

# Kazuo Oki laboratory

## [Remote Sensing for Terrestrial Environments; Environmental Monitoring and Modeling]

Department of Human and Social System

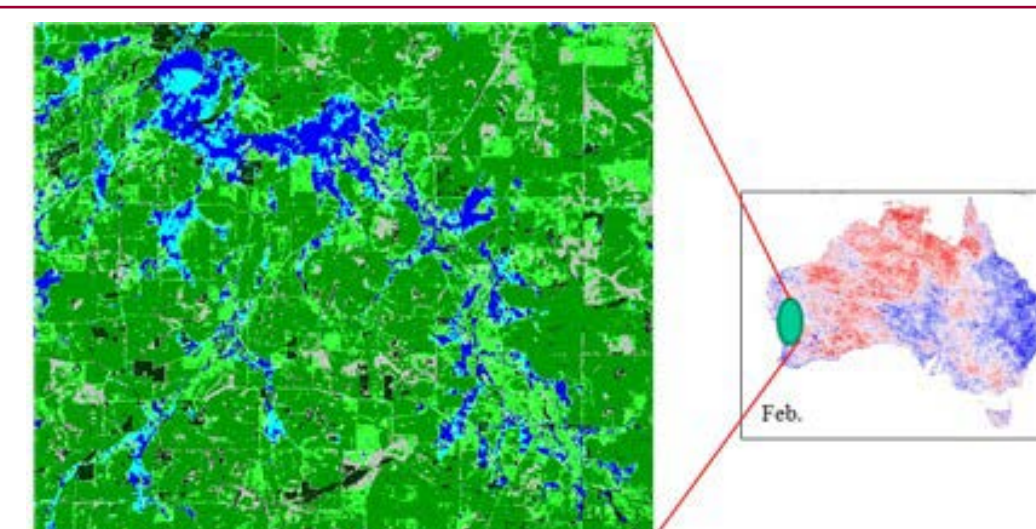
<http://hydro.iis.u-tokyo.ac.jp/indexJ.html>

Remote Sensing for Terrestrial Environments; Environmental Monitoring and Modeling

社会基盤学専攻

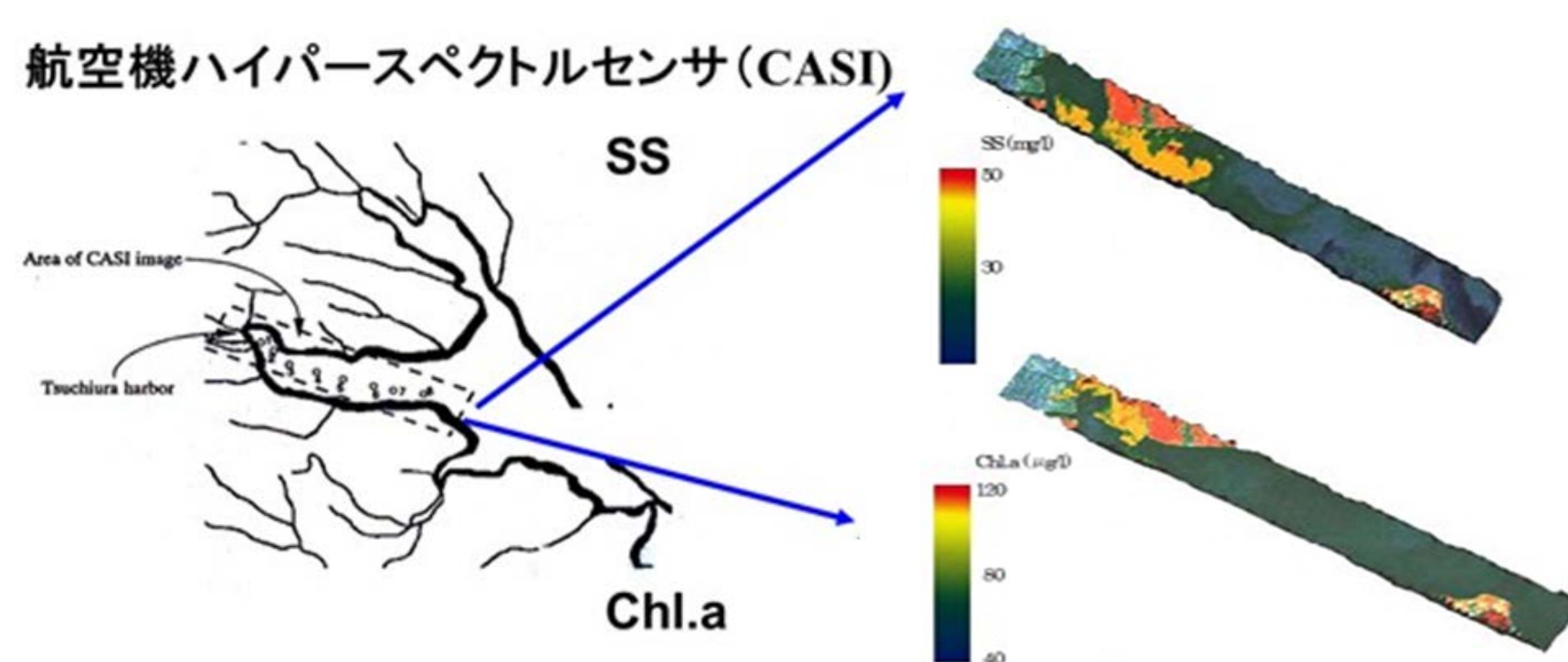
## Development of water environment assessment methods using remote sensing imagery

