

The Road Towards a Carbon-Free Society

A Nordic-German Trade Union Cooperation on Just Transition

DENMARK FINLAND GERMANY GERMANY ICELAND NORWAY SWEDEN











This publication is part of a joint project entitled **"The Road Towards a Carbon Free Society – A Nordic-German Trade Union Cooperation on Just Transition"**. The project is a collaboration between the Council of Nordic Trade Unions (NFS), the Friedrich-Ebert Stiftung (FES) and the German Trade Union Confederation (DGB). Represented by the Council of Nordic Trade Unions (NFS) in the project are thirteen national Trade Union Confederations within NFS, from five Nordic Countries: Denmark (FH, Akademikerne), Finland (SAK, STTK), Iceland (ASÍ, BSRB, BHM), Norway (LO-N, Unio, YS) and Sweden (LO-S, TCO, Saco).

A Just Transition towards a carbon neutral future is the most urgent environmental, social and economic issue of our times. This project aims to develop strategies and requirements from a trade union perspective on how to manage the process to a carbon free society. The participating labour organisations are united in their vision that this goal can only be reached if the social costs of this transition process are socially mitigated. This means to harmonize efforts to combat climate change with the aim of ensuring decent working and living conditions. To this end the participating labour organisations have not only analysed their respective countries transition path towards a fossil free future but have also formulated joint policy recommendations for the national and European arenas. The ensuing discussions and debate have strengthened the cooperation and dialogue between the Nordic and the German trade union movements on common challenges and solutions.

A total of six country reports on the Just Transition path of the participating countries (Denmark, Finland, Germany, Iceland, Norway, and Sweden) have been formulated. Each contains an analysis of the climate policies, economic and societal consequences, an evaluation of the respective national instruments and offers European perspectives. The main findings of the country reports are brought together in a synthesis. It features policy recommendations that aim to help guide the transition to a decarbonized society and an economy that is just and sustainable. The reports and their results are presented and discussed in a series of events nationally as well as in terms of Nordic and European cooperation and at the international level.

This is the Icelandic country report which was written in collaboration by three Icelandic trade union confederations ASÍ (The Icelandic Confederation of Labour), BSRB (The Federation of State and Municipal Employees) and BHM (The Confederation of University Graduates).

Authors

Sigríður Ingibjörg Ingadóttir (BSRB, The Federation of State and Municipal Employees), **Henný Hinz** (ASÍ, The Icelandic Confederation of Labour) and **Þórunn Sveinbjarnardóttir** (BHM, The Confederation of University Graduates)

Contents

O1 Foreword | 04
O2 Current state of play | 05
2.1 The impact of climate change on Iceland | 05
2.2 Climate targets | 06
2.3 Economy | 09
2.4 Society | 13
2.5 Covid-19 | 13
O3 National instruments | 15
3.1 ESR policies | 15
3.2 ETS policies | 17
3.3 LULUCF policies | 17
O4 European instruments | 18
O5 Just Transition | 18
O6 References | 20

FOREWORD

GHG emissions per capita in Iceland are almost twice as high as the EU average. The main GHG emitting sectors in the Icelandic economy are air and water transport, manufacturing of basic metals, agriculture, fisheries and road transport. In 2017 almost 90 per cent of the GHG emissions were in sectors that generated 25 per cent of gross output and employed 20 per cent of the workforce. In 2017 exports contributed 46 per cent of Iceland's GDP, mostly from carbon-intensive sectors such as basic metals manufacturing, fisheries and tourism.

The revised Climate Action Plan for Iceland is coherent and gives a clear overview of the government's goals and policies for the reduction of GHG emissions. However, the proposed actions are not sufficient for reaching the government's goal of a 40 per cent reduction from 2005 levels by 2030. In December 2020, a more ambitious goal of 55 per cent reduction was set by the Icelandic government in cooperation with the EU and Norway. The goal remains to be established since no further actions have been introduced.

The strongest policies for reduction of GHG emissions in Iceland cover road transport. Carbon is taxed and carbon-free alternatives, vehicles and charging stations, are subsidised. The tax disproportionately burdens low-income groups and the subsidies benefit higher income groups. Comprehensive policies to reduce GHGs in agriculture and fisheries are lacking and today, air and water transport are not accountable for any reduction goals.

Climate change will affect output in most basic industries in Iceland, but the impact is unclear in the medium term. Iceland needs a coherent policy to get it on the path to a low carbon economy consisting of investment plans for adaptation and new technologies, educational schemes and active labour market policies for decent jobs.

Given the urgency of the issue of climate change and the importance of Just Transition, ASÍ, BSRB and BHM propose the establishment of a special working group within the Economic Council to lay the foundation for successful structural change for a sustainable future.

