

Chapter 1. Summary – main points and conclusions

Why should the trade union movement get involved in the climate issue? The answer may look simple, i.e. because the threat is so serious that it is incumbent upon all the forces at play in society to do what they can. However, we would also maintain that, as representatives of workers, the trade unions play a unique role when it comes to:

- communicating workers' views on and requirements for climate policy;
- gaining broad support and building a strong foundation for the requisite restructuring efforts and initiatives;
- and contributing to the effective implementation of climate measures in businesses and society-at-large.

The requirements for reducing emissions and for preventing and adapting to climate changes place formidable strains on industry and society-at-large. We could leave the arena to others, assume a more passive role and limit ourselves to ensuring acceptable wages, working conditions and framework conditions at our workplaces. However, that is not a tenable choice. Our members will be affected by climate changes in a variety of ways. If our workplaces do not adapt in time, enterprises will not be equipped with the new technology that will be able to ensure long-term sustainability. For that reason, the trade union movement has been increasingly pro-active. This is reflected in the fact that a majority of NFS' member organisations have drawn up their own climate policy platforms, including measures listed further back in this publication (Chapter 9). Accordingly, the trade union movement favours an active climate policy that is adapted to our objectives.

The Nordic countries have experience of the type of realignment required. The future will require redoubled efforts combined with the use of more effective policy instruments as well as more restructuring (Chapter 4). With their propensity for social reorganisation, the Nordic countries are especially well equipped. There is extensive documentation to show that we have a good system for risk-sharing and an aptitude for realignment. We also have more acceptance among the general public for a globalised economy. Important basic characteristics of the way in which Nordic societies are organised are:

- A large public sector, characterised in particular by health and education being more universal and more extensively the purview of the public sector than in other countries;
- A comprehensive public retirement and income protection system that is more universal than in other countries;
- An active labour market policy and a labour market with a different balance of power, more gender parity and more characterised by negotiation and cooperation;
- More equality, more equitable distribution and less poverty.

The way in which society is organised in the Nordic countries offers individuals a certain reassurance in connection with reorganisation. Not least the unions' experience of partnership and conflict resolution can be an important asset when seeking solutions that are specially adapted to needs. The negotiating process *per se* can help take the edge off difficult decisions and encourage innovation.

The Nordic trade union movement's involvement has expanded and matured over several years, based on the following points

- **Employment.** The trade union movement realised at an early point in time that environmental standards as such do not pose a threat to employment, but that the problem is the environmental threats, given the risk of eroded natural resources and higher production costs. Generally speaking, the trade union movement has supported active environmental efforts when the instruments have been planned prudently. People are now aware that environmentally responsible production guarantees future employment and opens opportunities for new jobs;
- **Policy for the distribution of wealth.** By posing requirements relating to the distribution of wealth when shaping policy instruments, the trade union movement also strives to ensure that sustainability requirements also incorporate a social dimension. Climate policy leads to higher energy prices in general and higher fossil fuel prices in particular. It is crucial to ensure that direct and indirect climate-related taxes do not have an overly adverse effect on any individual groups of workers, but are borne by all parties in solidarity. Trade unions must participate in the shaping of climate policy;
- **The working environment.** Over the years, the trade union movement has insisted that the working environment be considered part of environmental work, thus providing impetus for the indoor and outdoor environment to be viewed as a whole. Changes in production and processes must take working conditions into account.

An ambitious, broad-based international agreement is required

Climate-related problems require far-reaching initiatives in all countries. Accomplishing this in actual practice will only be practicable through an ambitious, broad-based international agreement. It is the level of overall global emissions that is decisive for future global warming.

