

Centre for Environmental Creation

～ Aiming for Environmental Recovery and Creation in Fukushima ～



Greeting



Director General of Fukushima
Prefectural Centre
for Environmental Creation
Shigeaki Tsunoyama

The Fukushima Prefectural Centre for Environmental Creation (CEC) started its activities in July, 2016. It is an organization that makes comprehensive efforts towards environmental recovery and creation in Fukushima Prefecture. CEC has been promoting research towards environmental recovery and creation in Fukushima through close cooperation with the Japan Atomic Energy Agency and National Institute for Environmental Studies by applying the following two concepts: earliest possible realization of an environment in which the citizens of Fukushima can live safely, and building a society ensuring safety and security that can respond to diversified needs of the citizens of Fukushima. In addition, based on the Medium-and Long-Term Activities of the Centre for Environmental Creation formulated in February 2015, CEC comprehensively undertakes the following types of activities; monitoring, research, collection and provision of information, education, training, information exchange and communication. CEC will work on these activities in order to make Fukushima a place where the citizens of the prefecture can live safely. In Fukushima Prefecture, there are still many problems to solve revolving around the evacuation areas associated with the accident at the Tokyo Electric Power Company's Fukushima Daiichi Nuclear Power Station. To work on these problems, we will carry out various activities in close relation with the citizens of the prefecture. We appreciate your continued support and look forward to working with you.



Director of Fukushima Environmental
Safety Center, Sector of Fukushima
Research and Development,
Japan Atomic Energy Agency
Kaname Miyahara

As a Japan's sole comprehensive research and development institute in the field of nuclear energy, the Japan Atomic Energy Agency (JAEA) carried out radiation monitoring mainly in Fukushima Prefecture immediately after the accident of the Fukushima Daiichi Nuclear Power Station, Tokyo Electric Power Company, and clarified the air dose rates and deposition amount of radioactive cesium. JAEA also prepared basic information leading to the present full-scale decontamination by the Decontamination Pilot Project. As research and development towards the environmental restoration of Fukushima, JAEA is currently conducting the following projects; 1) Investigation of migration of radioactive materials in environment, and development of remote monitoring technology and radiation prediction model for predicting future status of radioactive materials. 2) Development of methods for predicting radiation exposure in accordance with lifestyle. 3) Development of technologies related to decontamination and volume reduction of radioactive waste. At CEC, JAEA provides accurate research results about the environment of Fukushima Prefecture in an easy-to-understand manner while carefully responding to diversified regional and individual needs. By doing so, JAEA will make efforts for research and development in order to realize an environment in which the residents can live safely.



Director of Fukushima Branch,
National Institute
for Environmental Studies
Masanobu Kimura

Since immediately after the Great East Japan Earthquake in 2011, the National Institute for Environmental Studies (NIES) has been researching the best ways to support disaster-affected areas. The Fukushima Branch was the first regional branch of the NIES established in April 2016 in the Fukushima Prefectural Centre for Environmental Creation. Here at the Fukushima Branch, we have initiated the Environmental Recovery Research Program aimed at restoring the environment of contaminated disaster-affected areas quickly and the Environmental Revitalization Research Program to support community reconstruction that is eco-friendly. In addition, the Environmental Emergency Management Research Program was set up to prepare for future disasters, based on our past disaster experiences. These research programs are carried out in close cooperation with the NIES in Tsukuba City, Ibaraki Prefecture. We have three branches from three organizations residing at the Centre for Environmental Creation: Fukushima Prefectural Government the Japan Atomic Energy Agency, and the NIES. In the future, their coordination will utilize their individual characteristics and strengths, and will further contribute to restoring and creating the environment of Fukushima Prefecture. Your continued support for the Fukushima Branch is greatly appreciated.



What is Fukushima Prefectural Centre for Environmental Creation (CEC)?



The Fukushima Prefectural Centre for Environmental Creation was established by Fukushima Prefecture in 2016 to coordinate work to restore the environment in the wake of the unprecedented nuclear disaster. Guidelines were established to this end based on the Mid-Term and Long-term Action Plans formulated by CEC in February 2015 and revised in 2019. CEC performs environmental radiation monitoring, promotes research for restoring and creating the environment, and collecting and providing monitoring data and research results. CEC also provides radiation and environmental education through its exhibits. Based on the Research Collaboration Agreement at CEC in April 2015, three organizations: Fukushima Prefecture, the Japan Atomic Energy Agency, and the National Institute for Environmental Studies are dedicated to environmental restoration. Representing the first collaboration of both local and national organizations, we perform research in four fields: radiation measurement, decontamination and radioactive waste, and environmental dynamics and creation of the local environment.

