



# LO and the challenge of climate change



We can do it – but we must be determined to succeed

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## Contents

Foreword . . . . .	3
Climate change is a global challenge . . . . .	4
Climate problems must be addressed at the global level . . . . .	5
We must ensure security of supply . . . . .	6
The EU's efforts for a better climate . . . . .	7
What can Denmark do? . . . . .	9
Climate technology can generate a new industrial revolution . .	10
Global simultaneous job shedding and job creation . . . . .	11
Climate solutions must reflect solidarity . . . . .	12
LO will contribute to climate solutions for the benefit of society . . . . .	13
Efforts to combat climate change – LO's recommendations . . .	15

## Foreword

On 15 August, LO's General Council adopted a climate & energy policy. With this, the Danish trade union movement contributes to the initiatives that are desperately needed if we are to avoid a major environmental disaster.

The amount of greenhouse gases that are currently being released into the atmosphere must be reduced dramatically. By 2020, the emissions must be reduced by 25-40%. Everyone will inevitably be affected by this - including the trade union movement's members. We must, to a higher extent, consider how we consume and utilize energy resources. And, first and foremost, we need to find ways of making energy production CO<sub>2</sub> neutral.

The members of the trade union movement can provide an important contribution to finding environmentally friendly solutions. There is a long tradition on the Danish labour market for involving the employees in the technological development.

The climate challenge may therefore turn into a win-win situation if we set aside resources for research into climate issues and the development of climate initiatives. This will have a positive effect on employment which will, in turn, benefit trade union members.

It will take 30 to 40 years before we can see the effects of climate initiatives that are

launched now. It therefore requires political courage to stick to the targets that have been set. On this basis, LO recommends the adoption of a Danish climate- and energy policy with a view to setting the framework for long term investments into climate initiatives.

In this folder, we have gathered LO's central views on climate- and energy issues. I hope it will provide inspiration for contributing actively to climate efforts - be it at the workplace or at home.

Marie-Louise Knuppert  
International LO-Secretary



## Climate change is a global challenge

Climate change is a global challenge which requires immediate action. The rising emission of greenhouse gases has the effect that the global temperatures gradually rise. In the course of the next century, the climate changes may lead to a rise in the sea water levels and a rise in global temperatures. This will lead to droughts and natural disasters. We therefore seriously need to make efforts to reduce the emission of greenhouse gases.

Climate change is an issue which is high up on the political agenda. In future, climate issues will have great consequences for all sectors in society. Denmark contributes to meeting the challenges in connection with global warming, both in the UN, the EU, and at the national level.

The commitment of the LO-led trade union movement to the climate policy efforts aims to help ensure the creation of broad-based and fair social solutions. The aim is to reduce the emission of greenhouse gases without lowering living standards for the world's population. LO believes that the adaptation to and the fight against climate change can create millions of new green jobs. At the same time, Denmark has great potential in terms of becoming a pioneering country by using new climate technologies.

### Facts

The UN's climate panel, the IPCC, has established that climate change is provoked by humans and that the past 12 years have seen the warmest global temperatures since 1850. The IPCC therefore recommends that the emission of CO<sub>2</sub> be reduced by 25-40 percent by 2020 and 50-80 percent before 2050.



## Climate problems must be addressed at the global level

Climate change is a global problem which can only be solved efficiently if all countries cooperate on global solutions. It is no use simply to reduce CO<sub>2</sub> emission locally or nationally because the climate changes do not distinguish between national borders. Even though the EU stops the emission of CO<sub>2</sub> completely, this will not have any effect if China and the US refrain from doubling their emissions. Efforts are therefore being carried out to make all countries adopt international and binding agreements under the auspices of the UN.

### The climate convention and the Kyoto protocol

In 1992, 189 UN member countries adopted the UN's Climate Convention, (the UNFCCC), on the reduction of the emission of greenhouse gases. The Convention is not binding; However, the current aim is to reduce the emission of greenhouse gases with 80% by 2050. The Climate Convention was a predecessor to the Kyoto Protocol which is a binding agreement between the UN member countries on a reduction in the emission of CO<sub>2</sub> with 5.2% by 2012, compared to the 1990-level. Together with the other EU-countries, Denmark has committed itself to reduce the emissions by

### Facts

In a report, the British economist, Nicholas Stern, established that the longer we wait to solve the climate problems, the more expensive it will become. If we act now, it will cost 1 pct. of the world's total GNP. Every year that passes without action, it will become five times more expensive – and in the worst case – up to 20 times more costly.

