Verein KlimaSeniorinnen Schweiz et. al. v. Switzerland
Application no. 53600/20
European Court of Human Rights, Third Section

Amicus Curiae Brief submitted by*

UN Special Rapporteur on toxics and human rights, Marcos A. Orellana
UN Special Rapporteur on human rights and the environment, David R. Boyd
UN Independent Expert on the enjoyment of all human rights by older persons, Claudia Mahler

I. Introduction: The Climate Emergency and Human Rights

1. The world faces a climate crisis. The current level of warming is unprecedented in the last ten thousand years, an interglacial period with a stable climate that coincided with the rise of human civilization. Today’s levels of carbon dioxide in the atmosphere last occurred three million years ago, during the Pliocene epoch before Homo sapiens evolved. Our species is in uncharted, dangerous waters.

2. The climate emergency is causing widespread adverse impacts already and poses an existential threat to the effective enjoyment of human rights in the future. As Michelle Bachelet, the UN High Commissioner for Human Rights, warned, “The world has never seen a human rights threat of this scope. This is not a situation where any country, any institution, any policy-maker can stand on the sidelines.” Human rights courts and tribunals have a pressing and profound responsibility to confront one of the gravest threats that humanity has ever faced.

3. The European Court of Human Rights has faced serious challenges but perhaps none like this one. In the wake of the 1992 UN Conference on Environment and Development and the emergence of the sustainable development paradigm, the Court opened its doors to environmental cases. It applied and extended the tools and principles of human rights law, such as positive obligations to protect rights and the fair balance between the interests of society and the individual. In time, the Court’s approach to integrating two distinct normative fields has secured remedies for countless individuals whose rights were infringed by various environmental harms.

4. The present case, in which the climate crisis interferes with the enjoyment of human rights, offers a similar opportunity for the Court to extend its environmental jurisprudence in response to this unprecedented threat, thereby contributing to the achievement of climate justice.

5. This brief presents two lines of argument. First it argues that the Court’s existing approach to cases dealing with human rights and the environment and the rights of older persons can be tailored to address the specificities of climate change cases. Second, it argues that principles,

* Disclaimer: This submission should not be considered as a waiver, express or implied, of the privileges and immunities of the United Nations, its officials and experts on missions, pursuant to the 1946 Convention on the Privileges and Immunities of the United Nations.
Obligations and commitments drawn from international environmental law can help the Court approach climate cases in a principled manner that builds upon its existing jurisprudence.

II. Principles derived from the Court’s jurisprudence are relevant to adjudication of climate-related cases

II.i. Principles derived from the Court’s jurisprudence on human rights and the environment

6. Over almost three decades, dating back to the López-Ostra decision of 1994, the Court has produced a rich jurisprudence on human rights and the environment. This body of law is of material relevance to climate cases.

7. One of the basic principles in the Court’s jurisprudence is that the presence of risk to the enjoyment of Convention rights triggers positive obligations of protection for States Parties.¹ The Court has also affirmed the State’s duty to effectively regulate environmentally hazardous activities,² as well as State responsibilities in cases involving transboundary environmental issues.³ In discharging their positive obligations, States must arrive at a fair balance between the competing interests of the individual and the community, which involves scrutinizing whether procedural guarantees have been observed (i.e., rights to information, participation and justice) or undue burdens imposed on the individual, among other considerations and safeguards.

8. While this construct is central to the Court’s approach to environmental cases, a particular characteristic of climate change calls for its adjustment. In climate cases, the interests of the individual and the community are not competing. Both the individual and the community share a common interest in a safe climate system. Moreover, this interest is common to all Convention Parties, as well as to the international community as a whole. This common interest is expressed in the objective of the UN Framework Convention on Climate Change to “prevent dangerous anthropogenic interference with the climate system” (Article 2) and in the more granular global mitigation goal of the Paris Agreement, which indicates that a temperature increase above 1.5°C or at most 2.0°C would indeed be dangerous (Art. 2.1.a).