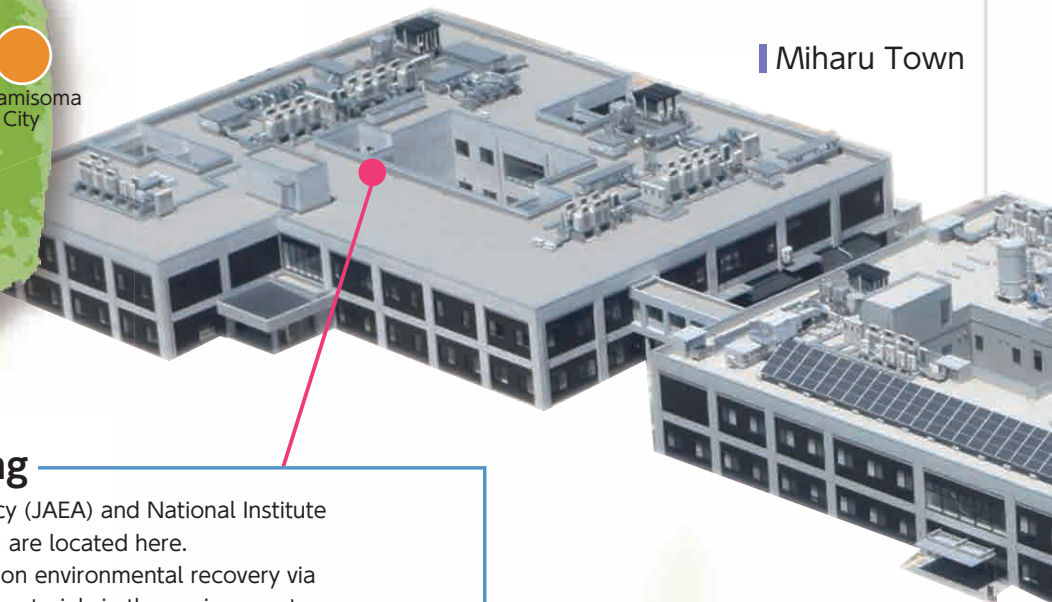
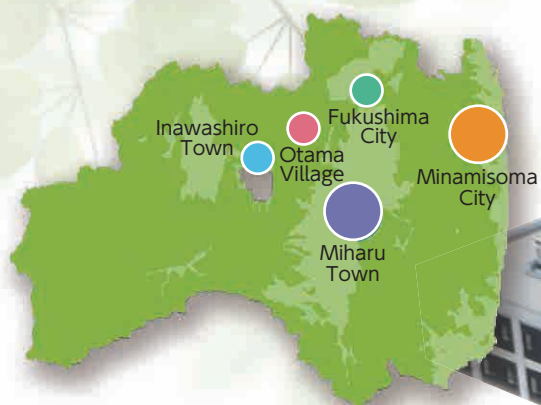


At our information and communications building, Commutan Fukushima, we have exhibition facilities and a rare 360-degree spherical theatre. Only two theatres of this type exist and can, provide you with a precious experience. These facilities promote the understanding of radiation and the environment in Fukushima with examples familiar to you. We also have workshop programs related to radiation, providing children and adults with the opportunity to consider, create, and share the future of Fukushima from each individual's point of view.

We have also established the Environmental Radiation Monitoring Centre to monitor radiation effects around the nuclear power station at all times, the Inawashiro Aquatic Environment Centre for research and environmental activities at Lake Inawashiro, and the Wildlife Symbiosis Centre to research how radiation affects wildlife in order to protect wildlife. These activities drive the restoration and recreate the original environment in Fukushima Prefecture.

Centre for Environmental Creation Facility Overview

CEC was established by Fukushima Prefecture as a central organization to comprehensively undertake monitoring, research, collection and provision of information, education, training, and information exchange and communication for environmental recovery and creation.



Miharu Town

Research building

- The Japan Atomic Energy Agency (JAEA) and National Institute for Environmental Studies (NIES) are located here.
- JAEA mainly conducts research on environmental recovery via decontamination of radioactive materials in the environment.
- NIES mainly conducts research on environmental recovery and community reconstruction, as well as investigation/research on creating disaster-resistant society.

Environmental Radiation Monitoring Centre

Minamisoma City



Radiation monitoring
by an unmanned helicopter



Environmental Radiation
Monitoring Telemetry
System

- The Centre undertakes constant monitoring of radiation and air dose rates around nuclear power station.
- The Fukushima Remote Monitoring Group, Fukushima Environmental Safety Center, JAEA is located here. The Group conducts its activities in cooperation with Fukushima Prefecture.

Fukushima Branch

Fukushima City

- This branch undertakes radiochemical analysis of alpha-particle emitting radionuclides, such as plutonium, and beta-particle emitting radionuclides, such as strontium, contained in trace amounts of environmental samples.

