## Takemoto Masahiro Environmentalist

I am a professional diver, but now I am working as an environmental activist. Today, I would like to give a report while showing some underwater photos I have taken over the years.

I have spent the last 40 years as a professional diver. During the first 20 years, as you can see from these photos, wherever I dived on this planet, I was able to see wonderful oceans rich in biodiversity. However, in the past 20 years, especially since around 2000, we began to witness corals becoming white as you can see here.

This phenomenon is called "coral bleaching". These pictures show the famous Great Barrier Reef in Australia, where this phenomenon has turned the coral reefs into rubble. Researchers say over 60% of coral reefs there have already been reduced to rubble. The next photo shows the sea off the coast of the main island of Okinawa 20 years ago. But now, it is reported that more than 90% of the corals near the main island have become like this.

The root cause of this is climate change. Global warming causes seawater temperatures to rise, making it impossible for corals to survive across the globe. Corals are under threat and it is said that they could go extinct everywhere on earth.

Worried not only about underwater areas but also about the middle of the Pacific Ocean, 5 years ago I started the "Pacific Ocean Voyage Project".

In this project, I have sailed on my own yacht to islands in the Pacific. During the last 5 years I have conducted the voyage every year, spending a total of 270 days at sea. First I found that the sea temperature has become very high. At a point off the coast of Hachijo-jima in May, I recorded a temperature of 32 degrees Celsius. Such a high temperature shows that the "climate crisis" has reached a literally critical situation. Many of the islands in the Pacific are made of coral reefs. Without any hilly or elevated parts, these islands are most vulnerable to the direct impacts of climate change.

Pacific islanders say, "The trade winds have got fiercer and even their direction has changed." Palm trees are withering away and seriously threatening their food security. With the rising sea level, these islands are doomed to be submerged if no measures are taken. This man's house is washed away every time a storm surge hits.

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The situation of the Japanese seas is also alarming. This photo was taken underwater near Shakotan Peninsula, which used to be famous as a forest of kelp. But now, it is completely deserted with not a single kelp growing. Such a situation is called "Isoyake (rocky-shore denudation)". It has spread all over Japan.

This photo shows the sea near Enoshima, where I live. Ten years ago, seaweed grew very thick like this. But when I dived in March this year, the situation had completely changed, looking like this. It is expected that all seaweed may disappear from the seas surrounding Japan. This photo, taken near Izu Peninsula in February, shows tropical fish living naturally in the midst of winter. We are concerned that in the near future, the acidification of seas may get worse and cause desertification as this photo shows.

With the growing emissions of CO2, a greenhouse gas, the earth is heading toward a critical situation. Ice in polar regions is melting unchecked. I am afraid that planet earth will reach a "critical stage" before 2030.

We must take these environmental issues as one and the same problem as the task of eliminating nuclear weapons and achieving peace. Military actions destroy our environment most severely. It occurs not only on the battlefields, but begins mercilessly with the construction of bases preparing for such actions. This photo shows the construction of a base at Henoko. The whitening of corals in this area started due to the impact of the construction work, even before the input of soil into the sea. Now they have already turned completely into ruins.

An enormous amount of CO2 is emitted from jet fighters even from the training stage. And military exercises are joined not only by humans. U.S. military forces train dolphins as live weapons. At the time of the Gulf War, hundreds of dolphins were trained in this way.

And after the war is over, massive amounts of waste are left abandoned in the sea like this. This photo shows an underwater spot near Guam Island which was turned into a dumping site for all kinds of weapons, from tanks to fighter planes.

This is Runit Dome on Eniwetok Atoll of the Marshall Islands, a famous storage site of radioactive wastes from U.S. nuclear tests. In this poor storage facility various wastes from A and H bomb tests are buried. With the rising sea level, the site is doomed to go under water. Even today, it is feared that radioactive material, which will last at least 25,000 years, is leaking into the sea from the underground soil of the island.

Above all, we must face the fact that nuclear weapons could destroy humans and the earth altogether in an instant.

Currently, we are witnessing a growing movement of people across the world trying to reverse the climate crisis. The struggles that the humans are facing today to stop the climate crisis and to abolish nuclear weapons must now be carried out in solidarity with the people working to achieve peace and defend the earth's environment.

I continue to go out and speak on these issues at lecture meetings or events wherever I am invited. For the last 3 years I have spoken on more than 120 occasions. I always emphasize the necessity of joint struggles between peace workers and environment activists. Though the situation is critical, we can find hope when we work together in solidarity. Hope is the seed for actions. I firmly believe that we can save this beautiful planet earth for future generations if we keep on raising our voices and taking action.