An international climate agreement that encompasses as many sectors and countries as possible is imperative if we are to reduce emissions sufficiently. Industrialised countries currently have the highest *per capita* level of emissions. Altogether, the OECD countries are home to 18 per cent of the world's population, but account for 40 per cent of the world's collective emissions of greenhouse gases (GHGs). Notwithstanding, in future, most emissions growth will take place in developing countries and emerging economies. Emissions of CO₂ caused by the production and consumption of energy account for roughly two-thirds of the global emissions of GHGs. The energy sector will continue to occupy a dominant position when it comes to growth in emissions. From 2006 to 2030, nearly all the growth in emissions of CO₂ linked to the production and use of energy will take place in developing countries and emerging economies. Three-fourths of this rise will take place in China, India and the Middle East. In 2030, the countries outside the OECD area will account for about two-thirds of the collective emissions. The prognosis for growth in emissions in developing countries and emerging economies is a product of strong economic growth combined with substantial population growth, as well as heavy dependence on coal.

It is essential to cut emissions considerably to limit climate change, and large parts of the world must do their part. If a global agreement fails to promote a cost effective, prudent utilisation of resources, the cost of reducing emissions could rise dramatically, undermining support for an ambitious agreement. The establishment of a global price on GHG emissions must be one of the cornerstones of an effective global climate regime. This can be achieved either by introducing a tax on GHG emissions or by a system for trading in pollution permits.

Phasing out energy- and emission-intensive activities calls for restructuring

The term "energy-intensive activities" refers to economic activities (production and consumption) involving goods and services that require high energy consumption per produced unit. Typically, this includes air and car travel, the smelting of metals, oil and gas production, mining, the chemical and petrochemical industry and wood processing. "Emission intensity" is a similar term, referring to the level of CO₂ emissions as a percentage of production. Coal-fired power production is especially emission-intensive, as are other activities based on high coal or oil consumption. Coal-fired power production can be made considerably less emission-intensive by employing CO₂ management.

Energy conservation is an important tool for addressing climate-related challenges. This will often be easiest to accomplish by making new investments. It is also effective to change propellant or fuel. Gas power pollutes less than half as much as new coal-fired power per unit of produced power, and less than a third as much as existing coal-fired power plants, since new technology is more energy efficient than old technology.

Resolving climate-related challenges will therefore require changes in production as well as consumption patterns. Globally speaking, the solution involves fewer, more expensive trips, less energy consumption and a more rapid pace of adaptation than we would have had otherwise, as well as the more rapid development of and investment in new technology. This will lead to major restructuring. The effect on unemployment and employment on the whole will depend on the economy's ability to create new job opportunities. In well-managed countries, it is possible to implement restructuring measures in the long term without losing jobs. Given their traditions, the Nordic countries are well equipped to manage that.

- and for creating new opportunities

Such restructuring also opens up new opportunities. The producers of renewable energy that are engaged in the development of new energy technology will encounter new opportunities. The best examples in the Nordic countries are the windmill industry in Denmark, biofuel in Sweden and Finland, and the solar cell industry in Norway. These industries have made significant headway thanks to formidable state initiatives and subsidy schemes to support wind power production, solar cells and bioenergy.

To parlay the advantage of being first, it is important to focus on instruments that allow enterprises to finance and implement restructuring measures. The most commonly used incentives are investment support, so-called "feed-in tariffs" and green certificates.

Two main strategies, both of which are necessary

Two main strategies are discussed in relation to dealing with climate challenges. The one has been high on the international agenda since Rio (1992), i.e. mitigation in an effort to limit global emissions. The second is adaptation¹) or, more precisely, the act of identifying measures to reduce, prevent or remedy the consequences. We will have to apply both strategies. The concentration of GHGs in the atmosphere today already entails a certain amount of warming. If we fail to reduce emissions, further climatic changes will occur. If we

¹ This does not refer to initiatives to prevent climate change per se, but rather its effects. Volumes have been written about initiatives to mitigate climatic change.

concentrate on adaptation exclusively, we can risk a far more adverse outcome than what might otherwise be the case, and it would be irresponsible not to try to mitigate the chance of catastrophes. An optimal overall strategy will include major reductions in GHG emissions combined with adaptation measures.

The Swedish vulnerability report

The Swedish vulnerability report points to some central climatic effects that are probably representative for the entire Nordic area. The effects differ by region and season. The analysis indicates that preventive measures will be necessary in a number of areas of society. The financial gains will be significant in forestry and hydropower if we achieve a stronger energy balance, and the entire Nordic area will benefit through its common energy market. The damages and financial losses will also be formidable, especially in fisheries, forestry and agriculture; it will be necessary to ramp up infrastructure measures and flood protection, and there will be more insurance incidents. That being said, few areas of society will be affected only positively or negatively.

