April 2020

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THE MARSHALL ISLANDS NUCLEAR CLAIMS TRIBUNAL: 
THE CLAIMS OF THE ENEWETAK PEOPLE*

DAVOR PEVEC**

I. BACKGROUND OF UNITED STATES NUCLEAR TESTING IN THE MARSHALL ISLANDS

The United States conducted sixty-seven nuclear tests in the Marshall Islands in a twelve year period between 1946 and 1958. Forty-three of those tests occurred on Enewetak Atoll; the remainder occurred on Bikini Atoll. The yield of the tests in the Marshall Islands totaled 108 megatons which is equivalent to 7,200 Hiroshima bombs. During the twelve-year nuclear testing program, the Marshall Islands was a United Nations Trust Territory administered by the United States, which had pledged to the United Nations to “protect the inhabitants against the loss of their lands and resources.”

Radioactive fallout from one of those tests – the March 1, 1954 Bravo shot at Bikini – drifted in the wrong direction and irradiated the 236 inhabitants of Rongelap and Utrok Atolls as well as the crew of a Japanese fishing vessel. Bravo was the largest U.S. nuclear test in history with an explosive force equal to nearly 1,000 Hiroshima-type atomic bombs.

In the 1980’s, the peoples of Enewetak, Bikini, Rongelap and Utrok Atolls and other Marshall Islanders brought lawsuits against the United States in the United States’ courts for property and other damages resulting from the nuclear tests, totaling more than $5 billion. During the litigation, the U.S. and Republic of the Marshall Islands governments signed a treaty known as the Compact of Free Association. That Compact defines the relationship between the U.S. and the Marshall Islands and included a subsidiary Section 177 Agreement, which established a $150 million Nuclear Fund, income from which was earmarked for the peoples of the four atolls as “a means to address past, present and future consequences of the Nuclear Testing Program...” Income was also earmarked to fund a Nuclear Claims Tribunal, which was to be established with “jurisdiction to

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* Presented at the PLAGE Conference, Salzburg, Austria, October 20-23, 2005.
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render final determination upon all claims past, present and future, of the
Government, citizens and nationals of the Marshall Islands which are based on,
arise out of, or are in any way related to the Nuclear Testing Program....”

The Section 177 Agreement also provides that it constitutes the full settlement
of all claims, “past, present and future,” of Marshall Islanders and their
government against the United States arising out of the testing program, and
another section provides that all such claims pending in U.S. courts are to be
dismissed.5

The lawsuits against the U.S. filed in the 1980’s are property rights protected
by the takings clause of the Fifth Amendment to the U.S. Constitution.6 Can the
U.S. simply terminate the claims brought against it? The answer is yes. Under
well established U.S. Supreme Court decisions going back to 1890, Congress has
eyery right to close the doors of U.S. courts to lawsuits and take away those
property rights as long as it provided for an alternative method of compensation
and provided that at the time of the taking there is “reasonable, certain and
adequate provision for obtaining compensation.”7

Faced with these provisions, the U.S. courts dismissed the nuclear cases after
the Compact went into effect. This dismissal was approved by the U.S. courts
because the 177 Agreement provided some compensation and provided for the
establishment of an alternative tribunal to determine damages and provide
compensation. The U.S. courts said that whether the $150 million settlement
amounted to just compensation for the Marshall Islanders whose cases were
dismissed, was an issue to be determined by the alternative tribunal—the Nuclear
Claims Tribunal.8 The Marshall Islands Nuclear Claims Tribunal was constituted
in 1988.9

Left with no practical alternative, the Enewetak people filed their claim before
the Nuclear Claims Tribunal so that it could render final determination of all their
claims for property damage, past, present and future, relating to the nuclear testing
program.

The legal theories of the Enewetak property damage claim was based on
established constitutional principles and tort law. Those theories provided
damages for the cost to restore land, for loss of use of land, and for consequential
damages.

The following material presents in narrative form the evidence and arguments
presented to the Tribunal relating to the property damages suffered by the
Enewetak people as a result of the U.S. nuclear testing program.

4. Id. at art. IV, §1(a).
5. See id. at art. X, XII.
(1987); People of Enewetak v. U.S., 864 F. 2d 134 (Cir. 1988).
S. Kan. R.R Co., 135 U.S. 641, 659 (1890)).
8. See Juda, supra note 6, at 689.
9. Section 177, supra note 3, art. V, § 1.
II. THE ENEWETAK PROPERTY DAMAGE CLAIM

The homeland of the Enewetak people was the site of forty-three of the sixty-six nuclear tests conducted by the United States in the Marshall Islands. One of the tests at Enewetak was especially significant as it was the first test of a thermonuclear device, a precursor to the hydrogen bomb. This test occurred on October 31, 1952 and was known as the “Mike” test. The test had a yield of 10.4 megatons (750 times greater than the Hiroshima bomb). The destructive power of the Mike test was exceeded only by the Bravo test (15 megatons) in all the nuclear tests conducted by the United States anywhere. The Mike test vaporized an island, leaving a crater a mile in diameter and 200 feet deep. The Mike test detonation and the detonation of the other forty two nuclear devices devastated the land of the Enewetak people. The devastation is so severe that to this day, forty-seven years after the last nuclear explosion, over half the land and all of the lagoon remain contaminated by radiation. The damage is so pervasive that the Enewetak people cannot live on their land without importation of food.

