Monitoring air dose rates in road/its adjacent area and vacant land lot from a series of surveys by car-borne radiation detectors and survey meters after the Fukushima Daiichi NPS accident

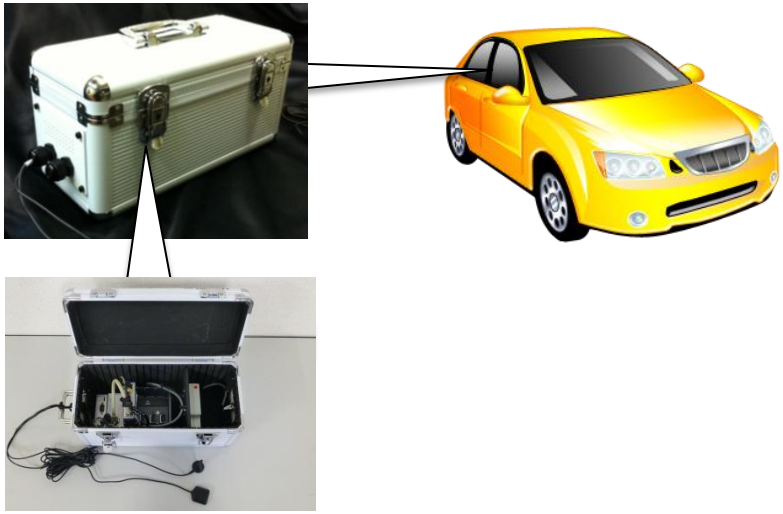
11 June, 2014
Secretariat of
the Nuclear Regulation Authority
Japan

NRA , Japan
Nuclear Regulation Authority

Monitoring areas

1. Road and its adjacent area

Monitoring is conducted by radiation detectors equipped in vehicles.



radiation detector

2. Vacant land lot

Vacant land lot is the area which has not been disturbed by human activities as shown in the following photos. Monitoring is conducted by survey meters.

