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Contents

Abstract

Building on the ongoing discussion on the labour–environment nexus in labour law and other areas of scholarship, in this paper we systematically analyse EU legal instruments in the areas of labour law and environmental law, seeking to assess how these normative and policy domains are related to each other. We draw on the explicit and implicit intersections between these two domains when it comes to relevant EU legislation, in order to identify and conceptualise early examples of what we call 'workers' environmental rights'. These rights include individual and collective rights whose exercise contributes simultaneously to labour and environmental sustainability. Where such 'workers' environmental rights' are not explicitly set out in legislation, we provide insights into how they could be construed via judicial interpretation, as well as on how they could be integrated in future EU and national legislation through statutory provisions or collective agreements.

1. Introduction

The interaction between labour and the natural environment is still a relatively new subject of inquiry within the discipline of labour law. While the interdisciplinary domain of 'environmental labour studies' has now emerged as a distinct field of scholarship exploring the relationships between work and nature, it generally does not touch on law and legal frameworks (see Räthzel et al. 2021). Nevertheless, labour law scholars have begun to reflect on various aspects of the labour–environment nexus, paving the way for a deeper engagement with the role of labour regulation in both perpetuating and addressing the environmental crisis, and its relationship to concepts such as sustainability, sustainable development and just transition (Doorey 2016; Tomassetti 2018; Zbyszewska 2018a; Novitz 2020). In the past few years there has been a significant increase in scholarly debate and research on this topic (Chacartegui Jávega 2022; Arabadjieva et al. 2023), no doubt precipitated by the increasing urgency of addressing the effects of climate change, and ambitious and far-reaching green growth policy initiatives such as the European Green Deal (EGD).

Some authors have touched on the relationship between labour law and environmental law, fields of study and practice that to date have rarely engaged with one another (Doorey 2016; Seck 2018; Zbyszewska 2018b). Among the reasons advanced for this is that these two disciplines emerged from distinct political and social movements that responded to specific issues, at different points in time (Tomassetti 2023; Doorey 2016), but also that modern systems of labour law developed at a time of ideological shift towards perceiving 'nature' as separate from society and subject to human mastery (Zbyszewska 2018b). Authors have pointed to a number of tensions and conflicts between the labour and environmental movements (Doorey 2016; Ghaleigh 2020). Some have also identified the potential for interference and fragmentation between the relevant labour and environmental normative frameworks, which may to some extent be attributed to societal perceptions inherited from the Enlightenment period, namely of humans as separate from nature and of nature as dominated by humans (Zbyszewska 2018b).

Industrial capitalism and the subordination of labour to capital have contributed to these parallel processes of separation and domination. To the extent that labour and natural resources are considered to be production costs, their decommodification through uncoordinated normative systems has further accentuated such separation and domination. Within a capitalist economy, in fact, lack of coordination between labour law and environmental law risks externalising the costs of regulation over one or another 'fictitious commodity',

thus putting labour and the environment in competition (Tomassetti and Bugada 2022). Furthermore, the existence of normative systems in 'silos', without any recognition of their relations, risks exacerbating the contraposition of labour and environmental justice. This is a critical dichotomy of modernist legal rationality that reproduces the divide between public and private law, and the ideological position that state and market are two separate entities (Routh 2018; Pieraccini and Novitz 2020).

Despite the increasing doctrinal interest in how the two legal fields interact, there has been little systematic analysis of labour and environmental legislation that identifies the extent to which one is relevant to the other, and where they might overlap, converge or diverge. One exception is a paper by Blaise and Ibrahim (2019) that aims to identify 'workers' environmental rights' in federal, provincial and territorial occupational health and safety and environmental laws in Canada. 'Environmental' rights, broadly defined,[1] are rights related to environmental protection (Blaise and Ibrahim 2019: 12–18; Bogojević and Rayfuse 2018). 'Workers" environmental rights are thus environmental rights that are in some way linked to the work context and can be claimed and exercised by workers. This paper inspired us to fill the identified knowledge gap on the relationship between the two fields by looking at secondary EU legislation – primarily Directives and Regulations – that are considered to fall within the domains of labour law and environmental law, as defined in Section 2.

The objective of our study is to find and analyse provisions in EU law related to environmental protection that either explicitly mention or are implicitly relevant to workers, workplaces or work organisation, as well as provisions in EU labour law that explicitly refer to or are implicitly relevant to the natural environment. From this analysis we deduced certain workers' environmental rights, which, building on Blaise and Ibrahim's conceptualisation, we understand as legal norms seeking to ensure environmental protection while simultaneously providing protection to workers and advancing social justice; or, seen from a different angle, norms that seek to advance worker protection and wellbeing, while also ensuring respect for ecological limits and safeguarding the natural environment. Such workers' environmental rights pursue social and environmental sustainability simultaneously, rather than involving trade-offs between social and environmental objectives.

The purpose of our study and our understanding of 'workers' environmental rights' are consistent with a progressive interpretation of the principle of sustainable development. This principle is set out in Article 3(3) of the Treaty on European Union (TEU) as one of the objectives of the internal market, and is highlighted as a key principle in much of the EU environmental acquis. While the concept of 'sustainable development' has been the subject of much debate and can be

1. We say 'broadly defined' because the framing of environmental rights is disputed. Bogojević and Rayfuse (2018) identify at least three framings of environmental rights: as rights of nature, human rights to the environment, and environmental participatory rights. A discussion of this debate is beyond the scope of this paper, but a worthwhile subject of further reflection on the nature of workers' environmental rights.

construed in different and contrasting ways (Redclift 2005), our interpretation of the principle emphasises the need to create normative channels and institutions for integration, cooperation and solidarity among economic, social and environmental objectives, in a such way as to construe sustainability as a necessary prerequisite of development, and not the other way around (Tomassetti and Bugada 2022; Karageorgou 2023). This understanding echoes novel literature on eco-social policies, under which public policies are designed explicitly to pursue *both* environmental and social goals in an integrated way (Mandelli 2022). Such an interpretation sheds light on relations between economic, social and environmental objectives, and has the potential to advance sustainability without reproducing the capitalist orientation towards economic growth (Pieraccini and Novitz 2020).

Within the framework of these theoretical assumptions and trajectories, the paper is structured as follows. Section 2 defines what we mean by 'labour' and 'environmental' law for the purposes of this paper; it also sets out the scope of our inquiry and our methodology. Section 3 presents our findings in respect of norms in one domain that explicitly refer to the other domain. Section 4 discusses norms that do not explicitly refer to the other domain, but are nevertheless implicitly relevant to the environment and workers, respectively - for example, because they produce effects on the environment, workers, work organisation and workplaces, or because these can be included as a category in the more general terms employed by the legislator.

Overall, our inquiry reveals that the majority of norms in EU labour and environmental legislation are relevant to the other domain either explicitly (Section 3) or implicitly (Section 4). Most of these provisions are norms that are implicitly relevant to the other domain. In other words, there are more linkages between the two domains than is visible from a simple reading of the text of the examined instrument, most such linkages being inferred rather than explicitly set out in legislation. Section 5 reflects on these findings and how they can be useful to workers and trade unions in furthering their just-transition and sustainable-development agendas. Looking ahead, it makes recommendations on how present and future legislation in the labour and environmental domains can be better integrated in line with socio-ecological sustainability objectives.

On the other hand, our analysis found that there are proportionately fewer instruments with no relevance to the other domain (discussed in more detail in the Annex). These may include health and safety regulations that protect workers from localised risks, such as sharp objects or handling heavy loads. Even in this category, however, we found that, in particular, instruments related to environmental protection could have some effects on employment by limiting or encouraging economic activity that may lead to job losses or new jobs, although such effects may be more indirect than those discussed in Section 3.2 in relation to climate policy. In other words, even in this residual category we could find some more distant links between the labour and environmental domains. One future avenue of research might be to investigate whether some of these linkages can be strengthened in ways that favour both workers and environmental protection.

2. Scope and methodology

In this paper, we examine EU legal instruments in the area of labour law and those that are generally thought of as belonging to environmental law. By 'EU labour law' we mean all norms that are *specifically* related to workers, worker protection and the workplace, including legislation on occupational safety and health (OSH). We adopt a broad definition of 'EU environmental law', as set out in Article 2(f) of the Aarhus Regulation (EC) 1367/2006 (as amended by Regulation (EU) 2021/1767), according to which:

> '(E)nvironmental law' means Union legislation which, irrespective of its legal basis, contributes to the pursuit of the objectives of Community policy on the environment as set out in the TFEU: preserving, protecting and improving the quality of the environment, protecting human health, the prudent and rational utilisation of natural resources, and promoting measures at international level to deal with regional or worldwide environmental problems.

