



# Corporate Social Responsibility Report 2008



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# Introduction



*Kurt Pedersen Kaalund*

As Cheminova's new President & CEO, I am pleased to welcome readers to our third CSR report in which we can report progress in several areas.

The food crisis which in 2008 resulted in very high prices for cereals and other crops has revealed that the importance of having sufficient agricultural production can hardly be overstated. Cheminova's mission underlines our contribution to ensuring the necessary food supplies for the world's population.

Our work is not without its challenges and dilemmas, but it is vital for us that our activities are assessed in a long-term perspective and are sustainable in terms of both business and society at large. Among other things, this means that we have decided on an ambitious phase-out plan for class I products to which we have more than adhered. In 2008, we phased out methyl parathion in Cuba and methamidophos in Colombia earlier than originally promised, and in India we have been able to replace sales of phorate with a far safer insecticide one year earlier than stated in the phase-out plan.

The activities in 2008 largely focused on integrating the CSR work and the accompanying values in Cheminova's new global organisation. It is important for us that the right approach pervades the entire organisation. At global management level we have therefore discussed and adopted modernised mission and vision statements, and clear corporate values which will be rolled out during 2009 to all employees in the entire organisation. Similarly, we have adopted rules for documenting and reporting CSR activities in 2009 and beyond.

The specific results and the new targets relating to production, product stewardship, HR etc. are described in the report.

In this year's report, we have, by means of tables, compared our reporting with the internationally recognised GRI index. Moreover, in the course of 2009 we will decide on the extent to which we want to become affiliated to an international CSR standard.

During the year, we have noticed a growing level of interest in CSR generally and in our report in particular. The dialogue with various interested parties has taught us a lot and inspired us to continue the work and, in 2009, to also consider and decide on the shape of future CSR reporting to make it more interesting for readers.

It is the wish of my colleagues and myself that the CSR report be well received, and that it forms the basis for further positive dialogue.

Kurt Pedersen Kaalund  
President & CEO  
Cheminova A/S

# About the report

This reports the status of Cheminova's work within the area of Corporate Social Responsibility in 2008. This work is based partly on the Danish version of the European Chemical Industry Council's (CEFIC) Responsible Care programme, see translated appendix on page 33, and partly on our Code of Business Principles (see our website).

For Cheminova, a chemical business, the main focus areas for the CSR work have been the environment, health and safety in line with the Responsible Care programme with which we have been involved for several years. This is reflected in our CSR report.

The report follows up on last year's themes and targets. In addition, the food challenge, the climate problem and the work relating to the company's new mission, vision and values are addressed in separate sections.

What is new in relation to previous years' CSR reports is that we have compared our reporting with the internationally recog-

nised reporting index Global Reporting Initiative (GRI) see appendix on page 29. It is our aim in the coming years to extend our reporting to obtain a GRI declaration.

Organisationally, the CSR work is rooted in Cheminova's top management, the Global Executive Committee (GEC), see the section Management statement on page 5. The ongoing work is coordinated by a CSR steering group reporting to the GEC. The steering group consists of the Senior Vice President of Production & Logistics (member of the GEC), the Vice Presidents for Safety, Health, Environment & Quality, Human Resources, Portfolio Management and Corporate Communication, as well as the departmental manager for risk and safety and Cheminova's management assistant. The report's primary target groups are employees, future employees, the authorities, shareholders, customers and suppliers as well as any individuals and organisations who may be interested in Cheminova.

## **Dilemmas and shared responsibility**

Cheminova's business area is an integrated part of the world's food supply. Nevertheless, Cheminova faces a number of dilemmas in supplying products to societies and countries where the conditions are significantly different from those in Denmark but where there is a clear need for our products. Likewise, as a company we have a shared responsibility to contribute to improving environmental and working conditions, especially in connection with our own production in developing countries, but also through supplier control and stewardship of our products in relation to users. The CSR reporting describes how we address such subjects.

# Management statement



On 20 February 2009, the company's top management, the Global Executive Committee (GEC), considered and approved the CSR report for 2008.

GEC has the overall responsibility for Cheminova's subsidiaries and regions, as well as all the company's other activities, including CSR. Biographical information on the members of the GEC can be found in Auriga's annual report for 2008.

It is the GEC's view that the CSR report for 2008 provides an accurate picture of the company's CSR activities in the areas described.

*Global Executive Committee (from the left): Jaime Gomez-Arnau, Martin Petersen, Cesar Rojas, Mats Edh, Kurt Pedersen Kaalund, Rico T. Christensen, Niels Morten Hjort, Søren Vedel, Allan Skov and Jacob Johansen.*

Kurt Pedersen Kaalund  
President

Mats Edh  
President,  
Region International

Søren Vedel  
Senior Vice President,  
Finance & Support

Jacob Johansen  
Vice President,  
Corporate Development

Allan Skov  
Senior Vice President,  
Development & Registration

Rico T. Christensen  
Vice President,  
Portfolio Management

Cesar Rojas  
President,  
Region Latin America

Jaime Gomez-Arnau  
President,  
Region Europe

Niels Morten Hjort  
Senior Vice President,  
Production & Logistics

Martin Petersen  
President,  
Region ANZAC

# Assurance statement

## Assurance Statement for Cheminova's stakeholders from independent auditor

We have assessed Cheminova's 2008 CSR Report for the purpose of expressing an opinion on the accuracy of the descriptions of goal attainment and accounting data contained in the Report.

## Applied criteria

The criteria for CSR related goal attainment are stated in the 2007 CSR Report in which goals as well as success criteria for the focus areas, Product stewardship, Development and innovation, Production, EU's new chemical policy, Supplier management and Human resources, are presented. The 2007 CSR Report also contains a plan for phase out of Class I products, including criteria for phase out according to product type, year and geographical area.

The criteria for preparation of accounting data contained in the 2008 CSR Report are evident from the accounting policies described on pages 35-36. These contain information concerning which of the Group's business areas and activities are included in the reporting types of data as well as Management's reasons for choosing the environmental and occupational health and safety data. The data are factored into the Facts: Environment, Health and Safety section on page 26 in accordance with the accounting policies for the data statement described on pages 35-36.

## Delegation of responsibility

Company Management is responsible for preparing the 2008 CSR Report, including for setting up registration and internal control systems with a view to ensuring reliable reporting. Company Management is furthermore responsible for specifying acceptable reporting criteria as well as choosing data to be collected. Our responsibility is, on the basis of our work, to express an opinion on the information contained in

the 2008 CSR Report regarding goal attainment and accounting data.

## Scope of our work

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

- The status of attainment of the established CSR goals for 2008 on pages 7-8 and of the phasing out of Class I products on page 23 is documented and in accordance with the for CSR goals listed criteria which were publicised in the 2007 CSR Report.
- The on page 26 presented environmental health and safety data are included in accordance with the criteria stated for preparation of the accounting data of the CSR Report.

The obtained assurance is limited as we have not performed a comprehensive review. Our work has - based on an assessment of materiality and risk - 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. We have made inspection visits to the production companies in India and Denmark, and we have also paid visits to the sales companies in Brazil, India and Mexico. As described in the accounting policies, the criteria stated concerning statement of environmental and occupational health and safety data are primarily assessed from inquiries concerning procedures for calculation and measurement of the concrete data.

## Conclusion

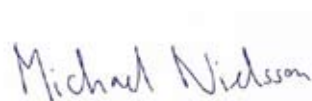
Based on our review, nothing has come to our attention causing us to believe that the descriptions covering the status of the established CSR goals for 2008 on pages 7-8 and of phasing out of Class I products on page 23 are not accurate. Furthermore, nothing has come to our attention causing us to believe that the on page 26 stated environmental and occupational health and safety data have not been included in accordance with the criteria stated for preparation of the accounting data of the CSR Report.

## Statement concerning the mentioning of values etc.

The CSR Report communicates that in 2008, Cheminova A/S' Global Management has rephrased its values, including in relation to CSR, and that these rephrased values are to be distributed to all employees in 2009. The purpose being to support a consistent group-wide management of CSR by means of a widespread and better understanding of the Group's code of business principles, increased internal knowledge sharing and internal reporting on CSR-related activities.

The in-scope work performed in connection with the Assurance Statement, cf. above, supports the mentioning in the Report, and on this basis it is our overall opinion that the foundation for a management system for support of a consistent group-wide CSR management is being provided through a management strategy striving to establish a balanced understanding of and response to significant environmental and occupational health and safety themes along with stakeholder requirements and expectations.

København, March 9, 2009  
PricewaterhouseCoopers  
Statsautoriseret Revisionsaktieselskab



Michael Nielsson  
State Authorised Public Accountant














Birgitte Mogensen  
State Authorised Public Accountant

# Fulfilling CSR targets for 2008

Overview of targets and fulfilment. Fulfilments of the specific areas are described in the section “Follow-up on targets” on page 21.

Targets	Fulfilment
<b>Product stewardship</b>	
Prepare a global labelling policy for products marketed under the Cheminova trademarks	☺ Prepared and adopted end of 2008
Introduce a system that documents that information about safety conditions and proper product use is included as an integrated part of the sales and marketing activities	☺ System introduced end of 2008
Integrate product stewardship activities in Cheminova's new regions to which the present subsidiaries belong so that the distribution of responsibility reflects the new organisation	☺ Guidelines adopted on August 1, 2008 og implemented in all regions at the end of 2008
Continue the phase-out of class I products	☺ The subsidiaries' product programmes are reviewed every six months. Plan on schedule
<b>Development and innovation at Cheminova A/S</b>	
In 2008, a code of conduct will be prepared concerning requirements to external partners in connection with development activities. The code of conduct will be implemented in 2009	☺ The code of conduct has been prepared and implemented in the company's management system
The product programme is based to an increasing extent on environmentally friendly formulations	☹ The target was that no more than 10% of the new recipes were emulsion concentrates. This has not been possible – the result was 26%
<b>Production, India</b>	
Commissioning of new incineration plant for chemical waste	☺ The plant has been commissioned
20% reduction of COD in the waste water discharged from the company	☺ The target has been achieved. See the table on page 26
Examine the possibilities of reducing the waste-water flow	☺ The possibilities have been examined, and it has proved possible to reduce water consumption by 8%
Campaigns for improving occupational health and safety, focusing on volatile and toxic chemicals	☺ The campaigns have been implemented, and the working environment has been improved
<b>Production, Denmark</b>	
Campaigns to improve the safety culture with the primary aim of reducing the number of accidents at work	☺ The campaigns have been implemented, in part through focusing on selected areas. The number of accidents at work fell from 27 in 2007 to 22 in 2008
Reduction in the number of spillages and waste with particular focus on the discharge of chemicals to open areas	☺ In 2007 there were 21 spillages, of which nine were to open areas. In 2008 there were 17 spillages, of which three were to open areas
Maintaining certifications in accordance with the ISO 14001 and OHSAS 18001 standards	☺ DNV's follow-up audit in week 44 resulted in three deviations, which have all been clarified

## Fulfilling CSR targets for 2008, continued

Targets	Fulfilment
<b>New EU chemicals regulation</b>	
Pre-registration: Reporting the substances which Cheminova wants to register during the 11-year phase-in period	 The substances have been reported as planned
Register the substances which Cheminova handles, which cannot be pre-registered (substances which are considered as new in relation to the regulation)	 The registration has been implemented as planned
Starting to compile information and data for the substances handled by Cheminova which must be registered before the end of 2010	 Data gathering has commenced, and a status report has been prepared at the end of 2008. A department has been set up to handle the work
Communicate with our suppliers and customers about the obligations for our business entailed by REACH	 The communication with suppliers has been implemented as planned
<b>Supplier management</b>	
Continuing to distribute information about the Supplier Code to relevant suppliers and having them accept the principles contained therein	 Acceptance has been obtained from relevant suppliers
Conducting six official audit visits in 2008	 Three audits conducted every six months
Conducting training in the Supplier Code for relevant employee groups which are in contact with suppliers	 Implemented as planned
Extending the Supplier Code so that it covers all subsidiaries by the end of 2009	 A global manual for supplier management was prepared in 2008
<b>Human Resources</b>	
Revision of Cheminova's mission and values, for example with a view to ensuring that CSR is firmly rooted and disseminated further throughout the organisation	 The values have been revised and communicated to all employees in Denmark. The target included communicating the new values to employees in the subsidiaries, but this was not achieved
Carrying out a global HR audit process	 The audit process has been implemented, and the action plan is ready
Conducting a follow-up on the Code of Business Principles	 The follow-up has been implemented and documented

# CSR targets

New targets have been established, some of which go beyond 2009. The targets are described in greater detail in the action plan on page 31.