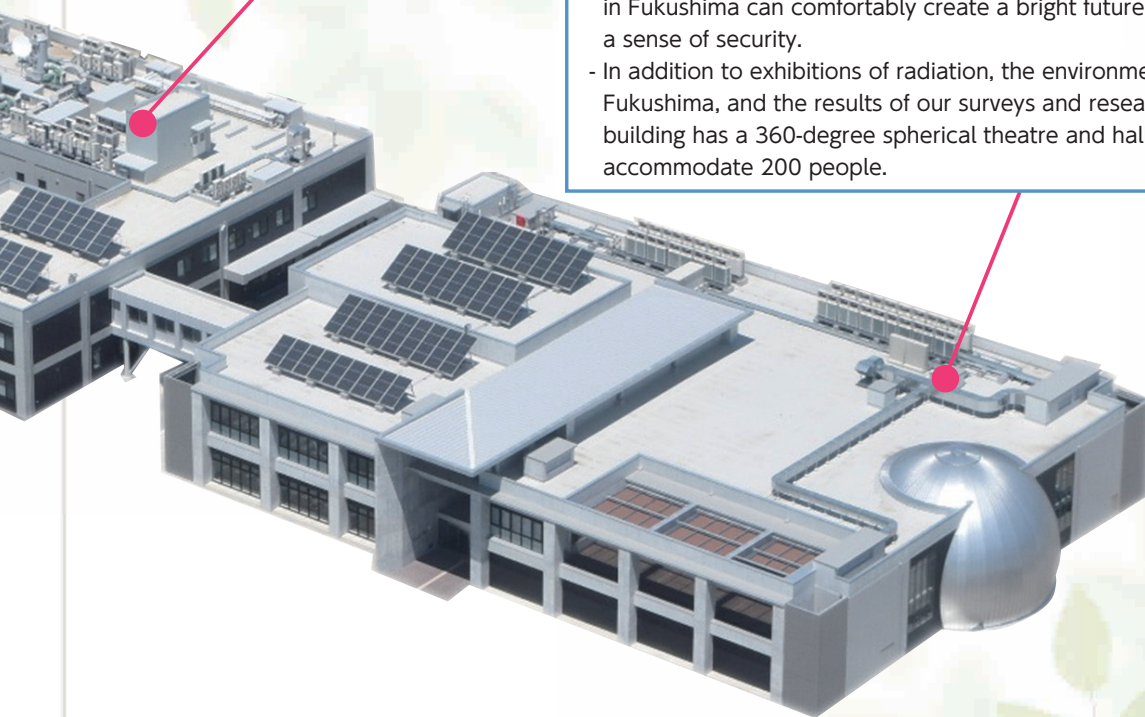


● Main building

- Fukushima Prefectural Office (a branch office of the prefectural government) is located here.
- The first floor is an area for carrying out monitoring and research on environmental radiation.
- The second floor is an area for carrying out monitoring and research on air, water, and waste.

● Information and communication building (Communan Fukushima)

- A place for communication and co-creation where children in Fukushima can comfortably create a bright future with a sense of security.
- In addition to exhibitions of radiation, the environment in Fukushima, and the results of our surveys and research, the building has a 360-degree spherical theatre and hall which can accommodate 200 people.



● Inawashiro Aquatic Environment Centre

■ Inawashiro Town

The Centre functions as a hub for research and volunteer activities related to Lake Inawashiro, and Urabandai lakes and ponds



- Visitors can freely peruse documents and exhibitions related to Lake Inawashiro available here.

