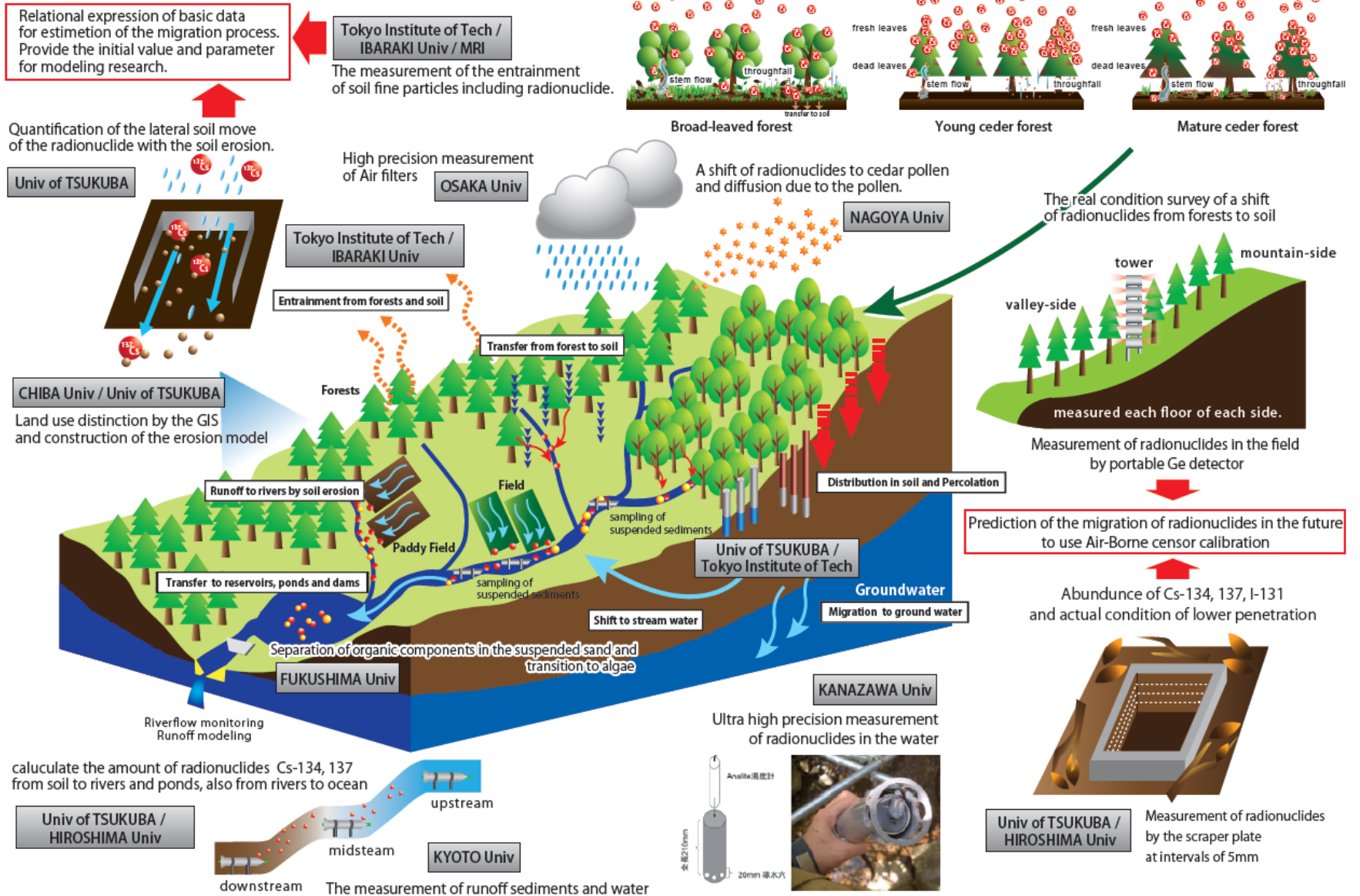