These four main objectives are codified in Article 191(1) of the Treaty on the Functioning of the EU (TFEU). The legal basis for legislation in the field of environmental law is Article 192(1), which refers to the objectives listed in Article 191. The Aarhus Regulation definition extends, however, to instruments that share the relevant objectives even if their legal basis is different. This has enabled us to capture some instruments that are relevant to our purposes, but may be based on other legal bases, such as Article 194(1) on energy. This definition also covers instruments that many scholars now consider to fall within the emerging field of climate law, 'a body of legal rules and principles organised around the central problem of mitigating and adapting to climate change' (Peel 2008; see also Mayer and Zahar 2021). Our analysis thus comprises EU legislation implementing climate policy, including the instruments in the Fit for 55 package. For the purposes of this paper we do not distinguish between 'environmental law' and 'climate law', as many of the instruments that aim to fulfil the EU's climate targets are adopted on the basis of Article 192(1). This is done for the sake of clarity and simplicity, but it is not intended to suggest that climate law should not otherwise be considered a distinct area of law. As a result, the items of legislation we examine include instruments related to environment and climate, sustainable development and waste management, marine, air and noise pollution, and the protection of nature and biodiversity.

All the legislation we analyse is listed in the Annex. We conducted desk research that involved a close reading of the relevant instruments, including Preambles, Articles and Annexes. This analysis sought to identify:

(i) Provisions in EU labour law that refer explicitly to the natural environment or environmental protection; and provisions in EU environmental law that refer explicitly to workers, workplaces or work organisation, including synonyms such as 'employees,' 'staff' or 'occupational activities.'
(ii) Provisions in EU labour law that are implicitly relevant to the natural environment or environmental protection; provisions in EU environmental law that are implicitly relevant to workers, workplaces or work organisation. Such provisions may be implicitly relevant because, for example, workers are included within a broader category of subjects (for example, 'public concerned'), or because such effects could otherwise be inferred from the context.
(iii) Provisions in EU labour law that are not – or are only remotely – relevant to the natural environment or environmental protection; provisions in EU environmental law that are not – or are only remotely – relevant to workers, workplaces or work organisation as effects on the other domain are very indirect.

As our purpose in this paper is to examine where labour and environmental norms intersect and to identify workers' environmental rights, the discussion of our results in the following sections focuses on the first and second category of norms. Some reflections on the third category of norms that are not relevant to the other domain are anticipated in the introduction, and further details are set out in the Annex.

To further enrich our understanding of the overlap between workplace issues and environmental concerns outside the workplace, we looked at an adjacent area of law, namely EU/Euratom legislation related to nuclear energy. The instruments do not include provisions aimed specifically at protecting the natural environment, but rather at protecting the health of workers and the general public against the dangers arising from ionising radiation. This is an interesting area of overlap between regulatory 'silos', which includes examples of legislation that protects workers but transcends the boundaries of the workplace, to risks outside it that are often covered also by EU environmental law seeking to protect human health. The regulation of chemicals is another such area, and there may be other, similar examples. We refer to these two areas briefly in Section 3.

Finally, our analysis does not consider EU norms regulating the free movement of workers and migration, such as Directive 2014/54/EU, as these are concerned with access to employment and not the regulation of work as such. The analysis also excludes horizontal policy instruments that integrate social and environmental objectives, creating conditionalities around labour law and environmental law. Such instruments include the Public Procurement Directive 2014/24/EU, the Taxonomy Regulation (EU) 2020/852, the Corporate Sustainability Reporting Directive (EU) 2022/2464 and the proposed Directive on corporate due diligence, but also more specific instruments such as Regulation (EU) 2023/1542 on batteries

and waste batteries adopted within the Fit for 55 package. These instruments are excluded here because they do not contain substantive environmental or labour rights, but rather encourage compliance with existing standards, although they contribute to the simultaneous pursuit of social and ecological objectives (see, for example, Tomassetti and Bugada 2022; Kullmann 2018). The analysis also excludes two areas that overlap with labour law, namely EU human rights law and anti-discrimination law. Some reflections on how these areas are related to environmental protection and the workplace are included in the Annex and are worthwhile subjects of further research.

3. Norms that refer explicitly to the other domain

Few provisions in EU labour law are explicitly linked to the natural environment, but quite a lot of provisions in environmental law refer explicitly to workers and workplaces. This draws attention to the fact that workers are often those most immediately exposed to hazards arising from certain activities that can be damaging to human health and the natural environment, and that workers are also agents who might be able to prevent such hazards. Norms that recognise the interaction between the labour and environmental domains fall into two different categories. The first includes enforceable workplace rights and obligations (Section 3.1), and the second recognises linkages between climate change mitigation and its impacts on jobs, labour markets and skill demand (Section 3.2).

3.1 Workplace rights and obligations

Enforceable workplace rights and obligations are established by **Directive (EU) 2018/18 on the prevention of major accidents which involve dangerous substances**, and the limitation of their consequences for human health and the environment. Also known as the 'Seveso III' Directive, this is a 'bridge' instrument between EU occupational safety and health legislation and environmental law. There is an important coordination norm in Recital 7 of the Preamble, according to which the provisions of this Directive 'should apply without prejudice to the provisions of Union law relating to health and safety at work and the working environment'. While this implies that the specific prevention norms related to major-accident hazards should be interpreted as complementing provisions of Union law related to health and safety at work, it is not always clear how the two pieces of legislation interact in their concrete application.

The Directive requires relevant operators to put in place a major-accident prevention policy (Article 8), to be implemented by a safety management system (Article 8(5)). According to Annex III, the safety management system needs to address 'organisation and personnel', including roles and responsibilities of personnel involved in the management of major hazards, the identification of training needs of such personnel and provision of this training, and the involvement of employees and of subcontracted personnel working in the establishment who are important from the point of view of safety. Plans must also be laid down for emergencies, including providing the relevant training to all staff, including relevant subcontracted personnel. Aside from this, Article 12(4) provides that internal emergency plans provided for under the Directive be 'drawn up in consultation with the personnel working inside the establishment'. This is in line

with Recital 16 of the Preamble, which specifies that 'the staff of an establishment should be consulted on the internal emergency plan', as well as Recital 4, which notes that stakeholders such as workers representatives should be involved in the implementation of the Directive.

Directive 2006/21/EC on waste from extractive industries similarly requires a major-accident prevention policy, and a safety management system that includes the same elements regarding 'organisation and personnel' (Article 6; Annex I). In addition, Article 11(1) requires appropriate measures to ensure that the management of a waste facility is in the hands of a competent person and that technical development and staff training are provided. Similar provisions are included in **Directive 1999/31/EC on landfill waste** (Article 8). All of these instruments clearly recognise workers' crucial role in preventing and responding to harm that might be caused to the environment and human health, which is explicitly acknowledged in **Regulation (EC) 1221/2009 on the voluntary participation by organisations in a Community eco-management and audit scheme** (EMAS). Article 1 refers to 'continuous improvements in the environmental performance of organisations … [including] … the active involvement of employees in organisations and appropriate training'. Annex II, B.6 contains provisions on employee involvement in the design of relevant schemes and states that 'the organisation should acknowledge that active employee involvement is a driving force and a prerequisite for continuous and successful environmental improvements.'

In this connection, an interesting case is **Regulation (EU) 1257/2013 on ship recycling**, which aims 'to prevent, reduce, minimise and … eliminate accidents, injuries and other adverse effects on human health and the environment caused by ship recycling' (Article 1). It tackles environmental and labour issues arising from ship recycling in an integrated way. According to Article 7, a ship recycling plan must be prepared, which must include 'information concerning the establishment, maintenance and monitoring of the safe-for-entry and safe-for-hot work conditions' that are crucial for workers dismantling a ship. A ship recycling facility must put in place 'management and monitoring systems, procedures and techniques which have the purpose of preventing, reducing, minimising and to the extent practicable eliminating' both 'adverse effects on the environment' and 'health risks to the workers concerned and the population in the vicinity' (Article 13(1)). It must also provide for worker safety and training, and record and report incidents, accidents, occupational diseases and chronic effects that may be hazardous to workers' safety, human health and the environment. The Regulation includes a 'right to report' by natural or legal persons potentially affected by breaches of these provisions, which includes workers (Article 23).

A general 'right to report' can be derived from **Directive 2004/35/EC on environmental liability** with regard to the prevention and remedying of environmental damage. According to Article 12, those affected or likely to be affected by environmental damage or having a sufficient interest in environmental decision-making related to the damage or, alternatively, alleging the impairment of a right, are entitled to submit relevant observations to the competent authority. The Directive does not mention 'workers' or 'staff' explicitly, but covers damage

arising from a range of 'occupational activities' listed in Annex III, such as operation of installations, waste management operations, or the manufacture, use and other activities related to dangerous substances. Most of these activities are performed by workers. The possibility for workers to report environmental damage is, of course, also provided for – on the side of labour law – under the **Whistleblowing Directive (EU) 2019/1937**. It protects from retaliation persons working in the private or public sector who acquire information on breaches in a work-related context, and who report breaches of Union law, including law related to environmental protection (Article 2(1)(a)(v); Article 4).

