



# Corporate Social Responsibility Report 2014

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### Introduction

"Corporate Social Responsibility is an integrated part of our day-to-day business."



Jaime Gómez-Arnau

Dear reader,

Welcome to the expectedly last CSR report from Cheminova as an independent company. In 2015, FMC Corporation's acquisition of Cheminova is expected to be completed, so in the future, CSR activities from Cheminova's business area are expected to be integrated into FMC's sustainability report.

Since 2006, Cheminova has published annual stand alone reports on the objectives and achievements of Corporate Social Responsibility. The reporting found its starting point in Cheminova's long history as a responsible producer and global supplier of plant protection products to farmers. Understanding of the issues and dilemmas related to this business has been the area of interest for the CSR reporting. Development and ambitious target setting in relation to environment, safety, product stewardship, and supplier management have been recurring themes in the report over the years.

From the very start, it was clear to us that CSR is an ongoing dialogue-based process in which we address challenges and dilemmas of our business and report on our overall strategy as well as how we strive to make progress in several specific areas

One of the successful strategic achievements is the completion of phasing-out our most toxic products in developing countries.

It is very encouraging that in 2014, we received an honorable mention from the Danish Public Accountants. Cheminova was recognized for showing courage and openness about CSR in the chemical industry and for reporting on our business strategic milestones for CSR and thereby serving as an inspiration to others. Furthermore, we were among the five top candidates to the Danish CSR Abroad Prize.

In the present report, we deal with progress and fulfillment of several specific objectives for 2014.

Development of our overall targets under the headline Chemistry with Care is presented. Furthermore, we include articles that feature selected subjects in more detail with the purpose of providing a broader perspective on our activities.

Under the headline "CSR objectives for 2015 and onwards", we outline our view on business-driven CSR that will be continued and expanded through our expected integration into FMC, which is a company in the plant protection business with a strong commitment to company values, safety, and sustainability.

I am proud of being truly able to thank the Cheminova employees for the serious dedication to integrate CSR into our business. I am sure that this experience, effort, and dedication will add value to the sustainablity activities in FMC as a leader in agricultural solutions.

> Jaime Gómez-Arnau CEO Cheminova A/S



# About the report

This report provides a status of Cheminova's work within the area of Corporate Social Responsibility (CSR) in the calendar year 2014 and thereby fulfills the reporting requirements set out in Section 99a of the Danish Financial Statements Act (Årsregnskabsloven) in accordance with the exception in paragraph 8. The present report constitutes in full the communication of progress in relation to the UN Global Compact. The CSR report provides information about Cheminova A/S, all subsidiaries and joint venture companies with an ownership of more than 50%. The target audience of this report is employees, the authorities, shareholders, customers, and suppliers as well as any individuals and organizations who may have an interest in Cheminova.

It is our intention that the report with its detailed articles on specific activities from 2014 will provide the reader with insight and understanding of the scope of our CSR work and how these activities are an integrated part of the day-to-day business of the company.

# Global Compact and Global Reporting Initiative (GRI)

Cheminova has supported UN's Global Compact since 2009, and this report provides an update on our progress under each of the ten principles of Global Compact. A summary report is presented on page 34. GRI 3.0 indicators at level B have been used as guidance and inspiration for determining content, clarity, and reliability of the reporting. Based on a Danish industry trend as well

as feedback from stakeholders, we no longer apply GRI specific disclosures.

### Organization of the CSR work

Organizationally, the CSR work is managed by Cheminova's day-to-day top management, the Global Executive Committee (GEC), that defines the scope of CSR activities and approves the CSR report. The CSR Committee undertakes coordination of the daily work and reporting with reference to the GEC.

Focus areas have been selected by the CSR Committee with the purpose of providing an informing and systematic reporting concerning essential points of our CSR activities.

The inspiration for selecting the specific issues addressed in the present report comes from input and feedback from the stakeholders which have shown an interest in Cheminova's CSR activities throughout the year.

### **Content of the report**

The report includes facts and short sections on fulfillment of objectives. Furthermore, the report contains articles on progress in selected focus areas from 2014 and special initiatives with importance to our business area. As Cheminova in 2015 is expected to become part of FMC, no action plan or targets for 2015 and onwards are presented. FMC's sustainability report for 2014 will become available at www.fmc.com/sustainability.

# Dilemmas and shared responsibility

It is Cheminova's mission to contribute to the world's food supply. Efficient agriculture is one of the prerequisites for achieving the UN Millennium Development Goals, which among other things are about reducing hunger, poverty, child mortality and improving public health. Nevertheless, Cheminova faces a number of dilemmas as a supplier of products to societies and countries with diverse conditions particularly on safety and correct use of the products. As a company, we have a shared responsibility to improve environmental and working conditions, especially in connection with our own production sites but also through supplier management and product stewardship. The CSR report describes how we address such issues.

# Members of the CSR Committee:

Jakob Lyngsø Andersen, Senior Vice President, Human Resources & Communication

Niels Morten Hjort, Senior Vice President, Production & Logistics

Lars-Erik Pedersen, Vice President, Corporate Communication

Søren Nørby Pedersen, Vice President, Safety, Health, Environment & Quality (Chairman of the Committee)

Uffe Stephansen, Safety Manager

Rune Søndergaard, Director, Executive Support & Compliance

Jens Thorsen, Senior Vice President, Portfolio Management



# Fulfilling CSR objectives for 2014

Overview of objectives and fulfillment. Fulfillment of the specific areas is described in the paragraphs 'Follow up on objectives' in the individual sections of the report.

Objective		Fulfillment
Village projects		
India: In 2014 the use of Good Agricultural Practices (land preparation, seed treatment, weed management, promotion of low dose chemicals) will be established in village projects	$\odot$	Established as planned
India: The Saheli project on women empowerment will be continued in 2014 with skill development programs for self-help groups	$\odot$	The Saheli project continued supported by Cheminova
India: The concept of water conservation in Rainfed Agriculture will be increased in 2014 over 250 acres in three states i.e. Karnataka, Andhra Pradesh and Tamil Nadu	$\odot$	254 acres were added to the project
Brazil: The project among small-scale banana farmers in the state of Goias will be continued in 2014 and so will the dialogue with local agronomists	$\odot$	Momentum of the project kept, and dialogue with local agronomists continued as planned
Brazil: The project on safe and environmentally friendly control of plant diseases among banana farmers in the state of São Paulo will be continued in 2014 increasing the number of farmers		Momentum kept, and the number of farmers increased
Brazil: A project with axil application will be initiated in 2014 at farm level among banana growers in Santa Catarina	$\odot$	Initiated as planned
Helping you Grow – Chemistry with Care		
Continued improvement in 12 months rolling index illustrating the area of farm land where crops and thus the food production is protected by Cheminova's products	$\stackrel{\square}{=}$	Marginal decrease
Continued improvement in 12 months rolling index illustrating the quantity of non-sustainable ingredients applied in Cheminova's products per area unit	<u>=</u>	No improvement
The index illustrating the energy consumption for manufacturing products will be implemented in 2014 with ongoing reporting of a 12 months rolling index with continued improvement	$\odot$	Improvement
At least 10 formulations with a low content of volatile organic solvents will be developed in 2014	$\odot$	11 formulations were developed in 2014
Lower average toxicity of newly developed formulations measured through the average WHO classification in the years 2012-14		The average general toxicity was on par with 2013



### Fulfilling CSR objectives for 2014, continued

Objective		Fulfillment
Production		
India: The amount of COD in the treated waste water will be reduced by $3\%$ in $2014$	$\odot$	The amount of COD was reduced by 12%
India: In 2014, the production at the Formulation Division 1 $\&$ 2 will be ISO 9001 certified	$\odot$	Certificate received
Denmark: Operation of the biological waste-water treatment plant will be reassessed in 2012-15 so that the potential of the plant is utilized in the best possible way	$\odot$	On track. Application submitted for permission to treat three streams. One has been achieved, two are still in the process
Denmark: Steam consumption in a plant for recovery of organic solvent will be reduced by 10% in 2012-15	$\odot$	Equipment for measurement was installed in January 2015. Evaluation expected mid-2015
Australia: Obtain certification of the company's environmental management system according to OHSAS 18001 in 2014	$\odot$	Certification obtained in Q2
Australia: In 2014, the environmental and safety performance will be reassessed and a MHF report submitted to the authority	$\odot$	The MHF declaration was submitted in June
United Kingdom: The number of near-misses reported will be increased in 2014, all safety critical training completed and awareness raised through toolbox talks and poster campaigns	$\odot$	Reportable and non-reportable accidents: 20. Near-misses: 73. Frequency of lost time accidents: 0
Supplier management		
A global audit management system will be implemented in 2014 where SAP is implemented	$\stackrel{\square}{=}$	System partly implemented. Decided to defer the system until the expected merger with FMC
Human Resources		
During 2014 all employees and their direct supervisor conduct a performance and development review	$\stackrel{\square}{=}$	Conducted with a completion rate of 80%
A global Employee Engagement Survey will be conducted in 2014 and action plans developed as needed	$\odot$	Survey conducted and follow-up performed
An operational diversity baseline will be created in 2014 and objectives for gender diversity documented	$\stackrel{\square}{=}$	The operational baseline is created
By the end of 2014, all employees in Denmark have been educated and involved in the SAFE program	$\stackrel{\square}{=}$	More than 90% of all employees in Denmark were educated and involved in the SAFE program
Corruption risks will be mapped in 2014 giving basis for a classification of countries. Educational activity for selected employees	$\stackrel{\square}{=}$	Mapping approved by GEC. Education initiated



# CSR objectives for 2015 and beyond

As Cheminova is expected to be acquired by the American company FMC, the present CSR report contains no specific forward looking objectives for Cheminova. From 2015 and onwards, reporting of CSR activities is expected to be covered by the FMC sustainability reports.

