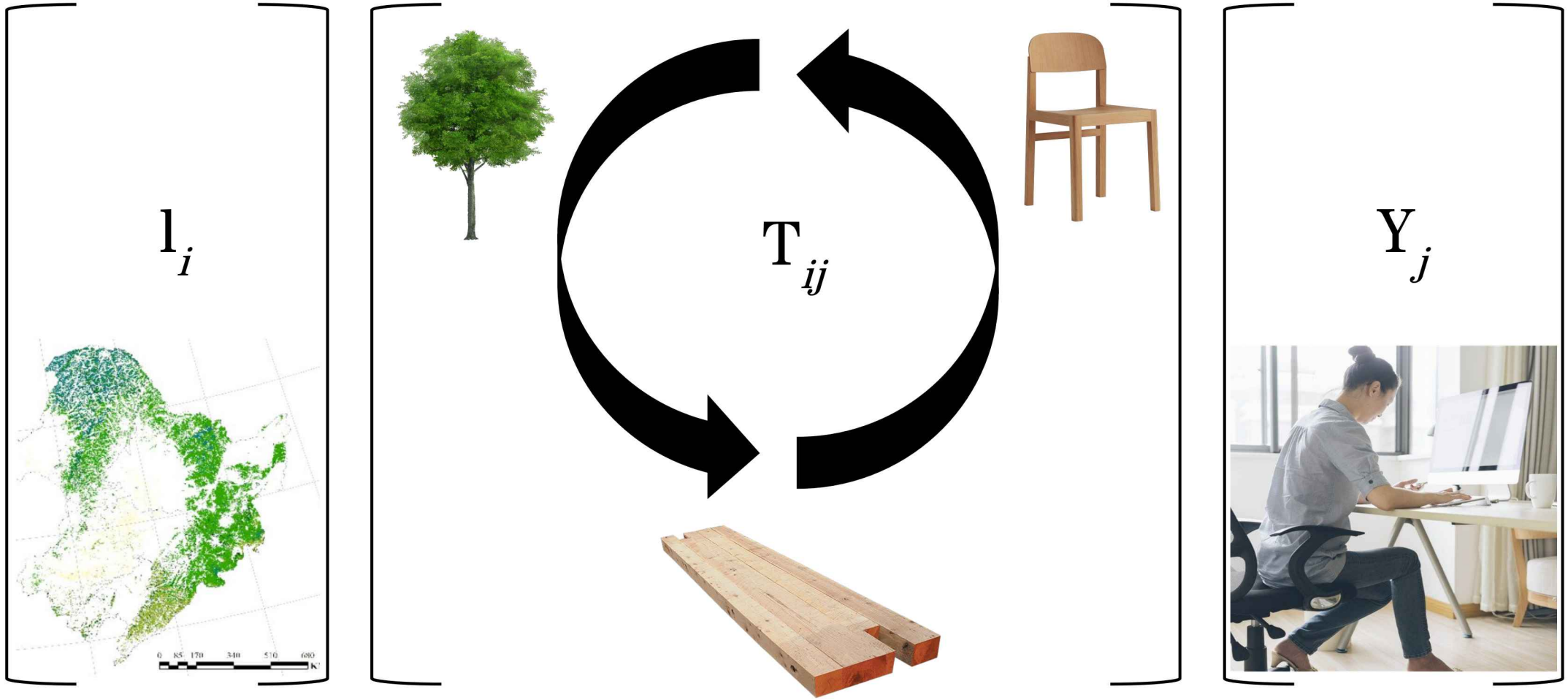


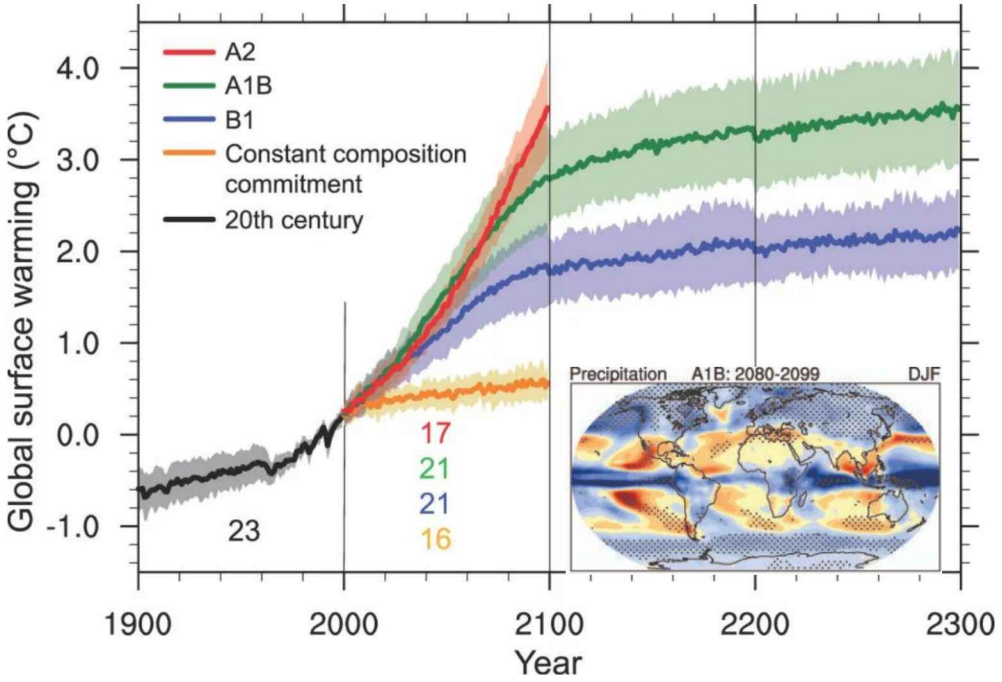
$$L_j = l_i \cdot T_{ij} \cdot Y_j$$

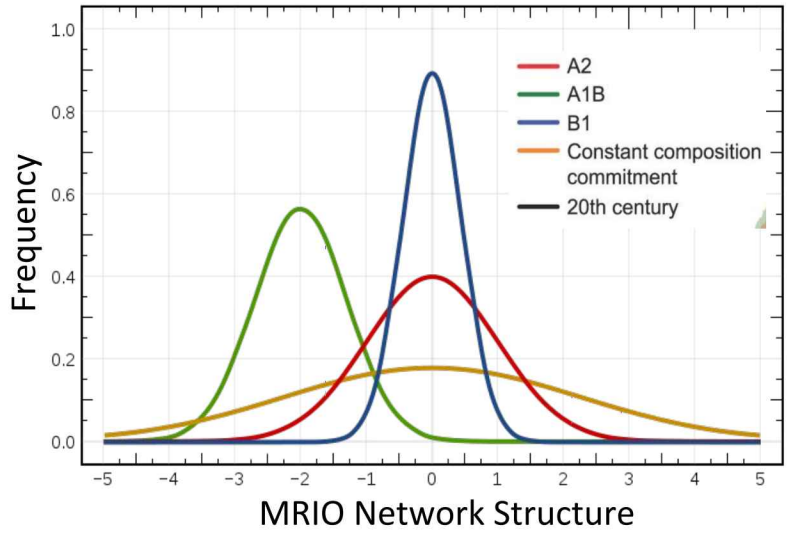
Land area used by region *j*

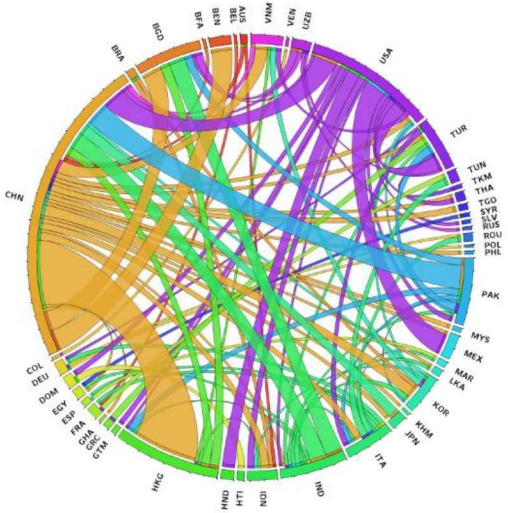
Total area used for one monetary unit for a sector