Besides the Whistleblowing Directive, only a few labour law norms refer explicitly to the natural environment. Occupational safety and health legislation refers to the 'work environment', which, as we explain in more detail below, does not refer to the natural environment as such. But there are two OSH instruments that mention the protection of the environment specifically. Recital 15 of the Preamble to **Directive 98/24/EC on risks related to chemical agents at work** provides that 'the preventive measures identified by the assessment of risk and taken by the employer should be consistent with the need to protect public health and the environment', though there are no substantive provisions in the Directive related to this point. A similar example is found in **Directive 2004/37/EC on exposure to carcinogens or mutagens at work**, Article 5(5)(d). Both instruments recognise that agents that are harmful to workers *at their workplace* can also be harmful to the environment and to public health *outside the workplace*. We return to this point in Section 4.1.

Another example of provisions protecting both the natural environment and workers' health comes from the regulation of chemicals. **Regulation (EU) 1907/2006 (REACH Regulation)** lays down provisions for the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Manufacturers, importers and downstream users need to ensure that they manufacture, place on the market or use chemical substances that do not adversely affect human health or the environment (Article 1(3)). Throughout the Regulation, there are explicit references to workers and workplace norms. According to Article 35 workers and their representatives 'shall be granted access by their employer to information … in relation to substances or mixtures that they use or may be exposed to in the course of their work'. Article 31 states that any supplier of a substance or a mixture shall provide the recipient of the substance or mixture with a safety data sheet. Among other things, this sheet needs to 'enable employers to determine whether any hazardous chemical agents are present in the workplace and to assess any risk to the health and safety of workers arising from their use' (Annex II, 0.2.2). Aside from these explicit references, many other provisions will apply to workers by implication.

Workplace rights and obligations arise from Euratom nuclear legislation, too. While Euratom does not provide specific rules for the protection of the natural environment, some provisions are aimed at protecting the health of workers and the general public against the dangers of ionising radiation. That is, it recognises the 'porosity' between the workplace and the world outside the workplace, which can be exposed to the same harm. This legislation also recognises that staff training

is an important element of worker protection, as well as protection of others outside the workplace, and that workers and the public should be informed of relevant harm. For example, **Directive 2009/71/Euratom sets a framework for the nuclear safety of nuclear installations**, where nuclear safety means the 'achievement of proper operating condition prevention of accidents and mitigation of accident consequences, resulting in protection of workers and the general public'. Aside from obligations to assess and improve nuclear safety (Article 6(2)), it requires that relevant information be provided to workers and the general public (Article 8). **Directive 2013/59/Euratom**, on the other hand, establishes basic safety standards for the protection of the health of individuals subject to occupational, medical and public exposure against the dangers arising from ionising radiation. It recognises that 'exposed workers' are liable to be more exposed to radiation than the public (Article 4(36)), and establishes relevant dose constraints for occupational, alongside public and medical exposure (Article 6).

To sum up, what we find is that some instruments aimed at the protection of the environment and human health include specific rights that can be exercised and enforced by workers. These include rights to information and rights to be involved in certain processes; rights to training; rights to report breaches of environmental law; as well as obligations to put in place preventive measures in respect of risks to workers and the environment. These provisions complement labour law norms, in particular occupational health and safety. Labour law norms discussed above that explicitly mention the environment do so in respect of the right to report and certain aspects of prevention policy. These provisions are 'workers' environmental rights' according to our definition above, because they simultaneously seek to protect workers from harm, and to empower them to take action necessary to protect other workers and the environment.

3.2 Implications of climate change mitigation for jobs and skills

References to the world of work are also found in climate and energy-related legislation, particularly their recent revision under the Commission's Fit for 55 package. The EGD itself recognises that the required transition to net zero will affect jobs and workers, while also promising reskilling programmes and jobs in new economic sectors. Indeed, the EGD is intended to bring about the biggest economic transformation since the Industrial Revolution, and its impact on the world of work will be immense (Akgüç et al. 2022). Millions of jobs will be lost in sectors due to be phased out (such as fossil fuels), while in other sectors jobs will change significantly (such as the automotive sector) and jobs will be created in new 'green' industries (such as renewables, raw material extraction, circular economy). But jobs will not necessarily be created where they are lost, and workers will not necessarily have the training and skills to easily transition to new jobs (Akgüç et al. 2022). Some workers will be particularly vulnerable to the transition. This is recognised in the Just Transition Mechanism, a funding facility intended to assist the most affected regions and workers (primarily coal mining regions). On top of this, price increases associated with carbon-pricing mechanisms, such as the EU emissions trading scheme and energy taxation, will have distributive effects that

have the highest impact on the most vulnerable populations, including vulnerable workers who may already face in-work poverty. A Social Climate Fund has been set up to address some of these distributive effects, although it does not mention workers specifically.

Among the other instruments, the Preamble to **Directive (EU) 2023/959 revising the Emissions Trading Scheme Directive 2003/87/EC** recognises that 'the transition affects workers differently' (Recital 4). Article 10(3)(k) provides that revenues from auctioned emissions allowances could be used to promote skill formation and reallocation of labour to contribute to a just transition, and to invest in upskilling and reskilling of workers. Article 10d(2)(f) provides that some proportion of the Modernisation Fund set up under the Directive needs to be used to promote a just transition, as well as the redeployment, reskilling and upskilling of workers. The **Energy Efficiency Directive (EU) 2023/1791**, on the other hand, mentions the potential of energy efficiency measures to create jobs in the Preamble (Recitals 14, 16), mentioning also the EU finding instruments that can be utilised in this context (Recital 135) It considers that workplace activities could be used to promote behavioural change towards energy efficiency (Article 22(2)(g)) and includes a provision on the need for energy efficiency-related professionals (Article 28). **Directive (EU) 2023/2413 revising the Renewable Energy Directive (EU) 2018/2001** similarly recognises the potential for job creation, the need for skilled workers (both in the Preamble) and related funding (revised Article 16), as well as certification (revised Annex IV).

In other words, there is recognition in these – and some of the other Fit for 55 instruments – of the impact that EU climate policy will have on jobs and workers, and that investment will be necessary to support the transition. In some cases there is no explicit reference, but such an impact is implicit. One example is **Regulation (EU) 2023/851 that updates CO2 emission performance standards for new passenger cars and new light commercial vehicles**, bringing them to zero by 2035, which will end the combustion engine and thus transform the automotive industry. These instruments fall more properly within the remit of Section 4, but for reasons of space will not be discussed separately there. Of course, many other pieces of environmental legislation considered may also have an impact on employment, but the difference here is one of scale and intended effect – the Fit for 55 items are intended to phase out or transform whole industries.

Unlike the provisions discussed in Section 3.1, however, these instruments do not confer specific entitlements on workers. While there is recognition of job impacts, there is no right to a new job. There are also no rights for workers to receive training and reskilling, and no obligation to compensate those who lose their jobs. Rather, the creation of new jobs is left largely to market forces, subject to investment and incentives, whereas the development of reskilling programmes and other measures to support vulnerable workers and communities – such as social protection measures – is left to the discretion of Member States. Thus, here we see a recognition that social measures must go hand in hand with climate and environmental policies, but this does not constitute 'workers' environmental rights' in the same sense as the other provisions discussed. It should also be noted

that many regard the social measures that have been put in place in this context as insufficient (Akgüç et al. 2022; Culot and Wiese 2022; Crespy and Munta 2023).

4. Norms that are implicitly relevant to the other domain

While in the previous section we presented examples of explicit interconnections between EU labour and environmental law provisions, our analysis shows that there are many more norms that have some implicit relevance for the other domain. For clarity, we have grouped them here into three transversal thematic categories, each containing some examples. These concern protection of the health and safety of people and the environment (Section 4.1), the organisation of work (Section 4.2), and information and participation of workers and the general public in relevant decision-making (Section 4.3).

4.1 Health and safety of people and the environment

As mentioned in Section 2, one of the objectives of EU environmental law as set out in Article 191 TFEU is the protection of human health. We therefore see some degree of correspondence and overlap between the two normative domains when it comes to the protection of workers' health, where it is connected to factors stemming from the natural environment, or factors that are harmful to both workers and the natural environment. On the labour law side, we already mentioned some aspects of OSH legislation in Section 3. In general, the **Framework Directive 89/391/EEC on occupational health and safety** focuses on the working environment and aims to address occupational risks stemming from work organisation. Literal and teleological interpretations of this Directive are clear that the main concern is the environmental condition of the workplace, with no reference to the natural environment. This is clarified in **Directive 89/654/EEC on workplace requirements**, which specifies that the provisions of the Framework Directive are related to 'workplaces', figuratively drawing the boundary between the workplace and natural environment. 'Workplace' is defined as 'the place intended to house workstations on the premises of the undertaking and/or establishment and any other place within the area of the undertaking and/or establishment to which the worker has access in the course of his employment' (Article 2, further detailed in Annex I and II).

