

# To learn more about the NILIM

## 1. Various PR tools for various PR targets

The expected PR targets of the NILIM include the people in Japan, researchers at universities and research institutes, engineers in the private sector, local governments, and Regional Development Bureaus, overseas researchers, et al. For each of these targets, the NILIM has identified the objectives of public relations and uses various means of public relations accordingly. The objectives of public relations include increasing the recognition of the NILIM, making people aware of the importance of the NILIM in supporting society, and getting students interested in the NILIM for staff recruitment, in addition to the dissemination of research outcomes.

	People of Japan	Researchers and engineers	Local governments and Regional Development Bureaus	Overseas
Press release	Publication of results, notification of events, etc.			
Website Email service etc.	Website			
	The NILIM email service			
	The NILIM YouTube channel			
Publication	Brochure			
	The NILIM Report etc.			
	Research reports etc.			
Symposiums and lectures	Symposiums and lectures			
	Presentations at conferences, etc.			International conferences
Outreach activities	Disclosure to the general public			
	Visiting lectures at schools, etc.			
	Pasting posters at train stations, etc.	Use of the ground floor of the government building		

## 2. Main PR activities

### (1) Website

Through the website, the NILIM is actively providing information on the outline of the organization, its research policy, research topics, research results, event information (information on lectures, open house, facility tours, etc.), and press releases.



### (2) Email service

The NILIM email service is sending emails to subscribers usually twice a month in order to introduce the activities and research results of the NILIM in a concise and timely manner.



Anyone can sign up for the email service from the NILIM website.

### (3) The NILIM YouTube channel

Videos of experiments and lectures of the NILIM are available on YouTube with easy-to-understand explanations.

(URL: <https://www.youtube.com/channel/UC51193hxIF1CrZ85DTBnm8Q>)

### (4) The NILIM Report

The NILIM Report is published annually to introduce and describe research trends and examples of how they are reflected in policies, as well as to compile recommendations for technology policy issues. Full texts are also posted on the website.



Figure 1. The official website of the NILIM



Photo 1. The NILIM YouTube channel (Collision test facility)

**(5) Comprehensive Research Report of the NILIM**

The *Comprehensive Research Report of the NILIM* is a report of research results that have academic value or contribute to the planning and enactment of policy or results of surveys, testing, observations, etc., which are deemed to be valuable enough to be released to the public. The full text is posted on the website.



Figure 2. The NILIM Report

**(6) Paper presentation**

The NILIM researchers are publishing about 700 papers per year and have received awards for the papers in a wide range of fields, both domestic and international.

- FY 2019 Committee on the History of Civil Engineering, Japan Society of Civil Engineering - Excellent Lecture Award (June 2019),
- FY 2019 Japan Association for Earthquake Engineering - Excellence Award (September 2019),
- The 33rd Japan Road Association - Excellence Award (November 2019) etc.

**(7) Lectures, etc.**

The NILIM is holding the annual NILIM Lecture Sessions to introduce its research activities, including the presentation of research results and proposals for solving technology policy issues. Other technical lectures and symposiums in various fields are held as needed.



Photo 2. The NILIM Lecture (December 2019)

**(8) Visiting lectures**

Researchers from the NILIM visit schools and other groups for the purpose of communication including the introduction of their research and answering questions. For example, in one of the visiting lectures, a disaster prevention card game is played so that children can learn about disaster prevention.



Photo 3. Visiting lecture at an elementary school

**(9) Disclosure to the general public**

The NILIM is holding an open house to introduce its research facilities of the NILIM while describing research activities. Individual tours of the facilities by groups are always welcome.

**(10) Facility tour**

The NILIM is offering facility tours as needed to introduce research facilities while describing individual research projects.



Photo 4. Exhibition of works from the Cardboard Bridge Contest

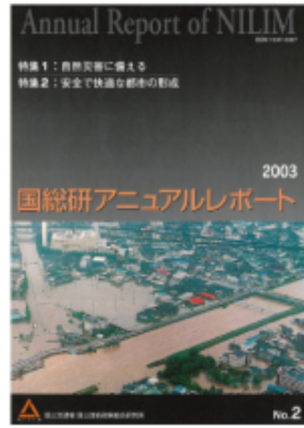


Photo 5. A facility tour

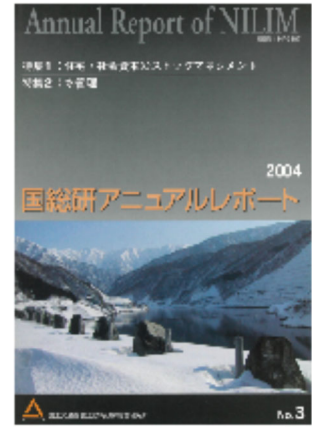
### 3. History of the cover page of the NILIM Report