● Wildlife Symbiosis Centre

■ Otama Village

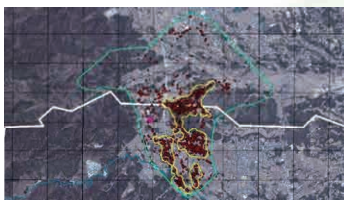
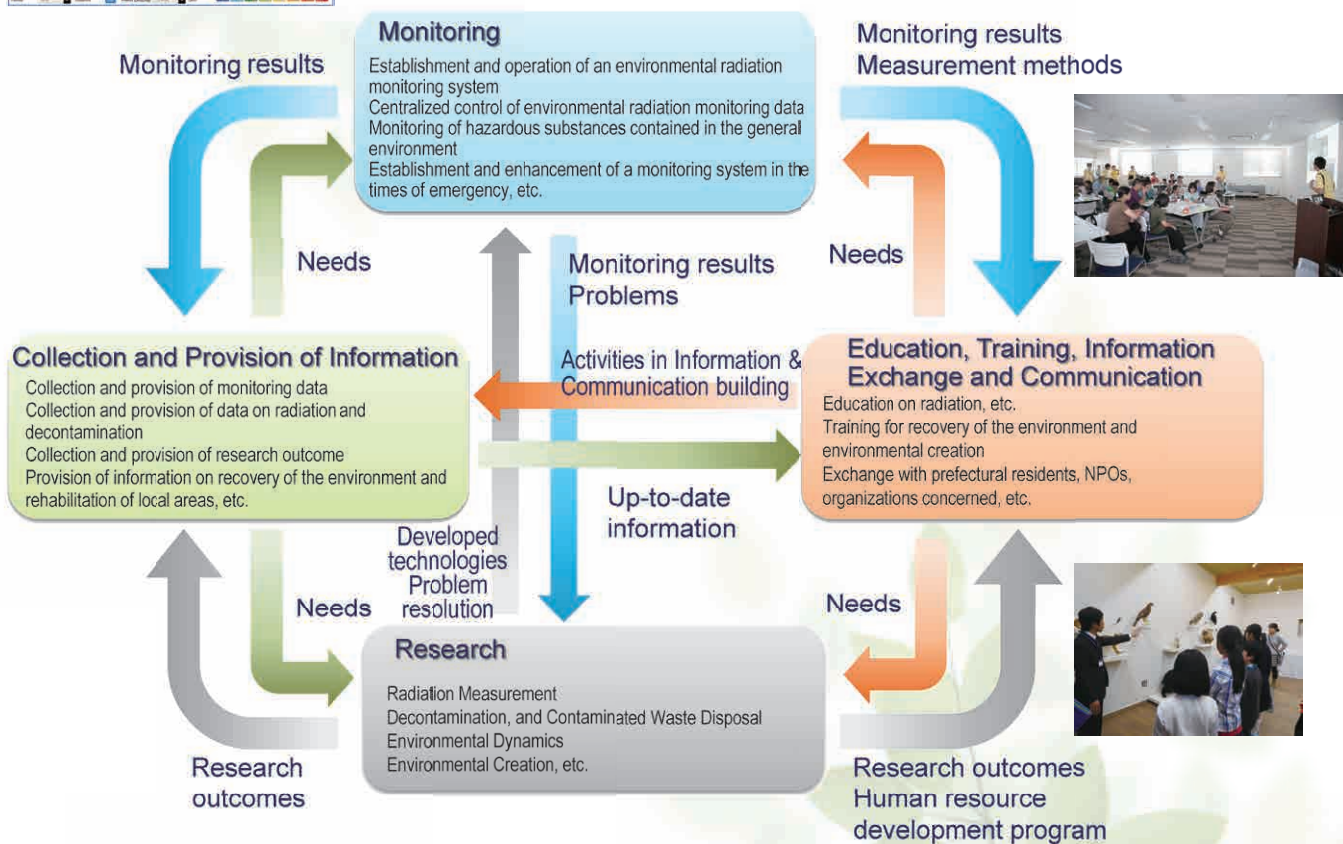
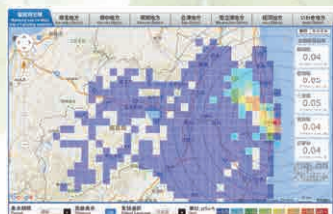
The Centre undertakes monitoring of wildlife, and also serves as a place to protect and rescue wildlife.



- Visitors can freely peruse panel exhibitions and exhibitions featuring stuffed animals and birds.

Centre for Environmental Creation's Four Functions

CEC comprehensively undertakes four activities: 1) Monitoring; 2) research; 3) collection and provision of information; 4) education, training, information exchange and communication on environmental recovery and creation in Fukushima Prefecture.



