



# INTERNATIONAL HUMAN RIGHTS IMPACTS OF FRACKING REPORT

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## Notes

The authors of this report are LLM candidates in International Human Rights Law at the Irish Centre for Human Rights (ICHR), NUI Galway. Rowan Hickie holds a Bachelor of Arts Honors degree and Juris Doctor degree from the University of Alberta, Canada. Bridget Geoghegan holds a Bachelor of Civil Law degree from NUI Galway.

This report has been prepared in collaboration with Safety Before LNG, Love Leitrim and Letterbreen and Mullaghduin Partnership (LAMP) as part of the work of the Human Rights Law Clinic at the Irish Centre for Human Rights, NUI Galway.

This report is a revised version of a report prepared for LAMP, examining the human rights impacts of fracking and the obligations which the United Kingdom and Northern Ireland hold in regard to fracking. This report has been revised to be more widely applicable to all States Parties to the human rights treaties discussed.

The ICHR at the School of Law, National University of Ireland Galway, is Ireland's principal academic human rights institute. The ICHR undertakes human rights teaching, research, publications, and training, and contributes to human rights policy development nationally and internationally. The Human Rights Law Clinic at the ICHR was launched in 2019 and is directed by Dr Maeve O'Rourke. The Clinic introduces students to 'movement lawyering' and enables students to contribute their skills to community-based movements for social change.

In preparing this report, the authors received assistance and feedback from Dr. Maeve O'Rourke, Pearce Clancy, Johnny McElligott, Eddie Mitchell, and Dianne Little. We are thankful for the expertise and insightful feedback shared with us for the purpose of writing this report.

The authors are solely responsible for the content of this report and all opinions and any errors are their own.

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## Executive Summary

Climate change poses a major threat to our planet. This reality has been recognized by the United Nations and broader international legal community.<sup>1</sup>

Unconventional oil and gas extraction, including processes such as hydraulic fracturing, pose a significant threat to human rights through both their contribution to climate change and their procedures' impacts on surrounding communities. Academics, researchers and medical professionals have stressed that 'the evidence clearly demonstrates that the processes of fracking contribute substantially to anthropogenic harm, including climate change and global warming, and involve massive violations of a range of substantive and procedural human rights and the rights of nature.'<sup>2</sup> The Concerned Health Professionals of New York and Physicians for Social Responsibility in their 7<sup>th</sup> Edition of the Compendium of Scientific, Medical and Media Findings Demonstrating Risks and Harms of Fracking (Unconventional Gas and Oil Extraction) (hereinafter the 'Compendium') conclude that 'a significant body of evidence has emerged to demonstrate that these activities are dangerous in ways that cannot be mitigated through regulation.'<sup>3</sup>

Human rights impacted by fracking and its contribution to climate change include, but are not necessarily limited to, the right to life, the right to health, the right to water, the right to food, the right to housing, the right to access to information, the right to public participation, the right to a safe, clean, healthy and sustainable environment, with violations of these rights having disproportionate impacts on marginalized and vulnerable communities and groups.

These human rights are contained in numerous international and regional human rights instruments and treaties, to which many States are party, including Ireland.<sup>4</sup> These international human rights instruments include:

- The International Covenant on Civil and Political Rights (ICCPR);<sup>5</sup>
- The International Covenant on Economic, Social and Cultural Rights (ICESCR);<sup>6</sup>
- The United Nations Convention on the Rights of the Child (CRC);<sup>7</sup>

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<sup>1</sup> António Guterres 'Remarks at the Climate Ambition Summit' (12 December 2020), available at: <https://www.un.org/sg/en/content/sg/speeches/2020-12-12/remarks-the-climate-ambition-summit>.

<sup>2</sup> Concerned Health Professionals of New York and Physicians for Social Responsibility, 'Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking (Unconventional Gas and Oil Extraction)' (2020 7th ed.) [Compendium] at 57-58.

<sup>3</sup> *Ibid.*, at 7.

<sup>4</sup> See UN Treaty Depository Status of Multilateral Human Rights Treaties <https://treaties.un.org/Pages/Treaties.aspx?id=4&subid=A&clang=en>

<sup>5</sup> International Covenant on Civil and Political Rights (adopted 23 March 1976) 999 UNTS 171 [ICCPR].

<sup>6</sup> International Covenant on Economic, Social and Cultural Rights (adopted 1 March 1976) 993 UNTS 3 [ICESCR].

<sup>7</sup> Convention on the Rights of the Child (adopted 20 November 1989) 1577 UNTS 3 [CRC].

- The United Nations Convention on the Elimination of All Forms of Discrimination against Women (CEDAW);<sup>8</sup>
- The United Nations Convention on the Rights of Persons with Disabilities (CRPD);<sup>9</sup> and
- The International Convention on the Elimination of All Forms of Racial Discrimination (ICERD).<sup>10</sup>

In addition to the treaties mentioned above, the European Convention on Human Rights (ECHR)<sup>11</sup> similarly enumerates human rights obligations, binding on a number of all Council of Europe member states.

United Nations treaty bodies, special rapporteurs and civil society organizations have recognized and noted the negative impacts that fracking and climate change pose to the human rights contained within these instruments. Once a State has ratified the above mentioned international and regional human rights instruments, it is bound by its obligations thereunder to respect, protect and ensure these international human rights are met.

As reflected in the content of this report, it is difficult to see how a State can propose and utilize fracking operations without breaching its international and regional human rights obligations.

As a result, it is recommended that States:

- Refrain from implementing fracking practices, and in accordance with the CEDAW Committee's 2019 recommendation to the United Kingdom, introduce a comprehensive and complete ban on fracking;<sup>12</sup>
- Prohibit the expansion of polluting and environmentally destructive types of fossil fuel extraction, including oil and gas produced from fracking, as per the recommendation of the Special Rapporteur on human rights and the environment;<sup>13</sup> and
- Commit to attaining and upholding the highest standards of the rights to life, health, water and food, and ensure that no State or private initiatives disproportionately impact these rights.

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<sup>8</sup> Convention on the Elimination of All Forms of Discrimination against Women (adopted 3 September 1981) 1249 UNTS 1 [CEDAW].

<sup>9</sup> Convention on the Rights of Persons with Disabilities (adopted 3 June 2008) 2515 UNTS 3 [CRPD].

<sup>10</sup> International Convention on the Elimination of All Forms of Racial Discrimination (adopted 21 December 1965) 660 UNTS 195 [ICERD].

<sup>11</sup> Council of Europe, Convention for the Protection of Human Rights and Fundamental Freedoms (4 November 1950) 213 UNTS 221 [ECHR].

<sup>12</sup> UN Committee on the Elimination of Discrimination against Women, 'Concluding Observations on the eight periodic report of the United Kingdom of Great Britain and Northern Ireland' (14 March 2019) UN Doc CEDAW/C/GBR/CO/8 at 54(b) [CEDAW Concluding Observations].

<sup>13</sup> United Nations Special Procedures 'Safe Climate: a report of the Special Rapporteur on human rights and the environment' (2019) UN Doc A/74/161 at 78(d) [Safe Climate Report].

# 1. Introduction

It has been widely acknowledged that our planet is currently faced with a climate crisis.

On December 12, 2020, the United Nations Secretary General, António Guterres, called on leaders across the globe to declare a State of Climate Emergency in their countries until carbon neutrality is reached.<sup>14</sup> Human activities that are some of the largest contributors to the heating of the Earth's climate include the 'burning of fossil fuels and biomass, deforestation and industrial agriculture.'<sup>15</sup> As noted by the Special Rapporteur on human rights and the environment, as of 2019, 70 per cent of greenhouse gas emissions are produced through 'the burning of fossil fuels and biomass for electricity and heat (25 per cent of the global total)' with greenhouse gases including 'carbon dioxide (76 per cent of global greenhouse gas emissions), methane (16 per cent), nitrous oxide (6 per cent) and fluorinated gases such as chlorofluorocarbons and hydrofluorocarbons (2 per cent).'<sup>16</sup>

As climate change poses serious risks not only to the health of the planet and its population, but also to the human rights of its people, addressing climate change and the use of fossil fuels is important not only for State Parties to the Paris Agreement<sup>17</sup> to meet their obligations, but for States to meet their international human rights obligations.

This report will examine the impacts that unconventional oil and gas exploration and extraction (also known as hydraulic fracking and hydraulic fracturing), have on international and regional human rights obligations. As will be demonstrated, unconventional oil and gas exploration (hereinafter referred to as 'fracking') impacts a wide array of human rights, including the right to life, health, water, food, housing, access to information, public participation, a safe, clean and healthy environment, with human rights violations often disproportionately impacting marginalized individuals and communities such as women, children and persons living in poverty.

States, in making a determination of whether to implement fracking, should be made aware of the impacts that the exploration for, exploitation of and use of fossil fuels will have not only on their environments, but also on their people and their obligations under international agreements and treaties to which they are party. Further, as the impacts of climate change and fracking and the resulting pollution do not respect State boundaries, States must be aware of the implications their fracking practices may have on not only their citizens, but also on citizens of other States. In particular, contamination of water, air pollution and the emission of greenhouse gases can contribute to and pose a risk to human rights in neighbouring States and on the environment globally.

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<sup>14</sup> António Guterres 'Remarks' (n 1).

<sup>15</sup> Safe Climate Report (n 13) at 12.

<sup>16</sup> *Ibid.*

<sup>17</sup> Paris Agreement to the United Nations Framework Convention on Climate Change, (adopted 12 December 2015, entered into force 14 November 2016) 16 TIAS 1104 [Paris Agreement].

The structure of this report is as follows. First, it contains a brief discussion of what fracking is, in order to provide a foundation for the remainder of the discussion regarding its impact on human rights. The risks fracking poses will then be discussed, followed by a brief overview of the relevant international human rights treaties and agreements. An analysis of the international human rights impact of fracking impacts will then follow. This discussion will be broken down to focus on particular rights one-by-one. It should be noted that certain rights are protected by multiple international treaties. The violation of one right may therefore mean that multiple international treaties are being breached. An examination of the human rights impacts of fracking in relation to rights protected by the ECHR will follow. Finally, the paper contains a brief conclusion, summarizing the ways in which fracking appears to impact State obligations under international human rights instruments.

## 1.1 What is Fracking?

In examining the international human rights impacts of fracking, it is first important to understand what fracking is. Providing a clear understanding of what fracking is will allow for a clear and concise discussion of how fracking may impact States' human rights obligations.

This paper will not provide an extensive overview of the scientific processes of fracking but will outline the general procedure of fracking.

Fracking is the common term used to describe an unconventional process of oil and gas extraction. Fracking is also widely referred to as: hydrofracking, hydraulic fracturing, unconventional hydrocarbon extraction, unconventional natural gas production fracturing, and horizontal drilling. For the purposes of this paper, the process will be referred to as 'fracking' to maintain consistency.<sup>18</sup>

When oil and gas is trapped in rock formations, fracking is used to access and extract the deposits of oil and gas. Directional drilling (both vertical and horizontal) is used to bore down into the ground and access these deposits. High volumes of water, chemicals and sand (known as proppants) are pumped at high volume into the drilled holes to fracture the rock formations and then to keep the spaces open to aid the release and flow of the gas back up the drill hole.<sup>19</sup> As the water flows back up the drill hole, the water carries with it not only the proppant chemicals and materials it injected into the rock formations, but also other substances such as 'brine, heavy metals, and radioactive elements.'<sup>20</sup>

Although the process of fracking is generally the same – save for differences in technique, material used, etc – it is also important to be aware of how the rules and regulations regulating fracking define it within different jurisdictions. Laws or regulatory measures may create certain

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<sup>18</sup> Compendium (n 2) at 26.

<sup>19</sup> *Ibid.*

<sup>20</sup> *Ibid.*

limitations regarding what qualifies as fracking, including by requiring certain procedures, materials or processes to be used.<sup>21</sup> It is important to be aware of legislative limitations and boundaries of what would legally qualify as fracking; as even if a process follows and has all of the qualities of fracking, if it fails to meet the quantitative threshold set out in the legislation, it can be deemed not to be fracking in law.

## 1.2 What are the Risks of Fracking?

Fracking poses severe risks to the environment and to human health and wellbeing through both the physical procedures involved in and associated with the act of fracking, but also in the carbon emissions that result from the fossil fuels that the fracking process creates.

As noted by the Concerned Health Professionals of New York and Physicians for Social Responsibility in their 7<sup>th</sup> Edition of the Compendium of Scientific, Medical and Media Findings Demonstrating Risks and Harms of Fracking (Unconventional Gas and Oil Extraction)<sup>22</sup> (hereinafter the ‘Compendium’), fracking can result in devastating environmental impacts such as water contamination, air pollution, earthquakes and radioactive contamination.<sup>23</sup>

The storage of contaminated waste waters and the potential for these waters to leak and contaminate ground water are one of the environmental issues associated with fracking.<sup>24</sup> Air pollution surrounding fracking infrastructure in the United States was found to have high levels of toxic pollutants, including ‘carcinogen benzene and the chemical precursors of ground-level ozone (smog)’, which cause severe environmental damage and risks to human health.<sup>25</sup>

In addition to the environmental damage and risks that fracking poses, there are also severe risks to human health and well-being. The Compendium provides a referenced compilation of evidence demonstrating the risks and harms caused by fracking, including: ‘detrimental impacts on water, air, climate stability, public health, farming, property values, and economic vitality.’<sup>26</sup> The Compendium further notes that throughout the United States, certain communities and persons are disproportionately impacted by fracking, including pregnant women, children, communities of color, Indigenous peoples, and communities living in poverty.<sup>27</sup> In addition to the public health impacts of fracking, the Compendium further finds

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<sup>21</sup> See for example the United Kingdom’s Infrastructure Act 2015 c.7 section 504B subsection 4A governing the Onshore Hydraulic Fracturing Safeguards, which sets out that “Associated hydraulic fracturing” means hydraulic fracturing of shale or strata encased in shale which— (b) involves, or is expected to involve, the injection of—(i)more than 1,000 cubic metres of fluid at each stage, or expected stage, of the hydraulic fracturing, or (ii)more than 10,000 cubic metres of fluid in total.

<sup>22</sup> Compendium (n 2).

<sup>23</sup> *Ibid.*, at 60-142,149-162, 226-257.

<sup>24</sup> *Ibid.*, at 27.

<sup>25</sup> *Ibid.*

<sup>26</sup> *Ibid.*, at 7.

<sup>27</sup> *Ibid.*

that fracking itself is a ‘dangerous process with innate engineering problems that include uncontrolled and unpredictable fracturing, induced earthquakes, and well casing failures that worsen with age and lead to water contamination and fugitive emissions.’<sup>28</sup>

In addition to the risks to the environment, human health and the disproportionate impact on vulnerable members of the community, the Compendium highlights that fracking raises ‘fundamental questions of human rights.’<sup>29</sup> As will be discussed, the risks to various internationally protected human rights are substantial. From fracking’s contribution to greenhouse gas emissions and climate change, to the immediate impacts fracking has on the surrounding community, fracking poses severe risks to the human rights of persons immediately surrounding fracking operations and around the world.

