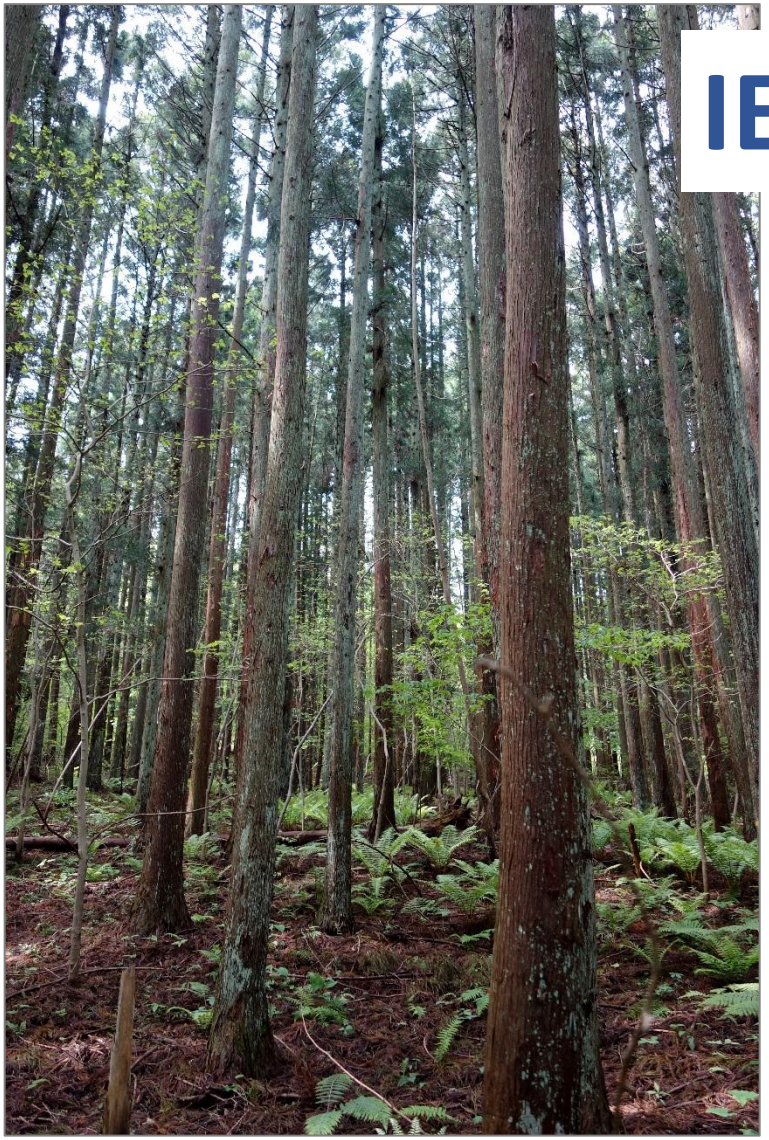

IER Forest project:

Aims, Progress and Perspectives

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IER Forest project: aims and activities

IER website:

- Forests

Long-term survey on the movement of radionuclides in forests and clarification of their behavior

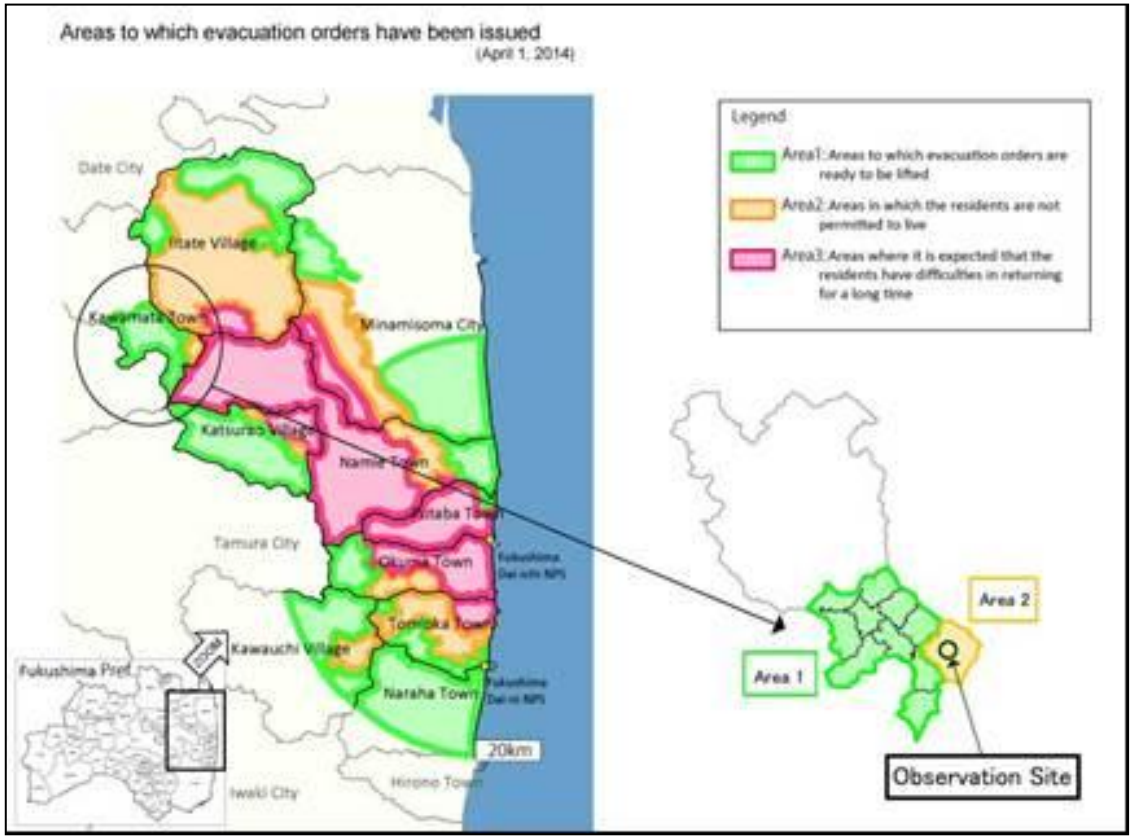
1)Long-term monitoring on the transfer and accumulation of radioactive substances and clarification of its mechanism
2)Development of prediction models for radionuclide transfer in forests and collection/adjustment of parameters
3)Enhancement of accuracy of dose assessment for forest organisms and evaluation of radiation effects on them