On September 8, 2014, it was announced that FMC had acquired Cheminova A/S. Closing of the acquisition is targeted for early spring this year when Cheminova is expected to become part of FMC.

Both companies subscribe to high business standards with focus on environment, health, safety, and sustainability. Both companies have also issued standalone annual sustainability reports with details of objectives and progress within these important areas.

### **Business driven CSR**

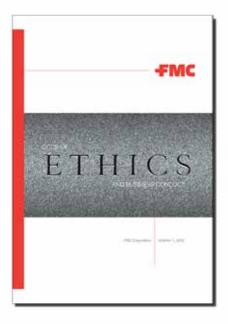
FMC's Code of Ethics and Cheminova's Codes of Business Principles clearly reflect focus on complying with all applicable laws as well as principles, policies, and practices in areas like environment, health, safety, working environment, anti bribery, and several other elements of responsible business conduct. Based on these guiding principles, specific activities have been set in motion, and reporting of progress has been published.

Neither of the two companies considers sustainability/CSR as a project but rather as an integrated part of how we do business.

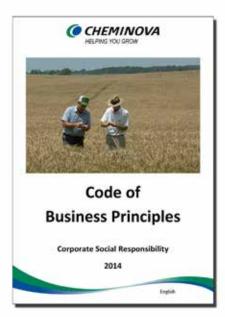
### Further progress to be found in FMC's sustainability reports

Specific areas and objectives have developed over time, but Cheminova has kept a focus on managing our impact on the major global challenges, including scarce resources, environmental consciousness, energy consumption, and the increased demand for food. We have named our efforts "Chemistry with Care", but regardless of the headline, the necessity to deal with these matters is obvious, and activities in these areas are already being addressed in the FMC sustainability reports.











# Helping you grow Cheminova's business activities

### Mission:

We help improve quality of life for the world's population by supplying products that help farmers increase yields and quality of crops to satisfy the global demand for food, feed, fiber, and energy.

### Vision:

We create results for our customers by being a sustainable and innovative world-class supplier of a broad range of quality crop protection products.

Value creation shall match the best among peer companies to the benefit of all stakeholders.

### Values:

We achieve ambitious goals

We are innovative

We decide and act

We recognize results

We are good corporate citizens



The increasing world population needs more food.



# Plant protection

In a world with a growing population and an increasing demand for a variety of food, feed and fiber, there is a need for high yielding agricultural production. Cheminova's primary business is to develop, produce, and provide plant protection products to farmers world-wide.

Cheminovas's business activities are founded on the company's Code of Business Principles and mission, vision, and values. These support and are consistent with the UN Global Compact, the European Chemical Industry Council's (CEFIC) Responsible Care program, and the FAO Code of Conduct. In addition, Cheminova is a member of various global, regional, and local professional organizations like CropLife and resistance management groups under CropLife.

### **Need for plant protection**

UN's Agriculture and Food Organization, FAO, estimates that by 2050, 70% more food than today has to be produced – on roughly the same agricultural area already under cultivation. The yield per hectare should increase significantly just to keep pace with the growing population

and the increasing food consumption with the growing middle class. One of the consequences of this will be an increasing need to protect the crops, which falls well within Cheminova's mission and business area, for example, as seen in an impartial report from November 2013 published by Humboldt Forum for Food and Agriculture e.V. (HFFA). Here it is shown that productive agriculture in Europe contributes essentially to food safety, resourceefficiency, financial stability, improved bio-diversity, and reduced CO<sub>2</sub> emission [http://hffa.info/index.php/resources/ download-publications/publications/ working-paper-5.html].

### **Products**

Cheminova produces herbicides, insecticides, and fungicides. The products are sold mainly as ready-to-use plant protection products under our own brands, own registrations (use permits), and labels. The work underlying approval of the products is described on Cheminova's website. Furthermore, an article on page 12 offers an insight into the current debate and regulatory activities concerning safe use and risk by certain systemic insecticides to populations of honey bees.

In addition to ready-to-use plant protection products, Cheminova also supplies active ingredients to industrial customers for further processing to produce plant protection products. Moreover, we also manufacture and sell a number of fine chemicals for industrial use as well as micronutrients for agriculture.



Plant protection means higher yields.



# **Product Stewardship**

Safety concerns are part of high business standards, where information about correct use of plant protection products increases the safety for users.

### **Reduction of risks**

The underlying principle of Cheminova's stewardship of plant protection products is risk reduction. The cornerstones are observance of national legislation concerning approval, marketing, and sale of plant protection products in all countries where Cheminova's products are sold. In addition, export is subject to EU legislation and the rules of the Rotterdam convention concerning 'prior informed consent' (PIC). Furthermore, we comply with the rules of FAO's Code of Conduct, and we are members of national/regional trade associations engaged in risk reduction in connection with the use of plant protection products. As an important achievement, we have, as described in earlier reports, phased out products belonging to the World Health organization (WHO) Class Ia "extremely hazardous" and Ib "highly hazardous" in developing countries by 2010.

### Cheminova's sales in 2014

In 2014, training and guidance concerning correct and safe use of Cheminova's products have been an integrated part of the daily marketing activities in developing countries. Labeling and instructions

for use, personal contact with distributors and users, as well as participation in campaigns are some of the important tools employed to promote safety. The quarterly reporting to the CSR Committee on product stewardship from countries and regions continued in 2014.

The so-called third party products, supplied from other companies and being part of Cheminova's product portfolio, are covered by our stewardship activities.

Similar to previous years, Cheminova's sales of plant protection products were mainly conducted by Cheminova A/S's subsidiaries. Our products are used in more than 100 countries.

# Sales of the most toxic products make up less than 1% of sales

After the previous years' phase-out of the most toxic products in developing countries, sales have been replaced by less toxic plant protection products.

In 2014, the total sales to all countries of class I products made up less than 1% of total Cheminova sales. The breakdown of products by countries can be seen in the table to the side.

Overview of which class I ready-to-use products Cheminova sold in 2014 and where they were sold

Country	Product
Australia	Methomyl EC
	Omethoate EC

# A concerted effort to reduce risk is the way forward

Safe handling and use of plant protection products is a concern of all responsible companies in the business. Therefore, information, label requirements, demonstrations, and training in safe and correct use of products is on the agenda of the companies as well as professional trade associations. During 2014, Cheminova has - like in previous years - included safe use information as a part of our market and sales activities in developing countries. Furthermore, we participate in stewardship activities organized by trade organizations as well as campaigns lead by authorities.



### Reach of safe use activities in selected developing countries in 2014

Country	Appr. No. of participants		
India	675,000		
Brazil	3,400		
Mexico	2,155		
Colombia	2,140		
Argentina	1,080		

### **Used packaging**

We have continued our partnerships with the national professional trade organizations in several countries concerning handling of used packaging with the purpose of promoting proper disposal of used crop protection product containers. Handling and proper disposal of used containers vary considerably among countries and regions. A well run program has been in place for several years in Brazil, and a pilot project has only just been completed in India where further activities involving governmental authorities are in the planning phase.



Demonstration of safe use is part of marketing in developing countries.



# Honeybees, neonicotinoid insecticides, and the need for sound science

Plant protection products are highly regulated chemicals. Modern farming practices interact with complex ecosystems in nature, and regulations are necessary to protect wildlife. When based on sound science, regulations would still allow farmers to grow crops and feed the world. The dilemma is illustrated by the situation with honey bees and regulation of neonicotinoid insecticides in the EU.

In 2013, the EU member states decided for a temporary suspension of the approvals for specific uses of neonicotinoid insecticides. A rather dramatic step, since this type of crop protection products is very valuable for farmers in protecting their crops, e.g. oilseed rape. Resurgence of pests have already been reported by farmers.

# A complex problem without a single cause

Suspension of the approvals came at a time with reports in media and scientific literature of a general decline in the number of honey bees. According to the EU Commission, the health of bees is linked to many factors of a different nature (bacterial, viral, parasitic, etc.), availability of appropriate treatments, invasive species, and environmental changes. Other factors to be considered include the use of pesticides in agriculture [Source: Communication from the Commission to the European Parliament and the Council on Honeybee Health, December 6, 2010].

Solid documentation for causal relationship between pesticides and decline of bee population is, however, largely missing. The documentation from the open scientific literature consists of a variety of laboratory studies, field studies, population studies, observational studies, and incidence reporting (bee mortality). Whereas each study or report may provide interesting information and observations, it is not necessarily useful in regulation of crop protection products. It has been questioned if the dose rates used in lab studies properly reflect the real field risk for bees [Source: Journal of Apicultural Research, November 28, 2014].

- Studies published in open literature unfortunately do often not contain the raw data but only secondary information. This jeopardizes the reproducibility of the results, and an independent and transparent scientific evaluation of such data is not possible.

EU Commissioner Mr. Borg, September 2014, in a debate about the usefulness of scientific studies from open literature in regulation of crop protection products in general.