survey meter

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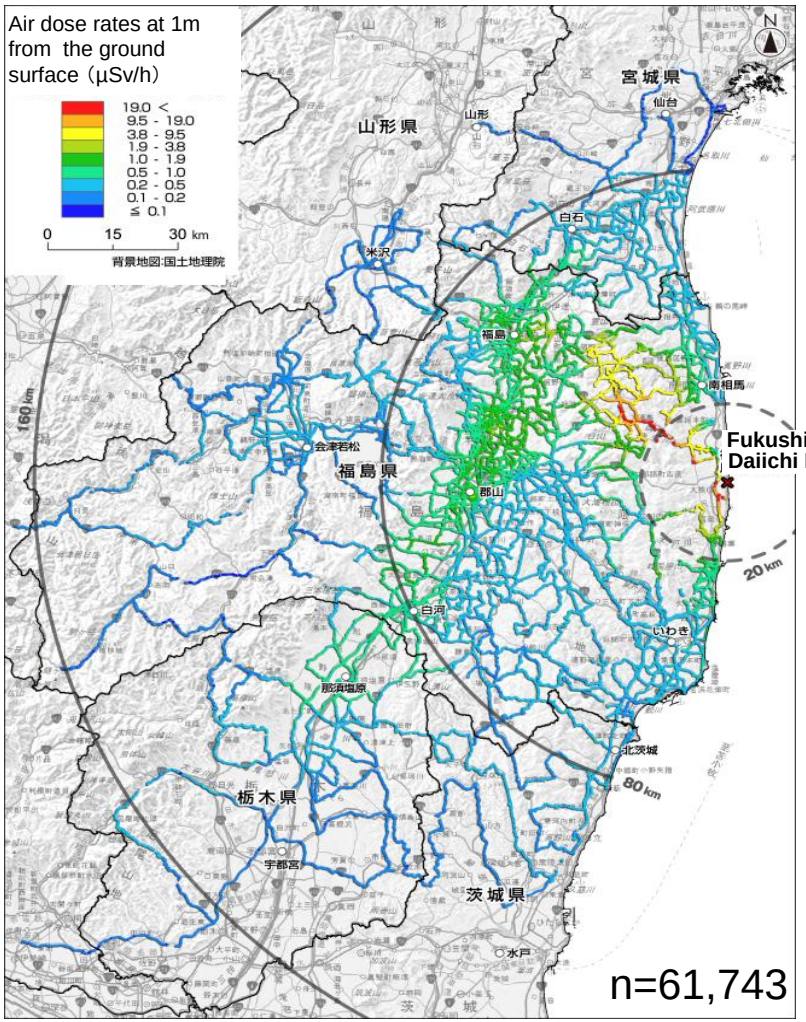
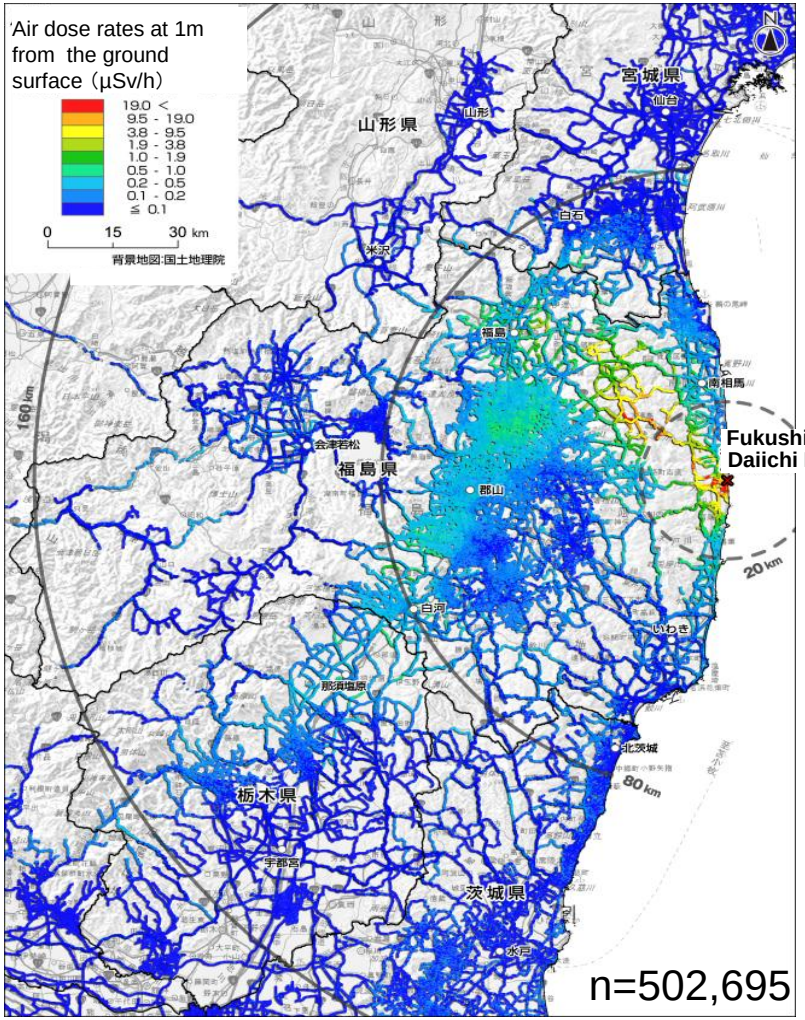
Air dose rates in “Road and its adjacent area”



3 months later
(4 to 13 June, 2011)



32 months later
(5 November to 12 December, 2013)