02 CURRENT STATE OF PLAY

Table 1: Overview

	Iceland	EU-28/OECD
Population 2019 (EU-28 and Norway + Iceland)	360,000	519,160,000
Real GDP aggregates per capita, 2019	€38,840	€28,630
GHG emissions CO ₂ e per capita (excl. LULUCF), 2017	14.1 t	8.5 t
GHG emissions CO ₂ e (excl. LULUCF), 2017	5 mt	4,323 mt
Difference (excl. LULUCF) from 1990 to 2017	32%	-23%
Net GHG CO ₂ e emissions/removals from LULUCF, 2017	9 mt	-258 mt
Share of renewable energy in gr. final energy consumpt., 2018	72%	18%
Workforce, "active population" (aged 20–64), 2019	186,000	238,515,000
Collective bargaining coverage, 2016	92%	32%
Union density, 2018	92%	N/A

(Data source: Eurostat 2019a, Eurostat 2019b, UNFCCC 2017, Eurostat 2018, Eurostat 2019c, OECD 2016, OECD 2018)

2.1 THE IMPACT OF CLIMATE CHANGE IN ICELAND

2.2 CLIMATE TARGETS

Climate change has caused global temperatures to rise by 1.1°C or on the average 0.07°C per decade since the beginning of the industrial revolution. The warming in Iceland is slightly higher than the average or 0.08°C per decade, increasing more in winter than summer. The warming is causing glaciers to melt, mudslides, intensified rain and weather events, acidification of the ocean and higher sea levels. The effects are mainly negative for the biosphere with some exceptions and will demand massive adjustment of infrastructure in the country (Halldór Björnsson 2018). In December 2020, the Icelandic Prime Minister announced that Iceland will participate in the revised reduction goal of 55% in its cooperation with the EU and Norway. Information on the new goal's effect on ESR and ETS emissions target is not available yet.

06

Iceland cooperates with the European Union and Norway on setting CO₂-reduction targets within the framework of the Paris Agreement. Together, they are committed to a 40 per cent reduction of greenhouse gas (GHG) emissions from 2005 levels by 2030, a 43 per cent reduction within the European Union Emissions Trading System (ETS), and 30 per cent by country-specific goals or the Effort Sharing Regulation (ESR). The negotiated ESR for Iceland is a 29 per cent reduction in GHG emissions by 2030. Iceland has committed itself to reducing ESR emissions even further, or by at least 40 per cent by 2030 compared to 2005, and to become carbon-neutral by 2040.

Figure 1 shows the increase in GHG emission levels for ESR and ETS emissions in Iceland from 2005 to 2018. Emissions peaked in 2008 due to the opening of the biggest aluminium smelter in Iceland in 2007 coupled with an economic boom. There was a sharp decline in emissions during the economic crisis in 2009-2011 but there has been a gradual annual increase almost every year since 2012.

Figure 2 provides an overview of the change in ESR and ETS emissions in Iceland between 2005 and 2018. The increase in emissions since 2005 is predominantly due to increased capacity of heavy industry, mainly aluminium smelters, i.e. emissions within the ETS. At the same time, emissions from energy and waste within ESR have decreased. However, emissions from energy use in road transport and emissions from geothermal power plants have increased but they have decreased for fishing vessels and other uses. The total increase in GHG emissions was 20 per cent during the period from 2005 to 2018, a 113 per cent increase in ETS but six per cent decline in emissions within ESR.



Figure 1: GHG emissions in Iceland from 2005 – 2018 kt CO,e

(Source: Umhverfisstofnun 2020a)

6,000

ESR and ETS excl. LULUCF Iceland's committed reduction goal for 2030 of 29 per cent and Iceland's self-imposed goal for 2030 of 40 per cent compared to 2005 levels.

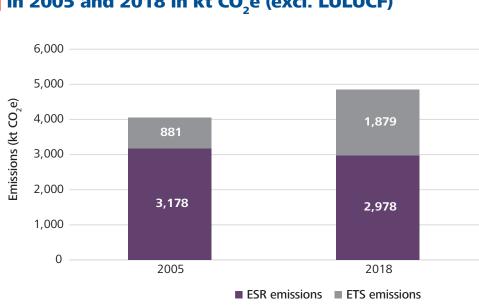


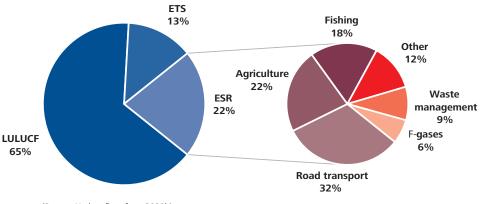
Figure 2: GHG emissions in Iceland, ESR and ETS, in 2005 and 2018 in kt CO₂e (excl. LULUCF)

(Source: Umhverfisstofnun 2020a)

The proportional breakdown of GHG emissions between ETS, ESR and LULUCF in 2018 is depicted in figure 3, with a further breakdown of ESR emissions by sector.

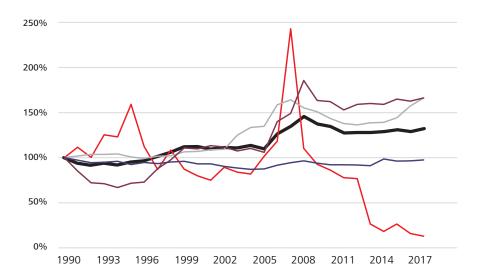
The total GHG emissions in 2018 were 13,867kt CO_2e , divided between LULUCF (9,010kt), ETS (1,855kt) and ESR (2,978kt). The high share of LULUCF in GHG emissions is caused by desertification, deforestation and draining of wetlands but the emissions from LULUCF are estimates and should be taken with great precaution.

