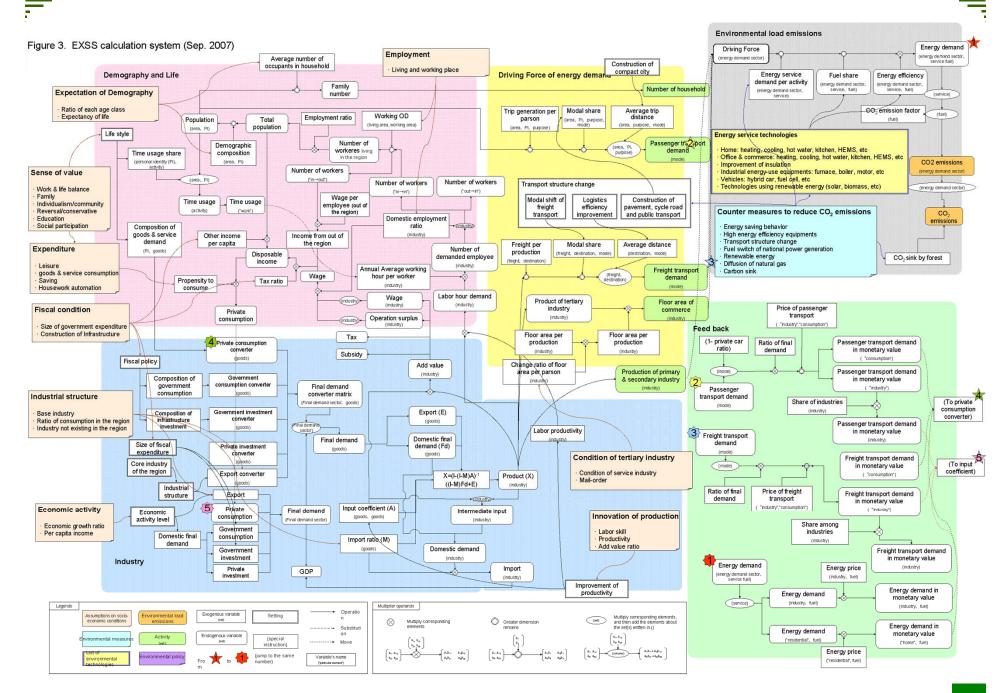
Extended Snapshot Tool

19th Nov. 2010 Bangkok, Thailand Kei GOMI Kyoto University

What is ExSS?

- Extended Snapshot Tool
- A static model consists of simultaneous equations with about 6000 variables
- GAMS program
- Describe Socio-economic activity, energy consumption and CO2 emissions quantitatively and consistently
- Determine introduction of Low-carbon measures required to achieve certain level of emission target
- Extendable to Agriculture, Forestry, Land-use change, Waste disposal, Air/Water Pollution, etc.



Necessary information

- Base year data
 - Population and Household
 - Input Output table (or, regional economic accounting)
 - Transport demand (Passenger & Freight)
 - Building
 - Energy demand
 - Energy supply
 - etc
- Reference for future scenario
 - Population projection
 - Economic projection / planning
 - Transport planning
 - Energy strategy
 - Potential of renewable energy
 - etc

ExSS Demo Version

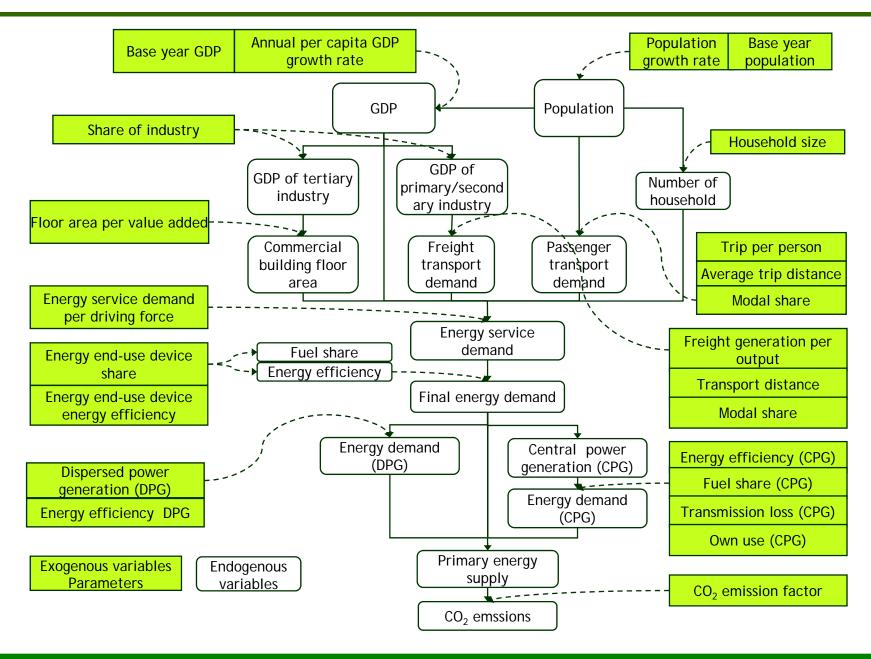
Simplified version of ExSS

Similar structure with full version

An Excel file

For demonstration and training

Structure of ExSS Demo Version



Four Steps

- Area
- Base year
- Target year
- Scenario name
- LCS target
- Unit
- Classification

(1) Setting framework

(2) Input base year information

- Demography
- Economy
- Transport
- Building
- Energy demand
- Energy efficiency
- Power supply
- Emission factor

- Population growth
- Household size
- GDP growth
- Industrial structure
- Transport demand

(3) Estimate future socio-economic scenario and "BaU" emissions

(4) Setting low-carbon measures and analyzing the result

- Residential
- Commercial
- Industry
- Passenger and freight Transport
- Power supply
- Carbon sink

Today,

- Using ExSS Demo Version
- With Thailand data
- Input parameters based on socio-economic assumptions
- Estimate BaU (business as usual) emissions
- Try to achieve an emission target
- Q&A