Although there is no explicit reference to the natural environment in the Directive on workplace requirements, specific provisions apply, for example, to 'outdoor workplaces' (see point 21 of Annex I and point 17 of Annex II). When workers are employed at workstations outdoors, such workstations must as far as possible be organised so that workers are, among other things, 'protected against inclement weather conditions and if necessary against falling objects' and 'not exposed to

harmful noise levels nor to harmful external influences such as gases, vapours or dust'. Similarly, Annex III of **Directive 89/656/EEC on personal protective equipment** provides a non-exhaustive list of activities and sectors that may require the provision of personal protective equipment. Many of them concern interaction between the workplace and the natural environment. For example, personal protective equipment should be provided for 'earth and rock works' or 'work in the open air in rain and cold weather'.

These provisions show that general risks stemming from the natural environment might easily turn into occupational risks. Covid-19, heat waves, natural or environmental disasters are notable examples in this respect. But this is also true the other way around. Occupational risks might have broader environmental effects because accidents and disasters occurring at the workplace could affect the natural environment (for example, emissions and dispersal of chemicals in the environment or explosions). This is reflected in the Directive on major-accident hazards, discussed above. The boundary between the working environment and the natural environment is becoming increasingly blurred, and so is the articulation between occupational and general risks, which are in fact continuous rather than strictly separated by the boundary of the workplace (Tomassetti 2018).

If one assumes that post-industrial workplaces are fragmented and dematerialised, with workers performing their jobs (anytime and) anywhere, including from home, it is even easier than in the past to point to overlaps between the normative boundaries of labour law protection of the working environment and environmental law protection of the natural environment. EU sectoral legislation on environmental noise is instructive in this respect. In the field of environmental law, **Directive 2002/49/EC lays down minimum standards for the assessment and management of environmental noise**. The aim of this Directive is 'to define a common approach intended to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise' (Article 1). This Directive establishes noise indicators for Member States to reduce the levels of environmental noise. In the field of labour law, **Directive 2003/10/EC lays down minimum requirements for the protection of workers from risks to health and safety arising or likely to arise from exposure to noise**, and in particular risks to hearing. While these provisions are in general meant to protect workers from risks related to exposure to noise as a result of their work with regard to work activities performed outside the physical boundaries of the employer's premises, there may be some overlap in the area covered by the two Directives and their application should be coordinated.

Turning to environmental law, we find many examples of instruments aimed at protecting the environment *and* human health. One of these is **Directive 2010/75/EU on industrial emissions**, which lays down rules for integrated pollution prevention and control arising from industrial activities. Pollution covers 'the direct or indirect introduction, as a result of human activity, of substances, vibrations, heat or noise into air, water or land which may be harmful to human health or the quality of the environment (…)' (Article 3(2)). The Directive is a long and complex piece of legislation, but in brief it requires Member States to

ensure that installations are operated in accordance with a number of principles, including the prevention of pollution, the application of best available techniques (BATs) in setting permit conditions, the prevention of waste generation, and so on (Article 11). Permit conditions should, among other things, set emissions limit values for various pollutants (Article 14). Besides the Industrial Emissions Directive, many other instruments are similarly concerned with the effects of pollutants on human health and the natural environment. These include **Directive (EU) 2016/2284 on the reduction of national emissions of certain atmospheric pollutants**, and legislation on waste, such as the **Waste Framework Directive 2008/98/EC** discussed below.

Of course, the objective of protecting human health covers both workers and non-workers. But workers might be particularly affected by pollutants *because of or in the course of their work/employment*. For one thing, workers are often in closest proximity to sources of pollution, not only at their workplace, but immediately *outside* it, for example on their way to work. Workers and their families might live close to the industrial installations where they are employed. For those working remotely, emissions from industrial activities might affect them while working even though they are not on the premises and under the control of their employer. In all these cases, environmental legislation offers some protection, though not quite equivalent, for workers where the (effective) reach of occupational safety and health legislation stops.

To sum up, there is some complementarity and possible overlap between OSH legislation and environmental standards. Occupational safety and health norms that protect workers could also have positive spillover effects on the natural environment, whereas environmental norms could provide protection for workers, particularly because of workers' proximity to sources of environmental harm.

4.2 Work organisation

How work is organised is crucial to ensuring worker wellbeing and safety, but also environmental protection. There are several pieces of environmental legislation that, although not directly concerned with regulating the workplace and work processes, can be understood as forms of workplace regulation because they impose obligations or limitations on how certain activities need to be performed. The **Waste Framework Directive**, for example, effectively regulates waste management – namely the collection, management and disposal of waste – which is in large part performed by workers, with the aim of protecting the environment and human health. It establishes a 'waste hierarchy', setting out actions in order of priority, starting with 'prevention' and finishing with 'disposal' (Article 4), related to the kinds of jobs needed and the content of the work performed within the industry.

The **Directive on liability for environmental damage**, discussed in Section 3, imposes obligations regarding the prevention and remedying of environmental damage. The types of conduct covered and sanctioned by this Directive include occupational activities performed by workers. Work organisation is thus critical

for the employer to fulfil obligations under the Directive, and workers' workplace duties and performance will in some part be determined by the requirements of the Directive. If there is misconduct, or the prevention protocols are violated in the performance of work, workers might be sanctioned by the employer. On the other hand, workers might refuse to carry out orders that breach the prevention protocols, in which case they should not be considered insubordinate to their superiors or the employer directly (Tomassetti 2018; Oldham 1973).[2]

To take a more specific example, **Directive 2005/35/EC incorporates international standards for ship-source pollution** into EU law, seeking to ensure that persons responsible for discharges are subject to adequate penalties. Here again, the types of conduct covered by this Directive include work activities performed by maritime workers. Maritime workers cannot be considered directly responsible for ship-source discharges of polluting substances under Directive 2005/35/EC, given their position of subordination to their employer, but if there is misconduct they might be liable to disciplinary measures. They may also refuse to execute orders that potentially breach the applicable international standards, or report unlawful discharges of polluting substances by management or colleagues (as discussed in Section 3). In other words, even if not directly concerned by this Directive's provisions, maritime workers are ultimately the agents that can make those provisions effective (or ineffective).

The same argument applies to several other items of legislation, including those prohibiting activities that might arise in the course of employment. One example is **Regulation (EC) 734/2008 on the protection of vulnerable marine ecosystems in the high seas from the adverse impacts of bottom fishing gears**, which requires vessels operating in certain areas to apply for special permits and operate according to an approved fishing plan that reduces the impact on vulnerable ecosystems. This means that the activities performed by workers on the vessel will to some extent be dictated or limited by such a plan. Similar examples include **Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora** (Habitats Directive) and **Directive 2009/147/EC on the conservation of wild birds** (Wild Birds Directive). Both include provisions on the capture and taking of certain animal and plant species and their sale or exchange, which may impose limitations on activities carried out by workers. Because these instruments are all aimed at regulating human interaction with and exploitation of the natural environment, this inevitably includes work and workers as key intermediaries between the natural environment, on one hand, and the human-made environment and products intended for human consumption, on the other.

On the labour side, working time is a key aspect of work organisation that has environmental impacts. Evidence shows that reduced working hours can help to reduce greenhouse gas emissions and the ecological footprint (see Neubert et al.

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2. It is interesting to note here that in Canada some collective agreements contain a right to refuse work that may cause harm to workers, any other person, or the environment; see https://yorkspace.library.yorku.ca/server/api/core/bitstreams/16ce49c3-0824-4e8f-81d2-f11314e61c65/content.

2022; Fitzgerald et al. 2018; Kallis et al. 2013). Other environmental effects of reduced working time may be the consequence of reduced incomes and thus consumption patterns, but also of increased free or 'discretionary' time (Neubert et al. 2022). There is some evidence that environmental impacts could be reduced as a result of less commuting (by car), the use of energy-consuming household devices, or eating out (Neubert at al. 2022; Kallis et al. 2013). However, some negative environmental effects may result from increased travelling during leisure time, although several studies have shown that they do not completely cancel out the positive effects (Neubert et al. 2022; Hanbury et al. 2019). Nevertheless, the environmental benefits of working time reduction depend on other lifestyle changes and are not always clear-cut. Further research on this is therefore necessary.