Figure 3: Proportional division of GHG emissions in Iceland in 2018



(Source: Umhverfisstofnun 2020b)

Figure 4: Iceland's domestic greenhouse gas (GHG) emissions, indexed to 1990 (100%)



 Total GHG emissions (excluding LULUCF)
 Energy supply (electricity, heat, fuel extraction & refining)
 Domestic transport
 Industry (incl. process emissions)
 Agriculture

(Figure in collaboration with Nordregio, data source: UNFCCC 2017)

Climate target: Carbon neutrality

by 2040. Among 48 government measures, the main focus will be: 1) phasing out fossil fuels in transport, and 2) increasing carbon sequestration through restoration of woodlands and wetlands, re-vegetation and afforestation.

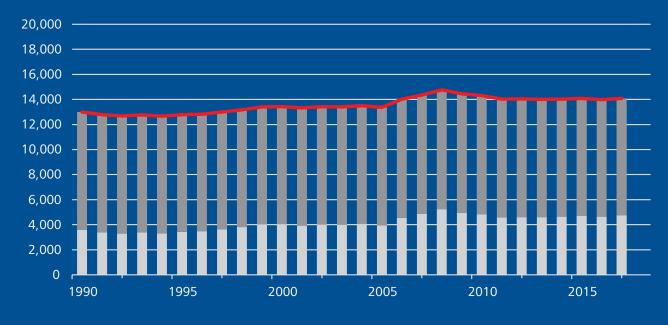


Figure 5: Iceland's total domestic GHG emissions including and excluding LULUCF in kt CO₂e

GHG net emissions/removals by LULUCF, kt CO₂ equivalent Total GHG emissions excluding LULUCF, kt CO₂ equivalent (Figure in collaboration with Nordregio, data source: UNFCCC 2017)

Total GHG net emissions/removals including LULUCF, kt CO, equivalent



Statistics Iceland provides information on GHG emissions broken down by sector of economic activity. The accounting is based on the Air Emission Account (AEA), which includes emissions from Icelandic entities, regardless of their geographical location in accordance with national accounting standards. For accounting of emissions in the Paris framework, countries use a different accounting method, the National Inventory Report (NIR), which includes emissions from national territory; energy, industrial processes, agriculture, waste and LULUCF. The NIR includes, for example, fishing vessels and ferries but not international sea transport. When comparing the two different systems, the AEA emissions in Iceland are higher than the NIR emissions by almost 2,000 kt CO₂e, mainly because of emissions from aviation and water transport.

GHG emissions, output and employment

Information from AEA is used in table 2 to describe the structure of employment and output in terms of GHG emissions and the proportion of the workforce employed in each sector. Sectors with less than two per cent of total emissions each are bundled in the category "Other" in the table.

Table 2: Percentage of emissions of greenhouse gases fromthe Icelandic economy, gross output and number of employedpersons by economic activity in 2017.

	Emissions of GHG	Gross output	Share of employed persons
A – Agriculture, forestry and fishing	13%	4%	4%
C24 – Manufacture of basic metals	24%	2%	1%
D – Electricity and power generation	2%	4%	1%
E – Water collection, waste management etc.	3%	1%	1%
F – Construction	3%	7%	7%
H – Transportation (air and water)	44%	7%	7%
	88%	25%	20%
Other sectors (B, C10-23, C25-33, G, I-U)	4%	75%	80%
Households (thereof transport 7.9%)	8%		

(Source: Statistics Iceland UMH31, THJ08401, THJ11002)

Almost 90 per cent of the GHG emissions in Iceland derive from six economic sectors and over 80 per cent from only three: agriculture and fishing, manufacturing of basic metals, and air and water transport. In addition, around eight per cent is emitted by households, almost exclusively by privately owned road vehicles. Emissions from road transport are also embedded in emissions from different economic activities. The six sectors in table 2 contribute to 25 per cent of the economy's output and provide employment for 20 per cent of the workforce. The interconnectedness and dependency of different economic sectors should not be underestimated. The sectors with the highest emissions form the backbone of export value and are vital for the national economy.

Exports

Exports contributed to 46 per cent of Iceland's GDP in 2017. Figure 6 depicts different sectors' share of exports. Tourism has grown its share dramatically in the last decade and is the single biggest generator of export revenues in the Icelandic economy even though it declined proportionally in 2018 and 2019, not to mention the complete temporary collapse during the Covid-19 pandemic. Exports in Iceland are very carbon-intensive, relying on the operation of fishing vessels

for marine products, burning coal in metal production, and rental cars and air transport for tourism. The majority of emissions from exports are outside the scope of the ESR and a large proportion – air and water transport – is not yet committed to any reduction goals.