## Product Stewardship

- Phase-out of methyl parathion EC (class I) according to the following plan:
  - Mexico in 2009.
  - Colombia in 2009.
  - Brazil in 2010.
- Phase-out of methamidophos EC (class I) according to the following plan:
  - Argentina in 2009.
  - Brazil in 2009.
  - Mexico in 2009.
- Phase-out of monocrotophos SL (class I) according to the following plan:
  - Colombia in 2009.
  - India in 2009.
- Phase-out of DDVP EC (class I) according to the following plan:
  - India in 2010.
- The implementation of the company's global labelling policy commences in 2009 and will be concluded in 2010.
- In 2009, all the company's material relating to the safe use of its products will be made accessible to the global organisation.
- The work to produce a modular DVD with safety instructions for end-users is commencing in 2009.
- The contracts with those of Cheminova's direct customers which hold registrations on behalf of the company are being changed so that the customers contractually undertake to operate in compliance with the FAO's Code of Conduct. The work is being started in 2009 and will be completed in 2010.
- All end-user packaging made of plastic and supplied from the production plant in Denmark will carry a warning against re-use of containers embossed onto the packaging. Will be implemented in 2009.

## Development and innovation

- A code of conduct that contains requirements to be met by Cheminova A/S's external co-operation partners in connection with development activities will be implemented in 2009.
- No more than 10% of the formulations of new active ingredients being developed by the parent company in 2009 will be based on organic solvents.

## Production

### India

- Energy consumption per produced volume will be reduced in 2009 by 5% relative to 2008.
- For the production of technical goods and intermediates, COD emissions per produced volume will be reduced by 10% in 2009 relative to 2008.
- For the production of technical goods and intermediates, water consumption per produced volume will be reduced by 8% in 2009 relative to 2008.
- Absenteeism due to accidents at work will be reduced in 2009 relative to 2008.

### Denmark

- Energy consumption per produced volume of glyphosate will be reduced by the end of 2010 by 5% relative to 2008.
- Recertifying the company's environmental management system in relation to ISO 14001 and OHSAS 18001 will commence in 2009 and will be concluded in the first six months of 2010.
- Implementation of campaigns to improve the safety culture with the primary aim of further reducing the number of accidents at work. The campaigns will be

implemented in 2009 and 2010.

## New EU chemicals regulation

- Implement registration of the pre-registered substances which must be registered before the end of 2010.

## Supplier management

- Conduct six official CSR audit visits at suppliers in 2009.
- Introduction of Cheminova's 'Global QC and CSR manual' throughout the company's entire global organisation before the end of 2009.
- In 2009 we will strengthen the organisation in China within the CSR area.
- In 2009, the Supplier Code will be extended to apply to all subsidiaries with a view to implementation in 2010/11.

## Human Resources

- In 2009, all group employees will be invited to a one-day workshop on the company's newly formulated values. This is expected to contribute to both a broader and deeper understanding of the Code of Business Principles which will be reassessed with a view to enlarging and clarifying the code in accordance with the experience which has been acquired.

# Cheminova's business area and organisation

Cheminova's primary activities are the development, production, marketing and sale of chemical plant protection products for use on agricultural crops worldwide.

## Products

Cheminova's business is chemical plant protection products and fine chemicals.

The company manufactures herbicides, insecticides and fungicides. The products are sold especially as ready-to-use plant protection products under the company's own brands and registrations (permits) and labels. Cheminova also supplies active ingredients for ready-to-use plant protection products. Moreover, the company produces and sells a number of fine chemicals for use by the chemicals industry.

The products which are manufactured at the factory in Denmark are almost entirely destined for export while the opposite is true for the production facility in India where most of production is used locally.

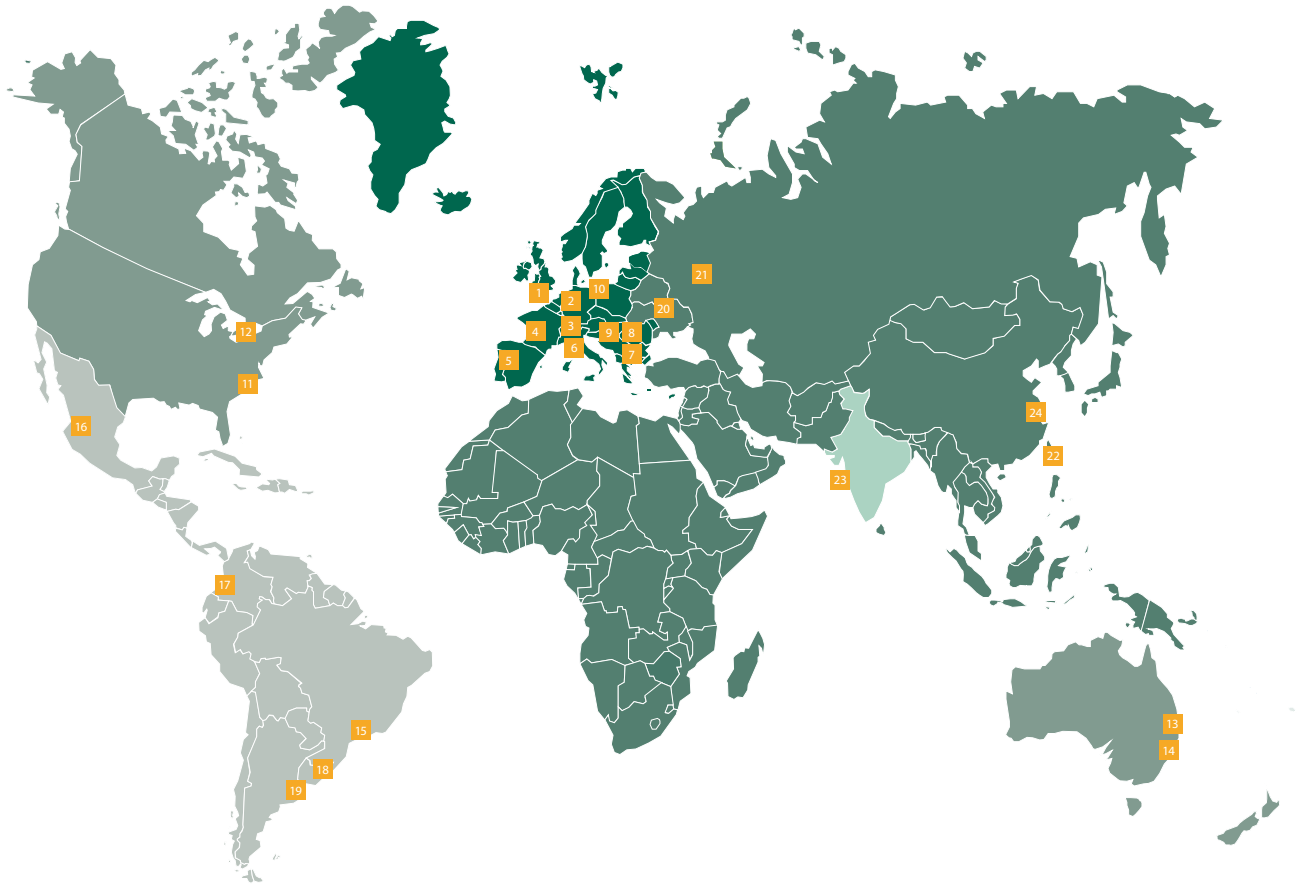
## Ownership and organisation

Cheminova is a public limited company of which the Chairman and Deputy Chairman are independent members of the Board. In 2008, the company had about 800 employees in Denmark and 1,100 employees abroad. Cheminova is owned by Auriga Industries A/S which is listed on NASDAQ OMX, Copenhagen (Copenhagen stock exchange).

Cheminova's top management, the Global Executive Committee (GEC), has the global management responsibility for Cheminova's regions and other activities such as production and logistics, development and registration, finance and support, portfolio management and corporate development. GEC also has the overall

responsibility for the company's CSR policies and activities – see the Management statement on page 5 and the section about the report on page 4.

Cheminova's region-based organisation is illustrated on the next page.



### REGION EUROPE

- 1 **Headland Agrochemicals Ltd.**  
United Kingdom
- 2 **Stähler**  
Germany (owned: 75%)
- 3 **Pytech Chemicals GmbH**  
Switzerland
- 4 **Cheminova Agro France S.A.S.**  
France
- 5 **Agrodan S.A.**  
Spain (owned: 90%)
- 6 **Cheminova Agro Italia S.r.l.**  
Italy
- 7 **Cheminova Bulgaria EOOD**  
Bulgaria
- 8 **Cheminova Romania Representative Office**  
Rumania
- 9 **Cheminova Hungary**  
Hungary (owned: 51%)
- 10 **Cheminova Polska Sp. zo.o.**  
Poland

### REGION ANZAC

- 11 **Cheminova Inc.**  
USA
- 12 **Cheminova Canada Inc.**  
Canada
- 13 **Ospray PTY Ltd.**  
Australia (owned: 71,5%)
- 14 **Cheminova MFG Pty.**  
Australia

### REGION LATIN AMERICA

- 15 **Cheminova Brasil Ltda.**  
Brazil
- 16 **Cheminova Agro de México S.A. de C.V.**  
Mexico
- 17 **Cheminova Colombia**  
Colombia
- 18 **Abielux S.A.**  
Uruguay
- 19 **Cheminova Agro de Argentina S.A.**  
Argentina

### REGION INTERNATIONAL

- 20 **Cheminova Representative Office**  
Ukraine
- 21 **Cheminova LLC**  
Russia
- 22 **Cheminova Taiwan Ltd.**  
Taiwan

### OTHER ACTIVITIES

- 23 **Cheminova India Ltd.**  
India
- 24 **Cheminova Shanghai Representative Office**  
China

# From Auriga's annual report

Cheminova is 100% owned by the public limited company Auriga Industries A/S in which Cheminova is the main business activity.

## Objectives and strategy

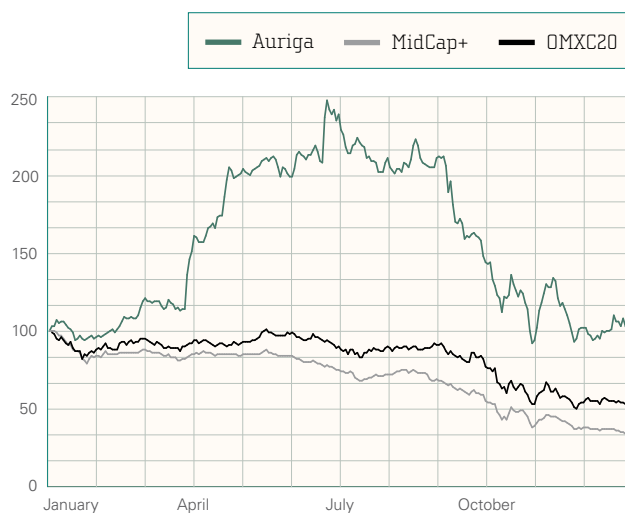
It is the overall strategic objective of Auriga to ensure long-term value creation to benefit Auriga's shareholders, employees and other stakeholders.

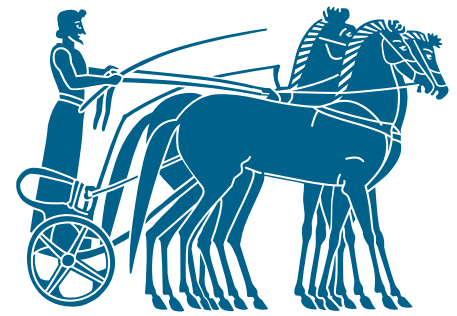
Following the divestment of Hardi International and Skamol in 2007, Auriga's main activity is focused on developing Cheminova. Cheminova's new Business Plan sets out several ambitious growth and earnings targets and forms the cornerstone of the value creation to be seen in the coming years. The plan is launched under the name of "Five-in-Fifteen" as Cheminova will be striving to double its market share to 5 per cent in 2015. Growth in revenue is driven by healthy and strong organic growth based on new and existing products, but acquisitions of companies and products will also contribute significantly to fulfilling the growth target. Economies of scale and ongoing streamlining will improve earning margins, resulting in an EBITDA margin in 2015 matching the best among peer companies in the industry.

## Auriga share

The Auriga share, which is included in the MidCap+ index, is listed on NASDAQ OMX, Copenhagen, under the ID code DK0010233816 with the symbol AURI B. The share ended the year at a price of 90.50 corresponding to a modest price drop of 0.4 per cent in 2008. Assuming that the general meeting approves a dividend of DKK 5.75 per share, the share has generated a combined positive return of just below 6 per cent, which is among the best share returns in Denmark in 2008. By comparison, OMXC20 fell by 47 per cent in the same period.