Monitoring



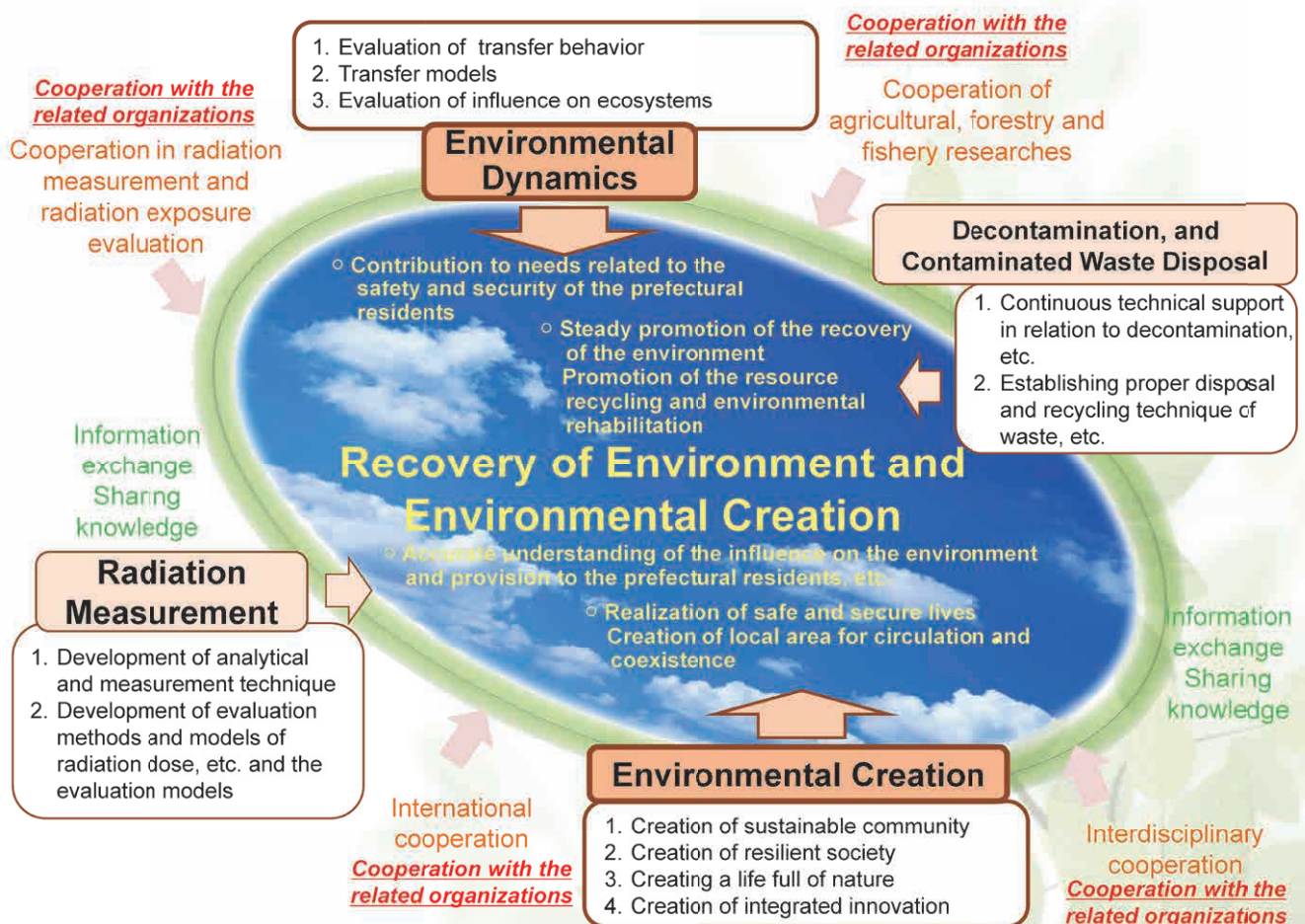
CEC undertakes detailed monitoring throughout the prefecture, including fixed-point monitoring at schools and parks, vehicle-borne survey using buses and other vehicles, and constant monitoring using monitoring posts, etc.

In accordance with the Comprehensive Radiation Monitoring Plan, we collect measurement results on environmental radiation monitoring performed by the government, prefecture, and municipalities. Information is shared and put to effective use.

We also conduct research and analysis on air pollution, water pollution, noise and vibration, contaminated waste, and chemical substances in addition to environmental radiation. Collected data is then managed and released to the public.

Research

In order to conduct environmental recovery and creation from the unprecedented nuclear disaster, it is necessary to promote our efforts by bringing domestic and overseas expertise together. Therefore, JAEA, Japan's sole comprehensive research and development institute in the field of nuclear power, and NIES, a central institute for environmental research in Japan, are located in this research building, where they are promoting research through cooperation. We cooperate with other research institutes in and out of Fukushima and also with the IAEA, to proceed with our research.



■ Collaboration with JAEA and NIES

In order to realize environmental recovery and creation, Fukushima Prefecture, JAEA, and NIES closely work together and promote research in four fields: Radiation measurement, decontamination and contaminated waste disposal, environmental dynamics, and environmental creation.



Basic Agreement on Collaboration and Cooperation signed on April 24, 2015

■ Cooperation between Fukushima Prefecture and the IAEA

Fukushima Prefecture and the International Atomic Energy Agency (IAEA) signed a Memorandum of Cooperation in the Area of Radiation Monitoring and Decontamination on December 15, 2012. They have been working on cooperative projects, including a review of the effect of decontamination work on rivers and lakes, as well as research on the behavior of radionuclides in wildlife.