### **1.3 What are International Human Rights?**

There are several international treaties that are relevant in assessing the international human rights impacts of fracking. International environmental treaties such as the Paris Agreement are also of relevance to the discussion of States’ obligations to combat climate change and secure human rights. As noted by the Special Rapporteur on human rights and the environment, David Boyd: ‘Human rights obligations are reinforced by international environmental law, as States are obliged to ensure that polluting activities within their jurisdiction or control do not cause serious harm to the environment or peoples of other States or to areas beyond the limits of national jurisdiction.’<sup>30</sup>

Further, international human rights treaty monitoring bodies have commented upon States’ obligations under the Paris Agreement in relation to their human rights obligations, further demonstrating the link between the environmental and human rights obligations of states. This can be seen in the Committee on Economic, Social and Cultural Rights’ (ICESCR) 2018 concluding observations on Argentina, in which the Committee recommended that Argentina reconsider large-scale oil and gas exploitation as it ran ‘counter to the State party’s commitments under the Paris Agreement and would have a negative impact on global warming and on the enjoyment of economic and social rights by the world’s population and future generations’ contrary to Articles 1(1) and 2(1) of the ICESCR.<sup>31</sup>

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<sup>28</sup> *Ibid.*

<sup>29</sup> *Ibid.*, at 57.

<sup>30</sup> Safe Climate Report (n 13) at 66.

<sup>31</sup> UN Committee on Economic, Social and Cultural Rights, ‘Concluding observations on the fourth periodic report of Argentina’ (1 November 2018) UN Doc E/C.12/ARG/CO/4 at 13; *see also* Safe Climate Report (n 12) at 67.

## 1.4 International Treaties and Instruments

Once a State Party to an international treaty, that State is bound by obligations to fulfil its obligations under that treaty. The following treaties contained rights which are impacted by fracking:

- The International Covenant on Civil and Political Rights (ICCPR);
- The International Covenant on Economic, Social and Cultural Rights (ICESCR);
- The United Nations Convention on the Rights of the Child (CRC);
- The United Nations Convention on the Elimination of All Forms of Discrimination against Women (CEDAW);
- The United Nations Convention on the Rights of Persons with Disabilities (CRPD); and
- The International Convention on the Elimination of All Forms of Racial Discrimination (ICERD).

In addition to the above-mentioned human rights treaties, other multilateral international treaties, such as the Paris Agreement, are also relevant when examining fracking. The Paris Agreement is a multilateral climate change treaty, binding States to take action against climate change and adapt to the effects of climate change. Recently, the United Kingdom reaffirmed its commitment to the Paris Agreement, committing to reducing its economy-wide greenhouse gas emissions by at least 68% by 2030, compared to 1990 levels.<sup>32</sup>

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<sup>32</sup> Recently, the United Kingdom reaffirmed its commitment to the Paris Agreement, committing to reducing its economy-wide greenhouse gas emissions by at least 68% by 2030, compared to 1990 levels: United Kingdom Government, ‘United Kingdom of Great Britain and Northern Ireland’s Nationally Determined Contribution’ (12 December 2020) at 1. *See also*, Government of Ireland ‘Climate Action Plan 2019: To Tackle Climate Breakdown’ (17 June 2019) at 22, where Ireland’s targets for 2021-2030 call for a 30% reduction in its non-Emissions Trading System sector greenhouse gas emissions.

## 2. International Human Rights Obligations

The risks that climate change poses to human rights have been widely acknowledged by the international legal community. As the Special Rapporteur on human rights and the environment noted in the 2019 Report on Safe Climate,<sup>33</sup> climate change poses a risk to the ‘rights to life, health, food, water and sanitation, a healthy environment, an adequate standard of living, housing, property, self-determination, development and culture.’<sup>34</sup> Further, the Special Rapporteur emphasized that the risks to human rights posed by climate change are likely to disproportionately impact more vulnerable communities, including women, children and those living in poverty.<sup>35</sup>

The adverse impact of climate change on human rights has also been noted by the previous Special Rapporteur on human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, where, ‘[e]nvironmental degradation can and does adversely affect the enjoyment of a broad range of human rights.’<sup>36</sup> The Human Rights Council in its 2008 Resolution 7/23 on Human Rights and Climate Change noted that climate change ‘poses an immediate and far-reaching threat to people and communities around the world and has implications for the full enjoyment of human rights.’<sup>37</sup>

States, under the relevant international human rights instruments, are obligated to take action and allocate resources to realize economic, social and cultural rights, civil and political rights and the right to development. States’ failure to ‘adopt reasonable measures to mobilize resources to prevent foreseeable human rights harm caused by climate change breaches this obligation.’<sup>38</sup> It is crucial that States take action against the human rights risks posed by climate change.

Fracking poses a threat to human rights through both its contribution to climate change and its own direct impacts on surrounding communities. As the Compendium notes, ‘the evidence clearly demonstrates that the processes of fracking contribute substantially to anthropogenic harm, including climate change and global warming, and involve massive violations of a range of substantive and procedural human rights and the rights of nature.’<sup>39</sup>

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<sup>33</sup> Safe Climate Report (n 13).

<sup>34</sup> *Ibid.*, at 26.

<sup>35</sup> *Ibid.*

<sup>36</sup> UN Human Rights Council, ‘Report of the Independent Expert on the issue of human rights obligations relation to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox’ (24 December 2012) UN Doc A/HRC/22/43 at 34.

<sup>37</sup> UN Human Rights Council ‘Resolution 7/23 Human Rights and Climate Change’ (28 March 2008) UN Doc A/HRC/RES/7/23, preamble.

<sup>38</sup> UN Human Rights Council, ‘Analytical study on the relationship between climate change and the human right of everyone to the enjoyment of the highest attainable standard of physical and mental health’ (6 May 2016) UN Doc A/HRC/32/23 at 34 [HRC Analytical Study].

<sup>39</sup> Compendium (n 2) at 57-58.

A discussion of each right and how fracking and its contribution to climate change may impact and infringe upon international legal human rights standards follows below.

## 2.1 Right to Life

The right to life is one of the most widely recognized rights in international human rights law.<sup>40</sup> The right to life protects against State action or inaction which poses risk to the life of persons. As the Human Rights Committee notes, State obligations in relation to the right to life include protecting against ‘reasonably foreseeable threats and life-threatening situations that can result in loss of life.’<sup>41</sup> States may violate the right to life by exposing individuals to a real risk of the deprivation of life, even if the risk does not result in an actual loss of life.<sup>42</sup> States have an obligation to take appropriate measures to ‘address the general conditions in society that may give rise to direct threats to life or prevent individuals from enjoying their right to life with dignity.’<sup>43</sup> Thus, States may violate the right to life through not only deprivation of life, but also the deprivation of the right to life with dignity.

### 2.1.1 The right to life recognised by International treaties and instruments

International instruments which contain specific Articles governing the right to life include the Universal Declaration of Human Rights, the ICCPR and the CRC.<sup>44</sup> Regional human rights treaties also protect the right to life.<sup>45</sup>

In its General Comment No. 36, the Human Rights Committee addressed the general conditions which States are under an obligation to address, including the ‘degradation of the environment.’<sup>46</sup> In recognizing the link between the environment and the right to life, the Committee emphasized that climate change presents one of the most ‘pressing and serious threats to the ability of present and future generations to enjoy the right to life.’<sup>47</sup>

States, in meeting their obligations to ensure the right to life, have both negative and positive duties, in that ensuring the right to life and the right to life with dignity depends on ‘measures taken by States parties to preserve the environment and protect it against harm, pollution and climate change caused by public and private actors. States parties should therefore ... pay due regard to the precautionary approach.’<sup>48</sup>

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<sup>40</sup> Safe Climate Report (n 13) at 28.

<sup>41</sup> 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’ (30 October 2018) UN Doc CCPR/C/GC/36 at 7 [UN Human Rights Committee ‘General Comment No. 36].

<sup>42</sup> *Ibid.*

<sup>43</sup> *Ibid.*, at 26.

<sup>44</sup> Universal Declaration of Human Rights (adopted 10 December 1948) UNGA Res 217 A(III) [UDHR], Art 3; ICCPR (n 4) Art 6(1); CRC (n 6) Art 6(1).

<sup>45</sup> See ECHR (n 9); Organization of American States, ‘American Convention on Human Rights’ (22 November 1969) 1144 UNTS 123; Organization of African Unity, ‘African Charter on Human and Peoples’ Rights’ (27 June 1981) 1520 UNTS 217.

<sup>46</sup> UN Human Rights Committee, ‘General Comment No. 36’ (n 41) para 26.

<sup>47</sup> *Ibid.*, para 62.

<sup>48</sup> *Ibid.*

The precautionary approach, or principle, is enshrined in Article 3(3) of the United Nations Framework Convention on Climate Change<sup>49</sup> (UNFCCC) (which is the umbrella treaty under which the Paris Agreement was created), wherein it is outlined that States ‘should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures.’<sup>50</sup>

The Human Rights Committee’s discussion of the right to life and its connection to the degradation of the environment can be seen in *Portillo Cáceres v Paraguay*.<sup>51</sup> The Committee considered a complaint brought against Paraguay by two families who had been poisoned by pesticides and insecticides utilized by neighbouring industrial farms. Although there were legal regulations in place which prohibited the use of the pesticides and insecticides, the State failed to take meaningful steps to enforce the regulations. The pesticides and insecticides resulted in the death of one family member and the hospitalization of other family members. Further, the chemicals resulted in the loss of the families’ fruit trees, the death of several farm animals and damage to their crops.

The Committee concluded, regarding the State’s obligation to take positive action to protect the rights found under the ICCPR, that States must take all appropriate measures to protect their people from any threat that is ‘reasonably foreseeable’,<sup>52</sup> referencing decisions of regional human rights bodies which had recognized ‘an undeniable link between the protection of the environment and the realization of human rights and that have established that environmental degradation can adversely affect the effective enjoyment of the right to life.’<sup>53</sup>

In particular, the Inter-American Court of Human Rights in its advisory opinion on the environment and human rights, emphasized that the relationship between the protection of the environment and human rights, where ‘environmental degradation and the adverse effects of climate change affect the real enjoyment of human rights.’<sup>54</sup> The African Commission on Human Rights has also recognized the ties between the protection of the environment and human rights. In the *Social and Economic Rights Action Center & the Center for Economic and Social Rights v. Nigeria* communication, the Commission acknowledged the State’s responsibilities in relation to the ‘right to a general satisfactory environment’ enshrined in Article 24 of the African Charter. The Commission’s decision illustrates the ways in which this

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<sup>49</sup> United Nations Framework Convention on Climate Change (21 March 1994) 1771 UNTS 107 [UNFCCC].

<sup>50</sup> See *ibid.*, Art 3(3).

<sup>51</sup> UN Human Rights Committee ‘Views adopted by the Committee under Article 5 (4) of the Optional Protocol, concerning communication No. 2751/2016’ (20 September 2019) UN Doc CCPR/C/126/D/2751/201 [*Portillo Cáceres v Paraguay*].

<sup>52</sup> *Ibid.*, at 7.3-7.5.

<sup>53</sup> *Ibid.*, at 7.4.

<sup>54</sup> Inter-American Court of Human Rights, Advisory Opinion OC-23/17 of 15 November 2017 on the environment and human rights, series A, No. 23, at 47, referring to Inter-American Court of Human Rights *Kawas-Fernández v. Honduras*, merits, reparations and costs, judgment of 3 April 2009, series C, No. 196, at 148.

right to a satisfactory environment is linked to the right to life, finding that the pollution and environmental degradation of the land violated the right to life.<sup>55</sup>

The Human Rights Committee highlighted that the findings of the regional bodies suggests that severe environmental degradation gives rise to a violation of the right to life.<sup>56</sup> Ultimately, the Committee found that the State's inadequate controls over the illegal use of the pollutant chemicals constituted a violation of the right to life of the deceased and the surviving complainants.<sup>57</sup>

Other human rights and international bodies have also recognized the threat climate change and damage to the environment poses to the right to life. The UN Office of the High Commissioner for Human Rights (OHCHR) has emphasized that 'At its most extreme, climate change kills',<sup>58</sup> further noting that not only does climate change result in premature deaths, which on its own warrants action by States, but climate change also 'endangers the underlying determinants of health at every level, acting as a threat multiplier.'<sup>59</sup> The Special Rapporteur on human rights and the environment has stressed the disastrous effects of climate change and the risk it poses to human rights such as with extreme weather events, heat waves, floods, draughts, wild-fires, diseases and pollution leading to deaths.<sup>60</sup> The World Health Organization has estimated that climate change will contribute to approximately 250,000 additional deaths from malnutrition, malaria, diarrhoea and heat stress alone.<sup>61</sup>

### **2.1.2 The impact of fracking on the right to life**

As will be discussed in greater detail below, fracking poses significant public health risks to the communities and individuals surrounding the fracking operations, but also a significant risk through its contribution to the larger issue of climate change. The end product of fracking, natural gas, is not a climate-friendly fuel.<sup>62</sup> In addition to the end product of natural gas, the process of fracking results in large amounts of methane emissions escaping during the fracking process. Methane is 'a powerful greenhouse gas that traps 86 times more heat than carbon dioxide over a 20-year time frame.'<sup>63</sup> Methane released during the fracking process is largely

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<sup>55</sup> *African Commission on Human and Peoples' Rights, Social and Economic Rights Action Center & the Center for Economic and Social Rights v. Nigeria*, Communication No. 155/96, 27 October 2001 at 67.

<sup>56</sup> *Portillo Cáceres v Paraguay* (n 51) at 7.4.

<sup>57</sup> *Ibid.*, at 7.5.

<sup>58</sup> HRC Analytical Study (n 38) at 8.

<sup>59</sup> *Ibid.*, at 8, referring to DARA, 'Climate Vulnerability Monitor: A Guide to the Cold Calculus of a Hot Planet' (2nd ed., 2012).; and World Health Organization 'Quantitative risk assessment of the effects of climate change on selected causes of death, 2030s and 2050s' (2014).

<sup>60</sup> Safe Climate Report (n 13) at 29.

<sup>61</sup> World Health Organization 'Quantitative risk assessment of the effects of climate change on selected causes of death, 2030s and 2050s' (2014).

<sup>62</sup> Compendium (n 3) at 298.

<sup>63</sup> *Ibid.*

referred to as fugitive emissions, and can occur during the drilling, storage and ancillary processes.<sup>64</sup>

Climate change, as noted by various human rights and international bodies, poses a grave risk to the planet, and States, pursuant to their obligations to ensure the right to life, must take action to combat the degradation of the environment in order to protect the right to life and the right to life with dignity.

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<sup>64</sup> *Ibid.*

## 2.2 Right to Health

The right to health has been described as a fundamental human right, ‘indispensable for the exercise of other human rights.’<sup>65</sup> Pursuant to the right to health, everyone is ‘entitled to the enjoyment of the highest attainable standard of health conducive to living a life in dignity.’<sup>66</sup>

### 2.2.1 The relevance of climate change to the right to health as recognised under international treaties

Multiple international human rights treaties and instruments recognise the right to health, including the ICESCR<sup>67</sup>, CRC<sup>68</sup>, CRPD,<sup>69</sup> UDHR,<sup>70</sup> ICERD<sup>71</sup> and CEDAW.<sup>72</sup> The widespread inclusion of the right to health in human rights instruments indicates its fundamental importance.

The Committee on Economic Social and Cultural Rights has described the right to health as an inclusive right, in that it includes not only the right to access to health care, but also the right ‘to the underlying determinants of health, such as access to safe and potable water and adequate sanitation, an adequate supply of safe food, nutrition and housing, healthy occupational and environmental conditions, and access to health-related education and information, including on sexual and reproductive health.’<sup>73</sup>

The right to health, in relation to the environmental conditions of human beings, and in particular the threat climate change poses to health, has been discussed extensively by international expert bodies (and in the text of the UNFCCC, as explained below). In the 2019 Report of the Special Rapporteur on human rights and the environment, it was noted that ‘The World Health Organization concluded that climate change already has negative effects on health and is undermining the right to health.’<sup>74</sup> Further, the Lancet Commission on Health and Climate Change has warned that climate change is the biggest global health threat of the twenty-first century and could reverse five decades of progress in global health.<sup>75</sup>

In 2019, five UN human rights treaty bodies issued a joint statement on climate change and its impacts on human rights. In this joint statement, the treaty bodies emphasized the negative

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<sup>65</sup> UN Committee on Economic Social and Cultural Rights, ‘General Comment No. 14 (2000), The Right to the Highest Attainable Standard of Health’ (11 August 2000) UN Doc E/C.12/2000/4 at 1 [ICESCR General Comment 14].

