgro – Indonesia-centric sustainable agriculture partnership focusing on smallholders

On top of this, we are active in conversations and dialogue with all major NGOs, advocacy groups, financial institutions and research organizations.

### Work with TFT in 2017

- 1. Process-building**  
TFT reviewed and approved our new procedures for traceability, managing prospective suppliers and addressing grievances.
- 2. Traceability**  
Covering the flow of palm oil back to the mill, with 6-monthly reporting across our 2 Indonesian refineries and our commercial operations in Singapore.
- 3. Supplier engagement**  
We strategically engaged with senior managers of key suppliers, including a series of field visits, one of which TFT attended.
- 4. The Landscape Project**  
Multiple stakeholders have been working together to protect areas of high conservation value in East Kalimantan, Indonesia. Following on from last year's work, the project reached the point of having mapped areas of land use on which to prioritize work with local government. Unfortunately, work has now stopped owing to challenges in engaging those government stakeholders. We are considering how we might move this forward.

### Certified sustainable palm

Procuring certified sustainable palm oil is another means of ensuring responsible production. It works alongside our other activities, directly engaging suppliers with our policies. However, certification is just one tool to improve sustainability and we are focusing on the ultimate outcome of No Deforestation, No Peat and No Exploitation.

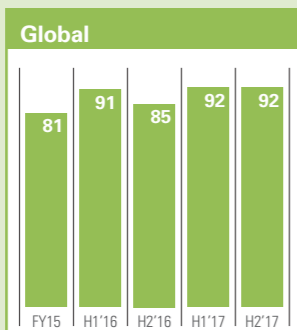
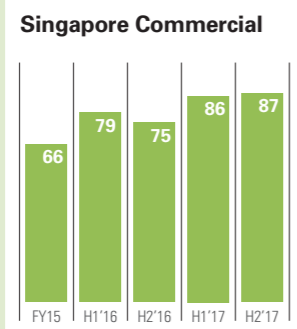
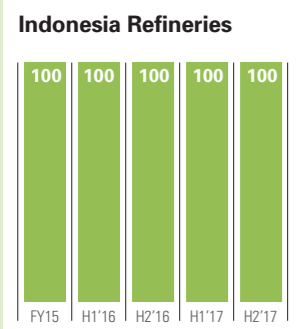
We have been members of the RSPO since 2012, and have traded ISCC-certified palm since establishing our palm operations. All our palm assets and entities have both certifications. Although certified volumes are linked to customer demand, we have been improving year on year. In 2017, we sold 410,000 metric tons of certified sustainable palm oil to exceed our target.

non-compliant oil does not enter LDC's supply chain. In addition, efforts to embed our policy into all major contracts continue.

Alongside TFT, we are introducing Tools for Transformation (T4T), an online platform intended to help mills and plantations adopt responsible practices, for the suppliers to our two refineries. Suppliers complete a questionnaire about how they are meeting the policy and the areas that are proving challenging. Through subsequent discussions and training, run by environmental and social experts from TFT, we help the suppliers to meet these social or environmental challenges. We also recognize the need to measure the impact of initiatives such as (T4T) on our overall goals. To complement such a program, we plan to monitor land use change using tools such as Global Forest Watch Pro.

Major global issues can't be tackled alone. The industry's work will be rendered insignificant if governments grant swathes of concessions, on a use-it-or-lose-it basis, backed by accessible external financing. To effect real change, therefore, we must work with multiple stakeholders both locally and internationally – governments, banks, suppliers, merchants and customers.

### LDC Traceability Progress 2015-2017



### Total sales of ISCC and RSPO certified palm oil

Year	Total sales in metric tons ('000)	% year-on-year increase
2012	30	-
2013	180	500%
2014	210	17%
2015	266	27%
2016	375	41%
<b>2017</b>	<b>410</b>	<b>9%</b>

### Next steps

Our traceability work with TFT and our suppliers continues. We are aiming for near-100% again, at each of our 6-month way-markers in 2018, accepting that this is extremely difficult given the number of times palm oil is traded across merchants, and the length of the supply chain up to plantation. We will also publish a list of all the mills that supply us.

We will keep working with our suppliers to make sure our NDPE policy is understood and put into practice. The socialization of this policy must reach right back to mill and plantation level, so it can be a lengthy process. It must also be communicated beyond direct suppliers – those with whom we have a relationship – such that

### 2018 Targets

Here is what we are aiming to achieve, next year:

Publish list of mill suppliers

Integrate palm oil sustainability policy into all major contracts

Trace 90-100% of the palm supplied to us, back to the mill

Produce and maintain detailed risk assessments of all our main suppliers

# Juice.

We aim to secure Rainforest Alliance certification and FSA Gold recognition for 75% of our farms next year.



