

The food challenge is closely related to the climate challenge, and Yara is positioned to make an impact on both, sharing our knowledge in order to achieve food security and mitigate global warming.

**KEY FIGURES** 

7,629

**EMPLOYEES WORLDWIDE** 

20.1 million tons

37%

REDUCED GHG EMISSIONS

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## **CLIMATE CHANGE** is a major global challenge affecting all parts of society. It threatens food security and human health, calling for new solutions.

**Global warming** will particularly affect world agriculture and global food security. Changing growing conditions and water shortages will negatively impact productivity, requiring improved technologies and management practices.

70% of all fresh water worldwide is consumed by agriculture.



89% of agriculture's mitigating potential is in soil carbon sequestration.



Yara is connected to climate change: While our production emits GHGs, our fertilizers help mitigate climate change. With our knowledge-based products, we offer ways to substantially improve agricultural productivity, increasing food production while simultaneously easing pressure on uncultivated land.

Yara is developing valuable solutions: Through our technological R&D, we have improved our energy efficiency and significantly reduced our emissions. With our agronomic innovations and knowledge, we enhance nutrition and water efficiency, meaning more food can be produced with less input.

## **FOOD SECURITY** *is a major global challenge, complicated by climate change. Growing enough food to cope with future demand requires improved agricultural productivity.*

**Population growth** combined with dietary changes increases the overall calorie consumption, and threatens future food security in several areas of the world. With limited land available, 90 percent of the growth in crop production has to come from higher yields and increased cropping intensity, demanding innovative solutions.

billion people is the expected global population in 2050.







Yara is a provider of vital knowledge: With our unrivalled market presence, we have an intimate knowledge of local growing conditions. We work closely with local growers and offer tailored solutions to increase yield and promote efficient and sustainable use of fertilizer.

Yara is a provider of innovative solutions: We are constantly developing and improving products, tools and methods, paving the way for increased productivity with improved sustainability and assisting world agriculture in adapting to climate change.

For an account of Yara's corporate strategy and financial performance, see the Financial Report 2009.

CEO Jørgen Ole Haslestad

## Profitable pursuit of tomorrow's solutions

Yara's business is at the heart of global issues. Our quest for increased knowledge, effectiveness and continuous improvement of quality provides solutions that benefit everyone.

Any approach to resolving the climate challenge must include solutions for future food security. Major political debates on greenhouse gas emissions took place in 2009, and Yara participated in this debate, linking the challenges of climate change and food security.

#### INNOVATIVE SOLUTIONS

Already leading the industry by employing our catalyst technology that abates nitrous oxides, Yara also launched its Yara Crop Nutrition concept, encouraging a shift from traditional soil management to tailored crop management. Increased precision, through delivering nutrients to crops according to specific needs, enhances farmers' profits and benefits local environments. It also addresses climate change by maximizing yields, which eases the pressure on arable land that currently constitutes substantial carbon storage.

#### **EXCITING INITIATIVES**

At the high-level Baltic Sea Action Summit which attracted heads of state, business leaders and NGOs, Yara was one of only a handful of companies invited to make a presentation, displaying our research on a new solution for reducing leakage of phosphorus by using gypsum.

At the last World Economic Forum in Davos, the progress made in Yara's Growth Corridor initiative for Africa also received positive attention. We presented an investment blueprint for the Beira Growth Corridor in Mozambique. In addition to kick-starting agricultural markets, analyses suggest living conditions for as many as one million people could improve.

#### STRONG STANDARDS

Our high-quality solutions also include the way we govern ourselves. In 2009 our commitment to UN Global Compact remained firm. We established a compliance function in order to coordinate our efforts to uphold ethical and responsible business practices, and in early 2010 we launched the new Yara Ethics Program providing practical advice and support for employees. I am proud to say that

Jorgen Ove Hastestad Pyssident and CEO



Yara also has a leading industry position in safety. Clear responsibilities and routines, prioritizing follow-up and zero tolerance for hazardous practices contribute strongly to this achievement.

#### POSITIVE OUTLOOK

Increased wealth and a growing population give fertilizer markets a long-term positive outlook. Environmental legislation drives demand for Yara's industrial solutions. We can support legislators in pursuing solutions, through delivery of our expertise and technology. We view ourselves as a key stakeholder striving to enable more efficient crop production, in order to address several challenges facing mankind: scarcity of water and cropland, pressure for increased food production while preserving areas of biodiversity and limiting greenhouse gas emissions. We pursue solutions that benefit everyone.

### Who we are

Yara International ASA is the world's leading chemical company converting energy, natural minerals and nitrogen from the air into essential products for farmers and industrial customers.

Yara is the fertilizer industry's only global player. We have production on six continents, sales offices in about 50 countries and sales to more than 120 countries. We are a global corporate citizen in an industry that directly influences several global challenges facing society, particularly climate change and food security. Through our core business and key knowledge, we seek answers to these challenges and strive for sustainability in our production processes and our products.



#### Our strategic platform

OUR CORPORATE STRATEGY is one of profitable and sustainable growth, building on an unrivalled market position and a unique business model united with global corporate citizenship.



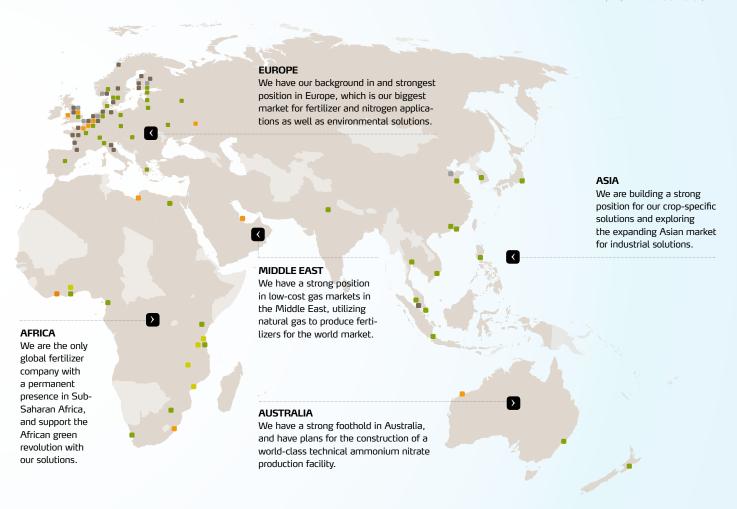
#### Our organization

**Yara** is headquartered in Oslo, Norway – with three operating segments and key corporate functions.

We have developed a unique business model with three operating segments: Downstream, Industrial, and Upstream, all supported by the global function of Supply & Trade. Each segment is managed as a separate and strategic unit, supported by a lean corporate structure at Yara headquarters.

**Downstream** is our global marketing organization and distribution network for fertilizers and crop nutrition solutions. **Industrial** provides environmental and industrial solutions. **Upstream** includes our large-scale ammonia and fertilizer plants, and phosphate mines.

Yara headquarters is the base for key corporate functions that include compliance, human resources development, and health, environment, safety, and quality. Yara is led by the President and CEO, and the Executive Management team. Strategic responsibility for Yara's corporate citizenship is vested with the CEO.



# Vision INDUSTRY SHAPER Yara aims to set industry standards through performance and growth

#### Mission

**BETTER YIELD** Yara will deliver good returns for the world farming community, industrial customers and its owners.

#### **Values**

AMBITION, TEAMWORK, TRUST, ACCOUNTABILITY Yara aims to drive a performance culture built on its vision and mission, its four core values and its Code of Conduct.

#### **Our** offering

We provide a reliable supply of mineral fertilizers, industrial products and environmental solutions to markets around the world.

#### Mineral fertilizers

#### Our fertilizer portfolio

represents the industry's most complete range of crop nutrients. We have a product to match the specific needs of all major food and cash crops, and we supply the knowledge and tools needed to optimize application and yield.

#### Industrial products

#### Our industrial portfolio

contains a wide range of nitrogen chemicals as well as CO<sub>2</sub> and dry ice. We work closely with customers to tailor solutions, improve customers' production processes and promote safe and environmentally-sound handling of products.

#### **Environmental solutions**

#### Our environmental solutions include products and services

include products and services to reduce NO<sub>X</sub> emissions, control unpleasant odor, prevent toxic gases, avoid corrosion and improve water quality – meeting society's need for cleaner air and water.

## **How** we performed 2009

Yara has adopted ten strategic goals for long-term value creation, of which four are related to citizenship. For a full presentation of the ten goals, see www.yara.com/2009

#### Citizenship

Yara's goal is to positively address major global challenges, and to pursue industry-leading standards in all our operations and activities.

Performance 2009: We pursued our engagement in climate change and food security issues, saw further development in our support for an African green revolution, reinforced our commitment to the UN Global Compact, and developed the Yara Ethics Program.

#### **Environment**

Yara's goal is to be among the most energy efficient companies in the industry, and to reduce greenhouse gas emissions by 45 percent from 2004 to 2013.

Performance 2009: Our target was to reduce GHG emissions by 25 percent from 2004 to 2009. We obtained a 37 percent reduction when adjusting for new plants and for market-related capacity reductions in 2009. This has been achieved by the installation of our technology for reducing nitrous oxide (N<sub>2</sub>O) emissions from nitric acid plants.

#### Safety

Yara's goal is to be a leading performer in the area of worker safety, with a targeted accident rate as close to zero as possible.