In our presentation before the Tribunal, it was important to stress that the damages inflicted on the land of the Enewetak people be considered in the context of the strong attachment that the people have for their land. The story of nuclear testing on the land of the Enewetak people has many important aspects; however, the most compelling aspect is the profound effect such testing had on the people. Thus, in the presentation of the claim we emphasized the effect of the testing program on the Enewetak people who, for century after century, developed a unique relationship with their land. They worked the soil and nurtured the plants on their land. They buried their dead on their land. They became a part of the land and it became a part of them. Laurence Carucci, an American professor of anthropology who testified before the Tribunal described the Enewetak people’s relationship with the land as follows:

For Marshall Islanders in general, and Enewetak people in particular, land is a part of one’s person and one’s entire identity. It is an integral part of a person’s sense of who they are in the world and how their life makes sense as part of a certain culture. One’s sense of self, both personal and cultural, is deeply embedded in a particular parcel of land on a particular atoll.... Not only is land hyper-valued because it is scarce, land is extremely highly valued because it represents the collective labor of generations of people who have worked the land, transforming it from bush into habitable space. Both one’s labor and one’s physical person, at death, are embedded in land in a manner that irrevocably erases any distinction European’s [sic] or Americans might make that would separate one’s person and the clan or family land that one inhabits. While Europeans live and die, Enewetak people are but the most visible snippet of a very active group, a clan of relatives who share a totem-like identity, a clan or jowi. Not only does that group represent the continuity of life from ancient times until the current day (jowi), it is manifest in a second visible form, the family land that is the realization of generation upon generation of continuous human occupation that has made untended earth into soil through toil and the
physical substance of persons embedded in the molecular structure of that soil.

When Enewetak people were moved to Ujelang in 1947, this sense of communal origin, of land as the visible representation of centuries of human labor, was lost. Enewetak people were distraught, heartbroken, and in a general state of mental and emotional trauma when they were forced to leave their homeland. Their very embeddedness in a place in the world, the very processes through which the community had scratched their being into the physical contours of the earth, and the historied place that gave them a sense of meaningful connection with their communal past, were gone.\textsuperscript{10}

III. REMOVAL OF THE PEOPLE FROM ENEWETAK ATOLL AND U.S. PROMISES

This relationship of the Enewetak people with their land was severed when the United States removed the people from their atoll so that the United States could explode nuclear devices on their land. In effecting the removal, the United States recognized that the people of Enewetak had constitutional rights with respect to the use of their land by the United States. In addition, the United States recognized that it had responsibilities and obligations to the people of Enewetak. These rights, responsibilities and obligations are described in the memorandum attached to the Directive of President Harry Truman providing for the removal of the Enewetak people from their land. President Truman's Directive to the Secretary of Defense, dated November 25, 1947, reads as follows:

Dear Mr. Secretary:

You are hereby directed to effect the evacuation of the natives of Eniwetok Atoll preliminary to the carrying out of tests of atomic weapons early in 1948, and in accordance with the enclosed memorandum addressed to me by the Chairman of the Atomic Energy Commission.

Sincerely yours,

HARRY S. TRUMAN\textsuperscript{11}

The memorandum attached to President Truman's Directive described the rights of the Enewetak people and the responsibilities and obligations to the

\textsuperscript{10} In the Matter of the People of Enewetak, et al., NCT No. 23-0902, http://www.nuclearclaimtribunal.com/final.htm, (citing Laurence M. Carucci & Mary H Maifeld, Ien Entaan im Jerata: Times of Suffering and Ill Fortune: An Overview of Daily Life on Ujelang and Enewetak since 1946) (citation omitted); JACK A. TOBIN, THE RESETTLEMENT OF THE ENEWETAK PEOPLE: A STUDY OF A DISPLACED COMMUNITY IN THE MARSHALL ISLANDS (1967) microformed on University Microfilms PAC GEN GN 671 .M3 T6 1 (Univ. Microfilms 1970).("Land, the source of sustenance, is considered by the Marshallese to be their most valuable asset. It is regarded as almost sacred.").

Enewetak people assumed by the United States. The memorandum reads in relevant part as follows:

1. They will be accorded all rights which are the normal constitutional rights of the citizens under the Constitution, but will be dealt with as wards of the United States for whom this country has special responsibilities.

2. The displacement of local inhabitants will be kept to a minimum required for their own safety and well being and will not be accomplished merely for considerations of convenience.

3. The displacement of local inhabitants will be effected by agreements reached with them regarding resettlement, including fully adequate provisions for their well being in their new locations.

The Atomic Energy Commission and the Secretary of Defense will undertake to supply to the State Department evidence sufficient to demonstrate in an international forum that in conducting such experimentation in Eniwetok, the United States is not thereby subjecting the local inhabitants of the Trust Territory of the Pacific to perceptibly greater danger than, say, the people of the United States.\(^\text{12}\)

In a dispatch from Admiral Ramsey, the Chief of Naval Operations, dated 5 December 1947, the rights of the Enewetak people and the responsibilities and obligations of the United States were summarized as follows:

PURSUANT TO ORDERS FROM THE PRESIDENT THE SECRETARY OF DEFENSE HAS DIRECTED SECNAV TO EFFECT THE EVACUATION OF THE NATIVES OF ENIWETOK.

IN RECOMMENDING THIS ACTION THE ATOMIC ENERGY COMMISSION STATED THAT THE INHABITANTS OF THE ATOLL WOULD BE ACCORDED THE NORMAL CONSTITUTIONAL RIGHTS ACCRUING TO U S CITIZENS UNDER THE CONSTITUTION AND TREATED AS WARDS OF THE UNITED STATES; AND THAT ADEQUATE PROVISION WOULD BE MADE FOR THEM IN THEIR NEW LOCATION.\(^\text{13}\)

The Constitution provides that the owner of property used and damaged by the government is entitled to just and adequate compensation.\(^\text{14}\) In addition, the Enewetak People were promised that they would be taken care of while they were

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12. Id.