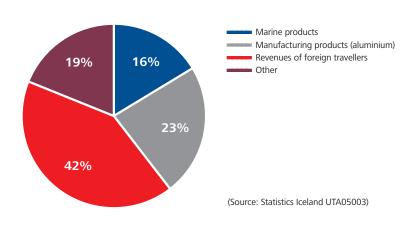


Figure 6: Exports of goods and services from Iceland in 2017

Effects of climate change on output and employment in different economic sectors

Renewable energy provides almost 100 per cent of electricity production in Iceland, with 73 per cent coming from hydropower, 27 per cent from geothermal power, 0.01 per cent from fuel and 0.04 per cent from wind (Raforkuhópur Orkuspárnefndar, 2020). Most of the hydropower plants are owned by Landsvirkjun the National Power Company, which is the main power utility in Iceland. Over 85 per cent of the electricity produced by Landsvirkjun is sold to energy-intensive users. (Landsvirkjun 2020)

Thanks to the abundance of renewable energy, the Icelandic economy is not exposed to direct effects of the transition to a carbon-neutral economy. The transition in Iceland will not involve shutting down coal mines or coal-fired power plants. However, the Icelandic economy and the labour market could be heavily affected by climate change and policy decisions in combination with automation of various jobs. This calls for long-term plans to renew skills and provide education for the segment of the labour force which needs to change jobs or develop new skills.

Infrastructure: Global warming is causing sea level rise, increased water flow in rivers, altered riverbed patterns and intensified weather. A massive investment in adaptation of infrastructure is therefore needed for the power-, road-, water- and sewage systems as well as for hydropower plants and harbours. This will increase the demand for engineers, technicians and skilled labour.



Fisheries and aquaculture: The warming and acidification of the ocean will affect the ecosystem in different ways. Iceland has an effective and sustainable fishing policy and research results indicate that warming will, in the short term, affect fisheries in a positive way, since the industry is flexible and adaptable. On the other hand, one third of emitted CO_2 is absorbed by the ocean, leading to rapid acidification, which threatens the ecosystem of the fishing grounds. The same applies for aquaculture, a rapidly growing industry in Iceland. Given the economic importance of fisheries for the Icelandic economy, reduction of emissions is crucial. The direct impact on employment in the medium term is low but fishing and the seafood export sector have been heavily automated in the last two decades. The number of people employed in fishing and marine processing has halved since 1997 (Halldór Björnsson 2018).

Agriculture: A warmer climate will increase crop yields and make it possible to grow a greater variety of crops and vegetables. However, the problem of parasites and drought will increase. Animal husbandry is not considered to be negatively impacted by warming in Iceland (Halldór Björnsson 2018). Overall, the impact of climate change is believed to have a positive effect on output in the sector, but Icelandic agriculture is very dependent on government policy which must adapt to the changed environment of the sector. Further research into the impacts of climate change on agriculture is needed, as well as policies for the future of the sector and domestic and foreign markets. Less than two per cent of the workforce was employed in agriculture in 2019, compared to five per cent in 1991.

Tourism: Research on the effects of climate change on tourism – both the demand and supply of different activities – implies that demand will increase for experiencing phenomena that is threatened by global warming, such as glaciers. In the short run, tourism is considered to be positively impacted (Halldór Björnsson 2018). Given the size of tourism in the Icelandic economy, it is necessary to form a sustainable policy for the future of the sector. Almost twelve per cent of the labour force was employed in tourism in 2019 compared to seven per cent in 1991.

Manufacture of basic metals: Production of basic metals (aluminium and silicon metal) is a large export sector in Iceland. Currently, the sector is cooperating with the carbon capture and storage (CCS) enterprise, CarbFix, on developing technical solutions for carbon capture in the production process. GHG emissions from the sector are part of the ETS and therefore vulnerable to carbon leakage if the companies do not find a technical solution for their emissions. The proportion of the labour force employed in basic metals manufacturing was higher in 2019 compared to 1991 but is still less than one per cent of the total work force. Increased competition at the global level has increased uncertainty about future prospects for the sector in Iceland. **Bioeconomy:** The bioeconomy is not a single industry but encompasses the production of renewable biological resources from the ecosystem and is a central part of the circular economy, aiming at deploying resources in the economy for as long as possible. It produces energy, food, feed, medicine, cosmetics etc. The industry is growing in Iceland with high value added and huge potential for employment of people with higher education and good skills (Smáradóttir 2014) (Grunfelder et al. 2020).

Public sector: In the last 30 years, the proportion of the labour force employed in public administration has hardly increased at all and only by one percentage point in health services. On the other hand, the proportion of the labour force working in education has grown from 8 per cent in 1991 to 13 per cent in 2019. This reflects the higher level of education in the country but also dramatic changes in the supply of childcare and education in preschools and organised afterschool activities for children. The public sector plays a crucial role in the transition to a carbon-neutral economy. Therefore, it is important to increase general knowledge about climate change among policymakers to ensure that public policy is facilitating the transition. Education on climate change is important at all levels of education and even more important in reskilling and life-long learning activities. The health and social sectors must also be active in promoting healthy and carbon-free lifestyles and concentrate on mental health.

Climate change will affect output in most basic industries in Iceland, but the impact is unclear in the medium term. The long-term impact will depend on the measures taken worldwide in the coming decade and the efforts made by Icelandic authorities and industries to research, plan, adapt, reduce emissions and form a growth strategy for sustainable industries with access to matching skills in the workforce. The tax system must also be restructured to include new economic activity and value streams from automation. Well-being and equal access to education are not an economic liability but important accelerators for productivity, social justice and general acceptance for necessary structural change.