# Regulatory action: precautionary principle or sound science

The regulatory authorities in the EU were in 2013 apparently responding to a concern: A decline in number of honeybees. The use of specific insecticides was suspended as a precaution until further documentation had been provided even though causal relationships had not been established, neither with insecticides nor any of the other factors. Farmers were left without a series of valuable crop protection products. Although application of the precautionary principle may seem fair, one may guestion if the suspension was based on sound science and transparent legislation, which is supposed to be the backbone in regulation of chemicals.

# Development of a testing program based on sound science

It is not straight forward to design a scientific study which will provide adequate and robust data to be used in risk assessment, e.g. for honeybees under field conditions. Development of standardized guidelines for testing of chemicals is an ongoing activity under the OECD. Through industry organizations such as European Crop Protection Associ-





Flowering oil seed rape is a valuable source of food for honeybees. Decline in flowering crops due to the suspension of neonicotinoids threatens the living conditions of bees.

ation and Crop Life, Cheminova supports the process of guideline development in collaboration with scientific experts from university laboratories, contract research organizations, authorities, and industry.

# The current approval process protects honeybees

Honeybees have played an important role in agriculture and food production since ancient times. When we look for new products, the assessment of effects on honeybees is mandatory since it has been part of the requirements for approval of crop protection products through many years. The required testing program includes laboratory tests as a minimum and may be supplemented by semi-field tests and field tests and provides data for risk assessment and warning statements. The requirements are there to make sure honeybees are protected and crop protection products are regulated on the basis of sound science.

# Unintended implication of a regulatory action

An interesting observation: EU farmers could not treat their oil seed rape (OSR) seed for the 2014 season with neonicotinoid insecticides due to the suspension and therefore experienced severe crop losses. [Source: Copa Cogeca, December 12, 2014].

In turn this may reduce the area planted with OSR – a flowering crop which is much appreciated as a pollen source for honeybees. By removing one potential risk to honeybees, another was created.

Furthermore, farmers will most likely have to use other insecticides to protect their crops, and some of these may have a less benign profile in terms of impact on the environment. This point was in fact raised by regulators from some of the EU Member States. [Source: Farmers Guardian, Arable Farming, September 25, 2014]

### **Pesticide risk management**

That insecticides may indeed have an impact on honeybees is not a surprise. Several insecticides have restrictions on their application timing in order to protect bees:

- Do not apply to flowering crop.
- Do not apply when bees are actively foraging.
- Do not apply when flowering weeds are present.





# Cheminova India – management of chemical waste

Management of waste is a challenge for any production. Through a dedicated development effort, Cheminova has raised the standard at the production site in India significantly over the past 15 years both in terms of re-use, reduction, recycling, and recovery of chemical waste.

In 1997, Cheminova acquired the manufacturing and marketing company Lupin Agrochemicals. The manufacturing plant is located in the Panoli Area, part of the Gujarat Industrial Estate, the largest chemical industrial area in Asia. Since 1997, Cheminova has invested in several initiatives for increasing the standard of environmental facilities at the plant. The initiatives are often carried out in collaboration with the Gujarat State authorities, the Gujarat Pollution Control Board (GPCB).

The plant produces several pesticide active ingredients, including specific intermediates, as well as end-use products that are formulated and packaged at the facility, both for the Indian market and for Cheminova's customers all over the world.

### **Waste-water treatment**

Waste water passes through a series of treatment plants in a stepwise purification process, which includes biological degradation, adjustment of acidity, purification by means of active carbon and/or hypochlorite. The efficiency of the treatment is measured by means of the COD value (COD: chemical oxygen demand); a parameter which expresses the amount

of organic chemical compounds in the waste water. The authorities have set limits for this value. Reduction of COD has been a specific CSR target for Cheminova since the acquisition. The treated waste water is released to a common industry pipeline for industrial waste water and further treated at a large central waste-water treatment plant in nearby Narmada, the NCTL (Narmada Clean Tech. Limited), before being discharged into deep sea 9 km off the coast.

### Management of process vents

In general, process vents go through scrubber systems before being emitted to the atmosphere. For specific manufacturing plants, process vents are lead to an on-site air incinerator, which operates at approx. 1,000°C. After incineration, the air is passed through a scrubber to capture chemical contaminants, which are removed through this process. Particular vent streams are treated with ozone from an on-site generator, a step which further oxidizes unwanted compounds such as mercaptanes, which are associated with bad odor.

Emissions to the environment are constantly measured on site in terms of sensors on stacks and measurement of COD in waste water. The GPCB can monitor the measurements online, and Cheminova also carries out monitoring as part of daily practice.

# Facts about Cheminova India Ltd. (CIL)

- Cheminova acquired Lupin Agrochemicals Ltd. in 1997.
- Pramod N. Karlekar, Managing Director, CIL, and President, Region International.
- Headquarters in Mumbai, two production sites in Panoli.
- Number of employees: 670.
- Production of active ingredients and formulated, finished products, own filling lines.
- Development of new products for India and Cheminova's global business.
- Sales of a large product portfolio all over India.





Large-scale effluent treatment plant at the factory site in India.

### Management of chemical waste

Chemical waste which cannot be treated on site is disposed of at a controlled landfill and incineration site at nearby Baruch, Baruch Enviro Infrastructure Limited (BEIL). Chemical waste from all chemical production sites in the area is handled safely at this central facility. The landfill site is constructed with a system of impermeable membranes, and any leachate water is pumped up and incinerated at an on-site incinerator, which also handles combustible liquid waste. Industry disposal of chemical waste is operated through a controlled process, which ensures documentation for the chain of custody. Authorized transporters pick up the waste at the production site, and waste is accepted at the landfill site in return for a receipt.

### The four Rs of waste management: Reuse, Reduce, Recycle and Recover

A byproduct from production is ammonium acetate. In the past, Cheminova followed a common practice among chemical producers and disposed this waste by selling it to minor companies, who used ammonium acetate as a starting material for other products. However, the GPCB was not confident with this practice and

required the manufacturers to find safer ways of disposal. Cheminova solved this requirement through an optimization of the chemical process, which increased the yield of the wanted product with 60% and reduced the waste generation. The optimized process allows for recovery of acetic acid of good quality from the process. This material can be re-used or sold as a raw material, which gives better process economy and less environmental impact, a win-win situation. Additionally, an agreement was obtained with the cement industry about incineration of remaining ammonium acetate at a furnace operating at 2,000°C.

Recovery and re-use of solvent has also been achieved through optimization of the drying process for an insecticide final product, which is now carried out under nitrogen in a closed loop with integrated bagging of product. The solvent ethyl acetate is recovered and re-used. Furthermore, the unpleasant pungent odor from the drying process is now avoided.

### A good position to take the lead

The combination of a sister manufacturing plant in Denmark allowing for exchange of ideas and know-how, a qualified R&D team on-site in Panoli with the

capability of developing process optimizations, and a good collaboration with the GPCB has brought Cheminova in the lead in terms of company efforts for management of chemical waste in the Gujarat area. Our efforts have been acknowledged by the GPCB at several occasions where Cheminova has been brought forward as a good example for industry colleagues. Most recently. Cheminova was invited to give a presentation at the international Wastech 2014 conference in Ahmedabad in November 2014.





# Openness and dialogue

An open dialogue with our stakeholders gives us valuable input on how to run our business in a sustainable way.

Cheminova values a continued dialogue with its neighbors, the local community, authorities, educational institutions, politicians, and others. We observe the limitations to openness from stock exchange rules, protection of sensitive personal information, general data protection rules and regulations, as well as competition law. We do of course engage in a continued and open dialogue with the relevant authorities in the countries where we operate.

A dialogue with the company's many stakeholders as well as the general public debate on sustainability is a source of inspiration for the CSR work and the selection of focus areas presented in the CSR report.

### **Keeping well informed**

The company actively strives to keep well-informed within the many fields of relevance to its operations as well as current and potential business areas. Via open literature as well as scientific publications and trade sources, the press, specific searches on topics, and the internet, information and expressions of opinion in respect of CSR related issues are sought - particularly concerning product properties, side effects and applications, and in general, issues linked to dilemmas

and controversies within the company's sphere of interest.

### **Local engagement**

Cheminova is an important part of the local society where we operate facilities and employ people. We contribute to the local economy and offer a wide range of job opportunities. We make a point of good neighbor relations and participation in local cultural life and activities. The influence on the environment from production plants is described elsewhere in this report.

### **Visitors**

As in previous years, we have received many visitors to our production sites during 2014. Students, farmers, residents in the local areas, politicians, and several other interested individuals with a diversity of interests and backgrounds have visited our factory sites, workshops, laboratories, and offices. His Royal Highness Prince Henrik paid a visit to the site in Denmark. Open house days as well as other occasions have attracted an audience of interested people, with whom we have had a very fruitful dialogue. From the feedback we have received, the visitors have been very content with the open dialogue with Cheminova employees. Furthermore, visits

to the various sites have given visitors a useful understanding of our business, including development and production of plant protection products as well as safety, health, and environment matters related to our activities. The dialogue has given us valuable input to the direction of our CSR activities as well as the importance of transparency on the benefits and challenges of our business.

In 2014, we had more than 4,600 visitors to our Indian factory site, while the number of visitors at our sites in Denmark, UK, and Australia exceeded 2,700, 220 and 40 respectively.