The NILIM Report is a so-called comprehensive catalog of research activities, introducing a wide range of research activities and outcomes that the NILIM has been carrying out, as well as initiatives that will be implemented in the future. The cover page includes photos related to special features and representative researches. Below are the cover pages of past NILIM Reports (prior to 2009: the *NILIM Annual Report*).

(URL: <http://www.nilim.go.jp/lab/bcg/siryou/report.html>)



Flooding caused by heavy rain in Tokai, Japan (September 2000)

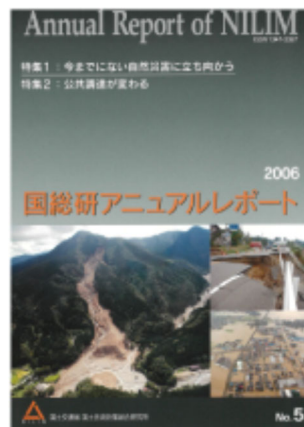


Saguri River, the Shinano River System



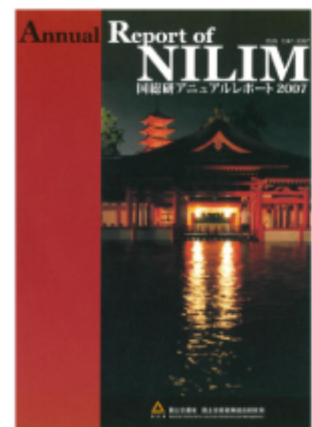
Top row from left: Manazuru Town, Abukuma River, Ota River

Bottom row from left: Tsunoshima Bridge, Sennin Pass, Tomata Dam

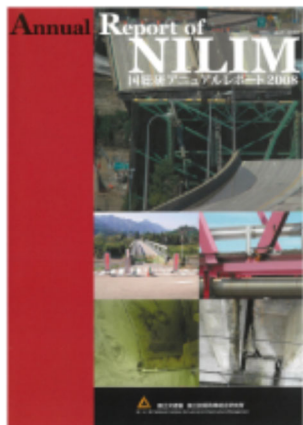


Left: Landslide caused by Typhoon Nabi (#14) (2005)

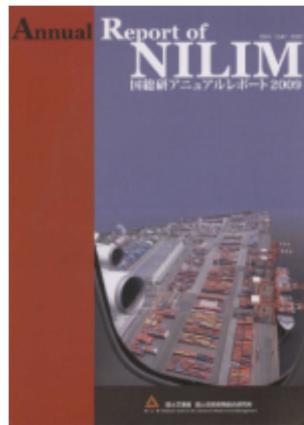
Right: Road collapse caused by the Chuetsu Earthquake (2004): Typhoon



Flooding of Itsukushima Shrine due to abnormal tide levels (2006)



Top: Bridge collapse in Minneapolis, USA (August 2007) etc.



Panoramic view of the container yard (Tokyo Bay)



\*We are not able to post photos of this part due to rights restrictions.

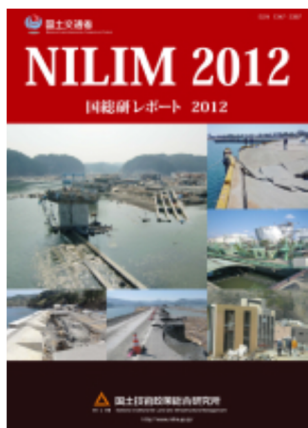
Top left: Children playing in the water by Lake Shinji  
Upper right: A paddy field just after planting

Figure 3. Cover pages of the NILIM Annual Report etc. (2002-2010)





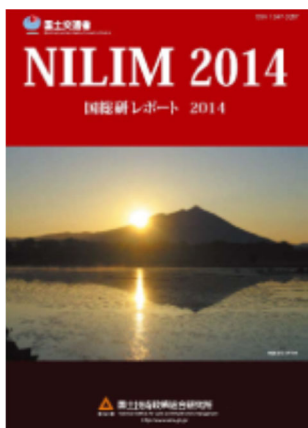
Haneda Airport's D runway, which opened for service in October 2010.