The transition to a carbon-neutral economy, the effects of technological development and automation will shape and have begun to shape the Icelandic labour market along with the effects of other megatrends such as ageing populations. The above overview of future development in different sectors shows increased demand for both skilled and unskilled labour in many industries. On the other hand, automation is expected to continue, and it is estimated that roughly a third of jobs in Iceland could be automated with jobs in production, service, retail and tourism particularly vulnerable to change. These are mostly low-skilled jobs. At highest risk are jobs in rural areas or 44 per cent compared to 22 per cent in the Reykjavík capital area. Men in low-

2.4 SOCIETY

skilled jobs run a higher risk than women of losing their jobs as well as immigrants and temporarily employed youth in low-skill, low-income work (Stjórnarráð Íslands. Forsætisráðuneytið 2019).

Income inequality in Iceland is relatively low, which is a result of high union density, the collective bargaining model as well as high labour force participation and employment levels. Any development resulting in higher job losses than job creation, less employment security and increased proportion of low-income jobs would result in growing income inequality and violate social cohesion. Icelandic authorities need to be more proactive in shaping the economy of the future. This means forming an employment policy and linking policy to education, skills, the labour market and innovation as well as investment policy to support a common goal of Just Transition to a low-carbon economy. With the current approach of no intervention we have seen a growing mismatch in education and skills due to the rapid growth in tourism and job creation in low productivity sectors. A policy for a sustainable and green economy must focus on creating high-quality jobs.

The Covid-19 pandemic has dramatically affected employment in Iceland. Some sectors, especially those related to tourism, will take years to recover. A working group has been appointed to analyse which sectors are experiencing the highest unemployment rates, which sectors require more labour and how jobseekers match current and future demand for labour. People that have been unemployed for six months or longer are entitled to unemployment benefits during the first semester of their studies. More people are now enrolling in education to become teachers, registered nurses and licensed practical nurses to name but a few professions where the lack of skilled labour is already a problem. This trend must be reinforced to reduce the predictable risk of severe labour shortage in these professions.

A working committee appointed by the prime minister has introduced an action plan for the fourth industrial revolution and several of the proposed actions concern the labour market. A development of plans for skills and labour demand is emphasised, provisional change in the unemployment benefit system for people who lose their jobs because of automation, better protection for people working in the gig-economy and with unconventional employment contracts and life-long learning prioritised for people with little formal education (Stjórnarráð Íslands. Forsætisráðuneytið 2020).

The government is also making an investment plan for economic recovery and the trade unions have urged for the plan to support a transition to a low-carbon economy and high-quality jobs.



03 NATIONAL INSTRUMENTS

The Icelandic government introduced a revised Climate Action Plan (CAP) in June 2020. The plan consists of 48 different actions to achieve Iceland's goal of a 40 per cent reduction in GHG emissions from 2005 levels by 2030, 43 per cent reduction within the European Union Emission Trading system (ETS) and carbon neutrality by 2040. The action plan defines carbon neutrality as the state of equilibrium between emissions and sequestration. As in the first edition of the CAP, the main emphasis is on phasing out fossil fuels in road transport and increased carbon sequestration in land use, by restoration of woodlands and wetlands, re-vegetation and afforestation (Verkefnisstjórn aðgerðaáætlunar í loftslagsmálum 2020). The latter emphasis falls outside of the scope of Iceland's ESR commitments but is important for mitigation in order to reach the goal of carbon neutrality by 2040.

Despite of the bold goals, the Icelandic Climate Council has pointed out that the estimated reduction resulting from the actions in the CAP is only around 28 per cent. The council urges for higher ambitions in forming actions to decrease emissions (Loftslagsráð 2020). The main mitigation policies, taxes and subsidies will be discussed for each category – ESR, ETS and LULUCF – beginning with policies for ESR.

3.1 ESR POLICIES

As pictured in Figure 2 above, the main sources of emissions covered by ESR are road transport (32 per cent), agriculture (22 per cent), fishing (18 per cent), waste management (9 per cent), F-gases (6 per cent) and other sources (12 per cent).

Road transport has been the main policy focus, which is logical given the proportion of emissions from that source. The composition of the car fleet is rapidly changing because of emphasis on electrification and a proposed ban on the new registration of fossil-fuel-powered vehicles after 2030, investments in a new public transport system and bicycle and pedestrian lanes.

The climate policy for decarbonising road transport has focused on pricing carbon, taxing fossil fuels and subsidising battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs). No

study has been made on the effects of these measures on different income groups. Yet we know that the policy favours higher income groups since, until recently, BEVs and PHEVs have not been available at affordable prices nor has there been a secondary market for these cars. In addition, it is more complicated to arrange charging infrastructure for apartment buildings than single family homes. Lower income groups are therefore not getting tax subsidies when buying cars but paying higher prices for fuel. At the same time, limited efforts have been made to expand existing public transport and just recently the state and the six municipalities in the capital region signed an agreement on investments in transport infrastructure for the years 2019-2033, including a new public transport system, with a separate system of lanes for public transport. Most of the routes are to be constructed in the next 15 years but some later.