### **Authorities**

In countries where we have manufacturing facilities we have an on-going dialogue with environmental and other supervising authorities, for instance the Danish Environmental Protection Agency and the Gujarat Pollution Control Board in India.

### **Customers and suppliers**

CSR forms part of the dialogue with the company's customers, many of whom appreciate to co-operate actively with Cheminova in promoting product stewardship and environmental responsibility among farmers. Information on the safe



use of products - as mentioned in the section on product stewardship - is an integrated part of the marketing of products to end-users in developing countries.

Suppliers are audited with focus on the environment, safety, and labor standards in accordance with the company's Supplier Code of Conduct, which forms the natural basis for a constructive dialogue.

### **Employees**

In 2014, a global intranet was established. Various CSR related topics including safety campaigns, promotion of the whistleblower function, job announcements, and e-Learning have received continued coverage in this electronic media.

CSR is regularly discussed throughout the global organization in relation to the local daily business. On the local level, e.g. cooperative relationships, general wellbeing of employees, and continued education have been on the agenda.

Development of new products was in focus for HRH Prince Henrik as well as for college students when visiting Cheminova's site in Denmark.







# Chemistry with Care More plant protection, less chemistry, fewer resources

Future food security depends on increased agricultural production supported by better plant protection products produced with fewer resources and leaving less impact on the environment.

Global agriculture needs to increase production by 70% (measured on calories) on the present agricultural area in order to feed the world population, which in 2050 will have passed nine billion people according to FAO.

### "More with Less"

Agriculture needs more efficient plant protection products that can ensure growth with minimal impact on nature. Moreover, industrial production in general is faced with demands to reduce energy consumption. This also applies to the production of crop protection products which means that Cheminova's production and products are also part of these dilemmas.

More plant protection based on a more sustainable input is among Cheminova's long-term objectives.

# Development of plant protection products

A key objective for Cheminova is to maintain and develop our portfolio of biologically efficient plant protection products which can be applied safely with minimal adverse impact on the environment. The choice of solvents, additives, and active ingredients in our products is key to creating products with the desired balance between several important factors as efficacy on yield improvement, crop safety, safe handling, and reduced envir-

onmental impact, as well as affordability for farmers.

The specific target for 2014 was to develop at least 10 products with low volatile organic content. Eleven were developed, nine in Denmark and two in India. Totally 15 products were developed, the majority of which thus fall into the desired category. A reduction of the toxicity classification by the new developments in 2014 was not reached. The average was on par with what was obtained in 2013. However, in 2014 we were, for selected products, successful in significantly reducing the potential risk of eye injury in spray operations.

### **Chemistry with Care**

Through three indexes, we illustrate how Cheminova's products contribute to more plant protection while using less non-sustainable chemistry and consuming fewer resources in the manufacturing processes.

Products sold on behalf of other companies (third-party products) are not included in these indexes because the exact composition is not always known to us. Neither is information about energy consumption in the production of these products available.

### More plant protection - Index I

Like other suppliers to agriculture, Cheminova is not directly involved in the use of our plant protection products, since we do not participate directly in farming. Thereby, our knowledge about the product usage is not a sufficiently detailed basis for this index. Instead, the index is based on validated data from specialists in market analysis. Information on the consumption of specific active ingredient per hectare in all relevant crops and countries is included. Data from Cheminova's total sales of each individual active substance is weighted against this background, providing the best possible assessment of the acreage of farmland protected by each of our active substances. The index is a summary of all Cheminova manufactured products sold in the relevant period.

### Less chemistry - Index II

The index shows the amount of non-sustainable chemistry per hectare applied as plant protection products. Non-sustainable chemistry is to be understood as active ingredients no matter origin as well as additives that are non-renewable by natural processes.

As an example, we aim at reducing the amount of organic solvents, which are frequently used in plant protection products.





### Fewer resources - Index III

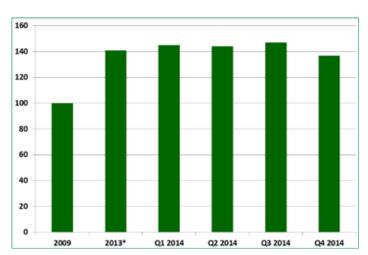
This index indicates the amount of purchased energy in the form of electricity, natural gas, fuel oil, and biomass required for Cheminova's own production of plant protection products at the manufacturing plants in Denmark and India. These two sites are responsible for more than 90% of our direct energy consumption. Both places undertake chemical synthesis which is a highly energy consuming process.

### **Development in 2014**

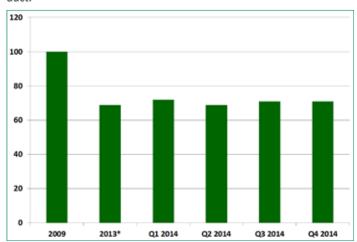
A marginal decrease in the protected area was seen. During the first part of the year we managed to gain more plant protection coverage with our products compared to last year. Unfortunately this development was offset by a negative impact from drought and a change in product mix in Brazil - the world's largest agrochemical market. The index is 37% higher than the 2009 baseline.

It has not been possible to reduce the quantity of non-sustainable chemistry per hectare in 2014 compared to 2013. However, the index is 29% lower than the 2009 baseline.

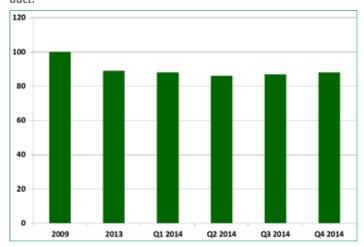
The energy consumption at Cheminova's two largest production sites shows the desired downward trend, which derives from an increase in India surpassed by a larger decrease in Denmark. The index is 12% lower than the 2009 baseline.



Index I: More plant protection. Hectares protected by Cheminova's products (relative to 2009). Calculated on last-twelve-months basis. \* Based on recalculation due to an error in a specific country and product.



Index II: Less chemistry. Quantity of non-sustainable chemistry per hectare (relative to 2009). Calculated on last-twelve-months basis. \* Based on recalculation due to an error in a specific country and product.



Index III: Fewer resources. Energy consumption per kg produced product (relative to 2009). (Calculated on last-twelve-months basis)



# Activities in Indian villages

Business driven CSR activities in selected Indian villages creates value for the farmers, their families, and the local community as a whole.

In India, more than 700 million people live in villages, where farming provides the basic income to families. Agricultural production in villages is vital for the Indian economy and self-sufficiency in food production.

Through nine village projects, Cheminova has contributed to improved farming practices since 2010 and thereby supported the local community. Additionally, several other initiatives and projects based on local engagement have further supported development and livelihood in farming communities.

### Follow-up on targets

In summary, the village projects are running well, and the three specific targets on promotion of good agricultural practices, continuation of the Saheli women empowerment projects, and promotion of water conservation in rainfed agriculture (Aakash Ganga project) have been fulfilled.

### **Good agricultural practice**

Activities in this area are key to increasing productivity and livelihood in villages. To evaluate and gather experience, impact assessments have been carried out in two villages, Pabdara in West Bengal and Ekalduna in Madhya Pradesh. What has been learned from these and previous evaluations will be made useful for establishing a general exit strategy. The vil-

lage projects rest on a self-help concept where the activities eventually will be led and run by villagers themselves. Also, the experience gained will be of great value when laying the framework for potential new projects in other places.

A general observation is that the projects make good business sense and high employee engagement. However, further professional, independent assessments would help to ensure development.

### **Evaluation in village Pabdara**

The evaluation was performed by the Directorate of Agriculture, Government of West Bengal. In the overall conclusion, it is stated that the activities have demonstrated visible impacts on good agricultural practice to improve crop yields, safety, hygiene, as well as other improvements for the village population. Formation of women's self-help groups is

highlighted as a very positive and successful element of the CSR activities.

Based on experience from the activities in this village, an exit strategy report has been prepared by the Trade Commission of Denmark, Bangalore, India. The report acknowledges the positive impact on sustainability and the continued development achieved in the community. The report recommends medium to long term strategy, where Cheminova's local representatives, together with the villagers, transfer full responsibility of maintaining and developing what already has been achieved to the latter.

### **Evaluation in village Ekalduna**

The evaluation was performed by the Agricultural Research Centre at the Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior - The Agricultural University. The impact evaluation report



The village projects result in better yields.







concludes that productivity of farming has increased. Furthermore, the focus on safe use initiatives has changed farmer's behavior in favor of an increased use of personal protection equipment during mixing and spraying of plant protection products. A noticeable positive impact on farmers' health was reported. Additionally, the report highlights improvements in general community development. Particularly, the Saheli women empowerment project has been instrumental in creating enthusiasm for change and development in the village. Among other suggestions, the report recommends further resource investments in the Saheli initiative.

### Saheli - Women empowerment

Our focus is on agricultural practices with safe use of plant protection products that also includes participation from farm women. In addition, we support several social activities in the villages. A very successful program is about empowerment of women which in different forms is part of our efforts to elevate the status of women as invaluable providers of livelihood in the community.

We have supported the women in the Pabdara village to generate separate income to the families.

Cheminova's role has been initial support to formation of self-help groups by providing sewing machines. Furthermore,



Sewing of jute bags generates income to the village families.

training has been provided by Cheminova in collaboration with The Central Research Institute for Jute and Allied Fibers (CRIJAF). Finally, we have helped establish contact to potential customers for jute bags. The women are now running their business largely by themselves as was the intention from the beginning.