8%. A new binding agreement is currently being negotiated. It will, hopefully, be adopted at the UN's Climate Change Conference in 2009 which will take place in Denmark.



## We must ensure security of supply

Climate policy is also about safety and about ensuring security of supply. Today, the main part of the world's energy supplies come from fossil fuels, i.e. oil, coal and gas. Even though alternative sources of energy will be developed, oil, coal and gas will still constitute the main part of the energy supply during the next 100 years. We have to face the fact that these energy sources will gradually be depleted. At the same time, the main sources of fossil fuels come from regions that are politically unstable. A climate policy should therefore ensure the development of continuous energy.

### **More countries need more energy**

There is an increasing demand for energy at the global level. Developing countries and middle income countries need more energy to create growth and these countries will be severely affected if the energy prices continue to rise. At the same time, the environment cannot endure an increase in the world's total energy consumption. It must therefore be ensured that poor countries receive support for developing sustainable energy and methods for maximising energy efficiency.

### **Denmark must be independent of fossil fuels**

A stable energy supply is a precondition for continued economic growth and development. In Denmark, we should have a climate policy that emphasizes the further development of alternative sources of energy.

LO sees it as a goal in itself that Denmark becomes independent of fossil fuels and that an action plan on how to reach this goal be prepared. Today, 15 percent of Danish energy supplies come from sustainable energy. LO believes in a Danish definition of a mid-way goal on its increase of the percentage of sustainable energy.



## The EU's efforts for a better climate

To Denmark and other EU member states, agreements and regulations at EU level will be of great importance, especially on energy policy, the liberalization of the European electricity market and the trade in CO<sub>2</sub> permits.

### The EU's climate and energy package

Through common rules, the EU wants to ensure that the member states reach the joint aim of reducing the emission of CO<sub>2</sub> by 20 percent before 2020 compared to the 1990-level. Furthermore, 20 percent of the member states' total energy consumption must come from sustainable energy by 2020.

On 23 January 2008, the EU-Commission presented a proposal for a climate and energy policy. It contains a number of proposals for joint EU legislation. With these common rules, the EU will ensure that its member countries reach the joint aim of reducing CO<sub>2</sub> emission with 20 percent by 2020. In addition to this, 20 percent of the EU-countries' total energy consumption must be provided by sustainable energy by 2020.

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

The new EU-rules will entail a new way of using CO<sub>2</sub> permits. Instead of distribu-

ting permits between the countries, they will be distributed to industrial sectors. This is to provide fair and equal competition conditions among the EU member states. The CO<sub>2</sub> control of the EU member states' electricity and heat production plants as well as the energy-intensive industries will be the responsibility of the EU-Commission. 380 Danish companies will be covered by the EU's emission trading scheme (ETS). The areas that are not covered by ETS must follow national targets stipulated by the EU in areas such as transportation, construction and agriculture. As for Denmark, the aim is to reach a 20 % reduction. This means that, in future, half of the Danish energy consumption will be regulated by the EU and the other half at the national level.

### Emission trading

The Commission's proposal leans towards a more extensive ETS, according to which the CO<sub>2</sub> permits are sold at auctions. Companies that cannot restrict themselves to respecting these limits may buy permits. The underlying idea is to make companies invest in energy saving measures and sustainable energy in order to stop increases in CO<sub>2</sub> emissions instead of buying CO<sub>2</sub> permits at a high price.



### **LO's attitude towards permit trade**

LO believes that the ETS should be monitored and regularly adjusted in order to ensure that it works as intended. LO agrees that the allocation of permits should eventually be transferred to auctioning and that it should take place so that energy effective companies are rewarded. The energy-intensive industries must therefore have the possibility for adapting to the situation so that they do not just move their operations to a country without CO<sub>2</sub> regulation. LO therefore believes that, in the short term, it will continue to be necessary and expedient to have the possibility of giving out free permits.



## What can Denmark do?

We believe that Denmark can do a lot more than at current when it comes to fighting climate change, regardless of our moderate size and share of the global emission of greenhouse gasses. The solution to almost all countries' common problems requires that someone takes the lead by setting a good example and demonstrating that they can contribute with more than what is required.