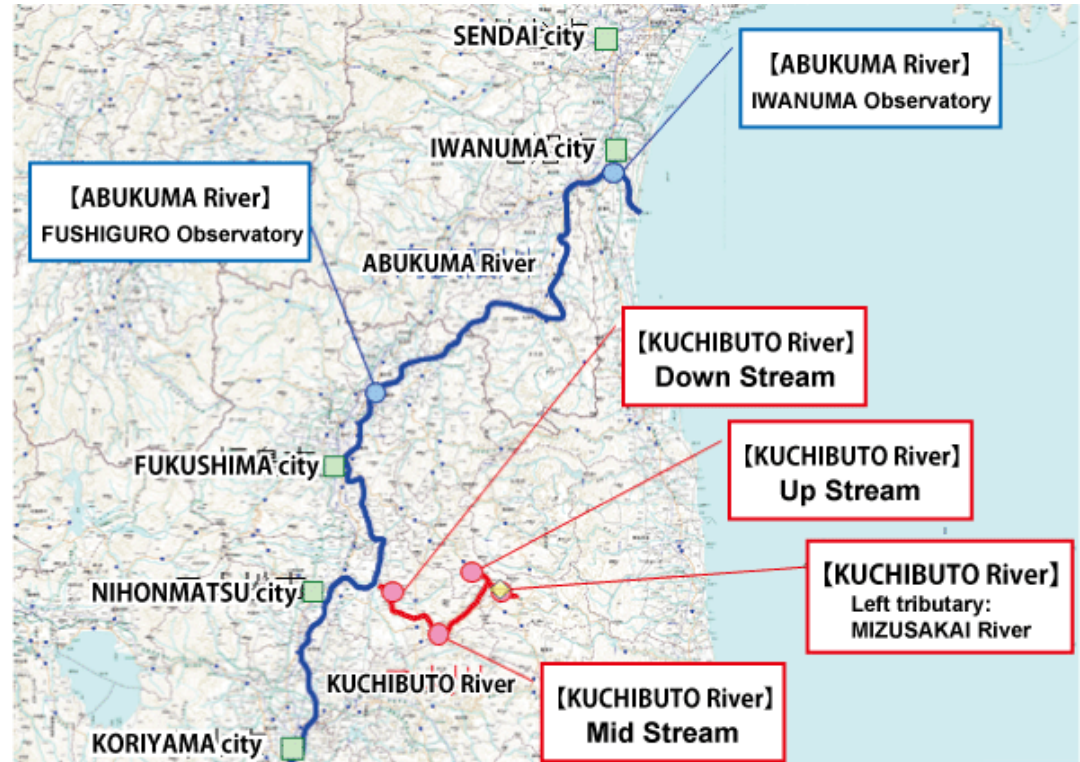