<sup>66</sup> *Ibid.*

<sup>67</sup> ICESCR (n 6) Art 12.

<sup>68</sup> CRC (n 7) Art 24.

<sup>69</sup> CRPD (n 9) Art 25.

<sup>70</sup> UDHR (n 44) Art 25.

<sup>71</sup> ICERD (n 10) Art 5(e)(iv).

<sup>72</sup> CEDAW (n 8) arts 11.1(f), 12.

<sup>73</sup> ICESCR General Comment 14 (n 65) at 11.

<sup>74</sup> Safe Climate Report (n 13) at 32.

<sup>75</sup> N. Watts *et al.*, ‘Health and climate change: policy responses to protect public health’ (2015) 386(10006) *Lancet* 1861.

impacts climate change pose to all but stated that the risks are ‘particularly high for those segments of the population already marginalised or in vulnerable situations or that, due to discrimination and pre-existing inequalities, have limited access to decision-making or resources, such as women, children, persons with disabilities, indigenous peoples and persons living in rural areas.’<sup>76</sup>

The Committee on the Rights of the Child has also underlined the risk that climate change poses to the right to health of children. In its General Comment No. 15, the Committee calls upon States ‘to take measures that address the dangers and risks that local environmental pollution poses to children’s health in all settings’<sup>77</sup> and to implement environmental interventions that address climate change, as it is ‘one of the biggest threats to children’s health and exacerbates health disparities’.<sup>78</sup>

OHCHR has acknowledged that ‘The protection of all human rights from the impact of climate change is fundamental for the protection of the right to health. Internationally, however, there is growing recognition of the specific interlinkages between climate change and the human right to health.’<sup>79</sup> In particular, OHCHR noted the recognition of the connection between the human right to health and climate change in the text of the UNFCCC, wherein the Convention discusses the impact climate change has on health and the connections between the two.<sup>80</sup>

States that have ratified international legal instruments containing the right to health are obligated to ‘implement them and translate their obligations into national law.’<sup>81</sup> Thus, States in meeting their obligations must take measures to ‘prevent and remedy the negative impacts of climate change on the right to health, including with regard to the environmental and social determinants of health.’<sup>82</sup>

### **2.2.2 The impact of fracking on the right to health**

Fracking poses a risk to the right to health on two fronts. First, in its contribution to climate change, and second in regard to the impacts fracking has on the immediate and surrounding community.

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<sup>76</sup> UN Office of the High Commissioner on Human Rights ‘Joint Statement on “Human Rights and Climate Change’ (16 September 2019) at 3.

<sup>77</sup> UN Committee on the Rights of the Child ‘General Comment No. 15 on the right of the child to the enjoyment of the highest standards of health (art 24)’ (17 April 2013) UN Doc CRC/C/GC/15 at 49 [CRC General Comment 15].

<sup>78</sup> *Ibid.*, at 50.

<sup>79</sup> HRC Analytical Study (n 38) at 42.

<sup>80</sup> *Ibid.*

<sup>81</sup> *Ibid.*, at 44

<sup>82</sup> *Ibid.*, at 45

Climate change acts as a ‘threat multiplier’<sup>83</sup> amplifying underlying health factors and exacerbating them. The impacts of climate change are widespread and various, with floods, extreme weather, natural disasters, wildfires, pandemics and illness and changing ecosystems being just some of the dire and direct impacts of climate change. These in turn have consequences for the health, lives and wellbeing of persons across the globe.

As noted by the OHCHR, climate change has been linked to ‘displacement, forced migration, insecurity and violent conflict, all of which pose substantial health risks. Declining biodiversity as a result of climate change also has an impact on the development of new medicines and access to medicines. Ecosystem damage has far-ranging implications for health, infrastructure, ecosystem services and traditional livelihoods.’<sup>84</sup> The Special Rapporteur on human rights and the environment has also emphasized that the impacts of climate change on health go beyond premature death, and include ‘increased incidences of respiratory disease, cardiovascular disease, malnutrition, stunting, wasting, allergies, heat stroke, injuries, water-borne and vector-borne diseases and mental illness.’<sup>85</sup> Further, climate change erodes determinants of health, including ‘access to adequate food and water, clean air, culture and livelihoods.’<sup>86</sup>

In addition to its contributions to climate change and its attendant health impacts and risks to the right to health, fracking also poses a severe risk to the public health of the communities in the vicinity of the fracking operations. The Compendium noted several public health impacts linked to fracking, including risks to reproductive health, pre-term births, low birth weights and birth defects, cancers, hospitalizations due to pneumonia, asthma, high levels of Benzene and various other health risks.<sup>87</sup>

In 2019, the Permanent People’s Tribunal (PPT), a tribunal which examines serious and systemic violations of human rights committed by States or private groups or organizations, issued an advisory opinion on ‘Human Rights, Fracking and Climate Change’. After hearing from various civil society organizations on the impact of fracking on human rights, the PPT issued an advisory opinion, ultimately calling for a global ban on fracking.<sup>88</sup> The Tribunal found that the evidence provided made clear that the fracking industry has violated both substantive and procedural human rights law, where the techniques utilized in fracking breaching international human rights obligations ‘especially the right to health, by attacking all the components of natural ecosystems that can reach their destruction and therefore result in an ecocide; and threaten the enjoyment of all human rights of the present and future generations

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<sup>83</sup> HRC Analytical Study (n 38) at 8 referring to DARA, ‘Climate Vulnerability Monitor: A Guide to the Cold Calculus of a Hot Planet’ (2nd ed., 2012); WHO, ‘Quantitative Risk Assessment of the Effects of Climate Change on Selected Causes of Death, 2030s and 2050s’ (2014).

<sup>84</sup> HRC Analytical Study (n 38) at 22.

<sup>85</sup> Safe Climate Report (n 13) at 31 referring to IPCC, ‘Climate Change 2014: Impacts, Adaptation, and Vulnerability’ (IPCC, 2014).

<sup>86</sup> Safe Climate Report (n 13) at 31 referring to HRC Analytical Study (n 46).

<sup>87</sup> Compendium (n 3) at 187-215.

<sup>88</sup> Permanent Peoples’ Tribunal, ‘Advisory Opinion, Session on Human Rights, Fracking and Climate Change’ (12 April 2019) at 59A(2) [PPT Advisory Opinion].

through its direct contribution to climate change.’<sup>89</sup> As the impacts are felt by the ‘populations closest to the places of exploitation, they also often violate procedural human rights protected by international law, especially the rights of access to information and participation in decision-making; and also, frequently, they violate the environmental impact assessment obligations, and rights of human rights defenders.’<sup>90</sup>

Accordingly, the Special Rapporteur on human rights and the environment recommended that developed States may demonstrate leadership in the area of human rights and the environment through ‘Prohibiting the expansion of the most polluting and environmentally destructive types of fossil fuel extraction, including oil and gas produced from hydraulic fracturing (fracking), oil sands, the Arctic or ultra-deepwater.’<sup>91</sup>

Climate change also poses a severe risk to not only the physical health of the world’s population, but also to mental health. As noted by OHCHR, ‘Climate change and the impacts of traumatic stress connected to climate change, such as war/insecurity, sexual and physical violence and witnessing deaths and injury related to extreme weather disasters, negatively affect children’s mental health. Children who lose a family member or experience life-threatening situations as a result of the impacts of climate change have a higher chance of experiencing post-traumatic stress, anxiety disorders, suicidal ideation and depression.’<sup>92</sup>

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<sup>89</sup> *Ibid.*, at 43.

<sup>90</sup> *Ibid.*

<sup>91</sup> Safe Climate Report (n 13) at 78(d).

<sup>92</sup> UN Human rights Council, ‘Analytical study on the relationship between climate change and the full and effective enjoyment of the rights of the child’ (4 May 2017) UN Doc A/HRC/35/13 at 18 [Climate Change and Rights of the Child Study].

## 2.3 Right to Water

Water is essential for communities and ecosystems. It supports not only life systems, but also cultural and economic activities and is accordingly essential for the enjoyment of other human rights. The right to water is recognized in CEDAW,<sup>93</sup> CRC,<sup>94</sup> and CRPD.<sup>95</sup> In 2010 the UN General Assembly affirmed in resolution 64/292 that ‘safe and clean drinking water and sanitation is a human right, essential for the full enjoyment of life and all other human rights’.<sup>96</sup> The right to water has been further affirmed as constituting a human right by the Committee on Economic, Social and Cultural Rights in General Comment No. 15, in which the right to water was described as ‘fundamental for life and health’<sup>97</sup> and ‘a prerequisite for the realization of other human rights’.<sup>98</sup> Further, the Committee emphasized that the right to water entitles everyone to ‘sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses.’<sup>99</sup>

### 2.3.1 The right to water recognised by international treaties and instruments

Access to safe and clean water directly impacts various human rights, as recognized by treaty bodies such as CESCR, in which the Committee recognizing the importance of access to water for the purposes of agriculture and the right to adequate food.<sup>100</sup> The Committee has further linked the importance of water in relation to human dignity, life and health and in ensuring the sustainability of water supplies to ensure the right to water for future generations.<sup>101</sup>

The right to water does not merely require access to water, but also access to clean water. States must ensure that ‘natural water resources are protected from contamination by harmful substances’<sup>102</sup> and that water must be ‘free from micro-organisms, chemical substances, and radiological hazards that constitute a threat to a person’s health.’<sup>103</sup> Contaminated water poses severe risks to the lives and health of those dependent on it and has been noted to exacerbate existing poverty in communities.<sup>104</sup>

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<sup>93</sup> CEDAW (n 8) Art 14(2).

<sup>94</sup> CRC (n 7) Art 24 (1), 24(2)(c).

<sup>95</sup> CRPD (n 9) Art 28(2)(a).

<sup>96</sup> UN General Assembly, ‘Res. 64/292 The human right to water and sanitation’ (3 August 2010) UN Doc A/RES/64/292, Art 1.

<sup>97</sup> UN Committee on Economic, Social and Cultural Rights, ‘General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant’ (20 January 2003) UN Doc E/C.12/2002/11, at 1 [ICESCR General Comment 15].

<sup>98</sup> *Ibid.*

<sup>99</sup> *Ibid.*, at 2.

<sup>100</sup> *Ibid.*, at 7.

<sup>101</sup> *Ibid.*, at 11.

<sup>102</sup> *Ibid.*, at 8.

<sup>103</sup> *Ibid.*, at 12 (b).

<sup>104</sup> *Ibid.*, at 1.

States, in meeting their obligation to ensure the right to water, are required to take deliberate, concrete and targeted steps. Such steps may include (but are not limited to) the following:

- Prohibiting interference with the right to water through ‘unlawfully diminishing or polluting water’;<sup>105</sup>
- Preventing third parties (such as corporations) from ‘interfering in any way with the enjoyment of the right to water’;<sup>106</sup>
- Adopting strategies to ‘reduce depletion of water resources, through unsustainable extraction’;<sup>107</sup>
- Reducing and eliminating pollution of watersheds by harmful chemicals;<sup>108</sup> and
- Ensuring that proposed developments ‘do not interfere with access to adequate water’.<sup>109</sup>

States must take all necessary measures to ‘safeguard persons within their jurisdiction from infringements of the right to water by third parties’. This includes enacting and enforcing legislation to ‘prevent the contamination and inequitable extraction of water.’ Failure to do so amounts to a violation of the State’s obligations.<sup>110</sup>

Further, in order for States to comply with their international obligations regarding the right to water, States must refrain from interfering with the right of water in other countries.<sup>111</sup> States must refrain from engaging in actions that interfere ‘directly or indirectly, with the enjoyment of the right to water in other countries.’<sup>112</sup> States must ensure that activities undertaken within their own jurisdiction do not impact of the ability of another State to realize the right to water for persons within its jurisdiction.<sup>113</sup>

The UN Special Rapporteur on the human right to safe drinking water and sanitation, has also remarked upon States’ obligations to protect and promote the right to water. The Special Rapporteur emphasized that States, in entering into agreements regarding trade and investment, must ensure such agreements do not ‘limit or hinder a country’s capacity to ensure the full realisation of the human rights to water and sanitation.’<sup>114</sup> In order to meet their obligations, States must ensure close monitoring and regulation of the use and any contamination of water from industry.<sup>115</sup>

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<sup>105</sup> *Ibid.*, at 21

<sup>106</sup> *Ibid.*, at 23.

<sup>107</sup> *Ibid.*, at 28.

<sup>108</sup> *Ibid.*

<sup>109</sup> *Ibid.*

<sup>110</sup> *Ibid.*, at 44 (b)(i).

<sup>111</sup> *Ibid.*, at 31.

<sup>112</sup> *Ibid.*

<sup>113</sup> *Ibid.*

<sup>114</sup> UN Special Rapporteur Catarina de Albuquerque, ‘Realising the human rights to water and sanitation: a handbook by the UN special rapporteur Catarina de Albuquerque’ Introduction (2014) at 27.

<sup>115</sup> *Ibid.*, at 14.

The Special Rapporteur has remarked that when pollution or over-extraction results from State action, including the licensing of projects ‘predicted to result in human rights violations’ States may be in violation of their obligation to respect the rights to water.<sup>116</sup>

Accordingly, in 2019 the Special Rapporteur proposed a framework for managing and monitoring the impacts of large-scale projects on local populations’ access to potable water and sanitation. The thematic report entitled ‘Impact of mega-projects on the human rights to water and sanitation’<sup>117</sup> (hereinafter referred to as the ‘Impact of mega-projects report’) includes an examination of extractive industries and energy production projects. The Impact of mega-projects report reinforces the importance of considering the human right to water in national planning, not only in relation to the water sector but in other sectors, demonstrating the far-reaching implications of the right to water.<sup>118</sup>

The Impact of mega-projects report sets out that States should undertake a balancing exercise based on the principal of necessity, which requires States to decide whether the proposed mega-project is the most suitable option for economic growth and the least intrusive measure, ensuring that it will not undermine human rights, such as access to water.<sup>119</sup> Further, States have an obligation to assess the potential impacts a project may have on the right to water prior to granting a license or authorizing a project<sup>120</sup> and that States and companies engaged in such projects have a responsibility to implement human rights and environmental assessments to assess the potential impacts of such mega-projects.<sup>121</sup> The Impact of mega-projects report concludes that due to the wide range of potential negative impacts mega-projects may have on the right to water and other interrelated rights, ‘it is necessary to assess the feasibility and necessity of those projects vis-à-vis the human rights framework’.<sup>122</sup>

### **2.3.2 The impact of fracking on the right to water**

Fracking is a water-intensive activity that poses a risk to water resources by compromising the quantity (accessibility and affordability) as well as the quality of water available to affected communities. In fracking, as with other extractive activities, water is a key area of concern given the detrimental impacts fracking can have on this essential resource.<sup>123</sup>

Water depletion is an issue where the availability of a sufficient and continuous water supply is undermined. Fracking is a water intensive activity that poses a risk to many already over-

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<sup>116</sup> UN Human Rights Council, ‘Report of the Special Rapporteur on the human right to safe drinking water and sanitation, Catarina de Albuquerque’ (30 June 2014) UN Doc A/HRC/27/55, at 20.

