

2006 Jakarta Research in RIHN project

- Mass Transport Group

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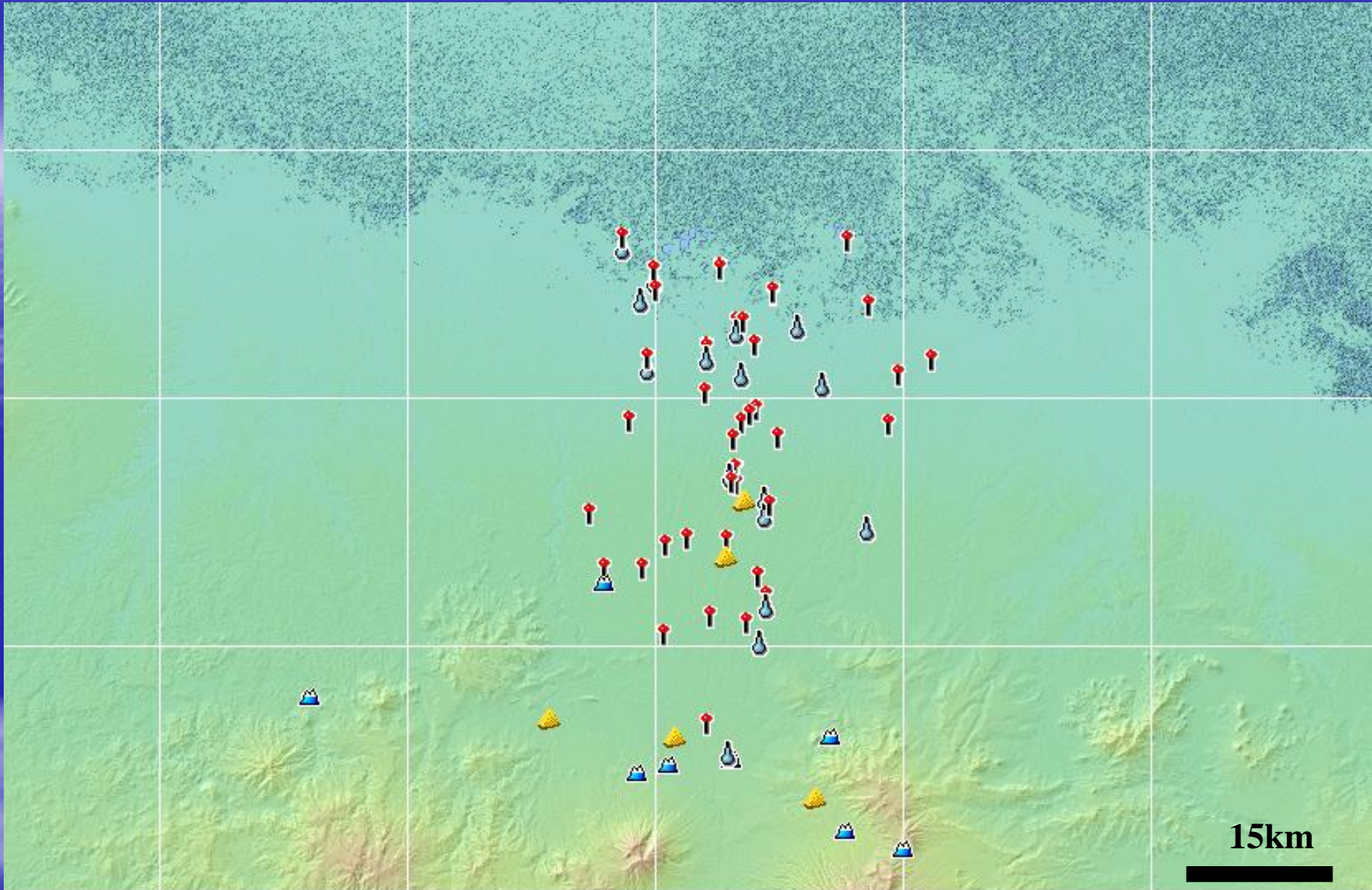
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Arief Ralunat

Dadan Sulorwan

Objective

- To confirm the subsurface accumulation and transportation of contaminants with growing of mega-city.
 - Effect of groundwater flow change by the intensive pumping
- To reconstruct and predict the transport of subsurface contamination



Water collection (84 samples)
16 ob.BHs, 55 other wells, 7 springs, 6 rivers

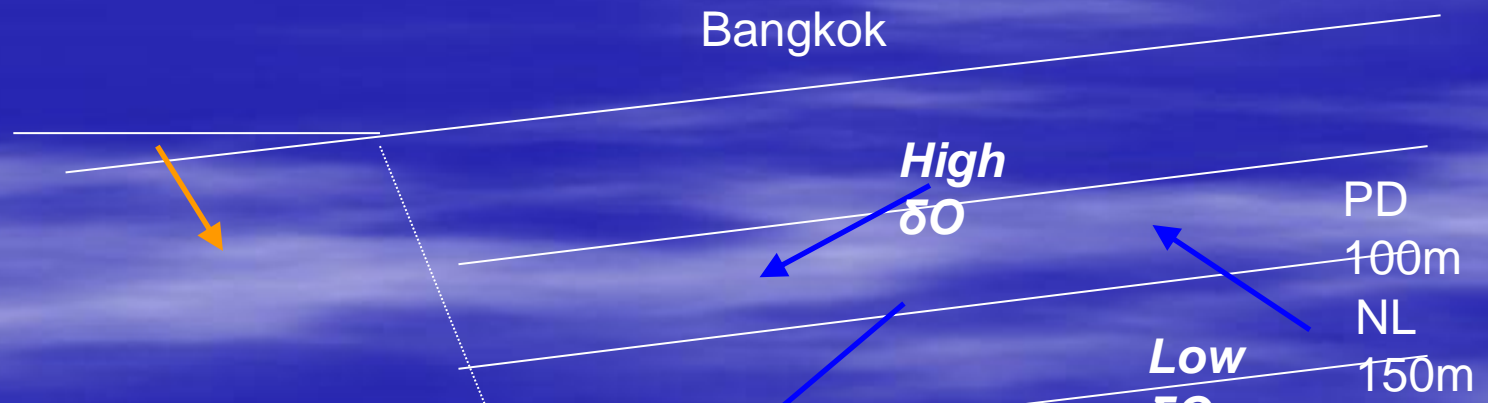
Analysis in Laboratory

- Measure ion (Cl⁻, NO₃⁻, SO₄²⁻, HCO₃⁻, Na⁺, K⁺, Ca²⁺, Mg²⁺) by ion chromatography
- Trace metal (Fe, Sr, Si, Al, Mn, Pb, Zn, As, Hg, Cu) by ICP and ICP Mass spectrometer
- Nutrient (N, P, Si, DOC) by Nutrient analyzer
- Stable isotope (N, S, Sr) by mass spectrometer

- Stable isotope of water (H, O) and ³H by the group of Dr. Shimada

2006 research ; *first year in Project (5 years)*

- general and wide view
of contaminant transport
with groundwater flow change



Next year ; to reconstruct and prediction of
contaminant transport