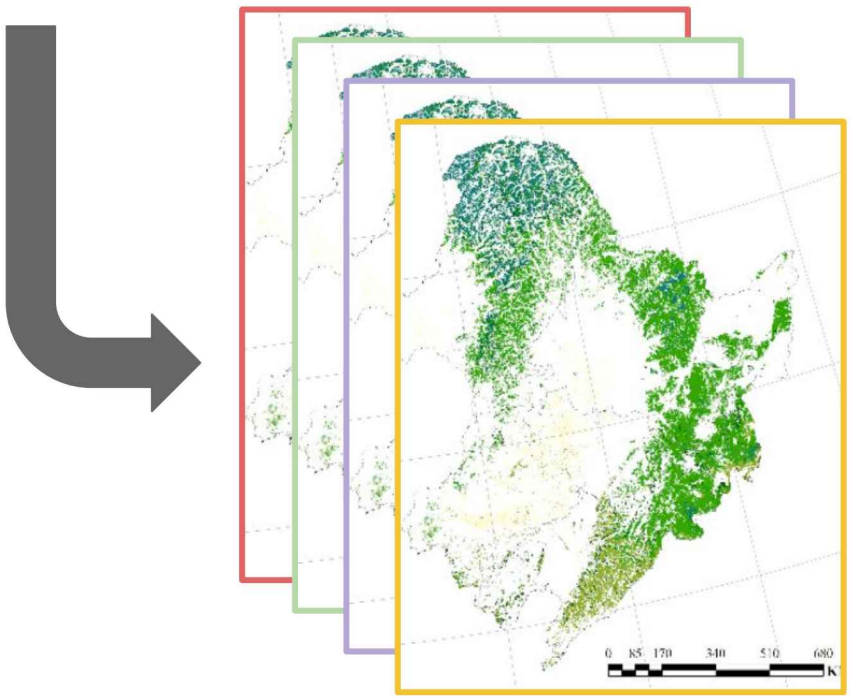
Input from one sector used for one unit output of a sector

Final consumption (not used to create additional products)