n: number of the measured areas of 100m x 100m mesh

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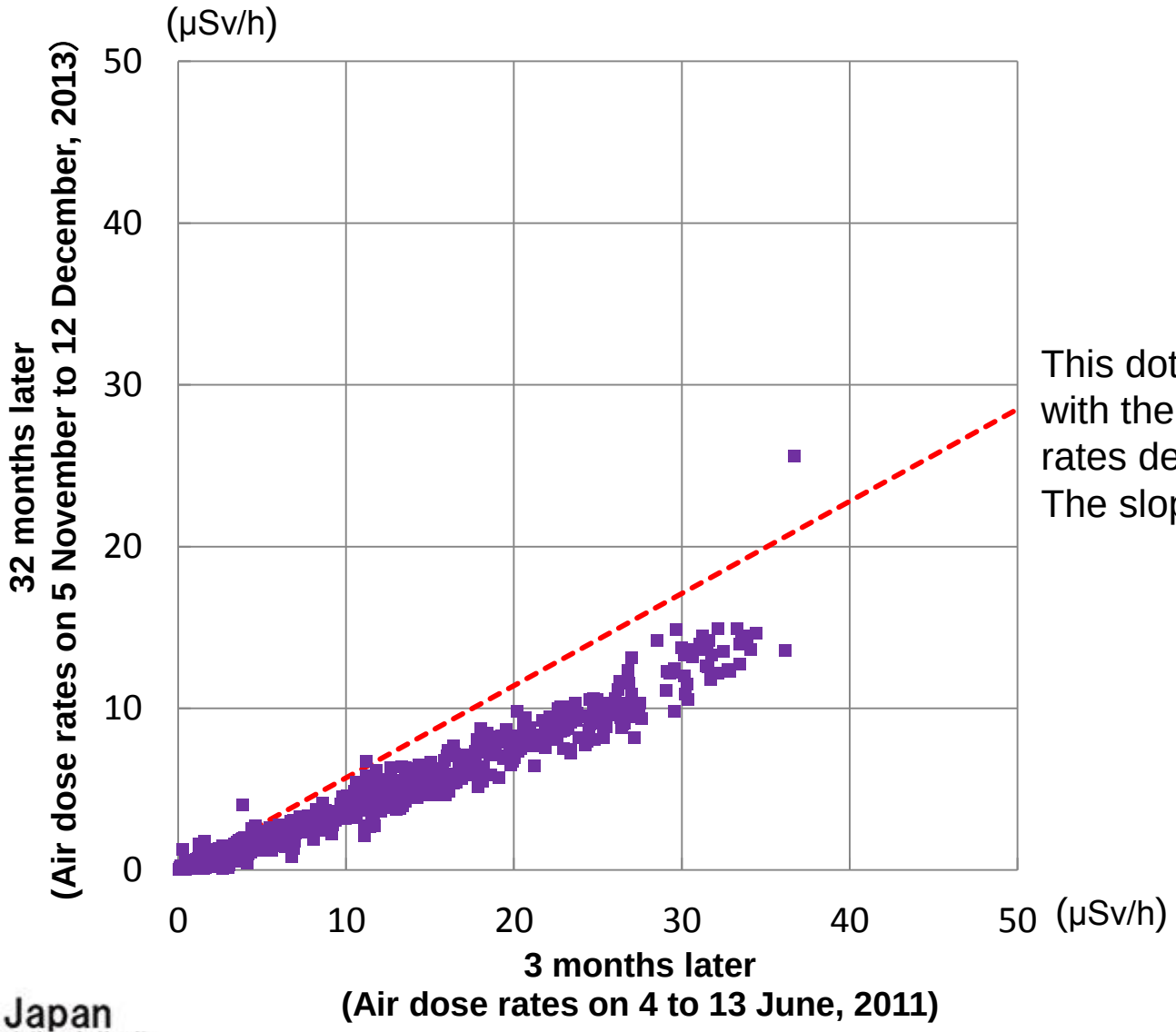
Air dose rates in “Road and its adjacent area” 3 months later and 32 months later



This dotted line is calculated with the condition that air dose rates decrease spontaneously. The slope is 0.57.