Meanwhile, the global effects will be far worse, and the effects will be most severe for poor countries in hot, dry climatic zones. OECD analyses indicate that the estimated costs of different adaptation or remediation measures are highly uncertain. Both the methodology and the quantification are uncertain and imperfect. Nevertheless, the analyses identify some areas of society that may be susceptible to climatic impacts, and potential initiatives that might help mitigate or eliminate adverse effects.

Even though it appears that estimated costs of such initiatives are on the rise, there is reason to take note of the conclusion that there is no reason to devote much attention to the figures. Accordingly, they should not be used to argue that it would be much less expensive to introduce mitigation measures now, than to repair the damages later (adaptation).

Nor do we need to take a position on this question. The Nordic trade union movement stands united in its support for the Nordic countries' ambitious climate targets. In any case, we will see a certain degree of warming, and its severity depends on the emissions that have already accumulated, as well as on future global emissions. Certain countermeasures are therefore necessary and sensible to implement in any event. The costs are also unevenly divided, with the coastal zones in tropical and subtropical and other warm areas being the most exposed. Accordingly, a cost-benefit analysis based purely on mitigation and adaptation is not enough. It is our joint responsibility to help ensure that the countries that are hardest hit can mitigate the damages, provided these countries themselves also help reduce emissions under international climate agreements in future.

It is important that NGOs, including the trade union movement, be included in and mobilised with a view to these efforts.

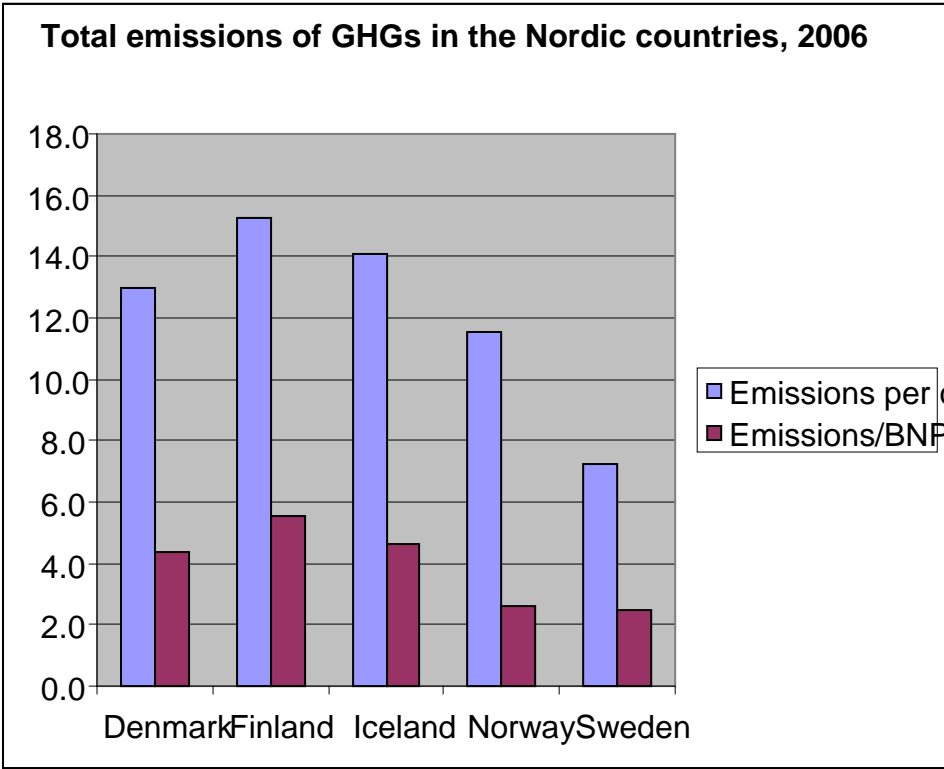
Developments in the Nordic countries - emissions, objectives and future development trends

Right from the outset, the Nordic countries have been prime movers for mitigation and for supporting far-reaching international agreements to achieve climate objectives. They are covered by the Kyoto Accord and endorse all the EU's more ambitious climate goals. The following is a summary of the national reviews for Denmark, Finland, Sweden and Norway.