The trade in the Auriga share in 2008 was 18.6 million Class B shares with a total market price of approx. DKK 3.2 billion. The highest price was DKK 237 while the lowest was DKK 81. At the end of 2008, the market value of the company's shares was DKK 2.3 billion.





**AURIGA INDUSTRIES A/S**

### Share capital and ownership

Auriga's share capital of DKK 255 million is divided into Class A shares with a nominal value of DKK 75 million (7,500,000 shares) and Class B shares with a nominal value of DKK 180 million (18,000,000 shares). Class A shares are non-negotiable and carry ten votes per share of DKK 10, while Class B shares listed on NASDAQ OMX, Copenhagen, carry one vote per share of DKK 10. At the end of the year, approx. 6,700 shareholders were registered in Auriga's register of shareholders, representing 87 per cent of the share capital. Approx. 700 employees own shares in the company. The Aarhus University Research Foundation owns all Class A shares, while the following three shareholders own more than 5 per cent of the capital or voting rights:

Shareholders holding > 5% of the share capital	Capital	Votes
Aarhus University Research Foundation, Aarhus, Denmark	40.38%	83.,65%
The Danish Labour Market Supplementary Pension Fund (ATP), Hillerød, Denmark	13.00%	3.56%
The Employees' Capital Pension Fund (LD), Copenhagen, Denmark	5.84%	1.60%

### Corporate Governance

Auriga is a Danish listed public limited company which is managed on the basis of the company's Articles of Association, objectives and values and on the corporate governance principles laid down

in relevant legislation, best practice and recommendations. Auriga's Board of Directors focuses on long-term interests and value creation for the benefit of shareholders and other stakeholders. According to the recommendations for good corporate governance which form part of the rules concerning listing on NASDAQ OMX, Copenhagen, Auriga must adhere to these recommendations based on the 'comply-or-explain' principle.

Auriga generally complies with the recommendations of NASDAQ OMX, Copenhagen, for good corporate governance, but has nevertheless chosen a different practice in a few areas. Visit [www.auriga.dk](http://www.auriga.dk) for further information about Auriga's corporate governance.

### Stock-related key figures

		2008	2007
Listed price, end of year	DKK	90.50	90.90
Highest market price	DKK	237.00	195.50
Lowest market price	DKK	81.00	81.00
Market value, end of year	DKKm	2,308	2,318
Price earnings	DKK	11	(37)
Quoted price/equity value		1.02	1.05
Earnings per share (EPS)	DKK	8.20	(2.44)
Operating cash flow per share	DKK	(13.70)	11.10
Equity value per share	DKK	88.80	86.80
Dividend per share	DKK	5.75	4.00

# New mission, vision and values

Cheminova's values must pervade the whole organisation, thus in 2009 all employees in the entire organisation will get directly involved in discussing the new mission, vision and corporate values.

In September, the Global management group was invited to a seminar for the purpose of defining Cheminova's mission, vision and values.

The seminar resulted in the following 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.**

The mission, which is also referred to as the company philosophy, describes why we exist as a company, i.e. the *raison d'être* of a company like ours. Not surprisingly, it is not radically different from the previous mission, but the language is clearer and more up to date. The mission is important for the HR area because it gives meaning to the work and the employees a sense of pride – whatever their background and job.

On the basis of the mission, everyone can justifiably say: "We are helping to create a better world – we are making a difference!"

The vision, which expresses our commercial endeavours, was changed to the following:

**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.**

Here too the text has been modernised and made clearer, with the fundamental need that we create value and generate profit being emphasised. The fact that we use the word *sustainable* means that we always look at the long-term consequences of our actions on the business and on society at large.

To achieve our goals and to move in

the direction specified by the vision, it is also important to formulate which particular behaviour must be promoted in the organisation. This is expressed in our corporate values:

- We achieve ambitious goals
- We are innovative
- We decide and act
- We recognize results
- We are good corporate citizens

Because humans perceive and interpret things differently, it is vital that each and every one of us is involved in and is invited to relate to the values. Everyone must have a clear picture of what this means, and must be able to answer questions such as "What do we need to do more of?" and "What must we avoid doing?". The aim is that the values are integrated into our working lives, and that everyone naturally works in a way that reflects the values.

As the roll-out procedure in 2009 will in-



*Cheminova's global management group at the strategy seminar at Nørre Vosborg in West Jutland.*

volve all employees, we will not be able to present the values in depth until the 2009 reporting is published. As a starting point, the values are discussed on the basis of the following explanatory text:

*We achieve ambitious targets:* We must perform to the best of our abilities in our pursuit of ambitious targets while also acknowledging that it is not always possible to achieve all of them.

*We are innovative:* We must bring new knowledge into play and therefore need to work towards implementing improvements. Even good products and processes can be improved with time, and we therefore need to be open, flexible and willing to change when faced with new ways of doing things.

*We decide and act:* Progress and results require decisions and actions. It is therefore acceptable to push for decisions from colleagues and managers in the organisation. Decisions and actions must be based on the best available information.

*We acknowledge results:* The targets must be clear for everybody, and good results must be acknowledged.

*We are good corporate citizens:* We behave as good citizens and act according to the Code of Business Principles. All activities must comply with these principles. We acknowledge that the world is not perfect, but we must always help to improve conditions by setting standards and ensuring they are adhered to through our efforts and resources.

#### **Roll-out and workshops**

It has been decided to launch an extensive roll-out programme. In 2009, all employees will be invited to attend a one-day workshop which will focus on the values. The roll-out will take place in both the regions and in the individual companies abroad as well as in the organisation in Denmark.

Once every employee has been involved and the roll-out is complete, feedback will be sent to everyone. However, the shape

of this feedback has not yet been decided. But the values will in any case be clarified and explained in detail in the CSR reporting for 2009.

The process is expected to contribute to a broader and deeper understanding of the Code of Business Principles. Finally, this will result in the Code of Business Principles being reassessed with a view to enlarging and clarifying the code in accordance with the experience which has been gained.

# The food challenge

The food crisis which in 2008 has revealed that the importance of having sufficient agricultural production can hardly be overstated. Cheminova's mission underlines our contribution to ensuring the necessary food supplies for the world's population.

2008 was a turbulent year in terms of food prices, when the price of cereals, for example, more than doubled for a time. The world prices of cereals and other crops have subsequently fallen considerably. The extremely high cereal prices have in part been driven by speculation and export restrictions. The production figures for 2008 were, in contrast to 2007, high, and the acute shortage of cereals and other crops has eased markedly. But the basic challenge of an increasing population and the growth in demand from a growing middle class with higher standards of living are still placing extraordinary demands on agricultural food production.

## The food crisis was an eye-opener

The fact that cereal prices can double in the space of a few months has shown the world what will happen if the agricultural production of basic food is unable to keep up with demand.

Here, there are serious structural

problems where the acute food crisis has highlighted the sensitivity of the system when just a single year is characterised by bad crops. When the cereal stocks fall below a certain level, it constitutes a threat that gives rise to panicky reactions and speculation. The EU's wheat stocks which correspond to 42 days of consumption do not represent an effective cushion in this respect.

Despite the particularly good harvest, cereal stocks are still at a relatively low level, which means that record high harvests still need to be achieved in future simply to keep pace with demand. This is what constitutes the food challenge.

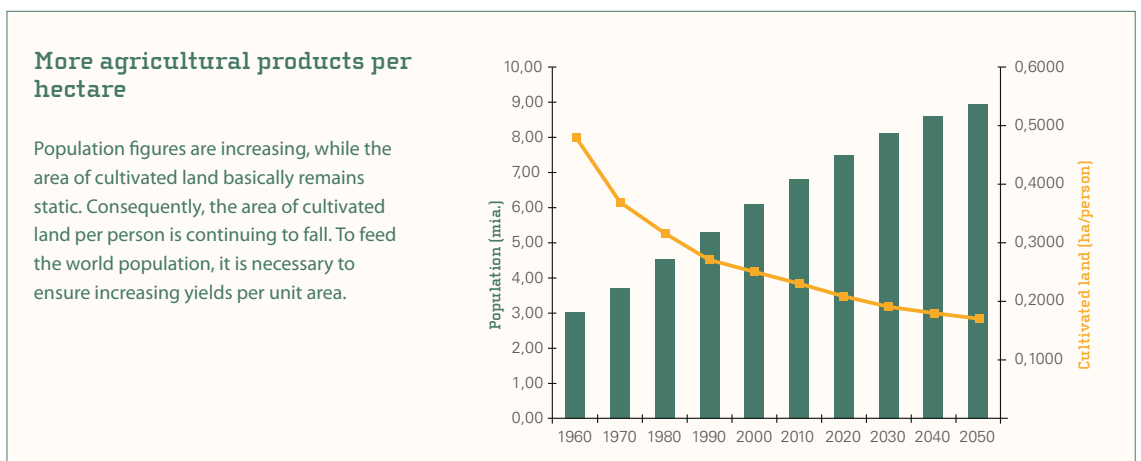
## Increased production has had an effect

2008 was a good year without extensive failed harvests and with fallow areas being taken into use. As a result, it has been possible for agriculture to produce extraordinarily large volumes of food, which

have taken the edge off the most acute problems. However, the fundamentally growing need for more food is still there. The outstanding harvest in 2008 has only just been able to keep pace with demand. Experts are therefore concerned that there is a strong chance that a new, acute food crisis may be in store within the next couple of years. According to the International Grain Council, the areas which are used for growing wheat in 2009 are expected to be reduced by 5% in relation to the previous record year.

## China needs animal feed

The Chinese economy has been characterised by strong growth, and even though the financial crisis has led to a slowdown, the economy is still growing. The general population growth has moderated due to the one-child policy, and the affluent middle class is growing. It is especially the middle classes who are enjoying the rise in living standards, which have meant





increased demand for animal products. Eating habits are changing so that meat is increasingly part of the diet for this population group. This has already led to an increasing demand for animal feed, with maize and soya being the world's most important crops. This development is expected to continue in China and India, although at a slower rate due to the financial crisis. That meat consumption places an extra burden on agricultural production can be illustrated by the fact that it takes two, four and seven kilogrammes of protein feed units to produce one kilogramme of poultry protein, one kilogramme of pork protein and one kilogramme of beef protein, respectively

#### **Increasing demand for maize**

Maize consumption has grown dramatically in recent years, and production has found it difficult to keep up with demand, which has resulted in worryingly low stocks for this crop, too. The US Department of Agriculture expects world consumption in 2008/2009 to total 800 million tonnes, while production is expected to be about 785 million tonnes. The US is the largest producer of maize worldwide. However, especially in the US, the production of bioethanol is attracting a lot of attention politically. This industry consumes about 100 million tonnes of maize each year, which obviously has a significant impact on price levels for this crop. Even though low oil prices weaken the competitiveness of bioethanol production, we can expect to see large volumes of this crop being used because there is so much political will to focus on this form of energy.

#### **Streamlining is the only possible way**

The demand for agricultural crops will continue to increase in hand with population growth and the rise in living standards. Efficient agricultural production is a precondition for developments going in the right direction – towards greater prosperity for a growing number of people and making famines a thing of the past. The challenge arises because the available agricultural areas cannot be enlarged without adversely affecting natural values. The available agricultural land per person is falling because of population growth, and at the same time the demand for meat products is growing among the middle classes. Consequently, far greater yields per hectare must be ensured in future.

If this rationalisation project does not succeed, the levels of uncertainty and high cereal prices which we saw last year will only be a cautious prologue to a devastating food catastrophe. Even today, more than 850 million people are starving.

#### **The ethical challenge**

Poverty and hunger pose an ethical challenge with serious socio-political perspectives. Crises involving violent price increases for agricultural products prompt debate on many issues such as biofuels, nature preservation, organics, GMOs, free trade policies etc. But there is no avoiding the fact that the uncertainty surrounding food supplies and threatening famine constitutes a socio-political challenge which, in a globalised world, also has implications for Denmark.

Feeding the world's population is a basic

need – having food to eat is a Human Right. Even though this is often overshadowed by other elements in the debate, the right to a decent standard of living, including food, is a human right which is specifically mentioned in the Universal Declaration of Human Rights.

#### **Plant protection**

To avoid heavy losses due to weeds, plant diseases and insects, plant protection is a necessary measure. Today, 30-50% of crop yields are saved thanks to the use of plant protection products. Apart from genetic engineering, there are no sufficiently potent alternatives to chemical plant protection. Cheminova therefore expects – like the sector in general – a significant demand for the company's products for many years to come. The specific need for plant protection naturally varies considerably among the different crops and climate zones. And we expect that future needs will place greater demands on the composition of the product programme. In addition to the current phase-out of the most toxic products which can gradually be replaced by better and equally effective products, we are welcoming the growing interest in sustainable farming. Cheminova is thus focusing on innovation, including the development of new, improved pesticides adapted to meet future needs and stricter environmental requirements.