9. Accordingly, a different yardstick is necessary for the Court to assess whether a State Party is adequately carrying out its positive obligations of protection to avert climate risks. We respectfully submit that the right to benefit from scientific progress can aid the Court in scrutinizing the sufficiency of governmental action in the face of the catastrophic risks posed by climate change.⁴

¹ Öner yildiz and others v. Turkey, no. 48939/99 (2004). See also Budayeva and others v. Russia, no. 15339/02 (2008).
² Öner yildiz and others v. Turkey, no. 48939/99 (2004), ¶¶ 71 and 89.
³ Tatar and Tatar v Romania (2009) No. 67021/01.
⁴ UN Special Rapporteur on toxics and human rights, The right to science in the context of toxics substances, A/HRC/48/61, Sept 2021. See also, UN Committee on Economic, Social and Culture Rights, General Comment No. 25 (2000) on science and economic, social and cultural rights (article 15 (1) (b), (2), (3) and (4) of the International Covenant on Economic, Social and Cultural Rights).
10. The best available science has reaffirmed the reality of anthropogenic climate change, including in respect of extreme weather events. In August 2021, the Intergovernmental Panel on Climate Change (IPCC) released its Sixth Assessment Report, pointing out that, Human-induced climate change is already affecting many weather and climate extremes in every region across the globe. Evidence of observed changes in extremes such as heatwaves, heavy precipitation, droughts, and tropical cyclones, and, in particular, their attribution to human influence, has strengthened since AR5. The IPCC stated that it is “virtually certain” that heatwaves have increased in frequency and intensity in most regions, including Europe, with “high confidence” in human activity as the “main driver” of these extreme events.

11. The best available science is also calling for an urgent and dramatic reduction of emissions. In 2018, the IPCC called for rapid and deep emissions reductions – 45% from 2010 levels – by 2030 to avoid crossing the dangerous 1.5°C threshold. This will require “rapid and far-reaching transitions in energy, land, urban and infrastructure (including transport and buildings), and industrial systems”.

12. Most States are not taking sufficiently ambitious and effective climate action, as demonstrated by UN Environment Programme (UNEP) projections that even if all current Nationally Determined Contributions (NDCs) are fulfilled (an unlikely scenario), the world is facing warming of at least 3°C. UNEP reports that States must increase their NDC ambitions threefold to achieve the well below 2°C goal and fivefold to achieve the within 1.5°C goal.

13. To achieve a global reduction of 45% by 2030, wealthy States must make even deeper, faster reductions, in accordance with the principle of common but differentiated responsibilities and respective capabilities articulated in the UN Framework Convention on Climate Change and the Paris Agreement. States still enjoy flexibility to determine which specific emissions reduction measures may work best for their particular socio-economic situations. However, in light of the compelling scientific evidence on the climate emergency, the failure to design and implement effective and equitable mitigation plans that will rapidly achieve ambitious emission reduction targets is inconsistent with the obligation of States to protect human rights from grave and foreseeable risks.

14. The Court has also made repeated references to the widely recognized right to a healthy environment. It is clear that a healthy environment necessarily includes a safe climate, as courts and experts have acknowledged.

---

5 IPCC (2021) AR6, Summary for Policymakers, pg. 10.
6 Id. at pgs. 10, 12-13.
7 IPCC (2018): Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty page 12 (¶C.1).
II.ii. Principles derived from the Court’s jurisprudence on the rights of older persons

15. The court has considered many cases on ‘older’ applicants but has not developed a coherent, comprehensive and detailed jurisprudence on the human rights of older persons, including application of the concept of substantive equality in such cases.\textsuperscript{12} “Age” is still not treated as a distinct and unique ground of discrimination, even when, a systematic stereotyping and discrimination process against people because of their old age, is obviously and explicitly stated.\textsuperscript{13} Many rights offer the opportunity to protect some elements of the right to health of older persons within the civil and political rights framework. The Court has drawn in particular on Articles 2,\textsuperscript{14} 8,\textsuperscript{15} and 14\textsuperscript{16} in this context.

16. Climate change has an effect on the full enjoyment of the human rights of older persons, including the rights to life, health, food, water and sanitation, housing, decent work, culture, and development.\textsuperscript{17} Furthermore, ageing and climate change have differential impacts when it comes to gender. For example, in emergencies owing to climate change impacts, older women might be viewed as a burden and therefore be vulnerable to abuse and neglect.\textsuperscript{18} Older women face particular risk of vulnerability to climate impacts, because of discrimination and inequities in access to resources, as well as social norms and stereotypical roles. In this regard, older women experience disproportionate health risks, including a greater likelihood of facing chronic diseases and air pollution harms, and have higher rates of mortality from extreme heat events.

