



Script for the Power Point Presentation "Hibakusha Worldwide"

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How to use this script:

- The black text contains the main messages of the presentation, **in blue you will find optional information**, which can be used if time permits and depending on the audience you are speaking to
 - In Japanese, the vowel 'u' is usually not pronounced. The word "Hibakusha" is therefore pronounced 'hee-bah-kshah', with the emphasis on the underlined syllable 'bah'
 - This script is merely meant as a suggestion for someone who wants to introduce people to the Hibakusha Worldwide exhibition. It can be shortened according to circumstances, audience and time constraints.
 - It is advisable not to read out the text in the script, but to use bullet-points or cue-cards
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Slide 1:

- [Short introduction, according to the event and the setting of the exhibition „Hibakusha Worldwide“, introduction of speaker]
 - This presentation by the International Physicians for the Prevention of Nuclear War (IPPNW) deals with the effects of the so-called "Nuclear Chain"
 - In order to understand what is meant by this term, "Nuclear Chain", we need to take a look at the very beginning of the nuclear era.
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Slide 2:

- In the years 1942 to 1945, scientists in the US developed a total of three nuclear bombs in the so-called Manhattan Project
 - The first of this entirely new type of weapon was detonated in the "Trinity Test" in the desert near Alamogordo, New Mexico on July 16th, 1945 at 5:29 a.m.
 - **With an explosive power of 20,000 tons of TNT equivalent, the nuclear device, called "The Gadget", created a mushroom cloud that rose more than 7.5 miles into the sky and covered more than 3,000 square miles with radioactive fallout.**
 - **Upon seeing the nuclear explosion, the physicist and father of the nuclear bomb, J.R. Oppenheimer spoke the prophetic words "Now, I am become Death, the destroyer of worlds."**
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Slide 3:

- The second nuclear bomb with an explosive power of about 15,000 tons of TNT equivalent was given the cynical code-name „Little Boy“ and was detonated three weeks later, on August 6th, 1945, over the Japanese city of Hiroshima. 45,000 people died that day, about 100,000 more until the end of the year.
 - Three days later, the third bomb, “Fat Man” was dropped over the Japanese harbor town of Nagasaki and killed more than 20,000 people within hours. About 50,000 more died in the following months from burns, injuries and radiation disease.
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Slide 4:

- World War II was followed by a confrontation between the US and the USSR that later became known as the Cold War. Intent on catching up with the US, the Soviet Union invested massive resources into its own nuclear program and within a matter of years, it had acquired the technology to construct a nuclear weapon.
 - On August 29th 1949, it detonated its first nuclear bomb, code-named “Pervaya Molniya” (First Lightning) in the Kazakh desert near the city of Semipalatinsk
 - This detonation started of a series of more than 400 nuclear tests at the so-called “Polygon“ test range
 - Around the world, more than 2,000 nuclear bombs were detonated over the next decades, exposing millions of people to radioactive fallout
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Slide 5:

- It soon became clear that the creation and development of military nuclear programs required nuclear reactors, where uranium could be processed to plutonium.
 - The fact that this process released a lot of energy led to the perfidious idea of „Atoms for Peace“, which President Eisenhower declared at the United Nations General Assembly on December 8th, 1953: the energy produced during the creation of weapons-grade plutonium could cover the energy needs of the world and create electricity at practically no cost. [The technology that had brought so much pain and suffering to the people of Hiroshima and Nagasaki and had the potential to destroy the planet, was now supposed to contribute to peace.](#)
 - What the audience at the United Nations was not told, however, was the fact that a civil nuclear industry, and with it an infrastructure for uranium mining, transport and refinement of fissile materials would primarily serve military purposes. The creation of a nuclear industry was from the very beginning only made possible by massive financial support from governments and the military. Meanwhile, it was clear that the vast amounts of radioactive waste created by this industry would be a burden for many generations to come, with no acceptable method of storing or securing them anywhere in sight.
 - In the following years, states created an infrastructure that served both the civil and military nuclear industries – in most countries, both of these were even administered by the same government agencies. This is where we come to the so-called „Nuclear Chain“
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Slide 6:

- Allow me to make a brief excursion in order to explain the structure of the nuclear chain. The origin of the entire nuclear industry is always uranium. This radioactive metal can be found in many countries around the globe. In its natural form, bound and isolated, deep underground, it usually does not pose any harm to humans or the environment.
 - Naturally occurring uranium ore consists mainly of the isotope ^{238}U (Uranium-238), which has a very slow rate of decay and is not fissile. About 99.3% of the ore is made up of this relatively harmless isotope, while the other 0.7% consist of the fissile ^{235}U (Uranium-235), which is capable of sustaining a chain reaction. This is the isotope needed for the production of nuclear fuel rods or warheads.
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Slide 7:

- The problem starts when humans begin to drill mine shafts into the ground, extract uranium ore, bring it to the surface, treat it with chemicals and transport it across the globe.
 - A side-effect of the production of refined uranium oxide („yellow cake“) is the creation of massive amounts of radioactive waste rock and tailings. Depending on the quality and concentration of the uranium ore, the production of 1 ton of yellow cake leads to about 1,000 to 5,000 tons of nuclear waste, containing about 85% of the ore's original radioactivity in the form of radon, thorium or radium. Most of this radioactive waste is dumped into nearby rivers or lakes or stored on giant tailing heaps near the mines and uranium mills. [arrow down to radioactive waste]
 - The chemically refined uranium oxide is transported in the form of „yellow cake“ to the so-called conversion plants – usually by truck, train or ship. After further processing, it is transported to uranium enrichment plants, where the concentration of fissile ^{235}U is increased in order to produce the raw material for nuclear fuel rods or warheads. [arrow to the right to the nuclear factory]
 - In the enrichment process, the leftover ^{238}U , also called depleted uranium, was essentially a waste product until thrifty military scientists found ways to use it for anti-tank ammunition. Later, we will return to this topic of depleted uranium.
 - Countless accidents took place in these nuclear enrichment plants, causing widespread radioactive contamination. The names of the worst of these nuclear disasters have become symbols of human hubris: Mayak in the Soviet Union, Hanford in the US, La Hague in France, Windscale in the UK, Tokai Mura in Japan.
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Slide 8:

- From the nuclear factories, enriched uranium is then put into fuel rods for nuclear factories or into warheads for nuclear missiles.
- For the use in nuclear power plants, the concentration of ^{235}U has to be increased from 0.7% to about 3-5%. Nuclear warheads need a concentration of at about 85%.
- In most countries, a strict differentiation between civil and military nuclear industry is not possible. The foundation for the military nuclear programs of countries like the UK, France, China or North Korea was always a civil nuclear program.
- Large parts of the infrastructure of a civil nuclear industry are identical to those of a military nuclear program. A civil nuclear program greatly decreases the logistical and technical hurdles for military use of nuclear fission. Every country with a civil nuclear program has the capacity to extend it to a military one.

Slide 9:

- Both parts of the nuclear industry contribute significantly to the radioactive contamination of our planet.
 - The test-detonation of more than 2,000 nuclear weapons caused nuclear fallout in most parts of the world and introduced large amounts of radioactive isotopes into the atmosphere. [top arrow]
 - Across the globe, increased rates of radioactive iodine or cesium were detected as a result of nuclear testing. When radioactive strontium was found in deciduous teeth of children in the 1960s, atmospheric testing was finally discontinued.
 - Today, more than 16,000 nuclear weapons still exist around the world. About 4,000 of these are currently deployed on delivery systems, around half of them in „hair-trigger alert“, ready to be launched on the press of a button. For decades, the world has lived with the immanent danger of being annihilated at any given moment.
 - Civil nuclear power, on the other hand, produces tens of thousands of tons of nuclear waste every year. More than 70 years after the beginning of the nuclear era, there is still not a single viable concept of how to deal with these enormous amounts of radioactive waste. [lower arrow]
 - In many cases, nuclear waste was simply dumped into abandoned mine shafts, lakes, rivers or the sea, causing massive environmental disasters. Additionally. It poses a potential target for terrorists, which could use highly radioactive waste for the production of so-called “dirty nuclear bombs”. The costs and risks of the nuclear industry's radioactive legacy will be a burden for many generations to come.
 - Finally, we also have to consider the chance of accidents in nuclear power plants or of nuclear weapons, both of which also contribute to the radioactive contamination of our planet.
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Slide 10:

- Parts of the nuclear waste are transported to so-called reprocessing plants, where highly dangerous isotopes such as plutonium are separated from isotopes that can still be used for energy production
 - So much for the theory – economically, the reprocessing of nuclear waste proved to be a failure and only created additional costs and significant risks.
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Slide 11:

- The plutonium, extracted from old nuclear fuel rods, could theoretically be used for military purposes after chemical treatment and therefore poses an enormous proliferation risk.
 - 50 tons of pulverized plutonium are stored in the French reprocessing facility at La Hague alone – enough material for more than 5,000 nuclear warheads.
 - The nuclear industry likes to speak of a “nuclear fuel cycle” and tries to suggest that fissile material could be “recycled” like glass or paper.
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Slide 12:

- The reality however, is a “nuclear chain”, or even more fittingly, a “nuclear dead end”: starting from uranium mining, the path always leads to the same result: radioactive tailings [arrow from uranium mine], nuclear waste [arrow from nuclear plant] and nuclear fallout [arrow from nuclear weapon].
 - The only real use that the nuclear industry has found for its radioactive waste is, once more, a military one.
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Slide 13:

- Depleted ^{238}U has a very high density. Fitting ammunition with this material enables it to pierce armored tanks or bunkers. Also, the isotope has the ability to ignite upon impact, causing tanks to burn up from the inside, killing the soldier inside, even if the tank is still operational.
 - At the same time, the fire spread radioactive uranium dust that covers the battlefield and remains a health hazard long after the cessation of fighting.
 - In both recent Iraq Wars, as well as in the air-raids on former Yugoslavia during the Kosovo War, depleted uranium ammunition was widely used. This led to widespread radioactive contamination and subsequently increased rates of radiation-induced diseases such as cancer or fetal malformation.
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Slide 14:

- As physicians, we see it as our responsibility to speak out about the inherent connections between the civil and military nuclear industry and talk about its dangers to health and the environment
 - Every person on the planet has the universal human right “to a standard of living adequate for the health and well-being of himself and of his family” - a right infringed upon by the nuclear industry and its effects of health and the environment.
 - In a global research project, we have picked out 50 representative places around the world, where the nuclear industry has caused detrimental harm to human beings and the environment. We then gathered the most current scientific literature on each of these case reports and put them together in a comprehensible exhibition
 - [This exhibition does not claim to be comprehensive. Besides these 50 places, there are many more, which would just as well deserve to be included in this selection.](#)
 - I would now like to introduce some of these places to you, starting with the very beginning of the nuclear chain: uranium mining.
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Slide 15:

- The uranium used for the US nuclear weapons program in the 1950s was mined primarily in the north of the Canadian province Saskatchewan. [Most of the radioactive fallout caused by US nuclear testing in the Pacific or in Nevada originally came from Canadian uranium.](#)
- Thousands of miners were exposed to increased radiation doses and developed cancer. The indigenous tribes of the Cree people were heavily affected by radioactive waste and tailings, which polluted their hunting and fishing grounds. The enormous amounts of radioactive waste pose a relevant security and health threat for future generations. On this picture, you can see radioactive tailings of the Beaverlodge uranium mine being dumped into Fookes Lakes.