13. Id.

14. If government uses and damages private property it is constitutionally required to pay just compensation to the owners of that property. U.S. Const. amend. V. It is well established that in cases involving temporary takings, "just compensation" refers to the rental value of the property for the period taken, together with any damage sustained by the property. Kimball Laundry Co. v. U.S., 338 U.S. 1, 7 (1949); U.S. v. Gen. Motors, 323 U.S. 373, 379 (1945). The United States Supreme Court has stated that the purpose of just compensation is to put the owner in as good a position as he would have occupied if his property had not been taken. U.S. v. Miller, 317 U.S. 369 (1943).
away from Enewetak. Neither of these promises was kept by the U.S. The people were not taken care of during their thirty three-year exile on Ujelang; and the people have yet to receive the just and adequate compensation to which they are entitled.

IV. U.S. USE OF ENEWETAK FROM 1947 TO 1980

The U.S. used Enewetak for a variety of purposes between 1947 and 1980. U.S. use consisted of nuclear weapons testing, intercontinental ballistic missile testing, high energy rocket testing, cratering experiments, and the study of marine biology.

A. Nuclear Weapons Testing

As described above, Enewetak was used as a nuclear weapons test site. Forty-three nuclear explosions occurred on Enewetak during that period, including the world’s first detonation of a hydrogen bomb, the Mike test, on October 31, 1952. The atoll was devastated by these explosions. The U.S. Department of Energy described the devastating effects as follows:

The immense ball of flame, cloud of dark dust, evaporated steel tower, melted sand for a thousand feet, 10 million tons of water rising out of the lagoon, waves subsiding from a height of eighty feet to seven feet in three miles were all repeated, in various degrees, 43 times on Enewetak Atoll.  

About 8% of the land mass of the atoll was vaporized, numerous nuclear bomb craters doted the land mass, and much soil and most vegetation was either removed or severely disturbed. In addition to such physical damage, the testing left most of the atoll contaminated by radiation.

B. Intercontinental Ballistic Missile Testing

During the 1960’s, Enewetak was the target and impact area for tests of Intercontinental Ballistic Missiles fired from Vandenberg Air Force Base in California.

C. High Energy Upper Stage (HEUS) Rocket Tests

In 1968 and 1978, two test firings of a developmental HEUS rocket motor were conducted on Enjebi Island. The rocket motors tested each contained 2,500 pounds of propellant of which 300 pounds was beryllium. Beryllium is toxic to man when inhaled and lodged in the lungs. The first test, in April 1968, resulted in an unexpected explosion which scattered propellant, including beryllium, over the western tip of Enjebi. The second test in January 1970 fired successfully, scorching the land, but did not result in an explosion.
D. Pacific Cratering Experiments

This program occurred in the 1970's and involved the detonation of charges of high explosives to provide a means of predicting the impact of nuclear detonations upon strategic defense installations.\footnote{18} This resulted in twelve detonations of 1,000 pound charges, drilling of over 190 holes into various islands of the atoll from 200 feet to 300 feet in depth, movement of 185,000 cubic yards of soil, and the digging of 86 trenches on various islands each seven feet deep.

E. Marine Biology Research Laboratory

The laboratory began operations in 1954 under the auspices of the Division of Biology and Medicine of the U.S. Atomic Energy Commission.\footnote{19} Research supported by the laboratory was chosen by an advisory committee which evaluated written proposals concerning a broad spectrum of marine and terrestrial science. This activity continued into the early 1980's.

V. REMOVAL TO UJELANG ATOLL

The U.S. removed the Enewetak people to the smaller, resource poor, isolated atoll of Ujelang in December of 1947. The people were told by the U.S. that their removal would be for a short time. In fact, Captain John P. W. Vest, the U.S. Military Governor for the Marshall Islands told the Enewetak people that their removal from Enewetak would be temporary and last no more than three to five years. In describing his meeting with the Enewetak people prior to their removal from Enewetak, Captain Vest recalled that he told them the following:

I told them they would be able to return to Enewetak fairly soon after the tests were completed; perhaps in three to five years. It certainly was not in my mind that it would be longer than that, or that the taking of Enewetak for the testing program was permanent. At the time it was my understanding, and I believe their understanding as well as a result of our discussions, that the people of Enewetak would be able to return to Enewetak Atoll after the testing was concluded, and that the likely time frame for this return was three to five years.\footnote{20}

Unfortunately, the Enewetak people remained exiled on Ujelang for a period of over thirty three years.

VI. HARDSHIP ON UJELANG

The exile on Ujelang was particularly difficult, leading to hopelessness and despair. During the thirty three-year exile on Ujelang the people endured the suffering of near starvation. They tried valiantly to provide food for their children but one meal a day and constant hunger were the norm. Malnutrition caused illness and disease. Children and the elderly were particularly vulnerable. Health care was woefully inadequate. In addition, children went largely uneducated in the struggle for survival. The people became so desperate that in the late 1960's they

\footnote{18. Id.}
\footnote{19. Id.}
\footnote{20. In the Matter of the People of Enewetak, supra note 10 (citing affidavit of John P.W. Vest).}
attempted to take over a visiting government field-trip ship, demanding that they
be taken off of Ujelang and returned to Enewetak.