# Climate

In the debate on climate changes, focus is on energy consumption and emission of CO<sub>2</sub> due to burning of fossil fuels. This subject is of great importance to Cheminova and all other production companies.

In the current climate change debate, CO<sub>2</sub> emissions to the atmosphere are regarded as the main reason for the rising temperatures expected to be seen globally in the coming decades. The increased CO<sub>2</sub> emissions are attributable to the burning of fossil fuels. In modern societies, these emissions come from three main sources:

- Temperature conditioning of buildings i.e. heating or cooling.
- Production (foods and consumer goods).
- Transport – freight and passenger.

Looking at a company like Cheminova, which produces and markets plant protection products, it is the production of the goods which is the primary source of CO<sub>2</sub> emissions. This area also has our key focus. The production plants are in Denmark and India.

## Energy policy

Cheminova has drawn up an energy policy, and for the many years we have focused on energy saving in relation to the production processes used to make the products we sell. Since 2000, we have had an energy management system at the plant in Denmark which is certified in accordance with DS 2403 - Energy Management. The objective is to minimise the volume of energy consumed per produced unit. This has taken place through continually drawing attention to energy consumption

for the purpose of carrying out ongoing improvements to ensure the optimum use of energy resources.

At our company in India, we have not formalised the energy management system, but in recent years we have, like at the company in Denmark, focused on energy savings, and in 2008 an energy audit was conducted by one of the leading energy auditing firms in India which is expected to result in energy savings in 2009 as per the objective below.

## CO<sub>2</sub>-reduction projects

The optimum use of fossil fuels is achieved when an energy plant produces both power and heating. In 1997, a natural gas-fired CHP plant using a gas turbine was constructed in the production plant in Denmark. In 2007, a far smaller plant was commissioned at the company in India where power is also generated using a gas engine.

As a result of the energy-optimisation efforts which have been taking place for several years at both companies, a number of projects have been implemented comprising energy-saving ventilation, energy reclamation from process power and making unit operations more energy efficient. Moreover, conventional electric-powered equipment (motors, air compressors etc.) has been replaced by new

energy-efficient equipment.

There is one CO<sub>2</sub>-reduction project, however, which deserves special mention. The project involves using surplus hydrogen from a production plant at the factory in Denmark. The hydrogen is used to produce process steam and heating. The plant, which was described in the CSR report for 2007, was commissioned in December 2007, and we now have the results of its first year of operation. Energy savings in 2008 amounted to 25,538 MW, corresponding to a CO<sub>2</sub> reduction of 5,235 tonnes. This project alone has reduced CO<sub>2</sub> emissions from the company in Denmark by 5%. The energy saving in using the waste hydrogen corresponds to the power consumed by almost 7,000 Danish households.

Launching its '1 Tonne Less' campaign, the Danish Ministry of Climate and Energy has set itself the target of reducing Denmark's CO<sub>2</sub> emissions by one tonne per citizen. By recycling hydrogen at Cheminova, this target has been more than achieved for the company's employees and their families as the CO<sub>2</sub> emissions have been reduced by 6.4 tonnes per employee.

## CO<sub>2</sub> emissions

CO<sub>2</sub> emissions from the two companies until now are illustrated in the figure, which shows that emissions have been



Hydrogen boiler, Cheminova DK.



Gas turbine, Cheminova DK.



Gas engine, Cheminova India.

steadily falling, in line with the desire by society at large to reduce greenhouse gases. It is not possible to produce a meaningful indexing of the figures for the two production sites relating to the produced volumes. This is because many of the newer products produced at the plants demand significantly more energy to produce per unit volume. On the other hand, these products are used in much smaller quantities per hectare. The growing CO<sub>2</sub> emissions in 2008 are due to an increased level of activity at the production plants in both Denmark and India. In India,

interruptions to the natural gas supplies have made it necessary to use fuel oil, leading to increased CO<sub>2</sub> emissions.

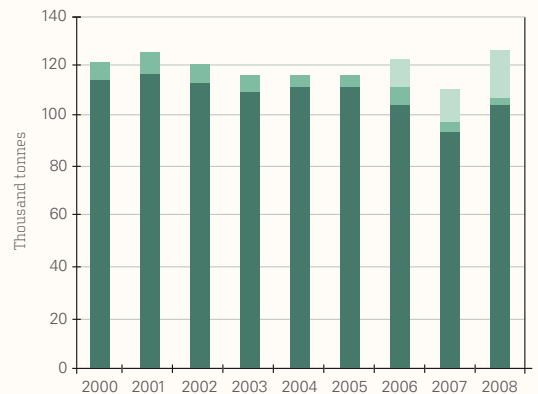
**Climate targets**

Both in Denmark and India, Cheminova has set itself targets for further reducing CO<sub>2</sub> emissions through cutting down on its energy consumption.

- Energy consumption per produced volume in India is being reduced in 2009 by 5% relative to 2008.
- Energy consumption per produced volume of glyphosate is being reduced

by the end of 2010 by 5% relative to 2008. Glyphosate is the biggest product at the production site in Denmark.

**CO<sub>2</sub> emissions from Cheminova's production companies in Denmark and India**



# Misunderstandings concerning methyl parathion in Brazil

Cheminova is not the only supplier of methyl parathion in Brazil, but Cheminova's phase-out plan for this product is unchanged. Cheminova's methyl parathion in WHO class I will be phased out in Brazil by the end of 2010.



In August 2008, the Danish daily newspaper Politiken published a series of articles criticising Cheminova's handling of methyl parathion in Brazil. In particular, the newspaper raised suspicions about Cheminova's rejection of the health authorities' technically incorrect arguments in connection with the registration of the product. The articles questioned the extent to which Cheminova's intention to phase out the product was genuine, while also including misleading information which suggested that it was Cheminova's methyl parathion that was behind all the alleged accidents.

As some of the incorrect information and misunderstanding stem from a source in the National Health Surveillance Agency (ANVISA), which is linked to the Brazilian Ministry of Health, our subsidiary in Brazil

has contacted this organisation. We have provided an account of the phase-out plan, and through this dialogue confirmed that methyl parathion (WHO class I) will under all circumstances disappear from Cheminova's product programme by the end of 2010. We have also explained the restrictions which we have already introduced ourselves. Among other things, these involve restricting sales to professional farmers for using on a few crops in selected states. A similar account has been submitted to the Brazilian Ministry of Agriculture and the Ministry of Environment. Moreover, we have pointed out that if ANVISA decides to ban methyl parathion generally before 2010, it will be in Cheminova's interest, and the move will therefore not encounter any resistance on our part.

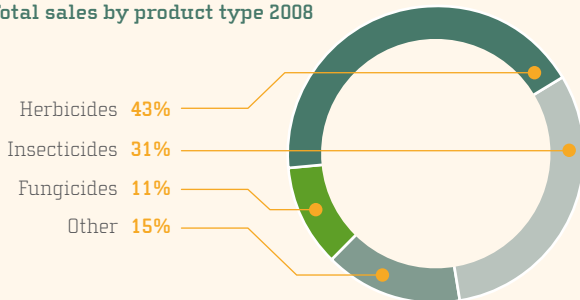
Also, since the autumn, we have attempted to arrange a meeting with ANVISA to discuss how this organisation assesses the real risk of using methyl parathion in different parts of Brazilian agriculture. Sources in ANVISA apparently estimate the general accident figures for pesticides to be many times higher than the official accident statistics published by the health authorities.

ANVISA has still not been able to find the time to discuss this issue with us.

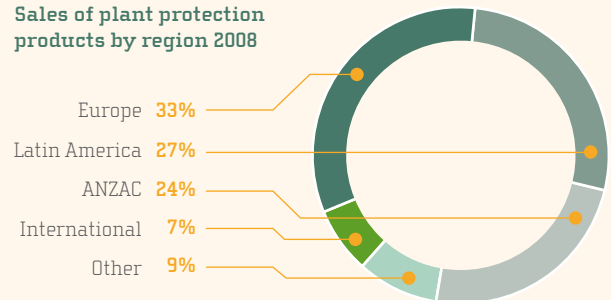
# Follow-up on targets

The 2008 targets on product stewardship, development and innovation, human resources, production, REACH and supplier management have during 2008 largely been met.

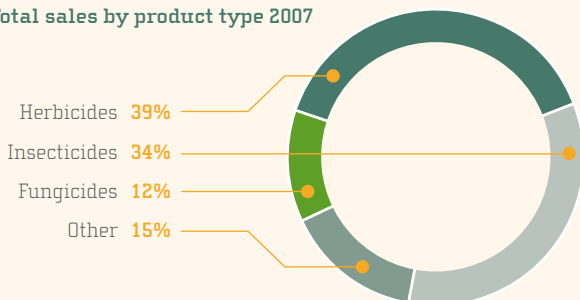
Total sales by product type 2008



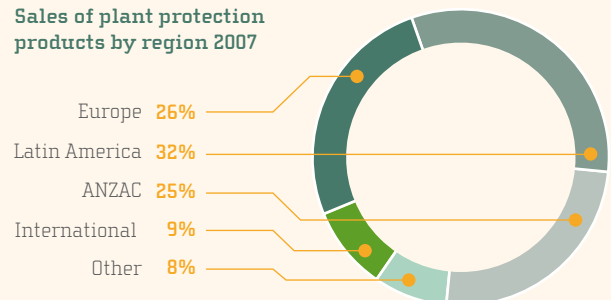
Sales of plant protection products by region 2008



Total sales by product type 2007



Sales of plant protection products by region 2007



## Sales and product stewardship for plant protection products

### Cheminova's sales in 2008

Cheminova's sales of plant protection products include supplies of both active ingredients and ready-to-use formulations to more than 100 countries. In 2008, Cheminova's subsidiaries handled approx. 88% of sales.

The distribution between product types and geography is pretty well the same as last year although it should be mentioned that the geographical distribution is based on the new regional structure. The relatively higher share of sales in lower middle income countries and the fall in lower income countries is due to the fact that India now belongs to the category of lower

middle income countries.

For further comments on sales, please refer to Auriga's annual report.

### Sales of the most toxic products

The most toxic products are those which, according to the WHO classification (The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification 2004), fall into class Ia 'extremely hazardous' and class Ib 'highly hazardous'.

The active ingredients which fall into this category are methyl parathion, monocrotophos, DDVP and triazophos, which are produced by Cheminova, as well as methamidophos, methomyl, phorate and fenamiphos, which are third-party products sold by Cheminova in the form of formulations, i.e. ready-to-use products.

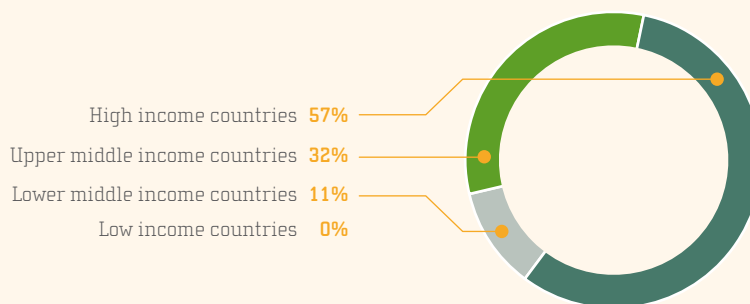
## WHO classification of pesticides based on acute risk

Class Ia	Extremely hazardous
Class Ib	Highly hazardous
Class II	Moderately hazardous
Class III	Slightly hazardous
U	Unlikely to present acute hazard

The active ingredient methyl parathion is included in both class I and class II formulations, while the ready-to-use triazophos-based products all are class II formulations. Cheminova's phase-out concerns class I ready-to-use products in countries outside the US, Canada, Australia, Japan and the EU. In 2008, total sales of class I products to

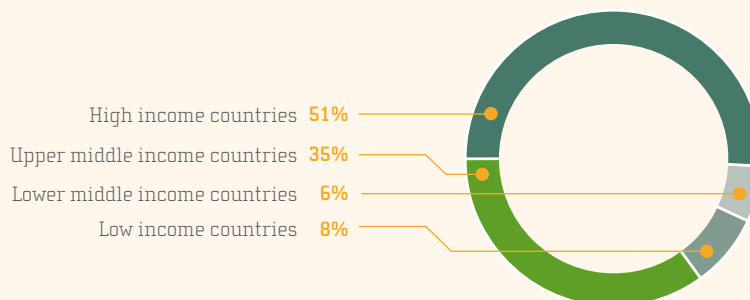
## Sales of plant protection products broken down by rich and poor countries 2008

Sales broken down by rich and poor countries (breakdown according to the World Bank's categories of gross national income per capita: Low income USD 935 or less p.a.; lower middle income USD 936 - 3,705 p.a., higher middle income USD 3,706 - 11,455 p.a., higher income USD 11,456 or more p.a.).