Planned activities:

- selection and description of the experimental site. Installation of the monitoring equipment (FY2014)
- long-term monitoring of the rCs distribution and fluxes at the site (FY2014 – 2015 - …)
- biomass sampling (FY2014, …)
- conceptual model (FY2014)
- revision/update of the experimental program (beginning of FY2015)
- parameterization of the model (FY2014-2015)
- mathematical formalization and model calculations in order to provide the long-term prognosis of rCs redistribution in the forest ecosystem (FY2015-2016)
- identification of radiation effects (FY2014-2016)
- …

IER Forest project: selection of the experimental site

Experimental site: Sugi forest, Yamakiya District, Kawamata Town, Fukushima Prefecture



Sugi (*Cryptomeria Japonica* D.Don; Japanese Cedar) is a national tree of Japan and the main forestry species.
Sugi plantations in Fukushima Prefecture: about 70% of the forest area, more than half of the timber production

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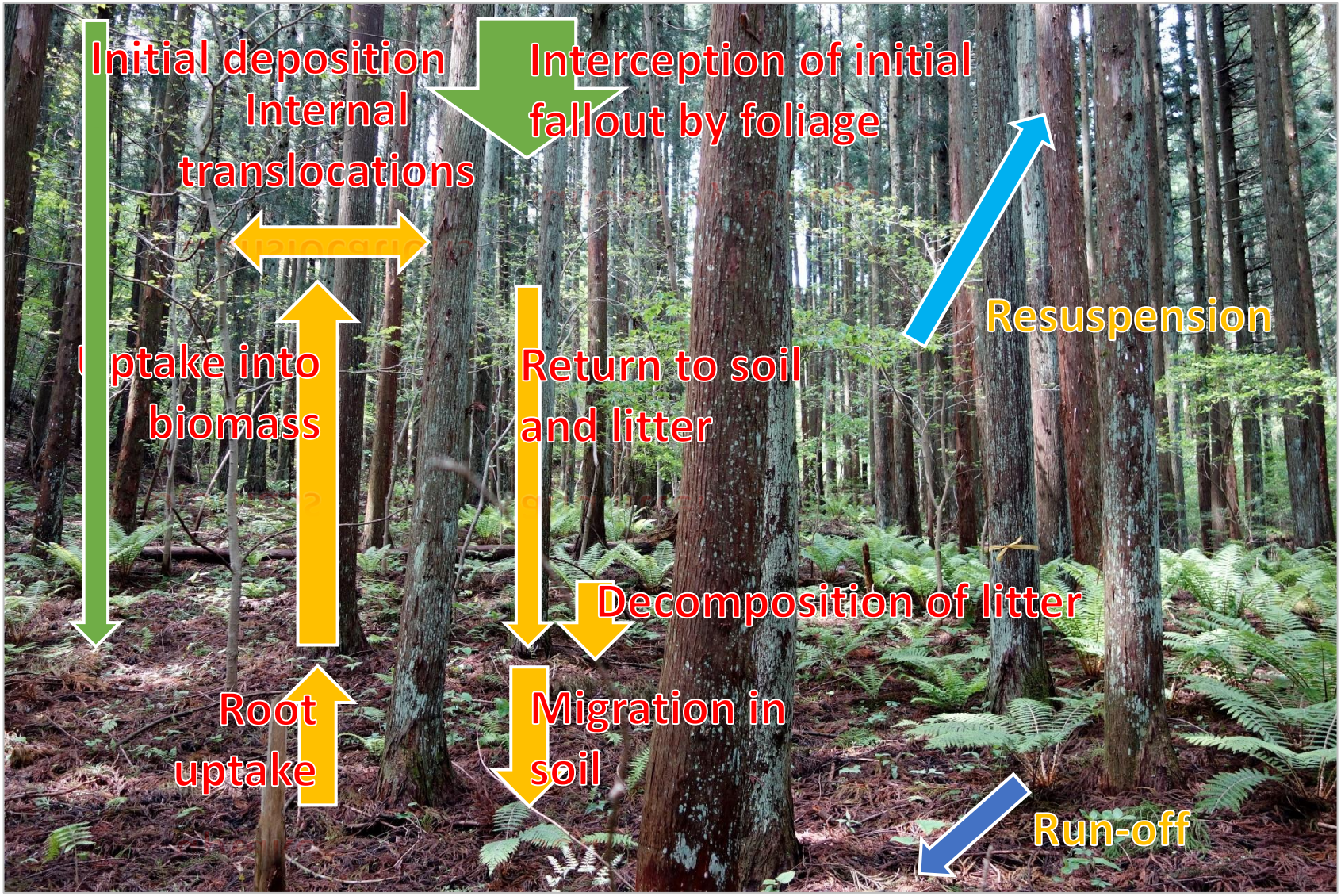
IER Forest project: monitoring scope