The suffering and hardship of the Enewetak people while on Ujelang are well
documented and widely recognized. For example, the U.S. Department of Interior
in a letter to the President of the U.S. Senate dated January 14, 1978 said in
relevant part:

The people of Enewetak Atoll were removed from their home atoll in
1947 by the U.S. Government in order that their atoll could be used in
the atomic testing program. The people were promised that they would
be able to return home once the U.S. Government no longer had need
for their islands.

During the thirty years that the Enewetak people have been displaced
from their home atoll they have suffered grave privations, including
periods of near starvation, in their temporary home on Ujelang Atoll.
The people have cooperated willingly with the U.S. Government and
have made many sacrifices to permit the United States to use their home
islands for atomic testing purposes.21

These physical difficulties were exacerbated by the loss of their ancestral
homeland. The Enewetak people have unusually close ties to their home atoll of
Enewetak. After centuries of residing on Enewetak, the Enewetak people
developed a unique relationship with their land. They worked the soil and nurtured
the plants. They buried their dead on their land. They became a part of the land
and it became a part of them.

For Marshall Islanders in general, and Enewetak people in particular,
land is a part of one’s person and one’s entire identity. It is an integral
part of a person’s sense of who they are in the world and how their life
makes sense as part of a certain culture.22

Thus, the hardship suffered by the Enewetak people was in the nature of the
extraordinary physical difficulties endured, compounded by the emotional and
spiritual distress caused by separation from their ancestral land. As the Enewetak
people say, these physical and spiritual hardships made life on Ujelang almost
unbearable.

VII. INITIAL CLEANUP ATTEMPT OF ENEWETAK ATOLL

In 1972, the U.S. said that it would soon no longer require the use of
Enewetak.23 The U.S. recognized that the extensive damage and residual radiation
at Enewetak would require radiological cleanup, soil rehabilitation, housing and
basic infrastructure before the Enewetak people could resettle their home atoll. An

22. In the Matter of the People of Enewetak, supra note 10 (citing Laurence M. Carrucci & Mary
H Mafeld, Ien Entaan im Jerata: Times of Suffering and Ill Fortune: An Overview of Daily Life on
Ujelang and Enewetak since 1946).
23. See Joint Statement by High Commissioner Edward E. Johnston and Ambassador Franklin
Haydn Williams, Saipan Mariana Island (April 18, 1972), http://worfeh.doe.gov/ihp/chron/C11.PDF.
extensive cleanup, rehabilitation and resettlement effort was undertaken between 1977 and 1980.\textsuperscript{24} The GAO estimated that the cost of such effort amounted to between $100 million and $105 million.\textsuperscript{25} 

Unfortunately, the cleanup left over half of the land mass of the atoll contaminated by radiation, confining the people to the southern half of the atoll. This has prevented the Enjebi island members of the Enewetak community from resettling their home island, and has prevented the Enewetak people from making full and unrestricted use of their atoll. In addition, the cleanup and rehabilitation was not effective in rehabilitating the soil and revegetating the islands. An extensive soil rehabilitation and revegetation effort is still required to permit the growing of food crops. The cleanup also left the Enewetak people with a radioactive waste site on the island of Runit. Over 110,000 cubic yards of radioactive waste, which consist of radiation-contaminated dirt scrapped off the islands, are stored in a nuclear test-created crater on Runit Island.

VIII. ENEWETAK CLAIMS IN THE U.S. CLAIMS COURT

The Enewetak people filed a claim against the U.S. in the U.S. courts in 1982 for the following reasons: their homeland required further restoration (radiological remediation, soil rehabilitation, and revegetation); the Enjebi island members of the Enewetak community needed to be resettled on their home island; and the Enewetak people were never adequately compensated for the loss of use of their land and the hardship they endured.

In addition to the Enewetak lawsuit, thirteen other lawsuits were filed in the U.S. Claims Court by Marshall Islanders seeking compensation from the U.S. for damages as a result of the nuclear testing program. Thus, fourteen cases were filed which involved three different groups of Marshall Islanders: the people of Enewetak Atoll,\textsuperscript{26} the people of Bikini,\textsuperscript{27} and the peoples of other Northern Marshall atolls and islands directly downwind from the test sites.\textsuperscript{28}

Notwithstanding U.S. government motions to dismiss, the U.S. Claims Court held that the complaints stated valid claims under the Court’s jurisdictional law (the Tucker Act), 28 U.S.C. Section 1491(a)(1), for takings in violation of the Fifth Amendment and/or for breaches of implied-in-fact contracts.

After the Compact of Free Association went into effect, the United States filed new motions to dismiss on the grounds that the claims were non-justiciable because they involved political questions and that Article X and XII of the

\begin{footnotesize}
\begin{itemize}
\item 27. See Nitol v. U.S., 7 Cl.Ct. 405 (Cl.Ct. Feb 14, 1985) (NO. 543-81L).
\item 28. Nitol v. U.S. supra note 6, at 690 (twelve cases consolidated for pre-trial preparations under the lead case).
\end{itemize}
\end{footnotesize}
Compact Section 177 Agreement divested the Claims Court of jurisdiction over these claims. The Enewetak people opposed dismissal on several grounds, most notably on the ground that the compensation provided under the Compact was inadequate and did not constitute just compensation under the Constitution. In 1987, the Claims Court dismissed these cases holding that it lacked subject matter jurisdiction over these claims because the consent of the U.S. to be sued on those claims had been withdrawn by Congress pursuant to Article XII of the Compact Section 177 Agreement and in conjunction with the establishment of a Marshall Islands Claims Tribunal to provide just compensation.

