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Weekly Briefing

Estonia social briefing:

A green country turning greener?

E-MAP Foundation MTÜ



A green country turning greener?

In a different era, being called a green country would only mean that it is an area rich in forest. Evidently, it is the case for Estonia then and now, because over a half (51.4 per cent) of its mainland is currently covered by mostly semi-natural forests, while forest "grows on approximately 2.3 million hectares, of which [about] 75 per cent [...] is manageable forest". Is it good enough to be acknowledges as 'green' in 2021? Not quite, because this era is indeed a different one, and the nice colour of grass and forest is now used in a metaphorical way when it comes to both environment and the topic-linked policymaking.

The challenging time when Estonia had just regained its independence did not give any favour to the newly reborn country. As argued in a 1995 research², which examined environmental problems and policies in the region of the Baltics and showed the outcome of a survey on the area-bound public attitude towards "environmental management", there was then a certain level of "dissatisfaction with the state of the environment, and discontent with the way in which environmental issues are managed". This was the point of departure for Estonia taking part in the emerging 'environmental debate' to allow the country's Prime Minister to make the following statement more than a quarter of a century later:

In the transition to a green economy, we have two choices – whether to buy and use technologies that are developed by others, or to be front-runners who develop and introduce innovative technologies and services to other countries. Our government has chosen the second option. [...] We have chosen to be front-runners of GreenTech who develop and introduce innovative technologies and services. The transition to green energy does not happen by itself. Estonia has a clear goal for this, and agile actions have begun here in both, the public and private sectors, to make Estonia the world's top GreenTech development centre and largest producer of green energy per capita in the coming years.³

¹ 'Forestry' in *Estonian Ministry of the Environment*. Available from [https://envir.ee/en/water-forest-resources/forestry].

² Geoffrey D. Gooch, 'The Baltic press and the environment: A study of the coverage of environmental problems in Estonian and Latvian newspapers 1992–1993' in *Geoforum*, 26:4, 1995, p.429.

³ Kaja Kallas as cited in Ronald Liive, 'Estonia to become a top GreenTech developer in the world', *Invest in Estonia*, May 2021. Available from [https://investinestonia.com/estonia-to-become-a-top-greentech-developer-in-the-world/].

A political declaration is, of course, one thing, but the process of its implementation is another one. Is there any depth (or, in other words, functional capacity) for such a serious statement to gradually become a reflection of reality in Estonia? In order to detect it (should it exist at all), there is a common sense to observe a 'green Estonia' from institutional, policy-, and research-focused frameworks. Commencing on the intra-Estonia institutional side, the country's Ministry of the Environment provides for establishing a very important framework existing under the 'umbrella' of Estonia's Environment Agency⁴. The latter is responsible for formulation of and activity coordination on the list of Estonian environmental indicators, which are 'waste', 'ambient air', 'wild life and forest', and 'water'⁵. Obviously, each of the aforementioned four indicators has its own sub-indicators. For example, the process of datagathering on the ambient air-associated component of the whole scheme is bound around understandings on emission of greenhouse gasses (see Table 1), both NH3 (see Table 2) and SO2 (see *Table 3*) emissions, and some other sub-indicators.

Emission of greenhouse gases 50 000 40 000 30 000 CO2 equivalents 20 000 10 000 2006 2008 2004 Waste handling Agriculture Industrial processes and product use Energy

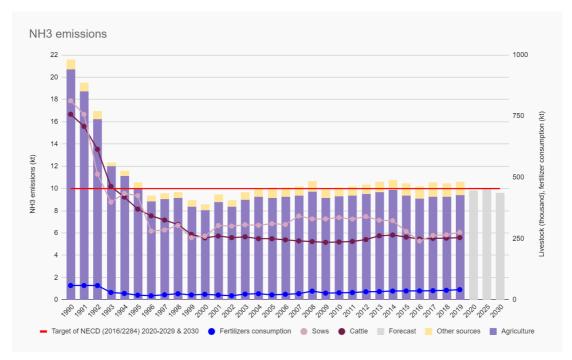
Table 1

Source: Estonian Environmental Agency

⁴ Ministry of the Environment. Available from [https://envir.ee/en].

