A key element of fighting hunger and feeding potential is our support for those who grow our ingredients. That’s why we’re helping improve the livelihoods of farming families and communities around the world. In 2016, we announced that we’d achieved our goal – four years early – of providing information on climate smart agriculture to increase yields and improve climate resiliency to more than 15,000 smallholder farmers in our direct supply chain. And in 2017, we announced similar support for 10,000 women farmers. We’re excited about these outcomes and our ongoing work to reach 500,000 farmers around the world by the end of 2025, including women who play important roles in global agriculture.

This commitment is part of our overall sustainability strategy that includes conserving natural resources and sourcing responsibly. It also aligns with our support of U.N. Sustainable Development Goal #2 to help end hunger by addressing food security and sustainable agriculture, Goal #5 to ensure gender equality, Goal #12.3 to reduce food waste and loss, and Goal #13 to take climate action. Our progress is highlighted below. Additional details are also available in our 2016 Year-End Sustainability Milestones.
Conserving Natural Resources and Protecting Against Climate Change

Doing all we can to protect the long-term availability of the ingredients we use in our foods, and the livelihoods of the people who grow them, is vitally important to the continued success of our company. That’s why we are taking action to help tackle the inter-connected issues of hunger and robust food systems in the face of a changing climate. We are helping to conserve natural resources and have specifically committed to reducing energy use and greenhouse gas emissions, reducing the water we use and waste we generate, reducing food loss and waste, and using resource-efficient packaging.

Environmental Data

This data includes Pringles®, which was not included in our 2015/2016 Corporate Responsibility Update

### ENERGY USE

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2020 GOAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per metric tonne of food produced (in gigajoules)</td>
<td>5.8706</td>
<td>5.8646</td>
<td>4.9900</td>
</tr>
</tbody>
</table>
| Total (in millions of gigajoules) | 14.3128 | 14.1397 | |}

### GHG EMISSIONS

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2020 GOAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per metric tonne of food produced (in metric tonnes)</td>
<td>0.4820</td>
<td>0.4907</td>
<td>0.4097</td>
</tr>
</tbody>
</table>
| Total (in millions of metric tonnes) | 1.1750 | 1.1831 | |}

### WATER USE

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2020 GOAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per metric tonne of food produced (in cubic meters)</td>
<td>5.5994</td>
<td>5.4464</td>
<td>4.7595</td>
</tr>
<tr>
<td>Total (in millions of cubic meters)</td>
<td>13.6516</td>
<td>13.1314</td>
<td></td>
</tr>
</tbody>
</table>
By 2020, we intend to expand the number of our plants using low-carbon energy by 50 percent; already we’ve done so by nearly 30 percent. We also are committed to reducing energy and greenhouse gas (GHG) emissions in our plants by an additional 15 percent (per metric tonne of food produced) from our 2015 performance. This latter commitment was further strengthened when we set a science-based reduction target for reducing Scope 1 and 2 emission in our own operations by 65 percent by 2050. In the first year of this commitment, we’ve reduced absolute Scope 1 and 2 emissions by 0.2%. 4,5

Because our own manufacturing and upstream agriculture are the largest sources of GHG emissions in our value chain, we also are asking our direct material suppliers to report their emissions through the CDP Supply Chain platform. This data will inform our baseline against which we’ll track our collective progress toward our 2050 commitment to reduce Scope 3 emissions by 50 percent. 4,5

In 2016, we struggled to make significant progress toward our energy and GHG emission reduction goals; decreasing energy use by 0.1 percent and increasing GHG emissions by 1.8 percent (per metric tonne of food produced).

Numerous factors contributed to our increased GHG emissions:

- In several countries where we operate, drought conditions have decreased the generation of clean energy from hydropower.
- The decreasing prices of fossil fuels has encouraged some countries to generate more electricity from these non-renewable sources.
- Our growing Pringles® business requires more energy (and water) to produce than other Kellogg foods.

We are working with partners and utilities to help green the electrical grid. We also are investing in infrastructure, training and system enhancements in our operations to reduce our energy and water use.

We did make progress in some areas:

- Three of our plants reduced their energy use this year by more than 10 percent, including Linares, Mexico; Kutno, Poland; and Springs, South Africa.
- Pringles® plants in Kutno, Poland and Jackson, Tennessee, U.S. reduced their energy use by 17 and 10 percent, respectively, by replacing more than 9,000 lights with newer LED technology and operating more efficiently as a result of increased production.
- Our Blue Anchor Eggo® plant in New Jersey installed fuel cells in late 2016 that are expected to reduce emissions by approximately 8 percent. Like those also used at our San Jose, California plant, the fuel cells use natural gas to cleanly and efficiently produce electricity that is powering some of the facility’s manufacturing operations.
- Our Linares, Mexico cereal plant reduced their energy use by more than 20 percent and GHG emissions by nearly 18 percent through numerous initiatives. Additionally, they began to convert away from propane to natural gas, which is a lower carbon source, as the main source of fuel for the plant.