Performance 2009: We achieved an LTI rate of 1.5 for employees and contractors combined. The average LTI rate for other fertilizer producers in Europe was three times higher. However, we experienced two major accidents; a fatal one when a contractor fell from a roof and an explosion at the ammonia plant in Belgium.

#### **Human Resources**

Yara's goal is to optimize the management of its people, to ensure that it continues to have the skilled and engaged workforce it will need to meet future business challenges.

Performance 2009: Our HR strategy through 2012 was approved by the Executive Management, which also launched a restructuring of the global HR delivery model to improve the efficiency and effectiveness of HR operations.



#### What we did

2009

- January Yara CEO Jørgen Ole Haslestad attended the WEF in Davos, hosting a session on Agricultural Growth Corridors in Africa.
   Yara participated in the UN conference on the food crisis, in Madrid.
- ➤ February Yara Head of Upstream Tor Holba gave a presentation on fertilizers and climate change at an EFMA conference in Brussels. Yara Chief Marketing & Communication Officer Arne Cartridge gave a presentation at the IFA Africa Forum meeting in Cairo.
- March Yara Sluiskil, the Netherlands, was awarded the first Green Leaf Trophy for Excellence in Safety, Health and the Environment in Production by the IFA.
- June Yara participated in the WEF regional forum on Africa in Cape Town.
   Yara experienced an accident at its Terte plant, Belgium; two people were injured.
- August Yara experienced a fatal accident at its Harjavalta plant, Finland; one contract worker died.
- ➤ September Yara's Prize for an African Green Revolution was awarded to NASFAM, Malawi and Peter K. Munga, Kenya. Yara hosted the African Green Revolution Forum seminar in Oslo.
- October Yara's Head of HESQ & Product Stewardship, Tore Jenssen, was awarded the 2009 Francis New Memorial Medal.
- November Yara participated in the UN food summit in Rome.

# Strategic approach

#### Quick overview

**DURING 2009**, Yara pursued its citizenship strategy by focusing on four shaping issues that enable Yara to contribute solutions through its core business and key knowledge. Across the year, the interconnected issues of climate change and food security were prominent in the global arena, and Yara offers solutions to both.



#### CLIMATE CONNECTION

YARA employs its agronomic solutions to boost global food production and to mitigate climate change.

FERTILIZER SALES BY REGION Percent



FERTILIZER SALES: Globally, Yara sold about 20.1 million tons of mineral fertilizer in 2009, contributing to agricultural productivity and food production.

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## **Strategy** for corporate citizenship

Yara is a global citizen pursuing the ambition to be an industry shaper. We are consistently implementing a strategy of profitable and sustainable growth, leveraging our global position and integrating our citizenship approach into our overall business strategy.

**Yara's citizenship approach** includes an external dimension in which we aim to contribute to solving major global challenges through our core business and shaping issues, while at the same time seeking business opportunities.

In the external dimension, we focus on global developments relevant to our business and the future of the company. We have identified three global trends (megatrends) particularly affecting our business – growth, globalization, urbanization. We have also identified four global challenges with corresponding shaping issues: food security, climate change, energy supply and health concern. These trends, challenges and issues guide our citizenship goals.

Yara's citizenship approach includes an internal dimension in which we aim for industry shaper performance on issues and initiatives within our own sphere of influence that are of crucial importance to all our stakeholders.

In the *internal* dimension, we focus on *local developments* of great importance to our everyday performance, as well as to the future of the company. We have committed ourselves to the highest standards in health, environment and safety, and enforce stringent routines regarding product stewardship. We engage in continuous dialogue with key stakeholders, internally and externally, and cultivate a performance culture.

#### Opportunities & contributions

#### Governance & compliance



Core business: Our commitments as a global corporate citizen are closely aligned with our core business and key knowledge. Consequently, we aim to inspire innovation and identify solutions that create value for the company as well as for society at large. With our business-driven citizenship approach, we are positioned to contribute solutions to major global challenges.

Company strategy: We base our overall strategy for long-term value creation upon a strong industrial platform with scale advantages and a flexible business model. This, combined with an unrivalled market presence, enables global optimization and gives the ability to take advantage of major global trends and market opportunities.

Global position: We are a global company within a global industry, operating in a competitive global market. With our vast local market knowledge, broad portfolio of products and solutions, and global citizenship approach, we are positioned to make a positive impact on major global challenges, particularly climate change and food production.

**Local action:** We are a global company committed to pursuing our industry shaper ambition in all operations. In this effort, we set high standards for our conduct and compliance, not least regarding health, environment, safety and products stewardship. We foster a performance culture focused on people development and encourage dialogue.

## Food security

**Feeding a growing population** is a major global challenge. Population increase and economic growth drives protein consumption, requiring increased agricultural productivity with higher yield per hectare and lower emissions per ton of food produced.

#### Global challenge, shaping issue

Food production is a critical factor in social development and a key economic sector globally. In 2009, global yields remained high, yet the number of hungry people worldwide surpassed one billion, further undermining world food security.

During 2009, food prices came down from the record levels of 2008, but remained high. The financial crisis weakened the purchasing power of the poor, causing hunger to rise. In their joint "Agricultural Outlook 2009–2018" report, the FAO and the OECD concluded that future food prices are likely to be influenced by the effects of climate change – and to remain high. According to the FAO, world food production must rise 70 percent by 2050 to cope with estimated population growth and demand increase, basically utilizing the current agricultural land and using less water. Today, an estimated 48 percent of the world's population lives on food produced by the use of nitrogen fertilizers.

» More on the food challenge: www.vara.com/sustainability

#### **Our** solutions and contributions

*Yara* is a substantial contributor to global food security. With our comprehensive range of crop nutrients, decision-making tools and agronomic knowledge, we can match specific crop needs and local growing conditions around the world – increasing yields.

Increasing food production with limited natural resources is a balancing act requiring increased efficiency. Our solutions and tools help farmers optimize application and yields in a sustainable way. Bringing together our crop knowledge, portfolio combinations and application competence, the Yara Crop Nutrition Concept sets new standards in aiming for better yield. We promote balanced fertilization and improved management practices to increase productivity, as well as nutrition and water efficiency. Through our R&D activities, we target solutions to relieve pressure on natural resources and uphold productivity under difficult growing conditions.

» More on Yara and food security in 2009: Page 16



NOVEL CONCEPT Our Crop
Nutrition Concept introduces a
radical approach to crop nutrition.
Placing the plant's nutritional
needs first, it promotes higher
nutrient efficiency and returns for
farmers.



NUTRIENT EFFICIENCY Sharing products and expertise, we assist growers in reaching optimal fertilizer rates and increasing yields. To not aggravate climate change, increases in food production must be based on high nutrient efficiency and minimal land expansions.



WATER EFFICIENCY Our R&D activities include a dedicated focus on fertigation – fertilization combined with water management. Water being a scarce resource that is already heavily taxed by agriculture, the proven fertigation technology is a way to increase water efficiency and to increase yields.



RESTORING FERTILITY We are concerned that changing weather patterns, depletion of soils and long-term irrigation are impairing growing conditions in many regions. Our field trials have detected positive effects from using calcium nitrate fertilizers under saline and acidic conditions.

## Climate change

**Reducing global warming** is a major global challenge. The rise in average temperatures jeopardizes a sustainable future and necessitates innovative measures, technology development and policy regulations leading to a low-carbon economy.

#### Global challenge, shaping issue

Climate change influences economic and social development. In 2009, GHG emissions likely stalled due to lower economic activity, while still continuing to drive global warming. Food production is a major source of emissions.

During 2009, calls for concerted action to stem global warming intensified. Still, world leaders failed to reach a binding agreement at the UN Climate Change Conference (COP 15) in Copenhagen. With agriculture a main source of global GHG emissions, attention was drawn to the close connection between food production and climate change – as a problem and as a solution. As highlighted by the World Bank in its "World Development Report 2010", agriculture has the potential to become a net carbon sink with the use of mineral fertilizers: Soil carbon sequestration might be the most cost-effective way to effectively reduce CO<sub>2</sub> concentrations in the atmosphere.

» More on the climate challenge: www.yara.com/sustainability

#### **Our** solutions and contributions

Yara has energy-intensive production processes that cause considerable GHG emissions. To reduce these, we have developed a unique catalyst technology; we capture and sell CO<sub>2</sub> and we promote solutions that can turn agriculture into a net carbon sink.

The fertilizer industry is on course to play a major role in mitigating climate change, and we are committed to industry shaper performance. Since 2004, we have reduced our own carbon footprint by 37 percent, mainly by implementing our catalyst technology for cutting  $N_2O$  emissions – a solution that we share with the industry, and which has a vast potential. Also, we have pioneered life cycle assessments (LCA) in agriculture, pinpointing hotspots for reducing GHG emissions. With our crop nutrition concepts and agricultural knowledge, we contribute to improved productivity, thereby reducing land pressure, restoring land and increasing carbon sequestration in soils.

» More on Yara and climate change in 2009: Pages 15 and 21



#### A SMALLER FOOTPRINT

Our improvements in energy efficiency have the added benefit of reducing GHG emissions. In addition, we have installed our N<sub>2</sub>O catalyst technology in 19 of our nitric acid plants. Three more plants remain. With these measures, we reduced our carbon footprint by 37 percent from 2004 to 2009.