Working time reduction is also an important way of preserving employment through redistribution of work, including in the context of the green and digital transitions, and to ensure good working and living conditions (Müller 2023). Trade unions therefore often advance it as a demand. It is an area in which we see some convergence between labour and environmental concerns, as environmental advocacy groups increasingly argue in favour of working time reduction (see, for example, Culot and Wiese 2022). In EU labour law, the provisions of **Directive 2003/88/EC concerning certain aspects of the organisation of working time** (Working Time Directive) are thus relevant to the environmental domain. It includes provisions on weekly working hours (Article 6), but also a daily rest period (Article 3), breaks (Article 4) and a weekly rest period (Article 5). Besides the implications of these provisions for workers' ecological footprints, the provisions on adequate rest and breaks are relevant to ensuring workers' health and safety in a changing climate, for example when it comes to warmer weather and heatwaves, and particularly with regard to certain sectors and jobs (such as agriculture or construction).

Directive 2019/1158/EU on work-life balance for parents and carers is also relevant. The Directive seeks to address the challenges workers face in reconciling care responsibilities with paid work by making certain provisions for leave, and providing a right to request flexible working arrangements, including switching to part-time work or working remotely from home or elsewhere. Additional flexibility gained from the application of these measures could lead to changes in workers' ecological footprint, for example, with a reduction of emissions as a result of reduced commuting by car, but also some increase from the heating of private homes. The debate on the net environmental effects of remote working is still not settled and further research is necessary (Akgüç et al. 2023), but it is clear that remote working does have environmental implications. For this reason, the provisions of the EU social partners' **Framework agreement on telework** from 2002 and any future legislation on telework could also have environmental implications.

Thus, legislation that seeks to regulate certain aspects of working conditions can *in effect* also have environmental implications, whereas environmental legislation that seeks to prevent harm to the natural environment and human health can *in effect* determine aspects of how work is performed and of working conditions.

These linkages are currently not explicitly recognised in the relevant instruments but, as we highlight in Section 5, such instruments have the potential to align social and environmental objectives more closely, and to pursue them simultaneously.

4.3 Information, consultation and participation

Ensuring the participation in decision-making of those most affected by it is a common theme in labour and environmental law. One of the main ways in which labour law could have an impact on environmental matters is through the spaces that it creates – or seeks to create – for worker voice and empowerment, particularly via social dialogue, collective bargaining and worker participation at the company level. Scholars are increasingly exploring the potential of collective bargaining to ensure that the green transition is socially just, but also to contribute to environmental sustainability through measures such as green clauses (Tomassetti 2018; Escribano Gutiérrez and Tomassetti 2020; Chacartegui Jávega and Canalda 2021; Bruurs and Huybrechts 2022). Some have considered the possibility of workers engaging in collective action to apply pressure against policies that harm the environment (Escribano Gutiérrez 2022). At the EU level, the rights to collective bargaining and action are protected in **Article 28 of the EU Charter of Fundamental Rights**, and the **Directive (EU) 2022/2041 on adequate minimum wages** requires states to put forward action plans to increase collective bargaining coverage where this is below 80 per cent. But other than this, there are no relevant EU legal measures in these areas.[3]

There is, however, legislation on worker participation at the company level, which has been identified as a means of promoting environmental protection alongside worker wellbeing (Chacartegui 2018; Álvarez Cuesta 2022; Grandi et al. 2023). **Directive 2002/14/EC establishing a general framework for informing and consulting employees** in the EU sets out minimum requirements for information and consultation of employees in undertakings with more than 50 employees or establishments with more than 20 employees. While there is no mention of the natural environment, some provisions are implicitly relevant. For example, Article 4(2)(a) provides that workers should be informed on the recent and probable development of an undertaking's or an establishment's activities and economic situation. This could enable workers to obtain a better idea of their employer's current or future activities and to assess their environmental impact, or to anticipate changes in the company stemming from green policies.

Article 4(2)(b) requires information and consultation on the situation, structure and probable development of employment within the undertaking/establishment and in any anticipatory measures envisaged (particularly where there is a threat to employment). This provision will certainly be relevant in the context of the industrial transformation driven by the EGD to fulfil climate ambitions, which will have a significant impact on employment. But it could also provide space for input on how to create sustainable jobs and processes within the company.

3. EU competence on collective action is currently explicitly excluded in the Treaty.

In other words, it would allow workers not just to 'adapt' to economic change, but also to play a more active role in developing sustainable practices that can provide employment. The same could be said in respect of Article 4(2)(c), which provides for information and consultation on decisions likely to lead to substantial changes in work organisation or in contractual relations. This could be relevant to decisions that will need to be taken in order to adapt to a changing climate or to implement sustainable work processes.

There is scope here for workers to express views on both promoting and hindering environmental protection, so awareness-raising and environmental education are important to complement these processes. Either way, this legislative framework could create space for workers to explicitly engage with and have a say in matters that affect the natural environment. Of course, it would be better if the legislation made this possibility more explicit by including environmental protection and the transition to net-zero as subjects for information and consultation.[4] Similar arguments apply to **Directive 2009/38/EC on the establishment of a European Works Council or a procedure in Community-scale undertakings for the information and consultation of workers**, which is relatively open-ended when it comes to the subject-matter of information and consultation.

With regard to environmental law, the relevant rights and obligations are laid down in the UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters 1998 (the Aarhus Convention). The Convention is implemented in EU law through dedicated instruments and provisions in other pieces of substantive EU environmental law. **Directive 2003/4/EC seeks to ensure access by the public to environmental information**, and that such information be progressively made available and disseminated by the authorities. Article 3 provides that Member States need to make environmental information held by or for them available to any applicant on request. An applicant may be 'the public', which is any natural or legal person or their organisations. This means that workers and workers' organisations should be able to obtain environmental information held by public authorities, which can include the implications of environmental factors for human health and safety at or around their workplace, as well as the state of the natural environment and other information, such as reports on their employer's compliance with environmental legislation. This kind of information is essential if workers are to be able to hold their employers to account and be actively involved in matters of occupational safety and health, environmental justice and environmental protection.

Another key instrument is **Directive 2003/35/EC on public participation in respect of the drawing up of certain plans and programmes relating to the environment**. The central provision is Article 2, which states that the public

4. In this respect, the European Trade Union Confederation advocates a just transition legal framework at EU level. This would, among other things, guarantee workers' right to information and consultation in the development of just transition plans in their regions and workplaces (ETUC 2021).

is to be 'given early and effective opportunities to participate in the preparation and modification or review of plans or programmes' falling within the scope of the Directive. This must include informing the public of relevant plans or programmes, allowing the public to express opinions when all options are still open before relevant decisions are made, taking these opinions into account and informing the public about decisions. Here again, workers and trade unions could play an active role in contributing to public consultations in relation to both the social and environmental impacts of a proposed plan or programme, such as a major infrastructure or agricultural project, industrial development, waste facility, and so on. Similar arguments apply to the **Aarhus Regulation (EC) 1367/2006 and its amendment Regulation (EU) 2021/1767**, which impose obligations concerning environmental information, public participation and access to justice (if certain conditions are fulfilled) on the EU institutions. This should include information and participation in relation to EU environmental policy. Other pieces of environmental legislation include similarly worded information and participation provisions, and sometimes provisions on access to justice. These include the Industrial Emissions Directive, the Waste Framework Directive, the Habitats Directive and some of the other instruments discussed in previous sections.

Not mentioned above, but also falling in this category, is **Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment** (Environmental Impact Assessment Directive). The Directive requires that all projects likely to have significant effects on the environment undergo an environmental impact assessment before development consent is granted (Article 2), and provides for information and participation of the 'public concerned' in the relevant decision-making (Article 6). The 'public concerned' is defined in Article 1 as the 'public affected or likely to be affected by, or having an interest in, the environmental decision-making procedures'. By implication, this includes those who might be affected by environmental issues such as air and water pollution, harmful emissions or noise at the place where they work or in the course of their employment. Similar provisions appear in **Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment** (Strategic Environmental Assessment Directive), which covers plans and programmes prepared or adopted by an authority at national, regional and local level (see Article 3(2)).

There are ongoing questions when it comes to the effectiveness of public participation provisions in environmental legislation, related to both the process of consultation (for example, who may participate in consultation and barriers to access) and how the outcomes of consultation are taken into account in decision-making (see, for example, Armeni 2023). Still, as workers are increasingly affected by and concerned about environmental protection, these provisions could provide an avenue for expressing concerns and proposing solutions, and for trade unions to step in as key stakeholders. Particularly when it comes to legislation regulating industrial activities, workers and their unions will be among the most affected groups and those that ought to be informed and make their voices heard. This should by no means be seen as a substitute, but a forum that comes in addition to social dialogue, collective bargaining and worker participation in companies.

