

---

**Advance edited version**

Distr.: General  
24 September 2024

Original: English

---

**Human Rights Council****Fifty-seventh session**

9 September–9 October 2024

Agenda items 2 and 10

**Annual report of the United Nations High Commissioner  
for Human Rights and reports of the Office of the  
High Commissioner and the Secretary-General****Technical assistance and capacity-building****Addressing the challenges and barriers to the full realization  
and enjoyment of the human rights of the people of the  
Marshall Islands, stemming from the State's nuclear legacy****Report of the Office of the United Nations High Commissioner for  
Human Rights\****Summary*

The present report is submitted pursuant to Human Rights Council resolution 51/35, in which the Council requested that the Office of the United Nations High Commissioner for Human Rights (OHCHR) prepare a report on addressing the challenges and barriers to the full realization and enjoyment of the human rights of the people of the Marshall Islands, stemming from the State's nuclear legacy. Building upon consultations with the Marshall Islands and the Government of the United States of America, community representatives and United Nations entities, OHCHR utilizes a transitional justice approach in addressing the challenges and barriers to the full realization and enjoyment of human rights stemming from the nuclear legacy.

---

\* The present report was submitted to the conference services for processing after the deadline as a result of consultations with Member States.

## I. Introduction

1. In its resolution 51/35, the Human Rights Council requested that the Office of the United Nations High Commissioner for Human Rights (OHCHR) prepare a report on addressing the challenges and barriers to the full realization and enjoyment of the human rights of the people of the Marshall Islands, stemming from the State's nuclear legacy.<sup>1</sup>
2. OHCHR conducted three visits<sup>2</sup> to the Marshall Islands during which it held consultations with the Presidential Envoy for Nuclear Justice and Human Rights, members and representatives of the Nitijela (parliament), the Council of Iroij (chiefs), government ministries, the National Nuclear Commission, community members in Majuro and Kwajalein Atolls and survivors from the nuclear testing period, among others. Consultations with the Embassy of the United States of America to the Marshall Islands and the United States Department of Energy, United Nations entities, civil society organizations and academics were likewise conducted. The report builds on those discussions and oral tradition (*bwebwenato*), as well as the report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes on his visit to the Marshall Islands and the United States,<sup>3</sup> submissions received pursuant to the call for inputs launched by OHCHR and other documentary sources.
3. In keeping with the resolution's focus on transitional justice to address the nuclear legacy, in the present report, OHCHR engages in a form of truth-telling by outlining key moments, impacts, points of contention and efforts to seek justice. It discusses the human rights implications of the nuclear legacy and the role of truth-seeking in addressing them.

## II. Nuclear legacy in the Marshall Islands

4. Sixty-seven known nuclear tests were conducted by the United States between 1946 and 1958 in the Marshall Islands.<sup>4</sup> Those tests had a total yield equivalent to 108,490,500 tons of dynamite – approximately 7,232 times the explosive power of the atomic bomb dropped on Hiroshima, Japan, and equivalent to dropping said atomic bomb daily for nearly 20 years.<sup>5</sup>

### A. Establishment of the Pacific Proving Ground

5. On 24 January 1946, the Government of the United States declared Bikini Atoll as the "final choice" for its nuclear weapons test site.<sup>6</sup> The Bikinians were asked to temporarily leave for "the good of mankind and to end all world wars". On 7 March 1946, 167 inhabitants of Bikini Atoll were relocated to Rongerik Atoll in preparation for Operation Crossroads – the world's first peacetime nuclear detonation. Residents of Rongelap and Wotho Atolls were also moved to Lae Atoll for the duration of the tests.<sup>7</sup>
6. Robert Oppenheimer, Chair of the General Advisory Committee to the Chair of the United States Atomic Energy Commission and "father of the atomic bomb", questioned the

<sup>1</sup> Adopted by consensus, but see the Permanent Mission of the United States of America to the United Nations Office and other international organizations in Geneva, "U.S. explanation of position on the Marshall Islands' nuclear legacy resolution", 7 October 2022.

<sup>2</sup> OHCHR encountered significant constraints implementing Human Rights Council resolution 51/35 due to the regular budget liquidity crisis within the Secretariat.

<sup>3</sup> A/HRC/21/48/Add.1. See the statement by the delegation of the United States, 13 September 2012, available at <https://webtv.un.org/en/asset/k1b/k1bw5qmdg8>.

<sup>4</sup> Human Rights Council resolution 51/35.

<sup>5</sup> United States, Department of Energy, *United States Nuclear Tests: July 1945 through September 1992* (Las Vegas, 2015).

<sup>6</sup> United States, Defense Nuclear Agency, *Operation Crossroads – 1946* (Washington, D.C., 1984), p. 19, available at <https://apps.dtic.mil/sti/tr/pdf/ADA146562.pdf>.

<sup>7</sup> Micronesia Support Committee, "Marshall Islands: a chronology – 1944–1981" (Honolulu, 1981).

need to conduct nuclear tests and opined that more useful information could be obtained by laboratory methods.<sup>8</sup> In July 1946, two atomic bombs were detonated at Bikini Atoll.

7. The Bikinians have not returned to their atoll due to lingering radioactivity. After reported conditions of starvation on Rongerik Atoll,<sup>9</sup> they were moved to Kwajalein Atoll in 1948 and, later that year, to Kili – a small island, less than half the size of Bikini, with neither a lagoon for fishing nor land for farming and, with no protective reef, frequented by devastating king tides. In 1968, the United States announced that Bikini Atoll was again habitable. Unconvinced, only some Bikinians returned. Later assessments revealed an increase of cesium-137 in their bodies and, in 1978, they were again relocated to Kili and Ejit Islands.<sup>10</sup>

## **B. Nuclear weapons testing during the period of United Nations trusteeship**

### **1. Nuclear tests at Enewetak Atoll**

8. On 2 April 1947, the Marshall Islands was designated as a strategic area under the international trusteeship system established in part to “encourage respect for human rights and for fundamental freedoms for all without distinction”.<sup>11</sup> As the Administering Authority, the United States was mandated, inter alia, to “act in accordance with the Charter of the United Nations” and “promote the social advancement” and “protect the rights”, “fundamental freedoms” and “health of the [Marshallese]”.<sup>12</sup>

9. In 1948, the Government of the United States established a new test site at Enewetak Atoll, displacing the peoples of Enewetak and Enjebi Island to Ujelang Atoll. According to the Marshall Islands, the duration of the relocation was initially presented as likely to last between three and five years, but the Enewetak people were not returned until 1980.<sup>13</sup> The Enjebi people remain displaced.<sup>14</sup>

10. Forty-four nuclear tests were conducted at or near Enewetak Atoll. Those include Greenhouse George, the world’s first hydrogen test explosion; and Ivy King, the largest atomic bomb exploded by the United States.<sup>15</sup>

### **2. Resumption of nuclear tests at Bikini Atoll**

11. Testing at Bikini Atoll resumed on 1 March 1954 through the Castle Bravo test. With a 15-megaton yield, Bravo is the largest hydrogen bomb tested by the United States. Bravo’s fallout blew towards Rongelap, Ailinginae, Ailuk and Utrök Atolls, among other inhabited atolls.<sup>16</sup> Children were reported to play in snow-like debris, later exhibiting signs of radiological exposure.<sup>17</sup>

12. Two to three days passed before the Government of the United States evacuated Rongelap, Ailinginae and Utrök and provided medical care.<sup>18</sup> Despite having “knowledge

<sup>8</sup> Robert Oppenheimer, letter to President Truman, 3 May 1946, available at <https://nsarchive.gwu.edu/document/21885-document-10-robert-oppenheimer-president>.

<sup>9</sup> T/COM.10/L.301.

