

Position Paper Seeking Suspension of the Henoko New Base Construction Project

I. Our Intent

We call on the Japanese government to immediately suspend the public water body reclamation project for the construction of a facility to replace Marine Corps Air Station Futenma (below, “Henoko new base construction project”), which involves the reclamation of waters including those at and adjacent to the Cape Henoko area at Henoko, Nago City, Okinawa Prefecture.

II. Grounds

1. The Importance of Conserving Biological Diversity

All organisms on the Earth are distinctive in their own ways. They are connected and support one another directly or indirectly as in the food web or the symbiosis between plants and the insects which transport pollen. Biodiversity means this abundant distinctiveness of organisms and the connections among them. Biodiversity confers a variety of benefits upon us, and therefore its conservation is essential to our survival. Japan in particular is surrounded by the ocean and has benefited from its coastal zones. As such, maintaining the biodiversity of our coastal zones is an important matter for human rights in Japan.

On October 22, 2010 the Kyushu Federation of Bar Associations (KFBA) adopted the “Declaration Seeking the Preparation of an Effective Regional Biodiversity Strategy for the Yambaru Region and All Other Areas,” thereby affirming that biodiversity conservation is indispensable for human survival, and requesting the preparation of an effective regional biodiversity strategy.

2. The Value of the Marine Area at Cape Henoko and Oura Bay

The marine area at Cape Henoko and Oura Bay is located in an expanse of water facing the Pacific Ocean, on the east coast by Nago City, on Okinawa Island. This area has highly unusual geographical characteristics that comprise the Cape Henoko area and its coral reef, as well as Oura Bay, which ranges from open-sea to closed-bay environments. These form an integrated whole which features the largest seagrass meadow of Okinawa Island. In response to an interview survey conducted by KFBA in 2020 and directed at Okinawa Prefecture officials, the Okinawa Defense Bureau replied that, depending on the observation point, a 2019 study found between 13 and 125 seagrass species in the summer, and between 16 and 117 species in the winter. Seagrasses are not only important as food for dugongs and other animals, they also play an important role as habitat for fish, crustaceans, and other marine life.

The Environment Ministry’s Red List 2020 classifies the dugong as IA (critically endangered, meaning there is an extremely high risk of extinction in the wild in the near future). A survey by the Okinawa Defense Bureau confirmed the existence of at least three dugongs around Okinawa Island, and feeding trails have also been found. For these and other reasons, Oura Bay is thought to be highly important for the dugongs’ habitation.

This marine area also hosts a large variety of corals. There is a large community of *Porites*

cylindrica, and a marine area called Chiribishi has one of the world's largest *Heliopora coerulea* communities, measuring 50 meters long, 30 meters wide, and 12 meters high. These are examples of the few places around Okinawa Island where good coral reefs are still preserved. In response to the aforementioned KFBA interview survey, the Okinawa Defense Bureau said that, depending on the observation point, between 71 and 124 coral species were confirmed in summer, and between 65 and 128 in winter in the Cape Henoko/Oura Bay area, which is very high in biodiversity because many kinds of organisms gather around coral reefs.

As shown above, the Cape Henoko/Oura Bay marine area is habitat for a large variety of species including seagrasses, corals, and dugongs, thereby making it highly rich in biodiversity. In view of this abundant biodiversity, on November 21, 2013 the Japan Federation of Bar Associations (JFBA) submitted a document titled "Opinion on the Reclamation of Public Water Bodies for the Project to Build a Replacement Facility for Marine Corps Air Station Futenma," which asked the government and Okinawa Prefecture to implement conservation measures for the marine area in the vicinity of Cape Henoko and for Oura Bay, such as designating those waters a national park in accordance with the Natural Parks Law, and made other requests such as carrying out the procedures to register the marine area as a wetland under the Ramsar Convention.

3. Reclamation of the Cape Henoko/Oura Bay Marine Area

(1) Environmental Conservation Measures Were Requested When Approval Was Granted for Construction of the New Base at Henoko

The Henoko new base construction project is a public body reclamation project which is to reclaim waters at and adjoining the Cape Henoko area at Henoko, Nago City, in Okinawa Prefecture, as the replacement site for Futenma Air Station (Figure 1 (the map in the JFBA opinion referred to above) shows the location and extent of the reclamation site).