Our study is to develop a water environment assessment methods such as measurement of water quality, evaluation of soil salinity, measurement of land cover using unmixing method and Drought Map (2000-2013), using remote sensing imagery. We apply these methods many basins to contribute better understanding and solving recent problems related to water environment.

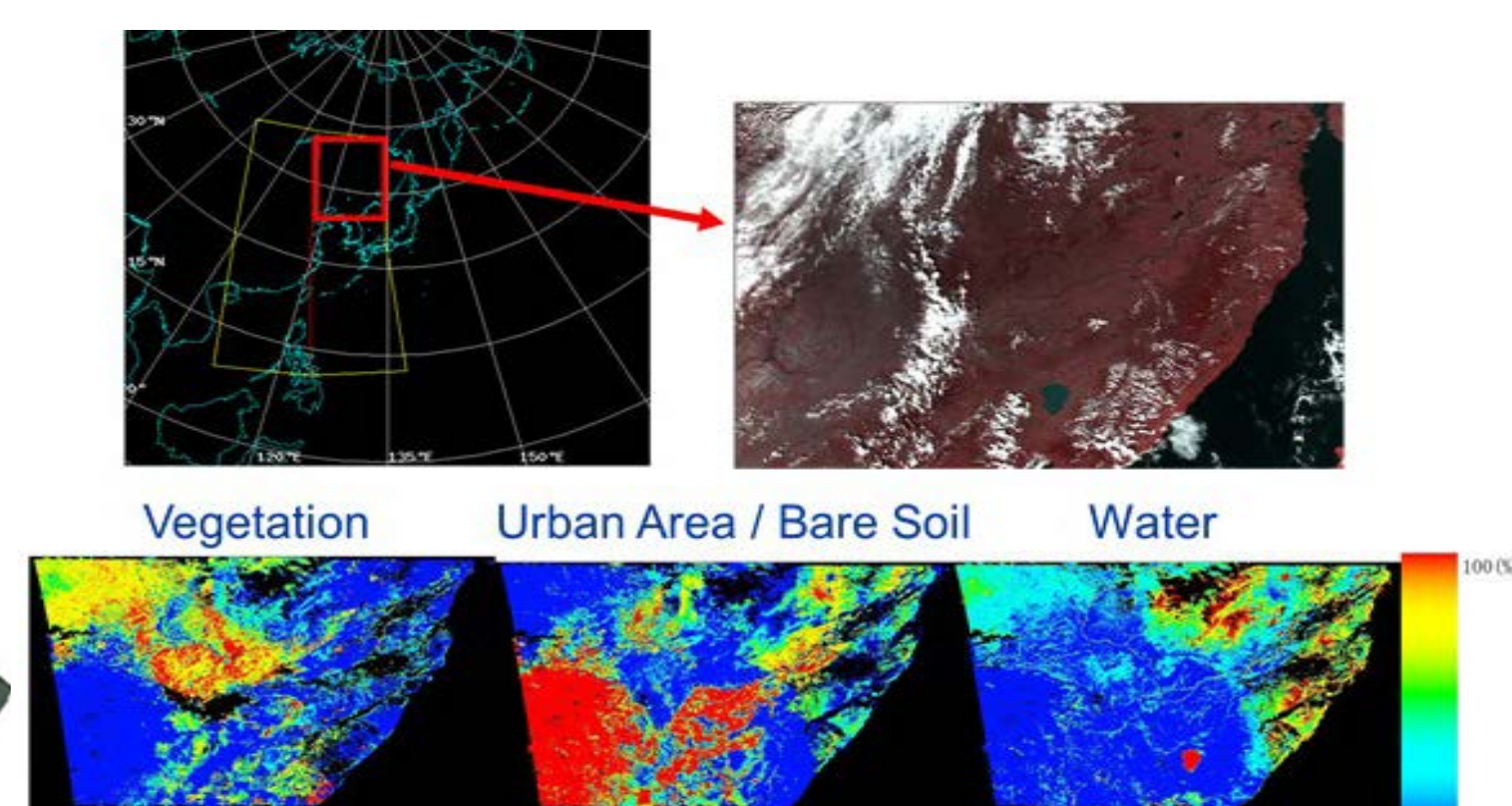


分類カテゴリー	対応する塩分濃度帯	有効な対策
健康な土壌	$EC_e < 250 \text{ mS/m}$	-