## Sales of plant protection products broken down by rich and poor countries 2007

Sales broken down by rich and poor countries (breakdown according to the World Bank categories of gross national income per capita: Low income USD 905 or less p.a., lower middle income USD 906 - 3,595 p.a., higher middle income USD 3,596 - 11,115 p.a., high income USD 11,116 or more p.a.).



all countries accounted for 6% of revenue. The breakdown of products by country can be seen in the table below.

### Overview of which WHO class I ready-to-use products Cheminova sold in 2008 and where

Country	Product
Australia	Methyl parathion EC
	Methomyl EC
USA	Methyl parathion EC
	Methamidophos EC
Mexico	Methyl parathion EC
	Methamidophos EC
Colombia	Methyl parathion EC
	Methamidophos EC
	Monocrotophos SL
Brazil	Methyl parathion EC
	Methamidophos SL
Argentina	Methamidophos EC
	Fenamiphos EC
Spain	Methomyl EC
	Monocrotophos SL
India	DDVP EC
	Phorate GR

EC = Emulsion concentrate; SP = Soluble Powder; SL = Soluble Liquid; SC = Suspension concentrate; GR = Granulate.

**Product stewardship**  
The underlying principle for Cheminova's stewardship of plant protection products is risk reduction. Here, the cornerstones are:

#### Legislation

Complying with national legislation in all the countries where Cheminova's products are sold. A key element is that Cheminova only markets products for which marketing permission has been obtained in accordance with local rules as well as the rules outlined in the Rotterdam convention concerning 'Prior Informed Consent', which are also contained in EU legislation and which regulate the export of specific chemical substances.

#### FAO's Code of Conduct

In 2008, the FAO's Code of Conduct was implemented in all the new sales regions' management principles. In 2007, the FAO's Code of Conduct was formally implemented in all the subsidiaries as part of Cheminova's product stewardship instruction. The FAO's Code of Conduct specifies standards which purport to reduce the risks involved in distributing and using plant protection products.

#### Phase-out of the most toxic substances

Cheminova's phase-out plan which was first published in 2006 relates to ready-to-use products which fall under the WHO classes Ia and Ib, i.e. products which are classified as 'extremely hazardous' and 'highly hazardous', respectively. The plan does not cover the USA, Canada, the EU, Australia and Japan as the infrastructure in these areas provides sufficient regulation

of the use of plant protection products.

#### Meeting targets

In 2008, we continued to focus on reducing the risks associated with handling the most toxic of our products. Training and guidance on the correct and safe use of Cheminova's products are part of the daily marketing activities of all subsidiaries. Labelling and instructions for use, personal contact with distributors and users and participation in campaigns are some of the tools employed to promote safety. In countries where class I products are being phased out, the initiatives described in previous CSR reports have continued. In 2009, monitoring will intensify through quarterly reporting to the Global Executive Committee (GEC).

#### Earlier phase-outs of phorate, methyl parathion and methamidophos

#### India

Cheminova's subsidiary in India has succeeded in phasing out the toxic product phorate (WHO class I) one year ahead of the plan announced in the company's CSR reports. Cheminova has been able to introduce a replacement product which is far less toxic (WHO class III, slightly hazardous substances). It has therefore been possible to stop selling the toxic product at the end of 2008, one year earlier than planned. Sales of this very toxic product have now stopped completely, and phorate is no longer part of the product programme.

#### Cuba

A decision was made in 2008 to no longer

## Cheminova's phase-out plan and status

Country	Product	Phase-out year	Status
Mexico	Methyl paration EC (class I)	2009	To be phased out this year. Microcapsules and low conc. powder to be maintained
	Methomyl SP (class I)	2007	Has been phased out
	Methamidophos EC (class I)	2009	To be phased out this year
Brazil	Methyl parathion EC (class I)	2010	To be phased out in 2010
	Methamidophos EC (class I)	2009	To be phased out this year
Colombia	Methyl parathion EC (class I)	2009	To be phased out this year
	Monocrotophos SL (class I)	2009	To be phased out this year
	Methamidophos EC (class I)	2009	Phased out in 2008
	Carbofuran SC (class I)	2007	Has been phased out
Taiwan	Methyl parathion EC (class I)	2007	Has been phased out
Cuba	Methyl parathion EC (class I)	2009	Phased out in 2008
Argentina	Methamidophos EC (class I)	2009	To be phased out this year
India	Monocrotophos SL (class I)	2009	To be phased out this year. Low conc. granulate formulation will be introduced
	DDVP EC (class I)	2010	To be phased out in 2010
	Phorate granulate (class I)	2009	Phased out in 2008

EC = Emulsion Concentrate; SP = Soluble Powder; SL = Soluble Liquid; SC = Suspension Concentrate.

supply methyl parathion (class I product) to Cuba. It has not been possible to enter into a dialogue with the Cuban authorities on possibly replacing methyl parathion with other and less toxic alternatives, for which reason the phase-out has been brought forward.

### Colombia

Cheminova's subsidiary in Colombia has phased out methamidophos in 2008 – one year earlier than stated in the phase-out plan.

### Argentina

Methamidophos is the only class I product sold by Cheminova's subsidiary. The product is not produced by Cheminova, but is sold as a so-called third-party product. The phase-out was essentially completed in 2008. Only a small inventory was sold off in February 2009.

### Phase-out is generally going according to plan

In the CSR report for 2006, we published a detailed country-based plan for the phase-out of WHO class I products. The plan is also set out above. The plan did not include any phase-outs in 2008. However, as described above, phorate was successfully phased out in India, methyl parathion in Cuba and methamidophos in Colombia in 2008, i.e. one year earlier than planned.

Consequently, phorate is no longer part of Cheminova's product programme anywhere in the world.

### Implementation of stewardship guidelines in Cheminova's new regional structure

The managements of Cheminova's four regions have approved a set of stewardship guidelines which, among other things, require compliance with the FAO's Code of Conduct and the phase-out of the most toxic products – WHO class I products – in specified countries according to the schedule published in the 2006 report. These are the same guidelines which have previously been adopted by all the subsidiaries, and it is now up to the regional managements, which are more closely involved in the operations of the individual subsidiaries, to ensure that the guidelines are complied with.

### Less toxic alternatives

The development of a WHO class II monocrotophos product by our subsidiary in India has now been concluded with a satisfactory result. A new formulation has been developed, which lives up to the WHO classification, and which has been shown in field tests to have a good effect on the relevant insects. The development activities are described in further detail in the CSR report for 2007. The required

tests of the product's toxicological and environmental properties etc. have been completed and will now be assessed by the Indian authorities. Only once the product has been approved by the authorities can marketing start. At present it is uncertain whether the necessary marketing permissions will be granted in time for the new product to be introduced before the old product disappears from Cheminova's product programme at the end of 2009. The old product will nevertheless be phased out as set out in the phase-out plan.

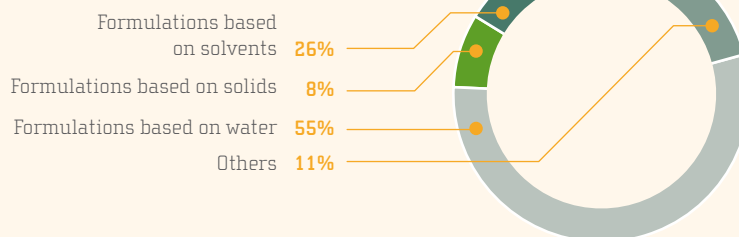
### Labels

A global labelling policy for products marketed under Cheminova brands was prepared and adopted at the end of 2008. The policy is part of Cheminova's quality control and CSR management system, and implementation has thus commenced in 2009.

### Documentation of product stewardship

A global reporting system has been introduced that documents that information about safety aspects and proper product use are included as an integrated part of the sales and marketing activities. Reporting will be quarterly and will be submitted to the Global Executive Committee, which is Cheminova's top management.

### New formulations 2008



Status of phase-out programme in individual countries

#### Mexico

Sales of class I methyl parathion and methamidophos remain restricted to distributors in the northern part of the country, where the agricultural sector is dominated by professional farmers.

Industrial sales of technical methyl parathion are restricted to companies that manufacture class II products such as low-concentrate powder formulations.

#### Cuba

Cheminova is no longer selling class I products.

#### Colombia

Several of Cheminova's development projects are generating new, less toxic products, some of which will replace class I products being phased out from the Colombian market. Methamidophos has been phased out one year earlier than promised in the phase-out plan.

#### Brazil

Sales of class I products which are being phased out are restricted to states where the agricultural sector is dominated by professional farmers. The product approvals for class I products have been withdrawn in states where the working conditions in farming are more underdeveloped. The use of methyl parathion is restricted to three crops.

The video from the campaign on the correct use of personal protection gear has been offered to agricultural colleges and other educational institutions.

Efforts to replace methyl parathion with malathion for the eradication of boll weevil in cotton have been intensified.

#### Uruguay

Cheminova does not sell class I products to farmers in Uruguay.

In the course of 2008, the manufacturer of a low-concentrate powder formulation of methyl parathion (WHO class II) – as promised – added pictograms to the product labels.

#### Argentina

Cheminova's only class I product, methamidophos, is sold only in 20-litre containers, which is the professional farmers' container size. In 2008, the packaging was changed to plastic containers which can be disposed of via the official collection and recycling system for used pesticide packaging. Information on the safe use of the product is an integrated part of the marketing efforts. The phase-out process for the product was virtually concluded in 2008, and only a small inventory remained to be sold in February 2009.

#### India

The product phorate has been phased out one year earlier than promised in the phase-out plan. The product has been replaced by a less toxic (class III) alternative.

The less toxic solid formulation of monocrotophos has been developed. The required tests of the product's toxicological and environmental properties etc. have been completed and will now be assessed by the Indian authorities.

In connection with the marketing of the products, the general level of training provided on safety and the correct use of

Cheminova's products has been high, and in the course of the year contact has been established with 140,000 people, e.g. at farmer's meetings.

#### Taiwan

Cheminova is no longer selling class I products. Methyl parathion is sold only as a microcapsule formulation.

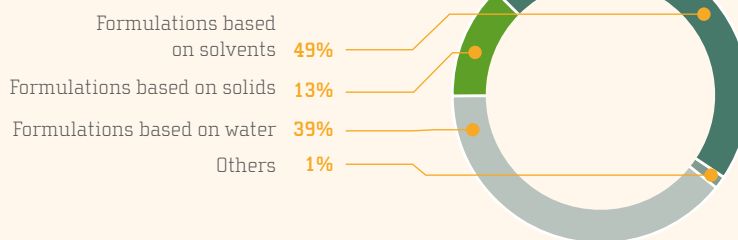
#### Targets

- The implementation of the company's global labelling policy commences in 2009 and will be concluded in 2010.
- In 2009, all the company's material relating to the safe use of its products will be made accessible to the global organisation.
- The work to produce a modular DVD with safety instructions for end-users is commencing in 2009.
- The contracts with those of Cheminova's direct customers which hold registrations on behalf of the company are being amended so that the customers contractually undertake to operate in compliance with the FAO's Code of Conduct. The work is being started in 2009 and will be completed in 2010.
- All end-user packaging made of plastic and supplied from the production plant in Denmark will carry a warning against re-use of containers embossed onto the packaging. Will be implemented in 2009.

#### Development and innovation at Cheminova A/S

Development activities within synthesis and process chemistry purport, among other things, to add new active ingredients, while formulation development develops formulations and recipes for the finished

### New formulations 2007



sales products, new as well as existing.

#### Code of conduct for external development activities

In 2008, a code of conduct was prepared and adopted which sets out requirements to external partners in connection with development activities. The code of conduct, which is in line with the code of conduct for suppliers, is now an integrated part of Cheminova's quality control and CSR manual and will be implemented in 2009.

#### Formulations

In 2008, seven new active ingredients were launched, which significantly exceeds the average number of new substances launched in recent years. The fungicides epoxiconazole and fluazinam and the herbicides tribenuron, nicosulfuron, thifensulfuron, sulcotrione and clomazone were marketed for the first time in 2008. These newly introduced products are marketed in a total of sixteen different formulations. Of these, only one formulation is a solvent-based emulsion concentrate, while the others are water-based or solid formulations. A total of 65 new recipes have been developed, of which most are modernisations of existing products, among other things for the purpose of making the products more environmentally friendly. 26% of these are still solvent-based products, which is to some extent attributable to the many di-methoate formulations considered in 2008. With this active ingredient, nobody has so far been able to produce stable and useable formulations without organic solvents. This is the reason why the

target of having only 10% of solvent-based formulations has not been achieved.