Denmark has the potential for setting a good example. It is one of the leading countries in terms of its share of sustainable energy and energy efficiency. In Denmark, we are good at cooperating on the solution of social issues related to climate reduction requirements.

Finally, Denmark has a tradition for solidarity with the world's poorest countries and has a well-developed system of development aid for these countries. Danish experiences may therefore contribute to ensuring that the countries with the least resources for fighting climate change will also be able to make active efforts to reduce CO<sub>2</sub> emissions.

Growth and environmental concerns can go hand in hand. Among others, the Danish energy agreement from 2008 strengthens the conditions for sustainable energy until 2011. But LO believes that there is a need for a more long term

and ambitious Danish climate strategy. Denmark should be at the forefront when it comes to demonstrating how economic growth and social development can go hand in hand in terms of protecting the environment and the climate. These efforts must consist of the combination of a long line of different measures. It is necessary to analyse what is most efficient – just as it is important to take the social consequences into account. The means, such as permit trade and taxes on environmental affairs, must be combined with public investments into research, development of the transport sector, sustainable energy and energy friendly households.

### **Inequality must not grow**

The solutions to climate change risk leading to increased inequality, both in the individual countries, respectively, and between rich and poor countries.

Climate taxes on essential commodities affect the population and income groups differently. The industries that will gradually disappear, such as coal mining, are concentrated in specific regions. LO believes that climate policy should be organised in a way which does not lead to greater inequality, neither in Denmark nor in the rest of the world.



## Climate technology can generate a new industrial revolution

Climate change will bring about different industrial structures. There will be an explosive increase in the demand for eco-friendly and energy-efficient technologies. This is particularly advantageous for Denmark. So far, we have created one of the world's most climate friendly societies and have experienced growth without an increase in energy consumption. At the same time, we are experiencing an exporting adventure in wind energy. In 2005, we were the world's biggest exporter of wind mills with a market share of 38.5 percent. The total export of Danish energy and environment technology reached DKK 50bn in 2007.

A Danish climate strategy will ensure a leading position. The International Energy Agency expects that, at the global level, an annual DKK 400bn will be invested in the energy sector by 2030. The investments into less polluting energy technology alone are expected to become four times as high during the next ten years. Denmark could use this positively; however, we will not obtain further success by sitting on our hands. New players have already entered the market and they are quickly catching up with the technological progress in Denmark. We therefore need to aim wholeheartedly for a strategy with the focus on research, development and innovation. We need to think ahead and

be ambitious and we must be persistent and willing to take risks. The efforts must be carried out by both public and private companies and it is important to use all resources - not least the employees in these companies.

### Research and innovation

LO believes that publicly financed research must ensure the development of environment technology. It is vital to have a varied research policy so that there are constant developments within the different industries and technologies.

LO believes that Denmark has great potential in the area of innovation. If we are to take advantage of this, all resources must be involved - including the employees. They can contribute to innovation in the field of climate technology as well as in connection with the reduction of the individual companies' energy consumption. In order to make use of this potential, the employer-side needs to cultivate an innovation culture and the employees' skills must be upgraded.



## Global simultaneous job shedding and job creation

Millions of jobs will disappear as a consequence of the climate changes and as a result of the efforts to limit the emission of CO<sub>2</sub>. This will face workers whose jobs are threatened with a great challenge and it will also pose a great challenge to the countries and industries that are most severely affected by this. However, millions of jobs will also be created in the wake of the efforts to limit climate change. New business opportunities on the markets for CO<sub>2</sub> neutral energy, alternative energy and environment technologies will emerge. In addition to this, there will be a new market for goods and services produced with a minimal consumption of energy – thereby reducing the emission of greenhouse gases.

### A fairer transition

Most of the new jobs will not emerge in the same industries as the old ones. Certain sectors and industries, and certain countries and regions will be particularly severely affected. The Polish coal miner who loses his job as a consequence of climate change will not, to the same extent, enjoy the positive effects of the rising employment in the Danish wind-mill industry. At the same time, these new jobs require other skills than the jobs that are shed. In other words, the workforce cannot make the transition from the old industry to the new one without major skills upgrading. There is,

therefore, a need to ensure a just transition so that the workers, countries and regions affected will not suffer unnecessarily due to the changes. They need help to readjust. This requires various support programmes to ensure the skills' development of the workers as well as new business opportunities in the local societies.

