

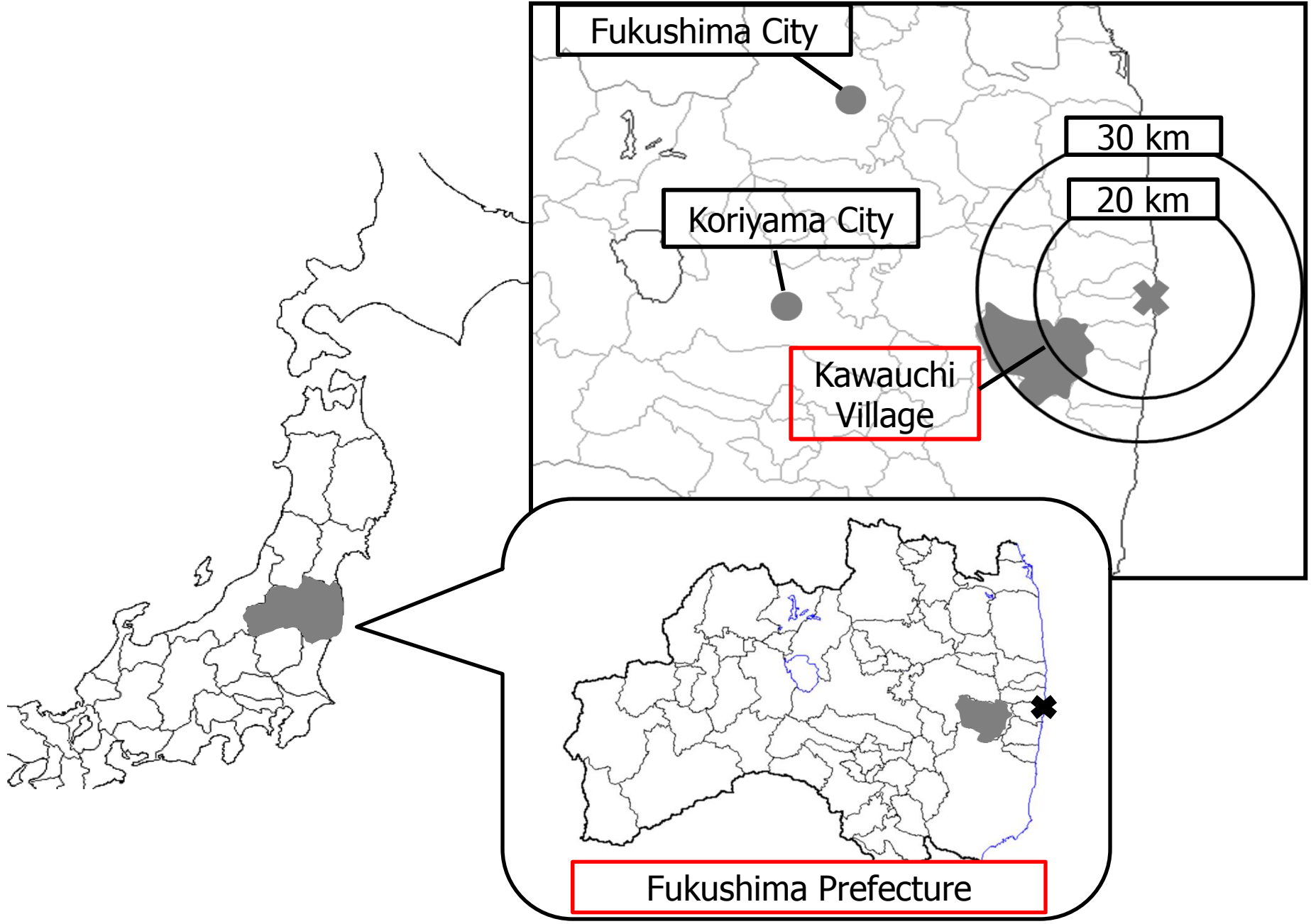
# Action in Nagasaki University / Kawauchi Village Reconstruction Promotion Base



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# Instructions to evacuate in Kawauchi village

- March 11, 14:46: Great East Japan Earthquake
- March 12, 05:44: Residents of Tomioka town evacuated to Kawauchi village due to the 10-km evacuation order.
- March 12, 18:25: Evacuation order within a 20-km radius
- March 15, 11:00:
  - Sheltering order within a 20-30-km radius.
  - Kawauchi village office decided to evacuate everyone.
- March 16, 06:00 All residents evacuated to Koriyama City





# Initial phase of evacuation

A long line to receive the rescue supplies

Evacuees inside the hall



# Declaration of return from Koriyama city to Kawauchi village

January 2012, the village mayor declared residents could safely return to their homes because radiation doses were found to be at comparatively low levels.

April 2012, the Kawauchi village office resumed normal services for schools and other public facilities.







Decontamination within the village



Restarting of elementary and junior high schools



Opening of convenience store



Restarting of agriculture

# Decontamination of Living Environment

- Decontamination of places most frequently used by residents, such as school and around residential houses, prior to other places.
- To minimize the annual exposure of doses less than 1mSv (less than  $0.23\mu\text{Sv/h}$ ) as a final goal.
- Decontamination of residential houses and other buildings in the village have been completed.