## LDC Challenges in Juice

- Safety
- Deforestation, Conversion & Biodiversity
- Water Scarcity
- Waste
- Economic Development
- Partnership Working

## Our Response

Juice production is not as much under the global spotlight as are other commodities. Nevertheless, our global reach and sizeable presence in Brazil – a country that accounts for 60% of all orange juice consumed worldwide – means we are responsible for doing what we can to improve the sustainability of our juice supply chain.

Given LDC's citrus farming operations in Brazil, we are well placed to effect change. Though we also source fruit from third party suppliers, managing farming gives greater insight into sustainability issues, particularly in relation to traceability and labor rights.

With a profile from farming right through to merchandizing, our main areas of focus are:

- Creating good, safe jobs for all our people
- Reducing water and use of crop protection or phytosanitary products
- Preserving biodiversity around our farms
- Working with partners, from smallholder farmers to the Rainforest Alliance

LDC Juice produces a specific report each year on its sustainability-related activities, and here are some of the key highlights.

### Valuing people

At peak season, LDC Juice employs about 9,000 people, predominantly in Brazil. Every one of them is trained and protected to the same, industry-leading standard.

In 2017, we ran more than 1,400 training sessions on everything from agricultural best practice to accident prevention at work.

Safety training has been a focus for several years, with the LDC Safe Harvest program running continuously since 2014. This year, not only did 1,800 people participate in our internal week of work accident prevention training, but we made sure to retain 79 picker managers from the last harvest based on their safety performance. During the off-season, these employees worked on management and safety training. This further builds the safety-centered skillset at the core of our operational team.

This approach goes well beyond mere legal compliance and makes a major difference. These are the company's safety results over the life of the Safe Harvest Program.

Frequency, Gravity and Severity Indices are explained on page 15.

### Frequency Index

↓76%  
reduction since 2014

2017: 0.64 2016: 0.89  
2015: 1.89 2014: 2.68

### Gravity Index

↓90%  
reduction since 2014

2017: 0.15 2016: 0.31  
2015: 0.66 2014: 1.49

### Severity Index

↓79%  
reduction since 2014

2017: 4.58 2016: 13.03  
2015: 18.24 2014: 21.64

## What Rainforest Alliance Certification Means



Farms must comply with strict criteria using The Rainforest Alliance Sustainable Agriculture Standard for:

- Social and environmental management
- Ecosystem conservation
- Wildlife protection
- Water conservation
- Fair treatment and good working conditions for workers
- Occupational health and safety
- Community relations
- Integrated crop management
- Soil management and conservation
- Integrated waste management

### Resource usage and impact

In many ways, our juice production is inherently environmentally sustainable – no part of the fruit is wasted, with residues going to manufacturers of everything from pectin to perfume.

Like all other LDC platforms, the Juice team are focused on exceeding the environmental targets featured on page 27, and on addressing particular areas of emphasis.

Certain levels of chemical and water usage are inevitable. Without crop protection products we would lose fruit, especially in years with high incidence of plant disease, leading to wasted resources. However, we run an Integrated Pest Management Plan and conduct detailed daily analyses to ensure that we use the minimum necessary amount of phytosanitary products and water.

### Planning for biodiversity

Preserving indigenous wildlife around all our operations and installations is vital. We are in the process of putting a Biodiversity Protection and Conservation Plan in place for every one of our farms. In 2017, we created 4 new plans for our farms in Minas Gerais state, Brazil. The plans balance economic and social development with the need to protect native ecosystems. Where applicable, this includes recovering areas of degraded land.

Each plan has detailed next steps for the relevant farm, including measures such as:

- Controlling invasive species
- Reducing road traffic in the area
- Various soil conservation techniques
- Environmental education for employees
- Emissions monitoring for farm equipment

We also planted over 150,000 native trees around our farms this year.

This year we planted over 150,000 native trees around our farms

### Working with our partners

Making farms as sustainable as possible requires a collaborative approach.

The main way we do this for our own juice operations is through a range of certifications. Primary among them are the Rainforest Alliance and Sustainable Agriculture Initiative's Farm Sustainability Assessment (FSA) program. FSA evaluation provides a tool to compare sustainability scheme requirements to enable sustainable production against a single, global standard.