On March 22, 2013 the Okinawa Defense Bureau applied to the Okinawa Prefecture governor for approval of the project under Article 42 Paragraph 1 of the Public Water Body Reclamation Act, and on December 27 the then governor granted approval. As points of concern raised by the prefectural governor, the grant of approval includes a section titled "Regarding Environmental Conservation Measures and Other Considerations during Construction Work," which states, "Make all possible efforts to implement measures to prevent the intrusion of alien species, and measures to protect marine life including dugongs and sea turtles."

Further, in the EIS for the Henoko new base construction project, the Japanese government (the project proponent) set forth alternative environmental conservation measures for corals: "As a measure to move corals living in the reclamation zone out of danger, we will transplant them to appropriate locations." The statement further says, "Regarding the impacts of construction work on coral, it is assessed that attempts have been made to avoid and reduce impacts to the greatest possible extent possible for the project proponent."

(2) Environmental Conservation Measures for the Henoko New Base Construction Project Are Inadequate

- Impacts on Dugongs

Because the points of concern raised by the governor when granting approval included making all possible efforts to protect the dugongs, the Okinawa Defense Bureau established the “Committee on Environmental Monitoring for the Project to Build a Replacement Facility for Marine Corps Air Station Futenma” in order to determine the impacts on the dugongs. In order to study the dugongs’ state of habitation and information about them, the Bureau is: (1) confirming habitation from the air, (2) monitoring dugongs from a platform vessel for observations, (3) monitoring by hydrophone recording, and (4) investigating the use of seagrass meadows in the surrounding waters. However, since December 2018 dugong feeding signs have not been found in the peripheral area of the project site, and surveys by aircraft and other means have yet to confirm dugong habitation since that time.

However, since February 2020 vocalizations thought to be those of dugongs have been heard many times inside the project site. It is confirmed that dugongs have come to Oura Bay in the past, and judging by the fact that vocalizations have been heard many times, there is a good possibility that the dugongs whose whereabouts are unknown, or different individuals, are inhabiting this marine locality.

When vocalizations thought to be those of dugongs were detected inside the project site in March 2020, the presence of dugongs was not confirmed by marine monitoring from the platform vessel even though it was a weekday when work was in progress.

Hence, one could hardly say that monitoring as now performed is adequate. If construction work continues under the current monitoring system, then even if dugongs come to the Cape Henoko/Oura Bay marine area, it is possible that their presence would be overlooked, and project construction would continue without taking dugong habitat into consideration.

- Impacts on Coral

As stated above, the Okinawa Defense Bureau developed plans to transplant corals as an environmental conservation measure, and in July and August 2018 it transplanted nine colonies of a rare coral (*Porites okinawensis* Veron) which were in the reclamation zone. However, owing to results such as the larger part of the transplants dying, one could hardly call this a success.

The diverse corals in the reclamation zone are originally there precisely because they are in a place to which those species are adapted. There is a high risk of death if they are transplanted into different environments.

Despite that, the Okinawa Defense Bureau developed a plan to transplant many species and large amounts of corals, even though that is, in the first place, an undesirable conservation measure. As such, when formulating a transplantation plan, one must carefully and adequately consider factors such as the environment of the transplant destinations and the ecosystem impacts so as to reduce the deleterious effects of plan implementation to the greatest extent possible. Nevertheless, attention has focused on doubts regarding the Bureau’s plan with regard to the environmental similarity between the corals’ original locations and destinations, and the plan has a variety of other problems including the lack of consideration for negative impacts on destination ecosystems. It is doubtful that careful and adequate consideration has been given to these problems.

On July 28, 2021 special collection permission for coral transplantation was granted pursuant to Okinawa Prefecture's Fisheries Adjustment Regulations, but owing to differing opinions on conditions governing collection, requests were made for the revocation of special collection permission, and to ask the Minister of Agriculture, Fisheries and Forestry to conduct a review and suspend execution.