Facilities damaged by the Great East Japan Earthquake in 2011  
Top left: Utsutsu Bridge (Minamisanriku Town, Miyagi Prefecture) etc.



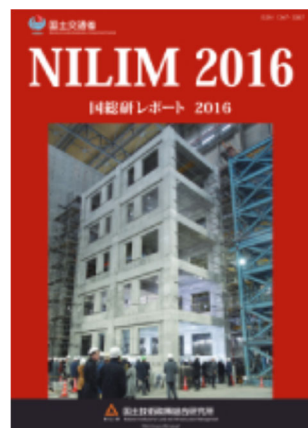
Top left: River run-up test of tsunami surge using a large hydraulic model etc.



Sunrise from Mount Tsukuba



Crash of an actual car on protective barrier on community roads



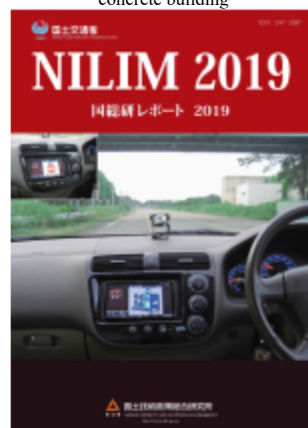
Loading test of a full-scale five-story reinforced concrete building



The NILIM's disaster response to the 2016 Kumamoto earthquakes



Restoration of a road bridge (Minamiaso Village, Kumamoto Prefecture) damaged by the Kumamoto earthquakes (opened in August 2017)



Experiments on the provision of forward road traffic information for automated driving



Damage caused by Typhoons Faxai (#15) and Hagibis (#19), etc. in 2019 and the response of the NILIM



Top left: DX experiment field constructed by the NILIM (opened in April 2021), etc.

Figure 4. Cover pages of the NILIM Report (2011-2021)

## 4. Cardboard Bridge Contest

### (1) Outline of the contest

The NILIM, in cooperation with the Public Works Research Institute (PWRI), holds an open house in November every year as a part of the Civil Engineering Day (November 18), an event established by the Japan Society of Civil Engineers. One of the events is the Cardboard Bridge Contest. The purpose of this contest is to let elementary school children, who will be the future leaders of Japan, know the importance of civil engineering infrastructures, such as bridges, that support our lives through manufacturing. The first contest was held in 1994 when the NILIM was called the Public Works Research Institute under Ministry of Construction. The NILIM now runs the contest as the main host. In 2020, the contest was held for the 27th time. A total of 11,660 entries have been received with a total of 8,910 participants since the first contest. During the NILIM open house, award-winning works are presented, and an awards ceremony is held, while all the accepted works are displayed. This event is supported by the Tsukuba City Board of Education.

Figure 5 describes the guidelines for this contest. Eligibility is currently limited to fourth and fifth graders, which was expanded in 2016 from fifth graders. Before that, the contest was open only to fifth graders. The purpose of expanding the eligibility was to allow fourth graders to utilize their experience in planning and producing their works and the lessons they learn from observing the works of others when they will create their works in the fifth grade. Another purpose is to improve the overall level of the contest through the participation of a larger number of participating children, while allowing them to accumulate experience.

A total of six bridge and art experts, as well as educators, evaluate the submitted works in terms of stability as a bridge, beauty of design and finish, and originality (unique style). The Structural Design Award, the Art Design Award, and the Excellent Effort Award (five works each, 15 works in total) are given to works that excel in each of these categories. The Grand Prize is also given to three works that excel in all of these categories. In addition, the Civil Engineering Day Award is given to one work that receives the most votes from the visitors at the exhibition of all the submitted works during the NILIM open house. Also, the School Encouragement Award is given to the school that is recognized for its active participation. Photo 6 shows unique works from ones that received awards in a recent contest.



Figure 5. Contest guideline



Photo 6. Award-winning works with unique features in the recent contest

### (2) Cardboard bridge making class

Many of the participants spend their summer vacation creating their works. Therefore, as a spinoff project of this contest, which aims to help children acquire knowledge about bridges and the ability to create their own works, an open lecture titled Cardboard Bridge Making Class is held during the summer vacation. This class consists of the following two topics.



Photo 7. Cardboard Bridge Making Class

The Story of Bridges - Why are these bridges shaped like this? Young researchers from the NILIM (Bridge and Structures Division) provide easy-to-understand explanations of the secrets of strength and the history of bridges, focusing on the topic of the bridge form (Photo 7).