In 2017, we secured Rainforest Alliance certification for a further 4 farms, bringing our total number of certified farms to 15 out of 38. All 15 of these were awarded FSA Silver status, with one of them, in Monte Belo, Brazil, also receiving Gold.

We also have Rainforest Alliance chain of custody certification for our processing plants in Bebedouro and Matão (Brazil), and our port terminals in Santos (Brazil) and Ghent (Belgium). This means we can ensure that growth in customer demand for Rainforest Alliance Certified™ juice can be met.

### FairTrade

We help engage smallholder farmers in FairTrade certification, which assesses them against key criteria around labor and environmental standards.

Certification allows them to command a premium, which is then invested in projects to further enhance social, economic and environmental development. Today, more than 70 certified small producers deliver their FairTrade-certified fruits to LDC's Paranavai plant.

### Sharing best practice

The Platform runs Programa Compartilhar to share our know-how with partners and fruit suppliers. Through this training program, we aim to ensure alignment with LDC's policies, the sector's technical and legal requirements, and sustainable production methods. Over 40% of volumes have been purchased from third party producers trained through this program.

Sessions cover a wide variety of subjects. This year these included citrus labor issues, agribusiness trends and new technologies. 120 people took part in the 2017 program and 75 were LDC fruit suppliers.

### 2018 and beyond

Looking to next year, we have some significant goals on the horizon to secure Rainforest Alliance certification and FSA Gold standard for over 75% of our farms.

## 2018 Targets

Here is what we are aiming to achieve, next year:

Secure Rainforest Alliance certification for 14 more LDC farms

Secure both Rainforest Alliance certification and FSA Gold recognition for 29 farms





# Coffee.

**We commit to establishing a transparent new approach to responsible sourcing, beyond and alongside certification programs.**



The livelihoods of more than 120 million of the world's poorest people depend on the coffee economy. Yet by 2050, climate change could, without major interventions in the industry, make coffee production even lower than it currently is.<sup>1</sup>

Making coffee production more sustainable addresses Sustainable Development Goals relating to economic development, alleviating poverty, protecting life on land and climate change.

### Two-stream approach

We aim to support coffee farmers so that future generations can enjoy good quality coffee in 30 years. We need to guarantee sustainable coffee farming practices, but we consider that coffee is not sustainable unless the farmer can make enough money for his family's livelihood.

Consequently, we have defined our mission as follows:

- Improve responsibly and ethically grown coffee production (including but not limited to certified/verified coffee production)
- Implement local initiatives at origins to support farmers and improve their livelihood (in partnership with roasters, farmers, national and international institutions)

### Measuring our impact

We are in the process of shifting focus in how we measure and report our impact. Only a few years ago, coffee sustainability reports focused on performance by reference to certified or verified coffee volumes. At that time, we set up our targets the same way.

Today, increasing the volume of certified/verified sales, though imperfect, remains a good indicator to measure the sustainability profile of the coffee industry. We will therefore continue to develop and report on sales of certified coffee. However, we must also think beyond it, for several reasons.

<sup>1</sup> World Coffee Research (2017), Annual Report 2017, Creating the Future of Coffee



## Targets

Target	Completion	Result
Increase the volume of certified coffee we sell to 17%	2020	Amended

## LDC Challenges in Coffee

- Economic Development
- Deforestation, Conversion & Biodiversity
- Climate Change
- Water Scarcity
- Partnership Working

## Our Response

As an industry-leading merchant of green coffee, we buy coffee from thousands of farmers (directly or through middlemen), process it and transport it to our roaster customers. We are working hard to increase certified coffee – without ignoring the welfare of the majority of farmers who cannot afford the expensive and time-consuming accreditation of the many, differing systems.

## Achieving sustainable sourcing

At the end of 2015, we introduced our own Coffee Code of Conduct to suppliers in our main origins. It was developed by LDC's Sustainability, Compliance, Legal and Coffee Origination teams based on:

- Group Sustainability Policy
- Group Code of Conduct
- International Labour Organization conventions

- Applicable local laws and regulations
- Various customer Codes of Conduct, and
- Actual situations at farm level.

It was first established across our 5 main origins (Indonesia, Vietnam, Brazil, Colombia and Mexico). The objective is to secure farmers' long-term engagement through

a continuous improvement process, with our help on the ground. After successfully establishing our Code of Conduct over the last 2 years, we plan to expand it to more suppliers and build in more detailed rules over the next 2 years.