#### Targets

- A code of conduct that contains requirements to be met by Cheminova A/S's external cooperation partners in connection with development activities is being implemented in 2009.
- No more than 10% of the formulations of new active ingredients being developed by the parent company in 2009 will be based on organic solvents.

#### Human Resources

Revision of mission, vision and values  
As can be seen from the section on mission, vision and values earlier in the report (page 14), these were defined in September 2008. At the same time, it was decided to subsequently roll out the new principles to all employees in the global organisation in a form which would involve everybody. The work has commenced and will be completed in the first half of 2009.

#### Carrying out a global HR audit

In 2008, a global HR audit process was conducted for the first time. The process was concluded at a meeting of the company's Global Executive Committee (GEC) in September. The main purpose of this management process is to provide the Board of Executives with an overview of the organisational resources in relation to the targets set and the desired development. The purpose of the process is to establish whether the necessary competencies are available, and how to handle

the risk of losing valuable knowledge in connection with people leaving the company. Moreover, the process is to form the basis of the development of talent and human resources in general. At the meeting, it was decided that the terminologies used should be specified in greater detail internationally.

#### Conducting a follow-up on the Code of Business Principles

In connection with the GEC meeting in September, a follow-up was conducted on the procedures laid down to ensure the spread of the Code of Business Principles. Based on the meeting, it was concluded that the procedures are working as intended. Thus, all the regional presidents and the company directors have signed a declaration of compliance with the principles. At the same time, their respective organisations are adhering to a procedure whereby all new employees are given a copy of the Code of Business Principles together with their contract of employment.

#### Targets

- In 2009, all group employees will be invited to a one-day workshop on the company's newly formulated values. This is expected to contribute to both a broader and deeper understanding of the Code of Business Principles which will be reassessed with a view to enlarging and clarifying the code in accordance with the experience which has been acquired.

## Production

Environmental, health and safety data for the production units in Denmark and India can be seen from the table below.

Comments on developments from 2007 to 2008:

*Note 1:* Energy consumption in Denmark has increased due to the increased level of activity.

*Note 2:* Because of irregular supplies of natural gas, energy consumption has shifted from natural gas to fuel oil. The increase in energy consumption is due to increasing production.

*Note 3:* A new plant for reducing SO<sub>2</sub> emissions was commissioned in 2007. The full effect is seen in 2008.

*Note 4:* The high emissions in 2007 are due to defective filters. In 2008, emissions have been normalised.

*Note 5:* The increase is due in part to increased production and the fact that a larger proportion of fuel oil has been used (see note 2).

*Note 6:* The increase is primarily due to increased production and yet another production facility being put into use.

*Note 7:* Primarily concerns a change in inventories around New Year.

*Note 8:* Technical improvements have resulted in a fall in the number of spillages and waste.

In the CSR report for 2007, various targets were set up relating to the production plants in India and Denmark which needed to be realised in 2008. The status of these targets is listed below.

In addition to the two above-mentioned facilities which produce plant protection products via a series of chemical reactions (chemical synthesis), Cheminova also owns two smaller production plants where the primary production is 'formulating' and packaging ready-to-use plant protection products for farmers. Formulation is a mixing process that does not produce waste products which then need to be disposed of. One of these plants, Headland Agrochemicals, is situated in Deeside in north Wales in the UK. It was acquired by Cheminova in 2001. The second plant is situated in Wyong north of Sydney in Australia. This

was acquired from Bayer CropScience at the end of 2008.

The environmental impacts from these two plants are very limited compared to the two chemical synthesis plants, and they are not included in the fact box.

Follow-up on targets for 2008

In the following, the targets are stated with the degree to which they have been fulfilled.

Fact box: Environment, health and safety							
More extensive data are available for the production in Denmark in the annually prepared green accounts, including historical data for the past five years. The accounting policies applied are described on page 35.							
	Unit	Cheminova A/S			Cheminova India Ltd.		
		2008	2007	2006	2008	2007	2006
<b>Water consumption:</b>							
Cooling	m <sup>3</sup>	50·10 <sup>3</sup>	49·10 <sup>6</sup>	51·10 <sup>6</sup>	71·10 <sup>3</sup>	80·10 <sup>3</sup>	85·10 <sup>3</sup>
Processes and ordinary consumption	m <sup>3</sup>	7.9·10 <sup>5</sup>	7.5·10 <sup>5</sup>	7.8·10 <sup>5</sup>	181·10 <sup>3</sup>	194·10 <sup>3</sup>	196·10 <sup>3</sup>
<b>Energy consumption:</b>							
Natural gas	MWh	424·10 <sup>3</sup> (note 1)	409·10 <sup>3</sup>	466·10 <sup>3</sup>	66.2·10 <sup>3</sup> (note 2)	70.8·10 <sup>3</sup>	60.8·10 <sup>3</sup>
Electricity	MWh	80.0·10 <sup>3</sup> (note 1)	75.0·10 <sup>3</sup>	78.2·10 <sup>3</sup>	6.70·10 <sup>3</sup>	8.60·10 <sup>3</sup>	16.90·10 <sup>3</sup>
Fuel oil	MWh	450	590	534	13.2·10 <sup>3</sup> (note 2)	1.88·10 <sup>3</sup>	2.87·10 <sup>3</sup>
Raw materials consumption	Tonnes	134·10 <sup>3</sup>	112·10 <sup>3</sup>	124·10 <sup>3</sup>	??	??	??
<b>Discharge of waste water:</b>							
COD	Tonnes	227	174	181	21	27	27
Nitrogen	Tonnes	17	22 (note a)	20 (note a)	6.4	9.0 (note b)	11 (note b)
Phosphorus	Tonnes	5	4	4	20	24	50
<b>Air emissions:</b>							
SO <sub>2</sub>	Tonnes	13 (note 3)	36	260	1,9	1,0	5
Particles	Tonnes	0.46 (note 4)	11	1	6,2	5,0	13
CO <sub>2</sub>	Tonnes	104·10 <sup>3</sup>	97·10 <sup>3</sup>	110·10 <sup>3</sup>	18.6·10 <sup>3</sup> (note 5)	12.5·10 <sup>3</sup>	11.7·10 <sup>3</sup>
<b>Ordinary waste:</b>							
Recycling	Tonnes	3.3·10 <sup>3</sup> (note 6)	2.8·10 <sup>3</sup>	2.9·10 <sup>3</sup>	0.52·10 <sup>3</sup>	0.52·10 <sup>3</sup>	0.50·10 <sup>3</sup>
Incineration	Tonnes	9.9·10 <sup>3</sup> (note 6)	8.6·10 <sup>3</sup>	9.8·10 <sup>3</sup>	0	0	0
Depositing	Tonnes	43.6·10 <sup>3</sup> (note 6)	31.3·10 <sup>3</sup>	36.5·10 <sup>3</sup>	0	36	42
<b>Hazardous waste:</b>							
Recycling	Tonnes	0	0	172	0	0	2
Incineration	Tonnes	9.1·10 <sup>3</sup> (note 6)	6.1·10 <sup>3</sup>	5.0·10 <sup>3</sup>	2.5·10 <sup>3</sup> (note 7)	2.8·10 <sup>3</sup>	2.1·10 <sup>3</sup>
Depositing	Tonnes	0	0	0	1.26·10 <sup>3</sup>	0.96·10 <sup>3</sup>	1.71·10 <sup>3</sup>
Spillage and waste	No.	17 (note 8)	21	37	20	48	58
Accidents (note c)	No.	20 (22)	19 (27)	17 (19)	4	12	4
Accident frequency (note c)		26.4 (29.3)	28.5 (36.0)	23.5 (26.4)	2.4	7.28	2.86
Absence from work due to accidents (note c)		3.5 (3.5)	3.7 (4.8)	2.7 (2.8)	0.27	0.46 (note d)	0.81

*Note a) Total nitrogen.*

*Note b) Ammonium nitrogen.*

*Note c) Figures in brackets cover absence from work for more than one day, which is the normal specification in Denmark.*

*Note d) Changed in relation to the CSR report for 2007, which contained erroneous calculations.*



The formulation plant in Wyong.



The new incineration plant in India.

## India

*Commissioning of new incineration plant for chemical waste:* The plant started normal operations in September 2008.

*20% reduction of COD in the waste water discharged from the company:* The Chemical Oxygen Demand (COD) was reduced by 26% in relation to 2007, see the above fact box.

*Possibilities for reducing the waste-water flow:* The waste-water flow was reduced by 8% in 2008 relative to 2007, see the above fact box.

*Campaigns for improving occupational health and safety, focusing on volatile and toxic chemicals:* Campaigns to reduce volatile emissions at the plants producing technical insecticides have been successfully implemented, and the working environment at these plants has been markedly improved as a result. Changing the way in which a particular product flow is handled has also contributed. At the filling plants for the finished plant protection products, there has been greater focus on additional instruction for those handling the chemicals. Moreover, new filling machines have been taken into use – with the reduced risk of spills. In line with developments in recent years, this has contributed to further improvements in safety and the work environment in the filling areas.

## Denmark

*Campaigns to improve the safety culture with the primary aim of reducing the number of accidents at work:* The number of accidents at work has been reduced by 20% in 2008 relative to 2007, see the table. Campaigns have been launched concerning the use of personal protection gear, labelling and the internal transport of chemicals as well as ergonomics and work routines, with particular emphasis on production plant, workshops and stores.

*Reduction in the number of spillages and waste with particular focus on the discharge of chemicals to open areas:*

The number of spillages was reduced by 19% in 2008 relative to 2007; in particular, spillages of chemicals to open areas have been reduced by 67%.

*Maintaining certifications in accordance with the ISO 14001 and OHSAS 18001 standards:* The certifications have been maintained. Det Norske Veritas (DNV) identified three deviations when it conducted an audit visit in October 2008. All the deviations were closed by the end of March 2009.

## Targets

### India

- Energy consumption per produced volume will be reduced in 2009 by 5% relative to 2008.
- For the production of technical goods and intermediates, COD emissions per produced volume will be reduced by 10% in 2009 relative to 2008.
- For the production of technical goods and intermediates, water consumption per produced volume will be reduced by 8% in 2009 relative to 2008.
- Absenteeism due to accidents at work will be reduced in 2009 relative to 2008.

### Denmark

- Energy consumption per produced volume of glyphosate will be reduced by the end of 2010 by 5% relative to 2008.
- Recertifying the company's environmental management system in relation to ISO 14001 and OHSAS 18001 will commence in 2009 and will be concluded in the first six months of 2010.
- Implementation of campaigns to improve the safety culture with the primary aim of further reducing the number of accidents at work. The campaigns will be implemented in 2009 and 2010.

## New EU chemicals regulation

REACH, the new chemicals regulation, is almost two years old – it came into effect on June 1, 2007. The authorities have used the initial period to finish developing the extensive IT system which will manage the large volumes of information about the chemicals they will receive from producers and importers. Moreover, their efforts have focused on preparing guidelines for the regulation and establishing an agency called ECHA in Helsinki in Finland, which will handle the administration of the extensive guidelines.

Individual statistics illustrate the scope of the project which has been launched. The period for pre-registrations ended on December 1, 2008. By then, about 2.7 million pre-registrations had been received from all of Europe. The pre-registrations cover 150,000 chemical substances. 65,000 companies have pre-registered.

A more detailed description of what the regulation implies for Cheminova can be found in the CSR report for 2007. The various targets which the company wanted to meet in 2008 are listed below.

### Follow-up on targets for 2008

In the following, the targets are stated with the degree to which they have been fulfilled:

*Pre-registration: Reporting the substances which Cheminova wants to register during the 11-year phase-in period:* Ninety-five substances have been pre-registered. In the coming years, a so-called pre-registration dossier will be prepared for each of these products containing the data on the substances which are required by REACH. This work will be carried out in collaboration between all the companies and importers which have pre-registered the respective substances.

*Registering the substances which Cheminova handles, which cannot be*



Waste-water treatment at a Chinese supplier.



Communication with the REACH data base in Finland.



CSR-audit in China.



Christian Bastholm with the new "Global QC and CSR Manual."

pre-registered (substances which are considered as new in relation to the regulation): Two substances have been registered.

Starting to compile information and data for the substances handled by Cheminova which must be registered before the end of 2010: The work has commenced and will be intensified in the coming years. From January 2009, lists of the companies and importers which have pre-registered the individual substances will be available on the ECHA website, permitting coordinated efforts to be launched by the stakeholders.