初期塩害化土壌	$250 \text{ mS/m} \leq EC_e < 1000 \text{ mS/m}$	耐塩性のある穀物・品種の導入
塩害進行土壌	$1000 \text{ mS/m} \leq EC_e < 30000 \text{ mS/m}$	植林・植草
塩湖・湛水害地域	$30000 \text{ mS/m} \leq EC_e$	土木工学的な工事
水不足進行地域	$EC_e < 250 \text{ mS/m}$	耐乾性のある穀物・品種の導入、土壌改良材の使用
自然保護林	-	-

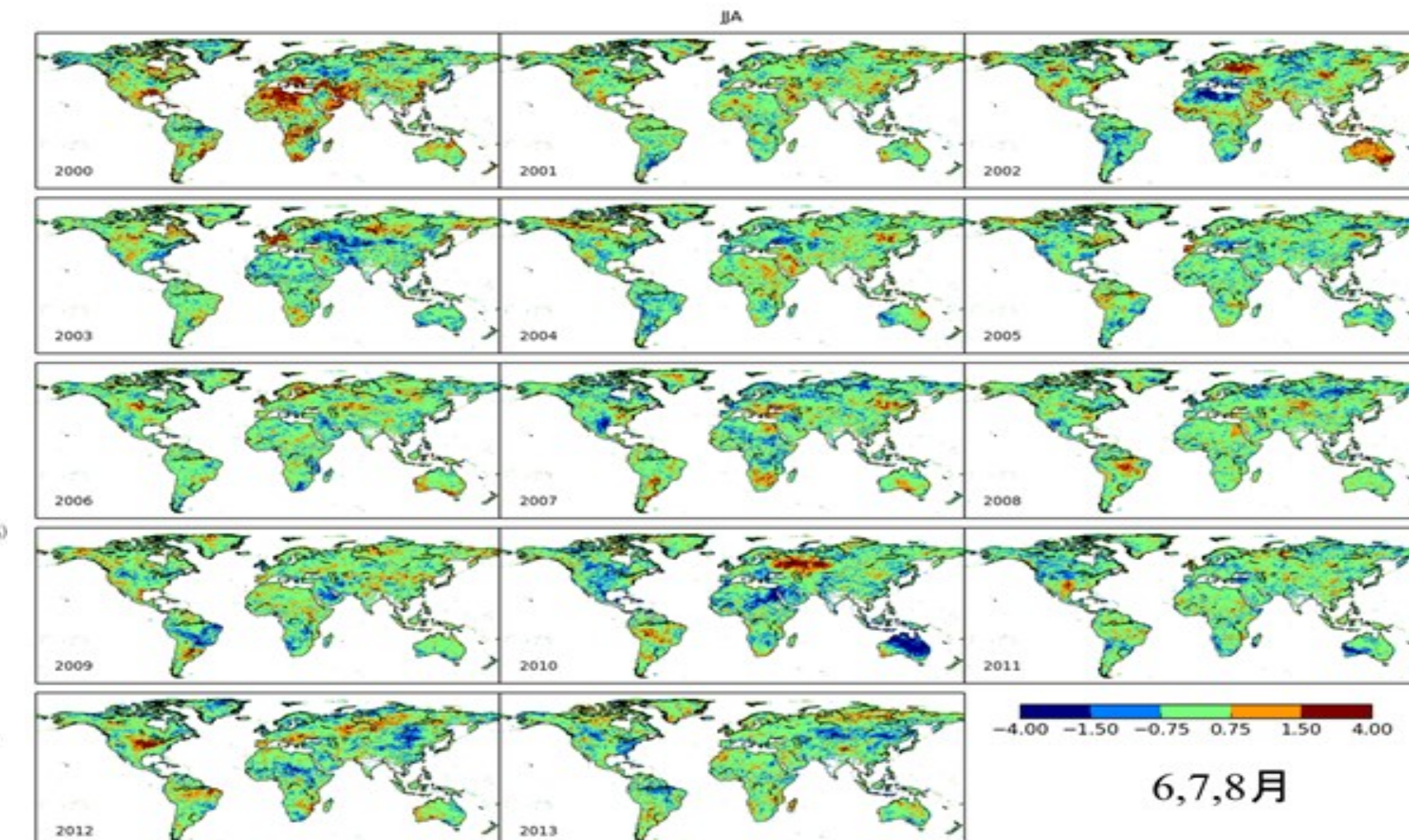
Evaluation of soil salinity



Measurement of Water quality



Measurement of land cover using Unmixing method



Drought Map (2000-2013)