Investment in public transport is therefore lagging compared to tax incentives for low emission vehicles, leaving low-income households behind when it comes to affordable transport. The result is that public funds are being used to subsidise transport for households with higher incomes and businesses. It is necessary to accelerate investment in the new public transport system for two reasons: Iceland needs to reduce emissions from road transport even further by reducing the number of vehicles with combustion engines and government spending should not lead to a comparative disadvantage for lower income groups.

Emissions from agriculture and fishing account for 40 per cent of emissions under ESR, 22 per cent and 18 per cent, respectively. No credible methods of measurement have been established in the agricultural sector but emissions in the fishing sector have decreased by 26 per cent since 2005, mainly because of rationalisation of the industry and increased energy efficiency. A further decrease in emissions from fishing vessels is dependent on transition from fossil fuels to a less carbon-intensive mix of energy sources, among others domestic fuel production from biomass and waste. GHG emissions from agriculture are mostly from livestock and fertilisers, but the policies for reduction are unclear.

A new tax was introduced for emissions from F-gases in cooling systems in 2020. The government also proposed to tax landfill waste, but local governments demanded better preparation and consultation and a new proposal is expected soon. It is very important to decrease GHG emissions from F-gases and waste, but it is important to analyse who bears the cost in the end. If lower income groups are paying a proportionally higher share, a counterbalancing measure must be taken.

A state Climate Fund is intended to support innovation projects for climate solutions as well as projects to inform and educate about climate change. The fund has given incentives to companies and NGOs to pay more attention to the challenges of climate change.

3.2 ETS POLICIES

ETS policies are formed at the European level. The target for the cap and trade system is a 43 per cent reduction by 2030 which could cause carbon leakage if solutions for reductions are not developed. The GHG emissions of the Icelandic economy within the ETS are mainly from industrial processes in the metals industry. The emissions have increased by 113 per cent since 2005 because of enlargement of existing smelters and a new one which is the largest aluminium smelter in Iceland. The sector is important for the economy but must reduce GHG emissions in the coming years. The companies in the sector have signed a memorandum of understanding with the government and the carbon capture and storage project CarbFix, on finding technical solutions for capturing carbon in the metal smelting processes. The project is supported by the Climate Fund.

Carbfix

Carbfix is a carbon capture and storage project which is run by the public power company Reykjavík Energy. The project builds on collaboration between Reykjavík Energy, the University of Iceland and several other universities and research institutes in Europe and the USA. Carbfix is top of the league worldwide for its development of mineralising carbon within basaltic rocks. Currently, the annual injection capacity is 12 kt, but it could reach 10,000 kt or more by 2030. Successful development of this technology is of great importance for the global race against climate disaster.

Land use, land-use change, and forestry are responsible for over 65 per cent of GHG emissions in Iceland but the measures must be taken with great precautions. The main policies for carbon sequestration in LULUCF are reforestation and afforestation, re-vegetation, strengthened protection of wetlands, restoration of drained wetlands, and cooperation with sheep farmers on climate mitigation measures. The goals and measures for these policies are vague, to say the least. In order to reach the goal of carbon neutrality by 2040, a special plan will be made. Increased sequestration through LULUCF would presumably increase the demand for labour in the sector.

Generally speaking, the Icelandic authorities are making great progress in planning for a carbon-free future. A revised Climate Action Plan was published in June 2020. The plan is coherent and gives a clear overview of the government's goals and policies for reducing GHG emissions in the coming years. It is transparent and will be digitally updated when new actions are added, or as current actions progress. However, policies for agriculture, fisheries and LULUCF are weak. An investment plan is lacking, and, given the importance of the issue, the financial contributions are too low. The new goal of 55 per cent reduction by 2030 needs to be established with new and better plans for actions. From the trade union point of view, the greatest weakness is that measures for Just Transition have not been established yet.

3.3 LULUCF POLICIES

04 EUROPEAN INSTRUMENTS

Iceland is an EEA-country and a member of the ETS scheme. Therefore, its environmental legislation is aligned with EU legislation, notwithstanding delays in implementation. One can assert that Iceland has since 1994 been a direct recipient of EU legislation on everything regarding environmental issues.

18

Iceland cooperates with the European Union and Norway on setting CO_2 -reduction targets within the Paris framework. The Icelandic confederations are also members of ETUC and participate in the debate about the European Green Deal in that forum.

05 JUST TRANSITION

A Just Transition secures the future for today's and coming generations by providing a stable organisational framework and a fair distribution of costs and benefits on the way to a climate-neutral economy. As mentioned above, no Just Transition measures have been developed in the CAP and work on them has been postponed until the autumn of 2021, when a review with a focus on Just Transition is planned. The focus will be on the effects on different income groups as well as a cost-benefit analysis for the economy.



Much more is needed than an evaluation of the current CAP if Iceland intends to move towards a carbon-neutral future through Just Transition. Structural change must be driven by climate protection combined with trends like digitalisation, automation and demographic developments. It will heavily impact the way we produce, consume and work. Just Transition must therefore merge climate action, sustainable prosperity and decent jobs. The process must include plans for investment in adaptation, low-emission sectors and technologies and systematic use of the tax and transfer systems and active labour market policies. The government must be active and engaged and cannot leave this to the market because it is blind to social impacts and exacerbates already existing inequalities.

A Just Transition policy is needed to counteract inequalities in income and wealth distribution, employment opportunities and living conditions. A solid policy on these issues would enhance social cohesion and help gain public support for necessary transition.