## BOTTLING CO<sub>2</sub> CO<sub>2</sub> is a product we can capture and recycle from our ammonia production. It is widely used in the food and beverage industries, and it offers an environmentally-friendly alternative to conventional refrigerated transport systems.



## N<sub>2</sub>O FROM FIELDS Our LCA of agriculture has pinpointed the significance of N<sub>2</sub>O emissions from fields. We have teamed up with external research institutions and universities to establish a better understanding of the causes of such emissions, and to find ways to reduce them.



CARBON SINK We contribute with our R&D, knowledge and solutions to a global strategy of possibly making agriculture a net carbon sink. Soil carbon sequestration is considered potentially the most cost-effective way to reduce CO<sub>2</sub> concentration in the atmosphere.

## **Energy** supply

Developing a new energy future is a major global challenge.

The consumption of fossil fuels causes global warming, so energy efficiency and a switch to alternative energy sources are necessary in order to reduce carbon footprints.

#### Global challenge, shaping issue

Energy use is a major driver of economic growth and food production. In 2009, the financial crisis halted the rise in fossil energy consumption. The focus on energy supplies and sources remained a major issue, closely connected to that of climate change.

Fossil fuels are a major cause of the GHG emissions that drive global warming, and during 2009 calls for investment in renewable energy sources that can eventually replace fossil fuels were intensified. Despite a fall in global energy demand, the International Energy Agency (IEA), in its "World Energy Outlook 2009" estimated world primary energy demand being 40 percent higher by 2030 than today, with fossil fuels accounting for more than three-quarters of the increase. The agency noted that energy efficiency offers the greatest potential for cutting GHG emissions today. The biofuel issue, high on the 2008 agenda due to the spike in food prices, remained a topic in the search for mitigation options.

» More on the energy challenge: www.yara.com/sustainability

#### **Our** solutions and contributions

*Yara* is a major consumer of energy and one of the industry's most energy-efficient fertilizer producers, with most plants upgraded to optimize efficiency. We are also exploring ways to reuse waste heat, and our fertilizers can more than double energy build-up in crops.

Most of our energy consumption is natural gas and is related to the production of ammonia, the starting point for nitrogen fertilizers. A large part of the gas acts as raw material that adds hydrogen to the ammonia, while the remainder, usually 20-30 percent, is used for combustion purposes to provide processing heat. To reduce our energy costs and carbon footprint, we have established energy management systems and are continuously optimizing energy efficiency. Our main production units are ranked among the most energy efficient units in Europe and worldwide, and form part of the basis for the industry benchmark level. Also, we have partnered in the development of an innovative concept for the reuse of heat in the Netherlands, and we develop plant nutrition concepts for energy crops.

» More on Yara and energy supply in 2009: Page 14 and 21



### **ENERGY HUNT** Our Systematic Energy Management initiative is a

top priority at our production facilities. Local Energy Hunters have been appointed at each site to drive the initiative, aiming to improve follow-up of energy efficiency measures and to realize potential savings.



#### **ENERGIZING BIOMASS We**

have carried out field trials showing that fertilizers can more than double the energy yield of crops. With this in mind, we are targeting crop nutrition solutions and tools for energy crops, supporting the substitution of fossil fuels to reduce GHG emissions.



#### WARMCO<sub>2</sub> Our Sluiskil plant in the Netherlands delivers waste heat and CO<sub>2</sub> to local greenhouses. Replacing the gas burners previously used to provide heat

previously used to provide heat and CO<sub>2</sub> in the greenhouses, the WarmCO<sub>2</sub> project reduces GHG emissions and local environmental impacts.



#### ENERGY EFFICIENCY

Production curtailments had a negative effect on energy efficiency in 2009. However, we increased energy efficiency by 14 percent from 2005 to 2008, thanks in large part to technological and process improve-

### Health concerns

**Safeguarding human health** is a major global challenge. Health status is linked to several key issues, such as food security, improving nutrition intake and climate change increasing the spread of diseases, affecting public health.

## Global challenge, shaping issue

Health concerns are a crucial aspect of social development, also affecting economic growth. In 2009, public health was challenged by undernourishment in poor countries and lifestyle diseases in affluent societies, with the global crises having a negative impact.

During 2009, public health was increasingly linked to climate change, as well as food security. The WHO, in its report on 'Protecting Health from Climate Change' pointed at the potential of climate change to act as a multiplier of existing health challenges such as control of vector-borne and other infectious diseases, especially in tropical areas. Furthermore, harmful emissions to air and water cause sickness and death. It has been proven that NOx contributes to the formation of ground-level ozone and smog, which aggravate breathing conditions for people with respiratory diseases, with asthma being the largest chronic disease amongst children in the Western world.

» More on the health challenge: www.yara.com/sustainability

#### **Our** solutions and contributions

*Yara* contributes to human health with agronomic and industrial solutions. Our crop nutrients and agricultural knowledge improve food quality; our industrial solutions help reduce harmful emissions and preserve the quality of fresh food.

Access to high-quality food, clean water and fresh air are prerequisites for human health, and our solutions cover all three aspects. Our environmental solutions are widely used across Europe and increasingly in other markets. They include cleaning of potable water, prevention of odor and health hazards from sewer systems, which is a well-known health problem in many cities, and technologies for reducing  $\mathrm{NO}_{\mathrm{X}}$  emissions from vehicles and stationary applications. Solutions that prevent harmful  $\mathrm{NO}_{\mathrm{X}}$  emissions to air, help improve the health conditions of millions of people

» More on Yara and health concerns in 2009: Page 16



NUTRITIOUS FOOD Our mineral fertilizers support healthy plants and contain a wide range of nutrients that are beneficial to humans. Through research and field trials, we have also proven that certain fertilizers can reduce uptake of the harmful heavy metal cadmium in plants under acidic conditions.



CLEANER AIR We are a leading provider of NO<sub>X</sub> abatement solutions for vehicles, as well as stationary and maritime applications. In 2009, these solutions contributed to a reduction of about 591,000 tons of NO<sub>X</sub> emissions from customers' applications.



HEALTHIER CITIES Our odorcontrol solution for sewer and wastewater systems prevents formation of the odorous, corrosive and highly-toxic gas, hydrogen sulfide (H<sub>2</sub>S). Widely used in European cities, our solution prolongs the lifespan of infrastructure and prevents bad odors and health hazards in communities.



FORTIFIED FOOD Our mineral fertilizers carry vital nutrients into plants and further into the food chain. This ability is for instance, used in Finland where selenium is added to all mineral fertilizer products to help alleviate selenium deficiencies in the Finnish population.

# Management discussion & analysis

#### Quick overview

**DURING 2009**, Yara reinforced its corporate citizenship. Extensive stakeholder engagement continued, with Yara highlighting the link between climate change and food security. A compliance unit was established and an ethics program was developed. The company's carbon footprint was further reduced.



#### CLIMATE CONNECTION

YARA employs its technological solutions to cut GHG emissions, reducing its carbon footprint.

37%

GHG REDUCTIONS: Yara has reduced its carbon footprint by 37 percent from 2004 to 2009. A new target has been established to cut GHG emissions by 45 percent by 2013, compared to 2004 levels.

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#### MD&A 2009

## **Solutions** based on knowledge

Yara extended its business-driven corporate citizenship engagement during 2009. Continuing to play an active part in the global arena, Yara particularly aimed to shape the global agenda regarding climate change – linking it to agricultural productivity.

Yara considers corporate citizenship an integral part of its overall strategic direction. Building on its industrial platform and global presence, Yara is positioned to contribute solutions to global challenges, combining corporate citizenship with the pursuit of business opportunities.

Externally, Yara has chosen to leverage its core business and global position within specific areas where it can contribute and make a substantial, positive impact, responding to major global challenges. *Internally*, Yara is committed to adhering to laws and regulations of the countries in which it operates, as well as its own Code of Conduct and stringent rules, not least regarding safety and product stewardship.

On the *external* axis, Yara in 2009 continued its strong support of an African green revolution, acting as a catalyst in establishing novel public-private partnerships and agricultural growth corridors. Also, Yara engaged in a global stakeholder dialogue on climate and food, and maintained its dialogue on energy and emissions, particularly in Europe.

On the *internal* axis, Yara in 2009 intensified its work on compliance, establishing a corporate compliance unit, and developing a new human resources strategy as well as an ethics program. The continuous focus on occupational health and safety was further intensified, and emissions further reduced. The company's R&D and business innovation was invigorated.

#### **Business** overview

Yara's global activities range from phosphate mining and ammonia production, through commodity trading and energy arbitrage,

to building local market knowledge and developing customer relationships. The company offers the industry's most comprehensive fertilizer product portfolio, supported by large-scale sourcing, production and trade as well as presence in the local marketplace. During 2009, Yara retained its global position as the world's leading provider of nitrogen-based mineral fertilizers and industrial products, and its unrivalled global presence (see map, pages 2–3). In recent years, the company has seen strong growth in the markets for industrial products and solutions.

» More on the company: www.yara.com



#### Global environment

2009 highlighted the relevance of Yara's citizenship approach. As a truly global company, Yara was influenced by the financial crisis that stalled global growth. At the same time, attention was drawn to the close connection between food production and climate change, a factor maturing the market for Yara's solutions.

#### GLOBAL TRENDS

Together with the shaping issues identified in Yara's citizenship approach (see pages 6–10), three *major trends* of paramount importance are exerting influence on Yara's strategy execution: growth, globalization, and urbanization. Driving industry development and shaping market demand, these factors will influence the company as well as its customers in the decades to come.