### Beyond certification

Certified coffee is more expensive to grow. It involves major farming investments, as well as licensing and transaction costs associated with certification itself. Creating a two-speed system, where certified farms accelerate but the majority of farms and farmers are left behind, would work against global economic development and poverty goals.

Furthermore, growing and trading certified or verified coffee is not always profitable for either the farmer or the merchant. The premium that such coffee is supposed to attract is sometimes diluted.

Market forces that have led to the creation of certification and verification programs will have to elevate sustainability standards more widely. These are leading us to adopt our new approach.

### Sustainable sourcing

Sustainable sourcing is fast finding its way into the vocabulary of coffee merchants, roasters and consumers. So we are creating responsible supply chains to better serve our customers while avoiding the problems of the two-tier system.

Together with our clients, we recognize the need to spread best practices more widely along the supply chain. More clients are now recognizing suppliers' own sustainability standards and programs that meet the criteria of 'responsibly sourced' coffee. After validation, they benefit from a similar treatment to well-known certification programs.

First, we are shifting focus to verified, responsibly-sourced coffee for our current sales volume targets. At present, we have amended our target to reflect the use of different verification schemes. Later this year we will consider whether our present target of a 17% increase by 2020 is correct, and our conclusions will appear in next year's report.

Secondly, and in parallel, we are expanding our programs to equip farmers for responsible, sustainable coffee production, with an example described on the right of this page. We are in the process of setting key performance indicators, against which we will report in future to be transparent about our impact and effectiveness. In next year's report we will set out those indicators and targets for our range of programs.

### An increasing farmers' network

2017	24,341
2016	24,265
2015	21,860
2014	18,398

Having expanded our programs since 2014, we now reach almost 6,000 (32%) more beneficiaries than when we set out. The graph (below) shows our network of farmers who have achieved certification. In future, we will add metrics for those farmers who have benefitted from our programs, to show the full picture of our responsible sourcing efforts.

### Teaming up to train farmers

We launched a three-year project with Jacobs Douwe Egberts (JDE) in 2017, to train and improve the living conditions and resilience of 3,500 farmers and their families in Lampung province on Indonesia's island of Sumatra.

LDC agronomists are running the project, which **targets non-certified and non-verified farms** that are often overlooked and not covered by many of the existing sustainability projects.

The project's benefits:

- **Community** – empowering families, integrating women
- **Environmental** – better soil boosts coffee yields and quality
- **Economic** – improving farmers' knowledge of coffee markets

### Expanding our coffee farming & agro-forestry program

Launched in 2013 in Sumatra, Indonesia, we're extending this successful project for another 3 years. So far we have achieved:

- **Coffee farmer benefits:** self-sufficiency, income diversification, soil regeneration, shade for coffee trees, long-term secured revenue via timber
- **7,250 farmers trained** on coffee Good Agricultural Practices
- **28,000 indirect beneficiaries**
- **188,000 trees planted**

Expanded project aims:

- **Train 10,500 farmers**
- **Plant 310,000 trees**
- Dedicate training for **female farmers** in North Sumatra and Aceh
- Expand to **3 provinces** (Lampung, Aceh and North Sumatra)

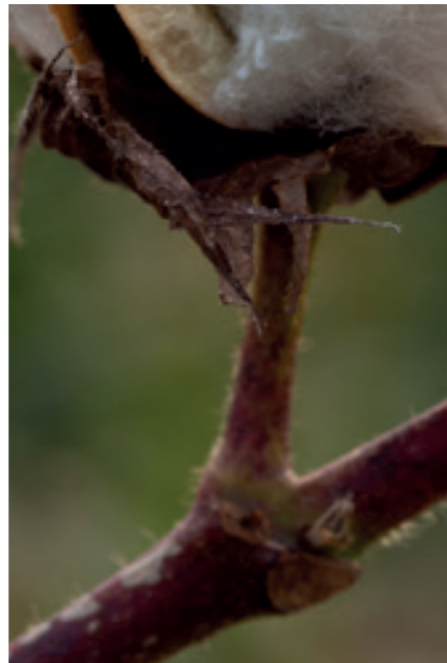
### Targets for next year and beyond:

We will be publishing a standalone report on LDC's sustainability work in coffee later this year, with more details on the efforts set out here. In summary, our main upcoming goals are:

Target	Completion
Increase the volume of verified and certified coffee we sell to 17%	2020
Set and publish targets for our responsible sourcing program	2018

# Cotton.

Our commitments center on promoting compliance with Better Cotton principles to drive change.