Comprehensive study on Migration of Radionuclides

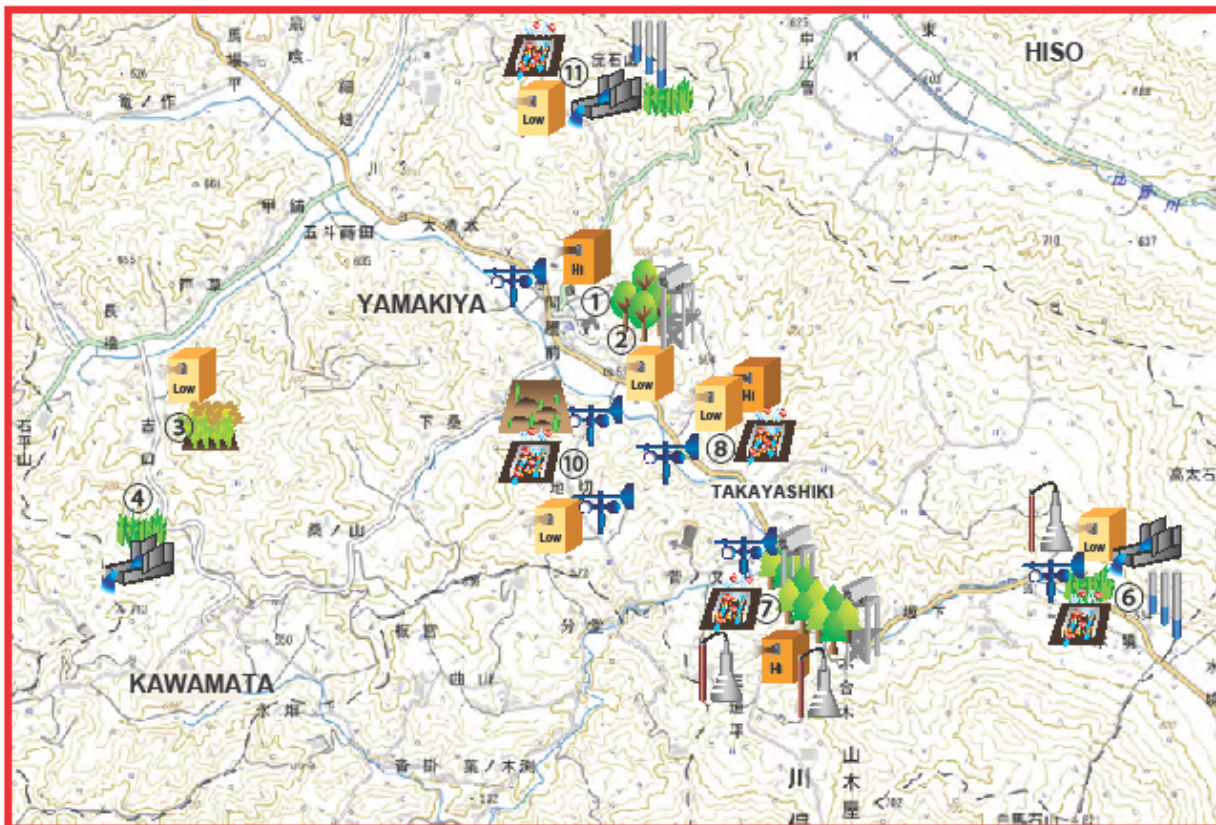


Research site and Survey items














1. Tower (Weather Observation / Radiation measurement / Dust sampler / Migration from trees to soil):
 - ② Broad-leaved tree,
 - ⑦ Young Cedar Forest and Mature Cedar Forest
2. High Volume Sampler (measure the entrainment of deposited radioactive material:
 - ② Broad-leaved tree,
 - ③ Paddy field, ⑧ Surrounding forest, ⑩ Tobacco field,
 - ⑥ Grassland / Forest, ⑪ Meadow
3. Soil erosion Plot (observe the migration of radionuclides):
 - ⑥, ⑧, ⑩, ⑪
4. Well (monitoring of the migration from soil water to ground water:
 - ⑥, ⑪
5. Sampling of river water and spring water (Migration research for Soil water > Ground water > Spring water > River water):
 - ④, ⑥, ⑦, ⑪
6. Turbidity・Suspended sand Sampling (measure runoff of suspended sand in stream water): 6 locations From upstream of KUCHIBUTO river④ to the estuary of ADATARA river (SENDAI).
7. Rain gauge (migration of soil, Verification of radar): Each locations of ①—⑪, also same point as turbidity set, ⑦20 locations/The measure of throughfall, 10 locations /other wide area
8. Bottom sediment sampling of reservoir (Migration research of reservoir and dam) : ⑨ OTOYA Pond, HORAI Lake
9. Sampling of Stemfall / Throughfall: ②, ⑦
10. Portable Ge detector (measure radioactivity / nuclide identification) : Canopy and wood floor of ②, ⑦



Intensive Research Area: Yamakiya, KAWAMATA



Yamakiya Area, KAWAMATA (Planned Evacuation Zone)

- 
Hi Volume Sampler :
Measurement of entrained radionuclides (high flow rate)
- 
Low Volume Sampler :
Measurement of entrained radionuclides (low flow rate)
- 
Soil Erosion Plot :
Observation of radionuclides' migration
- 
Broad- Leaved Forest :
Observation of interception · Throughfall
Observation tower / Plot
- 
Conifer Forest :
Observation of interception · Throughfall
Observation tower / Plot
- 
Observation Tower :
Meteorological observation /
Radiation measurement / Dust collection /
Measurement of radiation at different tree height.
- 
Soil Water Sampling :
Suction and collection of soil water by reducing
the pressure in a conical flask.
- 
Automatic Weather Station :
Measurement of wind direction, wind velocity,
temperature, humidity and precipitation.
- 
Observation Well :
Monitoring of migration from soil water to
ground water.
- 
**Triangular Weir-Sampling of river water and
spring water :**
Soil water-Ground water-Spring water-Streamwater
- 
Paddy Field :
Quantitative investigation of radionuclide influx
from upstream area and radionuclide runoff
from the paddy field.
- 
Grassland :
Soil water · Ground water · Hillslope plot ·
Entrainment research
- 
Gully Field :
Observation of radionuclides' migration
at large-scale site.