Global *growth* – of economies and populations – generates increased demand for food, in turn driving the demand for Yara's crop nutrition and agronomic solutions. Facilitating global trade and the transfer of capital and knowledge, *globalization* eases the operation of a global company. Continued *urbanization* contributes to the environmental challenges that support future demand for Yara's environmental solutions. More stringent environmental regulations in several markets also create further demand for these solutions.

» More on global trends: www.yara.com/sustainability

#### **GLOBAL DEVELOPMENTS**

Three major dimensions which affect Yara, as well as society at large, are global economic development, political development, and social development:

#### Economic development:

In 2009, global growth stalled following the recession that came in 2008, before easing towards the end of 2009 and into 2010. The recession also affected the agricultural sector, which was already suffering from low investment levels. In their joint "Agricultural Outlook 2009–2018" report, the Organisation for Economic



Co-operation and Development (OECD) and the UN Food and Agriculture Organisation (FAO) concluded that the agriculture sector is showing more resilience to the global economic crisis than other industries "because food is a basic necessity".

#### *Political development:*

In 2009, global warming and its anticipated effects on economy and society became a major policy issue, culminating with the UN Climate Change Conference (COP 15) in Copenhagen in December. The prominence of the climate change issue was emphasized by several high-level meetings and substantial reports during the year, including the World Bank's "World Development Report 2010" devoted to the issue. Closely associated with climate change and food production is the question of water availability, also a political matter calling for international cooperation and coordination.

#### Global agenda: Climate and food

The finance crisis, the food crisis, and the climate crisis all made their mark in the global arena in 2009

During 2009, the connection between *climate change* and *food security* came to political attention, based on growing scientific knowledge and public awareness. Yara took active part in the global arena, moving the agenda to connect the food and climate issues.

#### **FOOD SUMMITS**

The international debate on food security was raised with full force in 2008, and followed up by the G8 at its summit in L'Aquila in July 2009. Adopting a statement on food security, the G8 promised increased support to agriculture and pointed to the need for a comprehensive approach, including increased productivity and emphasis on private sector growth, and public-private partnerships. Calling on the G8 to invest in increased agricultural productivity, the IFA, with the participation of Yara, argued that without mineral fertilizers three billion people would suffer from hunger, against the one billion today.



#### **CLIMATE ATTENTION**

At the UN World Summit on Food Security in Rome in November 2009, food security was directly linked to climate change, with UN Secretary-General, Ban Ki-Moon stating that "There can be no food security without climate security." Yara continued to promote this position in 2009, arguing the case for improved agricultural productivity and the need for innovation and cooperation. The annual meeting of the World Economic Forum (WEF) in Davos was another important venue for raising the twin issues of food and climate, with Yara playing a leading role at the gatherings in 2009 and 2010. Yara sat on the project board of the multi-stakeholder initiative "A New Vision for Agriculture", presented at the meeting in January 2010.

#### Social development

In 2009, global hunger reached record levels despite good harvests, largely ascribed to the combination of food and financial crises, and additionally to climate change effects. The global food crisis which came to global political attention in 2008, continued into 2009. Food prices came down from the record levels of 2008, but remained high. In its "State of Food Insecurity 2010", the FAO and the World Food Programme (WFP) recorded that 1.02 billion people, about a 100 million more than the previous year, lived in hunger. Food prices have become increasingly linked to energy prices, and particularly oil prices.

#### **Global** solutions

Yara has developed technologies as well as products and solutions that are highly relevant for some of the most pressing global challenges and issues, not least those of *climate change* and *food security*, as well as *energy supply* and *health concerns*.

#### **CROP NUTRITION SOLUTIONS**

Yara promotes the position that global food security depends on

increasing agricultural productivity. This implies utilizing the full potential of existing crop land through improved farm management rather than expanding acreage at the expense of forests and other habitats that are vital to securing a sustainable future. With this approach pressure on remaining forests is eased, reducing land use change, which is a major driver of global warming.

With the market's most complete portfolio of fertilizer products and its crop nutrition concepts, Yara can assist growers in improving agricultural productivity and increasing food production. The company's extensive agronomic R&D supports the strategy of intensified yet sustainable production, focusing on increased nutrition efficiency through best management practices. Yara's Crop Nutrition Concept is an answer to this challenge. It is designed to tailor fertilizer application to the specific crop and growing conditions, for maximum efficiency in optimizing yield. Yara's products and concepts also

offer solutions to key factors constraining agricultural productivity, including water shortage and land degradation.

#### INDUSTRIAL SOLUTIONS

Yara shares the concern over global warming, and has engaged in R&D to reduce the carbon footprint of its own production process as well as that of agriculture. As a result, Yara is one of the most energy-efficient fertilizer producers. It has successfully developed  $N_2O$  catalyst technology which has vast potential to cut global emissions. If implemented in all nitric acid plants worldwide, it could contribute to a global reduction of close to 100 million tons of  $CO_2$  equivalents a year.

Yara has seen strong growth in its environmental solutions business in recent years. This market is largely driven by stricter air quality legislation around the world, with Europe, North America and Australia at the forefront. During 2009, Yara continued to explore opportunities and offer solutions due to the market pull for environmental products in industrial growth markets, including NOx abatement solutions for vehicles and industrial plants, and the Nutriox solution that prevents bad odor and health hazards resulting from the formation of the highly toxic H<sub>2</sub>S gas.



» More on Yara products: www.yara.com

#### Knowledge development

Yara has a century-old tradition of knowledge development and innovation that has contributed to the company's position. Innovation was a key issue at the company's annual Management Summit, and the new position of Chief Technology Officer (CTO) was established in order to coordinate R&D activities.

#### PEOPLE DEVELOPMENT

In 2009, Yara developed a new human resources (HR) strategy. Launched in 2010, it entails a strategic business focus with three priorities: optimizing workforce performance; building a "candidate pipeline"; creating a highly valued work culture. The latter

means an increased focus on talent retention, teamwork, and processes. Integrating diversity and mobility with these is high on the management agenda. Yara's HR organization has been made into a global function, with a strong focus on providing direct, high-quality and relevant support to managers, employees, and the company as a whole. This will ensure consistency in HR activities and strengthen transfer of best practice across company operations.

The revised HR strategy recognizes that the recruitment, development and retention of the right people and expertise levels are crucial to further success and continued growth. Yara believes that focusing on workforce diversity will attract and retain top talent, and encourage all employees to reach their own full potential. To guarantee the professional development of employees, Yara offers on-the-job training along with complementary courses and programs. The company's e-learning platform, Edvantage, also offers a variety of courses.

In 2009, Yara spent roughly NOK 23.5 million on external training of its workforce, equaling about NOK 3000 per employee. About 75 percent of supervised employees and 80 percent of managerial grade employees received appraisal and development reviews. Yara aims for such reviews for every employee, and communicates this goal through the Ethics Handbook, which also provides guidelines for both employees and managers on how to perform constructive appraisal processes. Yara also aims for anti-corruption training for all employees. This will be implemented and monitored through the Ethics Program in 2010. In 2009, roughly 400 employees received tailored anti-corruption training provided by the new Ethics and Compliance Department (see pages 18–19).

#### RESEARCH & DEVELOPMENT

Quite unique in the fertilizer industry, Yara has retained its own R&D structure, which is closely linked to production as well as marketing. R&D is carried out at the company's agronomic center Hanninghof in Duelmen, Germany, at the center for foliar products in Pocklington, UK, and at the technology centers in Porsgrunn, Norway and Sluiskil, the Netherlands. In 2009, an extension of the Hanninghof Center was established in Shandong, China. In 2009, Yara's prize for academic achievement in the field of Physics and Chemistry, the Birkeland Prize, was awarded to the German chemist, Dr. Melanie Zimmermann.

#### Agricultural R&D

Yara continuously develops improved plant nutrition concepts and innovative agronomic solutions. The main focus is on nutrition strategies that create higher agricultural productivity, contributing to food security and sustainable agriculture. Through 2009, Yara continued several field and pot trials aimed at improving a crop's uptake of nutrients, and hence, the utilization of mineral

fertilizers. Yara continued to improve decision-making tools for growers, including a project on how to turn mobile phones into a fertilizer recommendation tool, dubbed the CropImage solution. Also, Yara is engaged in research aimed at reducing the environmental impacts of agriculture which contribute to global warming. Pioneering the use of life-cycle assessments (LCA) in agriculture, Yara has pinpointed hotspots for reduction of the carbon footprint of crop growth and engaged in activities targeting reduced N<sub>2</sub>O emissions from fields.

#### Technological R&D

Yara's technology centers focus on improving production processes, catalyst technologies and industrial applications as well as product quality and market support. By fine-tuning the company's production platform, these R&D activities contribute to production efficiency and reliability, adding the benefit of increased energy efficiency and reduced emissions. Through 2009, Yara continued improvements of its N<sub>2</sub>O catalyst technology and headed an EU funded project investigating a new catalyst technology for nitric acid production that could potentially lead to significant savings and environmental benefits. Yara also continued to improve its environmental abatement technologies, working alongside customers and providing tools and services to ensure that they are applied in the best possible way and perform to expectations.

#### Stakeholder engagement

Yara is in continuous dialogue with key stakeholders, particularly its owners, partners and customers, as well as with national and regional authorities, and international organizations. In addition, Yara is engaged in a number of partnerships and organizations, on a global, regional and local level.