<sup>10</sup> R.P. Miltenberger, N.A. Greenhouse and E.T. Lessard, *Whole Body Counting Results from 1974 to 1979 for Bikini Island Residents* (Upton, Brookhaven National Laboratory, 1980).

<sup>11</sup> Charter of the United Nations, Article 76.

<sup>12</sup> Security Council resolution 21 (1947).

<sup>13</sup> [A/HRC/21/48/Add.2](https://www.unhcr.org/refugees/57/77).

<sup>14</sup> United States, Defense Nuclear Agency, *Environmental Impact Statement: Cleanup, Rehabilitation and Resettlement of Enewetak Atoll – Marshall Islands* (Washington, D.C., 1975), available at [https://www.dtra.mil/Portals/125/Documents/NTPR/newDocs/ENEWETAK/1975-DNA EIS Enewetak Atoll \(V.1\).pdf](https://www.dtra.mil/Portals/125/Documents/NTPR/newDocs/ENEWETAK/1975-DNA EIS Enewetak Atoll (V.1).pdf).

<sup>15</sup> Department of Energy, *United States Nuclear Tests*.

<sup>16</sup> United States, Advisory Committee on Human Radiation Experiments, *Final Report* (Washington, D.C., 1995), available at <https://www.osti.gov/servlets/purl/123541>.

<sup>17</sup> Micronesia Support Committee, “Marshall Islands”.

<sup>18</sup> Advisory Committee on Human Radiation Experiments, *Final Report*, p. 586.

that, without evacuation, radiation exposures to the civilian population would exceed established permissible limits”,<sup>19</sup> Ailuk was never evacuated. It was assessed that “the effort required” seemed “too great” compared with the “potential health risks”.<sup>20</sup>

13. Twenty-three tests – twenty of which were hydrogen bombs – were conducted at Bikini.<sup>21</sup> Utrök was resettled, while Ailinginae remains uninhabited.<sup>22</sup> In 1957, the Government of the United States declared Rongelap “perfectly safe for human habitation”, noting that returning the Rongelapese to the atoll would “afford most valuable ecological radiation data on human beings”.<sup>23</sup> The returned Rongelapese requested that they be evacuated in 1985 due to concerns about lingering radioactivity,<sup>24</sup> resettling on Kwajalein and Majuro Atolls.<sup>25</sup>

### C. Rehabilitative efforts

14. A series of rehabilitative efforts in the Marshall Islands have been conducted by the Government of the United States.<sup>26</sup> In 1974, it identified four possibilities to dispose debris from the fallout: ocean dumping, crater dumping, crater containment and repatriation to the continental United States.<sup>27</sup> The Government ultimately opted to build a containment structure within a crater made by Operation Hardtack on Runit Island.

15. The containment structure was neither required nor intended to be leakproof.<sup>28</sup> The dome consists of a concrete cap and walls and the ground remains unlined. The waste pile, encased in concrete, is in contact with groundwater, which rises and falls with the ocean tide, potentially contaminating marine food systems.<sup>29</sup> The Marshall Islands contends that the waste includes contaminated soil from Nevada,<sup>30</sup> but the Government of the United States claims that clean soil was transported from Nevada for comparative scientific testing.<sup>31</sup> According to the United States Department of Energy, seepage from the Runit Dome would not significantly change radiation levels as the inventory of radioactive waste encapsulated in the dome was “dwarfed” by the radioactivity already in the Enewetak lagoon.<sup>32</sup>

16. While the Government of the United States has described some rehabilitation operations as a success,<sup>33</sup> the Marshall Islands<sup>34</sup> and independent studies<sup>35</sup> maintain that

<sup>19</sup> Thomas Kunkle and Byron Ristvet, *Castle Bravo: Fifty Years of Legend and Lore: A Guide to Off-Site Radiation Exposures* (Fort Belvoir, Defense Threat Reduction Agency, 2013).

<sup>20</sup> Advisory Committee on Human Radiation Experiments, *Final Report*, p. 590.

<sup>21</sup> Department of Energy, *United States Nuclear Tests*.

<sup>22</sup> United States, Central Intelligence Agency, “Marshall Islands”, in *The World Factbook* (2023), available at <https://www.cia.gov/the-world-factbook/about/archives/2023/countries/marshall-islands>.

<sup>23</sup> Advisory Committee on Human Radiation Experiments, *Final Report*, p. 591.

<sup>24</sup> *Ibid.*, p. 596.

<sup>25</sup> *Ibid.*, p. 589.

<sup>26</sup> Lawrence Livermore National Laboratory, “The Marshall Islands program: affected areas – Bikini Atoll”.

<sup>27</sup> United States, Defense Nuclear Agency, *The Radiological Cleanup of Enewetak Atoll* (Washington, D.C., 1981).

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

<sup>29</sup> United States, Department of Energy, “Report on the status of the Runit Dome in the Marshall Islands” (Washington, D.C., 2020).

<sup>30</sup> Marshall Islands, National Nuclear Commission, “Review of the report on the status of the Runit Dome in the Marshall Islands” (Majuro, 2020).

<sup>31</sup> M. Cowan, Jr., *Operation Hardtack-Project 2.14: Fallout Contamination from a Very Low Yield Burst – Extracted Version* (Washington, D.C., Defense Nuclear Agency, 1962), available at <https://www.osti.gov/opennet/servlets/purl/16131061.pdf>.

<sup>32</sup> United States, Department of Energy, “Report on the visual study and groundwater analysis of the Cactus Crater Containment Structure on Runit Island, Republic of the Marshall Islands” (Washington, D.C., 2022), p. 8.

<sup>33</sup> Defense Nuclear Agency, *The Radiological Cleanup of Enewetak Atoll*.

<sup>34</sup> Marshall Islands, National Nuclear Commission, “Research on sacrifice zones and human rights” (2021), available at <https://www.ohchr.org/sites/default/files/2021-11/MARSHALLISLANDS.docx>.

<sup>35</sup> Columbia University Center for Nuclear Studies, “K=1 Project research in the Marshall Islands”, 29 August 2017

challenges remain. According to the Department of Energy, radioactive fallout, such as that from strontium-90, cesium-137, americium-241, plutonium-239 and plutonium-240 – with half-lives of 29, 30, 432, 24,000 and 6,560 years – continues to contaminate the environment,<sup>36</sup> but at dose rates below the 100 millirem a year international general safety standard.<sup>37</sup> Naval vessels sunk by the tests also remain on the seabed,<sup>38</sup> raising concerns regarding oil pollution and unexploded ordnance.<sup>39</sup>

#### D. Compact of Free Association and subsequent agreements

17. The United Nations trusteeship was terminated on 21 October 1986 with the entry into force of the Compact of Free Association.<sup>40</sup> The Compact provides that the United States “accepts the responsibility for compensation owing to citizens of the Marshall Islands” for “loss or damage to property and person ... resulting from the nuclear testing program”.<sup>41</sup>

18. Pursuant to section 177 of the Compact, the United States and the Marshall Islands entered into an agreement (hereinafter, the “177 Agreement”) for “the full settlement of all claims, past, present and future”. According to that Agreement, the Marshallese are barred from pursuing claims “against the United States, its agents, employees, contractors and citizens and nationals” arising “out of ... the Nuclear Testing Program”.<sup>42</sup>

19. The 177 Agreement also includes a “changed circumstances” provision under which the Marshall Islands may request additional provisions for losses or damage that arise or are discovered after the effective date of the Agreement, and such injuries were not and could not reasonably have been identified at the time and if such injuries render the provisions of the Agreement manifestly inadequate. The provision does not commit the United States Congress to authorize and appropriate funds.<sup>43</sup>

20. The Government of the United States reports having provided an estimated \$850 million to affected communities, which includes payments made prior to the entry into force of the Compact.<sup>44</sup> Payments have sometimes been characterized as “ex gratia”, implying they are neither “compelled by legal right or formal agreement”<sup>45</sup> nor a form of human rights reparation.