III. International environmental principles, obligations, commitments and standards are relevant to realizing human rights protections

III.i. The integration of international environmental law and international human rights law

17. Unprecedented levels of global environmental degradation are compromising the effective enjoyment of human rights, as reflected by the growing number of environmental cases being brought to national, regional and global human rights courts and mechanisms. The question is no longer whether, but how human rights courts should address the impacts of environmental harms on the enjoyment of human rights.

\textsuperscript{14} See for example, Bodov vs. Bulgaria no. 59548/00 (2008).
\textsuperscript{15} See for example, Schlumpf vs. Switzerland ni. 8530/08 pending application for further information see https://www.echr.coe.int/Documents/FS_Elderly_ENG.pdf
\textsuperscript{16} Carvalho Pinto de Sousa Morais v. PORTUGAL vs. Portugal (2017) no. 17484/15
\textsuperscript{17} See Office of the High Commissioner for Human Rights, Analytical study on the promotion and protection of the rights of older persons in the context of climate change, April 2021, A/HRC/47/46.
\textsuperscript{18} Independent Expert on the enjoyment of all human rights by older persons, Human rights of older women: the intersection between ageing and gender, July 2021, A/76/157, ¶61.
18. The United Nations Human Rights Committee addressed this question and offered a vision of integration in its revised General Comment on the right to life. It observed that Environmental degradation, climate change and unsustainable development constitute some of the most pressing and serious threats to the ability of present and future generations to enjoy the right to life. Obligations of States parties under international environmental law should thus inform the contents of article 6 of the Covenant, and the obligation of States parties to respect and ensure the right to life should also inform their relevant obligations under international environmental law. (emphasis added)

19. This statement expresses an important principle, building a bridge for dialogue between obligations in the human rights and environmental fields that goes beyond the right to life. To the extent that international environmental law contains customary and conventional norms and general principles that impose substantive obligations, such as in relation to the principles of precaution and prevention of harm; the duty to conduct an environmental impact assessment; rights of access to information, participation and justice; and inter-generational equity, this approach focused on obligations enables their use by human rights bodies.

20. This general approach to dialogue between human rights and environmental norms has already been applied by regional human rights courts. For example, this Court has referred to the procedural obligations relating to good governance and democratic accountability articulated in the Aarhus Convention. These rights and corresponding obligations on access to information, public participation and access to justice in environmental matters are central to the procedural approach that the Court employs in deciding environmental cases. The case of Taskin and others, which involved the authorization of a permit to operate a gold mine using the cyanide leaching process and the related decision-making processes, is instructive. In Taskin, the Court considered the standards of the Aarhus Convention to be relevant, despite the fact that Turkey had neither signed nor acceded to the treaty. The evolution of norms, principles and obligations pursuant to international environmental law, have led the Court to see Aarhus as a relevant regional instrument in the application of the European Convention on Human Rights. It is worth noting that the objective of the Aarhus Convention is “to contribute to the protection of the right of every person of present and future generations to live in an environment adequate to his or her health and well-being” (art. 1).

21. At the same time, as a matter of principle, the dialogue between human rights and environmental norms need not be confined to obligations. Because human rights guarantees are often articulated in general and abstract terms (e.g. Articles 2 and 8 of the Convention), their application to environmental issues calls for a degree of specificity that human rights instruments do not contain. In order for human rights guarantees to offer effective protection in environmental cases, they need to incorporate specific environmental normative content. This content is often found in environmental standards and commitments.

---

19 UN Human Rights Committee, General comment No. 36 (2018) on article 6 of the International Covenant on Civil and Political Rights, on the right to life, ¶62.
22. For example, in 2010, the Inter-American Court of Human Rights decided the case of the Xákmok Kásek Indigenous Community. This case involved the loss of ancestral lands of the Indigenous community, with concomitant negative impacts on the Indigenous people’s rights to culture, life and property, among other rights. The Inter-American Court analyzed the right to a decent existence, under the terms of the right to life enshrined in the American Convention on Human Rights. In that frame, it examined issues of access to and quality of water, relying on international standards for water quantity and quality to scrutinize State conduct.\textsuperscript{23} The Inter-American Court employed the non-binding, international standards developed under the framework of the World Health Organization to give content to the right to a decent existence in the American Convention. The application of this technique to other environmental issues, such as climate change, would follow the same principled approach.

