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Climate Change: from Words to Action

Tore K. Jenssen, Vice-President, SHEQ, Yara International ASA, Norway

Ladies and Gentlemen,

I am representing the Fertilizer Industry, supplying nutrients for plants to grow.

The production and use of fertilizers are considered a major contributor to the emission of greenhouse gases, being carbon dioxide (CO2) and nitrous oxide (N2O) from fertilizer production, and methane (CH4) and nitrous oxide (N2O) from agriculture. Besides, modern agriculture and the use of mineral fertilizers are blamed for the pollution from runoff of nutrients, emission of acidifying gases like ammonia, loss of biodiversity, and intensive use of limited water resources.

On the other hand, modern agriculture is necessary for providing sufficient food for our growing population.

It is our common challenge to establish a framework of regulations, on a global scale, which safeguards the environment for the coming generations. For climate change it is of vital importance that we act now. Many words are said, but actions are missing. I am more and more of the opinion that the authorities and the lack of more incentive-driven and global regulations, are the bottleneck. Let me expand on this with a few examples:

In Europe the EU Emission Trading Scheme (EU ETS) is well underway. Presently only CO2 is included – all the other climate gases are still under discussion, and will probably have to wait until 2013 before being included. For nitric acid plants, and for the environment, this is bad news. In the past few years several technologies have been developed and tested full scale for reducing nitrous oxide emissions by 70% or more. If such technologies were implemented today, we could obtain emission cuts of some 30 million tonnes of CO2 equivalents per year in Europe, and as much as 75 million tonnes per year worldwide. This, however, can only be achieved with a regulatory framework that contains incentive systems like the EU ETS. So, bring N2O and other climate gases into emission trading – now.

You might say that why don't we just give the industry a permit, so that we *force* them to reduce. Such permit regulations contain no incentives and are only a cost burden for the industry, and result in a passive and defensive industry that will be reluctant to take action until forced. We need more carrot and sticks – those that are investing in R&D and

implementing new technologies should be rewarded, and those that do nothing should pay. Therefore, regulations must be modernised with incentive schemes, such as emission trading.

Alternatively, a carbon tax could be introduced for all emissions. This will benefit those with the lowest emissions, since the cost of emission will be lower. But this would have to be done on a global scale and will take years to conclude, if at all possible.

Emission trading is based on emission allowances. If you emit more than your allowance, you need to buy emission rights, and you can sell if you are able to reduce below your allowance. To my disappointment the allowances are to a large extent based on historical emissions – you simply slice off some percentages of your historic emissions. In effect, if you have an old and polluting technology you will have large emission rights. This is not a sustainable way of handing out emission allowances. Instead, we must have an allowance system that is based on the use of best available techniques.

However, you will understand that the European industry is somewhat reluctant to embrace the EU ETS, because there is a major risk of loosing competitive grounds vis-à-vis the non-European industry, where no regulatory measures are installed. Therefore, it is necessary to establish an emission trading system on a global basis. A level playing field is essential.

The Kyoto Protocol opens for using mechanisms such as Joint Implementation and the Clean Development Mechanism. Several emission reduction projects have already been established, and the credits that are generated can be sold. The value of such credits is significant – and as a result significant values are being transferred to those that ‘owns’ polluting plants. For instance, a nitric acid producer in China can obtain credits worth tens of millions of dollars for something that costs a million to implement. No wonder that the Americans did not sign the Kyoto Protocol. I am not against the Kyoto JI and CDM mechanisms and the transfer of best available technology to developing countries, but it must be done in a sensible way to safeguard fair trade.

I see large potentials for reducing greenhouse gas emissions from industrial sources, now – today, at low cost. This is the case for Russia, where Joint Implementation can be used as an incentive scheme. However, Russia still lacks the official bodies to make this happen. Until this is in place, the Russian industry will sit on the fence and wait. More pressure should be placed on countries that lack the structure for approval of Joint Implementation projects.

Let me turn from industry to agriculture, because I strongly believe that agriculture is part of the solution rather than part of the problem. Plants need fertilizers to grow, just like people need food. For the production of fertilizers large amounts of fossil fuels are used.

However, when plants grow they capture energy from the sun, and the plant can contain as much as 5-10 times the amount of energy that is used for the production and application of fertilizers. This biomass, if used for energy purposes, can replace the use of fossil fuels and thereby reduce the emission of CO2 by significant amounts. We have only seen the beginning of the use of biomass for energy purposes, but more R&D is needed to make these processes efficient. We need regulations that stimulate R&D – now.

We cannot, however, close our eyes to the fact that the growth in bio-energy will increase the pressure on land use and water resources, and that there will be a competition with food production. The rules for bio-energy production must be wisely laid out, to grasp the opportunities and at the same time control the wider environmental implications.

In summary, we need

- international regulations that sets a global level playing field for the industry
- more incentive-driven regulations, but which is true to the concept of fair trade
- willingness by the international community to take actions now
- more R&D on the efficient and environmental friendly use of biomass for energy purposes.

Thank you for your attention.