21. On 1 May 2024, Compact-related agreements entered into force providing for additional economic assistance to the Marshall Islands from 2024 to 2043. Those agreements neither alter the 177 Agreement nor purport to provide for reparations. They include, among other grants, \$5 million to be “ma[d]e available” for “a museum and research facility” and \$10 million “to improve the accessibility of documents and information previously provided” to the Marshall Islands relating to nuclear testing. The Government of the United States may attach “any terms and conditions” to such assistance.<sup>46</sup>

<sup>36</sup> United States, Department of Energy, “Impact of climate change on Runit Dome in the Marshall Islands” (Washington, D.C., 2024).

<sup>37</sup> Department of Energy, “Report on the status of the Runit Dome”.

<sup>38</sup> United Nations Educational, Scientific and Cultural Organization, “Bikini Atoll Nuclear Test Site”.

<sup>39</sup> Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage, Decision 34 COM 8B.20, available at <https://whc.unesco.org/en/decisions/3999>.

<sup>40</sup> Security Council resolution 683 (1990).

<sup>41</sup> Compact of Free Association, sect. 177.

<sup>42</sup> Agreement between the Government of the United States and the Government of the Marshall Islands for the Implementation of Section 177 of the Compact of Free Association, art. X, available at <https://www.doi.gov/sites/doi.gov/files/section-177-agreement.pdf>.

<sup>43</sup> *Ibid.*, art. IX.

<sup>44</sup> Permanent Mission of the United States of America, “U.S. explanation of position”.

<sup>45</sup> United States, Congressional Research Service, *Republic of the Marshall Islands Changed Circumstances Petition to Congress* (Washington, D.C., 2005), p. 1, available at <https://apps.dtic.mil/sti/pdfs/ADA457444.pdf>.

<sup>46</sup> Compact of Free Association, as amended, 1 May 2024, sect. 261, available at <https://www.state.gov/wp-content/uploads/2024/07/24-501.2-Marshall-Islands-Regional-Issues-to-Amend-1.pdf>.

## E. Marshallese efforts

### 1. Petitions before the Trusteeship Council

22. On 6 May 1954, the Marshallese people submitted an “urgent plea” to the Trusteeship Council – composed of the permanent members of the Security Council – for “all the experiments with lethal weapons within [the] area be immediately ceased” or, should it be “absolutely necessary” that the tests continue, that “all possible precautionary measures be taken”.<sup>47</sup> With the petition pending, the Castle Nectar test was conducted the following week.

23. On 13 July 1954, the representative of the United States to the Trusteeship Council explained that “there was no other place in the world over which the United States had jurisdiction where certain experiments could have been successfully conducted with less danger” and that “all persons who had been exposed to radiation were now restored to health”.<sup>48</sup> Based thereon and the assurance “that there will be no permanent displacement of inhabitants from their homes”, the Trusteeship Council recommended that, “if the Administering Authority considers it necessary” to “conduct further nuclear experiments”, it should “take such precautions as will ensure that no inhabitants” are “again endangered”.<sup>49</sup>

24. In 1956, the Marshallese people filed another petition to stop nuclear testing. The Government of the United States responded that that was “not yet possible” and that “all possible precautionary measures were being taken to ensure the safety and the well-being of the people in the vicinity of the test areas”.<sup>50</sup> On those assurances, the Trusteeship Council reaffirmed its earlier resolution.<sup>51</sup> The United States conducted 49 more nuclear tests in the Marshall Islands.

### 2. Petitions before United States authorities

25. The Marshallese people filed multiple actions in United States courts claiming, among others, that the nuclear testing resulted in loss of property. Those actions were dismissed based on a lack of jurisdiction pursuant to the 177 Agreement.<sup>52</sup>

26. In 2000, the Marshall Islands filed a petition regarding changed circumstances before the United States Congress, citing newly declassified information and scientific developments.<sup>53</sup> The United States Department of State, at the request of Congress, convened a working group to evaluate the petition. The working group report determined that it did not meet the criteria established in the 177 Agreement.<sup>54</sup> The United States Congress has not yet acted on the petition.

### 3. Regional and domestic efforts

27. Pursuant to the 177 Agreement, the Marshall Islands established a Nuclear Claims Tribunal in 1987. The Tribunal provided some compensation to claimants from a \$150-million trust fund established by the United States under the 177 Agreement. The

<sup>47</sup> T/PET.10/28, pp. 2 and 3.

<sup>48</sup> T/SR.557, para. 19.

<sup>49</sup> Trusteeship Council resolution 1082 (XIV), paras. 3–7.

<sup>50</sup> United States of America, Atomic Energy Commission, “Petitions of the Marshallese and related UN actions”, enclosures IV and II, available at <https://www.osti.gov/opennet/servlets/purl/16382094-KcVgID/16382094.pdf>.

<sup>51</sup> Trusteeship Council resolution 1493 (XVII).

<sup>52</sup> Court of Federal Claims of the United States, *Juda v. United States*, 13 Cl. Ct. 667, Decision, 10 November 1987; and Court of Appeals of the United States, *People of Bikini v. United States*, 554 F.3d 996, Opinion, 29 January 2009.

<sup>53</sup> Marshall Islands, “Petition presented to the Congress of the United States of America regarding changed circumstances arising from U.S. nuclear testing in the Marshall Islands”, 11 September 2000.

<sup>54</sup> United States, Department of State, “Report evaluating the request of the Government of the Republic of the Marshall Islands presented to the Congress of the United States of America”, November 2004.

Tribunal has assessed more than \$2.3 billion of claims for personal injuries and damage caused at Bikini, Enewetak, Rongelap and Utrök Atolls.<sup>55</sup>

28. Due to limited funding, payouts were made on a pro rata basis. Not a single claimant has received full compensation. Neither has the Tribunal awarded claims filed from other atolls.<sup>56</sup>

29. The Marshall Islands established a National Nuclear Commission in 2017, which developed a domestic nuclear justice strategy centred on five pillars – compensation, health care, the environment, national capacity, and education and awareness<sup>57</sup> – pursuant to which it develops academic curricula on the nuclear legacy. Together with civil society and youth organizations,<sup>58</sup> the Commission recognizes education as the bridge between nuclear survivors and younger Marshallese.<sup>59</sup> The Commission organizes annual commemorative events for Nuclear Victims Remembrance Day – a national holiday on 1 March honouring the victims of nuclear testing.

30. As part of the Human Rights 75 initiative, the Marshall Islands pledged, inter alia, to “pursue transitional justice for the human rights violations and ... challenges stemming from [the] nuclear legacy”.<sup>60</sup> The Government of the Marshall Islands established a Presidential Envoy for Nuclear Justice and Human Rights in 2024.

31. Pacific Islands Forum leaders recommended full support for the implementation of Human Rights Council resolution 51/35<sup>61</sup> and called upon the United States to address the health consequences related to nuclear testing and “to tak[e] the necessary remedial steps to contain the potential migration of radioactive nuclear waste into the ocean”.<sup>62</sup> In 2024, the leaders agreed to continue supporting the “Marshall Islands in its efforts to engage the United States towards a justified resolution to the U.S. Nuclear Testing Programme”.<sup>63</sup>

### III. Challenges and barriers to human rights

#### A. Life and health

32. The right to life is intrinsically linked to the right to health,<sup>64</sup> which is fundamental to a life of dignity.<sup>65</sup> Everyone is entitled to the highest attainable standard of health and to the prevention, treatment and control of diseases.<sup>66</sup>

33. The Bravo test alone exposed Rongelap and Ailinginae to radiation at life-threatening levels, followed by an elevated incidence of thyroid cancer and other thyroid diseases linked to high radiation exposure.<sup>67</sup> Somatic effects, such as vomiting, damage to the gastrointestinal

<sup>55</sup> Marshall Islands, National Nuclear Commission, “Nuclear justice for the Marshall Islands: a strategy for coordinated action – FY2020–FY2023” (Majuro, 2019), available at [https://rmi-data.sprep.org/system/files/RMI\\_NNC\\_Strategy\\_2019.pdf](https://rmi-data.sprep.org/system/files/RMI_NNC_Strategy_2019.pdf).