#### **PUBLIC AFFAIRS**

During 2009, Yara was involved in international dialogue related to all of its four shaping issues, as well as other policy-related matters:

#### Energy

As Europe's largest industrial consumer of natural gas, Yara has strengthened its role as key stakeholder in the processes leading to a more liberalized European gas market. Yara has made valuable contributions to several political initiatives that have been proposed at a European level, based on the company's European position, experience and technical knowledge. Processes leading to increased transparency for the benefit of gas customers, more efficient balancing and better regulation of the European gas market are political efforts in which Yara is currently strongly involved. Moreover, due to Yara's level of gas consumption and significant role as a pan-European industrial actor, both the European Commission and the European Parliament rely upon expert information being communicated to them from Yara. Dia-

logue and cooperation with relevant authorities from a number of EU member states has also been initiated to improve the level of understanding related to the future implementation of new legislation.

#### Climate

Yara engaged in the climate change issue in several ways, including through the industry associations International Fertilizer Industry Association (IFA) and Fertilizers Europe (formerly EFMA). Through IFA, Yara participated in the process leading up to the UN Climate Change Conference in Copenhagen in December, including the World Business Summit on Climate Change in May, hosted by the UN Secretary General Ban Ki-Moon. Yara also took part in the Fertilizers Europe conference on agriculture, fertilizers and climate change in Brussels in February. In several arenas and in various contexts, Yara highlighted the link between climate change and food security (see below). Through Fertilizers Europe, Yara engaged in dialogue with the EU on its "Climate action and renewable energy package", in which all European ammonia and nitric acid plants will be regulated by the Emissions Trading Scheme (ETS) as of 2013. Fertilizers Europe argues that the currently proposed benchmark level for emission allowances will add extra costs to the already energy-efficient European fertilizer industry. This is likely to lead to increased supplies from non-regulated areas with generally lower energy efficiency and higher GHG emissions, increasing global emissions rather than reducing them.

#### Food

Yara continued its commitment to the global effort to achieve food security, participating in a number of high-level international meetings focused on increasing agricultural productivity, and clarifying the connection between food production and climate change. This engagement included the UN "High-level Meeting on Food Security for All" in Madrid in January, and the FAO "World Summit on Food Security" in Rome in November, as well as the preparatory "High-level Expert Forum on How to Feed the World 2050" in Rome in October. In May, Yara participated in the 17th policy session of the UN Commission on Sustainable Development (CSD-17) in New York, and represented the IFA in the CSD ministerial meeting. Yara took a representative position for the agricultural business sector at the World Economic Forum Annual Meeting in Davos in January 2009, and at the regional Forum on Africa in Cape Town in June, and again at the 2010 annual meeting. At Davos, Yara hosted seminars and the CEO co-chaired sessions. For the fifth consecutive year, the Yara Prize for an African Green Revolution was awarded in Oslo, and a highlevel seminar was hosted. As part of its Africa program (see box), Yara participated in the "Agri Business Forum" in Cape Town in June, and the Partnership Platform meeting of the Comprehensive Africa Agriculture Development Programme (CAADP) in Abuja in November.

#### Health

Yara engaged in policy debates within the EU on achieving cleaner air, providing expert advice on several processes, including the policy debate leading up to the review of the Integrated Pollution Prevention Control Directive, otherwise known as the Directive on Industrial emissions. Yara also supplies expert input for the working groups on the Best Available Technology documents (the BREFs) for several industrial processes. Furthermore, Yara monitored the review of the international regulations establishing new NO<sub>X</sub> emission limits for pollution from non-road machinery, including inland waterways vessels. Yara engaged with key stakeholders to push for solutions for cleaner air at conferences on AdBlue and DEF in Beijing, Brussels, and Las Vegas, and with authorities on H2S issues in Europe and the Middle East. At EU level, the company also took part in a stakeholder meeting on trading SO<sub>x</sub> and NO<sub>x</sub> in Brussels in April, and in working group meetings regarding the implementation of the upcoming Euro VI legislation and the review of the Non-Road Mobile Machinery (NRMM) directive. An international campaign, supported by Yara through the IFA, was launched in 2009 to encourage governments to utilize fertilizers fortified with zinc. Zinc deficiency is a major health problem, not least affecting children.



#### Other issues

In June 2009, Yara was the co-host of an international seminar for a cleaner Baltic Sea in Helsinki. In February 2010, the CEO participated in the Baltic Sea Action Summit, also in Helsinki. The summit was a multi-stakeholder platform for heads of state, companies, business leaders, non-governmental organizations as well as individual citizens, aiming to find ways to rescue the area. The CEO presented the research project TraP (2007–11), in which Yara and its partners have developed a solution that significantly reduces phosphorous leakage from fields into waterways. It uses gypsum to better trap phosphorous in fields, and midway results are very encouraging. Erosion has been reduced by 30–70 percent, and nutrient uptake improved.

In September 2009, Yara paid homage to a close friend, Dr. Norman E. Borlaug, who passed away at the age of 95. Dr. Borlaug,

whose work with the Green Revolution was recognized with the Nobel Peace Prize in 1970, was an ally of Yara's in its engagement in support of an African green revolution.

In January 2010, Yara reached an agreement to sell its shares in the Brazilian company *Fosfertil* to Vale, along with its stake in the Anitápolis phosphate rock project in southeastern Brazil. The latter was held through Yara's joint venture company, *Indústria de Fosfatados Catarinense*. The project of developing the phosphate mine, still at an early stage, caused some contention in 2009 due to environmental concerns and some local opposition. Yara's interest in the project resulted from its acquisition of *Adubos Trevo* in 2000.

#### **PARTNERSHIPS**

In 2009, Yara strengthened its engagement in fostering private-public partnerships in support of an African green revolution, following up on initiatives taken since the launch of its Africa program in 2005 (see box). In 2009, Yara was involved in five such partnerships; one each in Ghana, Malawi, and Tanzania, plus the regional Agricultural Growth Corridor Initiative with projects in Mozambique and Tanzania. In connection



with the corridor initiative, Yara signed a strategic cooperation agreement with the Norwegian government in January 2009. Yara continued its partnership with the environmental organization Bellona to address key environmental challenges. Yara also supported the Zero Emission Resource Organisation (Zero) and sponsored the Agri Business Forum 2009 in Cape Town.

#### **MEMBERSHIPS**

Yara is a corporate member of the International Fertilizer Industry Association (IFA), and of Fertilizers Europe (formerly EFMA), and holds key positions in the European Industrial Gases Association (EIGA) and in CEFIC (European Chemical Industry Council). Yara is a signatory to Business Action Against Corruption (BAAC), and to the UN Global Compact (UNGC); in 2009, the company signed onto the UNGC Caring for Climate initiative. In 2009, Yara also joined Transparency International (TI), Norway, and works

#### Africa program: Agricultural growth

Yara's Africa program includes a set of initiatives launched in conjunction with and following its centenary in 2005, supporting an African green revolution.

#### YARA PRIZE

In 2009, the Yara Prize for an African Green Revolution was awarded for the fifth time. Peter K. Munga, Chairman of Equity Bank Limited, Kenya and the National Smallholder Farmers' Association of Malawi (NASFAM) were joint winners. The prize is awarded by the Yara Foundation.

#### **GREEN REVOLUTION**

In 2006–08, Yara hosted the Oslo series of African Green Revolution conferences. Following a decision to transfer the event to Africa, a high-level African Green Revolution Forum Seminar was held in Oslo in September 2009. Yara sponsored the AgriBusiness Forum in Cape Town in June, following the World Economic Forum (WEF) Africa meeting, where Yara promoted its corridor concept (see below).



#### **AGRICULTURE PROJECTS**

In 2009, Yara further developed its Agricultural Growth Corridor concept, launched with extensive acclaim at the UN General Assembly in 2008. It now includes two projects: a blueprint for the Beira Agricultural Growth Corridor (BAGC) was prepared, ready for implementation; the proposal for a Dar es Salaam corridor was presented. In addition, Yara has played a key catalyst role in launching three value chain projects: In 2009, the Malawi Agricultural Project (MAP) was prepared for rollout; the Ghana Grains Partnership (GGP) was rolled out; the Tanzanian Agricultural Partnership (TAP) extended its rollout. The CEO hosted a roundtable on the corridor initiative at the annual meeting of the WEF in January 2009, followed up at the 2010 meeting. The projects are all in line with African priorities.

actively with TI to ensure, as far as possible, that its practices are in line with the organization's recommendations. Yara also joined TI Ghana in 2009, and supports TI networks in other countries. Yara is a member of the Development Policy Forum (DPF), a partnership among central players defining and implementing European development policies, and the World Economic Forum (WEF). As a joint call to action in response to the global challenges presented at the 2009 UN Commission on Sustainable Development (CSD–17), the multi-stakeholder coalition Farming First was established with the participation of Yara.

#### **Product** stewardship

The principles of product stewardship, as set out by Fertilizers Europe, guide all of Yara's activities. They ensure that proper care is taken along the entire value chain, from product development and purchase of raw materials, through production, storage and distribution, to sales, delivery and usage. IFA is now adopting the same principles for global implementation, with Yara as a main contributor in establishing the framework and contents of such activities.