Memorandum

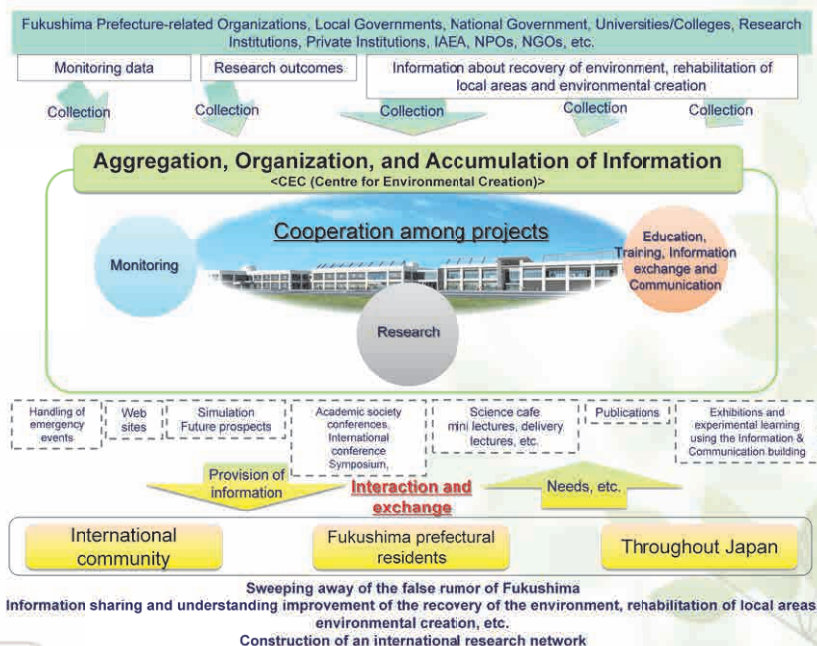
Practical arrangements between Fukushima Prefecture and IAEA (radiation monitoring and decontamination)

Practical arrangements between Fukushima Medical University and IAEA (human health)

Practical arrangements between the Ministry of Foreign Affairs of Japan and IAEA (emergency response)



■ Collection and provision of information



With regard to the outcomes of various research projects and the results of radiation monitoring, CEC will promote development of an easy-to-understand system to provide information to the citizens of the prefecture.

In addition, we will actively provide our research outcomes domestically and internationally through various academic societies and international conferences, etc., and will work on a centralized and Exhaustive data base of information on the status of environmental recovery, as well as revitalization of local areas through decontamination implemented by the prefecture.

We will also utilize the Information and communication building, Commutan Fukushima to promote exchanges with visitors through a variety of events and workshops, etc.



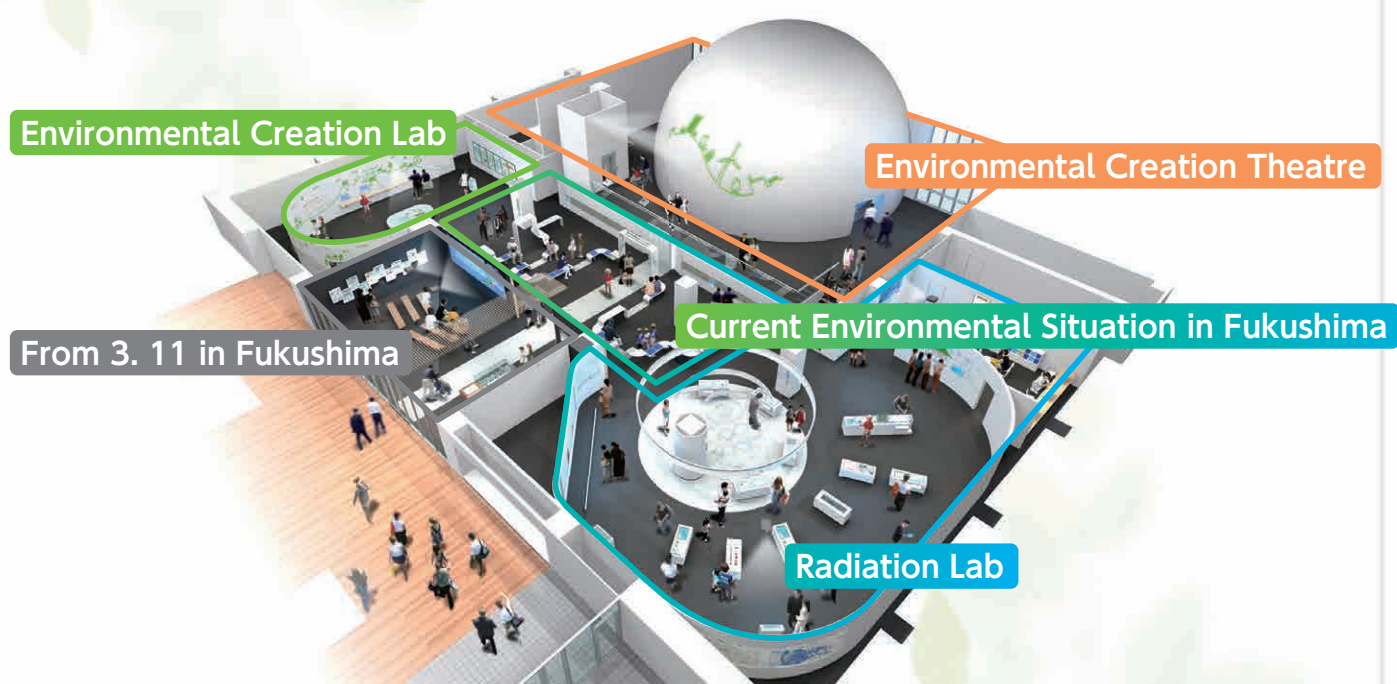
Education, training, information exchange and communication