23. In the context of the climate crisis, there are several possible scenarios where binding and non-binding environmental standards and commitments could contribute to specifying the normative content of internationally protected human rights. Specific climate commitments and standards elaborated in the UN Framework Convention on Climate Change, the Kyoto Protocol and the Paris Agreement can inform the normative requirements of human rights obligations. In the Urgenda case, for example, the Supreme Court of the Netherlands followed this approach and gave normative strength to non-binding standards adopted by the Parties to the Kyoto Protocol.\textsuperscript{24} Also, Germany’s Federal Constitutional Court, taking into account the Paris Agreement, IPCC reports, and human rights obligations in the German Constitution, recently concluded that existing climate change legislation violated human rights by creating an unacceptable risk of future impairments of fundamental rights.\textsuperscript{25} Similarly, a human rights court could hold a government to account for its climate commitments expressed in national legislation or in its nationally determined contributions to the global mitigation goals established in the Paris Agreement. Or it could interrogate whether a government has applied its maximum effort under a due diligence standard in formulating and implementing its climate commitments, using scientific evidence as a normative yardstick.

\textbf{III.ii Principles of international environmental law are relevant to the adjudication of climate-related cases by the European Court of Human Rights}

24. We respectfully submit that the Court should seize the opportunity to elaborate on key principles of international environmental law that are particularly relevant to the adjudication of climate change cases.

\textbf{III.ii.i. The Precautionary Principle}

25. Article 3 of the UN Framework Convention on Climate Change provides that “The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change

\textsuperscript{23} Corte IDH, \textit{Caso Comunidad Xákmok Kásek c. Paraguay}, Serie C, No 214, para 195. The Court concluded that “the measures taken by the State […] have not been sufficient to provide the members of the Community with water in sufficient quantity and of adequate quality, and this has exposed them to risks and disease.” (¶196).

\textsuperscript{24} Netherlands v Urgenda, no. 19/00135, Supreme Court of the Netherlands, (2019) ¶¶ 6.3 and 7.2.3. The Court also observed: “According to ECHR case law, an interpretation and application of the ECHR must also take scientific insights and generally accepted standards into account.” ¶5.4.3.

\textsuperscript{25} German Federal Constitutional Court, First Senate, 1 BvR 2656/18, 1 BvR78/20, 1BvR 96/20 and 1 BvR 288/20, Decision dated 24 March 2021.
change and mitigate its adverse effects." The precautionary principle is also in the Rio Declaration on Environment and Development, requiring that “where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.” The Treaty of the European Union states that Union policy on the environment shall be based on the precautionary principle.

The UN Human Rights Committee has urged States to “pay due regard to the precautionary approach” when addressing threats like climate change. Similarly, the Inter-American Court of Human Rights noted that “the precautionary approach is an integral part of the general obligation of due diligence.” The Inter-American Court continued:

States must act in keeping with the precautionary principle in order to protect the rights to life and to personal integrity in cases where there are plausible indications that an activity could result in severe and irreversible damage to the environment, even in the absence of scientific certainty. Consequently, States must act with due caution to prevent possible damage.

The precautionary principle is particularly important in relation to the climate crisis, given the IPCC warning that “pathways that overshoot 1.5°C run a greater risk of passing through ‘tipping points’, thresholds beyond which certain impacts can no longer be avoided even if temperatures are brought back down later.” In regards to extreme weather events including heatwaves, it is noteworthy that the April 2021 decision of the Federal Constitutional Court of Germany, which ruled on the breach of fundamental rights resulting from the insufficiency of Germany’s legislated targets for reducing greenhouse gas emissions by 2030, observed that,

In terms of the negative implications for humanity and the environment, the crossing of tipping points would actually be more problematic than the direct consequences of temperature increase. It could trigger a qualitative transformation of major environmental subsystems.