#### YARA'S REACH PROGRAM

The EU regulation on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) requires the classification, testing and registration of all substances in the European chemical industry. While it is a costly process with profound impacts on Yara's operations, REACH also has its benefits. It establishes a thorough lab-to-label quality control of chemicals on the European market, and only eligible players will have market access. This improved control and knowledge of chemical substances will help safeguard human health and the environment.

Yara's REACH program is tackling the regulation in four ways:

**Get compliant:** Registration of substances according to deadlines, defining business process changes and preparing the organization **Stay compliant:** Daily execution of the revised work processes and managing of future changes

**Support compliance:** Development of IT tools to manage data flow, and continuous updates of work procedures and steering documents

**Report compliance:** Implementation of new product labeling and provision of extended safety data sheets

Yara successfully completed the first phase of REACH in 2008, pre-registering close to 1,700 manufactured and imported substances. In 2009, Yara continued its preparations for the next registration deadline in December 2010, contacting about 700 suppliers to gather information on purchased substances, informing thousands of customers, and launching an online tool to assure

customers that their use of substances will be included in Yara's registration. Leading up to the 2010 deadline, Yara will cooperate closely with other parts of the industry to carry out testing and documentation of products. Also, Yara will revise safety data sheets for all products and update packaging and labeling.

#### CERTIFICATION

In 2009, Yara continued the process for certification of plants according to the international standards ISO 9001 Quality management systems, ISO 14001 Environmental Management Systems, and OHSAS 18001 Occupational Health and Safety Management Systems. This process is well on the way toward completion in 2011 (see table on page 24), with certification being carried out by Det Norske Veritas. In addition, certification in accordance to other standards is also in place, such as for energy management and food quality systems.

#### **Ethics** and Compliance

In accordance with the CEO's Leadership Agenda, Yara established an Ethics and Compliance Department in March 2009. Chaired by the new function of Global Head of Compliance, it is responsible for coordinating and overseeing ethics and compliance work, including oversight of corporate citizenship commitments and reporting. In addition to the department, an Ethics Working Group was set up, with group members drawn from various functions and geographical locations to ensure that compliance activities are relevant to the company's diverse activities. In addition, five Regional Compliance Coordinators were appointed and received extensive training to be a further regional resource for the organization.

#### ETHICS PROGRAM

During 2009, significant effort was invested in the development of the Yara Ethics Program (see fact box on next page), including the Ethics Handbook, which is based upon the fundamental principles of Yara's Code of Conduct, and structured around Yara's core values: ambition, teamwork, trust, and accountability. This process involved input from large parts of the organization, including the Executive Management Team and Ethics Working Group, as well as local managers and employees. The program, which was finalized by the end of 2009, provides a comprehensive set of ethical guidelines and tools to assist managers and employees in making the right decisions when facing ethical dilemmas. Implementation of the program continues in 2010.

#### CITIZENSHIP COMMITMENTS

The Ethics and Compliance Department in 2009 followed up on several actions related to Yara's corporate citizenship commitments. Yara has been a signatory to and active supporter of the UN Global Compact since 2006, and in 2009 it participated in two

UN GC Nordic Conferences. The department introduced itself at the UN GC office in New York, discussing future cooperation.

Yara continues to report according to the Global Reporting Initiative (GRI) and is committed to improving the application of this framework. To further streamline and improve the quality and completeness of the company's non-financial reporting, an internal project to consider the implementation of a new IT solution has been initiated.

Yara did not identify non-compliance with laws or regulations regarding human rights, anti-competitive behavior, corruption, marketing, customer privacy or the provision and use of products, including their health and safety impacts, in 2009.

#### **Operational** performance

2009 was an extraordinary year for the industry, and for Yara. The global recession made its impact on the global fertilizer market, with the significant decline in demand for fertilizer strongly affecting Yara's operations.

#### Yara Ethics Program

Yara has a long tradition of strong ethical behavior. In 2009, this was continued through the establishment of a company-wide Ethics Program.

The Yara Ethics Program was developed in 2009, and rolled-out globally in February 2010. Based on the company's Code of Conduct, it is applicable to all Yara employees, contractors and consultants working on company sites.

The Ethics Program consists of five components.

The Ethics Handbook details the principles of the Code of Conduct and gives practical advice relevant to Yara's activities as well as information on internal and external resources for employees. The Ethics Handbook and Videos (below) have been prepared in Yara's nine corporate languages.

The Ethics Hotline is a confidential system, also known as a "whistleblowing line", by which any employee, consultant



#### **ECONOMIC PERFORMANCE**

In 2009, Yaras' revenues and other income was NOK 61.4 billion, down from NOK 88.8 billion in 2008. Net income after non-controlling interests declined by 54 percent from 2008, to NOK 3,782 million in 2009. The full-year results mainly reflect lower prices and margins for the company's products. Also, Yara's fertilizer deliveries declined two percent on a global basis; up eight percent outside Europe, but down eleven percent in Europe, which is Yara's biggest market. Europe accounted for roughly 50 percent of the company's fertilizer sales in 2009, followed by Latin America (17 percent), North America (13 percent), Asia (12 percent) and Africa (8 percent). Despite the challenging market conditions, Yara's Industrial segment experienced a four percent decline in sales volumes, but delivered strong results from higher margins.

or contractor can report any unethical behavior known of or suspected at Yara, at any time of the day or week.

The Ethics Portal is a dedicated area on the Yara Intranet site, with access to tools, resources and online discussions on ethical or compliance related dilemmas.

The Ethics Videos is an interactive e-learning video training program. It has been implemented as a mandatory part the performance review process, initially in the Downstream and Industrial segments in 2010.

The Ethics Resources and Training is a company-wide training and support structure providing support for managers and employees. It includes the Ethics and Compliance Department as well as locally-appointed and trained Regional Compliance Coordinators. Throughout 2010, all Yara employees will receive training tailored to their respective function and region.

Health, safety and environmental performance 2005–2009

	2005	2006	2007	2008	2009
HEALTH AND SAFETY					
LTI rate (lost-time injuries per million hours worked)					
LTI rate employees	1.0	1.1	1.5	1.0	1.
LTI rate contractors	0.9	1.6	2.3	2.0	2.
LTI rate employees and contractors	0.9	1.3	1.7	1.2	1.
TRI rate Yara (total recordable injuries per million hour worked)	3.2	2.8	3.3	3.5	2.
Sickness rate production sites (percent)	3.2	3.6	3.7	3.8	4.
ENVIRONMENT					
GHG emissions (million ton CO <sub>2</sub> equivalents)					
N <sub>2</sub> O emissions	10.5	9.4	8.2	7.4	4.0
CO <sub>2</sub> emissons	9.0	8.6	8.2	8.6	8.5
Total GHG emissions	19.5	18.1	16.4	16.0	12.
Eco-efficiency (emissions/production)	100	92.8	84	82.8	64.3
Energy consumption (petajoules)	195.6	182	191.3	206.8	208
Eco-efficiency (emissions/production)	100	95.1	96.9	86	95
Emissions to water (ton)					
Nitrogen (N)	2,862	2,637	2,569	2,895	2,518
Phosphorous (P)	46	54	50	70	49
Total emissions to water (N, P, NO <sub>X</sub> and NH <sub>3</sub> , ton PO <sub>4</sub> equivalents)	3,313	3,151	3,113	3,459	3,37
Eco-efficiency (emission/production)	100	97.2	90.8	85	91
Emissions to air (ton)					
Nitrogen oxides (NO <sub>X</sub> )	8,722	7,961	7,962	8,268	7,84
Ammonia (NH <sub>3</sub> )	2,390	2,409	2,416	2,729	3,278
Sulfur dioxide (SO <sub>2</sub> )	4,461	3,504	3,245	4,761	4,520
Fluoride (F)	562	5	8	12	14
Total emissions to air (NO <sub>X</sub> , NH <sub>3</sub> , SO <sub>2</sub> and F, ton SO <sub>2</sub> equivalents)	16,009	13,614	13,374	15,699	16,19
Eco-efficiency (emission/production)	100	86.9	80.7	79.8	90.
Dust to air (ton)		2,407	2,300	2,921	2,69
Eco efficiency (emissions/production)	<del>-</del>	100	90.4	96.7	98.2
Waste (ton)					
Non-hazardous waste	214,185	15,472	15,596	22,108	19,108
Hazardous waste	3,010	6,477	2,078	2,879	2,024
Eco efficiency (hazardous waste/production)	100	220	66.7	77.9	60.3

For safety: Former Kemira GrowHow plants included from 1 October 2007; Belle Plaine from 1 October 2008. For emissions: Former Kemira GrowHow plants included from 1 January 2008; Belle Plaine from 1 October 2008

#### Sponsorships

Yara has a defined set of sponsoring guidelines, for all levels of the organization. First and foremost, the company supports activities and organization with the common ambition of contributing to solutions for major global challenges related to energy, climate, food and health. In line with this, Yara has developed its Africa Program. Yara also partners with leading NGOs and supports R&D projects that target environmental improvements, such as the TraP project for reduced leaching of nutrients into the Baltic Sea (see page 16). Additionally, Yara's operations worldwide are engaged in and support a wide variety of community projects and local initiatives for the benefit of the public.

#### ENVIRONMENTAL PERFORMANCE

2009 was an extraordinary year, also in terms of our environmental performance. Yara continued its efforts to cut energy consumption and reduce GHG emissions. In addition, production curtailments further reduced resource use. However, while running plants on lower capacities proved beneficial economically, it had undesirable effects on energy efficiency levels.