For Iceland, there is a report on the emissions trend, but the committee has no updated list of planned measures.

CO₂ emissions² are at the 1990 level in Denmark, slightly under this in Sweden, somewhat higher in Finland and Norway, and considerably higher on Iceland. Emissions in the Nordic countries will stabilise or decline somewhat compared with the current level. This trend parallels the trend for OECD Europe. According to the IEA³, emissions will rise only marginally up to 2020, and then decline without any new initiatives. This is motivated by expectations of relatively slow economic growth and low population growth. While several Nordic countries will continue to experience population growth, emissions will nevertheless be reduced as a result of already initiated measures such as emphasis on renewable energy, energy conservation, quota regulations, CO₂ taxes and voluntary agreements.

Figure 2.1



GHG emissions in the Nordic countries are shown in Figure 2.1. The level of *per capita* pollution is relatively high. This is a function of the high standard of living. Yet there are major differences between countries that have relatively equal *per capita* income levels. Energy-related emissions *per capita* are more than twice as high in the USA compared with Europe. In Nordic countries, Sweden has the lowest level of emissions *per capita* and, along with Norway, the lowest per unit of GDP (emission intensity). There are many reasons for

² The agreements cover a total of six greenhouse gases, of which CO₂ is pre-dominant. Emissions can normally be measured in so-called CO₂ equivalents, where the climatic effects are converted into a common unit. Where not otherwise specified, this is what is referred to when it states that CO₂ emissions, mitigation??, etc.

³ World Energy Outlook 2008, IEA (benchmark)

differences in emission intensity, and high percentages of renewables and nuclear power also help lower emission intensity, while the consumption of fossil fuel, especially coal, pushes in the opposite direction. The export and import structure also has a significant impact on the figures for small open economies like those in the Nordic countries.

In 2003, Finland and Denmark were roughly 20 per cent behind on their Kyoto targets, while Sweden was 5 per cent 'ahead of schedule'. Norway's emissions were about 10 per cent over its Kyoto commitment in 2007. Consequently, Finland, Denmark, Iceland and Norway are among the countries that are having problems meeting their Kyoto obligations through national initiatives alone. Norway will nevertheless overfulfil its Kyoto commitment. Sweden is actually allowed to increase its emissions, but it will nonetheless overfulfil its commitment thanks to a 4 per cent emissions reduction and it will refrain from being credited with emissions through the fixation of carbon in forests or by applying flexible mechanisms (JI/CDM quotas). Finland has not presented any separate national targets.

The models underestimate the costs

Macroeconomic prognostic models are an analytical tool used to analyse the financial impacts of climate policy, cf. Chapter 4. The models indicate that the annual costs associated with fighting climate-related problems in the long term will be limited to 1 to 3 per cent of GDP, provided the global community acts now.

Although 1 to 3 per cent may seem like a limited cost, it is by no means trivial. Defence budgets account for between 1 and 2 per cent of GDP in the Nordic countries. As indicated below, the estimates are based on extremely strict and fairly optimistic assumptions.

Such analyses are useful, even though they tend to underestimate many problems. It is important to find out how much it will cost to implement the necessary measures in the long term once everyone has adapted to an optimal set of policy instruments. The calculations assume that the least expensive measures will be implemented first, and that all countries participate. These things cannot be taken for granted.

Even if we implement the least expensive measures first, and all countries and industries take part, as assumed by the models, the models overlook the transition process from an equilibrium based on today's policy instruments, to an equilibrium based on a higher price on emissions. In practice, unemployment arises in connection with restructuring from one type of activity to another. Financial equilibrium models overlook such restructuring costs and they fail to take unemployment into account at all. Consequently, these models underestimate costs to society-at-large, and are best suited for comparing different political choices and their long-term consequences, once restructuring costs have been expensed.