Oxfam – which works to create lasting solutions to poverty, hunger, and social injustice – reported that Kellogg “exceed its industry peers in setting and implementing robust science-based emission reduction targets.”

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4 Manufacturing energy use and GHG emissions, along with Scope 3 GHG emissions, have received independent verification against the World Resources Institute/World Business Council for Sustainable Development Greenhouse Gas Protocol.

5 These additional commitment targets for Scope 1, 2 & 3 emissions were announced at the 2015 COP21 Climate Conference and were reviewed and approved by the Science-Based Targets Initiative, a joint effort of CDP, UN Global Compact, World Resources Institute and World Wildlife Fund.
Around the globe, fresh water resources are under pressure from climate change, population growth, industrial and agricultural uses, and aging or inefficient infrastructure. Increasingly, businesses and communities are recognizing the critical importance of preserving and protecting water supplies. We respect the human right to water as defined by the United Nations Committee on Economic, Social and Cultural Rights and General Assembly. As a member of the communities where we source ingredients and make our foods, we work to reduce water use and our impact to community water sources.

We use a combination of internal knowledge and external sources to determine an overall water risk score for each of our manufacturing facilities. Based on this assessment, our locations with the highest water risk are in Brazil, India, Mexico, Russia and Spain; and Nebraska and California in the U.S. While all Kellogg manufacturing facilities have established water-efficiency goals and are implementing water-saving initiatives, we are paying especially close attention to water use in these locations.

We are on track to deliver our 2020 commitment to reduce our global water use by 15 percent (per metric tonne of food produced) from our 2015 baseline, and to implement water reuse projects in 25 percent of our plants. In 2016, we reduced our water use by 2.7 percent and have implemented water reuse products at 9 percent of our manufacturing facilities.

Within in our facilities in 2016:

- Seven plants reduced their water use by more than 20 percent including: Kutno, Poland; Springs, South Africa; Pskov and Severskaya, Russia; and the following plants in the U.S. – Chicago, Illinois; Rossville, Tennessee; and Allyn, Washington.

- Our cereal plants in Linares, Queretaro and Toluca, Mexico have reduced water use through a number of efforts, including increasing dry-cleaning methods and replacing a steam boiler with a new, more efficient model.

- Our Manchester, U.K. cereal plant began using processed water that has been treated through the onsite reverse osmosis plant. Since October 2016, 20m3/day of treated water is being reused in the cooking process.

In 2016, World Wildlife Fund and Ceres, as part of their joint AgWater Challenge, recognized our work to support water conservation. Kellogg, along with six other companies, was selected as one of their first AgWater Stewards.

For some time, we’ve been working with farmers, NGOs, governments and others to improve the quality of watersheds in the regions in which we source our ingredients. Most recently we have:

- Joined ten companies and NGOs to form the Midwest Row Crop Collaborative to help address local and macro water challenges like hypoxia in the Gulf of Mexico and groundwater quality in the Upper Mississippi River Basin.

- Partnered with the Sustainable Agriculture Initiative Platform and the Italian Government’s National Rice Research and Agronomy Centre to help rice growers nestled at the base of the Italian Alps improve water use, productivity and achieve greater climate resiliency.

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6 Water use data from our top ten highest-risk manufacturing locations has received independent verification against the CDP Guidance for Companies for Corporate Reporting on Water on Behalf of Investors and Supply Chain Members.
During our first-generation of sustainability commitments from 2005-2015, Kellogg reduced waste to landfill (per metric tonne of food produced) company-wide by 62 percent. In 2014, as we launched our second-generation of sustainability commitments, we set a target to ensure that 30 percent of our plants send zero waste to landfill. Going forward, we are committed to reducing total waste by 15 percent (per metric tonne of food produced) by 2020, using 2015 as our baseline.

In 2016, we saw solid progress against our waste reduction goals. Twenty-five percent of our plants sent zero waste to landfill. While this fell slightly short of our target, we are proud of our progress. Overall, we reduced our total waste to landfill by 6.1 percent in 2016 (per metric tonne of food produced).

Focusing On Food Loss And Waste

As a global food company, we take a holistic view of waste across our value chain. Doing so aligns with our compatible priority of reducing hunger. As a member of the Consumer Goods Forum, we are doing our part to reduce per capita global food waste at the retail and consumer level, and to reduce food losses along the production and supply chains, including post-harvest losses. To support these 2030 efforts, Kellogg was one of the first U.S.-based companies to join Champions 12.3 and to become a U.S. Food Loss and Waste 2030 Champion, signing onto a joint initiative between the U.S. Environmental Protection Agency and the U.S. Department of Agriculture.

Through our Postharvest Loss Reduction Program, Kellogg research and development teams, scientists and sustainability team members work collaboratively to reduce food loss at the farm. We have funded research and partnered with others worldwide to identify ways of reducing food loss, often in conjunction with sustainable agriculture practices.