The Claims Court recognized that the adequacy of the amount provided to claimants under the Compact was yet to be determined by the Claims Tribunal. The Court said:

Further, in none of these cases, has Congress abolished plaintiffs' claims. The Compact recognizes the United States obligations to compensate for damages from the nuclear testing program and the Section 177 Agreement establishes an alternative tribunal to provide such compensation.

The Court went on to say:

Whether the settlement provides "adequate" compensation cannot be determined at this time... This alternative procedure for compensation cannot be challenged judicially until it has run its course.

IX. APPEAL OF CLAIMS COURT DISMISSAL

Appeal of the Claims Court decisions were brought by the Enewetak people and other Marshall Islanders (the Peter and Nitol plaintiffs). The people of Bikini (the Juda plaintiffs) also appealed the Claims Court decisions, but during the pendency of the appeal, they voluntarily dismissed the Juda case as part of a $90 million settlement with the United States.

The Enewetak people appealed the dismissal on several grounds, again most notably on the ground that the compensation provided under the Compact was inadequate and did not constitute just compensation under the Constitution.

The United States Court of Appeals in People of Enewetak noted the responsibility accepted by the United States under the Compact:

Under section 177 of the Compact, the United States government accepted responsibility for the just compensation owing for loss or damage resulting from its nuclear testing program.

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29. Article XII states: "All claims described in Articles X and XI of this Agreement shall be terminated. No court of the United States shall have jurisdiction to entertain such claims, and any such claims pending in the courts of the United States shall be dismissed." Section 177, supra note 3, at art. XII.
31. Juda, supra note 6, at 688-89.
33. Id. at 135 (emphasis added).
Nonetheless, the Court of Appeals reached a similar conclusion as the Claims Court:

... [P]ursuant to Article XII of the section 177 Agreement, the consent of the United States to be sued in the Claims Court, on appellants' claims arising from the nuclear testing program conducted by the United States in the Marshall Islands, had been withdrawn in conjunction with the establishment of an alternative tribunal to provide just compensation. 34

However, the Court of Appeals indicated that the challenge to the adequacy under the Compact was premature. The Court said:

Congress intended the alternative procedure to be utilized, and we are unpersuaded that judicial intervention is appropriate at this time on the mere speculation that the alternative remedy may prove to be inadequate. 35

X. ENEWETAK CLAIMS IN THE MARSHALL ISLANDS NUCLEAR CLAIMS TRIBUNAL

After the claims of the Enewetak people were dismissed by the U.S. courts, the only forum available to hear their just compensation claims was the Nuclear Claims Tribunal. The claims of the Enewetak people before the Tribunal were for the loss of use of their land, for the costs to restore their land to a condition of full and unrestricted use, and for the hardship and suffering they endured while in exile on Ujelang. The evidence presented to the Tribunal on these three categories of damages is summarized and briefly described below:

A. Loss of Use

Enewetak Atoll is private property. The use of such private property by the United States was temporary. The people of Enewetak are entitled to compensation for the loss of use, occupancy and enjoyment of the entire atoll from the period 1947 to 1980, plus loss of use, occupancy and enjoyment of those portions of the atoll which remain unavailable from 1980 until the people once again have full use of those portions. 36 Loss of use was computed by two different appraisal firms in Honolulu, Hawaii, each of whom has substantial experience in valuations of Pacific island properties. The appraisers utilized a market comparison approach. Loss of use was computed on the basis of estimated historical annual rents plus interest. Subtracted from this loss of use was the prior compensation received by the Enewetak people under the Compact and other payments received plus the use value of Ujelang for the period 1947 to 1980. The net loss of use amounted to an award of $244 million.

34. Id. at 136 (emphasis added).
35. Id. (emphasis added).
36. It is important to note that loss of use (annual rental value) must be awarded until such time as the land has been restored to a condition of full and unrestricted use. See generally State of Ohio v. U.S. Department of Interior, 880 F.2d 432 (D.C. Cir. 1989); See also, 26 Am. JUR. 2d Eminent Domain § 283 (2007) (“The government has been found liable for the reasonable rental value of the premises, for the full amount of time needed to place the owner back in possession, including the time needed to accomplish restoration of the premises to their former condition, reasonable wear and tear excepted.”).
B. Cost to Restore

Over half the land area (approximately 1,000 acres) of Enewetak atoll remains unavailable to the people for full use because of radiation contamination. In addition, all the land of the atoll was severely damaged as a result of the weapons tests, bulldozing and scrapping activities both before and after each of the tests, the construction of support facilities (concrete building pads, asphalt runways and roads), and the scrapping and soil removal activities of partial cleanup that occurred between 1977 to 1980. Also, it must be noted that the Enewetak people consist of two groups. One group, the people of Enjebi Island, has not been able to resettle their island because it remains contaminated. The Enewetak people argued that the construction of housing and necessary infrastructure is another element of the cost to restore damages. Thus, the Enewetak people argued that cost to restore can be best described as those costs necessary to accomplish three objectives: remediation of radiologically contaminated land, soil and plant rehabilitation and restoration, and resettlement of Enjebi Island.