In this regard, many of the abovementioned Directives also include provisions on access to justice, the third Aarhus pillar.[5] For example, Article 11 of the EIA Directive and Article 25 of the Industrial Emissions Directive provide a right of access to a review procedure to challenge the substantive or procedural legality of decisions that are subject to public participation requirements. This means that workers might be able to challenge certain environmental decisions that affect them, including on the grounds that they have not had the opportunity to participate or that their views have not been taken into account, but potentially also where a decision infringes a substantive right, such as the right to a safe and healthy environment. In the case of projects, plans or programmes covered by the Directives aimed at fulfilling climate objectives, but that have environmental effects – such as battery plants or rare earth mining facilities – workers and communities could use these legal provisions to make their voices heard and defend their interests.[6] Armeni (2023) argues that Aarhus Convention participatory environmental rights could also be applied to decision-making within the framework of the Territorial Just Transition Plans and, more generally, to strengthen the procedural justice dimension of the EU just transition framework.

In summary, both disciplines are concerned with ensuring ways of obtaining relevant information and effective participation by those most affected by certain decisions, as well as means of enforcing these entitlements. From the provisions highlighted above we can derive certain procedural workers' environmental rights – legal entitlements that provide space for worker voice and agency when it comes to environmental protection.

5. There is, however, no self-standing Directive on access to justice in environmental matters. Such a Directive was proposed in 2003, but never adopted. There are access to justice provisions to support the enforcement of rights to information and participation, as well as in the more specific directives.

6. There is also an emerging body of what scholars call 'just transition litigation', although it is often based on human rights claims. See, for example, Savaresi and Setzer (2022).

5. Conclusion: future directions for workers' environmental rights

Our study finds several examples of explicit mention of workers, workplaces or work activities in environmental legislation, and even more examples in which the operation of environmental or labour law norms *implies* interaction with the other domain in one form or another. To some extent, environmental law could be seen as a source of labour rights and vice versa. This should not come as a surprise if one considers the intrinsic relations between work and nature, as well as between labour and environmental sustainability (Pieraccini and Novitz 2020). Workers, merely as human beings, are part of nature; they exist and operate within the natural environment. But they are also often involved in the processes that mediate between the natural and the human-built environments (for example, extraction of natural resources, or the placing of materials and substances into the natural environment), and activities that give rise to hazards to the environment and human health. Thus, they are often those most affected by activities that are also harmful to the natural environment, but also those who can contribute significantly to environmental protection with their labour, knowledge, creativity and collective power.

Building on the findings of Blaise and Ibrahim (2019), we identified early examples of 'workers' environmental rights' in EU law. They include individual rights, such as a right to be protected from environmentally harmful activities, a right to training, a right to report or a (construed) right to refuse to carry out activities that damage the environment or breach environmental standards; and collective rights, such as a right to information and to consultation within companies and participation in environmental decision-making more broadly. These findings are in line with the points identified by Blaise and Ibrahim as constituting the framework for workers' environmental rights, namely: a right to safe and healthy working conditions; a right to information (right to know) about the environmental and climate change impacts of work activities; a right to participate in workplace decision-making where it may have environmental or climate change impacts; a right to advocate for effective standards of environmental protection at the workplace and in the broader public arena; a right to inform the public about potentially environmentally damaging workplace practices, or production outputs, without fear of discipline or dismissal (whistleblower protection); and a right to refuse environmentally damaging work.

Crucially, the exercise of these workers' environmental rights is instrumental to advancing both worker and environmental protection simultaneously; that is, they do not engender trade-offs between the interests of workers and of the environment. This objective is in line with those of other 'environmental rights', as these are

defined in the introduction. While workers are the relevant rights-holders, the exercise of workers' environmental rights benefits the natural environment and non-human entities as well. Furthermore, in the case of many of these rights – such as a right to report breaches of environmental law, or what we construed as a right to refuse to carry out environmentally damaging activities – the primary objective of exercising the right is environmental protection per se, with legal protection provided for workers as the *agents* of environmental safeguarding. Similarly, where workers exercise a right to information and consultation on environmental matters, this could stem from a concern for the natural environment itself, as well as in relation to how damage to the natural environment affects workers. The explicit provisions related to training, consultation and reporting of breaches of environmental law discussed in Section 3 clearly seek both to protect the interests of the workers carrying out certain activities or workers who might be affected by hazards, *and* to prevent harm to the environment.

Still, the linkages between labour end environment remain primarily 'below the surface' in current EU legislation. Where workers' environmental rights are not set out explicitly, they could be deduced via interpretation that takes into account their potential to advance social and environmental objectives at the same time (for example, in the case of information and consultation/participation provisions) or because of the practical effects of certain norms on the other domain (for example, in the case of norms that affect work organisation). The commitment to advancing sustainable development, set out in the Treaties, and the EGD commitment to a just transition would imply that these linkages ought to be strengthened and made explicit.

In practical terms, this could be achieved in two ways, through either judicial interpretation or legislation (via statutory provisions or collective bargaining). Some of the provisions discussed here allow for such an interpretation by the Court of Justice of the EU, even in their current form. Take for example the provisions of the Information and Consultation Directive in Article 4(2), highlighted in Section 4.3. It would be open to the Court to hold that information and consultation on 'decisions likely to lead to substantial changes in work organisation' extend also to the environmental implications of such decisions. The Court could draw not only on the principle of sustainable development, but also on the so-called principle of environmental integration, which requires the integration of environmental considerations in regulatory instruments outside EU environmental law (Karageorgou 2023).

This principle is set out in Article 11 TFEU, which states that 'environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to promoting sustainable development' (Sjåfjell 2015). In addition, Article 37 CFREU provides that a 'high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development'. The Charter is binding on the Court, and is often invoked as an interpretive aid. The Charter contains many provisions on workers' rights as well, and can thus act as an interpretive aid also where the Court is considering some of the environmental law norms we have

discussed in this paper. It is not clear exactly what the legal nature of Article 37 is, and how this provision is to be applied, particularly because it is in the part of the Charter containing 'principles' rather than 'rights' (Bogojević 2017; Scotford 2018). Still, commentators have argued that this provision can play a role in legal reasoning by shaping interpretive practice and informing the development of EU legal doctrine (Bogojević 2017; Scotford 2018). It has been used by the CJEU, albeit rarely, to validate the protection of the environment coupled with other Charter rights (Bogojević 2017).

Of course, making workers' environmental rights more explicit through judicial interpretation has its limits. The text of the legislation must allow for such an interpretation, the Court must be able and willing to draw on relevant principles, and an appropriate case needs to come before it in the first place. Thus, in the long term, the linkages between workers and the environment should be set out explicitly in relevant legislation. This could be in the Preamble, which can serve as a guide to implementation and interpretation, but also in the operative part of legislative instruments, as well as in relevant collective bargaining provisions. The following are some examples:

(i) OSH prevention measures, standards and procedures could consider the continuity between occupational and general environmental risks, preventing the bidirectional effects of such risks on workers and the natural environment. For example, the obligation under Article 8 of the OSH Framework Directive to put in place 'a coherent overall prevention policy' could integrate concerns about the protection of the natural environment, too. In addition, workers' rights to information and training under OSH legislation could extend to issues related to environmental protection and climate change (Grandi et al. 2023); and the competences of workers' OSH representatives could extend to aspects of environmental prevention, as is the case under statutory legislation[7] and collective bargaining[8] in certain countries.

(ii) A future reform of the Working Time Directive could integrate the objectives of improved working conditions and environmental sustainability (Zbyszewska 2016). Currently there are several initiatives across the EU and beyond on working time reduction, through collective agreements or otherwise, that we can learn from (see, for example, Müller 2023; or the UK Four Day Week initiative). A revised Working Time Directive could set an EU-level framework for working time reduction, including a reduced upper limit on working time from the current maximum of 48 hours per week. In addition, the general principle of adapting work to the worker (Recital 11 of the Preamble and Article 13 of the Directive) could provide the basis for requirements to account for extreme weather conditions, such as heat, in the organisation of work. This could include requirements for longer and/or more frequent daily and weekly rest breaks.

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7. France, for example. See Bugada (2021).

8. Italy, for example, through national sectoral collective agreements in core sectors, including the metalworking industry, the chemical sector, oil and gas. See Tomassetti (2018).

(iii) Provisions in EU legislation on information and consultation, as well as those on environmental information and public participation create spaces for deliberation and exchange on environmental questions that affect the world of work, which can be further improved and expanded. This can include the explicit mention – in a future revision of the relevant EU legislation – of environmental protection and sustainability of companies as a matter on which workers should be informed and consulted; or, on the environmental law side, an explicit mention of the need to provide affected workers and the social partners with relevant environmental information, to encourage their participation in decision-making and access to justice in environmental matters that affect them. Of course, such workers' environmental rights could also be negotiated in collective agreements, as social partners in some countries have already done (Escribano Gutiérrez and Tomassetti 2020).