In order to provide information on the current environmental situation and radiation in Fukushima Prefecture as well as develop the capability to create the future of Fukushima, CEC will work on the following: Education on radiation and the environment, long-term development of human resources (e.g. researchers), in cooperation with universities and other research organizations, building of a communication network for a broad range of participants, including NPOs and local residents, by utilizing the information and communication building, and training programs on environmental recovery and creation for businesses involved.



Information and communication building, Commutan Fukushima

Commutan Fukushima is a facility for responding to concerns and questions from the citizens of the prefecture, to understand radiation and environmental issues with examples familiar to you, and to deepen awareness of environmental recovery and creation through exhibitions and hands-on experimental learning.



Model of
Fukushima Daiichi Nuclear
Power Station



Radiation Visualization Wall

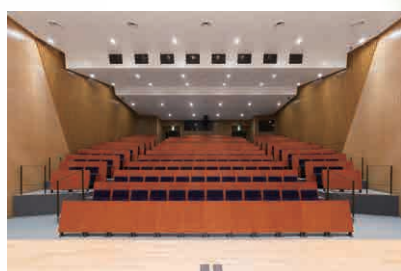


Environmental
Creation Theatre



Renting of conference rooms

Commutan Fukushima has a hall and conference rooms, visitors can use them for a fee (visitors may not be charged depending on the purpose of use). Audio and visual equipment are available as well.



Hall
(capacity: up to 200 people)



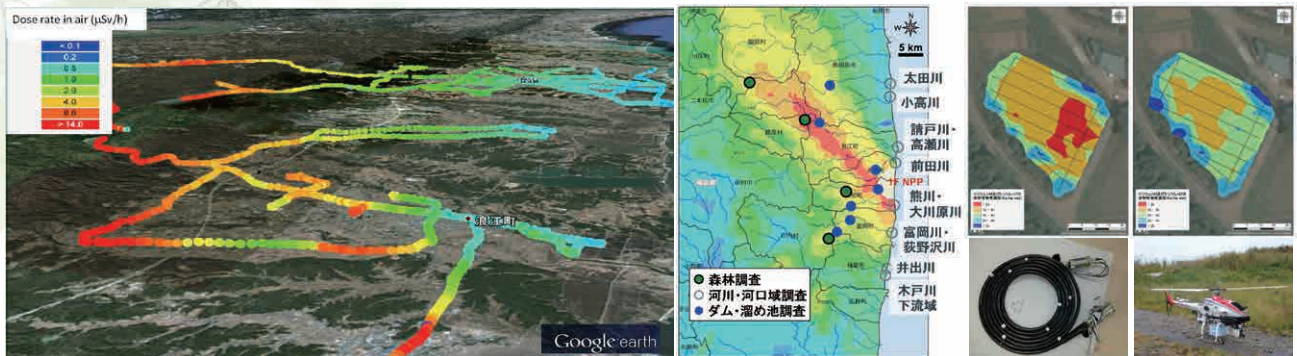
Conference room
(capacity: up to 100 people)



Multi-purpose conference room
(capacity: approx. 70 people)

Collaborative Research Institutes

JAEA Fukushima Environmental Safety Center



JAEA is Japan's sole comprehensive research and development institute in the field of nuclear energy. As a public organization designated by the government, JAEA started its activities, such as radiation monitoring and evacuation support, immediately after the accident at the Fukushima Daiichi Nuclear Power Station. Since then, for reconstruction and revitalization of Fukushima, JAEA has actively continued to work on its research and development as well as support activities, including development of technologies necessary for environmental recovery in Fukushima and reactor decommissioning. The Fukushima Environmental Safety Center of JAEA conducts research and development related to the environmental recovery in Fukushima, and responds to various needs so that residents can live safely