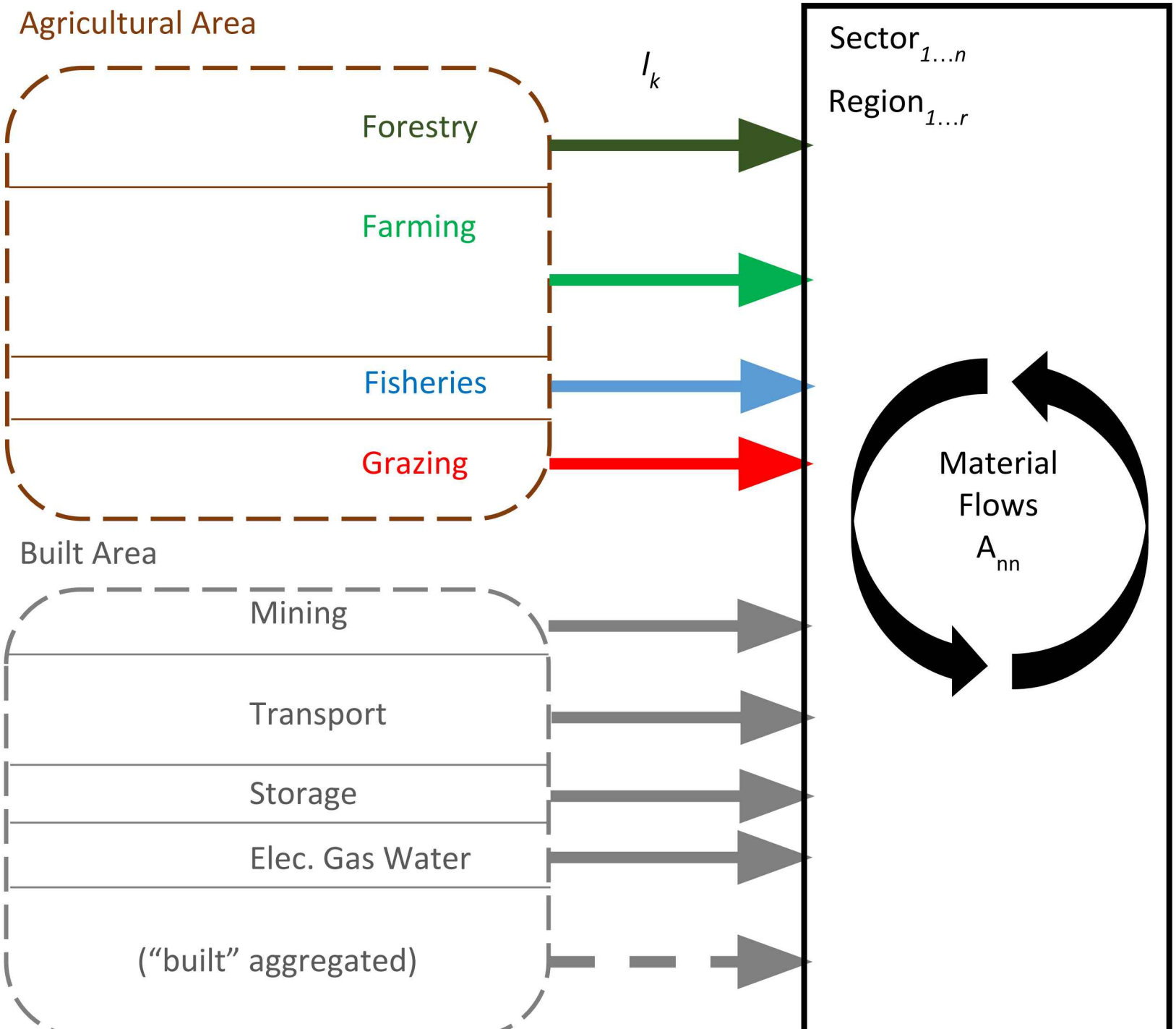




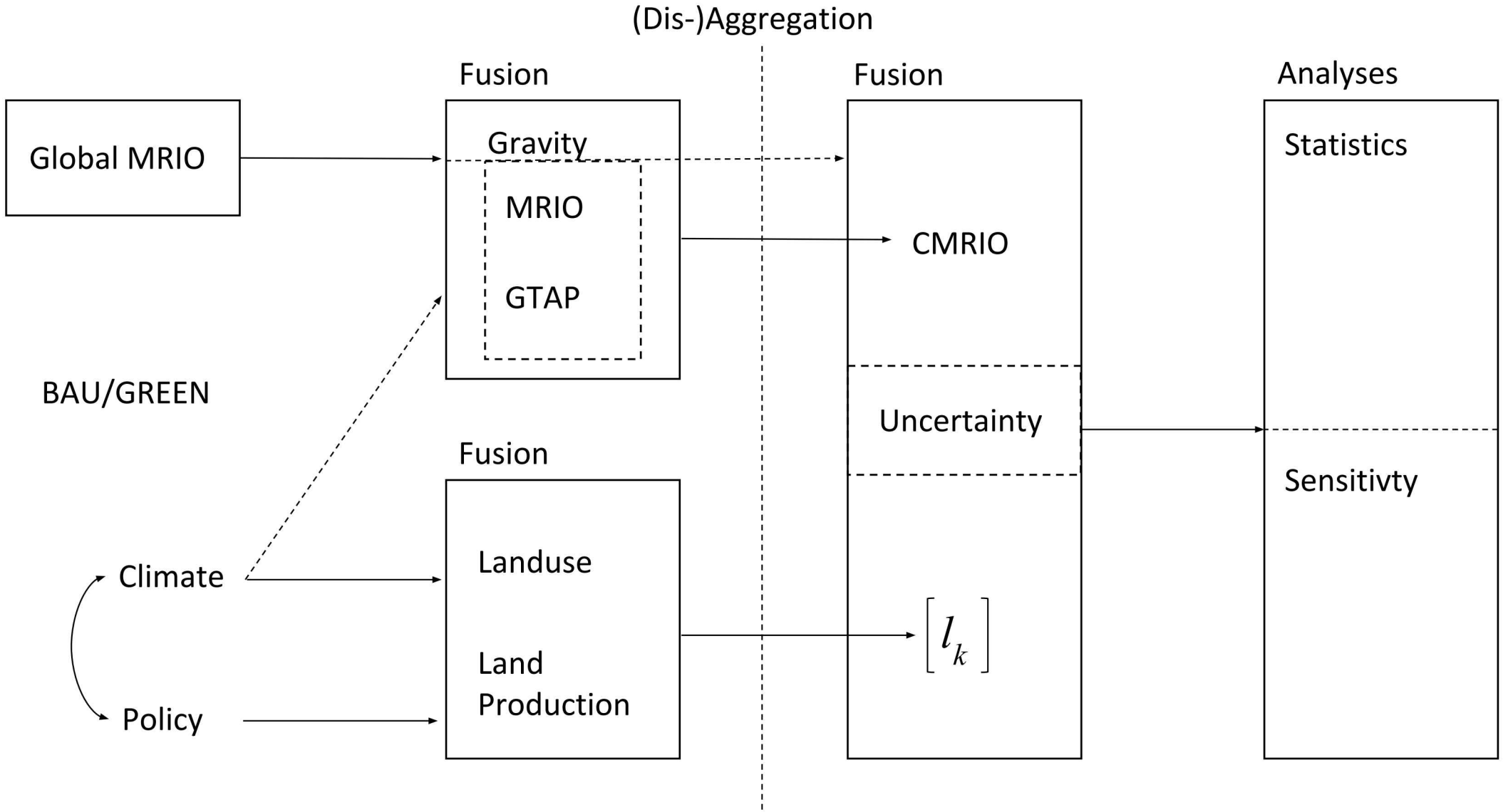




$$l_i \quad T_{ij} \quad Y_j$$


Agricultural Area
l_k
Sector$_{1...n}$
Region$_{1...r}$
Forestry
Farming
Fisheries
Grazing
Material
Flows
A$_{nn}$
Built Area
Mining
Transport
Storage
Elec. Gas Water
("built" aggregated)

Pipeline Schematic



Uncertainty Parameterization

Land-use Coefficients | Land-use Rate | Direct Input Coefficients | Final Demand (Consumption + Export)

$$L_k = l_k (I - A)^{-1} Y$$

Total area used for *k* in each region

Area used for one monetary unit for a sector

Amount of input from one sector used for one unit output of a sector

Sector output not used to create additional outputs

l_k
- Land use area (Min. Nat. Res. + For. Inv. + RESD.cn)
- Land use output (China Stat. Yearbook + RESD.cn)
- Disaggregation (Chen *et al.* 2019)

$(I-A)^{-1} Y$
- MRIO (Chinese Stat. Yearbook + Mi *et al.* 2018)
- International (GTAP.org + Exiobase III)
- Aggregation (Chen *et al.* 2019)

$log_{10}(1 + r_x) = a\ ln(x) + b$
- Uncertainty
- Pseudo-randomness seeds