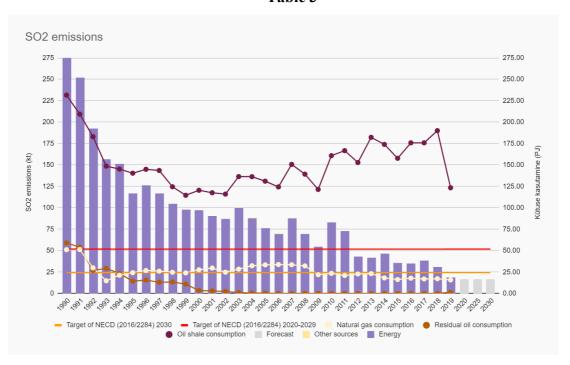
⁵ Estonian Environmental Agency. Available from [https://keskkonnaagentuur.ee/en].

Table 2



Source: Estonian Environmental Agency

Table 3



Source: Estonian Environmental Agency

In the context of the above *Tables*, Estonia correspondingly reports that **a**) the total emission of greenhouse gases has been indicated as decreased by more than 60 per cent if to be compared to the 1990-linked data, due to the undisputed fact that the country's economy has

been substantially reorganised since then; **b)** emissions of ammonia has decreased by 51 per cent, since 1990, because the usage of fertilisers has also got down "by nearly 30 per cent and the number of dairy cattle and fattening pigs has decreased by 70 per cent and 66 per cent, respectively"; **c)** keeping in mind that the main source of getting the air in the country polluted sulphur dioxide is directly linked with the Narva-based power stations, which are using oil shale, the emissions of sulphur dioxide have still decreased by 93 per cent, if compared to 1990, due to a significant decrease "in the use of oil shale and residual oil in 1990–2019 by 47 per cent and 97.8 per cent, respectively".

On the theme-associated policy level, there was a notable 1998-issued document that managed to complete a good survey on Estonia's environmental policy being in place prior to the country's EU era. The material, while having some minor factual extravaganza (for example, "[f]ollowing independence from the CIS", which is totally wrong), was prepared by the European Parliament's Directorate-General for Research (Division of the Environment, Energy, Research and STOA) and indicated Estonia's legal position on 'air', 'water', 'waste', 'nature conservation', and 'nuclear safety'⁷. Keeping in mind that Estonia then was in the preaccession process of harmonising its legislation with the EU's acquis communautaire, the survey specified that, correspondingly in 1994 and 1998, the country "adopted a new water law which satisfies the requirements of the Helsinki Convention" and "adopted a framework directive on clean air policy which is identical to Directive 96/62/EEC (ambient air quality assessment and management)"8. These days, having already spent nearly two decades as a full Member State of the EU, Estonia's progress in the challenging policymaking process of becoming 'greener' was summarised in the country-focused European Commission's 'Environmental Implementation Review 2019'9. For example, the document underlined that, firstly, "Estonia's performance in terms of resource efficiency of SMEs as well as its low score on the Eco-Innovation Scoreboard show room for more improvement"; secondly, "[t]here is strong public support in Estonia for increasing resource efficiency through for example Green

Industry Innovation Estonia and the Environmental Investment Centre"; thirdly, in regards of resources productively, the country "remains among the worst performing in the

⁶ 'Ambient air' in Estonian Environmental Agency.

⁷ Hans Hermann Kraus, in cooperation with Dirk Amtsberg, 'Environmental policy in Estonia', Directorate B, Division for the Environment, Energy, Research, STOA, *European Parliament*, 1998. Available from [https://www.unep.org/resources/report/environmental-policy-estonia].

⁸ Kraus and Amtsberg, pp. 9 and 7.

⁹ 'The Environmental Implementation Review 2019, Country report - Estonia' in *The European Commission*, Brussels, 4.4.2019 SWD (2019) 135 final. Available from [https://ec.europa.eu/environment/eir/pdf/report ee en.pdf].

EU"; fourthly, "[s]ome progress on waste is underway thanks to the national waste management plan for 2014-2020"; and fifthly, "[n]o progress has been made in dealing with excess incineration and mechanical biological treatment [...] capacities, as these facilities are now installed and are hard to upgrade"¹⁰. Considering these shortcomings, the European Commission suggested on improvements to be made on the enabling framework and its implementation tools, namely on green taxation, green public procurement, and environmental funding and investments¹¹, in order to ensure that the Government of Estonia has an EU-bound roadmap on making some changes to the existing policies, which become highly multi-dimensional in the current historic period. Interestingly enough, as indicated in the review, Estonia managed to allocate "the highest EU amount of Cohesion Policy funds to direct environmental investments, with EUR 956.00 total per capita since 2000", proving the point that the EU-issued funding represents "a key asset for protecting the environment in Estonia" 12.