(iv) Many technological and environmental disasters occur from work-related causes, and in many cases workers' voice is unheard and even silenced out of fear of discipline and job loss. While reporting violations of environmental legislation is protected under EU law, future reforms could explicitly prohibit disciplinary sanctions and retaliation for a worker's refusal to perform activities that contribute to unlawful pollution (Tomassetti 2018; Blaise and Ibrahim 2019; Oldham 1973). In other words, employees shall in no way be penalised or sanctioned for refusing to perform a job or task in violation of environmental law, provided that such a refusal is based on 'good faith' and does not endanger human health. This provision could be made mandatory in relevant environmental directives, in the Whistleblowing Directive as a last resort (that is, if recourse to the reporting channels is unsuccessful), as well in national legislations, with a delegation of power to collective agreements to establish procedures and institutions to exercise such workers' environmental rights.

These and other avenues to integrate labour and environmental concerns in legislation and formulate workers' environmental rights are a worthwhile subject of further research and analysis. As noted by Blaise and Ibrahim, 'advancing workers' environmental rights requires nuanced understandings of environment and working environment. It also requires a shift in focus, from traditional health and safety issues, to a broader approach, as stewards of the environment' (Blaise and Ibrahim 2019: 61). Explicit recognition in law of workers' environmental rights would contribute to empowering workers and trade unions, not only because these rights give rise to a series of substantive and procedural legal entitlements, but also because they acknowledge the key role of workers and their organisations in managing the environmental crisis and our ongoing relationship with the natural environment and its resources. It would amplify the voice of workers by expanding opportunities for participation in environmental matters, within and beyond the workplace; and strengthen the role of trade unions in achieving justice in the transition away from fossil fuels and their extractive political economies. Most importantly, an explicit recognition in law of workers' environmental rights would also help to create channels for cooperation between trade unions and environmental groups. Such cooperation is vital to advancing a progressive

interpretation of the principle of sustainable development, one in which the normative claims for labour and environmental justice are construed in solidarity.

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All links were checked on 09.01.2024.

Annex

1. Areas of interest beyond the scope of this paper

1.1 Labour and environmental instruments that are not relevant to the other domain

For reasons of space, it was not possible to include discussion of this aspect of our analysis within the main part of the paper, but we found that there are proportionately fewer instruments that have no relevance to the other domain. In the field of labour law, consider, for example, Directive 2010/32/EU implementing the Framework Agreement on prevention from sharp injuries in the hospital and healthcare sector, concluded by HOSPEEM and EPSU. The purpose of this instrument is to prevent injuries to workers caused by medical sharps. While such injuries might cause significant damage to workers' health and safety, they have no effects in terms of protecting natural resources, the environment or ecosystems. Similar examples include specific provisions aimed at preventing other risks to the human body, such as the minimum health and safety requirements for the manual handling of loads, where there is a risk particularly of back injury to workers (see Directive 90/269/EEC), or the minimum safety and health requirements for work with display screen equipment (*see* Directive 90/270/EEC).

Even within this category, however, there are instruments that could nevertheless be relevant to understanding the interaction between the labour and environmental domains, such as legislation that will be relevant in dealing with consequences for workers of environmental or climate *policies*. For example, industrial transformation towards climate neutrality brought about by the European Green Deal will lead in many industries to a cessation of activities or significant restructuring. Instruments such as Directive 98/59/EC on collective redundancies or Directive 2001/23/EC relating to the safeguarding of employees' rights in the event of transfers of undertakings will be relevant in this context, and their potential to contribute to a 'just' green transition should certainly be explored, even if they do not have implications for the natural environment as such.

Other pieces of legislation can be indirectly linked to effects on the environment, but often in a relatively remote sense. For example, Directive 1999/70/EC on fixed-term work and Directive 2008/104/EC on temporary agency work seek to reduce the vulnerability of non-standard workers, helping to alleviate their condition of subordination in the employment relationship. This can have important implications in terms of environmental sustainability, if we assume that vulnerable workers tend to be more worried about losing their jobs as a result of environmental policies and are therefore more resistant. They may also have a reduced capability of opposing adverse managerial decisions that can be detrimental to environmental protection. These potential effects are relatively distant, or remote, from the primary effects of the norms in question, however, by contrast to the norms discussed in Sections 3 and 4 of this working paper.

On the environmental law side, one example of legislation not linked to workers, workplaces and work organisation is Directive 2009/33/EC concerning the promotion of clean and energy-efficient road transport vehicles. It requires that contracting authorities, contracting entities and certain operators take into account lifetime energy and environmental impacts, including energy consumption and emissions of CO_2 and of certain pollutants when purchasing road transport vehicles. The goal is to promote and stimulate the market for clean and energy-efficient vehicles, with the aim of improving the transport sector's contribution to EU environmental, climate and energy policies. While the social implications of these standards cannot be underestimated, considering the regressive effects that they might have for vulnerable car users, their application does not affect workers, working conditions or work organisation. As already mentioned in Section 3(2), environmental legislation can also have an effect on *labour markets and employment*, but in some cases these can be relatively remote. For example, the designation of protected areas under the Habitats Directive might mean a limitation of economic activity in certain areas, which reduces the scope for creating new jobs. These effects are 'remote' because the intended and immediate effects of the legislation are relatively far removed from the particular consequences on specific (groups of) workers, but they may still raise concerns over a perceived 'jobs versus environment' dilemma.

1.2 Other related areas of law

As mentioned in Section 2 of the paper, there are other areas of law that overlap to some extent with both labour and environmental law, and which we mention here as possible avenues for further research. Human rights law is one such area. There is a growing body of European Court of Human Rights case-law that recognises that certain environmental risks, for example from pollution, could fall within the scope of Article 2 (right to life) or Article 8 (right to respect for private and family life) of the European Convention on Human Rights (ECHR). This case-law is relevant for workers, for example when it comes to pollution affecting the work environment. This would be relevant to the EU context too because Article 7 of the EU Charter of Fundamental Rights corresponds to Article 8 ECHR, and must be interpreted consistently. This case-law is illustrative of the ways in which labour and environmental concerns are connected and transcend the normative domain of 'labour' and 'environmental' law, coming together within the broader, overarching domain of human rights law, which cuts across many other legal disciplines.

Another area worthy of closer examination is anti-discrimination law. EU anti-discrimination law applies to the sphere of employment (and beyond), and could in some circumstances be linked to environmental protection. The main instruments are Directive 2000/54/EC, Directive 2000/48/EC and Directive 2000/78/EC, which prohibit direct and indirect discrimination on the basis of, respectively, sex, racial and ethnic origin, sexual orientation, age, religion and belief, and disability in employment and occupation. Some of these provisions could be relevant to the environmental domain because factors stemming from the natural environment could affect workers specifically or disproportionately

because of those characteristics (for example, disability or age), or because hazards stemming from the workplace particularly affect certain workers with this characteristic and the natural environment (for example, women are sometimes more susceptible to health risks from certain chemicals). More generally, overt or structural discrimination has meant that certain groups defined on the basis of a protected characteristics – in particular, racial or ethnic minorities – are more exposed to environmental harm, while bearing less responsibility for pollution or emissions. This issue is at the core of the environmental justice movement, which has its roots in the struggle against environmental racism in the United States. This issue also continues to affect communities in Europe and other regions. In this respect, it is notable that the EGD does not recognise the differing contribution of various groups to environmental damage and climate change.

2. List of examined legislation

2.1 List of social legislation

Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work

Directive 89/654/EEC of 30 November 1989 concerning the minimum safety and health requirements for the workplace

Directive 89/656/EEC of 30 November 1989 on the minimum health and safety requirements for the use by workers of personal protective equipment at the workplace

Directive 90/269/EEC of 29 May 1990 on the minimum health and safety requirements for the manual handling of loads where there is a risk particularly of back injury to workers

Directive 90/270/EEC of 29 May 1990 on the minimum safety and health requirements for work with display screen equipment

Directive 91/322/EEC of 29 May 1991 on establishing indicative limit values by implementing Council Directive 80/1107/EEC on the protection of workers from the risks related to exposure to chemical, physical and biological agents at work

Directive 91/383/EEC of 25 June 1991 supplementing the measures to encourage improvements in the safety and health at work of workers with a fixed-duration employment relationship or a temporary employment relationship

Directive 92/58/EEC of 24 June 1992 on the minimum requirements for the provision of safety and/or health signs at work

Directive 92/85/EEC of 19 October 1992 on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding

Directive 94/33/EC of 22 June 1994 on the protection of young people at work

Directive 96/71/EC of the European Parliament and of the Council of 16 December 1996 concerning the posting of workers in the framework of the provision of services