<sup>117</sup> UN General Assembly, ‘Report of the Special Rapporteur on the human rights to safe drinking water and sanitation’ (19 July 2019) UN Doc A/74/197 [Special Rapporteur Report on safe drinking water].

<sup>118</sup> *Ibid.*, at 48.

<sup>119</sup> *Ibid.*, at 53.

<sup>120</sup> *Ibid.*, at 56.

<sup>121</sup> *Ibid.*, at 62.

<sup>122</sup> *Ibid.*, at 86.

<sup>123</sup> Compendium (n 2) at 7.

utilized water resources. The International Energy Agency estimates that each fracking well may need anywhere between a few thousand to 20,000 cubic meters of water (between 1 million and 5 million gallons).<sup>124</sup> For example, in 2010, the U.S. Environmental Protection Agency estimated that an annual 70 to 140 billion gallons of water were used to fracture just 35,000 wells in the United States.<sup>125</sup> The Compendium notes that ‘In Arkansas, researchers found that water withdrawals for fracking operations deplete streams used for drinking water and recreation’<sup>126</sup> and ‘the volume of water used for fracking U.S. oil wells has more than doubled since 2016’.<sup>127</sup>

The right to water is also impacted by contamination, with the fracking process presenting several ways in which water may be contaminated. The fracking fluid injected underground contains chemicals, many of which are toxic. The potential for fracking and other extractive processes to contaminate water sources and supplies has been heavily reported on by various UN Special Rapporteurs.

The Special Rapporteur on the human right to safe drinking water and sanitation, noted that ‘Both wells and pits are very likely to have ecological impacts, including the pollution of groundwater aquifers and contamination of drinking water.’<sup>128</sup> In his 2012 report,<sup>129</sup> the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes examined the adverse effects of unsound management of hazardous substances in extractive industries. In examining fracking, the Special Rapporteur noted that the excess water from oil or gas production and drilling fluids ‘constitute hazardous wastes’<sup>130</sup> and that sometimes this excess water is disposed of by either reinjecting it back into the oil and gas reservoir, disposed of in waste ponds or ‘dumped directly into streams or oceans.’<sup>131</sup>

The water used in fracking procedures often contains toxic substances, which can end up being released into the surface water during the extraction, transport, storage and waste disposal stages of fracking.<sup>132</sup> The storage of wastewater and other waste materials may also result in the contamination of water systems through spills, leaks or floods.<sup>133</sup> The Special Rapporteur cautioned that such unintended releases of contaminated wastewater can be expected to

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<sup>124</sup> International Energy Agency, ‘World Energy Outlook: Special Report on Unconventional Gas’ (November 2012).

<sup>125</sup> United States Environmental Protection Agency, ‘Draft Plan to Study the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources’ (7 February 2011).

<sup>126</sup> Compendium (n 2) at 34.

<sup>127</sup> Compendium (n 2) at 34.

<sup>128</sup> UN General Assembly, ‘Report of the Special Rapporteur on the human right to safe drinking water and sanitation’ (5 August 2013) UN Doc A/68/264, at 41.

<sup>129</sup> UN Human Rights Council, ‘Report of the Special Rapporteur on the human rights obligations related to environmentally sound management and disposal of hazardous substances and waste, Calin Georgescu’ (2 July 2012) UN Doc. A/HRC/21/48 [Special Rapporteur Calin Georgescu].

<sup>130</sup> *Ibid.*, at 8.

<sup>131</sup> *Ibid.*

<sup>132</sup> *Ibid.*, at 14.

<sup>133</sup> *Ibid.*

increase due to an ‘anticipated increase in the frequency and intensity of storms in the future, due to climate change.’<sup>134</sup>

According to the Compendium ‘more than 1,000 chemicals that are confirmed ingredients in fracking fluid, an estimated 100 are known endocrine disruptors, acting as reproductive and developmental toxicants, and at least 48 are potentially carcinogenic.’<sup>135</sup>

Statistical analysis by Physicians, Scientists, and Engineers for Healthy Energy (PSE) of the scientific literature available from 2009 to 2015 demonstrates that 69 per cent of original research studies on water quality found potential for, or actual evidence of, fracking-associated water contamination.<sup>136</sup> These chemicals can migrate into underground water supplies and active or abandoned wells, which may serve as conduits carrying fracking fluids from deep underground into aquifers near the surface.<sup>137</sup> Leaks and spills of drilling fluids, whether of chemicals used in fracking, wastewater or other substances, provide a further route for contamination. The Compendium notes a ‘2020 survey of groundwater wells in Kern County, California found widespread contamination with wastewater chemicals, including salts, that had leached from both surface pits and underground injection wells.’<sup>138</sup> It is also highted in the Compendium that ‘A 2017 study found that spills of fracking fluids and fracking wastewater are common, documenting 6,678 significant spills occurring over a period of nine years in four states alone.’<sup>139</sup>

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<sup>134</sup> *Ibid.*

<sup>135</sup> Compendium (n 2) at 86.

<sup>136</sup> Jake Hays, Seth B.C Shonkoff, ‘Toward an Understanding of the Environmental and Public Health Impacts of Unconventional Natural Gas Development: A Categorical Assessment of the Peer-Reviewed Scientific Literature, 2009-2015’, (2016).

<sup>137</sup> See Ian Urbina, ‘A Tainted Water Well, and Concern There May be More’ (New York Times, 3 August 2011): “The industry has also acknowledged that fracking liquids can end up in aquifers because of failures in the casing of wells, spills that occur above ground or through other factors.”

<sup>138</sup> Compendium (n 2) at 86.

<sup>139</sup> *Ibid.*; see also Compendium (n 2) at 86 – 141 for more on water contamination.

## 2.4 Right to Food

The availability of food is fundamental to the right to life, health and human dignity. CESCR has emphasized that ensuring the right to adequate food means that food must not only be available and of sufficient quality but must also be ‘free from adverse substances.’<sup>140</sup> This refers to food safety and especially the prevention of contamination.<sup>141</sup>

### 2.4.1 The right to food in international human rights treaties and instruments

The right to food is recognized in the ICESCR, CRC, CRPD and the non-binding UDHR (recognised as forming part of customary international law) as an essential part of the right to an adequate standard of living.<sup>142</sup> CEDAW acknowledges that that in ‘situations of poverty women have the least access to food’.<sup>143</sup> ICESCR refers to the ‘fundamental right of everyone to be free from hunger’.<sup>144</sup> CRC also notes that environmental pollution poses ‘dangers and risks’ to nutritious foods and clean drinking water.<sup>145</sup>

The CESCR Committee in its General Comment No 12 addresses key issues regarding the right to adequate food, such as availability and accessibility.<sup>146</sup> With regards to availability, the Committee set out that food must be available and it must be of sufficient quality and ‘free from adverse substances’.<sup>147</sup> This refers to food safety, especially the prevention of contamination<sup>148</sup> and bad environmental hygiene.<sup>149</sup> Availability also includes the possibility to obtain food from ‘productive land or other natural resources’.<sup>150</sup> In relation to accessibility, food must be accessible ‘in ways that are sustainable and that do not interfere with the enjoyment of other human rights.’<sup>151</sup> Importantly, ‘accessibility encompasses both economic and physical accessibility’.<sup>152</sup>

States must ensure that their own actions or inactions do not amount to a denial of individual or collective access to food, as this would constitute a violation of the right.<sup>153</sup> States, in meeting their obligations in relation to the right to food, must not only ensure their actions or inactions do not impact the right to food, but also that other entities, such as private businesses,

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<sup>140</sup> UN Committee on Economic Social and Cultural Rights, ‘General Comment No. 12: The Right to Adequate Food (Art. 11 of the Covenant)’ (12 May 1999) UN Doc E/C.12/1999/5 at 8 [ICESCR General Comment 12].

<sup>141</sup> *Ibid.*, at 10.

<sup>142</sup> See ICESCR (n 6) Art 11 (1); CRC (n 7) Art 24 (2)(c); CRPD (n 9) Art 28(1); UDHR (n 44) Art 25(1).

<sup>143</sup> CEDAW (n 8) at Preamble.

<sup>144</sup> ICESCR (n 6) Art 11 (2).

<sup>145</sup> CRC (n 7) Art 24 (2)(c).

<sup>146</sup> ICESCR General Comment 12 (n 140) at 1.

<sup>147</sup> *Ibid.*, at 8.

<sup>148</sup> *Ibid.*, at 10.

<sup>149</sup> *Ibid.*

<sup>150</sup> *Ibid.*, at 12.

<sup>151</sup> *Ibid.*, at 8.

<sup>152</sup> *Ibid.*, at 13.

<sup>153</sup> *Ibid.*, at 19.

do not violate the right.<sup>154</sup> As a violation of this right can occur through direct action of the state of ‘or other entities insufficiently regulated by States’.<sup>155</sup> Thus, as part of their obligations, States must take ‘appropriate steps to ensure that activities of the private business sector ... are in conformity with the right to food’.<sup>156</sup> States must also prevent third parties from destroying sources of food, through pollution of the ‘land, water and air with hazardous industrial or agricultural products’.<sup>157</sup>

#### **2.4.2 The impact of fracking on the right to food**

Toxic substances released from oil and natural gas operations can have negative effects on soil, crops and livestock. The Compendium states that ‘Food is a troubling possible exposure route to fracking chemicals, in part because so little is known about these chemicals.’<sup>158</sup> Examples of these negative effects have been seen in the United States. For example, in 2001, U.S. Forest Service researchers reported dramatic negative effects on vegetation caused by the drilling and fracking of natural gas in an experimental forest in north-eastern West Virginia.<sup>159</sup> The Compendium observes that ‘Studies and case reports from across the country have highlighted instances of deaths, neurological disorders, aborted pregnancies, and stillbirths in farm animals that have come into contact with wastewater.’<sup>160</sup>

In a 2012 publication, Michelle Bamberger, a veterinarian, and Robert Oswald, a Professor of molecular medicine at Cornell University, compiled the results of 24 case studies from the United States related to the health of humans and animals surrounding oil and gas drill sites.<sup>161</sup> The publication found that more than one-third of the cases involved conventional (vertical) wells with the remainder comprising unconventional (horizontal) wells subjected to high volume hydraulic fracturing. The authors concluded that exposure to gas drilling operations strongly affect the health of humans, companion animals, livestock, horses, and wildlife. This finding was of particular significance to the right to food, as the exposure of livestock to chemical contamination can in turn lead to these contaminants appearing in milk and meat products from these animals, being consumed by humans.<sup>162</sup>

In addition to the negative effects caused by the release of toxins from oil and gas operations, the fracking industry contributes substantially to global warming and as noted by UN Special Rapporteur on human rights and the environment, ‘Climate change also erodes many of the

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<sup>154</sup> *Ibid.*, at 20.

<sup>155</sup> *Ibid.*, at 19.

<sup>156</sup> *Ibid.*, at 27.

<sup>157</sup> UN Office of the High Commissioner of Human Rights, ‘Factsheet 34 The right to adequate food’ (April 2010) at 18.

<sup>158</sup> Compendium (n 2) at 48.

<sup>159</sup> Mary Beth Adams *et al.*, ‘Effects of development of a natural gas well and associated pipeline on the natural and scientific resources of the Fernow experimental forest’ (U.S. Forest Service January 2011).

<sup>160</sup> *See* Compendium (n 2) at 284 – 297 for detail on threats to agriculture, soil quality, and forests.

<sup>161</sup> Michelle Bamberger, Robert E. Oswald, ‘Impacts of Gas Drilling on Human and Animal Health’ (2012) 22(1) *New Solutions* 51-77.

<sup>162</sup> *Ibid.*, at 67.

key social and environmental determinants of health, including access to adequate food and water, clean air, culture and livelihoods.’<sup>163</sup>

The Special Rapporteur on the right to food has emphasized that in order to address the adverse impact of climate change on the right to food, ‘a policy shift is necessary to respond to the challenges posed by climate change.’<sup>164</sup>

The Food and Agriculture Organization of the United Nations, further stresses that climate variability and extremes ‘are among the key drivers behind the recent uptick in global hunger and one of the leading causes of severe food crises.’<sup>165</sup> Climate change and the cumulative effect of climate change undermines ‘all dimensions of food security – food availability, access, utilization and stability.’<sup>166</sup>

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<sup>163</sup> Safe Climate Report (n 13) at 19.

<sup>164</sup> UN General Assembly, ‘Interim report of the Special Rapporteur on the right to food’ (5 August 2015) UN Doc A/70/287 at 3 [Right to Food Report].

<sup>165</sup> FAO, IFAD, UNICEF, WFP and WHO, ‘The State of Food Security and Nutrition in the World 2018. Building climate resilience for food security and nutrition’ (2018) at xii.

<sup>166</sup> *Ibid.*, at xii.

## 2.5 Right to Housing

### 2.5.1 The right to housing as recognised by international treaties and instruments

The right to adequate living conditions and housing is recognized in ICESCR, CEDAW and CRPD as an essential part of the right to an adequate standard of living.<sup>167</sup>

The CESCR Committee has elaborated on the right to housing in General Comment No. 4, explaining the right to housing to imply:

- The right to legal security of tenure, which guarantees legal protection from ‘forced eviction, harassment and other threats’;<sup>168</sup>
- The right to access ‘natural and common resources [and] safe drinking water’;<sup>169</sup>
- The right to be protected from ‘arbitrary or unlawful interference’ in the privacy of one’s home,<sup>170</sup> and to choose one’s residence;<sup>171</sup>
- The right to housing that provides protection from threats to health;<sup>172</sup>
- The principle that ‘housing should not be built on polluted sites nor in immediate proximity to pollution sources that threaten the right to health of the inhabitants’;<sup>173</sup> and
- That environmental and energy policies, among others, should take into account the right to housing.<sup>174</sup>

The Committee further examined the right to housing in relation to forced eviction, finding that forced evictions made ‘in the name of development’ of large-scale projects (such as energy projects) can impact the right to housing.<sup>175</sup> Forced evictions carried out by private persons or bodies without ‘appropriate safeguards’ must be punished by the State.<sup>176</sup>

The Special Rapporteur on adequate housing as a component of the right to an adequate standard of living, has emphasized that the right to housing is strongly connected with the right

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<sup>167</sup> ICESCR (n 6) Art 11(1); CEDAW (n 8) Art 14(2); CRPD (n 9) Art 28.

<sup>168</sup> UN Committee on Economic, Social and Cultural Rights, ‘General Comment No. 4, The right to adequate housing (Art.11(1))’ (13 December 1991) UN Doc E/1992/23 at 8(a) [ICESCR General Comment 4].

<sup>169</sup> *Ibid.*, at 8(b).

<sup>170</sup> *Ibid.*, at 9.

<sup>171</sup> ICCPR (n 5) Art 12.

<sup>172</sup> CESCR General Comment 4 (n 168) at 8(d).

<sup>173</sup> *Ibid.*, at 8(f).

<sup>174</sup> *Ibid.*, at 12.

<sup>175</sup> UN Committee on Economic, Social and Cultural Rights, ‘General comment No. 7: The right to adequate housing (art. 11 (1) of the Covenant): Forced evictions’ (20 May 1997) UN Doc E/1998/22, at 7 [ICESCR General Comment 7].