### More jobs to come

According to the United Nations Environment Programme, 20m jobs will emerge in sustainable energy production by 2030. These jobs will primarily be found in the fields of solar energy, agriculture, -bio fuel and wind power companies. The development of energy-saving and climate resilient constructions and buildings and the reorganisation of the transport sector are also expected to create millions of jobs.

- In Denmark, almost 40,000 workers were employed in industries producing environmental technology in 2006. This industry constituted 1.4 percent of the total employment and 10 percent of the industry's employment.

- From 1994 until 2006, employment in industries producing environment technology rose by 21 percent - the equivalent of 6,900 persons - whereas employment in the total industrial sector fell by 16 percent.

Staking on environment technology will, to a high extent, benefit the trade union members since more than half of the employees in these businesses are covered by LO's collective agreements. Almost half of the employees are skilled workers and one in four is unskilled.

## Climate solutions must reflect solidarity

The consequences of climate change will affect the developing countries the hardest whereas the industrialised countries, such as Denmark, will be better equipped for handling the negative effects of climate change even though they pollute the most. Africa is the only continent that's only responsible for 3 pct. of the total CO<sub>2</sub> emissions. However, it is also the continent that will be most severely affected by drought and flooding.

In order to prevent this uneven distribution, global climate solutions to ensure solidarity with the world's poorest countries need to be found. The most polluting countries must work the hardest to reduce CO<sub>2</sub> emissions. At the same time, the poorest countries must support sustainable growth through the transfer of technology and environmental aid.

### Flexible mechanisms and environmental aid

The UN's Kyoto protocol gives countries the possibility of reaching their national aims for the reduction of CO<sub>2</sub> emissions by supporting the projects that aim to reduce them. This might be done by investing in emission reduction projects in countries that are under an obligation to reduce their emissions - for instance the new EU member states - and by investing in projects that aim to reduce CO<sub>2</sub> emissions - typically in developing countries. Out of the 13m tonnes of

CO<sub>2</sub> emissions that Denmark must reduce, it is estimated that 3.5m tonnes will be reduced through flexible mechanisms. The support schemes should help transfer technology to the developing countries and give them greater incentives for committing to emission reducing aims.

Funds for climate aid have been earmarked as part of Danish development aid. It is positive, but not sufficient, for solving the enormous problems ahead - partly because there are not sufficient means, and partly because the current poverty criteria are not adequate in this connection. Therefore, in addition to more funding, special funds amounting to 0.5 pct. of the GDP should be set aside for climate and environment aid.

### Danish environmental aid conditioned by workers' rights

There are often problems with workers' rights in developing countries with weak public institutions. Observance of fundamental rights must therefore be among the criteria for providing support for development and climate aid. LO will cooperate with the international trade union movement on ensuring increased environmental aid for the developing countries as well as for new technology ensuring that increased growth takes place on a sustainable foundation.

The trade union movement must maintain



## LO will contribute to climate solutions for the benefit of society

the pressure on the government for creating a climate friendly society. The new climate agenda will entail major changes and LO will contribute to finding solutions for the problem of climate change for the benefit of society – thus also benefiting the members of the trade union movement. If no action is taken to prevent climate change, this will result in increased poverty and political instability in the world which will affect economic growth negatively. LO believes that social and environmental priorities are two sides of the same coin when it comes to the efforts to combat climate change.

Danes are concerned about the environment. Many companies also work strategically with the environment, both in connection with the reduction of CO<sub>2</sub> but also more generally in order to establish climate friendly workplaces. In other words, climate change is something that concerns Danes. LO's members are affected through their role as workers, consumers and citizens in general.

### Climate solutions combined with growth

It is central to LO that the work with climate change is connected with continued growth in society, thus ensuring high employment rates and a positive development of welfare. In order to ensure

this, we need long term political solutions. LO believes that this is particularly ensured by:

- Promoting and strengthening research into new energy sources.
- Ensuring a qualified workforce
- Creating a reasonable investment foundation for climate technology companies.

### We have great potential

Denmark has many opportunities within the fields of sustainable energy development – especially when it comes to wind power and energy efficiency measures. We are already one of the world's leading countries when it comes to making use of our energy sources. We have a high share of employee innovation and a good ability for adapting production so that new jobs are created. Employment can thus be generated by further developing the alternative sources of energy.

### Sustainable reduction in CO<sub>2</sub> emissions

LO believes that new technologies may help reduce CO<sub>2</sub> emissions. However, as this reduction must take place within a reasonable time frame, it will also be necessary to reduce energy consumption. LO will work to ensure that this takes place on a socially and environmentally

sustainable foundation.