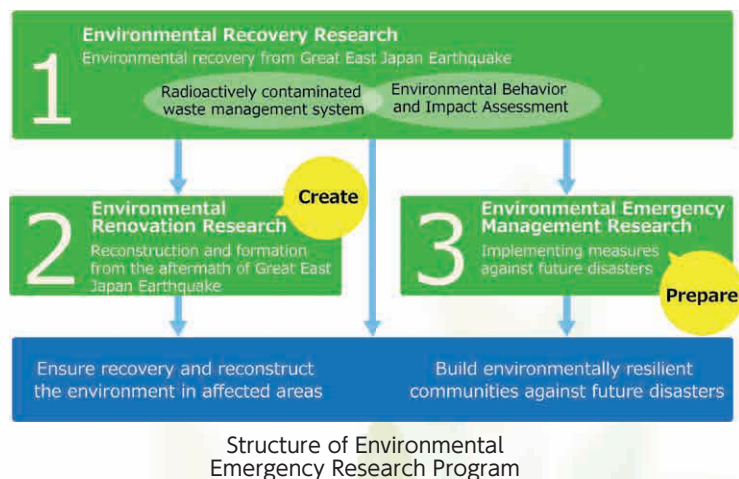
For the above purposes, the Center works on radiation monitoring which has been continuously conducted since the accident, creation of maps on air dose rate and deposition amount of radioactive materials, and prediction of future radiation.

Additionally, the Center conducts; 1) environmental dynamics research on what will happen to radioactive materials in the environment in the future, 2) development of technology to measure radiation efficiently over a vast land area using unmanned helicopters, 3) development of quick measurement of the concentration of radioactive materials, and 4) research/development related to understanding the effects of decontamination and support for volume reduction/reuse of radioactive waste generated by decontamination work. In addition, the Center is conducting health management survey (internal exposure inspection) for prefectural citizens, responding to questions about radiation, and providing cooperation and support for development of human resources in the field of nuclear energy.

NIES was founded in 1974 in Tsukuba, Ibaraki Prefecture, as a unique research institute designed to provide scientific and technological foundations for Japan's environmental policy and address a broad range of environmental research topics in an integrative manner. Ever since, with a high level of professionalism and profound expertise, NIES has promoted a broad spectrum of research including topics ranging from global warming, a recycling society, ecosystem deterioration, and air pollution. NIES has been contributing to environmental policy-making in Japan and overseas, as well as striving to disseminate appropriate information to help solve environmental problems.

Since immediately after the Great East Japan Earthquake, NISE has been undertaking various environmental and disaster-related research (environmental emergency research) in collaboration with national and local governments to support disaster-affected areas using the environmental research expertise it has accumulated over the years. NIES has been engaged in a broad spectrum of research including the treatment and disposal of disaster waste (such as debris) and radioactively contaminated waste, the environmental behavior of radioactive substances and its biological and ecological impacts, the impact of the earthquake and tsunami on the environment, and community reconstruction programs in disaster-affected areas and the formation of regional community environments. In order to base these efforts in the affected areas and promote them continuously, NIES established its Fukushima Branch within the facility's research building.

NIES has been using its Fukushima Branch as a collaboration hub to conduct environmental emergency research aimed at environmental recovery and renovation in disaster-affected areas. The collaborating partners include various relevant organizations, including Fukushima Prefecture and JAEA. NIES has been supporting Fukushima CEC's efforts to collect and disseminate environmental information, as well as cooperating on education, training, and exchange programs by providing environmental emergency research expertise. The overall goal is to make Fukushima Branch into a globally recognized hub in environmental emergency research.



Environmental Recovery Research
(Waste Management System)



Environmental Recovery Research
(Environmental Behavior and Impact Assessment)



Environmental Renovation Research



Environmental Emergency Management Research

Access



○By car

Approx. 30 minutes from JR Koriyama Station
 Approx. 12 minutes from JR Miharu Station
 Approx. 5 minutes from the Funehiki-Miharu Interchange of the Ban-etsu Expressway

○From Tokyo

Tokyo Station (Tohoku Shinkansen) - Koriyama Station (Ban-etsu East Line) -
 Miharu Station: Approx. 1 hour and 50 minutes
 Kawaguchi-Chuo Interchange of Tohoku Expressway -
 Funehiki-Miharu Interchange of Ban-etsu Expressway: Approx. 2 hours and 40 minutes

○From Sendai

Sendai Station (Tohoku Shinkansen) - Koriyama Station (Ban-etsu East Line) -
 Miharu Station: Approx. 1 hour and 10 minutes
 Sendai-Miyagi Interchange of Tohoku Expressway - Funehiki-Miharu Interchange of
 Ban-etsu Expressway: Approx. 1 hour and 30 minutes

○A bus operated by Miharu Town runs between Miharu Station and CEC four times a day.
 The bus is operated every day excluding Year-end and New Year holidays.

Contact us

10-2 Fukasaku, Miharu Town, Tamura County, Fukushima 963-7700 Japan
 (within Tamura West Industrial Park)



[Main building]

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<https://com-fukushima.jp/>



New CEC Logo

This earth is designed to express environment, and a rainbow is an expression of creation, recovery and cooperation. The rainbow has three colors; red indicates JAEA, yellow Fukushima Prefecture and green NIES. At the top of the rainbow, three leaves are decorated with a longing for happiness. Two light rays are our prayer for the bright future.