<sup>176</sup> *Ibid.*, at 9.

to life, as ‘the right to a secure place to live only has meaning in the context of a right to live in dignity and security, free of violence.’<sup>177</sup>

A 2019 report by Special Rapporteur on adequate housing as a component of the right to an adequate standard of living, and on the right to non-discrimination in this context, notes that ‘forced evictions are widespread and devastating in their consequences’ and lists ‘natural resource extraction’ as a key motive for forced eviction.<sup>178</sup> The impact of climate crisis and natural disasters on the right to housing is noted within the report with ‘exponential increases in these effects anticipated in decades to come’.<sup>179</sup> Importantly, the Special Rapporteur recommended that States must assess the impact that trade and investment agreements may have on the right to housing, prior to entering into such agreements.<sup>180</sup> States must ensure that any such agreements include a ‘provision explicitly referring to their human rights obligations in respect of housing.’<sup>181</sup> Further, States should interpret existing agreements in a way so as not to impair the State’s ability to realize the right to housing.<sup>182</sup>

### **2.5.2 The impact of fracking on the right to housing**

The extractive industry has been recognized as having the potential to negatively impact the right to adequate housing due to the environmental degradation the industry can cause.<sup>183</sup> It is submitted that the right to adequate living conditions and housing can be detrimentally affected by fracking in several ways, including:

- Availability of housing is affected as influxes of temporary workers push up rents and reduce available properties;
- Quality of housing is affected as a result of property damage and devaluation from contaminated land and water wells, damage caused by earthquakes, and wastewater disposal and pollution;
- Forced displacement results from people vacating their properties as a result of the above damage or through coercion from private companies; and
- Quality of community life is disrupted.<sup>184</sup>

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<sup>177</sup> UN General Assembly, ‘Adequate housing as a component of the right to an adequate standard of living: Report of the Special Rapporteur on adequate housing as a component of the right to an adequate standard of living, and on the right to non-discrimination in this context’ (8 August 2016) UN Doc A/71/310 at 2.

<sup>178</sup> UN General Assembly, ‘Guidelines for the Implementation of the Right to Adequate Housing: Report of the Special Rapporteur on adequate housing as a component of the right to an adequate standard of living, and on the right to non-discrimination in this context’ (26 December 2019) UN Doc A/HRC/43/43 at 36 [Adequate Housing Guidelines].

<sup>179</sup> *Ibid.*, at 70.

<sup>180</sup> *Ibid.*, at 76(d).

<sup>181</sup> *Ibid.*

<sup>182</sup> *Ibid.*

<sup>183</sup> UNOHCHR, ‘Fact Sheet No. 21(Rev.1), The Human Right to Adequate Housing’ (November 2009) at 36.

<sup>184</sup> Sisters of Mercy (NGO), Mercy International Association: Global Action, ‘A guide to rights-based advocacy: International Human Rights Law and Fracking’ (2015) at 33.

An example of the impact of fracking on the right to housing is demonstrated in a 2014 report by the Multi-State Shale Research Collaborative which found that higher rents and a shortage of affordable housing accompanied a shale drilling boom in three of four rural communities in Ohio, Pennsylvania and West Virginia.<sup>185</sup> The impact of fracking on housing is also recognised in the Compendium which identified that ‘Drilling and fracking pose an inherent conflict with mortgages and property insurance due to the hazardous materials used and the associated risks.’<sup>186</sup> Similarly, a report by the New York Department of Health notes that there are numerous examples of where increases in extractive resource development has interfered with the quality-of-life of the community, with negative impacts including noise, odours and disproportionate increases in social problems.<sup>187</sup>

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<sup>185</sup> Multi-State Shale Research Collaborative, ‘Assessing the impacts of shale drilling county case studies’ (10 April 2014).

<sup>186</sup> See Compendium (n 2) at 412- 439 for more information on inaccurate jobs claims, increased crime rates, threats to property values and mortgages, and local government burden.

<sup>187</sup> New York State Department of Health, ‘A Public Health Review of High-volume Hydraulic Fracturing for Shale Gas Development’ (December 2014) at 6.

## 2.6 Right of Access to Information

At an international human rights level, the right of access to information is recognized in the ICCPR, CRC, and CRPD.<sup>188</sup> In addition to being a right by itself, it is mentioned and used for the protection of virtually all other human rights. Accordingly, the Special Rapporteur on the adverse effects of the illicit movement and dumping of toxic and dangerous products and wastes on the enjoyment of human rights has commented on the importance of the rights to information and participation for matters involving human rights and the environment.<sup>189</sup>

### 2.6.1 The right to access of information as recognised by international treaties and instruments

The Human Rights Committee has stressed that States should be proactive in putting government information of public interest into the public domain<sup>190</sup> with a view to ensuring that there is effective and prompt access to such information.<sup>191</sup> It is also important to note that requests for information should be low-cost so as not to constitute an unreasonable impediment,<sup>192</sup> with clear rules and procedures in place for gaining access to information.<sup>193</sup> Additionally, States are to avoid excessive restrictions on access to information and provide reasons for refusal to provide access to information.<sup>194</sup>

In Communication No. 1457/2006 (*Poma v. Peru*), which involved the withdrawal of water from indigenous land, the Human Rights Committee posited that if a State Party's decision-making may substantively compromise the way of life and culture of a minority group, a process of information-sharing and consultation with affected communities should be undertaken. Notably, in the views expressed by the Committee this 'requires not mere consultation but the free, prior and informed consent of the members of the community'<sup>195</sup> achieved through effective participation in the decision-making process. The Committee reiterated the need to respect the principle of proportionality so as not to endanger the survival of the community.

The CESCR Committee has observed that access to information 'includes the right to seek, receive and impart information and ideas concerning health issues.'<sup>196</sup> Access to information

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<sup>188</sup> See ICCPR (n 5) Art 19(2); CRC (n 7) Arts 13(1), 17; CRPD (n 9) Arts 9(2)(f), 21.

<sup>189</sup> UN General Assembly, 'Report of the Special Rapporteur on the adverse effects of the illicit movement and dumping of toxic and dangerous products and wastes on the enjoyment of human rights, Okechukwu Ibeanu' (18 February 2008) UN Doc A/HRC/7/21, at 41 [Report on Illicit Movement of Toxic Wastes].

<sup>190</sup> UN Human Rights Committee, 'General Comment No. 34, Article 19: Freedoms of Opinion and Expression' (12 September 2011) UN Doc CCPR/C/GC/34, at 19.

<sup>191</sup> *Ibid.*

<sup>192</sup> *Ibid.*

<sup>193</sup> *Ibid.*

<sup>194</sup> *Ibid.*

<sup>195</sup> UN Human Rights Committee, Communication No. 1457/2006 (24 April 2009) UN Doc CCPR/C/95/D/1457 at 7.6.

<sup>196</sup> ICESCR General Comment 14 (n 65) at 12(b)(iv).

is an obligation ‘concerning the main health problems in the community, including methods of preventing and controlling them.’<sup>197</sup> The Committee highlighted that public authorities and third parties should give ‘full and equal access to information concerning water, water services and the environment’ to individuals and groups.<sup>198</sup> The Committee further averred that ‘timely and full disclosure of information on the proposed measures’ and ‘reasonable notice of proposed actions’ that can affect the right to water should be provided.<sup>199</sup>

United Nations Special Rapporteurs and Independent Experts across multiple mandates have spoken on the importance of the right to information in relation to the protection and pursuit of various human rights. For example, the Special Rapporteur on the adverse effects of the illicit movement and dumping of toxic and dangerous products and wastes on the enjoyment of human rights has noted that the rights to information and participation are ‘both rights in themselves and essential tools for the exercise of other rights, such as the right to life, the right to the highest attainable standard of health, the right to adequate housing and others’<sup>200</sup>

Similarly, the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression has recognised the ‘vitaly important’ roles served by the right to information and that the denial of this right would not be in the public interest.<sup>201</sup> Indeed, the Special Rapporteur later emphasized in a 1998 report that ‘the right to access to information held by the Government must be the rule rather than the exception.’<sup>202</sup>

The Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment noted that to comply with their international obligations, States should ‘provide access to environmental information and provide for the assessment of environmental impacts that may interfere with the enjoyment of human rights.’<sup>203</sup>

Both the Special Rapporteur on the situation of human rights defenders and the Special Rapporteur on the human rights obligations related to environmentally sound management and disposal of hazardous substances and wastes have stressed that large-scale development projects, such as projects in extractive industries, should make information relating to the

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<sup>197</sup> *Ibid.*, at 44 (d).

<sup>198</sup> UN Committee on Economic, Social and Cultural Rights, ‘General Comment No. 15, The right to water’ (20 January 2003) UN Doc E/C.12/2002/11 at 48.

<sup>199</sup> *Ibid.*, at 56.

<sup>200</sup> Report on Illicit Movement of Toxic Wastes (n 189) at 2.

<sup>201</sup> UN Economic and Social Council and Commission on Human Rights, ‘Report of the Special Rapporteur, Mr. Abid Hussain, pursuant to Commission on Human Rights resolution 1993/45’ (14 December 1994) UN Doc E/CN.4/1995/32 at 135.

<sup>202</sup> UN Commission on Human Rights, ‘Report of the Special Rapporteur, Mr. Abid Hussain, submitted pursuant to Commission on Human Rights resolution 1997/26’ (28 January 1998) UN Doc E/CN.4/1998/40 at 12.

<sup>203</sup> UN General Assembly, ‘Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox’ (30 December 2013) UN Doc A/HRC/25/53 at 31 [Report of the Independent Expert], *see also* 31-35 for general duties to assess environmental impacts and make information public.

projects publicly available<sup>204</sup> and that companies and other private actors should refrain from using the privilege of confidential business information to shield health and safety information used in and caused by their practices.<sup>205</sup>

The Special Rapporteur on the adverse effects of the illicit movement and dumping of toxic and dangerous products and wastes on the enjoyment of human rights has reported on worrying trends in which States, corporations and private entities often fail to share vital information about the ‘potential effects of pollution and irreversible damage to the environment until an incident has occurred’.<sup>206</sup> Access to information is of central importance, with the Special Rapporteur stressing that ‘Individuals, communities and neighbouring countries must have information regarding the full extent of environmental impact of proposed development projects in their regions in order to participate meaningfully in decisions that could expose them to increased pollution, environmental degradation and other such effects.’<sup>207</sup>

The Special Rapporteur considers it a clear duty of the State to disclose such information’.<sup>208</sup> Accordingly, States must not only adopt information policies and disclosures, but must ensure such policies are ‘rigorous and principled, drawing on the broad global acceptance that the right of access to information held by public authorities is rooted in international law’.<sup>209</sup>

The ICCPR and other human rights instruments guarantee all persons the right to free, active, meaningful and informed participation in public affairs. In ensuring this right is met, particular care must be taken to comply with obligations relating to participation of persons, groups and peoples in vulnerable situations in decision-making processes.

The Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (hereinafter ‘Aarhus Convention’)<sup>210</sup> takes a comprehensive approach to the recognition of the importance of the right to information and public participation.

In the preamble, the Aarhus Convention provides that every person has the right to live in an environment adequate for the preservation of one’s health and well-being, and thus everyone has a duty ‘to protect and improve the environment for the benefit of present and future

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<sup>204</sup> UN General Assembly, ‘Situation of human rights defenders: Report of the Special Rapporteur on the situation of human rights defenders’ (5 August 2013) UN Doc A/68/262 at 62 [Report on Human rights Defenders].

<sup>205</sup> Special Rapporteur Calin Georgescu at (n 129) at 70(c).

<sup>206</sup> Report on Illicit Movement of Toxic Wastes (n 189) at 31.

<sup>207</sup> *Ibid.*, at 37.

<sup>208</sup> *Ibid.*

<sup>209</sup> UN General Assembly, ‘Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression’ (18 August 2017) UN Doc A/72/350 at 58.

<sup>210</sup> United Nations Economic Commission for Europe, Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (adopted 25 June 1998) 2161 UNTS 447 [Aarhus Convention].

generations’.<sup>211</sup> In order to assert this right and fulfil the obligations under the Aarhus Convention, citizens must have ‘access to information, be entitled to participate in decision-making and have access to justice in environmental matters.’<sup>212</sup> Under the Aarhus Convention, States are obliged to guarantee access of information and public participation in decision-making related to environmental justice,<sup>213</sup> ensure access to environmental information,<sup>214</sup> collect and publicly disseminate information, and to make such information available to the public in response to requests.<sup>215</sup> The Aarhus Convention has been regarded as providing ‘a potential model for promoting good environmental governance and addressing the interlinked rights of access to information, public participation and access to justice’.<sup>216</sup>

## 2.6.2 The impact of fracking on the right to information

The human right of access to information is violated by fracking due to secrecy in the fracking process and policies of nondisclosure, with the Compendium noting that

Industry secrecy continues to thwart scientific inquiry into the health and environmental impacts of fracking’s many component parts and operations, leaving many potential problems— especially cumulative, long-term risks—unidentified, unmonitored, and largely unexplored.<sup>217</sup>

This secrecy is further compounded by non-disclosure agreements, sealed court records, legal settlements,<sup>218</sup> and an atmosphere of intimidation.<sup>219</sup> Both States and corporations have demonstrated a refusal or failure to provide vital information related to fracking projects.

An example of the lack of transparency may be observed on the part of the United Kingdom in events surrounding the secret 2016 UK Cabinet Office report on ‘State of UK shale industry by 2020 and 2025’.<sup>220</sup> Whitehall initially refused to reveal the 2016 report when it came to light in January 2018, prompting a 22-month freedom of information battle with the civil society organization, Greenpeace. Following a hearing, Whitehall was ordered to disclose the report.<sup>221</sup> However, the report that was disclosed was heavily censored, with 37 pages out of the 48-page report being entirely redacted, and only one page—the front cover—left uncensored.

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<sup>211</sup> *Ibid.*, at preamble para 7.

<sup>212</sup> *Ibid.*, at preamble para 8.

<sup>213</sup> *Ibid.*, Art 1.

<sup>214</sup> *Ibid.*, Art 4.

<sup>215</sup> *Ibid.*, Art 5.

<sup>216</sup> HRC Analytical Study (n 38) at 41.

<sup>217</sup> Compendium (n 2) at 26.

<sup>218</sup> *Ibid.*

<sup>219</sup> See *ibid* at 454- 475 for Medical and scientific calls for more study, reviews confirming evidence for harm, and calls for increased transparency and science-based policy.

<sup>220</sup> Cabinet Office Implementation Unit, ‘State of the UK Shale Industry by 2020 and 2025: Implementation Unit Deep Dive’ (April 2016).

<sup>221</sup> *Cabinet Office v The Information Commissioner and Greenpeace UK*, Appeal No. EA/2018/0270.

In addition to States withholding information, corporations have also been found to withhold vital information. In one instance, a 2011 investigation by three members of the United States' House of Representatives on fracking fluids used by the 14 leading hydraulic fracturing companies highlighted the secrecy surrounding the fracking process and chemicals used under the pre-tense of trade-secret or proprietary information, finding that

Between 2005 and 2009, the companies used 94 million gallons of 279 products that contained at least one chemical or component that the manufacturers deemed proprietary or a trade secret [...] in most cases the companies stated that they did not have access to proprietary information about products they purchased "off the shelf" from chemical suppliers. In these cases, the companies are injecting fluids containing chemicals that they themselves cannot identify.<sup>222</sup>

The lack of freedom of information from both States and corporations compromises the ability of individuals and communities to uphold their human rights, stripping them of their agency and violating their right to access of information.

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<sup>222</sup> Henry A Waxman, *et al*, 'Chemicals Used in Hydraulic Fracturing' (18 April 2011) at 2.