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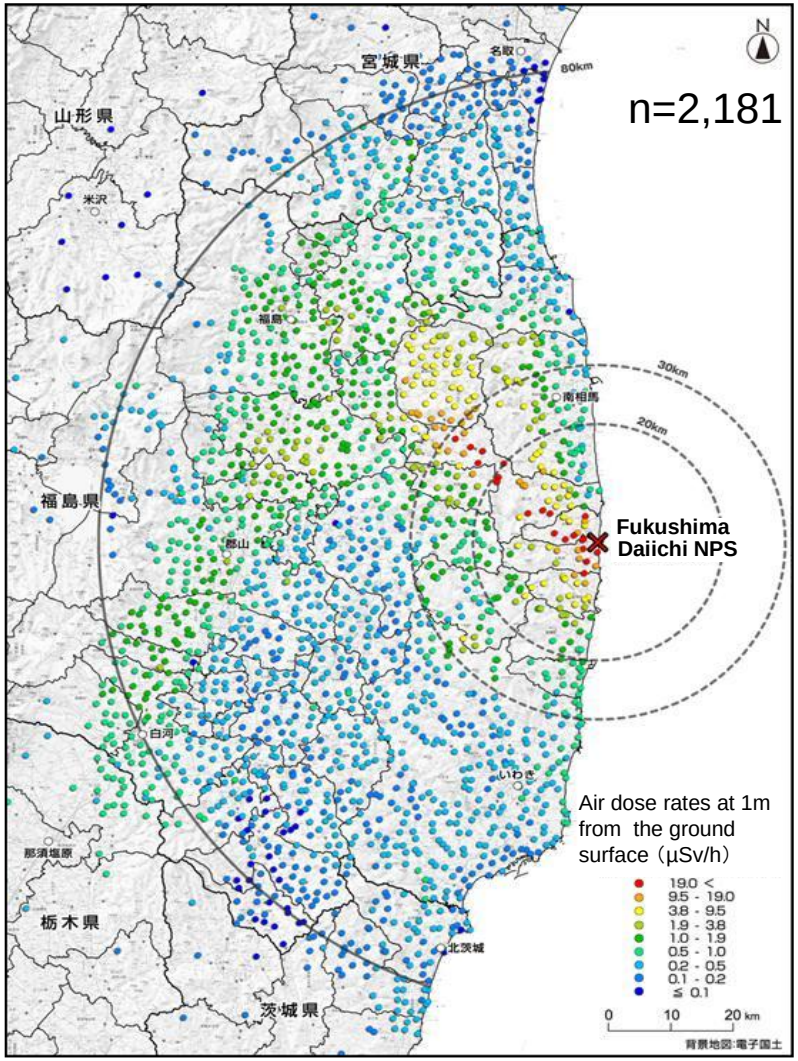
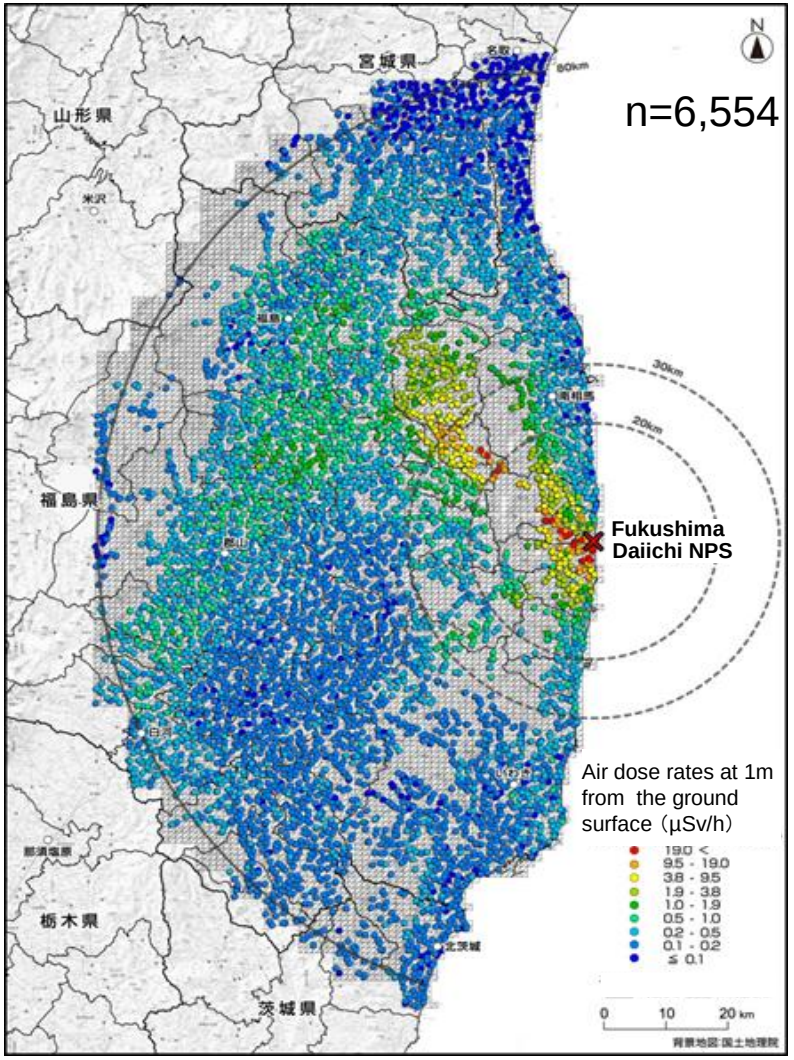
Air dose rates in “Vacant land lot”