<sup>56</sup> Ibid.

<sup>57</sup> Ibid.

<sup>58</sup> For example, Jo-Jikum (see <https://www.localfutures.org/programs/global-to-local/planet-local/place-based-education/jo-jikum>); and Marshallese Educational Initiative (see <https://www.mei.ngo>).

<sup>59</sup> Nic Maclellan, “When are we going back?” – nuclear displacement in the Marshall Islands”, Pacific News Service, 4 March 2024.

<sup>60</sup> Marshall Islands, “Pledges submitted to the Human Rights 75 secretariat”, December 2023, available at [https://www.ohchr.org/sites/default/files/udhr/publishingimages/75udhr/Marshall\\_Islands\\_EN.pdf](https://www.ohchr.org/sites/default/files/udhr/publishingimages/75udhr/Marshall_Islands_EN.pdf).

<sup>61</sup> Fifty-second Pacific Islands Forum, Forum communiqué, 6–10 November 2023.

<sup>62</sup> Pacific Islands Forum, letter to President Biden, 10 July 2023, available at <https://www.congress.gov/118/meeting/house/116217/documents/HHRG-118-II00-20230718-SD005.pdf>.

<sup>63</sup> Fifty-third Pacific Islands Forum, Forum communiqué, 26–30 August 2024.

<sup>64</sup> International Covenant on Economic, Social and Cultural Rights, art. 12.

<sup>65</sup> Human Rights Committee, general comment No. 36 (2018).

<sup>66</sup> Committee on Economic, Social and Cultural Rights, general comment No. 14 (2000).

<sup>67</sup> [A/66/378](#), para. 7.

tract and beta burns, were also observed – indicative of high acute radiation exposure.<sup>68</sup> While radiation-induced hereditary effects have yet to be detected in human populations, they are known to occur in other species and humans are unlikely to be an exception.<sup>69</sup> Even if the radiation dose is low or is delivered over a long period of time, “there is still a risk of long-term effects such as cataract or cancer” that may appear years or decades later. “Effects of this type will not always occur, but their likelihood is proportional to the radiation dose.”<sup>70</sup>

34. The United States National Cancer Institute reports that northern and southern atoll populations received varying doses of radiological exposure from the fallout with corresponding risks of thyroid, leukaemia, stomach, and colon cancer.<sup>71</sup> Cancer data indicate low survival rates in the Marshall Islands, with 58 per cent of all individuals with cancer dying within five years of diagnosis. That may be indicative of the quality and availability, or lack thereof, of health services. The Marshall Islands does not have a pathologist, oncologist or radiation and chemotherapy services; it relies on an off-island referral system.<sup>72</sup>

35. Children experience heightened radiogenic health risks, as their smaller bodies have less overlying tissue shielding internal organs.<sup>73</sup> In 1983, Marshallese activist Darlene Keju reported hundreds of miscarriages, stillbirths and “jellyfish babies”<sup>74</sup> – born with translucent skin and no bones<sup>75</sup> – in the Marshall Islands, highlighting radiation’s gendered impacts.<sup>76</sup>

36. The health impacts of the nuclear legacy include psychosocial effects, as uncertainty surrounding radiation exposure fuels fear and anxiety. People with additional physical health needs, such as the ill, elderly or persons with disabilities, as well as children, are also particularly at risk.<sup>77</sup> Survivors from Rongelap, children at the time of the Bravo test, recollect deeply traumatic experiences during which they were forced to undress in front of relatives and scientists for the purposes of decontamination.<sup>78</sup> Social stigma and self-stigma further compound those challenges. In some cases, Marshallese were labelled as *ri-baijin* – the “irradiated.”

## B. Right to a clean, healthy, and sustainable environment

37. The Human Rights Council, in its resolution 48/13, and the General Assembly, in its resolution 76/300, recognize the right to a clean, healthy, and sustainable environment. That right includes, inter alia, clean air and water; adequate and nutritious food; healthy biodiversity and ecosystems; a safe and stable climate; non-toxic environments; and participation, access to information and access to justice in environmental matters. Multiple elements of the right to a healthy environment are affected by the nuclear legacy.

<sup>68</sup> Arjun Makhij, “Summary of health and environmental impacts of U.S. nuclear testing in the Marshall Islands”, p. 3, available at <https://ieer.org/wp/wp-content/uploads/2024/01/US-tests-in-the-Marshall-Islands-for-ICAN-by-Arjun-Makhijani-final-2022-06-09-corrected-2024-01-14.pdf>.

<sup>69</sup> [A/56/46](#).

<sup>70</sup> World Health Organization (WHO), “Ionizing radiation and health effects”, 27 July 2023, available at <https://www.who.int/news-room/fact-sheets/detail/ionizing-radiation-and-health-effects>.

<sup>71</sup> United States, National Cancer Institute, “Dose estimation and predicted risk for Marshall Islands residents”.

<sup>72</sup> Pacific Regional Central Cancer Registry, *Cancer in the U.S. Affiliated Pacific Islands 2007–2020* (Honolulu, 2023).

<sup>73</sup> [A/68/46](#).

<sup>74</sup> Darlene Keju, speech to the World Council of Churches, Vancouver, 1983, available at <https://www.youtube.com/watch?v=1hxCGIA5oJQ>.

<sup>75</sup> See [https://democrats-naturalresources.house.gov/imo/media/doc/2022-01-25%20RG%20KP%20to%20Kritenbrink%20Document%20Request%20Marshall%20Islands%20\(002\).pdf](https://democrats-naturalresources.house.gov/imo/media/doc/2022-01-25%20RG%20KP%20to%20Kritenbrink%20Document%20Request%20Marshall%20Islands%20(002).pdf).

<sup>76</sup> Renata Dalaqua, *From the Margins to the Mainstream: Advancing Intersectional Gender Analysis in Nuclear Non-Proliferation and Disarmament* (Geneva, United Nations Institute for Disarmament Research, 2024).

<sup>77</sup> WHO, “A framework for mental health and psychosocial support in radiological and nuclear emergencies” (Geneva, 2020); and submissions of the International Center for Advocates against Discrimination and the International Center for MultiGenerational Legacies of Trauma.

<sup>78</sup> Interview with Rongelapese, Majuro, 17 December 2023.



38. The United States Department of Energy has confirmed that “radioactive fallout from these tests resulted in environmental contamination” that remains to this day.<sup>79</sup> Human exposure to radioactivity may be external through direct skin contact or internal through inhalation or ingestion. Cesium-137 “is the largest contributor to external radiation dose in the Marshall Islands” and its consumption from “locally grown foods is the largest contributor to the internal dose”. Some Marshallese are reported to also be exposed to plutonium through inhalation and uptake from marine food systems.<sup>80</sup> Americium-241 and strontium-90 are generally known to cause certain cancers.<sup>81</sup> While both remain in the Marshall Islands,<sup>82</sup> the Government of the United States contends that existing levels are below the level of statistical significance to observe those effects.