## 2.7 Right to Public Participation

Like access to information, public participation through public debate and dialogue is a right used to defend other rights that might be impacted by fracking. It cannot be realized unless freedom of speech, assembly and association are also implemented.<sup>223</sup> In a report by the OHCHR, it is observed that ‘participation enables the advancement of all human rights.’<sup>224</sup>

### 2.7.1 The right to public participation as recognised by international treaties and instruments

The human right to public participation is specified in ICCPR,<sup>225</sup> CEDAW,<sup>226</sup> CRC,<sup>227</sup> and CRPD.<sup>228</sup>

Public participation is particularly important in the development of national strategies. In multiple General Comments, ICESCR has stressed that in developing public policies on matters related to water, housing and food, consideration must be given to the rights of individuals to participate in decision-making processes that may impact their rights,<sup>229</sup> including through consultations with and participation by persons who the policies will impact,<sup>230</sup> and that transparency and public participation are necessary in the creation and implementation of public policy.<sup>231</sup>

Public participation must give groups and individuals the opportunity to contribute to decision-making processes that affect them.<sup>232</sup> Under international law, every citizen has the right to participate in the ‘conduct of public affairs,’<sup>233</sup> which includes the development and implementation of policies at national and local levels.<sup>234</sup> Decision-making processes need to establish at the local and national levels permanent spaces for consultation and dialogue where ‘peoples and communities concerned, companies and local authorities’ are represented.<sup>235</sup> A

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<sup>223</sup> UN Human Rights Council, ‘General Comment Adopted by The Human Rights Committee Under Article 40, Paragraph 4, Of The International Covenant On Civil And Political Rights’ (12 July 1996) UN Doc CCPR/C/21/Rev.1/Add.7 at 8.

<sup>224</sup> UN General Assembly, ‘Draft guidelines for States on the effective implementation of the right to participate in public affairs’ (20 July 2018) UN Doc A/HRC/39/28, at 1.

<sup>225</sup> ICCPR (n 5) Art 25.

<sup>226</sup> CEDAW (n 8) Art 7.

<sup>227</sup> CRC (n 7) Art 12(1).

<sup>228</sup> CRPD (n 9) Arts 4(3), 29(b).

<sup>229</sup> ICESCR General Comment 15 (n 97) at 48.

<sup>230</sup> ICESCR General Comment 4 (n 168) at 12.

<sup>231</sup> ICESCR General Comment 12 (n 140) at 23.

<sup>232</sup> ICESCR General Comment 15 (n 97) at 48.

<sup>233</sup> UN Human Rights Committee, ‘CCPR General Comment No. 25: Article 25 (Participation in Public Affairs and the Right to Vote), The Right to Participate in Public Affairs, Voting Rights and the Right of Equal Access to Public Service’ (12 July 1996) UN Doc CCPR/C/21/Rev.1/Add.7 at 1.

<sup>234</sup> *Ibid.*, at 5.

<sup>235</sup> Special Rapporteur Calin Georgescu (n 129) at 69(g).

genuine opportunity must be provided for those affected by measures that impact, for example, the right to water to be consulted in a timely and reasonable manner with full disclosure on the proposed measures and legal remedies.<sup>236</sup>

Public participation further provides a means to monitor implementation and prevent violations of international law, with ICESCR noting that public participation must be ensured as a measure to prevent third parties from violating the right to water.<sup>237</sup> ICESCR similarly recognised that the work of human rights defenders who advocate for the access to water should be protected, respected, facilitated and promoted by States.<sup>238</sup> Accordingly, there must be public participation in political decisions that can affect the right to health ‘at both the community and national levels.’<sup>239</sup>

The Special Rapporteur on hazardous substances and wastes and the Special Rapporteur on the situation of human rights defenders have stated that governments must facilitate the right to participation in environmental decision-making.<sup>240</sup> Further, the Special Rapporteur on the adverse effects of the illicit movement and dumping of toxic and dangerous products and wastes on the enjoyment of human rights has stressed that the right to participation in public life is closely connected with the right to information, as without the ‘exercise of the right to participation would be meaningless if there was no access to relevant information on issues of concern’.<sup>241</sup>

Public participation is guaranteed under the Aarhus Convention.<sup>242</sup> The public must be informed in detail about the proposed activity early in the decision-making process and be given time to prepare and participate in the decision-making.<sup>243</sup> In addition to providing for public participation in decisions on specific projects, the Convention calls for public participation in the preparation of environmental plans, programmes, policies, laws and regulations.<sup>244</sup>

### **2.7.2 The impact of fracking on the right of public participation**

As noted above, the right of public participation is connected to the right of access to information.<sup>245</sup> Fracking can impact this right where there is not full, free, and informed public participation in the decision-making process and effective community consultation.

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<sup>236</sup> ICESCR General Comment 15 (n 97) at 56.

<sup>237</sup> *Ibid.*, at 24.

<sup>238</sup> *Ibid.*, at 59.

<sup>239</sup> ICESCR General Comment 14 (n 65) at 17.

<sup>240</sup> Report on Illicit Movement of Toxic Wastes (n 189); Report on Human Rights Defenders (n 203).

<sup>241</sup> Report on Illicit Movement of Toxic Wastes (n 189) at 66.

<sup>242</sup> See Aarhus Convention (n 210) Arts 6, 8.

<sup>243</sup> *Ibid.*, arts 6(2)-6(3).

<sup>244</sup> *Ibid.*, arts. 7, 8.

<sup>245</sup> Report on Illicit Movement of Toxic Wastes (n 189) at 66.

The PPT has considered ‘the most fundamental threat of fracking to ecosystems ... is the fracking system’s violation of the right to informed participation’.<sup>246</sup> The Tribunal notes the routine use of gag orders, non-disclosure agreements and strategic lawsuits against public participation in relation to fracking.<sup>247</sup> In addition to these methods of inhibiting public participation, the Tribunal has also noted the use of less formal means of biasing or preventing public discussion of information in relation to fracking, including:

physical intimidation, informal censorship of information presented by fracking critics, false advertising, deliberate failure to investigate complaints, and the subversion, manipulation and marginalization of those procedures for public participation in decision-making that are still required by law.<sup>248</sup>

In order to ensure the human right to public participation is not violated, States must ensure that informed decision-making and meaningful, informed public participation takes place.<sup>249</sup> When engaged in megaprojects, such as fracking or other extractive projects, States must ensure there is ‘Sufficient time and resources, transparency of access to information and interactions between the planners of megaprojects and the stakeholders’ in order to ensure the right to public participation is not hindered.<sup>250</sup>

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<sup>246</sup> PPT Advisory Opinion (n 88) at 13.

<sup>247</sup> See *ibid* 20- 21 regarding systematic use of the law to suppress information about potential or actual ecosystem effects.

<sup>248</sup> *Ibid.*, at 22.

<sup>249</sup> OHCHR, ‘End-of-visit statement by the United Nations Special Rapporteur on human rights and hazardous substances and wastes, Baskut Tuncak on his visit to the United Kingdom 17 – 31 January 2017’ (31 January 2017).

<sup>250</sup> UNGA, ‘Human rights to safe drinking water and sanitation’ (19 July 2019) UN Doc A/74/197, para 65.

## **2.8 The Right to a Safe, Clean, Healthy and Sustainable Environment**

A safe, clean, healthy and sustainable environment is vital for the full enjoyment of human rights. The environment in which we live can have a huge impact not only on the physical health and well-being of persons, but also their quality of life. Ensuring that the environment in which persons live and work in is safe and clean, allows for States to be better prepared to meet their other human rights obligations.

### **2.8.1 The right to a safe, clean, healthy and sustainable environment as seen in international treaties and instruments**

There is growing international and regional recognition of the importance a clean and healthy environment plays in the exercise and enjoyment of human rights, largely due to the impact the environment can have on these rights. The Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment notes that ‘Human rights and environmental protection are interdependent’ where a safe, clean and healthy environment is vital for the exercise and enjoyment of human rights, and where the exercise of human rights such as the rights to information and participation are vital for the protection of the environment.<sup>251</sup>

While there is not yet an explicit human right to a safe, clean, healthy and sustainable environment within an international human rights treaty, the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment has noted that the right has been widely recognized at the international, regional and domestic levels.<sup>252</sup> At the international level, there is a widespread recognition of the importance of a safe and healthy environment among UN Member States, where as of 2019, more than 80 per cent have legally recognized the right to a safe, clean, healthy and sustainable environment.<sup>253</sup>

UN bodies have also recognized the importance of a safe and healthy environment in for the realisation of human rights, including in early 2021, the UN Environment Programme (hereinafter ‘UNEP’) delivered a joint statement on behalf of 15 UN entities at the 46<sup>th</sup> session of the Human Rights Council. In their statement, UNEP declared that ‘the time for global recognition, implementation, and protection of the human right to a safe, clean, healthy and sustainable environment is now’ signalling the international recognition of the importance of

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<sup>251</sup> UN General Assembly, ‘Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment’ (24 January 2018) UN Doc A/HRC/37/59 at framework principal 2, para 4 [Report on Safe Environment].

<sup>252</sup> *Ibid.*, at 11.

<sup>253</sup> UN General Assembly, ‘Right to a healthy environment: good practices, Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment’ (30 December 2019) UN Doc A/HRC/43/53 at 13.

the global recognition of the right to a healthy environment, as such recognition will assist in the realization of human rights for all'.<sup>254</sup>

Furthermore, within the UN the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment has noted that the focus has been 'not on proclaiming a new right to a healthy environment, but rather on what might be called 'greening' human rights to a point where their relationship to the environment is further considered and emphasized.'<sup>255</sup> In 2018 the PPT noted that 'Even without formal recognition, the term "the human right to a healthy environment" is already being used to refer to the environmental aspects of the entire range of human rights that depend on a safe, clean, healthy and sustainable environment'.<sup>256</sup>

The substantive elements of the right to a safe and healthy environment include a safe climate, clean air, clean water and adequate sanitation, healthy and sustainably produced food, non-toxic environments in which to live, work, study and play, and healthy biodiversity and ecosystems.<sup>257</sup> These elements are informed by commitments made under international environmental treaties, such as the UNFCCC, wherein States pledged to 'prevent dangerous anthropogenic interference with the climate system', or in other words to maintain a safe climate.<sup>258</sup>

As noted above, various elements contribute to a safe and healthy environment, including clean air. The Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment has underlined the connection between clean air and the enjoyment of a safe and clean environment and various other human rights, such as the rights to life, health, water, food, housing and an adequate standard of living.<sup>259</sup> Although the right to clean air is not explicitly enumerated in any international human rights instrument, the Special Rapporteur argues that obligations relating to clean air are implicit in numerous human rights instruments and the rights contained therein.<sup>260</sup> As with unsafe and polluted water, poor air quality and pollution similarly impacts other human rights, such as the right to food and water where air pollution or contaminants can result in crop damage or contamination of aquatic ecosystems.<sup>261</sup>

In meeting their obligations under the right to a clean and healthy environment, States have an obligation not only to ensure their own actions do not violate this and associated human rights,

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<sup>254</sup> UN Environmental Programme, 'Joint statement of United Nations entities on the right to healthy environment' (8 March 2021).

<sup>255</sup> UN General Assembly, 'Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox', (24 December 2012) UN Doc A/HRC/22/43, at 16.

<sup>256</sup> Report on Safe Environment (n 251) at 16.

<sup>257</sup> *Ibid.*, at 11.

<sup>258</sup> Safe Climate Report (n 13) at 43.

<sup>259</sup> *Ibid.*, at 44.

<sup>260</sup> *Ibid.*, at 45.

<sup>261</sup> *Ibid.*, at 45.

but must also protect against environmental harm from private actors.<sup>262</sup> States have an obligation to protect persons against non-State abuses, and play a key role in regulating and adjudicating abuses by business enterprises.<sup>263</sup> Non-State actors, such as businesses and corporations, can infringe upon human rights through various means, including in particular through causing environmental harm.<sup>264</sup>

Various human rights bodies have connected the State duty to protect against human rights abuses by non-State actors to abuses caused by pollution or other forms of environmental harm.<sup>265</sup> ICESCR has stated that ‘corporate activities can adversely affect the enjoyment of Covenant rights, through harmful activities negatively impacting the environment.’<sup>266</sup> The Committee reiterated that the ‘obligation of States Parties to ensure that all economic, social and cultural rights laid down in the Covenant are fully respected and rights holders adequately protected in the context of corporate activities’.<sup>267</sup> Regional human rights bodies have also recognized the importance of a healthy environment to the exercise and enjoyment of human rights, and the State obligation to ensure its own actions and non-State actors’ actions do not infringe upon these rights.<sup>268</sup>

In meeting their obligations, the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, recommends that States should carry out comprehensive human rights, environmental and social assessments, examining natural resources in the area and the potential cumulative impacts of projects. These assessments must be reliable and carried out by competent, independent third parties and monitor the evolving impacts of extractive operations.<sup>269</sup>

The UN Special Rapporteur on Human Rights and the Environment released the ‘Framework Principals on Human Rights and the Environment’ in 2018, wherein the basic obligations of States under human rights law as they relate to the enjoyment of a safe, clean, healthy and sustainable environment are set out in principals reflecting existing human rights obligations in the environmental context.<sup>270</sup> The principles include that:

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<sup>262</sup> Report of the Independent Expert (n 203) at 58-61.

<sup>263</sup> UN General Assembly, ‘Report of the Special Representative of the Secretary-General on the issue of human rights and transnational corporations and other business enterprises, John Ruggie’ (19 February 2007) UN Doc A/HRC/4/35 at 18.

<sup>264</sup> Report of the Independent Expert (n 203) at 58-61.

<sup>265</sup> *Ibid.*

<sup>266</sup> UN Committee on Economic, Social and Cultural Rights, ‘Statement on the obligations of States parties regarding the corporate sector and economic, social and cultural rights’ (12 July 2011) UN Doc E/C.12/2011/1 at 1.

<sup>267</sup> *Ibid.*

<sup>268</sup> See Inter-American Court of Human Rights, *Advisory Opinion OC-23/17 of November 15, 2017 Requested by the Republic of Colombia: The Environment and Human Rights* (15 November 2017) at 39.

<sup>269</sup> Special Rapporteur Calin Georgescu (n 129) at 69 (f).

<sup>270</sup> Report on Safe Environment (n 251) at 8.

- ‘States should ensure a safe, clean, healthy and sustainable environment in order to respect, protect and fulfil human rights’; <sup>271</sup>
- States should require prior assessment of possible environmental impacts and potential effects on human rights of proposed projects and policies to avoid authorising actions with environmental implications that interfere with the enjoyment of human rights;<sup>272</sup> and
- ‘States should provide for and facilitate public participation in decision making related to the environment and take the views of the public into account in the decision-making process’.<sup>273</sup>

The failure on the part of States to meet their obligations in relation to the right to a clean and healthy environment has been addressed by international courts. This can be seen in the International Court of Justice decision of *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*.<sup>274</sup> In this case, an environmental dispute between Argentina and Uruguay concerning Uruguay’s authorization for pulp mills on the banks of the Uruguay River highlighted the importance of the need to ensure environmental protection of shared natural resources while allowing for sustainable economic development. In its decision, the Court found that a State is obligated to ‘use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State.’<sup>275</sup> The Court further found that the obligation to protect and preserve the environment requires the implementation and use of ‘environmental impact assessment[s] where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource.’<sup>276</sup>

### **2.8.2 The impact of fracking on the right to a safe, clean, healthy and sustainable environment**

The Compendium notes that ‘the vast body of scientific studies now published on hydraulic fracturing in the peer reviewed scientific literature confirms that the climate and public health risks from fracking are real and the range of environmental harms wide’.<sup>277</sup> Such environmental harms include air pollution, water contamination, the degradation of soil and vegetation, and climate instability.