## Targets

Target	Completion	Result
Buy 25% more Better Cotton year-on-year (using 2013 as a baseline)	2017	Completed
Increase our BCI Kazakhstan partnership to 150 farmers	2017	Completed
Increase our BCI Kazakhstan partnership to 700 farmers	2018	Amended
Purchase 125% more Better Cotton than in 2013	2018	In progress

## LDC Challenges in Cotton

Human Rights

Partnership Working

Economic Development

Water Scarcity

## Our Response

Cotton plays a major part in sustainably clothing a growing global population.

Microplastics have received massive media attention, while the issue of microfibers is just starting to gain visibility. Synthetic fibers (produced from the same raw material as gasoline) are part of the current global plastic problem, and their presence in our water systems is just as troubling.

Cheap polyester therefore has a potentially major environmental cost that is not associated with cotton. Yet more can be done to sell cotton as a sustainable fiber. Current challenges are to:

- Eliminate child and forced labor from the supply chain
- Improve working conditions, especially at farm level and through mechanization
- Reduce water and pesticide usage in cotton production

These challenges extend significantly beyond our presence in the value chain, which is why we work closely with third parties, including the Better Cotton Initiative, to improve the industry for everyone.

### Better Cotton

The Better Cotton Initiative (BCI) exists to make global cotton production better for the people who produce it, for the environment it grows in and for the sector's future. We continue to work with our suppliers and customers to promote interest in the BCI.

These activities extend to all regions across the globe. For example, we made a big drive to promote BCI cotton from the US. As part of this, we want people to see and understand the work done by US farmers who supply cotton to us. By co-hosting informative visits to farms, we showed brands and retailers how US farmers grow cotton in the most sustainable manner possible. We hope this will increase demand for these BCI farmers' product.

We also met our target of increasing BCI volumes by 25%, and the outlook for 2018 is very positive.

### Sales of BCI Cotton 2013-2017

2017	88,449
2016	72,657
2015	91,613
2014	43,767
2013	25,797

### BCI in Kazakhstan

As reported last year, we started the BCI partnership operation in Kazakhstan in 2016, hiring 4 agronomists and working with 43 farmers in the Makhtaaral region. In the next season we expanded our work to 169 farmers in total. This coming season we should reach 355.

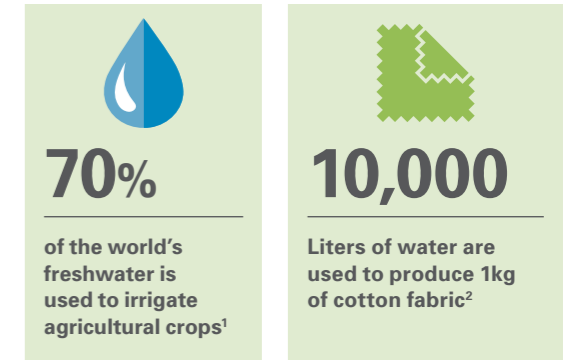
The partnership builds on 2 years' work in the area, in cooperation with the German Development Agency (GIZ), to recruit farmers to follow BCI principles. This includes working with farmers to ensure they comply with these principles, through compliance audits. The pace of growth is such that we now have 8 LDC agronomists attached to the project.

Major insect infestations made last season a challenging one. Our local team spared no efforts to help BCI farmers to maintain – if not increase – their yields under these circumstances.

Our aim is to increase the volume of BCI cotton produced by Kazakhstan, enabling worldwide spinners to recognize this origin as a reliable and sustainable one. From 355 farmers participating in 2018, we now reach for a target 700 participants in 2019; as the pace of recruiting was slower than originally envisaged, we amended our target accordingly.

### Reducing water usage

Producing cotton uses a lot of water.



It takes on average 10,000 liters of water to produce 1kg of cotton, but this figure varies massively. In India, for example, inefficiencies and water pollutants push the figure up to 22,500 liters, while 1kg of US cotton uses an average 8,000 liters.<sup>3</sup>

Since we cannot directly affect water usage, our work to move farmers towards BCI-compliant production is the best way for us to make a difference in this area. BCI standards include the minimization of potentially polluting crop protection practices and good water stewardship. Water is therefore a major driver for delivering programs such as our project in Kazakhstan.