3 months later
(4 June to 8 July, 2011)



32 months later
(28 October to 4 December, 2013)

n: number of the measured points

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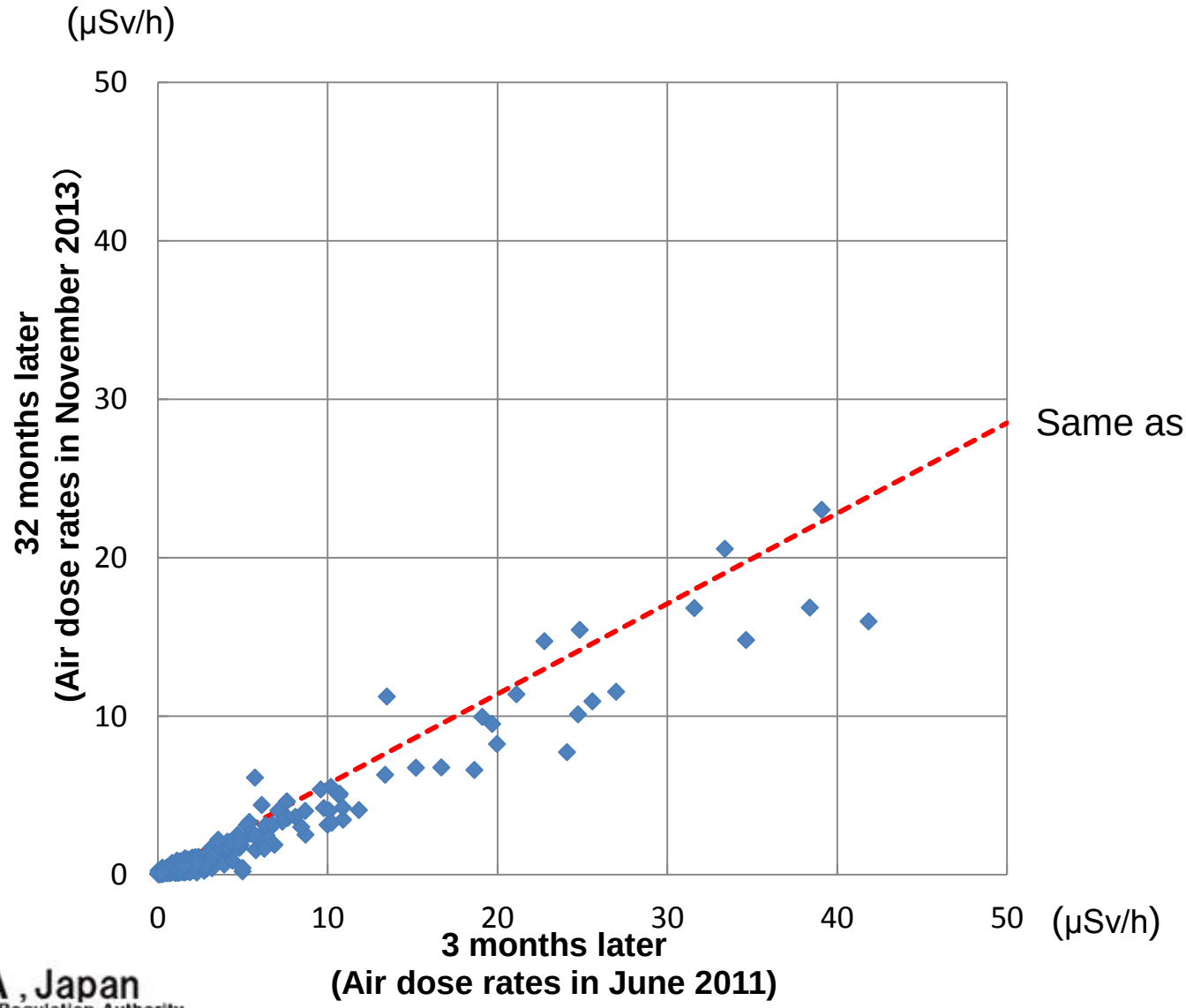
Air dose rates in “Vacant land lot” 3 months later and 32 months later



Same as described in Page 3.