39. The threat of radiation looms large over traditional diets. In 2023, the former Chief Scientist of Coastal Fisheries at the Marshall Islands Marine Resources Authority underscored concerns regarding the radioactive contamination of fish – a staple in the Marshallese diet.<sup>83</sup> The consumption of processed products<sup>84</sup> over local produce has been associated with other non-communicable diseases,<sup>85</sup> such as diabetes, hypertension and obesity.<sup>86</sup> Those in turn exacerbate other health threats, such as the coronavirus disease (COVID-19) pandemic, illustrating how health impacts can be traced through the food chain to the nuclear legacy.<sup>87</sup>

40. Nuclear impacts are further compounded by climate change. Some Marshallese were displaced by the nuclear legacy to islands more vulnerable to climate change.<sup>88</sup> The contents of the Runit Dome remain in communication with the Enewetak lagoon and “rising sea levels could push up groundwater ... potentially creating a pathway for leaking radiation”.<sup>89</sup> The Marshall Islands thus faces what has been described as “twin existential threats”.<sup>90</sup>

41. While the Government of the United States recognizes only “four nuclear-affected atolls”<sup>91</sup> – Bikini, Enewetak, Rongelap and Utrök – the radiological effects from the testing are not limited to these alone as nuclear testing resulted in worldwide fallout,<sup>92</sup> with the degree of exposure varying by location.<sup>93</sup> Indeed, nuclear testing has consequences that “transcend national borders, contaminate environments, hamper socioeconomic development, threaten food security, [and] harm the health of current and future generations”.<sup>94</sup>

### C. Equality and non-discrimination

42. Racial discrimination is defined as “any distinction, exclusion, restriction or preference based on race, colour, descent, or national or ethnic origin which has the purpose or effect of nullifying or impairing the recognition, enjoyment or exercise, on an equal footing, of human rights and fundamental freedoms in the political, economic, social, cultural

<sup>79</sup> Department of Energy, “Report on the status of the Runit Dome”, p. 2.

<sup>80</sup> Ibid.

<sup>81</sup> United States, Centers for Disease Control and Prevention, “Americium-241” and “Strontium-90”, 17 April 2024.

<sup>82</sup> Department of Energy, “Impact of climate change on Runit Dome”.

<sup>83</sup> Kalena Kattil-deBrum, presentation at Atomic Legacies: A Roundtable Discussion, 1 August 2023.

<sup>84</sup> Submission of the International Campaign to Abolish Nuclear Weapons.

<sup>85</sup> Submission of Shannon Marcoux.

<sup>86</sup> WHO, “Marshall Islands: country cooperation strategy at a glance” (2018).

<sup>87</sup> Government Accountability Office, *Nuclear Waste*.

<sup>88</sup> Marshall Islands, Ministry of the Environment, *National Adaptation Plan (Papjelmae)* (2023), available at <https://unfccc.int/sites/default/files/resource/NAP-RMI-2023.pdf>.

<sup>89</sup> Government Accountability Office, *Nuclear Waste*, p. 39.

<sup>90</sup> Benetick Maddison, “The ongoing consequences of the U.S. nuclear testing program on the Marshall Islands”, Heinrich Boll Stiftung, 9 October 2023.

<sup>91</sup> United States, Department of State, “Report evaluating the request of the Government of the Republic of the Marshall Islands”.

<sup>92</sup> Ibid., and submission of Matthew Bolton.

<sup>93</sup> [A/63/46](#).

<sup>94</sup> General Assembly resolution 78/240.

or any other field of public life”.<sup>95</sup> The Committee on the Elimination of Racial Discrimination has opined that the prohibition of racial discrimination applies to both intentional and structural discrimination, as well as discrimination in effect.<sup>96</sup>

43. Radiological contamination caused by nuclear testing has created what could be called “sacrifice zones”.<sup>97</sup> While the term contemporarily refers to places where human rights violations result from pollution hotspots and contamination, it originally described situations of racially marginalized and formerly colonized peoples disproportionately “sacrificed” to the demands of nuclear proliferation.<sup>98</sup> Several Human Rights Council mandate holders thus describe the legacy in the Marshall Islands as not only nuclear but colonial.<sup>99</sup>

44. Racial injustice underlying the nuclear legacy has also been highlighted.<sup>100</sup> According to the World Council of Churches, “the lives of Pacific islanders were considered of less value than those of their colonisers”.<sup>101</sup> Merrill Eisenbud, the Chief of Health and Safety of the United States Atomic Energy Commission at the time of some of the testing, reportedly stated:<sup>102</sup> “While it is true that these people do not live, I would say, the way Westerners do, civilized people, it is nevertheless also true that these people are more like us than mice.”<sup>103</sup>

45. In 1995, the United States Advisory Committee on Human Radiation Experiments found that the consent of the Marshallese “for tests and treatment appears to have been neither sought nor obtained” and recommended that an apology be made.<sup>104</sup> The Government of the United States issued an apology to its own citizens subjected to radiation experimentation, but did not include the Marshallese.<sup>105</sup>

46. The Marshall Islands has also strongly objected to what has been described as the “use of double standards when determining ‘safe’ levels of radiation”.<sup>106</sup> In a study sponsored by the Government of the United States, it was claimed that, if the Runit Dome “were located in the United States”, it would be “classified as a Low-Level Radioactive Waste Disposal Site ... subject to stringent site management and monitoring practices”.<sup>107</sup> The Marshall Islands National Nuclear Commission has thus opposed the use, by the United States Department of Energy, of the general safety standard of 100 millirem a year in the Marshall Islands,<sup>108</sup> instead of the standard of 15 millirem a year used by the United States Environmental Protection Agency. The Agency, however, explains that the 15-millirem standard is only recommended until Superfund Site clean-up operations are concluded, after which 100 millirem is similarly applied.

<sup>95</sup> International Convention on the Elimination of All Forms of Racial Discrimination, art. 1.

<sup>96</sup> General recommendation No. 32 (2009).

<sup>97</sup> A/HRC/49/53, para. 35.

<sup>98</sup> A/77/549, paras. 18 and 19.

<sup>99</sup> OHCHR, “UN experts urge States to address human rights impact of nuclear testing”, press release, 4 March 2024.

<sup>100</sup> Nic Maclellan, “Nuclear testing and racism in the Pacific Islands”, in *The Palgrave Handbook of Ethnicity*, Steven Ratuva, ed. (Singapore, Palgrave Macmillan, 2019).

<sup>101</sup> Submission of the World Council of Churches.

<sup>102</sup> Merrill Eisenbud, Advisory Committee on Biology and Medicine, 13 and 14 January 1956, p. 232.

<sup>103</sup> Merrill Eisenbud, supplementary testimony to the Committee on Natural Resources of the House of Representatives, 24 February 1994, available at <https://www.osti.gov/opennet/servlets/purl/16007806-CHr7rh/16007806.pdf>.

<sup>104</sup> Advisory Committee on Human Radiation Experiments, *Final Report*, pp. 597, 598 and 805.

<sup>105</sup> United States, Department of Energy, “Part 3: righting past wrongs”.

<sup>106</sup> Greenpeace Australia Pacific, “Hiroshima remembered – Greenpeace revisits the tragic legacy of nuclear testing”, 5 August 2010.

<sup>107</sup> Terry Hamilton, “Executive summary: a visual description of the concrete exterior of the Cactus Crater Containment Structure” (Livermore, Lawrence Livermore National Laboratory, 2014).

<sup>108</sup> Department of Energy, “Report on the status of the Runit Dome”.

## D. Right to housing

47. The right to adequate housing depends on accessibility and habitability,<sup>109</sup> a standard that is not met in situations in which the nuclear legacy continues to affect related rights, such as those to food, health and a healthy environment.