### Next steps

Here is what we aim to achieve, next year and beyond:

Target	Completion
Buy 25% more Better Cotton year-on-year (using 2013 as a baseline)	2018
Purchase 125% more Better Cotton than in 2013	2018
Increase our BCI Kazakhstan partnership to 700 farmers	2019

<sup>1</sup> Clay, J. (2004) World Agriculture and the Environment: A Commodity-by-Commodity Guide to Impacts and Practices Island Press  
<sup>2</sup> Source: Better Cotton Initiative, applying estimates for traditional cotton production  
<sup>3</sup> The Guardian (2015) Cost of cotton in water challenged India

# Soybeans.

**Our commitments include engaging all suppliers and training relevant LDC employees our new Soy Sustainability Policy.**



## Our Response

A growing global population and the developing world's rising middle class are driving meat consumption to increase by 5-6% annually. Soy is the primary source of protein in animal feed, the making of which uses 75% of global soy production.<sup>1</sup> Soy is also the second most consumed oil (after palm), and its use in biofuels has rapidly grown.

Expanding soy production sustainably is therefore a major challenge, particularly as it is increasingly grown in areas of high ecological value, like Brazil's Cerrado – a vast tropical savannah of very high conservation value. Multi-stakeholder initiatives such as the Soy Moratorium have been credited with the dramatic reduction of soy-related deforestation in the Amazon, but there is plenty more to be done in other areas.

LDC has a role in:

- Preventing deforestation and the conversion of high conservation value land
- Helping move the soy value chain into more sustainable production
- Safeguarding water sources (particularly in areas of high ecological value) from overuse and pollution

Globally, soy cultivation now covers an area 28% bigger than a decade ago.<sup>2</sup> In parallel, consumers are demanding more transparency from all operators in the sector. As one of the world's largest soy merchandizers, we are in a position to influence others, drive transparency and promote sustainable operations throughout the value chain.

## LDC Challenges in Soy

**Deforestation, Conversion & Biodiversity**

**Land Rights**

**Human Rights**

**Partnership Working**

**Climate Change**

## New Soy Sustainability Policy

Rising to these challenges, we have created our own Soy Sustainability Policy. The lead commitment is the LDC-wide, cross-platform no-deforestation, no-conversion commitment.

Putting this policy into action will take significant work, and we have a number of targets for 2018 and beyond to drive our efforts.

We originate soy from farmers and cooperatives, and therefore do not have direct control over land use. We therefore focus on influencing and pushing for change, which requires the support of our trading partners, suppliers, customers and other stakeholders.

## Overall commitments

In order to achieve these aims, LDC commits to influence and collaborate with stakeholders across the soy supply chain in order to:

- Eliminate engagement in, or financing of deforestation throughout our supply chain, and conserve biomes proven to be of high ecological value, such as the Cerrado, Brazil, with the intent to discourage and eliminate conversion of native vegetation
- Uphold the rights of local communities and/or indigenous people
- Comply with all eight International Labour Organization (ILO) fundamental conventions
- Respect internationally and nationally designated protected areas
- Not endanger threatened species, with specific reference to international or national systems of species classification
- Abide by rigorous anti-bribery and corruption standards

## In addition, we commit to:

- Conduct social and environmental impact assessments for any new infrastructure or logistic development
- Pursue continuous improvements in measuring and reducing greenhouse gas emissions, as part of our reporting on our industrial footprint



<sup>1</sup> WWF, Soy is everywhere  
<sup>2</sup> Financial Times, June 30th, 2017: Why soybeans are the crop of the century



**Soy use in biofuels is growing rapidly**

## Partnerships for change

We work with a number of key multi-stakeholder groups, working to improve how agribusiness meets soy demand:

- World Business Council for Sustainable Development (WBCSD): As new members of the WBCSD, and founding members of the new Soft Commodities Forum, we will tackle several key issues, beginning with land use in Brazil's Cerrado.
- The Cerrado Working Group: Its mission is to eliminate conversion and deforestation of the Cerrado in the shortest possible timeframe, so we work with them to reconcile the production of soy with environmental, economic and social interests.
- GTS (soy working group): We are an active member of this group, which focuses on implementing the Soy Moratorium in the Amazon. This means that since 2008, we do not trade, acquire or finance soybeans that have been cultivated in the Amazon.
- ABIOVE (Associação Brasileira das Indústrias de Óleos Vegetais): This merchant stakeholder group seeks to implement change and align standards across the industry.
- CAPPRO: A Paraguay-centric forum for locally active merchandizers to focus on solving issues in local production.
- Green Commodities Project: As part of the UNDP and Global Environment Facility, we contribute to facilitating change in the practices of soy and beef farmers.
- Working with multistakeholder groups like the Round Table on Responsible Soy (RTRS) to address mutual sustainability challenges.

In addition, we will work to ensure that all farmers in the LDC network are registered in the Brazilian government's rural environmental registry (CAR), in support of the Forest Code.