Optimal early-stage policy instruments

The Nordic countries began taxing fossil fuels and other sources of emissions early, as well as introducing other goal-oriented initiatives. Analyses indicate that this has helped reduce the rise in emissions significantly. Developments at the international level and especially in the EU have made it possible to introduce comprehensive quota schemes like the emissions trading system (ETS). These instruments can be designed to cover broadly sweeping areas, facilitating collaboration to promote goal achievement and forcing manufacturers and

consumers alike to see the actual cost of polluting the global atmosphere. Even though the policy instruments are not yet fully developed and they have had some teething problems, the trade union movement supports these systems and strives to improve them through the EU and other international forums.

At an early stage, while large parts of the world are still not covered by agreements or policy instruments, it is important to protect the segment of industry that is exposed to competition from competition and trade diversion and to prevent carbon leakage. Otherwise, employment will be undermined in these industries and global results will be out of reach. Voluntary agreements have become an important policy instrument for reducing industrial emissions and they have proven to be effective.

The analyses indicate that it is absolutely essential to conclude global agreements. The trade union movement calls on all countries to contribute to solutions in Copenhagen. If we successfully establish global obligations, it might be possible to avoid carbon leakage, meaning the protective measures applied to exposed industries can and should no longer apply. Emissions trading systems and/or taxes can and should then cover all industries and free allocations of allowances can and should cease. In the meantime, it is still necessary to prevent carbon leakage through taxation and emissions trading systems.

The analyses also show that strong, rapid technological development is crucial for developing new renewable energy. This trend is supported by taxation, quotas and high prices on fossil fuels, but this is not enough. The trade union movement in the Nordic countries also calls for active efforts to boost R&D, energy conservation and energy recovery as well as the emergence of new renewable energy through good subsidy schemes and/or green certificates. In the Nordic countries, demands have been made for domestic initiatives and reductions that clearly go beyond the emissions trading price. This can help ensure the more rapid development of new technology than if we were to base ourselves exclusively on implementing the reductions that are cheapest at any given time.

The potential for green jobs

Adapting the production and energy system towards a “low carbon society” bears considerable similarities to earlier restructuring. On the Nordic labour market, tripartite cooperation between the authorities, industry and the trade unions has allowed such restructuring to take place in socially acceptable forms. Changing jobs and relocating have been made easier thanks to retraining measures and the assurance of financial security during the transition. The general economy has benefited through higher productivity and lower social expenses. Similar initiatives must be deployed for the green restructuring. Each country should test to see whether its existing policy instruments are sufficient or whether they need to be updated.

For the trade union movement, the point is to try to exploit opportunities to create new jobs, while protecting opportunities for individuals and enterprises to make headway in the areas in which they face change. As indicated below, green jobs can be found in a wide variety of activities. However, there is no separate green job sector for the trade union movement – the idea is to make all jobs greener within the parameters of sustainable production, while taking the requirements for good working conditions into account.

Many new green jobs will be created in the area of renewable energy. The trade union movement must get involved in these efforts and see to it that the jobs that are created are permanent and stimulating. By the same token, it is important to emphasise that the fundamental purpose of energy policy is to ensure a secure, environment-friendly power supply at affordable prices and to guarantee industrial competitiveness. This means that the future power supply must also satisfy requirements for high productivity and energy efficiency.

The transition to a low emission society can both increase and decrease employment. The net positive or negative effect will depend on the use of policy instruments, the basic composition of business and industry, and society's capacity to adapt.

The trade union movement's involvement in climate processes

Most of the Nordic trade unions have drawn up or are in the process of drawing up special platforms/strategies for the environment and climate. All these documents concur that it is essential for the trade union movement to get involved in climate processes. In reviewing the trade union movement's climate platforms, one reads that several organisations have ambitions to help make their respective countries into leaders when it comes to environmental efforts. This bodes well if we want the Nordic region to be a prime mover in international environmental work.