Communicating with suppliers and customers about the obligations for the business entailed by REACH: At the meetings which we hold throughout the year with our suppliers of chemicals and our customers, in so far as chemicals are concerned which are covered by REACH, this issue has been a fixed item on the agenda. Moreover, we have received and answered a large number of written enquiries from both suppliers and customers. Communication with suppliers and customers about the obligations entailed by REACH will, of course, continue in the coming years.

#### Targets

- Implement registration of the pre-registered substances which must be registered before the end of 2010.

#### Supplier management

In 2007, work started on systematic supplier management. A more detailed description of this can be found in the CSR

report for 2006. The work continued in 2008 with the preparation of a 'Global QC and CSR manual' which sets out, among other things, the set of rules concerning supplier management which we want our global organisation to introduce in the course of 2009. Moreover, the manual contains a number of other global CSR rules concerning quality control relating to the products we sell.

#### Follow-up on targets for 2008

In the following, the targets are stated with the degree to which they have been fulfilled.

Continuing to distribute information about the Supplier Code to relevant suppliers and having them accept the principles contained therein: The Supplier Code has been deemed relevant for 177 suppliers. Confirmation of compliance has been received from 176. One European supplier has, for reasons of principle, not wanted to sign the code, but has confirmed compliance with the code verbally. The target is deemed to have been met. New suppliers will be required to sign the Supplier Code as a standard condition in connection with the conclusion of agreements or contracts.

Conducting six official audit visits in 2008: The six audit visits planned were conducted and all were to companies in China. The information obtained in connection with the audit visits is of considerable value to the company, and the audits are therefore carried out by the company's own employees. Standards are generally satisfactory, and standards were even very high at a couple of companies.

At one of the companies, it was agreed that goods stored in front of a fire extinguisher should be removed. Another company was judged to have relatively low maintenance standards, but was due to relocate within three years. Cheminova will be checking annually how the relocation plans are progressing.

Conducting training in the Supplier Code for relevant employee groups which are in contact with suppliers: Thirty-seven employees from both the technical and commercial departments who are in contact with suppliers have received training.

Extending the Supplier Code so that it covers all subsidiaries by the end of 2009: In 2008, a global manual was prepared. Among other topics it deals with supplier management. In the course of 2009, the manual will be issued to all subsidiaries.

#### Targets

- We will conduct six official CSR audit visits at suppliers in 2009.
- We will introduce Cheminova's 'Global QC and CSR manual' throughout the company's global organisation before the end of 2009.
- In 2009 we will strengthen the organisation in China within the CSR area.
- In 2009, the Supplier Code will be extended to apply to all subsidiaries with a view to implementation in 2010/11.

# Global Reporting Initiative (GRI)

GRI is a set of internationally acknowledged guidelines for CSR reporting. Cheminova's CSR report – for 2008 is based on these guidelines<sup>1)</sup>.

The GRI guidelines contain a large number of indicators which companies can choose to report depending on relevance and ambition levels. The reporting can take place at three levels of application, A, B and

C, where level A is the most ambitious. With its CSR report, Cheminova has endeavoured to fulfil most of the requirements for level-C reporting.

The table below contains information about the company and indicators for its performance. The choice of information and indicators corresponds to fulfilment of application level C, but the GRI information

requirements are only partially fulfilled for some indicators. Reference is made to the separate sections in the report (in inverted commas) which contain information about the individual indicators. In some cases, reference is made to a website, or the information is stated in the table.

No.	Information about the company	Reference or information	Page
	Strategy and analysis		
1.1	Management statement	"Introduction" and "Management statement" <a href="http://www.auriga.dk/en/finance/annual_reports/">http://www.auriga.dk/en/finance/annual_reports/</a>	3 and 5
	Organisation		
2.1	Company name	Cheminova A/S	1
2.2	Primary brands and products	See <a href="http://www.cheminova.com/">http://www.cheminova.com/</a> under Insecticides, Herbicides og Fungicides	-
2.3	Company organisation	"Cheminova's business area and organisation" <a href="http://www.auriga.dk/en/auriga_industries/corporate_structure/">http://www.auriga.dk/en/auriga_industries/corporate_structure/</a>	10
2.4	Company's head office	Thyborønvej 78, DK-7673 Harboøre	-
2.5	Number of countries in which company operates	Cheminova engages in global sales. I 2008 Cheminova was represented in 23 countries. See references in item 2.3 above	11
2.6	Ownership structure	Public limited company	-
2.7	Markets	"Sales and product stewardship for plant protection products". See also <a href="http://www.auriga.dk/en/finance/annual_reports/">http://www.auriga.dk/en/finance/annual_reports/</a>	11 and 21
2.8	Stock-related key figures	<a href="http://www.auriga.dk/en/finance/annual_reports/">http://www.auriga.dk/en/finance/annual_reports/</a>	-
2.9	Material changes in the reporting period	"Cheminova's business area and organisation"	10
2.10	Prizes and awards	None	-
	Reporting information		
3.1	Reporting period	January 1 to December 31, 2008	
3.2	Date of publication of previous report	April 4, 2008	
3.3	Reporting frequency	Annual	
3.4	Contact us	Front page	1
3.5	Basis of delimitation	"About the report"	4
3.6	Delimitation	The report provides information about the parent, all subsidiaries and joint ventures with an ownership share in excess of 50%.	-
3.7	Limitations	Production data are included only for the most important production sites, i.e. Denmark and India. See also "About the report"	4
3.8	Joint ventures, subsidiaries etc.	n.a.	-
3.10	Impact of changes relative to previous report	n.a.	-
3.11	Significant changes relative to previous report	n.a.	-
3.12	References to websites etc.	This table	-

<sup>1)</sup> The guidelines are described in greater detail at [www.globalreporting.org](http://www.globalreporting.org)

## Global Reporting Initiative (GRI), continued

No.	Information about the company	Reference or information	Page
	Management, competencies and responsibilities		
4.1	Management structure	"Management statement"	5
4.2	Chairman	The Chairman of the Board of Directors is not a member of the company management	-
4.3	Independence	Two members of the Board of Directors are independent. The definition of independent can be found at <a href="http://www.nasdaqomx.com/listingcenter/nordicmarket/rulesandregulations/copenhagen/Corporate_Governance/?languageld=5">http://www.nasdaqomx.com/listingcenter/nordicmarket/rulesandregulations/copenhagen/Corporate_Governance/?languageld=5</a> See also "Cheminova's business area and organisation"	10
4.4	Influence of shareholders and employees	The company is wholly owned by Auriga Industries A/S. The Chairman of the Board of Directors is also Chairman of the Board of Directors of Auriga Industries. Employees exercise their influence via the liaison committee	-
4.14	List of stakeholders	"About the report"	4
4.15	Identification of stakeholders	"About the report"	4

No.	Indicators of company's CSR	Section	Page
EC1	Economic performance	<a href="http://www.auriga.dk/en/finance/annual_reports/">http://www.auriga.dk/en/finance/annual_reports/</a>	-
EN1	Raw material consumption	"Production"	26
EN3	Energy consumption	"Production"	26
EN8	Water consumption	"Production"	26
EN11	Production sites surrounded by countryside subject to preservation orders	The production site in Denmark is surrounded by countryside subject to preservation orders. Large parts of Harbøre Tange and areas in Nisum Bredning have been designated a Ramsar Area and an EU Bird Protection Area. Parts of the area are also subject to preservation orders and include a wildlife reserve	-
EN16	Emissions of greenhouse gases	CO <sub>2</sub> is the only relevant category of emissions. See the section "Production"	26
EN20	Emissions to the air	"Production"	26
EN21	Waste-water discharge	"Production". In Denmark, the cleaned waste water is discharged to the North Sea. In India, the waste water is treated in a biological purification plant outside the company. The cleaned water is discharged to the Gulf of Khambhat	26
EN22	Waste	"Production"	26
EN23	Waste and emissions	"Production"	26
EN26	Initiatives concerning the influence of products on the environment	REACH: "The new EU chemicals regulation" as well as <a href="http://www.cheminova.com/en/cheminova/news_views/20080425_01.htm">http://www.cheminova.com/en/cheminova/news_views/20080425_01.htm</a> Phase-out of products and product stewardship in general: "Sales and product stewardship for plant protection products" as well as <a href="http://www.cheminova.com/en/cheminova/news_views/20070430_01.htm">http://www.cheminova.com/en/cheminova/news_views/20070430_01.htm</a>	27 21
EN28	Violation of environmental legislation	None	-
LA1	Employees	"Cheminova's business area and organisation"	10
LA7	Occupational health and safety	"Production"	26

# Action plan for 2009

## Product Stewardship

Focus area	Target/activity	Timetable	Success criteria
Phase-out	Phase-out of methyl parathion EC and methamidophos EC in Mexico	2009	Review the subsidiaries' product programmes every six months with a view to documenting that the plan is being followed. Every sale from a Cheminova company has been discontinued
	Phase-out of methyl parathion EC in Brazil	2010	Do.
	Phase-out of methamidophos EC in Brazil	2009	Do.
	Phase-out of methyl parathion EC and monocrotophos SL in Colombia	2009	Do.
	Phase-out of methyl parathion EC in Cuba	2009	Do.
	Phase-out of methamidophos EC in Argentina	2009	Do.
	Phase-out of monocrotophos SL and phorate granulate in India	2009	Do.
	Phase-out of DDVP EC in India	2010	Do.
Labels	Implementing the company's global labelling policy concerning products which are marketed under the Cheminova trade marks	2009-10	The policy will be implemented throughout most of the organisation by the end of 2009, and will be fully implemented in all the affected companies by the end of 2010
Marketing portal	All the company's material relating to the safe use of its products will be made accessible to the global organisation	2009	All relevant material has been uploaded to the portal and made accessible to all regions and subsidiaries
	Production of a modular DVD with safety instructions for end-users commences	2009	Work has been initiated.
FAO's Code of Conduct	The contracts with those of Cheminova's direct customers which hold registrations on behalf of the company are being changed so that the customers contractually undertake to operate in compliance with the FAO's Code of Conduct	2009-10	Work has started in 2009 and will be concluded by the end of 2010
Packaging	All end-user packaging made of plastic and supplied from the production plant in Denmark will carry a warning embossed onto the packaging against re-use of containers	2009	The embossed warning is found on all plastic packaging leaving the production site in Denmark for end-users

EC: Emulsion Concentrate

SL: Soluble Liquid

## Development and Innovation

Focus area	Target/activity	Timetable	Success criteria
Code of conduct for business partners	Implement a code of conduct concerning requirements to be met by the parent company's external partners in connection with development activities	2009	The code has been implemented in accordance with the requirements of the CSR procedure
New formulations	No more than 10% of the formulations of new active ingredients being developed by the parent company in 2009 will be based on organic solvents	2009	Calculating the number of new formulations with and without organic solvents

## Action plan for 2009, continued

### Production

Focusarea	Target/aktivitet	Timetable	Success criteria
India	Energy consumption per produced volume is being reduced by 5% in 2009	2009	Based on purchases of natural gas, electricity and fuel oil. Will be implemented in 2009 with full effect measured for the calendar year 2010 with 2008 as a reference year
	For the production of technical goods and intermediates, COD emissions per produced volume are being reduced by 10%	2009	Will be implemented in 2009 with full effect measured for the calendar year 2010 with 2008 as a reference year
	For the production of technical goods and intermediates, water consumption per produced volume is being reduced by 8%	2009	Will be implemented in 2009 with full effect measured for the calendar year 2010 with 2008 as a reference year
	Absenteeism due to accidents at work is being reduced	2009	The number of lost working hours per 1,000 man-hours worked will be lower in 2009 than in 2008
Denmark	Recertifying the company's environmental management system in relation to ISO 14001 and OHSAS 18001	Q1 2010	New certificates received
	Energy consumption per produced volume of glyphosate is reduced by 5%	The running-in of the new plant will start no later than December 1, 2009 and will finish in H1 2010.	The reduction can be shown in H2 2010 with 2008 as a reference year
	Implementation of campaigns to improve the safety culture with the primary aim of further reducing the number of accidents at work	2009-2010	At least three campaigns are launched per year

### New EU chemicals regulation

Focus area	Target/aktivitet	Timetable	Success criteria
Chemical safety	Implement registration of the pre-registered substances which must be registered before the end of 2010	2010	Receipts for the registrations have been received

### Leverandørstyring

Focus area	Target/aktivitet	Timetable	Success criteria
Auditing of suppliers	Conducting six official CSR audit visits	2009	The audit has been documented
Global organisation	Extending the Supplier Code so that it covers all subsidiaries	2009	The code has been communicated to the subsidiaries. That status for the work will be reported
	Introduce the company's 'Global QC and CSR manual' to the entire company's global organisation	2009	The introduction can be documented by notices of meetings
	Yet another employee in China will be involved in the CSR work	2009	

### Human Resources

Focus area	Target/aktivitet	Timetable	Success criteria
Mission, vision and values	All group employees will be invited to a one-day workshop on the company's newly formulated values	2009	Invitations have been sent out to all employees

# Responsible Care



## Responsible Care<sup>®</sup>

### The Responsible Care<sup>®</sup> Program of the Association of Danish Process Industries.

#### Declaration of commitment.

##### 1. Company policy

The company shall develop and comply with a policy with prospective objectives of a continuous improvement within the areas of environment, safety and health. This policy shall form a constituent part of the overall policy and strategy of the Company. The Company policy on environment, safety, and health shall involve the entire organisation of the Company and be taken into account in the planning and implementation of all Company activities. The environment management system in the company can profitably be arranged so that there circularly will be undertaken a re-evaluation of the system.