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IER Forest project: equipping the site, monitoring & sampling

IER Forest project: equipping the site, monitoring & sampling

^{137}Cs in understory: 1×10^{3} Bq m^{-2}

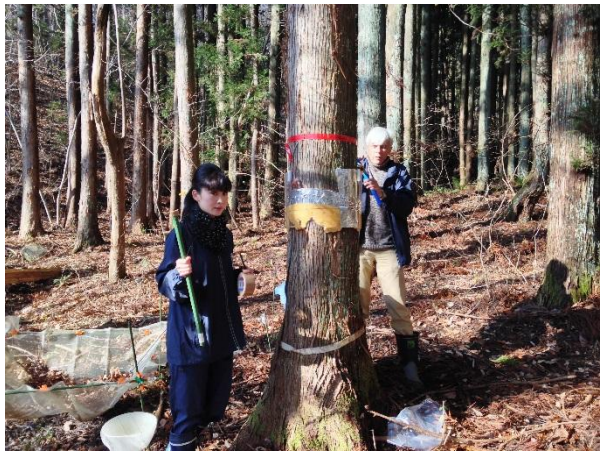
^{137}Cs in fallen branches: 1×10^{3} Bq m^{-2}

^{137}Cs total soil + litter: ~ 1×10^{6} Bq m^{-2}
Litter: 15-25% of total
Litterfall flux: $n \times 10^{4}$ (?) Bq m^{-2} y^{-1}

^{137}Cs stemflow flux: $n \times (10^{1}\text{-}10^{2})$
Bq m^{-2} y^{-1}

^{137}Cs throughfall flux: $n \times 10^{4}$ Bq m^{-2} y^{-1}

^{137}Cs in the trees' biomass: ???
SAMPLED on Nov 28 and Dec 04, 2014



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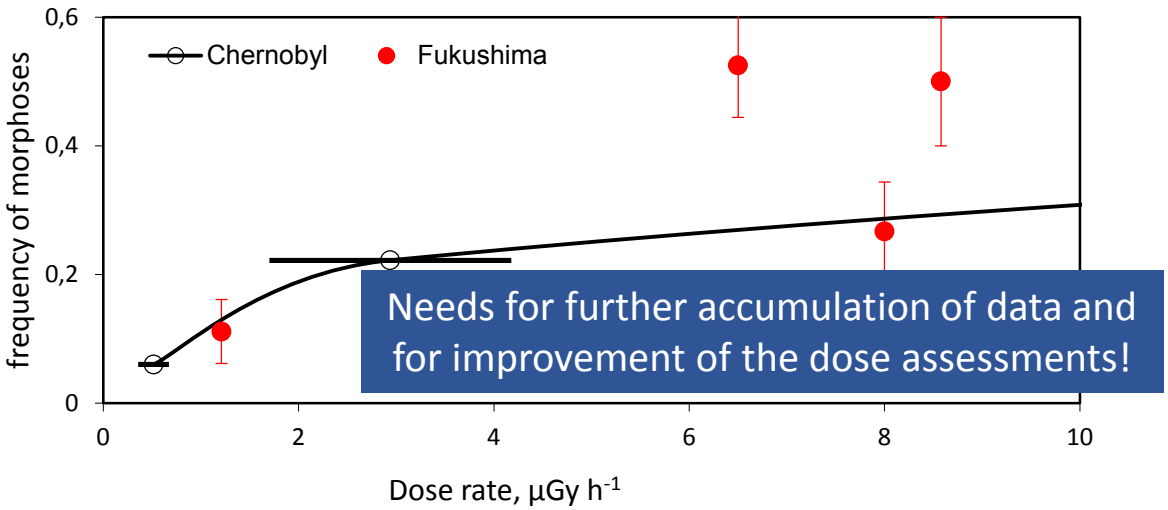
IER Forest project: observations of radiation effects to plants



Needs for further accumulation of data and for improvement of the dose assessments!

CHERNOBYL

FUKUSHIMA

Yamakiya village

Murohara

Akibadai

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IER Forest project




Thank you!





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