### Examples of priority areas

- *Sustainable energy*: Support must be provided for the development of new sustainable sources of energy until they are commercially sustainable. By spreading the energy consumption on different sources, such as sun, water and heat power, we become less vulnerable to resource scarcity and politically unstable suppliers. LO believes that the most efficient technologies for the production of sustainable energy are the ones that should be further developed.

- *Storage of CO<sub>2</sub> gases*: LO believes that it is necessary to carry out further research into the possibility of more environmentally friendly utilization of coal. It is possible to reduce the emission of CO<sub>2</sub> in the production and use of energy through CSS-technology (Carbon Capture and Storage), whereby CO<sub>2</sub> emissions are accumulated and stored.

- *Bio energy*: Biomass such as straw, wood and manure can be used for combined electricity and heat production and for bio fuels. LO supports the EU's goal to increase the use of bio energy as one of the initiatives to combat climate change. However, LO finds that it is important not to produce bio energy at the expense of foodstuffs. Therefore, we need to carry out much more research into the

development of 2nd generation bio fuels which involves using manure and animal remains instead of foodstuffs.

- *Transportation*: transportation is a considerable and growing source of CO<sub>2</sub> emissions. We therefore need to find more efficient ways of reducing CO<sub>2</sub> emissions from the transport sector. And since this area is not covered by international permits, these efforts must begin at the national level. LO believes that local transportation should be further developed and modernised in combination with a marked reduction in ticket prices. At the same time, more research into electronically powered transportation - including high speed trains - should be carried out.

- *Building and construction*: About 40 percent of the total energy consumption is used in building and construction - especially in operations. Through the use of technology such as environmentally friendly windows, solar cells and water collection tanks we will go far. Denmark must focus on energy-saving construction material, not just in new constructions, but also when renovating existing buildings and constructions. The State and the local authorities should take the lead by showing good examples of ways of carrying out energy-saving renovation projects on publicly-owned buildings.



## Efforts to combat climate change LO's recommendations:

LO will, in cooperation with the international trade union movement, and by influencing the national policy work for the conclusion of international, binding agreements on the reduction of greenhouse gas emissions.

### At the national level

- LO will work for the continuous creation of growth and development in society as a precondition for a high employment rate. However, in future policies, this must take place on a social, economic and environmentally sustainable level, respectively.
- LO suggests the preparation of a long term Danish energy and climate agreement establishing Denmark's policies on energy consumption.

### Security of supply and alternative energy.

- LO will organise its research policy in such a way that it supports the new climate agenda.
- LO works for the channelling of further means for research into the environment- and energy sectors in order to accumulate enough capital for the development of alternative energy,

energy optimization and the reduction of greenhouse gases.

- LO believes that the necessary change in industry's demand for environmental technology requires a more extensive focus on continuous training of the workforce.
- LO will strive for the future education and employment policies to be organised in a way which involves of climate perspectives.
- LO sees it as a goal in itself that Denmark becomes independent of fossil fuels and that an action plan for reaching this goal must be prepared.
- LO believes in a certification of sustainable energy with a view to ensuring optimum exploitation and cost efficiency of alternative sources of energy.
- LO believes in research into second generation bio fuels on a sustainable foundation.
- LO will work for increased research into the further development and organisation of public transportation which allows for a transition to electrically-powered transportation – including high speed trains.

- In addition to this, LO will work for a marked reduction in ticket fares in collective transportation as an incentive for the transfer from individual to collective transportation.
- LO will launch initiatives that will make its headquarters CO<sub>2</sub> neutral before 2011.
- In cooperation with the international trade union movement, LO will work to ensure a just transition to a production that entails a lower emission of greenhouse gases. We therefore suggest the establishment of an international fund for training and education and for promoting social conditions in accordance with the UN's climate convention.

### At the international level

- In cooperation with the international trade union movement, LO will work for an increase in environmental aid for developing countries in the coming years and for the transfer of new technologies that may contribute to increased growth on a sustainable foundation.
- LO supports the IPCC's recommendations for a reduction of CO<sub>2</sub> emissions by 25-40 percent before 2020 and 50-80 percent before 2050.
- LO suggests the setting aside of funds amounting to 0.5 percent of the Danish GDP for climate aid - in addition to development aid.

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