- Impacts of Seagrass Meadows and Other Places

Since the start of construction work, there has been a decrease in the size of seagrass and gulfweed (*Sargassum fulvellum*) meadow distributions in the marine area fronting on Henoko, which is near the project site. The Okinawa Defense Bureau maintains that the seagrass and gulfweed meadow declines are not due to the effects of construction work.

But since the start of construction work, there has been a growth trend in the distribution sizes of seagrass and gulfweed meadows in the marine area fronting on Kayo, which is located northeast of Oura Bay. Judging by that, it is quite possible that the effect of construction work is responsible for the decline in the area fronting on Henoko, which is closer to the project site. In view of this, it would be hard to say that construction-work impacts on marine plants have been taken sufficiently into consideration, or that appropriate conservation measures have been implemented for marine plants.

- Summation

In light of the above, one would have to say that environmental conservation measures for the Henoko new base construction project are inadequate.

(3) Course of Events Preceding the Application for Approval of Changes, and the Problems Involved

- Course of Events Preceding the Application for Approval of Changes

After approval was granted for the Henoko new base construction project, work started in October 2015 with the onshore component, but a soil properties test which had begun in 2014 found that the seabed of Oura Bay has a thick accumulation of cohesive soil and other substances ("soft ground"), thereby necessitating ground improvement.

Although there are many different opinions about the soft ground that are based on the soil properties test data, a government document ("Report on Findings Regarding Design and Construction for Ground Improvement," below, "Report") compiled findings which claim that it is possible to secure the requisite stability by means of additional ground improvement. According to the Report, because the soft ground extends down to a depth of 90 meters at its deepest, the necessary ground improvement would consist in driving 77,000 sand piles into the seabed.

On April 21, 2020 the Okinawa Defense Bureau filed an Application for Approval of Changes to the Use of the Reclamation Site and for Changes to the Design Overview (below, "Application for Approval of Changes in Public Water Body Reclamation") with the governor of Okinawa. An overview of the post-change project is shown in Figure 2 (the appended plan for the Application for Approval of Changes in Public Water Body Reclamation).

Although the Application for Approval of Changes in Public Water Body Reclamation was submitted for public notice and inspection from September 8 to 28, 2020, the governor of Okinawa has yet to pass judgment on the application.

Additionally, a reassessment and other examinations are being conducted of the procedures involved in carrying out ground improvement work (using the sand drain method, sand compaction pile method, and paper drain method) for the Henoko new base construction project as planned in accordance with the Application for Approval of Changes in Public Water Body Reclamation. The construction schedule would be nine years and three months from the start of work based on the post-change schedule until completion, which would be further lengthened because about three more years would be needed to build post-completion facilities. Construction work involving reclamation would cost an estimated ¥720 billion (the project's total cost would be about ¥930 billion).

- **Problems with the Application for Approval of Changes**

The soft ground will affect the stability of the seawall and other structures, and lead to subsidence. And because it could be as deep as 90 meters, the needed ground improvement work would be unprecedented. In conjunction with that, changes in the plan would mean a longer construction schedule and a larger project scale than before the application for changes.

Geologists have pointed out not only the soft ground, but also the possibility of an active fault directly below the planned runways. Further, it is anticipated that this large-scale ground improvement work will bring about additional grave and substantial environmental impacts which cannot be overlooked, such as impacts on marine organisms in the area due to seabed vibration caused by work such as: driving many sand piles; dispersion of cloudy water from sediment kicked up from the seabed by construction work; changes in bottom material by dredging and other operations, and changes in water quality associated with them; as well as noise from the operations of many boats when work is being performed. Hence there are serious concerns about impacts on the marine organisms that live in the area, including dugongs, sea turtles, fish, corals, and aquatic plants.

In light of the foregoing, this large-scale ground improvement work will likely change the highly unusual geographical features of the marine area which integrates the Cape Henoko area and its coral reef with Oura Bay, whose characteristics range from open-sea to closed-bay environments, thereby likely causing the extinction of diverse and valuable species, and irrevocably damaging a highly biodiverse ecosystem.