**Certified soy**

Certified sustainable biodiesel is a major driver in making soy supply chains more sustainable, and is our primary focus in this space. We adhere to the US EPA (Environmental Protection Agency), European 2BS voluntary scheme (2BSvs) and International Sustainability and Carbon Certification (ISCC) schemes, which require that soybeans are not cultivated on land deforested since 2008.

We have increased certified volumes fivefold from the 2012/2013 to the 2016/2017 harvests. This year, despite the collapse of the EPA market (due to changing US demand), our certified biofuel volumes grew, resulting in us working with up to 6,000 farmers at any one time.

**LDC RFS2 Production**

**EPA Soybeans (in KMT)**

2017	2BSvs 994	EPA 1,145
2016		2,000
2015	780	

**Certified Sustainable Biodiesel (in KMT)**

2017	ISCC 2BSvs 184	EPA 231
2016		390
2015	130	

**Farms (Argentina)**

2017	2BSvs 4,200	EPA 5,800
2016		5,082
2015	1390	

**Hectares (Argentina – in Kha)**

2017	3,500
2016	2,900
2015	1370

**Warehouse (own)**

2017	2BSvs 10	EPA 10
2016	9	
2015	4	

**Warehouse (third party)**

2017	2BSvs 1	EPA 19
2016	15	
2015	1	

**Pará State River transport**

Shipping soybeans through the Tapajós, Amazonas and Pará rivers is key to reducing the environmental impact of our logistics, contributes to developing infrastructure in Brazil, and avoids road congestion and pollution in the south of the country. We are in the middle of a major project to construct river ports and operate a fleet of barges along these rivers for precisely this purpose.

However, the project must respect the ecological value of this river network and surrounding forest. In line with LDC policy, in 2017 we completed a socio-environmental feasibility study to avoid negative environmental and social impacts. Public meetings held with local communities allowed attendees to understand and comment on the project.

We also want to contribute to our communities – creating jobs and educating local people. With the help of the Brazilian navy, we introduced new safety standards on these waterways this year, delivering safety equipment and introducing health initiatives and safety education to local communities.



**Our targets for next year:**

Key activities in 2018 will involve rolling out our new soy policy within LDC and to our main suppliers. An important part of this work will be to ensure that there are adequate incentives and processes in place to encourage expansion onto areas formerly used as pasture.

In addition, we aim to launch a new LDC certification scheme in Brazil, approved by the International Trade Center (ITC) as compliant with standards set by the European Feed Manufacturer's Federation (FEFAC).

**2018 Targets**

- Ensure all LDC suppliers in Brazil are registered in CAR (Brazilian Rural Environmental Registry)
- Launch FEFAC-approved certification scheme
- Train all relevant LDC employees on our new soy policy
- Communicate our new soy policy to all major suppliers



# Freight.

We commit to publishing emissions data for our activities and completing studies on chartering ships with emissions-saving technologies.



## LDC Challenges in Freight

Climate Change

Partnership Working

## Our Response

90% of globally traded goods travel by sea.<sup>1</sup> Shipping poses large pollution issues, and yet it is the most environmentally friendly way to move products. A large ship emits about 0.4 ounces of carbon dioxide (CO<sub>2</sub>) to transport 2 tons of cargo 1 mile. That's roughly half as much as a train, one-fifth as much as a truck, and nearly a fiftieth of what an airplane emits to do the same.<sup>2</sup>

Nevertheless, the trade volumes involved mean that even small steps would make a vast difference. For perspective, although it is often said that marine fuel represents around 7% of transport demand, it accounts for around 90% of the transport sector's sulfur oxide (SO<sub>x</sub>) emissions, with 15 of the biggest ships emitting more SO<sub>x</sub> and nitrogen oxide (NO<sub>x</sub>) than all the world's cars combined.<sup>3</sup> Exhaust emissions from marine diesel engines, comprised of CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>x</sub>, and complex particulate matter, represent a major concern in relation to human and environmental health.

Unfortunately, and despite its potential to affect climate change, shipping was excluded from the Paris Agreement. As such, and along with others in the industry, we are taking our own steps to achieve the following goals:

- Reducing greenhouse gases and other emissions
- Providing safe and healthy work environments
- Proactively contributing to the responsible governance of our oceans

As part of our commitment to positive change, we have just joined the Sustainable Shipping Initiative (see page 55).