### Water management

A simple technique for retaining rain water in the soil is being promoted in the Aakash Ganga project, which has attracted increased attention in a year with a weak monsoon. The task of making farmers aware of the added value to the crops by saving monsoon rain water in the soil has been accomplished, and the area under this program has expanded accordingly by 254 acres spread over four states: Andhra Pradesh, Karnataka, Maharashtra, and Tamilnadu.

By plowing drenches in the field, farmers have achieved prolonged humidity retention in the soil leading to improved yield from the crops under cultivation. An increasing number of farmers have

been attending meetings on the Aakash Ganga project, and the interest and participation is spreading among neighbors to existing areas currently under this project. Evidently, this year's weak monsoon has increased the interest in water management among farmers.

### **Recognition of Cheminova's model** village project

In connection with the Danish "CSR Abroad Prize" supported by the Ministry of Foreign Affairs, Cheminova was one of the five companies that received the highest score among the 25 applicants.

The jury was particularly impressed by the village project, both its level of ambition and its thorough implementation. Further, it was noted how this sustainability activity is fully integrated into Cheminova's business strategy. Finally, the determination by Cheminova to make a real difference in the lives of the villagers made a strong impression on members of the jury.



# New banana project launched in the southern Brazilian state Santa Catarina

During 2014, a new, reduced impact project on banana disease control has been initiated in Santa Catarina. Similar projects in Sao Paulo and Goias states have kept momentum and found an expanded farmer base during 2014.

With about half a million hectares of banana plantations, Brazil is among the world's leading banana producers. Generally, the cultivation is traditional, low capital input farming, but in several states high technology based production has been adopted. One of the major constraints on production and yield is plant diseases, notably Yellow and Black Sigatoka. Fungicide treatment therefore plays an important part in securing a plentiful harvest of quality produce.

### Low impact application

Cheminova's project model is based on low environmental and reduced operator exposure applications of the systemic fungicide flutriafol. By means of low-tech hand-held precision technology, farmers can apply few drops of the fungicide directly to the plant. This axil application constitutes an environmentally friendly and highly efficient alternative to aerial or tractor spraying.

This technique is attractive to small-scale farmers that often grow less than 10 hectares of banana crop, which can easily be treated without incurring the cost of aerial spray or mechanical equipment. Larger estates find this direct application method convenient for use in sen-

sitive areas along waterways and houses where aerial spraying is not allowed. In this way, no areas are left untreated, which prevents re-infestation of fungal diseases from unprotected areas. Protection of the environment and effective disease control works together by means of this simple application technique.

# New project area established in Santa Catarina

In the Corupá region of Santa Catarina, bananas are grown by hundreds of small-scale farmers, many of which have difficulties accessing high technology spraying equipment. In this area, a new project with axil application was initiated as planned in 2014. Tests conducted during 2013 successfully demonstrated the value of the Cheminova application method, and the program was launched in cooperation with the farmers' association ASBANCO.

The results obtained so far indicate that one axil application gives a long lasting protection corresponding to two traditional fungicide applications.

# Efficient disease control becomes standard among farmers

In 2010, the first project based on axil application with flutriafol was initiated in the Bureti Allegre in Goias. In this area, an increasing number of small-scale farmers have adopted the technology that has been very successful in terms of disease control, and the area covered by the project is now more than 200 hectares. Based on the results obtained, local advisors have recommended this method for use among farmers in villages outside the project area.

In the more technified area in Vale do Ribeira in São Paulo state, the application with the Cheminova precision technology is now covering 1,000 hectares. The project was initially planned to start in 2011 but excessive rain and flooding in the project area delayed the program for one year.

The technology has been adopted by small-scale as well as large-scale farmers, who have experienced successful disease control and have benefitted from the low environmental impact treatments along rivers and streams in the area. The technology has become a standard tool in plant protection.





By a simple and efficient application method, banana plants are protected from fungal diseases.



### Production

Environment, health, and safety are top priorities at all production sites.

Data pertaining to environment, health, and safety for our plants are shown in the fact box on page 26. The production in Denmark and India constitutes the overall majority. All manufacturing plants are included in the statements for 2012, 2013, and 2014.

Detailed information on the companies which are included in the statement is found on www.cheminova.com, where the applied CSR accounting policy is also located.

### **Environment**

Existing installations in the EU became subject to the new Industrial Emissions Directive on January 7, 2014. As the manufacturing facilities in Denmark fall under this directive, our environmental staff has worked intensively with the authorities during 2014 to prepare a required baseline report involving the use, production, or release of relevant hazardous substances. It is expected to be finalized in 2017 and will be done in parallel with the renewal of the environmental approval for the manufacturing site in Denmark.

Unfortunately, 2014 saw a significant increase in the number of category 2 spillages at site Rønland in Denmark. Category 2 spillages are defined as incidents that result in pollution at nuisance levels. Since 2006, site Rønland has had a target

of a 10% yearly reduction in these types of incidents. This was not achieved for 2014. However, seen over the years from 2006 the reduction per year is still more than 10% despite the bad performance in 2014. Focus is very high on changing the results from 2014 and revert to the positive development seen since 2006.

In 2014, The Prime Minister of India, Mr. Narendra Modi, has launched a five-year-long Swachh Bharat (Clean India) campaign with a pledge to give Mahatma Gandhi a cleaner India for the 150th anniversary of his birth. Waste management and disposal is becoming one of the key problems facing India today since

about 90% of waste is currently disposed of by open dumping and land filling. In that connection, Cheminova in November 2014 attended an International summit (Wastech International Summit) with the headline: 4Rs: A way to Sustainability. The summit was held in the state of Gujarat, India, where Cheminova has its production plants and was organized around the 4 Rs (Reuse, Reduce, Recycle and Recover). Besides attending, Cheminova also gave a presentation with examples of how we have addressed the 4Rs using different green technologies at our production facilities both in Denmark and India.

The Cheminova group owns the following manufacturing plants:			
Name	Production	Country	
Cheminova A/S	Chemical synthesis, formulation and packaging	Denmark	
Cheminova India Ltd.	Chemical synthesis, formulation and packaging	India	
Cheminova Deutschland GmbH & Co. KG	Formulation and packaging	Germany	
Althaller Italia s.r.l.	Formulation and packaging	Italy	
Headland Agrochemicals Ltd.	Formulation and packaging	United Kingdom	
Cheminova MFG Pty. Ltd.	Formulation and packaging	Australia	

# SAFE WAY IS THE RIGHT WAY



Cheminova's achievements in waste management were presented at Wastech Summit in Gujarat.

### **Energy**

The majority (> 90%) of the energy consumption at Cheminova's manufacturing plants is related to the sites in Denmark and India, where active substances for plant protection products are manufactured by chemical synthesis. These processes are highly energy demanding, and the major part of the steam and electricity consumption is produced with natural gas as energy source, the remaining part with other types of fuel, primarily oil.

Generally, we are continuously working on improvements within the areas of energy and environment at all the production plants. It may be through reduction of various emissions, reduction of energy consumption, or improved recovery of chemicals as an alternative to incineration.

### Safety

Since the coming into force of the Seveso II Directive in the EU, the manufacturing facilities in Denmark have been required to prepare a safety report. The safety report was approved most recently in 2006, and after a thorough inspection of all production plants during the period of 2010 to 2013, the authorities issued a new approval in 2014.

The occupational health and safety advisory services standard known as OHSAS 18001 is internationally accepted as a method of assessing and auditing occupational health and safety management systems. Cheminova's chemical synthesis plants in Denmark and India have been certified for several years. In the beginning of 2014, Cheminova MFG in Australia also obtained the OHSAS certification, which will be followed up in 2015 by the two formulation divisions in Cheminova India.

# REACH – The European Union's legislative framework on chemicals

The first REACH registrations for chemicals used or produced at Cheminova A/S' site in Denmark were submitted in 2008. Since then, we have registered 45 substances and intermediates. The majority of registrations were done in 2010 and 2013 prior to the registration deadlines. We have been acting as Lead Registrant in 80% of the registrations. Many registrations have been made within a substance information exchange forum (SIEF), and in some cases, we have bought access to the registration via a letter of access (LoA). In other cases, companies have bought LoA from us, as the Lead Registrant. In addition to the REACH activities at the site in Denmark, a couple of substances for fertilizing purposes manufactured at Cheminova A/S' subsidiary Headland in the United Kingdom (UK) were registered.

In the period from 2015 to 2018, we expect to register a mix of approximately 40 substances and intermediates at the site in Denmark and a further three substances at the Headland site in the UK.

# Follow-up on objectives for 2014 India

- The amount of COD discharged in treated waste water will be reduced by 3%.
   Comments: The amount of COD from technical and intermediate divisions was reduced from 12.1 metric tons in 2013 to 10.7 tons in 2014 equivalent to a 12% reduction.
- In 2015, the production at Formulation Division 1 & 2 will be certified according to ISO 9001 in 2014 and according to ISO 14001 and OHSAS 18001.

Comments: The ISO 9001 certificate is received. Preliminary external audit on ISO 14001 and OHSAS 18001 is scheduled for March 2015.

### Denmark

 Operation of the biological wastewater treatment plant will be reviewed in 2012-15, so that the potential of the



### Production, continued

plant is utilized in the best possible way.