Directive 97/81/EC of 15 December 1997 concerning the Framework Agreement on part-time work concluded by UNICE, CEEP and the ETUC

Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work

Directive 98/59/EC of 20 July 1998 on the approximation of the laws of the Member States relating to collective redundancies

Directive 1999/70/EC of 28 June 1999 concerning the framework agreement on fixed-term work concluded by ETUC, UNICE and CEEP

Directive 1999/92/EC of the European Parliament and of the Council of 16 December 1999 on minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres

Directive 2000/43/EC of 29 June 2000 implementing the principle of equal treatment between persons irrespective of racial or ethnic origin

Directive 2000/54/EC of the European Parliament and of the Council of 18 September 2000 on the protection of workers from risks related to exposure to biological agents at work

Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment in employment and occupation

Directive 2001/23/EC of 12 March 2001 on the approximation of the laws of the Member States relating to the safeguarding of employees' rights in the event of transfers of undertakings, businesses or parts of undertakings or businesses

Directive 2002/14/EC of 11 March 2002 establishing a general framework for informing and consulting employees in the European Community

Directive 2002/44/EC of the European Parliament and of the Council of 25 June 2002 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (vibration)

Directive 2003/10/EC of the European Parliament and of the Council of 6 February 2003 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (noise)

Directive 2003/88/EC of the European Parliament and of the Council of 4 November 2003 concerning certain aspects of the organisation of working time

Directive 2004/37/EC of the European Parliament and of the Council of 29 April 2004 on the protection of workers from the risks related to exposure to carcinogens or mutagens at work (Consolidated version)

Directive 2004/113/EC of 13 December 2004 implementing the principle of equal treatment between men and women in the access to and supply of goods and services

Directive 2006/25/EC of the European Parliament and of the Council of 5 April 2006 on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artificial optical radiation) (Consolidated version)

Directive 2006/54/EC of the European Parliament and of the Council of 5 July 2006 on the implementation of the principle of equal opportunities and equal treatment of men and women in matters of employment and occupation (Recast)

Directive 2008/94/EC of the European Parliament and of the Council of 22 October 2008 on the protection of employees in the event of the insolvency of their employer (Codified version)

Directive 2008/104/EC of the European Parliament and of the Council of 19 November 2008 on temporary agency work

Directive 2009/38/EC of the European Parliament and of the Council of 6 May 2009 on the establishment of a European Works Council or a procedure in Community-scale undertakings and Community-scale groups of undertakings for the purposes of informing and consulting employees (Recast)
Directive 2009/104/EC of the European Parliament and of the Council of 16 September 2009 concerning the minimum safety and health requirements for the use of work equipment by workers at work (Codified version)
Directive 2009/148/EC of the European Parliament and of the Council of 30 November 2009 on the protection of workers from the risks related to exposure to asbestos at work (Consolidated version)
Directive 2010/32/EU of 10 May 2010 implementing the Framework Agreement on prevention from sharp injuries in the hospital and healthcare sector concluded by HOSPEEM and EPSU
Directive 2013/35/EU of the European Parliament and of the Council of 26 June 2013 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields)
Directive (EU) 2019/1152 of the European Parliament and of the Council of 20 June 2019 on transparent and predictable working conditions in the European Union
Directive (EU) 2019/1158 of 20 June 2019 on work-life balance for parents and carers and repealing Council Directive 2010/18/EU
Directive (EU) 2019/1937 of the European Parliament and of the Council of 23 October 2019 on the protection of persons who report breaches of Union law
Directive (EU) 2019/1832 of 24 October 2019 amending Annexes I, II and III to Council Directive 89/656/EEC as regards purely technical adjustments
Directive (EU) 2019/1833 of 24 October 2019 amending Annexes I, III, V and VI to Directive 2000/54/EC of the European Parliament and of the Council as regards purely technical adjustments
Directive (EU) 2022/2041 on adequate minimum wages in the European Union

2.2 Framework agreements between the social partners

Framework agreement on telework (2002)
Framework agreement on work-related stress (2004)
Framework agreement on harassment and violence at work (2007)
Framework agreement on inclusive labour markets (2010)

2.3 List of environmental legislation

Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora
Directive 1999/31/EC of 26 April 1999 on the landfill of waste (Consolidated version)
Directive 1999/94/EC of the European Parliament and of the Council of 13 December 1999 relating to the availability of consumer information on fuel economy and CO_2 emissions in respect of the marketing of new passenger cars

Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (Consolidated version)

Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment

Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC

Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC

Directive 2003/87/EC of the European Parliament and of the Council establishing a system for greenhouse gas emission allowance trading within the Union – *and amendment* Directive (EU) 2023/959 of 10 May 2023

(Council) Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity – *and proposed amendment*

Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage

Directive 2005/35/EC of the European Parliament and of the Council of 7 September 2005 on ship-source pollution and on the introduction of penalties for infringements

Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC

Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives

Directive 2008/99/EC of the European Parliament and of the Council of 19 November 2008 on protection of the environment through criminal law

Directive 2008/105/EC of the European Parliament and of the Council of 16 December 2008 on environmental quality standards in the field of water policy

Directive 2009/33/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of clean and energy-efficient road transport vehicles

Directive 2009/126/EC of the European Parliament and of the Council of 21 October 2009 on Stage II petrol vapour recovery during refuelling of motor vehicles at service stations

Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (Codified version)

Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (recast) – *and proposed amendment*

Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast)

Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment

Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances

Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the deployment of alternative fuels infrastructure

Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants

Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC

Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (Recast) – *and amendment* Directive (EU) 2023/2413 of 18 October 2023

Directive (EU) 2023/958 of the European Parliament and of the Council of 10 May 2023 amending Directive 2003/87/EC as regards aviation's contribution to the Union's economy-wide emission reduction target and the appropriate implementation of a global market-based measure

Directive (EU) 2023/1791 of the European Parliament and of the Council of 13 September 2023 on energy efficiency and amending Regulation (EU) 2023/955 (Recast)

Regulation (EC) No 1936/2001 of 27 September 2001 laying down control measures applicable to fishing for certain stocks of highly migratory fish

Regulation (EC) No 782/2003 of the European Parliament and of the Council of 14 April 2003 on the prohibition of organotin compounds on ships

Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register

Regulation (EC) No 1367/2006 of the European Parliament and of the Council of 6 September 2006 on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community institutions and bodies

Regulation (EC) 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

Regulation (EC) No 734/2008 of 15 July 2008 on the protection of vulnerable marine ecosystems in the high seas from the adverse impacts of bottom fishing gears

Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer

Regulation (EC) No 1007/2009 of the European Parliament and of the Council of 16 September 2009 on trade in seal products

Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS), repealing Regulation (EC) No 761/2001 and Commission Decisions 2001/681/EC and 2006/193/EC

Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010 laying down the obligations of operators who place timber and timber products on the market

Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals (Recast)

Regulation (EU) No 1257/2013 of the European Parliament and of the Council of 20 November 2013 on ship recycling and amending Regulation (EC) No 1013/2006 and Directive 2009/16/EC

Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species

Regulation (EU) 2015/757 of the European Parliament and of the Council of 29 April 2015 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport, and amending Directive 2009/16/EC

Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework

Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement – *and amendment* Regulation (EU) 2023/857 of 19 April 2023

Regulation (EU) 2019/631 as regards strengthening the CO2 emission performance standards for new passenger cars and new light commercial vehicles in line with the Union's increased climate ambition – *and amendment* Regulation (EU) 2023/851 of 19 April 2023

Regulation (EU) 2021/1767 of the European Parliament and of the Council of 6 October 2021 amending Regulation (EC) No 1367/2006 on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community institutions and bodies

Regulation (EU) 2023/956 of the European Parliament and of the Council of 10 May 2023 establishing a carbon border adjustment mechanism

Regulation (EU) 2023/... of the European Parliament and of the Council concerning batteries and waste batteries, amending Directive 2008/98/EC and Regulation (EU) 2019/1020 and repealing Directive 2006/66/EC

Regulation (EU) 2023/1805 of the European Parliament and of the Council on the use of renewable and low-carbon fuels in maritime transport, and amending Directive 2009/16/EC

Regulation (EU) 2023/2405 of the European Parliament and of the Council on ensuring a level playing field for sustainable air transport (ReFuelEU Aviation)

2.4 List of nuclear legislation

Directive 2006/117/Euratom of 20 November 2006 on the supervision and control of shipments of radioactive waste and spent fuel

Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations

Directive 2011/70/Euratom of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste

Directive 2013/51/Euratom of 22 October 2013 laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption

Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation

Regulation (Euratom) No 1493/93 of 8 June 1993 on shipments of radioactive substances between Member States

Regulation (Euratom) 2016/52 of 15 January 2016 laying down maximum permitted levels of radioactive contamination of food and feed following a nuclear accident or any other case of radiological emergency

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