#### Paper Craft Class

The NILIM invited experts from paper craft workshops in Tsukuba City to teach the basics of paper crafting (how to cut, fold, and paste paper) and how to decorate the paper by experiencing basic shaping.

### (3) Effect of the Contest - Questionnaire on "What kind of job do you want to have when you grow up?"

On the application form, there is a questionnaire that asks the contestants what kind of job they would like to have when they grow up. The question is to learn what kind of jobs the contest participants are interested in. Figure 6 shows the result of the questionnaire from 2018 and 2019. Figure 6a)

shows the results of all participants. Figure 6b) shows the results only of the winners (winners of the Grand Prize, Structural Design Prize, Art Design Prize, and Excellent Effort Prize). According to the results of all contest participants, the most common categories were, in order of frequency, medicine/nursing, sports, arts, and restaurant/shop. Although the survey is biased by the attitudes of children who participate in a craft contest, the trends are close to similar surveys

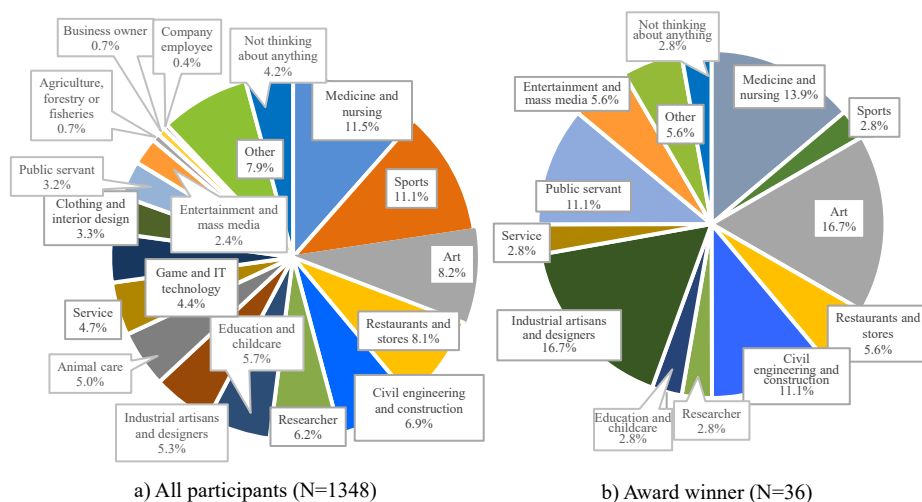


Figure 6. A questionnaire: What kind of job do you want to have when you grow up?

conducted by other organizations. The civil engineering and construction category was the fifth most common, excluding "others," accounting for about 7% of the total. Meanwhile, the results by award winners were as follows: arts industrial artisans/designers, medicine/nursing, civil engineering/construction, and civil servants in that order. Scores for these categories, except for medicine/nursing are almost double. On the other hand, the score for sports is significantly low.

The results of this survey indicate that the occupations envisioned by the children who are making effort to participate in this contest are closely related to the purpose of the contest. It is thus expected that this contest will inspire them to pursue careers related to infrastructure and help them maintain and enhance their motivations.

### (4) PR through the Cardboard Bridge Contest

As discussed above, the purpose of the Cardboard Bridge Contest is to raise awareness of the importance of civil engineering infrastructures. The contest itself serves as a public relations tool to deepen awareness of civil engineering infrastructures and to inform people about the NILIM. The publicity through schools has been highly effective, and when we ask about this contest in Tsukuba City, we hear from almost all students that they are aware of the contest. However, few children and students are aware of the fact that the NILIM is the main organizer of the project, and that what kind of research the NILIM is conducting, which will be the issue to address in future PR.

On the other hand, using this contest to publicize the NILIM is particularly effective as PR activities for the general public because the contest is well-received by them, and that PR effect is expected to spread from children and students as a ripple effect. In addition, after the awards ceremony, award-winning works and photos of all the submitted works are exhibited at nearby shopping malls, and panels showing the research of the NILIM are also exhibited.

The PR through the Cardboard Bridge Contest is therefore a good opportunity to experience success and challenges. It is thus considered an important event in implementing effective PR activities.

The initiatives of the Cardboard Bridge Contest were presented at the 75th Annual Meeting of the Japan Society of Civil Engineers in 2020 and received the Kakehashi Award from the Tanaka Prize Selection Committee.