Not surprisingly, the climate platforms are quite different. Nonetheless, we can identify five points to which the Nordic trade union movement has devoted a great deal of attention:

1. **The social dialogue:** It is absolutely clear that the Nordic trade union movement has the climate on the agenda for tripartite cooperation. The trade union movement would like to see this topic discussed at every level, from the main confederations to the local chapters and enterprises. Several organisations are calling for organised cooperation between employee and employer organisations and other relevant players. It is important to systematise the currently prevailing mechanisms to ensure equitable restructuring.
2. **Involvement of workers and the community:** Workers and the rest of the community can also have an impact on GHGs. It is important that the authorities inform the citizenry and make it easy for them to make the right environment-friendly choices. At the workplace, it is important to get workers involved and engaged in promoting environmental initiatives. The trade union movement is of the opinion that the social parties should stimulate more sustainable working life through education and support for workers' engagement in environmental activities.
3. **Research and development:** The Nordic trade union movement recognises that the key to resolving environmental challenges lies in research and development. All of them believe that it is important to redouble our efforts within research and development. Promoting innovation and new green jobs is also important to the trade union movement.
4. **Energy conservation and renewable energy:** A united Nordic trade union movement supports more use of renewable energy, and some organisations even aspire to be completely independent of fossil fuel. The trade union movement sees a huge potential

for a significant number of new jobs in renewable energy. Energy efficiency is crucial for reducing energy consumption. Several climate platforms advocate advisory services and subsidy schemes for promoting energy conservation in businesses and private homes.

5. Transportation: Most of the Nordic trade unions would like to see more emphasis placed on collective traffic to make it a more attractive means of transport for more workers. Further, several of the organisations suggest that there should be incentives provided for modernising the car population. Transportation accounts for a considerable share of our countries' GHG emissions, so the organisations advocate the development of considerably more efficient vehicles.

Copenhagen 2009 – What can the trade union movement do to contribute?

In connection with the climate conference on Bali in December 2007, the so-called Bali Roadmap was adopted, describing the process in the run-up to the climate conference in Copenhagen in December 2009. This refers to:

Mitigation, adaptation, the transfer of technology and financing. Naturally, the last factor entails the largest problems because clarification in this area is a prerequisite for making progress in the other fields.

The discussion regarding mitigation targets is a question of who should reduce how much and when. Until now, only the Annex 1 countries have been obligated under the Kyoto Protocol. The G-77 countries and China have made a concerted claim that they are developing countries and should therefore not be required to undertake obligations. However, it is important to bear in mind that in this context, developing countries include countries such as Korea, Brazil, Indonesia and Singapore. There can be no doubt whatsoever about the fact that these countries must also bear a reasonable part of the burden.

An agreement should be reached on an adaptation fund to help the poorest countries make the necessary adaptations, and there should be a transfer of technology to developing countries, not least through investments on the part of industrialised countries in environmental projects in developing countries

The most formidable challenge invariably involves finding funding for environmental efforts. According to the EU's research centre, mitigation efforts will call for extra investments in the area of EUR 75 billion per year in 2020. It is expected that more than half that amount will be spent in developing countries. According to the UN's climate secretariat, total adaptation costs in developing countries will range from EUR 23 to 54 billion in 2030.

Reaching an agreement in Copenhagen is contingent upon the inclusion of both the USA and China. Under the Bush administration, the USA rejected any major short-term reductions out of hand. The tone is a different one with Barack Obama as president, although the current messages from Mr Obama still lag far behind the EU's proposal and the mitigation targets that the UN's Intergovernmental Panel on Climate Change consider to be necessary. When Barack Obama talks about a 20 per cent reduction, he is talking about a reduction from 2005 and not from 1990, as is the case for the EU. Accordingly, it is necessary for the USA to present more ambitious targets.

On several occasions, the USA has stated that countries such as China, India, etc. will have to undertake quantifiable obligations before the USA will sign an international climate agreement. Conversely, it is believed that the USA is the only country that can pressure

China. If this problem can be resolved, great headway will have been made towards achieving an international agreement in Copenhagen.

At COP15, LO Denmark, in association with the ITUC, will be organising a number of meetings and side events with special emphasis on problems of interests to the trade union movement.

The Nordic trade union movement intends to make constructive contributions to the success of the Copenhagen meeting, and to an agreement which will serve the best interests of the climate and employment.