Comments: Eight waste streams have been reviewed. One stream was deemed non-treatable, and one stream has been added to the biological waste-water treatment. Applications have been submitted to authorities for permission to treat three streams, and one permission was received in 2014. Three waste streams are under internal investigation.

 In 2012-15, the operation of a plant for recovery of an organic solvent will be reviewed and the control system changed, if necessary, with the object of reducing the consumption of steam by 10%.

Comments: The operation of the plant has been optimized. Equipment for evaluation will be installed by the end of January 2015.

### **Australia**

 Obtain certification of the company's occupational health and safety management system according to OHSAS 18001 in 2014.

Comments: The certificate was received following an external audit in April 2014.

• Reassessment of environmental and safety performance and submission of a MHF report in 2014.

Comments: The MHF declaration was submitted to the national workplace safety regulator in June 2014.

### **United Kingdom**

• Continuous improvement of occupational safety and health in 2014.

Comments: All success criteria were met. Total number of reportable and non-reportable accidents: 20 ( $\leq$  25). To-

tal number of near-misses reported: 73 ( $\geq$  70). Investigations of all near-misses are documented. Authority Reportable Incidents: 0 ( $\leq$  1). Lost time accident frequency rate: 0 ( $\leq$  10).

Fact box: Environment, health and safety						
		Unit	Note	2014	2013	2012
Water consumption:	Cooling	Mio. m³	1	28	28	29
	Processes and ord. consumption	Thousand m <sup>3</sup>	2	715	729	659
Energy consumption:	Fossil fuels	GWh	3	257	297	383
	Electricity	GWh	3	85.3	77.9	70.6
	Bio fuel	GWh	3	43	29	0
Materials:	Raw mat. consump.	1000 tonnes	4	113	112	108
Discharge of waste	COD	Tons	5	191	152	148
water:	Nitrogen	Tons	6	19	19	22
	Phosporus	Tons	7	6	9	7
Air emissions:	Particles	Tons	8	5.1	7.3	5.7
	CO <sub>2</sub>	1000 tons	9	72	76	63
Ordinary waste:	Recycling	1000 tons	10	3.6	3.2	3.0
	Incineration	1000 tons	11	0.39	0.3	0.26
	Depositing	1000 tons	12	19.7	18.3	17.9
Hazardous waste:	Recycling	1000 tons	13	5.2	2.5	1.76
	Incineration	1000 tons	14	12.7	13.3	12.3
	Depositing	1000 tons	15	5.7	5.6	4.9
Spillage and waste:		Number	16	18	11	10
Accidents:		Number	17	16	11	18
Accident frequency:		Number per million man- hours Number of lost	17	3.0	1.9	3.3
Absence from work due	e to accidents:	Number of lost man-hours per 1,000 man- hours	17	0.1	0.1	0.2

Information about accounting policies can be found on Cheminova's website.



# Comments on the development from 2013 to 2014 (see table to the left)

**Note 1**: No essential changes in total consumption the last years. In Italy, the consumption increased by 20% caused by a new production.

**Note 2**: The consumption in the United Kingdom was doubled partly due to an increase in produced volume, mainly caused by an increased use of fresh water for washings to maintain high quality products.

**Note 3**: For the whole group a 5% decrease is seen from 2013 to 2014. In India, an essential part of the consumption of natural gas was changed to bio fuel. The amount of purchased electricity in India increased more than 50% due to stoppage of a power plant at Technical Division. The consumption of fuel oil in India increased due to installation of an additional diesel generator.

**Note 4**: The consumption of raw materials increased by 0.6%. Most significant changes were increasing activity in the United Kingdom and slight decreases in Italy and India.

**Note 5**: The emission was decreased by 12% in India. In Denmark the emission increased unaccountably by 30%; large fluctuations are seen over a series of years.

**Note 6**: Nitrogen was mainly from Denmark where the amount increased

slightly compared to 2013. In India, the amount was reduced.

**Note 7**: The emission in Denmark was reduced by 45%; the emission was abnormal high in 2013 due to an unintentional emission of sludge from the biological waste-water treatment plant.

**Note 8**: The emission in India was reduced to a normal level from a high level in 2013 caused by problems during startup of a new steam boiler.

**Note 9**: CO<sub>2</sub> emission is related to consumption of fuels.

**Note 10**: The largest increase was in Denmark and was mainly caused by scrap from reconstruction of a plant and from increased activities in the filling plants. The amount in India increased due to commissioning of a new production.

**Note 11**: Increase in Denmark caused by increased activities in the filling plants.

**Note 12**: The amount is dominated by sludge from the biological waste water treatment plant in Denmark. More lime was used for neutralization and resulted in more sludge. In addition, more bioreactors than normal were emptied for inspection and maintenance.

**Note 13**: The increase was mainly due to increase of two productions in India. A minor part was caused by increased activities in Germany.

**Note 14**: All hazardous waste in the United Kingdom was incinerated as a result of changed classification. The amount increased in Denmark due to change in product mix. A decrease was seen in India, because some of the volume was recycled by co-processing in the cement industry.

Note 15: A slight increase in India.

Note 16: The increase was in Denmark.

**Note 17**: Despite efforts to reduce the number of accidents, four reportable accidents occurred in Germany and eleven in Denmark.



# Supplier management

# In 2014, focus has been on improving audit methods.



Audit with the risk of cross contamination as key topic.

As set out in the 2013 CSR Report, Cheminova has during 2014 worked with and partly implemented a system for managing and storing data related to audits. However, due to the expected merger of Cheminova and FMC, it has been decided to defer the system. In 2015, the new company will decide on what future tools should be used in managing supplier audits.

During 2014, 37 complete supplier audits and 18 screening audits of potential new suppliers were conducted. The audits were spread out in all of Cheminova's four regions, however, the majority was conducted in India and China. Also in 2014, potential suppliers were rejected due to issues complying to Cheminova's Supplier Code of Conduct (see box).

In addition to the above described audits, in 2014 Cheminova also conducted two joined audits with an external assurance company. The purpose of these audits was to get feedback and inspiration for improving audits, interviews, and monitoring methods for better future control of CSR risks associated with toll manufacturing and suppliers generally. Relevant findings were recorded, and critical issues will be followed up.



Audit on product quality and technical solutions.

### **Cheminova Supplier Code of Conduct**

- All applicable laws and regulations of the country where operations are undertaken must be complied with.
- 2. No forced or compulsory labour may be used, and employees shall be free to leave employment after reasonable notice.
- 3. No child labour may be used.
- Discrimination in employment related decisions may not take place, and no employee suffers harassment, physical or mental punishment, or other form of abuse.
- 5. The right of employees to collective bargaining shall be respected.

- Wages and working hours will, as a minimum, comply with all applicable wage and hour laws and rules and regulations, including minimum wage, overtime, and maximum hours in the country concerned
- 7. No improper advantage may be sought, including the payment of bribes, to secure delivery to Cheminova.
- 8. Safe and healthy working conditions will be provided for all employees.
- Emergency procedures shall be established to prevent major accidents that can cause harm to health or the environment.
- 10. Operations will be carried out with care for the environment.



# People

Living the values.

In 2009, the Cheminova values were implemented. In 2014, they continued to serve as the baseline for all employees in their daily work both within the Cheminova organization and externally, e.g. when cooperating with our customers and suppliers.

The five global Cheminova values are:



We achieve ambitious goals



We are innovative



We decide and act



We recognize results



We are good corporate citizens

The introduction to our values starts during our employer branding efforts and continues during the recruitment and onboarding phase. Once an employee has joined the Cheminova group, experienced colleagues and managers ensure that he or she complies with the values.

### Our global organization

The number of employees in Cheminova is by and large at the same level as in 2013. Since 2008, the number of employees globally has increased by 18%. The geographical distribution of employees from 2008 to 2014 appears from the table:

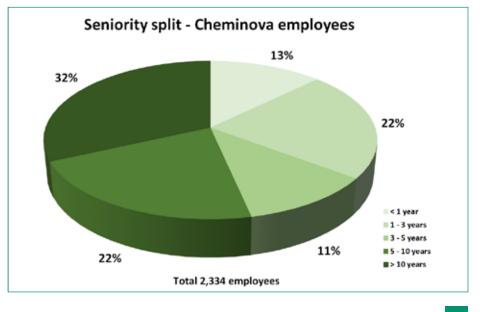
	2008	2014
Americas	12%	13%
Asia	27%	33%
Denmark	43%	37%
Europe	18%	17%

### Survey - employee engagement

To ensure that the global workforce of more than 2,300 persons has a high degree of engagement (satisfaction and motivation), a global employee survey was initiated during the second half of 2014. The purpose was to measure the individual departments' overall employee engagement and commitment. The subsequent follow-up on action plans se-

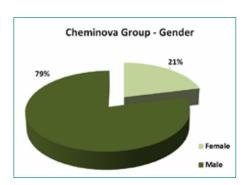
cured that areas and units having a need for increased employee satisfaction and commitment received the support needed.

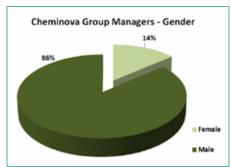
The result of the employee survey showed that both the engagement and commitment levels amongst our employees are above the industry benchmark both globally and in the countries where we are represented. Considering this high level of engagement and commitment and the fact that more than half of our workforce has more than five years' seniority, we consider our baseline to be solid. The overall response rate was 89%. Please see the result illustrated in the figures on the next page.