48. Housing without the availability of services, such as access to facilities essential for health, security, comfort and nutrition, is inadequate. The Marshall Islands National Nuclear Commission has pointed to environmental and health hazards posed to housing and other rights by the nuclear legacy, contributing to displacement through a two-fold migration pattern: internally, from outer islands to the capital, Majuro; and externally, with the Marshallese diaspora citing the nuclear legacy as the “driving force behind migration”.<sup>110</sup>

49. Housing must also be culturally adequate. To the Marshallese, land is not simply about ownership: “It is the very life of the people. Take away their land and their spirits go also.”<sup>111</sup> The land rights system of the Marshall Islands underscores the intrinsic connection between atoll and identity. Continuing displacement leads to cultural dislocation, undermining the right to participate in cultural life.

## E. Indigenous Peoples’ rights

50. In consultations with OHCHR, members of the Marshallese community, especially from Bikini and Rongelap, self-identified as Indigenous. Indigenous Peoples have been disproportionately affected by nuclear-weapon activities.<sup>112</sup> The impacts of those activities must be understood in the context of the special relationship those people have with their ancestral lands, territories and ways of life.<sup>113</sup>

51. In the United Nations Declaration on the Rights of Indigenous Peoples, the General Assembly recognizes that Indigenous Peoples have the right to self-determination. Bikinians and Rongelapese should be free to determine their economic, social and cultural development, including access to and use and enjoyment of land. The General Assembly explicitly states that Indigenous Peoples should not be forcibly removed from their lands or territories and that relocation should not take place without their free, prior and informed consent.

52. There is considerable dispute concerning whether any such consent was given.<sup>114</sup> Notably, the Government of the United States declared Bikini as the “final choice” for Operation Crossroads prior to asking the Bikinians to relocate. The Bikinians left their atoll believing displacement would be temporary, while the Rongelapese were forced to leave by radioactive contamination to which they had not consented. The contamination of their atolls affects their right to utilize their land, hindering development and safe reliance on local flora and fauna for sustenance.<sup>115</sup>

53. Effectively tenants in others’ homes,<sup>116</sup> some Bikinians and Rongelapese refrain from traditional farming due to a reluctance to cultivate on land that is not their own, affecting their cultural, social and economic well-being. Their present-day practice of above-ground

<sup>109</sup> International Covenant on Economic, Social and Cultural Rights, art. 11. See also [A/77/190](#).

<sup>110</sup> Marshallese Educational Initiative, “Seeking nuclear justice: voices from the Marshallese diaspora in Arkansas”, available at <https://www.mei.ngo/single-post/seeking-nuclear-justice-voices-from-the-marshallese-diaspora-in-arkansas>.

<sup>111</sup> T/PET.10/28, p. 2.

<sup>112</sup> Treaty on the Prohibition of Nuclear Weapons, preamble.

<sup>113</sup> Human Rights Committee, *Oliveira Pereira et al. v. Paraguay* (CCPR/C/132/D/2552/2015).

<sup>114</sup> Submission of the University of the Philippines Institute of Human Rights.

<sup>115</sup> Harvard Law School International Human Rights Clinic and the Conflict and Environment Observatory, *Facing Fallout: Principles for Environmental Remediation of Nuclear Weapons Contamination* (Cambridge, Massachusetts, 2022).

<sup>116</sup> International Organization for Migration and others, “‘My heritage is here’: report on consultations with communities in the Marshall Islands in support of the development of the National Adaptation Plan” (Majuro, 2023), p. 25.

burial for their deceased, fuelled by the hope of one day returning them to their home atoll,<sup>117</sup> likewise underscores the profound impacts of the nuclear legacy – in life and in death, on the physical as well as the spiritual.

#### **IV. Overcoming human rights challenges and barriers posed by the nuclear legacy through a transitional justice approach**

##### **A. Key elements of a transitional justice approach**

54. Victims of human rights violations have the rights to an effective remedy and access to justice. Transitional justice, with its interrelated elements of truth-seeking, justice, reparation and guarantees of non-recurrence including memorialization, offers a comprehensive framework for analysis and action to address remedial gaps in a victim-centred manner.<sup>118</sup> The key elements of transitional justice, as well as their overall objectives of prevention and the building of peaceful, just and resilient societies, are relevant to the attempts by the Marshall Islands to address the nuclear legacy.

55. Through truth, it could be examined how enhanced efforts to seek and disclose all information of public interest concerning the causes and consequences of the nuclear legacy are necessary. Under the justice component, further reflection can be made on available legal pathways for accountability in terms of State, institutional and individual responsibilities. Reparation can help identify suitable restitution measures to prevent future victims and to restore victims, to the extent possible, to the situation before the human rights violation occurred. While fully reinstating the status quo ante is impossible in this context considering the millennial half-life and all-permeating impacts of some radionuclides, restitutive measures for atoll clean up and repatriation should still be pursued. It also includes full and adequate compensation for economically assessable damage, moral damages and loss of earnings, property and economic opportunities; rehabilitation, providing medical and psychological care, as well as legal and social services; and satisfaction covering a broad range of measures, including symbolic acts, such as acknowledgement, apologies and the acceptance of responsibility.<sup>119</sup>

56. Guarantees of non-recurrence offer a framework to identify and fund the needed infrastructure and measures to avoid, mitigate and prevent repeated or continuing radiological exposure. That includes memorialization processes to honour victims and the ratification of nuclear prohibition/non-proliferation treaties, among others. Transitional justice also offers methodological approaches based on victim and community consultation and participation that are aimed at empowerment, inclusion and legitimacy, which are equally relevant in addressing the nuclear legacy.

57. As a matter of international law, those measures are not necessarily foreclosed by or otherwise inconsistent with the Compact of Free Association or the 177 Agreement. Though adopted by plebiscite, those steps were taken when one party was itself under the authority of the other, and relevant information was under the control of one party and not fully available to the other. While the Government of the United States argues that the 177 Agreement forecloses any further review, jurisprudence has recognized that “it is not possible to talk of an international agreement, when one of the parties to it” was “under the authority of the latter”, as this brings into question whether or not the agreement reflects “the free and genuine expression of the will of the people concerned”.<sup>120</sup>

<sup>117</sup> Maclellan, “‘When are we going back?’”.

<sup>118</sup> “Guidance note of the Secretary-General: transitional justice – a strategic tool for people, prevention and peace”, 11 October 2023.

<sup>119</sup> Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law, paras. 19–23.

<sup>120</sup> International Court of Justice, *Legal Consequences of the Separation of the Chagos Archipelago from Mauritius in 1965*, *Advisory Opinion*, I.C.J. Reports 2019, p. 95, at para. 172.

58. The United States, as a State party to the International Covenant on Civil and Political Rights, has a legal obligation to ensure the right to an effective remedy to those within its territory and subject to its jurisdiction. Even if this responsibility would not apply to remedies for harms arising after the Marshall Islands became a State, the obligation to provide an effective remedy for harms relating to its relevant actions remains.<sup>121</sup> Independent of questions of legal responsibility, effective measures should be taken to restore trust and overcome the legacy of rights violations suffered in the Marshall Islands.