### The International Maritime Organization (IMO)

The IMO is the United Nations' specialized agency responsible for shipping safety and security, and the prevention of marine pollution by ships. They have been leading work towards the Sustainable Development Goals, including through the Energy Efficiency Design Index (EEDI), which sets improved standards for new ships, with controls tightening every 5 years to bring down pollution levels.

The IMO has already adopted guidelines to reduce underwater noise and control water ballast treatment, to reduce adverse impact on marine life. It now also has ground-breaking, overarching emission reduction targets. In a historic decision on 13 April 2017, the IMO set the following goals, including an 86% reduction in SO<sub>x</sub> emissions by January 2020.

IMO goals	2020	2030	2050
CO <sub>2</sub> emissions	n/a	40%	<b>70%</b>
Greenhouse gases	n/a	n/a	<b>50%</b>
Fuel oil sulfur content limit (mass-by-mass)	0.5%	n/a	n/a

<sup>1</sup> International Chamber of Shipping, <http://www.ics-shipping.org/shipping-facts/shipping-facts>  
<sup>2</sup> Green Biz, 2016 (<https://www.greenbiz.com/article/future-freight-more-shipping-less-emissions>)  
<sup>3</sup> The IMO 2020: Global Shipping's Blue Sky Moment, Goldman Sachs, May 2018

### What is happening now?

Because of its extreme viscosity, heavy fuel oil must be heated before being injected into cylinders and burned. Burning releases SO<sub>x</sub>, soot and other pollutants. To meet IMO targets, the use of heavy fuel oil is therefore being gradually phased out and replaced with low-sulfur fuel oil.

Meeting 2050 targets will take more innovative solutions, as we look to solar, wind, hydrogen, electricity and biofuel.

With an estimated annual cost between US\$100 to 200 billion just to reach the 2020 IMO goals, industry incentives may be needed to create solutions and enable cost sharing by all actors in the logistics chain.

### LDC's commitments

We make every effort to be a responsible charterer and operator in all our activities, across bulk, container and tanker shipping. We operate and charter approximately 200 vessels at any one time, with sizes from Handysize to Newcastlemax.

Our approach is to:

- Charter ships with optimal speed/consumption ratios
- Use our close relationships with top-tier ship owners and yards to access (and encourage building of) best-in-class ships, both on the water and under design
- Improve our weather-routing tool to reduce bad weather days, and therefore emissions
- Cooperate with ship owners to improve fuel efficiency by encouraging use of technology such as:
  - Better anti-fouling paint and coating on hulls
  - Propeller boss fin caps and mewis ducts in front of propellers
  - Encourage solar system lights or LED equivalents
- Diversify our fleet portfolio to include ships equipped with exhaust gas systems, which reduce sulfur emissions while we wait for compliant low-sulfur fuels to reach the market
- Charter Tier III vessels (which have higher standards on controls over emissions), where possible

We also have a number of projects to build better ways to reach the IMO's targets for the industry. See *What next in 2018 and beyond* (opposite) for more details.

### Sustainable Shipping Initiative

This year we are proud to have joined the Sustainable Shipping Initiative (SSI), an independent charity that brings together leading companies in the maritime sector to create a sustainable and successful shipping industry by 2040.

The importance of identifying and addressing sustainability challenges across our business portfolio cannot be overstated. We recognize that the SSI can



help us to address such challenges in shipping the 81 million tons of agricultural goods that we handle annually, and we look forward to working together towards more sustainable shipping operations.

We intend to use our membership both to influence and to learn. By discussing and working with other SSI members, we can approach the challenge of meeting IMO targets from all angles, aiming to create fair and sustainable value for all parties, from merchants like ourselves to equipment makers, shipyards, ship owners and NGOs, and of course for the environment we all live in.

### What next in 2018 and beyond

As indicated above, we are building a program of improvements.

First, we will start measuring emissions and report on those emissions in next year's report. This will allow us to monitor performance, measure the impact of our efforts and plan future reductions.

Secondly, and by the end of 2018, we will study the possibility of using disruptive new technologies such as wind or dual liquid natural gas (LNG)/gasoil propulsion. We will report on feasibility for LDC in next year's report.

Thirdly, we will work with SSI on a longer-term study on ships of the future, targeting zero-emission shipping through alternative propulsion methods, such as biofuel, lithium batteries, methanol or hydrogen, and renewable sources.

Target	Completion
Publish 2018 emissions of LDC freight activity	2019
Complete study on chartering wind propelled vessels	2018
Complete study on chartering dual LNG/gasoil propelled vessels	2018
Contribute to SSI study on ships of the future	2018

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