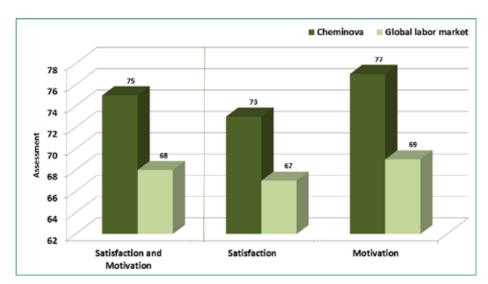


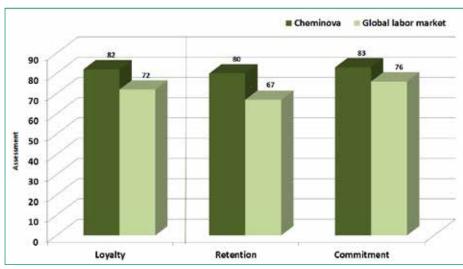


### People, continued









The employee survey showed higher scores than global labor market average.

### **Diversity**

Considering the mere fact that we have employees in more than 23 countries, nationality alone increases the level of diversity. The focus on diversity will remain a long-term objective. The overall gender structure of the Cheminova group is 79% male, 21% female, however, with substantial regional differences.

### **Continuous improvement**

During the last couple of years, many HR initiatives have been implemented including a revised performance development review process, more visibility in regards to career paths and e-Learning. Thereby, easier access to courses and development opportunities has been achieved.

These initiatives have made a good base-line for development of our employees. The focus in 2014 has been to make these an integrated part of our managers' and employees' working day. By the end of 2014, more than 80% of the employees globally have completed their annual performance development review with their direct manager.

### Whistleblower process

In 2013, we experienced a need for a new whistleblower set-up as our former supplier decided to end our cooperation. By the end of 2013, our new whistleblower





set-up was implemented. All employees have been informed about the new whistleblower function, which consists of an external website where reports can be placed anonymously. All reports placed through this external website are forwarded – anonymously – to the whistleblower committee, which is responsible for investigating the highlighted violations. In 2014, only one whistleblower report was received.

### Communication

A new global intranet was launched in 2014. By streamlining the information flow and access to global policies, procedures etc. and by ensuring broad access to communication and tools, we expect a positive impact on the implementation of a wide range of procedures. In 2014, 60% of the employees had access, and the global roll-out of the intranet continues in 2015.

### **Anti-bribery**

Bribery and corruption are increasingly areas of focus for governments and authorities in numerous countries around the world. Moreover, there is an increasing recognition of the private sector's role in fighting corruption by United Nations, governments, and NGOs.

In accordance with our membership of United Nations Global Compact, Cheminova already has a firm stance on anticorruption, which has been embedded in the management systems beginning with the Code of Business Principles and Supplier Code of Conduct. Furthermore, Cheminova conducts internal anti-bribery audits by a third party in selected subsidiaries - making the current activities a natural continuation of the compliance efforts.

During 2013-2014, the GEC has performed a country and activity based risk mapping as a baseline for undertaking of educational activities. Additionally,

this process has included an update of the anti-corruption procedure, which has been prepared based on input received from external experts on how to encompass recent legislative developments, primarily the British Bribery Act.

Educational activities have been initiated by a training session in Denmark, involving employees from several departments.

Further initiatives await the expected integration with FMC.



"Investors in People exist to help every individual, and every team, be the very best they can be. Because good people make a great business"

Headland Agrochemicals Ltd. is currently working towards the accreditation of Investors in People, which is the national standard setting a level of good practice for training and development of people.

# More information



# Management statement



Jaime Gomez-Arnau CEO & Region President, Europe



Jakob Lyngsø Andersen Senior Vice President, Human Resources & Communication



Anton Bro Senior Vice President, Development & Registration



Rico T. Christensen President,

Region North America



Niels Morten Hjort Senior Vice President, **Production & Logistics** 



rllhor

Pramod N. Karlekar President, Region International



Cesar Rojas President, Region Latin America



René Schneider Chief Financial Officer, Finance & Support

On February 6, 2015 the company's day-to-day top management, the Global Executive Committee (GEC), considered and approved the CSR report for 2014.

Cheminova's CSR work is founded on UN's Global Compact and inspired by GRI (Global Reporting Initiative) which are internationally approved codes. Furthermore, the guidance from the chemical industry's own code, Responsible Care, is observed. Internally, the CSR work is rooted in Cheminova's Code of Business Principles and the CSR Strategy as well as policies and procedures in our Global QC and CSR Manual http://www.cheminova.com/en/csr\_/csr\_policies/management\_approach\_to\_csr\_ management.htm.

GEC has the overall responsibility for Cheminova's global business and activities, in-

It is the GEC's view that the CSR report for 2014 provides an accurate picture of the company's CSR activities in the areas described.



Jens Thorsen Senior Vice President, Portfolio Management

# **UN Global Compact**

### Progress report on the implementation of the principles of the **UN Global Compact.**

Cheminova has supported the United Nations Global Compact since 2009. We support the endeavors to make globalization more socially and ecologically compatible and to raise standards in the fields of human rights, labor rights, and environmental protection and in the fight against corruption. The following table shows the activities and management

systems at Cheminova that support the 10 principles of the Global Compact and the results which were achieved in the period under review. Information on the Global Compact can be found at www. unglobalcompact.org.

The page numbers refer to relevant sections of this report.

Systems	Measures 2014	Achievements 2014
Human Rights: Principle 1: Support of human rights Principle 2: Exclusion of human rights viola	ations	
<ul> <li>Code of Business Principles (p. 36)</li> <li>Supplier Code of Conduct (p. 36)</li> <li>Management approach to CSR Management (p. 36)</li> <li>UN Global Compact</li> </ul>	<ul> <li>In 2014, an operational diversity baseline will be created and objectives for gender diversity documented</li> <li>In 2014, a global employee engagement survey will be conducted</li> <li>The project "Saheli" on women empowerment on safety, health, and livelihood in India will be continued in 2014</li> </ul>	• Executed (p. 6)
Labour Standards: Principle 3: Observance of the right to free Principle 4: Abolition of all forms of forced Principle 5: Abolition of child labor		

Principle 6: Elimination of discrimination

- Code of Business Principles (p. 36)
- Supplier Code of Conduct (p. 36)
- Management approach to CSR Management (p. 36)
- FAO's Code of Conduct (p. 36)
- UN Global Compact

- In 2014, an operational diversity baseline will be created and ob- Executed (p. 6) jectives for gender diversity documented
- In 2014, a global employee engagement survey will be con-
- Production at Cheminova MFG Pty. in Australia will in the period 2013-14 be certified in relation to OHSAS 18001

### **Environment:**

Principle 7: Precautionary environmental protection

Principle 8: Specific commitment to environmental protection

Principle 9: Diffusion of environmentally friendly technologies

- Code of Business principles (p.36)
- Responsible Care (p.36)
- Supplier Code of Conduct (p.36)
- Management approach to CSR Management (p.36)
- FAO's Code of Conduct (p.36)
- UN Global Compact

- In India, the project "Aakash Ganga" on water conservation will be continued in 2014 and extended with further 250 acres
- The project among small-scale banana farmers in the state of Goias in Brazil will be continued in 2014
- A project on safe and environmentally friendly control of plant diseases will be continued among banana farmers in the state of São Paulo in Brazil in 2014
- Executed (p. 5)

• Executed (p. 6)

• Executed (p. 6)

- Executed (p. 5)
- Executed (p. 5)



Systems	Measures 2014	Achievements 2014
	<ul> <li>A new project with axil application will be initiated in 2014 at farm level among banana growers in Santa Catarina, Brazil</li> </ul>	• Executed (p. 5)
	<ul> <li>The production at the Formulation Division 1 &amp; 2 in India will in 2014 be certified in relation to ISO 9001</li> </ul>	• Executed (p. 6)
	• In India, the COD content in waste water will be reduced by 3%	• Executed (p. 6)
	<ul> <li>Revision of the operation of the biological waste-water treatment plant in Denmark in the period 2012-15 where wastewater streams will be pre-treated/optimized so that the potential of the biological waste-water treatment plant is utilized in the best possible way</li> </ul>	• Implementation plan followed (p. 6)
	<ul> <li>At least 10 formulations with low content of volatile organic solvents will be developed in 2014</li> </ul>	• Partly executed (p. 5)
Anti-Corruption: Principle 10: Measures to fight corruption		
• Code of Business Principles (p.36)	Mapping for establishing a country-based classification of risk	• Partly executed (p. 6)
<ul> <li>Management approach to CSR Management (p. 36)</li> </ul>	of corruption. Training activities for selected employees in 2013-14	
UN Global Compact		

### Assurance statement

# Independent Auditors's Report for the stakeholders of Cheminova A/S

We have been engaged by Cheminova A/S to obtain limited assurance on the Corporate Social Responsibility Report 2014 (the Report) and to express a conclusion on target attainment, pages 5-6, non-financial data, pages 26-27, and indices regarding 'more plant protection', 'less chemistry' and 'fewer resources', page 19, as well as its capacity as a Communication on Progress Report (CoP Report) occasioned by the Cheminova A/S signature to the UN Global Compact.