To master these challenges and the connected insecurities, Just Transition builds on communication, knowledge and decisive action. It is founded on the principle of social dialogue and democratic consultation between workers, trade unions, employers, governments and communities. Just Transition is impossible without close cooperation with the trade unions.

All three Icelandic confederations that are members of NFS – ASÍ, BSRB and BHM – are in the process of formulating a climate policy in which Just Transition plays a central role. All the confederations stress best practices within the trade unions, dissemination of information and have held open meetings and conferences to highlight climate change and its effect on the labour market. Seminars are being held for members and the issues of climate change will be included in courses for stewards in the trade unions by the fall of 2021.

The trade unions have very limited access to the decision-making processes with regards to national climate policy. A formalised role of the trade unions in the creation of a Just Transition policy is necessary. In 2019, the government re-established an National Economic Council (Þjóðhagsráð), a tripartite forum where the heads of government (leaders of the political parties in government), the director of the Central Bank of Iceland, chair of the association of municipalities, heads of the trade union confederations and the employers' organisation regularly meet and discuss economic, social and labour market issues. Given the urgency of the issue of climate change and the importance of Just Transition, the Council could be an excellent platform for a tripartite cooperation to ensure a successful structural change, social cohesion and prosperity. ASÍ, BSRB and BHM will propose the establishment of a special working group within the Economic Council to lay the foundation for a Just Transition policy for Iceland.

06 REFERENCES

Eurostat 2018: Share of renewable energy in gross final energy consumption, https://ec.europa.eu/eurostat/databrowser/view/t2020_31/default/table?lang=en (15 June 2020).

Eurostat 2019a: Population on 1 January, https:// ec.europa.eu/eurostat/databrowser/view/tps00001/ default/table?lang=en (15 June 2020).

Eurostat 2019b: Real GDP per capita, https:// ec.europa.eu/eurostat/databrowser/view/sdg_08_10/ default/table?lang=en (15 June 2020).

Eurostat 2019c: Employment and activity by sex and age - annual data, https://ec.europa.eu/eurostat/web/ products-datasets/-/LFSI_EMP_A (15 June 2020).

Grunfelder, J., Norlén, G., Randall, L., & Sánchez, N. 2020: State of the Nordic Region 2020. Copenhagen: Nordic Council of Ministers. doi: https:// doi.org/10.6027/NO2020-001 (15 June 2020).

Halldór Björnsson, Bjarni D. Sigurðsson, Brynhildur Davíðsdóttir, Jón Ólafsson, Ólafur S. Ástþórsson, Snjólaug Ólafsdóttir, Trausti Baldursson, Trausti Jónsson 2018:

Loftslagsbreytingar og áhrif þeirra á Íslandi – Skýrsla vísindanefndar um loftslagsbreytingar 2018. Veðurstofa Íslands, https://www.vedur.is/media/loftslag/Skyrslaloftslagsbreytingar-2018-Vefur.pdf (15 June 2020).

Landsvirkjun 2020: Annual Report 2019. Renewable energy in a sustainable world. Reykjavík: Landsvirkjun, https://annualreport2019.landsvirkjun.com/company/ customers# (15 June 2020). Loftslagsráð 2020: Rýni Loftslagsráðs á aðgerðaráætlun í loftslagsmálum, www.stjornarradid.is/ library/02-Rit--skyrslur-og-skrar/Loftslagsr%c3%a1% c3%b0%20-%20R%c3%bdni%20%c3%a1%20 a%c3%b0ger%c3%b0a%c3%a1%c3%a6tlun%20 %c3%ad%20loftslagsm%c3%a1lum%202020.pdf

OECD 2016: Collective bargaining coverage, https://stats.oecd.org/Index.aspx?DataSetCode=CBC#, (15 June 2020).

OECD 2018: Trade Union, https://stats.oecd.org/Index. aspx?DataSetCode=TUD# (15 June 2020).

Raforkuhópur Orkuspárnefndar 2020: Raforkunotkun ársins 2019. Minnkun raforkunotkunar.

Ratorkunotkun arsins 2019. Minnkun ratorkunotkunar, bæði stórnotkunar og almennrar notkunar, https:// orkustofnun.is/media/orkusparnefnd/Yfirles_Raforkuhop_ FRETT-22_final-27.04-2.pdf (15 June 2020).

Smáradóttir, Sigrún Elsa et al. 2014: Future Opportunities for Bioeconomy in the West Nordic Countries. Reykjavík: Skýrsla Matís 37-14, https://www. matis.is/media/matis/utgafa/Bioeconomy-in-the-West-Nordic-countries-37-14.pdf (15 June 2020).

Stjórnarráð Íslands. Forsætisráðuneytið 2020:

Aðgerðaráætlun um fjórðu iðnbyltinguna. Tillögur verkefnisstjórnar. Reykjavík: Forsætisráðuneyti, https://www.stjornarradid.is/library/04-Raduneytin/ ForsAetisraduneytid/A%C3%B0ger%C3%B0aa%CC% 81%C3%A6tlun%20um%20fjo%CC%81r%C3% B0u%20i%C3%B0nbyltinguna.pdf (15 June 2020). **Stjórnarráð Íslands. Forsætisráðuneytið 2019:** Ísland og fjórða iðnbyltingin. Reykjavík:

Forsætisráðuneyti, https://www.stjornarradid.is/library/04-Raduneytin/ForsAetisraduneytid/Framtidarnefnd/Fjordaidnbyltingin-skyrsla.pdf (15 June 2020).