The Court has already recognized the importance of the precautionary principle in the case of Tatar and Tatar v. Romania. We respectfully submit that the precautionary principle should be a key component of the principled approach to be applied by the Court in climate change cases.

The principle has a double role: it provides a normative basis for ambitious climate action by Governments, and it also requires Governments to act with determination to reduce their emissions of greenhouse gases to face the climate emergency. In this latter sense, as

---

26 United Nations Framework Convention on Climate Change, Article 3.3.
28 EU Treaty, Article 191.
29 Human Rights Committee, General Comment No. 36, ¶ 62.
30 Advisory Opinion 23/17, ¶ 177.
31 Advisory Opinion 23/17, ¶180.
32 IPCC, Global Warming of 1.5°C, p. 283.
33 German Federal Constitutional Court, First Senate, 1 BvR 2656/18, 1 BvR78/20, 1BvR 96/20 and 1 BvR 288/20, Decision dated 24 March 2021, ¶ 161.
34 Tatar and Tatar v Romania (2009) No. 67021/01, ¶¶ 109 and 120.
conceptualized by the Inter-American Court and the International Tribunal for the Law of the Sea, the precautionary principle should be seen as an element of due diligence.\textsuperscript{35}

\textit{III.ii.ii Principle of Prevention of Environmental Harm}

30. Back in 1972, the Stockholm Declaration on the Human Environment proclaimed that “States have the “responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.”\textsuperscript{36} As expressed by the International Court of Justice, “the principle of prevention, as a customary rule, has its origins in the due diligence that is required of a State in its territory.”\textsuperscript{37}

31. The principle of prevention is often articulated as a duty to prevent significant transboundary environmental harm. As formulated by the International Law Commission in its project on the protection of the atmosphere, States have the obligation to protect the atmosphere by exercising due diligence.\textsuperscript{38}

32. Given the severity of the global climate crisis, and the existential risks to human society and human rights imposed by climate change, the principle of prevention provides a solid normative foundation for the principled intervention of this Court in climate cases.

\textit{III.iii Extraterritorial Human Rights Obligations}

33. Transboundary environmental harm can also give rise to extraterritorial human rights obligations on the part of the State with control over the sources of the harm. As the Inter-American Court of Human Rights has stated:

\begin{quote}
States have the obligation to avoid transboundary environmental damage that can affect the human rights of individuals outside their territory. For the purposes of the American Convention, when transboundary damage occurs that affects treaty-based rights, it is understood that the persons whose rights have been violated are under the jurisdiction of the State of origin, if there is a causal link between the act that originated in its territory and the infringement of the human rights of persons outside its territory.\textsuperscript{39}
\end{quote}

34. In 2018, the Human Rights Committee’s General Comment on the right to life clarified that the State bears responsibilities to ensure the right to life of individuals outside its territory, whose right to life is nonetheless impacted by its activities in “a direct and reasonably foreseeable

\begin{flushleft}
\textsuperscript{35} Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area (Request for Advisory Opinion Submitted to the Seabed Disputes Chamber), Case No. 17, Advisory Opinion of 1 Feb. 2011, ¶ 132.
\textsuperscript{38} See e.g., International Law Commission, Special Rapporteur, Sixth Report on the protection of the atmosphere, Guideline 3, ¶¶ 45-52 (Feb. 11, 2020), A/CN.4/736.
\textsuperscript{39} Advisory Opinion on the Environment and Human Rights, OC-23/17 (15 November 2017), ¶ 101.
\end{flushleft}
manner.” This duty includes activities taken by corporate entities based in the State’s territory or subject to its jurisdiction.

35. In September 2019, five UN human rights treaty bodies issued a compelling Joint Statement on Human Rights and Climate Change, confirming that States have extraterritorial obligations.

IV. Obligations and commitments under the Paris Agreement are relevant to the adjudication of climate-related cases

36. The Paris Agreement commits each Party to reflect its “highest possible ambition” in its nationally determined contribution to the Agreement’s long-term temperature goal. During the negotiations of the Paris Agreement, the inclusion of this principle was premised on due diligence requirements, which allowed for a principled differentiation of commitments between Parties, in light of national circumstances.