## **B. Information as a foundation for justice**

### **1. Holistic approach to transitional justice**

59. Truth can serve as a fundamental first step in addressing the nuclear legacy, catalysing other elements. Filling information gaps provides recognition and empowers people to identify which acts or omissions have affected them and continue to negate their enjoyment of human rights, and which actors have a legal obligation to put an end to ongoing violations and be held to account. By acknowledging the truth about the nuclear legacy's immediate and ongoing impacts, and by seeing it acknowledged by those who caused them, the Marshallese and international community are better equipped to honour victims and prevent future exposure. Truth also opens the path to reparation. In the words of the late Marshallese leader Tony deBrum: "there can be no closure without full disclosure".<sup>122</sup>

60. The Marshallese have the right to information regarding the nuclear legacy, which should be available, accessible, functional and consistent with the principle of non-discrimination. Availability applies to information on historical aspects and ongoing consequences of the nuclear legacy, such as on public health and environmental safety. Accessibility means that information can be obtained without undue barriers, and be linguistically and geographically accessible to everyone, including outer islanders and the Marshallese diaspora. Functionality means that information should be effective for its intended use. Information on nuclear impacts, often discussed in technical terms, should be of good quality, comprehensible, acceptable and actionable. The principle of non-discrimination requires disaggregated and specialized information to understand and inform measures to prevent disproportionate impacts on individuals and specific population groups.<sup>123</sup>

61. The right to truth covers all relevant information concerning the commission of alleged human rights violations, in this case including the antecedents leading to the nuclear legacy and their continuing human rights impacts, as well as responsibility for them.<sup>124</sup> The Government of the United States reports having "declassified over 10 million pages, including records related to human radiation experiments" and to "nuclear weapons testing".<sup>125</sup> Some documents, though declassified, are heavily redacted – leaving the Marshallese with an incomplete picture of their own history. A feasibility study conducted by the Government of the United States estimates that there remains more than 40–80 million pages of unprocessed records for review.<sup>126</sup> Pursuant to the principle of maximum disclosure, all information held by the United States related to the human rights impacts of nuclear testing should be disclosed, with secrecy being an exception rather than a general rule.<sup>127</sup>

### **2. Truth-seeking**

62. The establishment of truth mechanisms could be considered to assist the Marshallese in obtaining a comprehensive and accurate factual accounting of the nuclear legacy.

<sup>121</sup> International Covenant on Civil and Political Rights, art. 2 (3).

<sup>122</sup> Tony deBrum, acceptance speech at the Nuclear Age Peace Foundation, 21 October 2012.

<sup>123</sup> [A/HRC/30/40](#).

<sup>124</sup> *Transitional Justice and Economic, Social, and Cultural Rights* (United Nations publication, 2014).

<sup>125</sup> United States, Public Interest Declassification Board, *Declassification of Records Relating to Nuclear Weapons Testing and Cleanup Activities in the Marshall Islands: Feasibility Study* (2022).

<sup>126</sup> *Ibid.*

<sup>127</sup> [A/HRC/30/40](#).

63. Marshall Islands officials claim that the Marshallese were used as “human guinea pigs” and were deliberately irradiated<sup>128</sup> as part of the “Study of Response of Human Beings Exposed to Significant Beta and Gamma Radiation Due to Fallout from High Yield Weapons” by the Government of the United States”.<sup>129</sup> A report co-authored by a Commissioner of the National Nuclear Commission describes that study – referred to as Project 4.1 – having involved invasive and painful procedures such as teeth and bone marrow extraction and the injection of radioactive isotopes.<sup>130</sup>

64. The Government of the United States, for its part, claims that human exposure to radiation was an accident caused by the Bravo test “far exceed[ing] the size expected” and a sudden shift in wind. However, the Government of the United States also maintains that Bravo’s “yield was not a total surprise”.<sup>131</sup> Reports also show that, even prior to the test, the United States was aware of changing wind patterns<sup>132</sup> and that, in any case, such a shift in the wind “contributed in no significant way to the fallout on [Rongelap, Rongerik and Utrök]”.<sup>133</sup> A truth mechanism could help determine, among others, accidental, negligent, or intentional forms of human exposure to radiation, assess claims of cruel, inhuman and degrading treatment,<sup>134</sup> and provide recommendations on appropriate protective, remedial and preventive action. That mechanism could assess past and ongoing impacts based on modern scientific understanding, which has developed significantly since the testing.

65. Such an approach would entail a significant effort to collect further testimonies related to lived experiences and access to official documents. Effective fact-finding would require the Governments of the Marshall Islands and the United States to fully and in good faith cooperate with truth-seeking initiatives. The Government of the United States has already declassified thousands of documents. It estimated that the declassification of additional documents “concerning the 67 U.S. nuclear weapons tests” would “cost between \$100–200 million”.<sup>135</sup> Sufficient resources should be allocated to provide appropriate access to relevant information and to declassify the records to the fullest extent possible.

66. Other State and non-State actors, and the international community, should cooperate<sup>136</sup> and help shed light on the human rights impacts of nuclear legacies. In that regard, the Special Rapporteur on hazardous substances and wastes has suggested that States must ensure that victims of toxic exposure are not forestalled from realizing their right to a remedy by systemic obstacles, including the burden of proof and causation.<sup>137</sup> Amidst rising sea levels and temperatures threatening the safekeeping of records on the Marshall Islands, information should be preserved for the benefit of present and future generations. The Marshall Islands does not have a national archive and has been supported by the Swiss Peace Foundation in digitizing and archiving records of the Nuclear Claims Tribunal. An archival strategy for all nuclear legacy-related information, including testimonies of lived-experiences, should be developed and implemented,<sup>138</sup> with further support from international donors.

<sup>128</sup> Jack Ading, Minister of Foreign Affairs and Trade of the Marshall Islands, statement at the hearing of the Committee on Natural Resources of the House of Representatives, 24 August 2023, p. 5, available at <https://www.congress.gov/118/meeting/house/116304/witnesses/HHRG-118-II00-Wstate-AdingJ-20230824.pdf>.

<sup>129</sup> Advisory Committee on Human Radiation Experiments, *Final Report*, p. 587.

<sup>130</sup> Barbara Rose Johnston and Holly M. Barker, *Consequential Damages of Nuclear War: The Rongelap Report* (Abingdon, Routledge, 2008).

<sup>131</sup> Kunkle and Ristvet, *Castle Bravo*, pp. 76 and 77.

<sup>132</sup> Robert A. Conard, *Fallout: The Experiences of a Medical Team in the Care of a Marshallese Population Accidentally Exposed to Fallout Radiation* (Upton, Brookhaven National Laboratory, 1992), p. 4, available at <https://www.osti.gov/opennet/servlets/purl/16365109.pdf>.

<sup>133</sup> Kunkle and Ristvet, *Castle Bravo*, p. 76.

<sup>134</sup> Submission of Camilla Pohle.

<sup>135</sup> Public Interest Declassification Board, *Feasibility Study*, p. 8.

<sup>136</sup> Submissions of Radiation, Exposure, Awareness, Crusaders for Humanity–Marshall Islands and Chris Hill.

<sup>137</sup> [A/HRC/36/41](#).

<sup>138</sup> Submission of the Swiss Peace Foundation.

67. The right to truth relates to both facts and processes. It is crucial that approaches addressing the nuclear legacy do not render invisible the victims and communities affected by the nuclear legacy.<sup>139</sup> Truth-seeking should be community-led – a framework the Marshallese refer to as “*Reimaanlok*”<sup>140</sup> – and should recognize the complementary relationship of cultural knowledge and scientific development. It should build upon local experiences and traditional knowledge not only to identify past, present and future human rights impacts but as part of the solutions therefor.<sup>141</sup> In line with the right to information, raw data and findings should be shared with the Marshallese, including outer islanders and diaspora communities, among other stakeholders, through processes that do not cause further harm and that safeguard the mental health and well-being of survivors and their families.

### C. Building local capacities for prevention and mitigation

68. Understanding the lingering and long-term impacts of the nuclear legacy is also essential to minimizing and avoiding radiological exposure and its effects. During the testing period, there were limited methods available to reliably determine the real-time consequences of nuclear radiation. While a Nationwide Radiological Study was concluded in 1995, it is reported to include a detailed analysis of only “432 of the RMI’s approximately 1,200 islands”.<sup>142</sup> To this day, a complete mapping of human rights impacts has not been made. For a risk assessment, “there remains good justification for the use of a non-threshold model for risk inference for radiation protection purposes”.<sup>143</sup> A robust radiological assessment throughout the Marshall Islands and beyond should be conducted to assess the scope of impacts and associated environmental and human health risks.