1. Radiological Remediation

The Nuclear Claims Tribunal of the Republic of the Marshall Islands in its ruling of December 21, 1998 adopted the U.S. EPA standard of 15 millirems per year for cleanup of radiation-contaminated land. The rationale for the adoption of the standard was that the Marshallese people are entitled to the same level of protection from radioactive contamination created by the U.S. nuclear weapons and testing program as is provided to U.S. citizens. This rationale is consistent with a guidance issued by the International Atomic Energy Agency which states:

As a basic principle, policies and criteria for radiation protection of populations outside national borders from releases of radioactive substances should be at least as stringent as those for the populations within the country of release.37

The rationale is also consistent with the declaration of the U.S. made in 1947, and contained in the memorandum described above, which states:

[I]n conducting such experimentation in Eniwetok, the United States is not thereby subjecting the local inhabitants of the Trust Territory of the Pacific to perceptibly greater danger than, say, the people of the United States.38

Although the establishment of a cleanup standard is necessary, the next question is how to effect the necessary radiological remediation. To answer that question, the Enewetak people asked the firm of Sanford Cohen & Associates, Inc. (SC&A) to research, evaluate and describe the following: (1) the current radiological conditions at Enewetak, (2) the current doses and health risks to the people of Enewetak if one were to do no cleanup using U.S. methodologies, (3)

38. Hearing, supra note 11 (citing Memorandum from Chairman of the Atomic Energy Commission to President Truman (Nov. 25, 1947)).
collective health impacts under various remedial alternatives, (4) cleanup alternatives to permit full use of the land using U.S. standards, and (5) the costs of such alternatives. SC&A provided a thorough two volume report addressing the above. In addition, Dr. John Mauro and Dr. Hans Behling, the principal authors of the SC&A report, testified before the Nuclear Claims Tribunal, addressing all aspects of the report. After analyzing thirty different cleanup options, Drs. Mauro and Behling recommended an approach “consisting of a combination of soil removal and application of potassium to soil as an integral part of a self-sustaining, agricultural rehabilitation program.” The total cost of the recommended remediation strategy is estimated at $100 million.  

2. Soil and Plant Rehabilitation

All of the land of Enewetak was severely damaged as a result of the nuclear testing program. What was once a productive atoll providing food to the Enewetak people and sufficient surplus production for export of coconut products became a land with soil devoid of any nutrients, unable to support food-bearing plants. This removal of the rich atoll topsoil was the result of the nuclear tests, the pre-test and post-test activities that involved the bulldozing and clearing of land and laying of asphalt on the land; the construction of support facilities to provide housing, infrastructure, runways, roads, buildings, etc.; and the bulldozing, clearing, scraping and soil removal activities of the 1977-80 partial cleanup. These activities devastated the ecology of Enewetak Atoll. The dark rich organic matter that takes centuries to build up to levels of two to four feet in depth was gone. Food-bearing plants could not survive in such an environment. An agriculture program was initiated after the 1977-80 cleanup; however, that program has only recently initiated an effective soil and plant rehabilitation method under the direction of an agriculturalist. The method requires the digging of ditches and the placing of layers of organic matter in the ditches along with a chicken manure and copra-cake compost. This is followed by the planting of both food-bearing plants and salt and wind-spray protecting plants. This is a very labor-intensive program. All of the land in the northern part of the atoll requires such full rehabilitation, including long-term monitoring, nurturing, and routine applications of potash, biomass and manure. The cost of such full rehabilitation is estimated at $29,000


40. See U.S. DEPT. OF ENERGY, FINAL REPORT: ENEWETAK RADIOLOGICAL SUPPORT PROJECT NVO-213 (1982) available at http://worf.eh.doe.gov/ihp/chron/C78.PDF (“A nuclear detonation can aptly be described as awesome. . . Quite apparent are the immediate effects of the intensely hot fireball which can consume a 300 foot steel tower or plate nearby objects with a thin film of plutonium and fission products; of the giant waves that can wash over everything nearby if the device is detonated under or near a water surface; of the massive cloud of radioactive particles that rise to great heights then slowly drift to earth or wash out in a subsequent rain.”).
per acre. The southern islands of the atoll require similar, although less intensive rehabilitation, because of some prior rehabilitation and because of the recent implementation of a more effective rehabilitation program on those islands. The total cost for soil and plant rehabilitation of all the islands of the atoll is estimated at $18 million.\footnote{See Teairki F. Mateariki, Initial Report, (March 1999), cited in In the Matter of the People of Enewetak, supra note 10 (describing the soil and plant rehabilitation method, both initial phase and long-term phase).}

3. Resettlement Costs

As described above, one group of the Enewetak people, the people of Enjebi Island, have not been able to return to their home island. Enjebi was ground zero for a number of tests. In addition, it underwent bulldozing, scrapping and soil removal during the 1977-80 partial cleanup activities. In order to make the island habitable again, the radiological remediation and soil and plant rehabilitation described above are required. In addition, the people require the housing, infrastructure, and other buildings necessary to permit them to live on the island while the rehabilitation is ongoing. The housing, rehabilitation-support buildings, infrastructure, and community center, are consistent with resettlement housing, buildings, and infrastructure currently underway for the communities of Bikini and Rongelap. The cost for such housing, buildings, and infrastructure for Enjebi Island is estimated at $30 million. In addition, the housing on Enewetak, Medren, and Japtan islands constructed during the 1977-80 partial cleanup requires upgrades, and the islands require infrastructure, such as power and water, to make the living conditions consistent with those currently underway for Bikini and Rongelap. The cost for such upgrades is estimated at $20 million. The above-described resettlement costs were developed by Mr. Earl Gilmore of E.P.G. Corporation, a construction consultant, who has extensive experience and expertise in construction costs in the Marshall Islands.\footnote{See E.P.G. CORPORATION, ENEWETAK ATOLL REVISED MASTER PLAN CONCEPT FOR ENJEBI ISLAND AND UPGRADE AND RESTORATION OF FACILITIES AT ENEWETAK, MEDREN, AND JAPTAN ISLANDS cited in In the Matter of the People of Enewetak, supra note 10.}

The Tribunal did not award any resettlement costs, saying that such costs should be paid from the loss of use portion of the award.