Edible food is donated to people in need; in cases where this is not appropriate, food waste is used for animal feed. The chart below indicates the volumes and destinations of food waste from our global manufacturing operations in 2016. This 2016 data will serve as the baseline against which we will continue to report.

Additional information about our food loss and waste methodology and its alignment with the World Resources Institute Food Loss and Waste Standard can be found here.

**KELLOGG 2016 FOOD WASTE BY DESTINATION**

- Animal Feed 83%
- Biomaterial/Processing 2.6%
- Codigestion/Anaerobic Digestion 1%
- Compost/Aerobic processes 1.9%
- Controlled Combustion 0.4%
- Land Application 0.5%
- Landfill 1.5%
- Sewer 9%
Packaging

Around the world, 100 percent of the timber-based packaging Kellogg uses comes either from recycled content or certified sustainable sources. We also continue to look for opportunities to introduce more resource-efficient packaging that includes more recycled content, is more recyclable and/or reduces food-to-package ratios.

For example, we recently reduced the size of cereal boxes in the U.S., while maintaining the same amount of food in each box. As a result, also reduced the size of the shipping cartons that hold these packages, reducing packaging material by up to 1 million pounds.

We also are members of packaging covenants in Australia and Singapore, working with other companies to design more sustainable packaging and increase recycling.

Sourcing Responsibly

The quality of the ingredients in our foods are measured in different ways by different people. Some focus on taste, others focus on nutrition profile, yet others focus on convenience. All of them are important. We also – like more people today – care deeply about how our ingredients are grown, where they come from and the people who grow them. That’s why we’ve committed to responsibly sourcing 10 priority ingredients by 2020. We believe we can have the greatest impact by concentrating our work on the farmers who grow these ingredients. Our intent is to support continuous sustainable agriculture improvements in the growing practices of farmers in the regions from which we source.

Our first step is to gather benchmarking data using either our Kellogg Grower Survey or other tools such as the Field to Market® Fieldprint® calculator, Cool Farm Alliance’s Cool Farm Tool, and Sustainable Agriculture Initiative’s Farmer Self-Assessment. Once we have this data identifying the needs of local farming communities, we partner with stakeholders including suppliers, farmers, scientists and NGOs, as appropriate, to provide:

- Research and technical assistance on climate smart agriculture;
- Training on farm management and agronomic practices; and,
- Access to markets and financial resources.

These sustainable agriculture projects are part of our global Kellogg’s Origins™ Program. Operating in 21 countries, the program currently benefits 294,000 farmers in regions from which we source, including some not necessarily in our direct supply chain.

Kellogg’s Origins projects provide farmers with support on climate smart agriculture practices (help improve resilience, increase yields, optimize fertilizer and water irrigation, improve soil health and reduce GHG emissions), as well as projects that support farmer and worker livelihoods (research, training, market access and financing).

Rita

A Michigan, U.S. wheat farmer and member of the new Kellogg’s Origins™ Great Lakes Wheat Program, Rita still works on the farm where she grew up. Here, she shares her perspective on the importance of sustainable farming practices, both for her family and families worldwide.
Improving Sustainable Agriculture

Around the world, the adoption of sustainable agriculture practices is helping to improve the environment and the lives of farmers and farming communities, especially smallholders and women. These practices are also critical to making sure there is enough food for everyone. Though our Breakfasts for Better Days commitment to create 3 billion Better Days for people around the world by the end of 2025, we are committed to supporting 500,000 farmers, their families and communities with climate smart agriculture practices to increase yields, improve climate resiliency and reduce post-harvest food loss and waste. We’re especially looking at how we can support smallholders and women around the world who play significant roles in agriculture, but often face challenges of injustice and inequality. This work aligns with our support of the U.N. Sustainable Development Goal #5 – Gender Equality, and Goal #2 – Zero Hunger.

We’ve already seen some early successes and look forward to many more.

- In the U.S., where less than 1 percent of all farmland is Certified Organic, transitioning conventional farmland to organic takes up to three years and requires more costly farming practices, but crops have historically been sold at conventional prices. To help farmers make the shift, Kashi® pioneered the Certified Transitional Standard (identified with an on-pack seal), purchasing ingredients from farmers at a premium to help them offset the costs of moving to organic.

- In Thailand, we helped introduce a new medium-grain rice variety for Kellogg’s Rice Krispies® and Special K® cereals, not previously grown in the region. This work engaged 700 farmers, 60 percent of whom are women, who now have a long-term market for a non-GMO rice variety that is also high-yielding and pest resistant.

Improving The Sustainability of Palm Oil

Although, at Kellogg, we use a small amount of palm oil, we have been working since 2009 to improve the overall sustainability and our responsible sourcing of this ingredient. World Wildlife Federation recognized our work in their Palm Oil Scorecard, and our new partnership with ProForest gives us greater traceability data to support the goals outlined in our Global Sustainable Palm Oil Policy.
THANK YOU
for your interest in Kellogg Company’s corporate responsibility efforts to nourish families so they can flourish and thrive.
We welcome your questions and feedback at corporateresponsibility@kellogg.com.