69. Inadequate information hampers the efforts of the Marshall Islands to efficiently, effectively and fully address its nuclear legacy. It does not have “the human resources, nor technical capacity to monitor radiation in the environment or the effects on human health”.<sup>144</sup> Of the limited information the Marshallese have access to, most is sourced from the Government of the United States the actions of which, “shrouded in secrecy”, have “contributed to a climate of distrust”.<sup>145</sup> According to the National Nuclear Commission, such practices “are not limited to the past, nor only to U.S. Government researchers”. The Commission has thus developed a protocol and guidelines to curb the practice of “outsiders ... us[ing] the Marshall Islands to advance their own interests”.<sup>146</sup> The lack of a coordinated effort has also resulted in overlapping initiatives, contributing to sentiments of survey fatigue.<sup>147</sup>

70. Local capacities to continually monitor, prevent, and minimize environmental and health risks should be built and complemented through international cooperation and a framework of shared responsibility.<sup>148</sup> Significant amounts of scientific and community work are necessary. Cross-jurisdictional and inter-disciplinary approaches<sup>149</sup> should inform victim assistance, environmental remediation and transitional justice measures addressing nuclear legacies.

<sup>139</sup> [A/76/180](#).

<sup>140</sup> World Bank, “‘*Reimaanlok*’: the future of community-led ocean conservation in Marshall Islands”, 17 November 2021.

<sup>141</sup> Submission of the World Council of Churches.

<sup>142</sup> United States, Department of State, “Report evaluating the request of the Government of the Republic of the Marshall Islands”.

<sup>143</sup> [A/76/46](#).

<sup>144</sup> WHO, *Joint External Evaluation of IHR Core Capacities of the Republic of the Marshall Islands: mission report, 23–26 September 2019* (Geneva, 2020), p. 59.

<sup>145</sup> Advisory Committee on Human Radiation Experiments, *Final Report*, p. 585.

<sup>146</sup> National Nuclear Commission, “Ethics protocol for researchers and study abroad instructors”.

<sup>147</sup> Interview with Rongelapese, Majuro, 17 December 2023.

<sup>148</sup> Submission of Harvard Law School International Human Rights Clinic.

<sup>149</sup> Submissions of Kazakhstan, Mauritius, Mexico, Anne Albinus, Baïna Ubushieva, the Center for Global Nonkilling, the Manila Observatory, Nic Maclellan, Torsten Raagaard, and Yoshiki Narita and Masato Abe.

## V. Conclusion and recommendations

71. The nuclear legacy is not just a chapter in history, but a continuing reality for the Marshallese people. The Human Rights Committee noted serious human rights concerns arising from the testing of nuclear weapons,<sup>150</sup> and the International Court of Justice recognized the serious danger that they pose to present and future generations.<sup>151</sup> Understanding the human rights implications of that legacy requires acknowledging both its impacts nationwide and on specific populations.

72. Nuclear testing and its impacts should be assessed against applicable human rights obligations. As part of its own human rights obligations, the Government of the Marshall Islands has taken proactive, community-led measures to address the nuclear legacy, which it should pursue with further steps.<sup>152</sup> Furthermore, as reflected in General Assembly resolution 78/240, responsibility to address such impacts lies with the State that conducted the tests.<sup>153</sup> The Government of the United States, which has itself acknowledged responsibility for the impacts of the nuclear tests and taken measures to address them,<sup>154</sup> should take further measures necessary to provide full and effective remedies. To effectively address its impacts, a greater understanding of how the nuclear legacy has hindered the full realization of all human rights, and concomitant remedial action, are needed.

73. The international community also has a role in addressing nuclear legacies, in the Marshall Islands and more generally. States, especially those with historical ties to nuclear legacies and greater capacities to address them, should assist affected States and communities, through financial, material, technical and other forms of assistance.

74. Based on those findings, it is recommended that:

- (a) The Government of the Marshall Islands:
  - (i) Implement its nuclear justice strategy by supporting the National Nuclear Commission through a whole-of-government effort with a goal to measurably improve the realization of all human rights and ensuring adequate resources and capacities for the Commission to fulfil its mandate;
  - (ii) Develop an archiving strategy to preserve information on the nuclear legacy for present and future generations;
  - (iii) Continue to seek the cooperation of the United States, the international community and non-State actors to build local capacities to implement its nuclear justice strategy;
  - (iv) Fully implement its Human Rights 75 pledges;
- (b) The Government of the United States:
  - (i) Fully acknowledge its role in, and consider formal apology for, the past, current and foreseeable future human rights impacts of the nuclear legacy in a manner culturally appropriate for the Marshallese;
  - (ii) Declassify relevant records to the fullest extent possible, consistent with a presumption of disclosure, and share all relevant information on the nuclear legacy with the Marshall Islands and other stakeholders;
  - (iii) Consider provision of adequate funding and other resources for the full reparation of Marshallese affected by past, current and foreseeable future

<sup>150</sup> Human Rights Committee, general comment No. 36 (2018), para. 66.

<sup>151</sup> International Court of Justice, *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, *I.C.J. Reports 1996*, p. 226.

<sup>152</sup> [A/HRC/46/14](#).

<sup>153</sup> General Assembly resolution 78/240.

<sup>154</sup> Compact of Free Association, sect. 177 (a).



human rights impacts of the nuclear legacy, consistent with human rights obligations;

(iv) Assist, upon the invitation of the Government of the Marshall Islands, in improving local capacity to respect, protect and fulfil all human rights affected by the nuclear legacy and implementing the nuclear justice strategy, including through monitoring, repairing and remediating all contaminated sites in the Marshall Islands;

(c) The United Nations:

(i) Support, through its agencies, funds and programmes, the nuclear justice strategy of the Marshall Islands;

(ii) Continue, through the Human Rights Council, to provide technical assistance and capacity-building to the Marshall Islands and to prepare subsequent reports on transitional justice measures to address the human rights implications of the nuclear legacy through a cross-jurisdictional, interdisciplinary and gender-responsive approach;

(d) The Governments of the Marshall Islands and the United States, the United Nations, the international community and non-State actors, through international cooperation:

(i) Implement and regularly submit status reports regarding the recommendations contained herein and in the report of the Special Rapporteur on hazardous substances and wastes to the Marshall Islands and the United States;<sup>155</sup>

(ii) Support the implementation of the nuclear justice strategy of the Marshall Islands through resource mobilization and systematic programmes that ensure continuity and the effective participation of Marshallese communities;

(iii) Consider establishing truth and non-repetition mechanisms mandated to address, together with the National Nuclear Commission, the nuclear legacy consistent with human rights obligations and conduct nationwide radiological assessments, monitor the environmental and human health risks posed and build capacity for health care in the Marshall Islands;

(iv) Develop and disseminate accurate, accessible educational material on the nuclear legacy;

(v) Recognize the Marshallese not only as victims of nuclear testing but as empowered rights holders and agents of resilience and strength in addressing their nuclear legacy;

(vi) Stand in solidarity with, and in a manner culturally relevant to, the Marshallese, through memorialization efforts, such as Nuclear Victims Remembrance Day;

(vii) Adopt and support a transitional justice-driven approach to address the nuclear legacy.

75. Cognizant of the far-reaching human rights consequences of nuclear weapons testing, it is further recommended that:

(a) The international community complement the pursuit of transitional justice by strengthening local capacities in the Marshall Islands for victim assistance and environmental remediation;

<sup>155</sup> [A/HRC/21/48/Add.1](#).

(b) States pursue nuclear disarmament consistent with the Treaty on the Non-Proliferation of Nuclear Weapons;

(c) States consider ratifying or acceding to the Comprehensive Nuclear-Test-Ban Treaty and the Treaty on the Prohibition of Nuclear Weapons.

---

Advance edited version