C. Consequential or Hardship Damages

As described above, the Enewetak people suffered greatly during their exile on Ujelang atoll. From the very beginning, they were told that their removal from Enewetak would be temporary and that they would be taken care of on Ujelang. For example, Captain John Vest, the U.S. military governor of the Marshall Islands in 1947, along with Vice Admiral Salada, said the following to the Enewetak people prior to their removal from Enewetak:

Vice Admiral Salada and I were asked some questions by the people at this time. They wanted to know when they could return to Enewetak. They also wanted to know what they could expect from the United States in the way of ongoing support and care during the period of their
removal. Based on what I knew of the prevailing estimates of the scientists, I told them they would be able to return to Enewetak fairly soon after the tests were completed; perhaps in three to five years. It certainly was not in my mind that it would be longer than that, or the taking of Enewetak for the testing program was permanent. At the time it was my understanding, and I believe their understanding as well as a result of our discussions, that the people of Enewetak would be able to return to Enewetak Atoll after the testing was concluded, and that the likely time frame for this return was three to five years.

As to their care, I had been assured by Admiral Salada that the steps necessary to move the Enewetak people and resettle them on Ujelang would be provided by the Navy. While we hoped that they would eventually become more or less self sufficient, the Navy agreed to provide them with such supplementary food and necessities as they required, to provide the means by which they could trade copra they produced for small luxuries and necessities purchased from the field trip’s stores, to provide the health care they might need, to see to their schooling, and the like. In other words, we agreed to make sure they fared well on Ujelang.43

Neither event occurred. The exile from Enewetak lasted for a period of thirty three years and the U.S. failed to take care of the Enewetak people on Ujelang. The feelings of the Enewetak people on Ujelang are described by Dr. Carucci as follows:

When Enewetak people were told they would have to leave their home atoll, they were also told that the move would be temporary and that the Americans would continue to watch over them. Not surprisingly, on Ujelang they came to feel that they had been totally abandoned. For a period of time, the Navy maintained a weather station on Ujelang that kept people supplied with entertainment if not much food, but with the departure of the Navy, serious hardship and suffering began to become apparent. In thinking back on this era, people recall that the earliest times of hardship began around 1950 or 1951, soon after the birth of one of my siblings by adoption, Tallenja. Up until that time, life on Ujelang was satisfactory, since the products of land and sea had not been harvested for a decade or more. Throughout the remaining years of the 1950s and throughout much of the 1960s, however, the community was mired in despair, living through frequent periods of famine and having given up all hope of being returned to Enewetak. Not until 1969, after “the strike”, did the sense of futility on Ujelang began to abate and, even then, hunger was not unknown.

There are a number of forms of evidence that show how serious the suffering was on Ujelang during these years. First, are many similar

43. See Captain John Vest Aff. 9-10 (on file with author).
versions of the stories that elders told on the atoll in the mid-1970s. While stories of suffering are virtually innumerable, those that are repeated again and again focus on a number of core incidents including famine and hunger, near starvation and death from illness, food shortage and the limitations of the environment on Ujelang (fishing/collecting), the polio epidemic, the measles epidemic, the rat infestation, the time of the strike, an easing of suffering during the 1970s but with continued homesickness and desire to return to Enewetak. In a concluding section, then, I look at the disappointments of life on Enewetak, disappointments that could not be foreseen on Ujelang.44

Unfortunately, the hardships and sufferings did not end with the return of the people to Enewetak in 1980. The severe damage to the land, the residual radiation contamination on over half the land of the Atoll, the inability to resettle Enjebi, the inability to grow adequate food crops for local consumption, the inability to use their land for productive economic purposes, the required reliance on canned imported foods, all continue to cause difficulty and hardship to the Enewetak people. As Dr. Carucci describes:

Initially people were thrilled with the long-awaited return to Enewetak, yet that return, in many ways, has involved a more serious, though perhaps more subtle, form of suffering. Since their return in 1980, Enewetak people have struggled with life on the New Enewetak, a place reminiscent of their homeland yet, in so many ways, a radically different location than the atoll on which people lived in the 1940s. On the New Enewetak, people experienced cultural deprivation and rapid de-culturation. In this new landscape, stripped bare of the materials required for daily existence, most of the day-to-day activities of Marshallese life were made irrelevant. Ironically, having been brought back to the physical skeleton of their homeland, the long-standing object of their desire, people were only able to witness firsthand, how desiccated, distant, and unrecognizable their mother place had become. As people struggled to fulfill their desires of reunification with their primordial place, the more they recognized the foreign-ness of their home. It is this contradiction of the grandest scale that has become the source of incredible frustration for Enewetak people. They cannot be at home in the very land that is their home since the contours of the land are no longer the same, its productive capacity is lacking, and, without those products, the wide array of day-to-day activities that allowed people to make local products into canoes, and sleeping mats, and foods, have lost their meaning. For nearly twenty years, people have not been able to make themselves into “real Enewetak people” since the materials required for this self-fashioning are not available to them. This is the grand contradiction of life on Enewetak. The most cohesive community in the Marshall Islands has, in one generation, been thrown