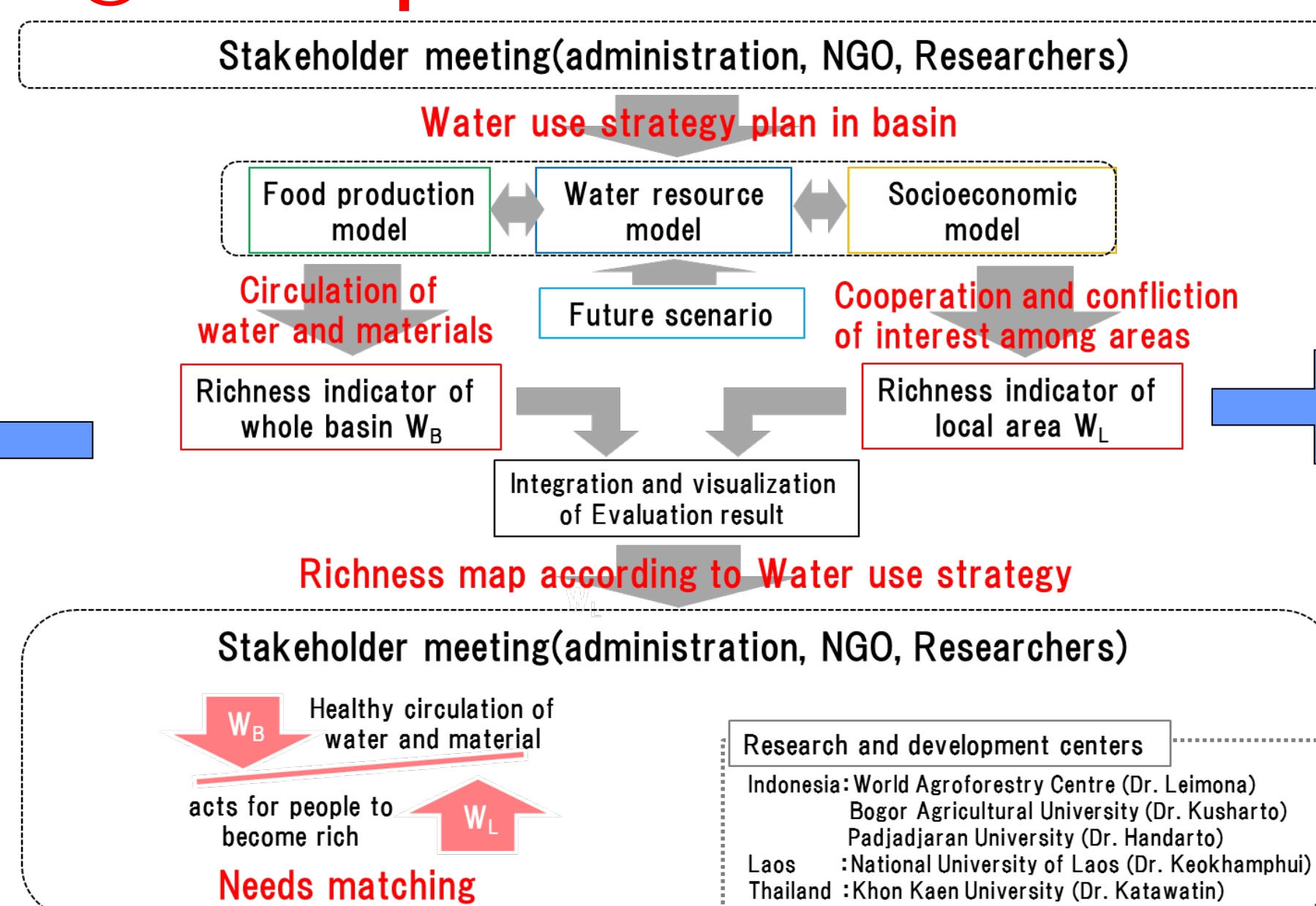
## Development of ideal watershed management in Monsoon Asia

We will evaluate water supply and demand of local areas in the basins by using two approaches, optimal water use based on water-crop-economic model and water usage based on local values. We also collaborate with a variety of stakeholders in the region considering their interest concerning water use. The local knowledge and modern technology combined together will work towards building a healthy watershed and water use beneficial for both urban and rural areas.

### ① Local field survey



### ② Development of evaluation schemes



### ③ Meeting with stakeholders