37. The principle of highest possible ambition closely aligns with the duty of the state to exercise due diligence in both human rights and environmental contexts. In the face of an existential risk such as the climate emergency, governments must take measures commensurate with that risk, taking all appropriate and necessary actions to address private behaviour, including adopting necessary regulations, monitoring and enforcement. At the very minimum, States must utilize scientific evidence as a baseline yardstick in defining their level of emissions reductions. According to five UN treaty bodies, States must also “dedicate the maximum available resources to the adoption of measures aimed at mitigating climate change.”

38. The principle of due diligence is well established in the environmental jurisprudence of the Court. In the case of Cordella v. Italy, the Court wrote:

---

40 General Comment No. 36 (on the right to life), UN Doc. CCPR/C/GC/36 (30 October 2018), ¶ 63. See also African Commission on Human and Peoples’ Rights, General Comment No. 3 (Nov. 2015), ¶ 14 (in relation to the right to life, defining extraterritorial jurisdiction as whether a State’s activities could “reasonably be foreseen to result in an unlawful deprivation of life”); European Court of Human Rights, Andreou v. Turkey, no. 45653/99 (2009) (applying a “direct and immediate cause” standard).

41 Id.

42 Joint Statement on Climate Change and Human Rights, The Committee on the Elimination of all Forms of Discrimination against Women, the Committee on Economic, Social and Cultural Rights, the Committee on the Protection of the Rights of All Migrant Workers and Members of their Families, the Committee on the Rights of the Child, and the Committee on the Rights of Persons with Disabilities, September 2019, ¶ 10.

43 Paris Agreement, Article 4.3.


45 Joint Statement on Climate Change and Human Rights, The Committee on the Elimination of all Forms of Discrimination against Women, the Committee on Economic, Social and Cultural Rights, the Committee on the Protection of the Rights of All Migrant Workers and Members of their Families, the Committee on the Rights of the Child, and the Committee on the Rights of Persons with Disabilities, September 2019, ¶ 7.
161. The Court notes that, while it is not for it to determine precisely what measures should have been taken in the present case in order to reduce the level of pollution more effectively, it is **undoubtedly for it to determine whether the national authorities approached the question with due diligence.** (emphasis added)

39. In the context of the climate emergency, the principle of due diligence means, inter alia, that every State must establish the highest possible emission reduction commitments based on the scientific evidence identified by the IPCC and then do its utmost, using the maximum available resources, to fulfill those commitments. These obligations are necessary to meet the extreme risks posed by the climate crisis, as any further delay in ambitious action will make it impossible to stay within the temperature limits set forth in the Paris Agreement. Fulfilling the rights of older persons lends impetus to the importance of timely action to address the climate crisis. The principle of due diligence also means that Convention Parties are required to constructively participate in international cooperation on climate change. In this regard, failure to take sufficient, effective and equitable climate measures can be found to breach the guarantees of the Convention.

**V. Conclusion**

40. Humanity faces a global climate emergency that is already inflicting grievous impacts on human rights. Rapid, systematic and transformative changes are required to prevent catastrophic climate disruption and the tsunami of human rights violations that would ensue. Where States are taking insufficient measures to achieve the Paris Agreement’s objectives, international human rights courts can and should provide timely protection, such as for older persons threatened by deadly heatwaves.

41. The time for action to address the climate emergency and prevent catastrophic impacts on human rights is rapidly running out. Climate justice delayed is climate justice denied. In the words of Judge Robert Spanó, President of this Court, “No one can legitimately call into question that we are facing a dire emergency that requires concerted action by all of humanity. For its part, the European Court of Human Rights will play its role within the boundaries of its competences as a court of law forever mindful that Convention guarantees must be effective and real, not illusory.”

Respectfully submitted on this 15 day of September 2021,

Marcos A Orellana, UN Special Rapporteur on toxics and human rights
David R. Boyd, UN Special Rapporteur on human rights and the environment
Claudia Mahler, UN Independent expert on the enjoyment of all human rights by older persons

46 Judge Robert Spanó, (President of the ECtHR), ‘Should the European Court of Human Rights become Europe’s environmental and climate change court’ (Conference on Human Rights for the Planet, Strasbourg, 5 October 2020).