44. In the Matter of the People of Enewetak, supra note 10.
into disarray by placing them in a situation where their most heartfelt desires could not possibly be realized.\textsuperscript{45}

These past and continuing hardships deserve compensation in addition to compensation for loss of use and cost to restore. The U.S. Congress has had occasion to address compensation for the relocation of other peoples. For example, in 1988 the Congress enacted the Civil Liberties Act, Pub. L. 100-383 to compensate (1) the persons of Japanese ancestry living in the U.S. who were forcibly relocated to internment camps from March 1942 to January 1946 and (2) the Aleutian islanders who were relocated from their home islands during and after World War II.\textsuperscript{46} The range of hardships damages per year can be calculated as between $7,000 per year per person to $10,000 per year per person. The Enewetak people argued that such, and other, comparisons demonstrate that the Enewetak people should receive $10,000 per year for each of the years they lived on Ujelang.

The Tribunal awarded $4,500 per year per person resident on Ujelang for sixteen of the most difficult years and $3,000 per year per person resident for the remaining seventeen years.\textsuperscript{47}

XI. NUCLEAR CLAIMS TRIBUNAL AWARD TO THE ENEWETAK PEOPLE

The total award to the Enewetak people for damages they suffered as a result of the nuclear testing program is $386 million. This includes the original award of $325 million plus an amendment to include $16 million for soil rehabilitation and revegetation that was inadvertently omitted from the original award, and a subsequent amendment to include $45 million for interest at the rate of 7% per annum on the past loss of use portion of the award to the date of the award.

To summarize, the Tribunal awarded the following as full and just compensation:\textsuperscript{48}

1. Cost to Restore: $108 million
2. Loss of Use: $199 million
3. Hardship: $34 million
Total: $341 million

Although the $341 million award is a significant amount, it is only a fraction of the amount that was expended to create the damage at Enewetak. It is also a fraction of the amount necessary to cleanup sites in the U.S., contaminated as a result of the nuclear weapons testing program. The U.S. Department of Energy recently revised its cleanup estimates upwards of $168 billion to $212 billion.\textsuperscript{49}

\textsuperscript{45} Id.
\textsuperscript{47} In the Matter of the People of Enewetak, supra note 10.
\textsuperscript{48} These amounts have been subsequently adjusted by post-judgment proceedings. Nuclear Claims Tribunal – Enewetak Decision Summary, http://www.nuclearclaimstribunal.com/enewetak.htm (last visited Oct. 24, 2007)
\textsuperscript{49} Hearing, supra note 11.
It is also noteworthy that a few years ago the U.S. Congress appropriated over $400 million for the cleanup of Kahoolawe Island, yet that site is affected by material that is non-nuclear and non-toxic.\(^{50}\)

The citizens of the U.S. benefited greatly by having the nuclear testing conducted far from the U.S. mainland, thereby avoiding the damaging health and environmental consequences of radioactive fallout. Enewetak’s land, lagoon and reef were sacrificed for the benefit of the people of the United States. The Enewetak people bore, and continue to bear, the burden of a damaged and radiation-contaminated homeland. They also endured suffering and hardship, the consequences of which continue to affect their community to this day. The U.S. accepted responsibility for the damages it caused at Enewetak and it agreed that the Tribunal was to determine just compensation. The Tribunal has done so. However, the Tribunal has limited funding. Consequently, the Tribunal was able to pay the Enewetak people only $1.7 million which is less than one-half of one percent of the award. The Enewetak people are in the process of attempting to have their award addressed and paid by the U.S. government. If that fails, the Enewetak people will bring an action in the U.S. courts to enforce the award.

**XII. Funding of the Award**

Since the Tribunal does not have the funding to pay the award made to the Enewetak people and the subsequent award made to the Bikini people, the Republic of the Marshall Islands included the payment of the Enewetak and Bikini awards as part of a Changed Circumstances Petition presented to the U.S. Congress pursuant to Article IX of the Compact Section 177 Agreement.\(^{51}\) Article IX allows the Republic of the Marshall Islands to petition Congress for additional compensation if damage resulting from the U.S. nuclear tests is discovered after the Compact became effective and "could not reasonably have been identified as of the effective date of this Agreement, and if such injuries render the provisions of this Agreement manifestly inadequate."\(^{52}\) While the Marshall Islands has the right to petition under Article IX, Congress is under no obligation to authorize and appropriate such funds.

This political process is underway: hearings on the nuclear legacy occurred before Congress in May and July of 2005. Although the petition process is a possible vehicle to fund the awards, the property damage claims are also

\(^{50}\) Id.


\(^{52}\) Section 177, supra note 3, at IX.

If loss or damage to property and person of the citizens of the Marshall Islands, resulting from the Nuclear Testing Program, arises or is discovered after the effective date of this Agreement, and such injuries were not and could not reasonably have been identified as of the effective date of this Agreement, and if such injuries render the provisions of this Agreement manifestly inadequate, the Government of the Marshall Islands may request that the Government of the United States provide for such injuries by submitting such a request to the Congress of the United States for its consideration. It is understood that this Article does not commit the Congress of the United States to authorize and appropriate funds. Id.
independent of the petition process because they involve property rights protected
by the takings clause of the Fifth Amendment to the U.S. Constitution. Nonetheless we are proceeding at the moment with the political process for a
variety of reasons. However, the political process may be too slow or prove
unsuccessful in addressing the payment of the awards, causing the filing of actions
in the U.S. courts to enforce the awards.