#### GHG emissions

In 2004, Yara established the ambitious goal of reducing the company's carbon footprint by 25 percent before the end of 2009. Final results show a 37 percent reduction over this period. This

### **Economic value** *generated and distributed,* 2008–2009

	2009	2008
Direct economic value		
a) Revenues	62,704	89,451
Economic value distributed		
b) Operating costs	53,120	69,569
c) Employee wages and benefits	4,602	4,830
d) Payments to providers of capital	2,061	2,468
e) Payments to government	2,178	1,892
f) Community investments	14	14
Total	61,975	78,773
Economic value retained	729	10,678

includes emissions from the newly-acquired plants in Finland, Belgium and Canada, as well as adjustments for market-related capacity reductions in 2009. In 2009, Yara's total GHG emissions amounted to 12.5 million tons of  $CO_2$  equivalents, down from 16 million tons in 2008. In terms of emissions per ton of fertilizer produced, the carbon footprint has been reduced from 1.4 tons of  $CO_2$  equivalents in 2004, to 0.9 tons in 2009.

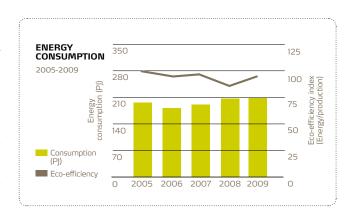
The reductions have primarily been achieved by use of Yara's catalyst technology for reducing  $N_2O$  emissions from nitric acid plants. At year-end 2009, this technology had been installed in 19 of Yara's nitric acid plants. Three further installations are planned in order to cover all nitric acid plants where this technology is applicable.

Yara aims for further reductions of its carbon footprint: the target for 2013 is to reduce emissions by 45 percent compared to 2004 levels.

#### Energy consumption

In 2009, Yara's energy consumption totaled 208 PJ (Petajoules), compared to 207 PJ in 2008. This reflects a slightly lower production volume than in previous year, equaled out by the inclusion of Yara Belle Plaine (21 PJ) in the 2009 figures. Due to the slow-down in demand in 2009, Yara made production curtailments and temporary stops in a number of its plants. Several plants ran at sub-optimal levels energy-wise, resulting in a nine percent decrease in energy-efficiency, measured as energy use per volume produced.

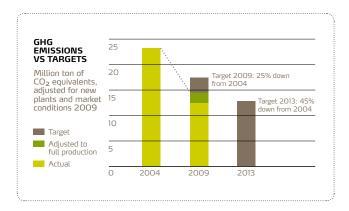
Yara targets additional energy savings through the Systematic Energy Management initiative. This was made a top priority in the Upstream segment in 2008, and implementation continued throughout 2009. Local drivers of this initiative, called Energy Hunters, have been appointed at all major production plants to drive further improvements and establish energy saving projects at each plant. Yara Sluiskil, the Netherlands, participates in a joint research project to develop a second generation advanced process control for ammonia plants. This project has a particular focus on energy efficiency at low production levels, and has received



funding from the Dutch government. In Norway, Yara continued its cooperation with the Norwegian public enterprise, Enova, targeting energy efficiency improvements at the Yara Glomfjord and Yara Porsgrunn production sites.

In 2009, the energy management systems in place at Yara's two German sites, Yara Brunsbüttel and Yara Rostock, were audited against the requirements of the German Renewable Energy Act. This was a milestone in their preparations for an upcoming certification to DIN EN 16001 standard on energy management, which was introduced to support companies in the implementation of management systems for improving energy efficiency, and the reduction of energy costs and GHG emissions. Based on audits performed by DNV, the plants have been granted exemptions from energy taxes under the German Renewable Energy Act. A similar tax scheme has been established in Sweden, where the Yara Köping plant has been certified according to the same standard. Yara will continue certification of other plants, where appropriate.

2009 saw the first deliveries of waste heat from Yara Sluiskil to local greenhouses in the Netherlands. In this WarmCO $_2$  project, Yara together with local partners has developed an innovative concept for making use of surplus heat and CO $_2$  from its plant. Hot water from the plant is heating local greenhouses, and beginning in



2010,  $CO_2$  will be delivered to enrich the greenhouse atmosphere and support plant growth. Replacing gas-fired burners in the greenhouses, the project reduces the growers' GHG emissions as well as Yara's discharges of warm water.

#### Other impacts

Emissions to air and water were also affected by the reduced capacity utilization of Yara's plants in 2009. Total emissions were at the same or below 2008 levels, but eco-efficiency declined. Waste volumes totaled 21,132 tons, of which close to ten percent was hazardous waste. All hazardous waste is managed by waste management specialists. Yara recorded no significant spills or material permit breaches in 2009. In cases where emissions exceeded permission levels, Yara agreed on improvements plans with local authorities.

» For more details on Yara's environmental performance in 2009, see table on page 20

Yara's operations are subject to many environmental requirements under the laws and regulations of the various jurisdictions in which Yara conducts its business. Such laws and regulations govern, among other matters, air emissions, wastewater discharges, solid and hazardous waste management, transportation

strengthen safety activities and operational discipline across the workforce.

#### Health and safety

In 2009, Yara recorded an LTI rate (lost-time injuries per million hours worked) of 1.5 for Yara employees and contractors combined, slightly above the ambitious target of an LTI rate under 1.3. In comparison, the average LTI rate of other fertilizer producers in Europe is three times higher than that of Yara. This was the seventh consecutive year with LTI rates below two, placing Yara firmly among the leaders in industrial safety and the very best within the fertilizer industry. This was also confirmed when Yara Sluiskil was awarded the IFA's Green Leaf Trophy award in 2009. The TRI rate (total recordable injuries per million hours worked) ended at 2.7 for Yara employees, well within the target of 4.0, and down from 3.5 in 2008.

Regrettably, Yara experienced one fatal accident in 2009. A contract worker carrying out repairs died instantly after falling from the roof of a warehouse at the Harjavalta site, Finland. The accident was investigated by local authorities and a Yara team, concluding that Yara was not at fault. Prior to the accident, Har-

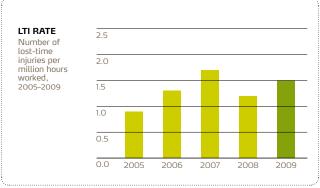


of hazardous materials and remediation of past activities. In 2009, no material legal claim was made against Yara due to health, environmental or safety matters or in relation to operational permits.

Yara has a number of facilities that have been operated for a number of years. Subsurface impact to soil and groundwater and other conditions are common to such sites and may require remediation or give rise to liabilities under the laws of the various jurisdictions in which the facilities are located. Yara has attempted to identify such impacts where they are apparent and is carrying out remediation or containment procedures in coordination with the appropriate authorities. No major cost issues are expected.

#### **SOCIAL PERFORMANCE**

Yara continued its solid safety performance in 2009. At the same time, two serious accidents spurred several new initiatives to



javalta had a record five years without lost-time injury and was named "Forerunner in occupational safety" by the Zero Accident Forum run by the Finnish Institute of Occupational Safety.

Yara also experienced a major accident at the Yara Tertre plant, Belgium, resulting in significant property damage and loss of production, but without serious injury to people. The explosion in Tertre and fatality in Harjavalta were both dramatic reminders of the importance of strict application of safe working rules and procedures, spurring several initiatives to further strengthen safety activities. Following the accident in Tertre, a task force was appointed to attack the root causes of this and previous incidents. Besides technical improvements, the investigations have lead to a strengthening of Yara's focus on process safety, including safety integrity analysis of high-risk operations, more attention to operational discipline and review of competence requirements

#### Breakdown of workforce

	Permanently employed employees			erial grade oloyees	Temporary contracts	
	Total	Male	Female	Male	Female	Total
Africa	436	354	82	68	15	76
Asia	186	112	74	34	17	1
Europe	5,043	4,145	898	656	150	174
Latin America	1,665	1,399	266	113	20	153
North America	270	214	56	24	6	1
Oceania	11	8	3	1	2	0
Sum	7,611	6,232	1,379	896	210	405

and training programs, with special emphasis on the operator and supervisor level.

Based on previous incident reports and dialogue with top safety performers in industry, Yara's Golden Rules were established, covering the most accident-prone activities, including working at heights. The rules will be strictly enforced throughout the organization, instilling the necessary operational discipline and underpinning management's responsibility for preventing unwanted incidents. The importance of adhering to Yara's operational standards and procedures was also incorporated in the safety framework agreement between Yara's European Works Council and the CEO.

In 2009, Yara continued the Behavior Based Safety (BBS) program at all major plants. It facilitates about 40,000 observations and feedback situations each year at the current implementation level. Yara considers the program a driver of employee involvement and safety awareness. This consideration is supported by analysis of safety performance at the plants. Safety awareness was also the focus of the Think Ahead campaign, which includes an updated safety handbook and educational videos, launched throughout the organization in 2009.

Yara increased its attention to crisis and reputation management in 2009. The steering system was assessed and routines updated in order to enhance preparedness in the event of a crisis. Yara also evaluated and updated key roles and responsibilities in handling crises throughout the organization. All responsible personnel received training and performed local reputational risk assessments with support from Yara's global expert organization.

In October 2009, Yara's Head of HESQ & Product Stewardship, Tore Jenssen was awarded the 2009 Francis New Memorial Medal for his contributions to the improvement of safety and product stewardship in the fertilizer industry.