Umhverfisstofnun. 2020a: National Inventory Report. Emissions of greenhouse gases in Iceland from 1990 to 2018. Reykjavík: The Environment Agency, https://ust.is/library/Skrar/loft/NIR/NIR%202020.pdf (15 June 2020).

Umhverfisstofnun 2020b: Úrdráttur úr losunarbókhaldi Íslands 2020. Reykjavík: Umhverfisstofnun, https://ust.is/library/Skrar/loft/NIR/%C3%9Atdr% C3%A1ttur%20NIR%202020.pdf (15 June 2020).

UNFCCC 2017: Greenhouse Gas Inventory Data -Detailed data by Party, https://di.unfccc.int/detailed_ data_by_party (15 June 2020).

Verkefnisstjórn aðgerðaáætlunar í

loftslagsmálum. 2020: Aðgerðaáætlun í loftslagsmálum. Aðgerðir íslenskra stjórnvalda til að stuðla að samdrætti í losun gróðurhúsloftstegunda til 2030. Reykjavík: Umhverfis- og auðlindaráðuneytið, https://www.stjornarradid.is/library/02-Rit--skyrslurog-skrar/Adgerdaaetlun%20i%20loftslagsmalum%20 onnur%20utgafa.pdf (23 June 2020).

On the contributing organisations

ASÍ – Icelandic Confederation of Labour is a confederation of 47 trade unions in Iceland in the private sector and part of the public sector. ASÍ represents approximately 60 per cent of the Icelandic labour market. The role of ASÍ is to promote the interests of its constituent federations, trade unions and workers by providing leadership through co-ordination of policies with regards to employment, social, education, environment and labour market issues. ASÍ represents the trade union movement at various levels of the government on issues such as labour law, employment and social policy, vocational education and training and occupational safety.

BSRB – The Federation of State and Municipal Employees

is the largest federation of employees in the public sector in Iceland and has 23 member-unions with 22,000 members employed mainly in healthcare, social services, customs, police, fire departments, postal services and public administration. About two out of three members are women. The unions preserve the right to negotiate collective agreements for their members and sometimes they bargain individually but often under the auspices of BSRB. BSRB coordinates policy, assists the member-unions in many fields and represents their interests vis-á-vis the government and other actors in the labour market.

BHM – The Icelandic Confederation of University Graduates

has 27 member-unions with approximately 15,000 members in total. The unions reserve the right to negotiate collective agreements for their members but BHM coordinates policy, assists the memberunions in many fields and represents their membership vis-á-vis the government and other actors in the labour market.

NFS

The Council of Nordic Trade Unions (NFS) is a regional trade union council. Its affiliates are 15 national trade union confederations of the Nordic countries which together represent more than 8.5 million members from blue collar, white collar and academic sectors in Denmark, Finland, Iceland, Norway, Sweden, Greenland and the Faroe Islands.

Founded in 1972, the main task of NFS is to coordinate and foster regional trade union cooperation in the Nordic countries, particularly with regard to employment, economic and social policy and in relation to ETUC, ITUC, TUAC, ILO and PERC. NFS represents its members in relation to the Nordic Council and the Nordic Council of Ministers and has close ties with the Baltic Sea Trade Union Network (BASTUN).

The Friedrich-Ebert-Stiftung

The Friedrich-Ebert-Stiftung (FES) was founded in 1925. It is the political foundation with the longest history in Germany. It has remained true to the legacy of its founder and namesake, and it upholds the values of social democracy: freedom, justice and solidarity. Its ideals are linked to the Social Democratic Party and free trade unions.

The FES promotes social democracy primarily through:

- political education work to strengthen civil society
- political consultancy work
- international collaboration with foreign offices in over 100 countries
- providing financial support for gifted students
- preserving the collective memory of social democracy with facilities including an archive and a library.

Project Management

Meike Büscher, FES Nordic Countries José Pérez Johansson, NFS

Imprint

© 2021

Dr. Philipp Fink (v.i.S.d.P) **Friedrich-Ebert-Stiftung** Nordic Countries Västmannagatan 4, 11124 Stockholm, Sweden

The views expressed in this publication are not necessarily those of the Friedrich-Ebert-Stiftung. The commercial exploitation of the media published by the FES is allowed only with the written permission of the FES.

Design concept: facts and fiction GmbH **Implementation/layout:** facts and fiction GmbH

The person within the FES who is responsible for this publication is Dr. Philipp Fink (FES).

Abstract

A Just Transition towards a carbon-neutral future is the most urgent environmental, social and economic issue of our times. This report covers the national climate goals of Iceland, the economic structure of greenhouse gas emissions and the social groups affected. It also discusses national instruments and the lack of government policy on Just Transition. Forming such a policy requires close cooperation between the social partners. Therefore ASÍ, BSRB and BHM propose for that purpose that a special working group be established within the National Economic Council.