- **Summation**

As observed above, the Henoko new base construction project as it was before the application for changes likewise featured inadequate environmental conservation measures.

By adding ground improvement work to the original plan, the impact on biodiversity in the Cape Henoko/Oura Bay area would be heavier: corals and seagrass meadows would suffer heavy, irreversible damage, thereby increasing the possibility that the fish, shellfish, and benthos which live there would decrease or go extinct.

(4) The Henkoko New Base Construction Project Should Be Suspended

- **Problems Involving the Environmental Impact Assessment Law**

The Environmental Impact Assessment Law requires the project proponent of a project such as reclamation of a public water body under the Public Water Body Reclamation Act to properly file an EIA for a class-1 project (Environmental Impact Assessment Law, Article 2 (2) (1) (g)).

Article 38 (1) of the Environmental Impact Assessment Law states, “The project proponent must implement a target project giving due consideration for environmental conservation in accordance with the content described in the EIS,” and the interpretation is that this has been violated “if the project content has been substantially changed after work on the project has started, to the extent that it is considered proof that the project was not started with proper environmental consideration.” Further, if a project is implemented with content that is markedly different from its description in the assessment, thereby bringing about problems relating to environmental conservation, it is thought that this is possible grounds for cancellation of a license or other permit (source: *Chikuji kaisetsu kankyō eikyō hyōka-hō kaiteiban* (“Article-by-article commentary on the Environmental Impact Assessment Law, revised edition”), p. 191).

The Application for Approval of Changes in Public Water Body Reclamation claimed the need for additional work including ground improvement work in Oura Bay in order to deal with soft ground, as noted previously. With the change in the seawall position and the addition of a soil repository, it is evident that these changes will raise concerns about the impacts on the local ecosystem. This can be judged a situation in which project content has been substantially changed, and it therefore involves problems under the Environmental Impact Assessment Law.

- Problems Involving the Public Water Body Reclamation Act

The Public Water Body Reclamation Act, Article 4 (1) (ii) provides that the requirements for a reclamation license are that “the reclamation adequately takes environmental conservation and disaster prevention into consideration.”

Because the act of reclamation, which changes a body of water into land, is an irreversible act with a heavy environmental impact, these requirements were prescribed to carefully examine whether sufficient consideration has been given to matters such as conservation of the affected marine environment, of the natural environment, and of marine resources with regard to the effects of reclamation itself, such as the loss of marine areas, changes in natural shorelines, changes in tidal currents and other phenomena, and cloudy water during construction.

“Adequately take into consideration” in Item ii means that proper measures are taken after having determined the situation and impacts, and that the measures are deemed sufficient in extent. If the situation and impacts have not been sufficiently determined, or if sufficient measures have not been taken, it is construed that the conditions of Item ii have not been met, and that the requirements for a reclamation license are lacking.

An EIA has not been performed for the Henoko new base construction project in order to determine the extent of impacts on organisms in the construction zone that are caused by sand compaction pile driving in conjunction with changes in the construction method meant to address the soft ground problem, as described above. This indicates that the situation and impacts have not been sufficiently determined.

Further, as noted above, experts have made observations on the feasibility of performing ground improvement work because of the soft ground, and on the possibility of an active fault. In light of these observations, and judging by the requirement of “adequately taking ... disaster prevention into consideration,” at this point in time there are doubts as to

whether the requirements of the Public Water Body Reclamation Act, Article 4 (1) (ii) are fulfilled.

- **Summation**

Environmental conservation measures for the Henoko new base construction project are insufficient, and despite the fact that the Application for Approval of Changes in Public Water Body Reclamation calls for major changes in construction methods, an adequate study of environmental impacts has not been performed. These facts are seen as problematic considering the aims of the Environmental Impact Assessment Law and the Public Water Body Reclamation Act. For these and other reasons, the government should perform a new EIA in conjunction with the design changes, and then seek approval from the governor of Okinawa.

Additionally, because a new EIA has not been performed in conjunction with the design changes, the government should suspend the Henoko new base construction project.

4. Conclusion

Based on the reasons detailed above, KFBA asks the government to immediately suspend work on the Henoko new base construction project.

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