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<sup>271</sup> *Ibid.*, Principle 1.

<sup>272</sup> *Ibid.*, Principle 8.

<sup>273</sup> *Ibid.*, Principle 9.

<sup>274</sup> *Pulp Mills on the River Uruguay (Arg. v. Uru.)*, 2010 I.C.J.

<sup>275</sup> *Ibid.*, at 101.

<sup>276</sup> *Ibid.*, at 204.

<sup>277</sup> Compendium (n 2) at 7.

Additionally, ‘Earthquakes are a proven consequence of both fracking and the underground injection of fracking waste’<sup>278</sup> with studies from Canada, Oklahoma, Ohio, Texas, England, and China highlighted that fracking has triggered earthquakes. As noted in the Compendium, ‘In spite of emerging knowledge about the mechanics of how fracking and the underground disposal of fracking waste trigger earthquakes via activation of faults, no model can predict where or when earthquakes will occur or how powerful they will be.’<sup>279</sup> A moratorium on fracking was declared in the United Kingdom ‘after an Oil and Gas Authority analysis found that preventing earthquakes associated with fracking is not possible with existing technology’.<sup>280</sup>

Similarly, ‘Air pollution associated with fracking and flaring is a grave concern with a range of impacts. Researchers have documented more than 200 different air pollutants near drilling and fracking operations. Of these, 61 are classified as hazardous air pollutants with known health risks, and 26 are classified as endocrine disruptors.’<sup>281</sup> Fracking also increases environmental noise pollution, with sources of such disturbances including ‘blasting, drilling, flaring, generators, compressor stations, and truck traffic.’<sup>282</sup>

A written statement submitted by UNANIMA International, a non-governmental organization with special ECOSOC consultative status, told the Human Rights Council that ‘Other states should heed the environmental destruction that fracking has caused in the U.S. and ban the practice before it begins’<sup>283</sup> and argued that the environmental damage caused by hydraulic fracturing for natural gas poses ‘a new threat to human rights’<sup>284</sup>.

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<sup>278</sup> *Ibid.*, at 40, *see also* 226-257.

<sup>279</sup> *Ibid.*, at 29.

<sup>280</sup> *Ibid.*, at 24.

<sup>281</sup> *See ibid.*, at 60-85 for details on air pollution due to fracking.

<sup>282</sup> *Ibid.*, at 216-225.

<sup>283</sup> UN Human Rights Council, ‘Written statement submitted by UNANIMA International, a non-governmental organization in special consultative status’ (19 September 2011) UN Doc A/HRC/18/NGO/91 at 4.

<sup>284</sup> *Ibid.*, at 2.

## 2.9 Disproportionate Impacts on Marginalized Persons and Communities

Various international bodies have acknowledged that climate change and fracking have a disproportionate impact on certain populations. As recognized by the OHCHR, ‘Negative impacts of climate change are disproportionately felt by the poor, women, children, migrants, persons with disabilities, minorities, indigenous peoples and others in vulnerable situations, particularly those living in geographically vulnerable developing countries.’<sup>285</sup> This is echoed by the Intergovernmental Panel on Climate Change, wherein the Panel observed that ‘people who are socially, economically, culturally, politically, institutionally, or otherwise marginalized are especially vulnerable to climate change.’<sup>286</sup> Further, persons or communities whose ‘vulnerabilities are caused by poverty, gender, age, disability, geography and cultural or ethnic background’ are more likely to feel the impacts of climate change and the human rights violations associated with it.<sup>287</sup>

In ensuring that all persons benefit from the human rights encompassed in international human rights treaties, States must, in accordance with the principles of equality and non-discrimination, take action to remedy the ‘disproportionate impacts of climate change on the most marginalized; to ensure that climate actions benefit persons, groups and peoples in vulnerable situations; and to reduce inequalities.’<sup>288</sup>

Persons with disabilities may be disproportionately impacted by climate change. As noted by the Committee on the Rights of Persons with Disabilities, States must ensure that the requirements of all persons with disabilities are taken into consideration when designing and implementing adaptation and disaster risk reduction measures.<sup>289</sup>

As observed in the Compendium, research conducted on the health impacts of fracking indicate that poor communities, communities of colour, and minority communities are often disproportionately affected by fracking practices. Studies cited in the Compendium indicated that fracking sites and infrastructure are typically located in low-income and minority communities.<sup>290</sup>

### 2.9.1 Women

The disproportionate impact of climate change and fracking has also been noted with regards to the impact on women. As the OHCHR notes, ‘Gender differences in health risks are likely to be exacerbated by climate change.’<sup>291</sup> Further, ‘differences are also present in vulnerability

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<sup>285</sup> HRC Analytical Study (n 38) at 23.

<sup>286</sup> Intergovernmental Panel on Climate Change, ‘Summary for policymakers’ Climate Change 2014: Impacts, Adaptation, and Vulnerability (2014).

<sup>287</sup> Safe Climate Report (n 13) at 45.

<sup>288</sup> HRC Analytical Study (n 38) at 37.

<sup>289</sup> Committee on the Rights of Persons with Disabilities ‘Concluding Observations on the initial report of Seychelles’ (16 April 2018) UN Doc CRPD/C/SY/CO/1 at 23.

<sup>290</sup> Compendium (n 2) at 54.

<sup>291</sup> HRC Analytical Study (n 38) at 25.

to indirect and long-term effects of climate change ... The poorest households in the world typically rely on the most polluting energy sources for household activities such as cooking, which are often performed by women and girls. Use of such energy sources is associated with more than 4.3 million deaths each year.<sup>292</sup>

The CEDAW Committee has further expressed concerns over the impact climate change has on women. In its General Recommendation 37, the Committee acknowledged that climate change and the resulting impacts of climate change have a disproportionate impact on women, where situations of crisis exacerbate gender inequalities and ‘compound intersecting forms of discrimination’.<sup>293</sup> The Committee recommended that States, in meeting their obligations to mitigate and adapt to climate change, limit their fossil fuel use and greenhouse gas emissions and the ‘harmful environmental effects of extractive industries such as mining and fracking, as well as the allocation of climate financing, are regarded as crucial steps in mitigating the negative human rights impact of climate change and disasters.’<sup>294</sup> In meeting their obligations under the various human rights instruments, States owe obligations not only to those within their territories, but also to those outside their territories. Through taking measures such as ‘limiting fossil fuel use, reducing transboundary pollution and greenhouse gas emissions and promoting the transition to renewable energies’ States take crucial steps in mitigating the ‘negative human rights impact of climate change and disasters globally.’<sup>295</sup>

CEDAW has already recommended that the United Kingdom be aware of the impacts that fracking may have on women. In its 2019 Concluding Observations on the United Kingdom, the Committee expressed its concern that women, and particularly women living in rural areas are ‘disproportionately affected by the harmful effects of fracking, including exposure to hazardous and toxic chemicals, environmental pollution and the effects of climate change.’<sup>296</sup> In recalling General Recommendation 34, the Committee recommended that the United Kingdom ‘Review its policy on fracking and its impact on the rights of women and girls and consider introducing a comprehensive and complete ban on fracking’.<sup>297</sup>

## 2.9.2 Children

Children are also disproportionately impacted by fracking and the impacts of climate change. The CRC Committee has identified climate change as one of the biggest threats to children’s health and has urged States Parties to put children’s health concerns at the centre of their climate change adaptation and mitigation strategies.<sup>298</sup> Environmental harm poses a risk to children’s rights, including (but not limited to) the right to life, health, development, an adequate standard

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<sup>292</sup> *Ibid.*

<sup>293</sup> UN Committee on the Elimination of Discrimination against Women, ‘General Recommendation 37 on gender related dimensions of disaster risk reduction in the context of climate change’ (7 February 2018) UN Doc CEDAW/C/GC/37 at 2.

<sup>294</sup> *Ibid.*, at 14.

<sup>295</sup> *Ibid.*, at 43.

<sup>296</sup> CEDAW Concluding Observations (n 12) at 53.

<sup>297</sup> *Ibid.*, at 54(b).

<sup>298</sup> CRC General Comment 15 (n 77) at 50.

of living and the right to play and recreation.<sup>299</sup> The importance of protecting children from the negative impacts of climate change are widely recognized, with the Paris Agreement itself calling upon States to ‘promote and consider their respective obligations on, among other things, the rights of the child and intergenerational equity when taking action to address climate change’<sup>300</sup> and various Human Rights Council resolutions recognizing the impact climate change has on children and calling upon States to act against climate change.<sup>301</sup>

UNICEF has emphasized that the right of the child to health is particularly impacted by climate change as children are particularly vulnerable to ‘changes in air and water quality, temperature, humidity, and vector-, water-, and food-borne infections due to their less developed physiology and immune systems.’<sup>302</sup> The Special Rapporteur on human rights and the environment has noted that the Convention explicitly requires States to act in the best interests of the child and consider ‘the dangers and risks of environmental pollution’.<sup>303</sup> In particular, risks associated with air pollution, water pollution, chemicals, toxic substances and waste, the loss of biodiversity and climate change have been flagged as posing substantial threats to children and their rights under the Convention.<sup>304</sup>

Several cases launched by or on behalf of children against States have come about recently. Currently, there is a communication before the CRC, submitted by 15 children against Argentina, Brazil, France, Germany, and Turkey.<sup>305</sup> The complainants launched the complaint on the basis that the respondent States have failed in their obligations under the Convention due to their actions in contributing to climate change, thereby violating the human rights of the authors, specifically, their rights to life (art 6) health (art 24) and culture (art 30).<sup>306</sup>

As the applicants highlight, ‘Reducing emissions at the highest possible ambition is the only way the respondents and other states can pursue efforts to prevent the domestic and transboundary human rights harms caused by climate change.’<sup>307</sup> However, as noted by the applicants, the respondent States have failed to meet their obligations under the Convention, as ‘rather than prevent further harm, each respondent is actively promoting fossil fuel production and consumption, and/or encouraging or tolerating destructive land use such as deforestation.’<sup>308</sup> Thus, each respondent State has caused and continues to perpetuate climate change, ‘knowing that it endangers children’s inalienable rights. Despite that knowledge, each is undermining the global collective effort to solve the crisis.’<sup>309</sup> Although this communication

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<sup>299</sup> Report on Safe Environment (n 251) at 31.

<sup>300</sup> Climate Change and Rights of the Child Study (n 91) at 30.

<sup>301</sup> See Human Rights Council Resolutions, A/HRC/RES/32/33, A/HRC/RES/35/20 and A/HRC/RES/32/33.

<sup>302</sup> HRC Analytical Study (n 368) at 26.

<sup>303</sup> Safe Climate Report (n 13) at 40.

<sup>304</sup> Report on Safe Environment (n 251).

<sup>305</sup> Communication to the Committee on the Rights of the Child *Sacchi et al v Argentina et al* (23 September 2019).

<sup>306</sup> *Ibid.*, at 24.

<sup>307</sup> *Ibid.*, at 181.

<sup>308</sup> *Ibid.*, at 182.

<sup>309</sup> *Ibid.*, at 196.

is yet to be decided by the Committee, it marks a growing trend in human rights complaints brought by children against governments for their failures to respect their human rights and combat climate change.

Similarly, six Portuguese children are currently in the process of bringing a complaint against 33 Council of Europe Member States to the European Court of Human Rights. The Portuguese youth brought the claim on the basis of the respondent States' contribution to climate change and the resulting impacts climate change has on the youth, namely their rights to life and private and family life.<sup>310</sup> In November 2020, the Court announced the case would be fast-tracked, and communicate the case to the 33 defendant countries, requiring each to respond to the complaint by the end of February 2021.<sup>311</sup>

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<sup>310</sup> Paul Clark *et al.* 'Climate change and the European Court of Human Rights: The Portuguese Yotuh Case' (6 October 2020) *EJIL:Talk!*.

<sup>311</sup> Global Legal Action Network 'Portuguese Youth Climate Case v 33 Countries – Portuguese Young People versus 33 Countries'.

### 3. European Convention on Human Rights

Under the ECHR, State Parties have obligations to uphold the rights and freedoms contained within the Articles of the convention, many of which may be infringed by fracking.

Although the ECHR does not contain an explicit right to a healthy environment, the European Court of Human Rights has developed its case-law in environmental matters ‘on account of the fact that the exercise of certain Convention rights may be undermined by the existence of harm to the environment and exposure to environmental risks.’<sup>312</sup> The Court has emphasised that effective enjoyment of Convention rights depends on a healthy environment and as environmental concerns have moved up the agenda both internationally and domestically, the Court has increasingly embraced the idea that human rights law and environmental law are mutually reinforcing.<sup>313</sup> Furthermore, it is also highly significant that the Court has shown increasing willingness to draw upon international environmental principles, standards and norms to draw out the human rights implications of environmentally risky actions.<sup>314</sup>

Although many rights under the ECHR have the potential to be negatively impacted by fracking, the rights which have been most widely considered in relation to environmental impacts include the right to life, the right to respect for private and family life, access to information and public participation and protection of property under the ECHR Protocol 1. An examination and discussion of these rights in relation to fracking and the risks fracking poses, shall continue below.

#### 3.1 Article 2: Right to life

The right to life has powerful and direct implications for the use of fracking technologies and contaminants. The right establishes that no one may be intentionally deprived of his or her life and has been interpreted more broadly as the right to security of person and to bodily integrity.<sup>315</sup> With regard to the environment, when activities harmful to the environment also endanger human life, Article 2 is applicable.

Article 2 has been interpreted by the Court to include positive obligations of protection in addition to the negative State obligation to prevent death arising from State action. Thus, States are under an obligation to take action to protect the right to life from threats by persons or

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<sup>312</sup> European Court of Human Rights ‘Factsheet: Environment and the European Convention on Human Rights’ (February 2021).

<sup>313</sup> Council of Europe, ‘Manual on Human Rights and the Environment’ (Council of Europe Publishing, 2<sup>nd</sup> edn, 2012) at 30 [Council of Europe Manual].

<sup>314</sup> *Öneryildiz v. Turkey App no 48939/99* (ECtHR 30 November 2004) at 59; *Taşkın and Others v. Turkey App no 46117/99* (ECtHR 10 November 2004) at 99 – 100.

<sup>315</sup> Anna Grear, Evadne Grant, Tom Kerns, Karen Morrow, Damien Short, ‘A Human Rights Assessment of Hydraulic Fracturing and Other Unconventional Gas Development in the United Kingdom’ (30 October 2014) at 15.

activities not directly connected with the State.<sup>316</sup> This is seen in the decision of *Öneryildiz v Turkey*, where the Court held that the right to life can be infringed by the failure of the State to inform residents living near potentially dangerous sites of any environmental safety risks, failure to take practical measures to avoid safety risks and the use of a defective regulatory framework or planning policy.<sup>317</sup> Academics have commented that this has clear relevance in relation to the potential lawfulness of fracking operations in certain situations.<sup>318</sup>

It is clear from case-law that the State has a positive obligation to take measures to prevent infringements of the right to life as a result of dangerous activities.<sup>319</sup> This implies that there is a duty put in place a legislative and administrative framework that should in particular ensure that measures are in place to protect people whose lives might be endangered by dangerous activities, including activities that cause environmental destruction which endangers lives.<sup>320</sup> Additionally, the public must be provided with information concerning activities which potentially pose a danger to life. The State is responsible for providing for the necessary procedures for identifying shortcomings in the technical processes concerned and errors committed by those responsible.<sup>321</sup>

### 3.2 Article 8: Right to respect for private and family life

Article 8 provides that ‘everyone has the right to respect for his private and family life, his home and his correspondence’.<sup>322</sup> This right may not be interfered with ‘except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others.’<sup>323</sup> The Court has interpreted the right broadly to include both respect for the quality of family life as well as the enjoyment of the home as living space.<sup>324</sup> Breaches of the right to the home as living space are not confined to interferences such as unauthorised entry, but may also result from intangible sources such as noise, emissions, smells or other similar forms of interference.<sup>325</sup> Furthermore, the Court has tended to interpret the notions of private and family

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<sup>316</sup> Council of Europe Manual (n 313) at 35.