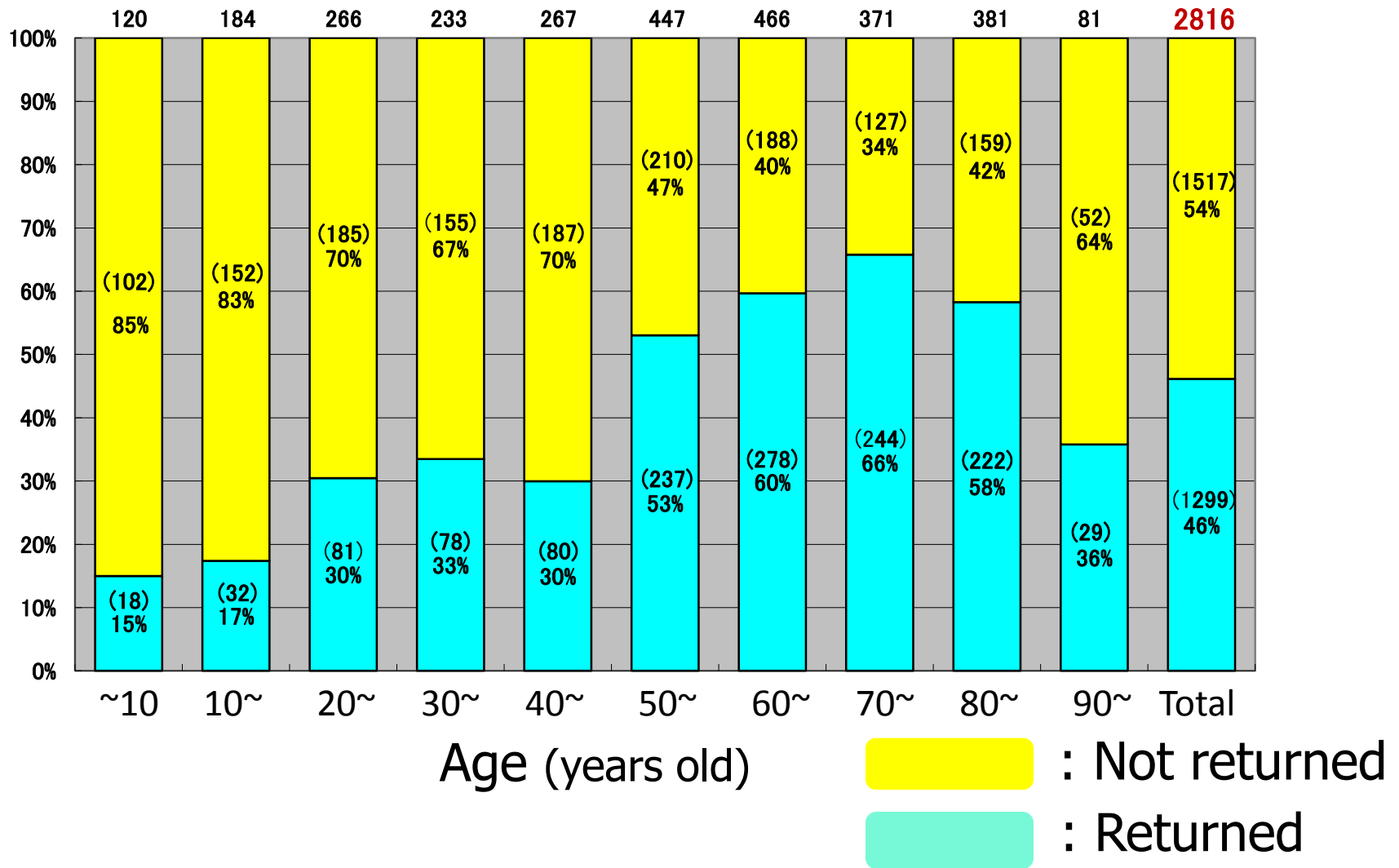


Before



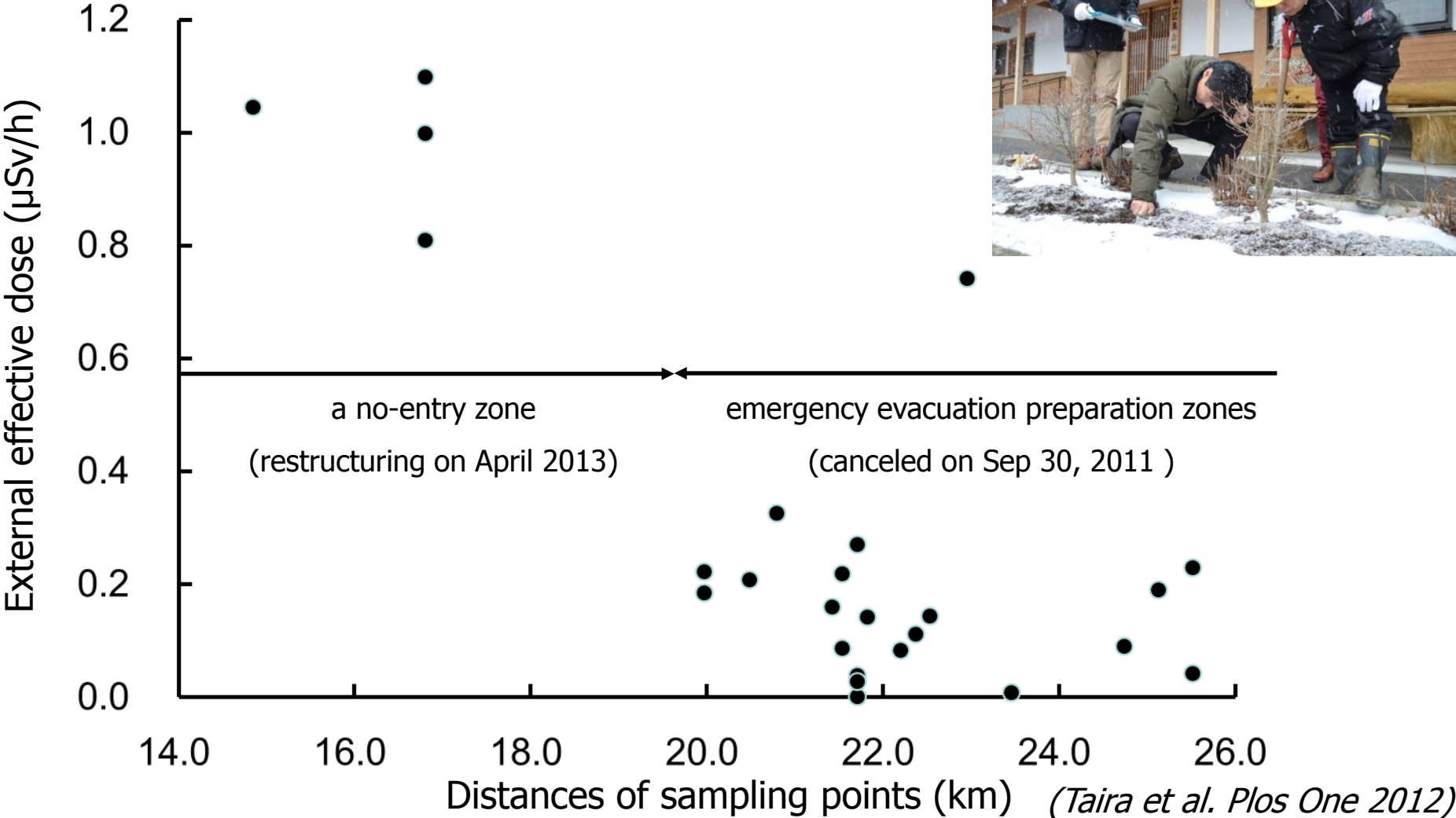
After

# Rate of residents who returned back to Kawauchi Village (April 2013)





# Evaluation of the effectiveness of the decontamination through the measurement of radionuclides in soils (December 2011)



# Health consultation and door-to-door visiting by a nurse of Nagasaki University (May 2012)

A graduate student in the master's program who is a public health nurse stayed for an extended period to conduct individual consulting on radiation exposure and health.



# Odds ratio and 95% confidence interval for returning home, as assessed by logistic regression analysis

Variable	Unit	Odds ratio	95% confidence interval	P-value
Sex	(Women/Men)	2.43	1.13-10.45	0.03
Living area	(High/Low)	3.60	1.42-9.17	0.01
Employment	(Yes/No)	0.44	0.18-1.08	0.07
Anxiety about radiation exposure	(Yes/No)	8.91	3.23-24.58	<0.01
Anxiety about consumption of contaminated food	(Yes/No)	0.69	0.27-1.77	0.43
Difficulty for shopping	(Yes/No)	0.46	0.16-1.33	0.15

*(Orita et al. Rad Prot Dosim 2013)*



# Establishment of Nagasaki University/ Kawauchi Village Reconstruction Promotion Base in Kawauchi Village (April 2013)



## Mission

1. Evaluation of effectiveness of decontamination through the measurement of radionuclides in soils.
2. Evaluation of risks of internal exposure through the measurement of foods and waters.
3. Health consultation with inhabitants according to the results of measurements.
4. Health promotion of inhabitants.

# Individual consultation on radiation exposure and health effects

## 【My mission】

Working as a public health nurse in charge of the health consultation concerning radiation exposure and health effects.

## 【Frequently asked questions by residents】

- Food and water safeties in the village.
- Children's health risks residing in the village.
- Basic knowledge about radiation.
- Future prospect the return to their home.



# Establishment of radiation health risk sciences, corresponding to social needs after the accident at Fukushima nuclear power plant.





# Conclusion

Close cooperation between Nagasaki University and Kawauchi village should be a model for reconstruction after the accident at Fukushima nuclear power plant.

With the Atomic Bomb Disease Institute playing a central role, we plan to continue our activities as we offer Fukushima support from Nagasaki University.