#### Human resources

At the end of 2009, Yara's workforce numbered 7,629 employees

#### **Breakdown** of turnover

		Turnover by gende			Turnover by age	
	Total	Male	Female	<30	30-50	>50
Africa	37	32	5	10	26	1
Asia	18	13	5	5	9	4
Europe	675	508	167	124	229	322
Latin America	306	240	66	97	187	22
North America	16	14	2	3	7	6
Oceania	0	0	0	0	0	0
Sum	1,052	807	245	239	458	355

Note: Due to incomplete reporting from two subsidiaries, the totals presented in the tables deviate from the total number of employees (7,629) reported in Yara's performance management system.

worldwide, down from 7,971 employees a year before. The reduction was primarily related to the closing of plants in Europe (see below), and synergies following acquisitions.

Like the fertilizer industry at large, Yara has a male-dominated workforce. Close to 82 percent of all employees are male; 81 percent at the managerial level. The overall staff turnover rate was reduced to about 14 percent in 2009, from 17 percent in 2008. For several years, turnover has been highest in Brazil where skilled labor is in short supply. Responding to this challenge, a strong HR department has been developed in Brazil. In 2009, it received the Top HR Award from the Brazilian Human Resources Association, a leading non-profit organization in the state of Rio Grande do Sul.

In 2009, Yara finalized the closing process of plants in Kedainiai, Latvia (closed 2008), and in Peremarton, Hungary (closed 2009), involving 128 and 127 employees, respectively. The details of the closing processes were approved by Yara's European Work Council. In addition to minimum requirements by local legislation, compensation packages to employees involved a combination of additional severance pay and early retirement solutions. Yara also cooperated closely with local labor authorities and set up a funding program to support redundant personnel searching for new employment. All employees were encouraged to apply for an endowment from the fund to support education, training or moving costs.

In France, the Issoudun site employing 19 people was closed. Affected employees were offered an employment protection plan, with privileged internal redeployment and support measures for those seeking employment outside the company. Also in France, the ammonia production at the Pardies plant closed down in December 2009 due to substantial changes in the industrial park where it is situated. This is expected to affect 43 jobs.

Yara values its good relationship with employees and their organizations, and works with them on a regular basis. In 2009, about 74 percent of Yara's workforce was covered by collective bargaining agreements.

## **About** the report

The Citizenship Report 2009 is Yara's stand-alone report on citizenship activities and performance. This printed report covers the most material issues related to the company's citizenship approach.

#### SCOPE AND BOUNDARIES

Consolidated data within this report covers the reporting year 2009, unless otherwise noted. Readers should take note of the following changes and limitations to the scope and boundaries of the reporting:

- Environmental performance data covers Yara's 21 major production sites (see table right). Individual Health, safety & environment facts sheets are available for each plant in the Sustainability section on Yara's web site.
- For environmental performance data, Yara Belle Plaine (formerly Saskferco) has been included from 1 October 2008, when Yara assumed operational responsibility of this plant. This has led to a re-statement of emission and energy data for 2008.
- Environmental impacts from transportation and distribution have not been included, as is also the case with staff functions, wholesalers, agents, joint ventures and associated companies.
- Safety performance data covers all Yara employees and contractors' employees working for Yara. Former Kemira GrowHow plants have been included from 1 October 2007; Yara Belle Plaine from 1 October 2008. This has led to a re-statement of safety performance data for 2007 and 2008.
- Sick leave covers employees at Yara's production sites.
- Data on workforce composition is based on individual reports from entities and subsidiaries. This reporting procedure has caused slight deviations between the workforce composition data presented on page 23 and total workforce figures reported in Yara's performance management system.
- Joint ventures are included where Yara has operational responsibility. Yara's joint venture in Libya, Lifeco, will be included in health, safety and environmental performance data from 2010.

#### DATA COLLECTION

Yara's HESQ & Product Stewardship team collects and reviews data on HESQ performance from operations, and the Human Resources team compiles relevant information on Yara's workforce. All data is checked internally.

Plant	ISO 9001	ISO 14001	OHSAS 18001
Ambès	•	•	•
Belle Plaine	2011	2011	2011
Brunsbüttel	•	•	•
Ferrara	•	•	2010
Glomfjord	•	•	•
Harjavalta	•	•	•
Kokkola	•	•	•
Köping	•	•	•
Le Havre	•	•	•
Montoir	•	•	•
Pardies	•	2010	2010
Pocklington	•	TBA	TBA
Porsgrunn	•	•	•
Ravenna	•	•	2010
Rio Grande	•	•	•
Rostock	•	•	•
Siilinjärvi	•	•	•
Sluiskil	•	•	•
Tertre	•	•	•
Trinidad	•	2010	2010
Uusikaupunki	•	•	•

#### MATERIALITY

Yara has considered four criteria in the prioritization of key issues in the company's citizenship reporting:

- Relevance to core business
- Business risks and opportunities
- Significance of future and current impacts on society
- Stakeholders' concerns

This has led Yara to address issues beyond its direct control, namely the four shaping issues; food security, climate change, energy supply and health concern. Being a global company with a considerable workforce and industrial production, Yara also prioritizes workers' health and safety as well as environmental impacts within the company's direct sphere of control.

This printed report covers the most material issues related to Yara's citizenship approach. Additional information on Yara's social performance is given in the web report: www.yara.com/2009

#### VERIFICATION

Following considerations prior to the data compilation for the Yara's Citizenship Review 2008, Yara has chosen not to seek external assurance for its 2008 and 2009 citizenship reports, but rather to focus on improvements of reporting scope and procedures. Yara's practices regarding external assurance will be evaluated as part of the preparation for the 2010 report.

#### **GRI** summary

## **Yara** and the Global Reporting Initiative

Yara's corporate citizenship reporting is based on the Global Reporting Initiative G3 guidelines and reporting framework. Yara has chosen to self declare its application of the GRI guidelines. Based on Yara assessment, the 2009 reporting qualifies for GRI application level B.

web site (www). The table below provides a summary of indicators reported in full for the reporting year 2009. Disclosures on management approach and exact web links are available in the complete GRI index on Yara's web site.



Yara has included GRI reporting elements where possible and applicable in its Citizenship Report 2009 (CR) and Financial Report 2009 (FR), and on Yara's

- » For Yara's complete GRI index, visit: www.yara.com/gri
- » For more information on GRI, visit: www.globalreporting.com

Indicator	Response
1 Strategy and analysis	
1.1	CR 2, FR 10-11
1.2	WWW
2 Organizational profile	
2.1	Yara International ASA
2.2–3	WWW
2.4	Oslo, Norway
2.5	www
2.6	FR 52-54
2.7	FR 28–29, 72–77
2.8	FR 4, 44-49, 72-77
2.9	FR 8-14, 30-31, 36
2.10	CR 4, 22–23, www
3 Reporting parameters	
3.1	CR 24
3.2	April 2009
3.3-11	CR
3.12	This table
3.13	CR 24
4 Governance, commitmer	nts, and engagement
4.1-2	FR 20-23
4.3	FR 16-17, 20-23
4.4	FR 20-23
4.5	FR 108–110
4.6-7	FR 20-23
4.8	CR 18–19,www
4.9	FR 20-23, www
4.10	FR 20-23
4.11	www
4.12-13	CR 15–17, www
4.14-16	www
4.17	CR 15-17, 22-23

Indicator	Response
5a Economic performance indicators	
EC1	CR 19-21
EC2	FR 30-33, 36
EC8	CR 19-21, www
EC9	www
5b Environmental performance indicators	
EN18	CR 14, 20–22, www
EN20	CR 20-22
EN23	CR 22
EN28	CR 19, 22
5c Social performance indicators	
LA1-2, LA4	CR 22-23
LA6	www
LA9	CR 22-23, www
LA11	CR 14-15, 22-23, www
LA12	CR 22-23, www
HR4	CR 18-19
HR5-7	No such operations identified in 2009
HR9	CR 18-19
SO4	CR 18-19
SO5	CR 15-17
SO7-8	CR 18–19
PR1	CR 14–15, www
PR2	CR 18–19
PR3	CR 18, www
PR4-9	CR 18-19

CR: Citizenship Report 2009 FR: Financial Report 2009 www: www.yara.com

**UN Global Compact:** Yara has decided to embrace, support and enact the United Nations Global Compact initiative. The UN GC is a strategic policy initiative for businesses committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labor environment and anti-corruption.

» For more information, please visit www.unglobalcompact.org



FTSE4Good: Yara has been included in the international FTSE 4Good Index Series. The index measures the performance of companies meeting globally recognized corporate responsibility standards, acting as a reference tool for companies and a benchmark index, and to facilitate investment in those companies.

» For more information, please visit www.ftse4good.com





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**CLIMATE CHANGE** is a crucial global challenge, closely interconnected with those of energy, food and health. Yara is a global company with an unrivalled presence and unique market position. We are responding to these challenges by contributing new solutions that benefit stakeholders, shareholders, and society.

**SEEKING SOLUTIONS – CREATING VALUE** 



YARA'S ANNUAL REPORT 2009 consists of two separate documents that can be read independently or as complementary information on the company and its performance: the Financial Report 2009 and the Citizenship Report 2009.

**BOTH REPORTS** are found on Yara's corporate web site, together with other key corporate information:

www.yara.com/2009



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