<sup>317</sup> *Öneryildiz v. Turkey App no 48939/99* (ECtHR, 30 November 2004).

<sup>318</sup> *Grear et al* (n 315) at 15.

<sup>319</sup> *Öneryildiz v. Turkey* (n 316) at 89; *Budayeva and Others v Russia App no’s 15339/02, 21166/02, 20058/02, 11673/02, 15343/02* (ECtHR, 29 September 2008) at 129.

<sup>320</sup> Council of Europe Manual (n 313) at 38.

<sup>321</sup> *Ibid.*

<sup>322</sup> ECHR (n 11) Art 8 (1).

<sup>323</sup> ECHR (n 11) Art 8 (2).

<sup>324</sup> *Powell & Rayner v. the United Kingdom App no 9310/81 (A/172)* (ECHR, 21 Feb 1990), at 40.

<sup>325</sup> *Moreno Gómez v. Spain App no 4143/02* (ECtHR, 16 November 2004) at 53; *Borysiewicz v. Poland App no 71146/01* (ECtHR, 1 July 2008) at 48; *Giacomelli v. Italy App no 59909/00* (ECtHR, 2 November 2006) at 76; *Hatton and Others v. the United Kingdom App no. 36022/97* (ECtHR, 8 July 2003) at 96; *Deés v. Hungary App no. 2345/06* (ECtHR, 9 November 2010) at 21.

life and home as being closely interconnected, and, for example, in one case it referred to the notion of ‘private sphere’<sup>326</sup> or in another case ‘living space’.<sup>327</sup>

Environmental damage comes into play if such damage affects private and family life or the home. As is the case for Article 2 on the right to life, State obligations are not limited to protection against interference by public authorities but include obligations to take positive steps to secure the right. Moreover, the obligation does not only apply to State activities causing environmental harm, but to activities of private parties as well.<sup>328</sup>

Environmental human rights cases in the ECtHR strongly imply that in the context of fracking, Article 8 may be infringed if the State does not reasonably act to balance economic interests of a polluting activity (which would include fracking) with the effects on individual wellbeing<sup>329</sup> or if adequate information on pollution risks is not provided to those living near fracking industry sites.<sup>330</sup> It is noted, that the case-law concerning Article 8 and other directly relevant articles of the Court suggests that the Court is expanding its concern with the potential impacts and environmental risks as human rights matters.<sup>331</sup> Additionally, it has been particularly adept at using environmental standards to interpret environmental harm as a breach of the right to private life and the home.

In *Lopez Ostra v Spain*, the Court was clear that environmental pollution can be severe enough to constitute a violation of Article 8 due to its effect on individual wellbeing without having to seriously endanger the health of the individual.<sup>332</sup> The Court’s finding emphasizes the importance of individual well-being, and such well-being is not limited to the physical well-being, it can include enjoyment of private and family life.

This position was elaborated upon in *Fadayeve v Russia*,<sup>333</sup> in which the applicant alleged that the operation of a steel plant in close proximity to the applicant’s home endangered the health and well-being of her and her family. In this case the Court held that there had been a violation of Article 8 as the environmental impact of the steel plant amounted to interference in the life of the applicant and that Russia had ‘failed to strike a fair balance between the interests of the community and the applicant’s effective enjoyment of her right to respect for her home and her private life’.<sup>334</sup> The applicant’s claim succeeded because ‘Even assuming that the pollution did not cause any quantifiable harm to her health, it inevitably made the applicant more vulnerable to various illnesses’.<sup>335</sup> The applicant’s increased vulnerability to disease was held sufficient

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<sup>326</sup> *Fadayeve v. Russia* App no 55723/00 (ECtHR, 9 June 2005) at 70, 82 and 86.

<sup>327</sup> *Brândușe v. Romania* App no 6586/03 (ECtHR, 7 April 2009) at 64.

<sup>328</sup> Council of Europe Manual (n 312) at 51 – 52; *Hatton and Others v. the United Kingdom* App no. 36022/97 (ECtHR, 8 July 2003).

<sup>329</sup> *Lopez Ostra v Spain* App no 16798/90 (ECtHR, 09 December 1994).

<sup>330</sup> *Guerra and Others v Italy* App no 14967/89 (ECtHR, 19 February 1998); *Grear et al* (n 315) at 16.

<sup>331</sup> *Grear et al* (n 315) at 18.

<sup>332</sup> *Lopez Ostra v Spain* (n 329) at 51.

<sup>333</sup> *Fadayeve v. Russia* (n 326).

<sup>334</sup> *Ibid.*, at 134.

<sup>335</sup> *Ibid.*, at 88.

adversely to affect the applicant's quality of life in her home, engaging Article 8 protection. Accordingly, 'deleterious consequences or serious impacts, including the posing of serious risk, and increased vulnerability to disease, will attract a protective interpretation of Article 8.'<sup>336</sup>

Another aspect of the interpretation of Article 8 which is relevant to fracking is the recognition of an obligation on the part of the State to inform the public about environmental risks, as seen in *Guerra and Others v Italy*.<sup>337</sup> In this case, residents of Manfredonia brought an action against the Italian government for failing to provide them with information about the health risks posed by a nearby chemical factory. The factory in question produced fertilisers and caprolactam and was classified as 'high risk'. The local authorities were obligated to inform the local population of the risks and draw up emergency plans, however there was still no emergency plan in 1995, nor were there procedures to inform the public in case of an accident. The Court held that the State did not fulfil its obligation to secure the applicants' right to respect for their private and family life, in breach of Article 8 on the basis that the applicants had not been provided with the necessary information for them to be able to assess the risks of living in the vicinity of the factory.<sup>338</sup>

In *Bacila v Romania*,<sup>339</sup> the applicant lived close to a large industrial plant which was a major long-term source of pollution. The Court found that the State had violated the applicant's Article 8 rights due to the State's inaction in addressing the plant's emissions which were negatively impacting the applicant's health. Further, the Court stated that economic arguments should not have been allowed to prevail over the locals' 'right to enjoy a healthy environment'.<sup>340</sup>

The case of *Tătar v Romania*,<sup>341</sup> involved the operation of a gold mine where part of the activity was located in the vicinity of the applicants' home. An accident occurred, in which contaminated water was released into the environment. The applicants complained that the technological process in the process put their lives in danger, and that the authorities had failed to take any action in spite of the numerous complaints.

The Court held that there had been a violation of Article 8 of the Convention, and that the State had a duty to ensure the protection of its citizens by regulating the authorising, setting up, operating, safety and monitoring of industrial activities, especially activities that were dangerous for the environment and human health. The Court concluded there was a failure of the duty to assess, to a satisfactory degree, the risks that the activity of the company operating

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<sup>336</sup> *Grear et al* (n 315) at 17.

<sup>337</sup> *Guerra and Others v Italy* (n 330)

<sup>338</sup> *Ibid.*, at 60.

<sup>339</sup> *Bacila v Romania* (App no 19234/04) (ECtHR, 30 March 2010).

<sup>340</sup> Karen Morrow, 'After the Honeymoon: The Uneasy Marriage of Human Rights and the Environment Under the European Convention on Human Rights and in UK Law Under the Human Rights Act 1998' (2013) *Revue générale de droit* 43, 328.

<sup>341</sup> *Tătar v Romania* App no 67021/01 (ECtHR, 27 January 2009).

the mine might entail, and to take suitable measures in order to protect the rights of those concerned to respect for their private lives and homes, and more generally their right to enjoy a healthy and protected environment.<sup>342</sup> Furthermore, the Court pointed out that authorities had to ensure public access to the conclusions of investigations and studies, reiterating that the State had a duty to guarantee the right of members of the public to participate in the decision-making process concerning environmental issues.<sup>343</sup>

In light of the environmental and health impacts posed by fracking, academics have emphasized that fracking operations, whether exploratory or extractive, should 'be subject to detailed environmental impact assessment and health impact assessment procedures sensitive to the human rights implications of the proposed operation.'<sup>344</sup>

### 3.3 Access to Information and Public Participation

Articles 2 and 8 of the Convention may impose a specific positive obligation on public authorities to ensure a right of access to information in relation to environmental issues in certain circumstances.<sup>345</sup> This obligation to ensure access to information is generally complemented by the positive obligations of the public authorities to provide information to those persons whose right to life under Article 2 or whose right to respect for private and family life and the home under Article 8 are threatened. The Court has found that in the context of dangerous activities falling within the responsibility of the State, special emphasis should be placed on the public's right to information.<sup>346</sup> Additionally, in *Budayeva and others v Russia*, where the applicants complained that the authorities had failed to comply with their positive obligations to take appropriate measures to mitigate the risks to their lives against the natural hazards, the Court held that States are duty-bound based on Article 2 to 'take regulatory measures and to adequately inform the public about any life-threatening emergency'.<sup>347</sup>

It has been noted that the Court has also broadened the interpretation of the right to private and family life by recognising that it includes a right to public participation in the decision-making process in environmental matters.<sup>348</sup> This was first elaborated in *Hatton and Others v UK*<sup>349</sup> and subsequently 'consistently applied throughout the Court's caselaw'<sup>350</sup> including *Giacomelli v Italy*<sup>351</sup> and *Taşkın and Others v Turkey*.<sup>352</sup>

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<sup>342</sup> Registrar of the ECHR, 'Press release issued by the Registrar, Chamber Judgement, *Tătar v. Romania* (21 January 2009).

<sup>343</sup> *Ibid.*

<sup>344</sup> *Grear et al* (n 315) at 19.

<sup>345</sup> *Öneryıldız v. Turkey* (n 317) at 90; *Guerra and Others v Italy* (n 330).

<sup>346</sup> *Öneryıldız v. Turkey* (n 317) at 90.

<sup>347</sup> *Budayeva and others v Russia App no's 15339/02, 21166/02, 20058/02, 11673/02 and 15343/02* (ECtHR, 20 March 2008) at 131.

<sup>348</sup> Council of Europe Manual (n 313) at 88-92.

<sup>349</sup> *Hatton and Others v. the United Kingdom App no 36022/97* (ECtHR, 8 July 2003).

<sup>350</sup> Council of Europe Manual (n 313) at 89.

<sup>351</sup> *Giacomelli v. Italy App no 59909/00* (ECtHR, 2 November 2006), at 82-84 and 94.

<sup>352</sup> *Taşkın and Others v. Turkey App no 46117/99* (ECtHR, 10 November 2004) at 118-119.

In *Hatton and Others v UK*, the complaint related to noise generated by aircrafts taking off and landing at an international airport and the regulatory regime governing it. Although the Court found no violation of Article 8, the Court's discussion of public participation and access to information is particularly important. Notably, the Court stated, 'in the particularly sensitive field of environmental protection, mere reference to the economic well-being of the country was not sufficient to outweigh the rights of others'.<sup>353</sup> Further, the Court noted the series of investigations and studies that had been carried out which were made public by way of consultation paper and that the applicants were 'well-placed to make representations.'<sup>354</sup> It was however stated that 'Had any representations not been taken into account, they [the applicants] could have challenged subsequent decisions, or the scheme itself, in the courts'.<sup>355</sup>

In *McGinley and Egan v UK*, the Court found that where a State engages in hazardous activities which might have hidden adverse consequences on the health of those involved, respect for private and family life requires an effective and accessible procedure be established which enables persons to seek all relevant and appropriate information.<sup>356</sup>

In *Taşkın and Others v Turkey*, the Court found that when a State determines a complex issue regarding environmental and economic policy, appropriate investigations and studies must be conducted to evaluate the potential effects of 'activities which might damage the environment and infringe individuals' rights and to enable them to strike a fair balance between the various conflicting interests at stake.'<sup>357</sup> The Court further stressed the importance of public access to the conclusions of such studies and information, as such access would allow for 'members of the public to assess the danger to which they are exposed is beyond question.'<sup>358</sup> Finally, individuals must be able to appeal any 'decision, act or omission where they consider that their interests or their comments have not been given sufficient weight in the decision-making'.<sup>359</sup>

### **3.4 ECHR Protocol 1, Article 1: Protection of property**

Article 1 of Protocol 1 relates to the protection of property and provides every natural and legal person with the right to peacefully enjoy his/her possessions. This is balanced by the right of the State to interfere with this enjoyment if such interference is justified by considerations of public interest, subject to conditions provided for by law—including the payment of reasonable compensation. The State may enforce laws as 'necessary to control the use of property' for the general interest or 'to secure the payment of taxes or other contributions or penalties'.<sup>360</sup>

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<sup>353</sup> *Hatton and Others v. the United Kingdom* (n 349) at 86.

<sup>354</sup> *Ibid.*, at 128.

<sup>355</sup> *Ibid.*

<sup>356</sup> *McGinley and Egan v UK App no's 10/1997/794/995-996* (ECtHR, 9 June 1998) at 101.

<sup>357</sup> *Taşkın and Others v. Turkey* (n 352) at 119.

<sup>358</sup> *Ibid.*

<sup>359</sup> *Ibid.*

<sup>360</sup> Council of Europe, Protocol 1 to the European Convention for the Protection of Human Rights and Fundamental Freedoms (20 March 1952) ETS 9, Art 1.

The Court has held that protection of the right to property requires public authorities not only to refrain from direct interference but may also require the State to take positive measures to secure the right. The case of *Öneryildiz v Turkey*<sup>361</sup> involved arguments relating to both the right to private and family life and the right to property. It was found that regulation of waste treatment was the responsibility of the State and the failure to take measures to protect private property from environmental risks in this context amounted to a breach of the State's obligations under Article 1 of Protocol 1.<sup>362</sup>

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<sup>361</sup> *Öneryildiz v. Turkey* (n 317).

<sup>362</sup> *Ibid.*, at 130.

## 4. Conclusion & Recommendations

Fracking, through its emission of greenhouse gases and contribution to climate change and the immediate environmental, social and public health impacts it causes for surrounding communities, poses numerous threats to the enjoyment and exercise of human rights. As underlined in this report, the human rights impacted include the right to life, the right to health, the right to water, the right to food, the right to housing, the right to access to information, the right to public participation, the right to a safe, clean, healthy and sustainable environment, with violations of these rights having disproportionate impacts on marginalized and vulnerable communities and groups.

In light of the abundant evidence demonstrating how international and regional human rights are and will be infringed by fracking, it is difficult to see how a State can propose and utilize fracking operations without breaching its international and regional human rights obligations. As a result, we recommend that States:

- Refrain from implementing fracking practices, and in accordance with the CEDAW Committee's 2019 recommendation to the United Kingdom, introduce a comprehensive and complete ban on fracking;<sup>363</sup>
- Prohibit the expansion of polluting and environmentally destructive types of fossil fuel extraction, including oil and gas produced from fracking, as per the recommendation of the Special Rapporteur on human rights and the environment;<sup>364</sup> and
- Commit to attaining and upholding the highest standards of the rights to life, health, water and food, and ensure that no State or private initiatives disproportionately impact these or other collective and individual rights.

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<sup>363</sup> CEDAW Concluding Observations (n 12) at 54(b).

<sup>364</sup> Safe Climate Report (n 13) at 78(d).