Slide 16:

- At about the same time, the uranium needed for the Soviet nuclear arsenal was extracted in the mines of the Wismut company in East Germany. [Back then, the German Democratic Republic was the world's third largest producer of uranium.](#)
 - When reunification brought about the end of uranium mining, close to 200 million tons of radioactive tailings and waste rock remained in the region. Despite sophisticated and expensive renaturation projects, they still pose a large threat to the environment and the local population. Like in Canada, thousands of miners and other Wismut employees died of cancer due to inadequate or missing protection from radiation.
 - [Today, the successor company of the Wismut is financed by the stated and is trying to reduce the effects of 50 years of uranium mining on the environment. Measures such as the flooding of mine shafts, water processing, the extraction of radioactive waste and tailings from rivers and soils and the recultivation of the landscape have already cost German tax-payers more than 7 billion Euro and will most likely have to be continued for centuries to come.](#)
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Slide 17:

- Other uranium mines have had to close down due to ecological disasters.
 - The Ranger uranium mine is situated in the middle of the World Heritage Kakadu National Park in Northern Australia. Every year, the mine produced more than 1.5 million tons of radioactive waste.
 - [In order to protect this waste from the weather, it should be covered by about 6 feet of water. During dry season, this is not always the case and radioactive dust is blown from the dried-up tailing ponds into the surrounding environment. During the rainy season, frequent floods and burst dams cause leaks of contaminated water into the ecosystem of the park.](#)
 - Hundreds of leaks and accidents in the past decades have led to the radioactive contamination of parts of the park's famous marshlands. The region's indigenous population of Mirarr Aborigines have already reported increased cancer rates amongst their members. People like the Mirarr elder Yvonne Margarula, depicted here on this photo, have been fighting uranium mining on their traditional lands for many years,
 - On December 7th 2013, yet another leak occurred at Ranger Mine, releasing about one million liters of radioactive waste into the park. This time, the mine was closed as a result.
 - In any case, uranium mining in countries like Australia is slowly fading out as environmental laws and health and safety regulations are becoming stricter and uranium mining less profitable.
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Slide 18:

- International mining companies are therefore looking towards developing countries, such as Niger, for cheap ways to mine uranium. In the twin mining towns of Arlit and Akokan, the French nuclear firm AREVA is mining uranium for the European nuclear industry.
 - Miners digging for uranium in t-shirts and shorts, without masks, gloves or dosimeters, children playing on tailing heaps, houses built from radioactive waste rock and fields, flooded with contaminated mine water - this is the sad reality of Arlit and Akokan; and countless other uranium mining regions in developing countries.
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Slide 19:

- The next link of the nuclear chain are the conversion and enrichment plant. One of the most infamous is without a doubt the Russian nuclear facility of Mayak.
 - Over the past decades, tens of thousands of workers and hundreds of thousands of local residents have been exposed to increased levels of radiation. Many have developed cancer and have died as a result. The Techa River, depicted on this photo, became a nuclear waste dump.
 - Several hundred smaller and at least larger nuclear disasters were registered at Mayak. The most infamous occurred on September 29th 1957, when an explosion caused the radioactive contamination of more than 5,000 square miles of the Eastern Urals.
 - This event, popularly named after the nearby city of Kyshtym, was registered as the third largest nuclear accident in history, right after the nuclear catastrophes of Chernobyl and Fukushima.
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Slide 20:

- But the problem of accidents at nuclear facilities was by no means restricted to the former Soviet Union. The US also has its own nuclear catastrophe: the Hanford nuclear production complex, more than 500 square miles in size, is considered the most radioactively contaminated place in the western hemisphere. It was here that the plutonium was created that fueled the Nagasaki bomb - and thousands of other nuclear warheads in the decades that followed.
 - Massive amounts of radioactive materials were released into the environment - either through leaks and accidents or deliberately in an attempt to study distribution patterns. Since the 1940s, local residents have been exposed to radioactive iodine and untreated nuclear waste.
 - It will never be clear, how many cancer cases, miscarriages, malformations and casualties were caused by radioactive contamination from Hanford, as proper epidemiological studies were never conducted.
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Slide 21:

- Much better known than these chronic nuclear catastrophes is the meltdown of Chernobyl. The explosion at the nuclear power plant in Northern Ukraine on April 26th 1986 led to the release of vast amounts of radioactive isotopes, which covered large parts of Europe as nuclear fallout.
 - More than 800,000 people were forced to serve as liquidators at the wrecked plant, most of them young red army recruits from all parts of the Soviet Union. Today, these liquidators are suffering from the high levels of radiation that they were exposed to, many without any form of protection or warning.
 - While the nuclear lobby has the urgent desire to close the file on Chernobyl as soon as possible, the people in the regions of Belarus and Ukraine that were most heavily affected by nuclear fallout are still suffering from increased rates of cancer and other diseases.
 - But the problem is not confined to these regions alone: an article in the International Journal of Cancer expects that the Chernobyl catastrophe will ultimately be responsible for more than 40,000 additional cases of cancer and more than 15,000 cancer deaths in all of Europe. And even these numbers are most probably underestimations.
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Slide 22:

- Obviously, mankind has not learned the lessons of Chernobyl. 25 years later, another nuclear meltdown occurred - this time in Japan. An earthquake with a magnitude of 9.0 on the Richter scale devastated the prefecture of Fukushima and disabled the cooling mechanisms in the nuclear power plant Fukushima Dai-ichi.
- As a consequence, it came to nuclear meltdowns in three separate reactors, a large fire in the cooling pond of the fourth reactor and the release of large amounts of radioactive isotopes.
- Thanks to favorable weather conditions, the Tokyo Metropolitan Area was spared the worst-case scenario - around 80% of all radioactivity was blown out to sea. Still, large parts of the Japanese mainland were affected by radioactive fallout. Around 200,000 people have had to leave their home, many probably forever.
- Radioactive contamination will lead to an increased cancer risk in the affected population in the coming decades - especially in children.
- The Japanese authorities are trying their best to play down the dangers and assure the population that no health effects are to be expected. So-called radiation experts even advise people in Fukushima to face radiation with a smile and cite animal trials, which showed that happy specimens had lower cancer rates than sad ones.
- For the people in the affected regions, such attempts to whitewash the nuclear catastrophe are only adding insult to injury. The only thing many of them want is for their universal right to health and a healthy environment to be respected.
- Already now, the numbers of thyroid cancer in children is increasing in Fukushima. More than 100 children have already been diagnosed, more than 80 have had to be operated on. The next years will show, how far-reaching the health effects for the population will be.
- Even when taking the optimistic numbers of the nuclear lobby as a basis for calculations, several tens of thousands additional cancer cases can be expected in the Japanese population in the coming decades. Because epidemiological studies are not being conducted, however, the true extent of the nuclear catastrophe will likely remain unknown, however.

Slide 23:

- However devastating these cases of civil nuclear disasters may be, the contribution of nuclear weapons to global radioactive contamination far exceeds all of them. Around the world, more than 2,000 nuclear weapons were detonated – with catastrophic consequences for health and the environment.
 - Less than a year after the nuclear annihilation of Hiroshima and Nagasaki, the US began a series of more than 60 nuclear test explosions on the idyllic Marshall Islands in the Pacific.
 - The most devastating of these tests was "Castle Bravo" in 1954. With an explosive force of 15 Megatons of TNT equivalent, this hydrogen bomb was the largest nuclear weapon the US ever detonated – 1,000 times more powerful than the bomb dropped on Hiroshima. Its radioactive fallout traveled across half the globe – across the Americas, to Europe and Australia.
 - The Bikini Atoll became uninhabitable for generations to come. The local population had to be forcefully evacuated from the island and lost its entire livelihood. Many people contracted cancer and died as a result of the fallout – most of them without any for of acknowledgment or compensation.
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Slide 24:

- At about the same time, the United Kingdom began to test its nuclear arsenal in the deserts of Southern Australia, like here, in Maralinga.
 - British soldiers, local residents and especially the nomadic Aborigine tribes were massively affected by radioactive fallout and suffer from increased morbidity and mortality until today.
 - Epidemiological studies were never undertaken and the authorities are still unwilling to take responsibility for the severe health effects of the nuclear weapons tests on British veterans and the Australian population - especially the most affected aborigines.
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Slide 25:

- Meanwhile, the Soviet Union declared the arctic islands of Novaya Zemlya a nuclear weapons test zone and detonated more than 130 nuclear bombs there between 1955 and 1990.
 - The detonation of the "Tsar Bomba" in 1961 was the most destructive explosion ever recorded – with an unbelievable 50 Megatons of TNT equivalent, almost 4,000 times more powerful than the Hiroshima bomb. Its detonation caused nuclear fallout over the entire northern hemisphere, especially in the Soviet Union and the Scandinavian countries.
 - Several indigenous peoples in the region were affected by radioactive contamination of their tribal lands. Until today, the region around Novaya Zemlya is one of the most heavily radioactively contaminated places in the world.
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Slide 26:

- France began testing its nuclear weapons in its Algerian colony in 1960. 13 nuclear detonations were undertaken in the Hoggar mountain range near In Ekker.
 - The most infamous French nuclear test, code-named “Béryl”, took place in May of 1962. Containment measures failed and a radioactive cloud spread more than 1.5 miles into the atmosphere while contaminated molten rocks were hurled from the tunnel.
 - A mass panic ensued amongst the more than 2,000 spectators of the test. Many of them contracted cancer later on - including the French Minister for Atomic Energy, Gaston Palewski, who died of leukemia in 1984.
 - Increased levels of radioactivity were measured several hundred miles away from the blast site.
 - The French army also undertook test explosions with dirty plutonium bombs in an attempt to determine fallout patterns and ranges. The local population bears the brunt of these tests until today, as it suffers from increased cancer rates, cataracts and infertility.
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Slide 27:

- China was a late-comer in the nuclear arms race. In 1964, the People's Republic tested its first nuclear weapon in the Lop Nor desert in Northwestern China. In the following 12 years, more than 40 test explosions took place here.
 - The ostracized Uighur minority living in this region was heavily affected by radioactive fallout. Today, the local population still suffers from increased rates of cancer, degenerative diseases and fetal malformations.
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Slide 28:

- And it was not only deliberate test explosions, which caused radioactive contamination. More often than people think, accidents involving nuclear weapons took place, such as the crash of a nuclear armed plane near the US air base in Thule, Greenland.
 - In the 1960s, the US operation “Chrome Dome” had up to twelve nuclear armed bomber planes permanently in the sky in order to be able to counter a possible Soviet first strike.
 - On January 21st 1968, a fire broke out in one of the US B-52 bombers, crossing Greenland, causing it to crash near the Thule airbase. Luckily, it did not come to a nuclear chain reaction, but more than 2.5 square miles of land and the adjacent bay were contaminated with radioactive plutonium, uranium, americium and tritium
 - Clean-up workers and scientists from Denmark and the US, as well as the local Inughuit population were affected by increased levels of radiation and the radioactive contamination of the nearby ocean – the main source of food of the indigenous population.
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Slide 29:

- Nuclear accidents also took place in the Soviet army. On August 10th 1985, the reactor of a Soviet nuclear submarine exploded during maintenance work in Chazhma Bay near Vladivostok.
 - The fire burned for many hours, releasing radioactive isotopes such as iodine-131, cobalt-60 and manganese-54, which contaminated the entire bay and the nearby Dunai peninsula.
 - Several thousand people took part in the clean-up operations. Hundreds of them were exposed to increased levels of radiation, many developed cancer and other diseases as a result.
 - Until today, the towns around the bay are contaminated and their more than 30,000 inhabitants exposed to increased levels of radiation.
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Slide 30:

- As a rather new development in the field of radioactive weapons, some nuclear states have started to use depleted uranium, usually a waste product of the enrichment process, in order to produce armor-piercing ammunition. Introducing radioactivity into conventional warfare, depleted uranium weapons have been used on the battlefield and in carpet bombings of cities since the 1990s.
 - Here, in the Iraqi city of Fallujah, allied forces used large amounts of depleted uranium in its fight against Saddam Hussein's tanks. After the cessation of fighting, many of the burned out tanks were left standing near the city on giant tank graveyards.
 - While the British Ministry of Defense advises its soldiers to wear respirator masks when entering areas where DU might have been used, no such warnings were given to the Iraqi public. Scrap-metal dealers and children, who use the tank graveyards as playground, spread the radioactive material even further.
 - Doctors in Fallujah soon registered rising rates of mutations and cancer, especially childhood leukemia. Malformation rates in newborn children showed a positive correlation to the concentration of radioactivity measured in hair samples of the mothers, establishing the causal link between radiation exposure and morbidity.
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Slide 31:

- As you can see from these examples, the topic of health effects of the nuclear chain is not an easy one to approach – even for us doctors. So we thought about ways in which we could best present these findings.
- In Japan, the survivors of the nuclear bombs are called „Hibakusha“ [pronounced hee-bah-kshah]. Originally, this word means something like “explosion-affected people”, but over time, the term became closely associated with the survivors of Hiroshima and Nagasaki.
- Many Hibakusha have been vigorously working for a world free of a nuclear threat. They do not want to see future generations having to endure the same experiences as they did.
- Many Hibakusha have been courageously telling their stories, telling younger generations about what happened in Hiroshima and Nagasaki [left picture]. Many have also joined the movement to ban and abolish nuclear weapons and have been trying to increase pressure on the nuclear weapons states to finally get rid of these weapons of mass destruction [right picture].

Slide 32:

- Over the years, the term “Hibakusha” has been somewhat globalized. People in Kazakhstan [left picture], on the Marshall Islands [center picture] and around the Arctic Sea [right picture] have also been affected by radioactive fallout from nuclear weapons and the contamination of their homes.
 - They, too, call themselves “Hibakusha” now. They, too, want to tell their stories, and prevent future generations from having to endure their fate.
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Slide 33:

- And, as you were able to see in this presentation, there are also other groups, which have had to suffer under the nuclear industry: the inhabitants of uranium mining regions, such as the Australian aborigines [left picture], the people of Jadugoda, India [center picture] or Native American tribes in Canada and the US [right picture].
 - All of them are suffering from nuclear weapons, as well. Their homes were radioactively contaminated and their health compromised – all for the insanity of the nuclear arms race and the profit of the nuclear industry.
 - They, too, are Hibakusha. Their stories must be heard as well.
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Slide 34:

- As physicians, we see it as our responsibility, to address topics of public health and to give a voice to the people, suffering from radioactive contamination and radiation-induced diseases.
 - For this reason, IPPNW has put together this exhibition and has called it “Hibakusha Worldwide”.
 - The exhibition is dedicated to the millions of people whose lives have been affected by the nuclear industry: indigenous people whose homes were turned into nuclear wastelands by uranium mining, the Downwinders of more than 2,000 nuclear weapons tests, the survivors of the bombing of Hiroshima and Nagasaki, and the people affected by radioactive fallout from civil and military nuclear accidents. All of them would have had better lives, if the uranium had been left in the ground.
 - The exhibition can be ordered from our Central Office and is also available online.
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Slide 35:

- We hope that you were able to get a good idea of what we mean when we talk about the nuclear chain.
- We now invite you to take a look at the exhibition yourself and find out more about the effect of the nuclear chain on human health and the environment.
- Thank you for your attention and please feel free to raise any questions you may have.