As for the theme-specific **research and development**, there is a particular role for the country's Ministry of the Environment to play in terms of organising the process and cooperating with the Ministry of Education and Research, the Ministry of Economic Affairs and Communications, Estonian Research Council and a range of prominent research institutions in Estonia. Arguably, especially in the context of COVID-19 recovery, the country cannot afford to disperse its scientific and entrepreneurial resources to cover every single segment of the topic-associated research, therefore the following 'baskets'-categories are singled out to be focused on: climate mitigation measures, climate adaptation measures, cross-cutting measures, other environmental measures, and international cooperation in the field¹³. As an example, climate mitigation measures do not go far without technological innovations, and Estonia is aiming at creating a comprehensive approach towards producing and deploying hydrogen in the country as well as "mapping opportunities, bottlenecks, market barriers and threats, and strategic breakthroughs for the future, including identifying and evaluating potential business models" 14.

In July 2021, Tartu University, Estonia's oldest institution of higher education, held the Hydrogen and Green Energy Technology Information Day, being an integral part of the 2021

¹⁰ 'The Environmental Implementation Review 2019, Country report - Estonia', p.3.

^{11 &#}x27;The Environmental Implementation Review 2019, Country report - Estonia', pp. 23-25.

¹² 'The Environmental Implementation Review 2019, Country report - Estonia', p. 25.

¹³ 'Platform for redesign 2020'. Available from [https://platform2020redesign.org/countries/estonia/].

¹⁴ 'Platform for redesign 2020'.

Estonian Hydrogen Days¹⁵. TalTech, another major Estonian university, being a somewhat 'visionary' in offering technological advancements to the world, together with Tartu University, managed to launch a joint master programme on 'Materials and Processes of Sustainable Energetics' back in 2009 (!). From 2017, the programme "has been fully updated and renovated taking into account new directions in sustainable energy technologies and job market needs"¹⁶. In its turn, Estonian University of Life Sciences, which is the only university in the country that distinctly focuses on researching the sustainable development of natural resources (let alone it is the place of work for Estonia's most cited researcher, plant physiology professor Ülo Niinemets), is implementing the concept of a "green university with smallest possible ecological footprint, with healthy and good working and learning environment, university that takes into account the principles of sustainable development in all decision making processes and sets example in society"¹⁷. This university's Centre of Excellence, 'EcolChange – Ecology of Global Change: natural and managed ecosystems', focuses on incorporating "ecological knowledge into principles of adaptation to global change through sustainable ecosystem management"¹⁸.

Gathering all these analytical segments into one, it is possible to conclude that Estonia is taking the 'green debate' seriously, having been tackling the issues from institutional, policymaking, and scientific angles. With a couple of exceptions, there is a certain level of consensus among the country's political elites on what to do in order to 'deliver' a 'greener' Estonia for future generations. In September 2020, Estonia's President Kersti Kaljulaid noted that "[c]urrent production-consumption models do not account for the ecosystem services provided by biodiversity" and that "[d]etrimental land-use practices, widely used in agriculture and also forestry and polluting the ocean must be halted" It appears to be a task of monumental difficulty and complexity to turn even a green country into a 'greener' habitat. The road will be mastered by the walking one.

¹⁵ 'Hydrogen and Green Energy Technology Information Day at Chemicum' in the *University of Tartu*, June 2021. Available from [https://www.genomics.ut.ee/en/events/hydrogen-and-green-energy-technology-information-day-chemicum].

¹⁶ 'Materials and Processes of Sustainable Energetics' in *TalTech*. Available from [https://taltech.ee/en/sustainable-energetics].

¹⁷ 'Green University Initiative' in *Estonian University of Life Sciences*. Available from [https://www.emu.ee/en/about-the-university/green-university/].

The Centre of Excellence, EcolChange' in *Estonian University of Life Sciences*. Available from [https://www.emu.ee/en/research/centre-of-excellence-ecolchange/].

¹⁹ Kersti Kaljulaid, 'Statement by the President of Estonia, H.E. Ms. Kersti Kaljulaid at the UN Biodiversity Summit Leaders Dialogue' in Välisministeerium, September 2020. Available from [https://un.mfa.ee/statement-by-the-president-of-estonia-he-ms-kersti-kaljulaid-at-the-un-biodiversity-summit-leaders-dialogue/].