### Criteria applied

The criteria for CSR-related target attainment are stated in the Corporate Social Responsibility Report 2013, in which targets as well as success criteria for the focus areas Village Projects, 'Helping you grow — Chemistry with care', Production, Supplier Management and Human Resources, are presented.

The criteria for preparation of non-financial data and indices contained in the Report are evident from the accounting policies described at the website: http://www.cheminova.com/en/sustainability/corporate\_social\_responsibility/csr\_documentation/csr\_accounting\_principles.htm. The accounting policies contain information concerning which of the Cheminova Group's businesses and activities are included in the types of data reported as well as Management's reasons for the selection of environmental and occupational health and safety data and the indices.

### Responsibilities

Cheminova A/S Management is responsible for preparing the Report, including for setting up registration and internal control systems with a view to ensuring reliable reporting. Furthermore, Management is responsible for specifying acceptable reporting criteria as well as selecting data to be collected.

Moreover, Cheminova A/S Management is responsible for preparing a CoP Report presenting the progress of Cheminova A/S in respect of supporting the UN Global Compact principles.

Hellerup, February 20, 2015

PricewaterhouseCoopers Statsautoriseret Revisionspartnerselskab Our responsibility is, based on our work, to express a conclusion on the information contained in the Report regarding target attainment, non-financial data and indices as well as on the Report as a COP Report.

### Scope of our work

We planned and performed our work in accordance with the International Auditing Standard ISAE 3000 (assurance engagements other than audits or review of historical financial information) with the purpose of obtaining limited assurance that:

- the status of attainment of established CSR targets for 2014 on pages 5-6 is in accordance with the listed criteria for CSR targets, which were published in the Corporate Social Responsibility Report 2013;
- the environmental and occupational health and safety data stated on pages 26-27 as well as the indices on page 19 have been recognized in accordance with the criteria stated for preparation of the non-financial data and indices of the Report;
- the Report in its entirety is consistent with the company's CSR activities and progress with a view to supporting the UN Global Compact.

The assurance obtained is limited as compared to that of an audit. Therefore, our work has, based on an assessment of materiality and risk, primarily included inquiries concerning goal attainment, including on a judgemental sample-basis obtaining documented confirmations regarding goal attainment from local managements, interviews with selected key managerial employees responsible for the goal attainment and review of selected documentation.

Moreover, our evaluation of local targets and data has included visits to the production companies in India and Denmark as well as a visit to the sales company in India.

The criteria stated concerning statement of environmental and occupational health

Brian Christiansen
State Authorised Public Accountant

and safety data as well as the indices, as described in the accounting policies, have primarily been assessed from inquiries concerning procedures for calculation and measurement of the concrete data. Furthermore, we have performed technical accounting analyses of reported data and have reviewed selected documentation.

We have read the Report with a view to assessing its informative value in relation to expectations for a CoP Report. Through interviews with Management and selected key employees, we have gained insight into Management's commitment and status of embedding the UN Global Compact and the values of Cheminova based on implementation of activities.

As agreed with the Management of Cheminova A/S, we have not performed any procedures relating to the reliability of the GRI reporting for 2014.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

### **Conclusion**

Based on our work, nothing has come to our attention that causes us to believe that the descriptions covering the status of the attainment of CSR targets for 2014 on pages 5-6 are not accurate.

Furthermore, nothing has come to our attention that causes us to believe that the environmental and occupational health and safety data stated on pages 26-27 as well as the indices on page 19 have not been recognised in accordance with the criteria stated for preparation of the non-financial data and indices of the Report.

Finally, based on the total work performed, nothing has come to our attention that causes us to believe that the Report in its entirety is not based on specific activities and the progress of Cheminova A/S with a view to supporting the UN Global Compact.

Jens Pultz Pedersen MSc (Engineering)

# Special references

Reference	Explanation	Where to find it
Ownership and organization	An overview of Cheminova's global organisation, regions, ownership and anchoring of CSR in the organisation	http://www.cheminova.com/en/about_us/management_and_structure/organization/organization.htm
Responsible Care  Responsible Care®	The European Chemical Industry Council's (CEFIC) Responsible Care programme for continuous improvement within safety, health and environment	http://www.cheminova.com/en/sustainability/pro- duction/responsible_care/responsible_care.htm
Code of Business Principles  Code of  Business Principles	A description of the company's Code of Business Principles which must be complied with by all employees and which support responsibility in relation to management, cooperation and society	http://www.cheminova.com/en/sustainability/corporate_social_responsibility/csr_policy/code_of_business_principles.htm
Mission, vision and values  OUTVALUES  OO OO	A description of the company's mission, vision and values	http://www.cheminova.com/en/about_us/mission_vision_values/mission_vision_values.htm
Supplier Code of Conduct	The fundamental principles which Cheminova's suppliers have to comply with	http://www.cheminova.com/en/sustainability/corporate_social_responsibility/csr_policy/supplier_code_of_conduct.htm
CSR Accounting Principles	The principles for data collection on environment, safety and health	http://www.cheminova.com/en/sustainability/corporate_social_responsibility/csr_documentation/csr_accounting_principles.htm
FAO's Code of Conduct  International Code of Conduct on the Distribution and Use of Pesticides (Revised sersion)	Voluntary international standards of responsibility and behaviour concerning distribution and use of pesticides	http://www.fao.org/docrep/005/y4544e/ y4544e00.htm
UN Global Compact  WE SUPPORT	The ten principles of UN Global Compact	https://www.unglobalcompact.org/
UN's Millennium Goals	UN's 8 goals for reduction of poverty before 2015	http://www.un.org/millenniumgoals/
Management approach to CSR Management  Cheminova A/S  Global QC and CSR Manual	Summary of principles and procedures on CSR management	http://www.cheminova.com/en/sustainability/corporate_social_responsibility/csr_policy/management_approach_to_csr_management.htm

# Glossary

### Aakash Ganga:

Water management project in Indian villages.

### **Active ingredient:**

Active chemical in its pure or technical form.

#### Auditing:

Review of accounts.

### **CEFIC:**

The European Chemical Industry Council.

### **Chemical synthesis:**

Process, where chemical compounds react with each other forming new compounds.

### **Class I product:**

A product, which according to WHO's recommended guidelines is classified as highly hazardous or extremely hazardous.

### CO<sub>2</sub>:

Carbondioxide, the most commonly mentioned greenhouse gas.

### COD:

Chemical Oxygen Demand - measure for the content of organic compounds in water.

### CSR:

Corporate Social Responsibility. Social, environmental and ethical demands made between companies, customers, interested parties and collaboration partners.

### **Emulsifiable concentrate:**

Mixture of a liquid active ingredient, solvents and surfactants that enable the product to be diluted with water to a low concentrate spray fluid.

### FAO:

The UN's Food and Agriculture Organisation.

### **FAO's Code of Conduct:**

FAO's international guidelines concerning the distribution and use of pesticides.

### Formulation:

Active ingredient(s) with accessory agent(s) making up a ready-to-use product.

### Fossil fuel:

Coal, oil and gas.

### GEC:

Global Executive Committee. Cheminova's day-to-day management group.

### **Global Compact:**

A UN initiative giving ten general principles for companies' work with corporate social responsibility.

#### GRI:

Global Reporting Initiative with guideline for reporting on CSR.

#### HSE:

Health, Safety & Environment.

### ISO 14001:

International environmental certification covering the surrounding environment.

### ISO 9001:

International certification of quality management system.

### Low VOC:

Low Volatile Organic Compound, defined as maximum 20% evaporation at 115°C in 60 minutes cf. Estimation of Volatile Emission Potential of Pesticides by Thermogravimetry, California Department of Pesticide Reglation, February 9, 2005.

### Methomyl:

Insecticide, mostly used in cotton and vegetables.

### MHF:

Major Hazardous Facility (Australia).

### Micronutrients:

Mineral fertiliser which the plants need in small quantities.

### **Neonicotinoids:**

A class of insecticides much used for treatment of seeds.

### Nm<sup>3</sup>

Normal cubic meter (volume at standard pressure and temperature).

### OECD

The Organization for Economic Co-operation and Development.

### **OHSAS 18001:**

International environmental certification covering the working environment.

### **Omethoate:**

Insecticide among others used to control mites.

### Pesticides (plant protection products):

Collective name for insecticides, herbicides and fungicides.

### PIC:

Prior Informed Consent (Prior informed consent that has to be established before a product from the PIC list is exported).

### **Product stewardship:**

Overall description of responsible management of a company's products.

### **REACH:**

Registration, Evaluation and Authorisation of Chemicals (Common EU regulation on documentation requirements concerning chemicals).

### Registration data:

Test results and documentation that must be submitted to the authorities in order to obtain registration certificates for import and sales permissions.

### **Responsible Care:**

Objectives concerning responsible conduct, adhered to by Cheminova.

### SAFE:

Safe Attitude (behaviour) For Everybody.

### Saheli:

Saheli is formed taking the first two letters from each of the three core areas Safety, Health and Livelihood.

### Suspension concentrate:

An active ingredient in solid form suspended in water with surfactants which enables the product to be diluted with water to a low concentrate spray liquid.

### Sustainability:

Activities that meet the needs of the present without compromising the ability of future generations to meet their own needs.

### Third-party products:

Sales products not produced by Cheminova but bought from other suppliers.

### WHO:

World Health Organisation.