##### 2. Employee commitment and responsibility

The Company shall keep their employees at all levels well informed on the Company policy on environment, safety and health.

The Company shall foster commitment and responsibility among its employees and ensure an active employee contribution to fulfil the objectives.

The Company shall promote individual alertness among employees to sources of pollution and issues relevant to safety and health. The Company shall establish well-defined responsibilities among its employees and offer regular and adequate training enabling of their employees to fulfil their responsibilities.

##### 3. Effective resource utilization

- The Company shall strive to achieve the lowest achievable impact on the surrounding as a whole by:

- Minimising the use of raw materials and energy
- Minimising the process emissions
- Minimising the risk of accidents and limiting the consequences of accidents
- Minimising the health risks for employees

##### 4. Process- and product development

New processes are arranged and existing processes are adapted and improved with the aim of providing a sustainable development. An evaluation of the technical and economic possibilities and the social demands as a whole shall be taken into consideration. With new constructions and extension of existing facilities around the world, the possibilities of using clean and safe technology shall be taken into consideration.

In developing new products the Company shall take into account the total consumption of raw material and energy resources during production, use or disposal after use or of residual products formed during production or use.

##### 5. Monitoring, registration and documentation

The Company shall at regular intervals monitor process emissions to the working environment and the surrounding environment, preferably by generally approved methods. The Company shall register all accidents and incidents and investigate the events and causes with a view to utilising the experience for future prevention.

The companies' measurements and registrations form the basis for regular documentation of the results about the environment, safety and health conditions. The Company shall regularly evaluate performance compared to objectives. Relevant and agreed upon data about emissions, resources and safety is yearly stated by the company that then report these to the Association of Danish Process Industries.

##### 6. Supplier

The company shall encourage its suppliers to deliver environmentally, health and safety sound raw material and products.

By means of specific demands and instruction the Company shall ensure that suppliers of equipment and services are chosen among those who fulfil the demands according to the policy on environment, safety and health.

##### 7. Customers

The Company is responsible that customers receive all relevant information on correct processing and use of the Company's products including information on disposal of residual products, and

information of relevance for subsequent processing as far as available.

##### 8. Transport and storage

The Company shall ensure safe and regulatory compliant transport to and from the Company by demanding transporters to provide relevant training and instruction to drivers and others involved in transport activities.

The company shall ensure safe storage of raw material and products in the company as well as urge the other parts in the supply chain to fulfil the guidelines therefore.

##### 9. Communication

The company create increased dialog with suppliers, customers and other relevant parts in the supply chain.

The Company shall cooperate openly with the competent authorities on issues relevant to environment, safety and health. The Company shall provide adequate documentation on such issues to the authorities. On the basis of documentation provided by the Company to the authorities the Company may regularly inform the neighbours and other society stakeholders on issues of environment, safety and health.

##### 10. Cooperation

The company contribute to the experience exchange between Responsible Care companies among other things about subjects as reducing emissions and accidents as well as handling of supplier relationships.

A handwritten signature in blue ink, appearing to be 'Poul', is located in the bottom right corner of the page.

# Accounting policies

The data provided on page 26 of this report on the environment, health and safety have been included and calculated according to the accounting policies that follow this section.

## Extensive activities

Data are calculated for Cheminova's companies in Denmark (Rønland) and in India (Panoli). Cheminova's residential property is not included in the accounts.

The following addresses are included in the accounts:

Cheminova A/S  
Thyborønvej 78  
DK-7673 Harboøre

Cheminova India Ltd.  
Formulation Division  
242/P, G.I.D.C. Estate  
Panoli - 394 116  
Dist.: Bharuch  
Gujarat, India

Cheminova India Ltd.  
Technical Division  
241, G.I.D.C. Estate  
Panoli - 394 116  
Dist.: Bharuch  
Gujarat, India

Cheminova India Ltd.  
Intermediate Division  
27, 28, G.I.D.C. Estate  
Panoli - 394 116  
Dist.: Bharuch  
Gujarat, Indien

Water and energy consumption has been included because they are important resources. Emissions to the air and waste water are stated using parameters which give an overall impression of the quality of the waste water and air emissions which are significant in relation to the surroundings, and where it is also possible to make comparisons with other companies. Likewise, it has been decided to provide information about the volume and handling of waste, which is an expression of both a resource and an impact on the surroundings. Operational disruptions are primarily calculated because they are an expression of how the group handles situations which can develop into serious environmental impacts. The safety and well-being of employees is important for the group. It has therefore been decided to provide information about the number of accidents at work, the accident frequency and absence from work due to accidents.

Environmental impacts resulting from transport have not been calculated.

## Reporting period

The reporting period follows the calendar year. The reporting period is thus January 1 up to and including December 31, 2008.

## Water consumption

Water consumption has been calculated on the basis of water meters on all supply pipes.

In Denmark, sea water is used for cooling.

In India, cooling towers with fresh water are used. Water consumption for

the cooling towers has been estimated. The remaining water volumes are used for processes and normal consumption.

## Energy consumption

The consumption of natural gas, electricity and fuel oil is based on meter readings. Energy consumption when using natural gas (which is measured in Nm<sup>3</sup>) and fuel oil (which is measured in litres) is then calculated using conversion factors. In Denmark, the latest conversion factors set by the Danish Energy Authority are used. In India, the conversion factors are set by Cheminova. Natural gas consumption includes the gas consumed to generate power for sale.

## Raw materials consumption

Raw materials are defined as basic substances that, through chemical reactions, contribute to the product molecule. They also comprise substances that are actively involved in the chemical reaction and consequently transformed, but which do not necessarily end up in the molecule. Accessory agents are included to the extent to which they form part of the product. Packaging are not included in the calculations. The amounts are measured.

## Waste water

The volumes of waste water are measured using online meters on the outlet pipes. COD, nitrogen and phosphorus are determined through chemical analyses of water samples taken according to a fixed control programme.

## Accounting policies, continued

### Air emissions

#### SO<sub>2</sub>

At the site on Rønland, air emissions are the sum of contributions from consumed natural gas/fuel oil and contributions from the underlying processes. SO<sub>2</sub> emissions are calculated by multiplying consumption by a conversion factor determined by the authorities.

Emissions from the SO<sub>2</sub> scrubber are determined as emissions during normal operations plus emissions during the time the scrubber is not operating (out time). Emissions during normal operations are determined with two performance measurements without distinguishing between whether it is SO<sub>2</sub> or SO<sub>3</sub>. Emissions during out time are determined as the average of six measurements in 2006 multiplied by the out time. A performance measurement is made up of three one-hour concentration and flow measurements carried out on the same day.

From the air-incineration plant, the emission of SO<sub>2</sub> is determined by means of two performance measurements multiplied by the operating time.

At the Panoli site, the emission of SO<sub>2</sub> is determined on the basis of concentration measurements which are made according to fixed programmes, blower capacity and operating time.

#### Particles

The concentration in the discharges is measured.

At the site on Rønland, the air flow is measured, while the operating time is estimated for oven 1 and oven 2. Both the

air flow and operating time are estimated for oven 3.

The Panoli site uses the blower capacity and the operating time to calculate the annual emissions.

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

Contributions from consumed natural gas/fuel oil are calculated by multiplying consumption by conversion factors. In Denmark, the latest conversion factors set by the Danish Energy Authority are used, while those in India are set by Cheminova.

At the site on Rønland, there are additional process-related contributions from the air-incineration plant and from the waste-water incineration plants. The substances which are incinerated in the air-incineration plant give rise to lower CO<sub>2</sub> emissions, which are based on figures from 2005. This process-conditional contribution at the waste-water incineration plants is calculated on the basis of a mass balance for the glyphosate plant. This calculation is based on measurements of the incoming raw materials and the outgoing finished products.

### Waste

All waste types are weighed by the company. Waste is classified by Cheminova according to guidelines issued by the authorities.

### Operational disruptions with a temporary impact on the external environment

The number of disturbances is calculated by counting the number of internal

reports.

Waste and spillages are reported according to two categories, with the total number being reported.

Category 1 incidents are those which lead to significant pollution of the external environment, and include those overstepping the environmental authorities' terms for emissions.

Category 2 incidents are those that lead to pollution at nuisance level, including increased emissions of substances in relation to normal values, the generation of additional waste and detecting new substances in the inflow to the biological waste-water treatment plant.

### Work environment

The number of accidents at work is counted for all employees under the organisational structure. The number is counted on the basis of reports to the authorities (in Denmark the Danish Working Environment Authority). Only the accidents at work which have resulted in absence for at least two days are included.

The accident frequency is the number of accidents at work per one million man-hours worked. In Denmark, this is only calculated for hourly paid employees.

Absence due to accidents is the number of lost man-hours per 1,000 man-hours worked. In Denmark, this is only calculated for hourly paid employees.

The number of man-hours worked does not include breaks but does include time spent on courses. In Denmark, the number of man-hours worked is only calculated for hourly-paid employees.

# Glossary

**Active ingredient:**

Active chemical in its pure or technical form.

**ANVISA:**

Branch under the ministry of Health in Brazil.

**Auditing:**

Review of accounts.

**Bio-ethanol:**

Alcohol intended for fuel and produced from plants.

**BOD:**

Biochemical Oxygen Demand – English term for B15 (five days' biochemical oxygen consumed).

**Carbofuran:**

Insecticide, primarily used in rice and potatoes in Colombia.

**Chemical synthesis:**

Process, where chemical compounds react with each other so that new compounds are formed.

**CHP plant:**

Combined heat and power plant.

**Class I product:**

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

**COD:**

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

**Code of Conduct:**

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

**CSR:**

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

**DDVP:**

Insecticide used in rice in India.

**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.

**Fenamiphos:**

Insecticide used against soil-living pests (nematodes).

**Formulation:**

Active ingredient to which has been added accessory agents that make the product a ready-to-use as control agent.

**Fossil fuel:**

Coal, oil and gas

**GEC:**

Global Executive Committee. Cheminova's top management group.

**Glyphosate:**

Herbicide, best known under Monsanto's trademark Roundup.

**GNI:**

Gross National Income.

**GRI:**

Global Reporting Initiative with guideline for reporting on CSR.

**ISO 14001:**

International environmental certification covering the surrounding environment.

**Methamidophos:**

Insecticide used e.g. in cotton and soybeans.

**Methomyl:**

Insecticide, in Mexico mostly used in cotton and vegetables.

**Methyl parathion:**

Insecticide mostly used in cotton.

**Microcapsules (microcapsule formulation):**

Fluid product where the active ingredient is encapsulated in microscopic capsules which are dispersed in water.

**Monocrotophos:**

Insecticide mainly used in cotton and rice.

**NO<sub>x</sub>:**

Total concentration of all nitrogen oxides calculated as NO<sub>2</sub>.

**Nm<sup>3</sup>:**

Normal cubicmeter (volume at standard pressure and temperature).

**OECD:**

Organisation for Economic Co-operation and Development.

**OHSAS 18001:**

International environmental certification covering the working environment.

**Pesticides (plant protection products):**

Collective name for insecticides, herbicides and fungicides.

**Phorate:**

Insecticide used against soil-living pests.

**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.

**Ramsar areas:**

Wetlands where wildlife is protected according to the convention of wetlands of international importance, particularly as habitats for birds.

**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 sales permissions.

**Responsible Care:**

Objectives concerning responsible conduct, adhered to by Cheminova.

**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.

**Third-party products:**

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

**Triazophos:**

Insecticide used in particular in cotton in India.

**Unintended incidents:**

Operational disruptions with a brief effect on the external environment.

**WHO:**

World Health Organisation.