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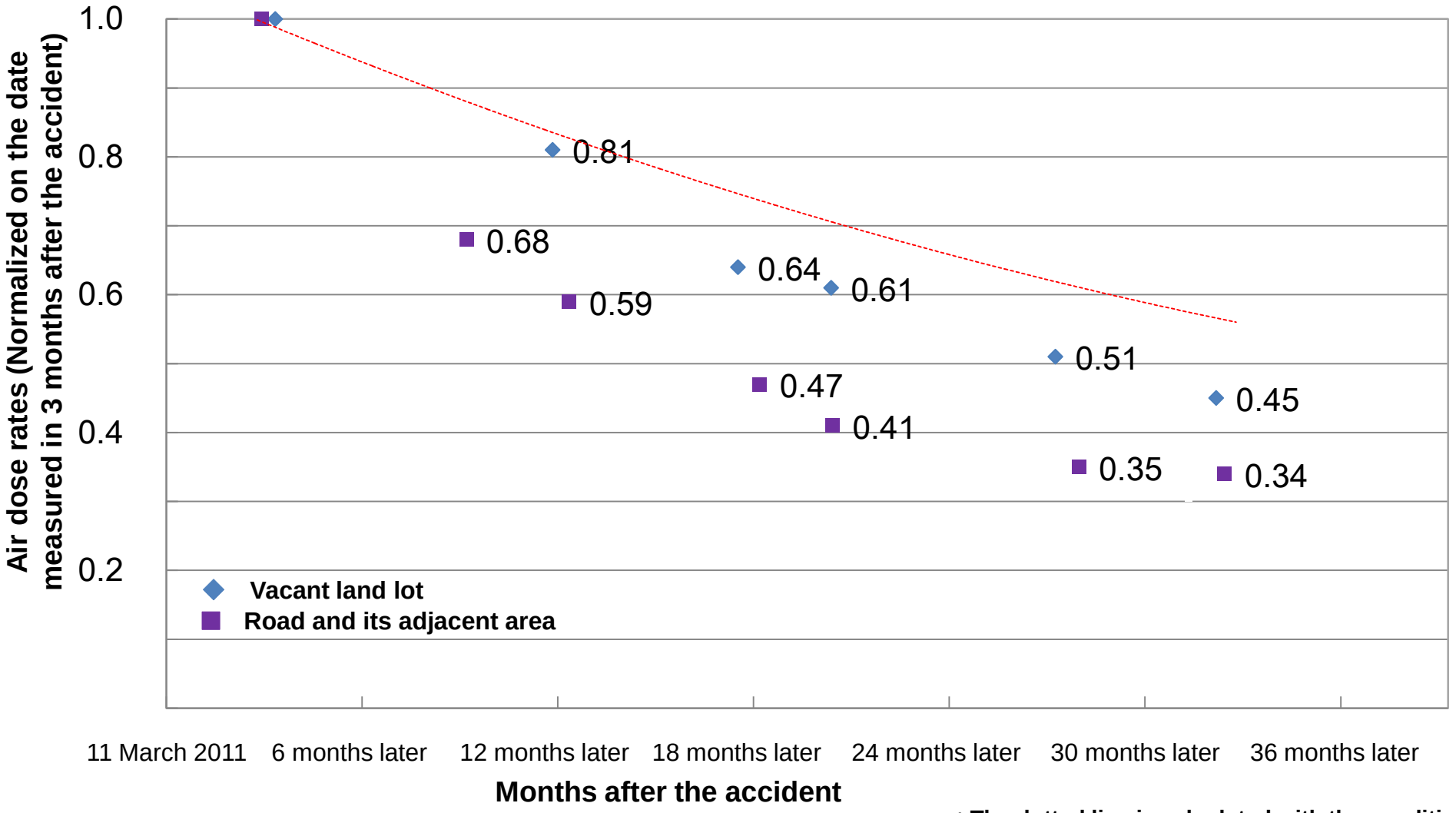
Air dose rates in “Road and its adjacent area” and “Vacant land lot”



: The dotted line is calculated with the condition that air dose rates decrease spontaneously.

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Summary

1. Air dose rates in both “Road and its adjacent area” and “Vacant land lot” have decreased more rapidly than we expected considering the physical half-life of radionuclide in 32 months after the accident.

2. Air dose rates in “Road and its adjacent area” have decreased more rapidly than “Vacant land lot” in 32 months after the accident.