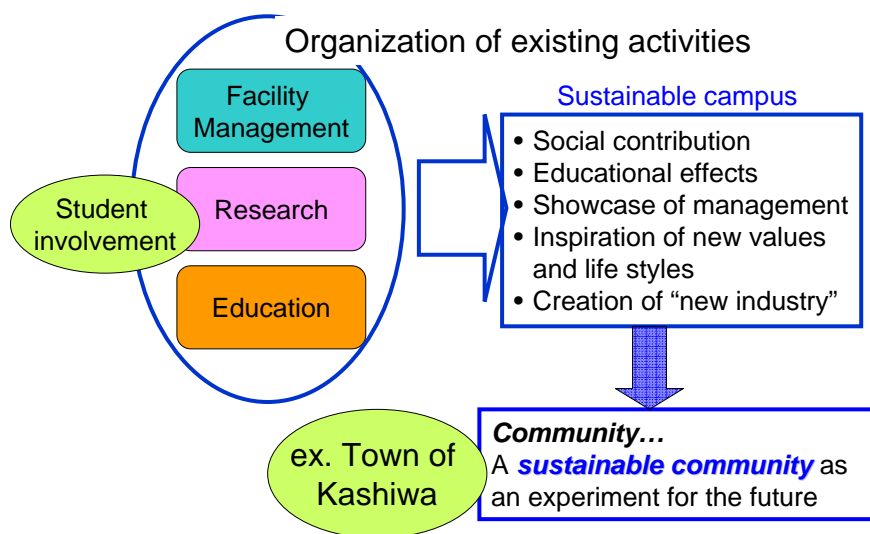


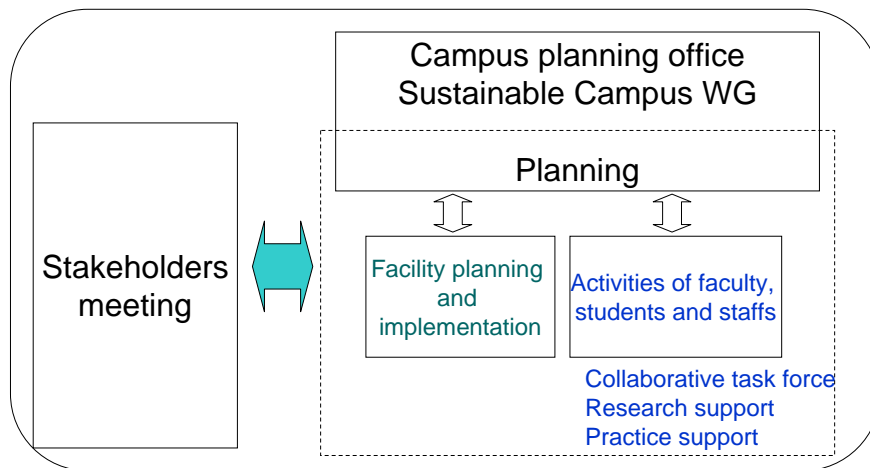
Sustainable Campus Activities in The University of Tokyo - Todai Sustainable Campus Project (TSCP) -

Professor Keisuke Hanaki
Department of Urban Engineering, and
Integrated Research System for Sustainability Science
The University of Tokyo (Todai)

Sustainable Campus Initiative at The University of Tokyo (Todai)



Scheme of initiative



Sustainable Campus WG: since May 2007

Faculty and Students Involvement

- Financial support for research and practice on sustainable campus
- Workshop among faculty and students including international collaboration

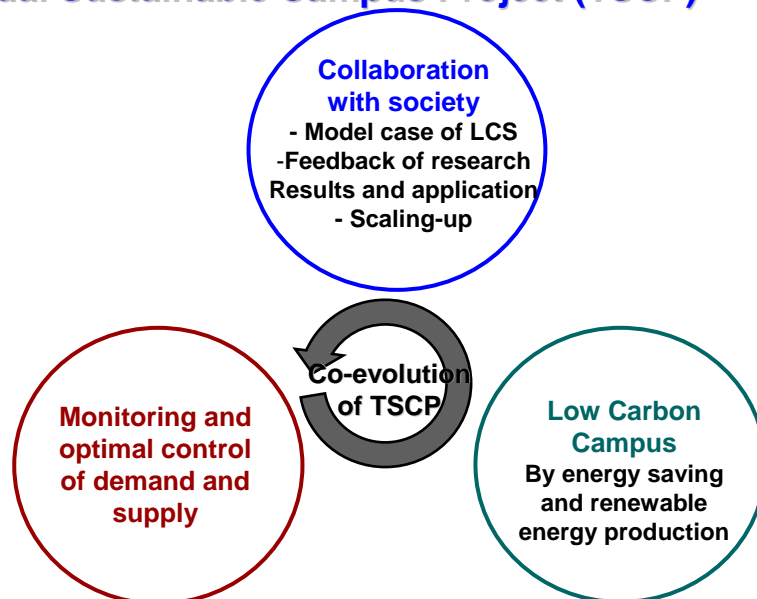


Financial support for research and practice on sustainable campus

- Research support
 - Analysis of campus sustainability
 - Evaluation and enhancement of forest sink
 - Social aspects of campus sustainability actions
 - Utilization of debris in campuses
 - Management of laboratories chemicals
- Practice support
 - Student network formation in Kashiwa environmental campus
 - Promotion of implementation of renewable energy
 - Networking with other universities
 - Implementation of deposit/refund of plastic bag in university coop stores
 - Public relations on sustainable campus activities

Blue letters: proposed by students

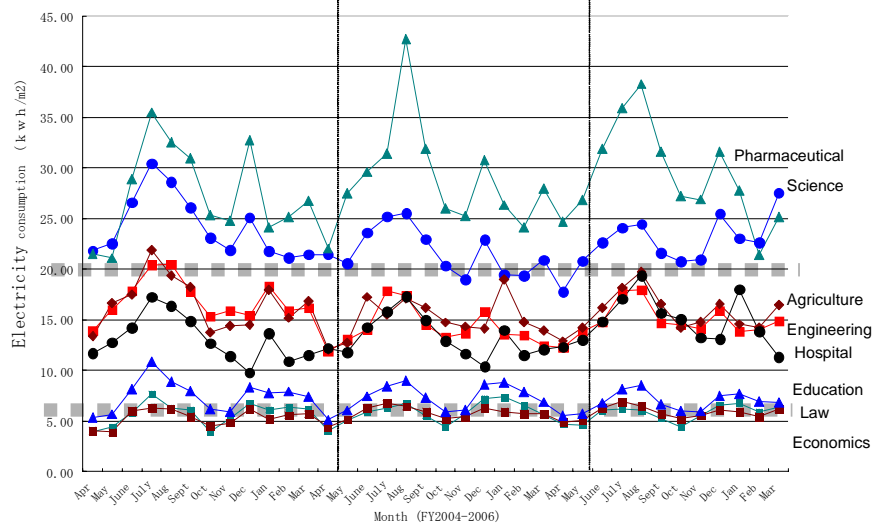
Todai Sustainable Campus Project (TSCP)



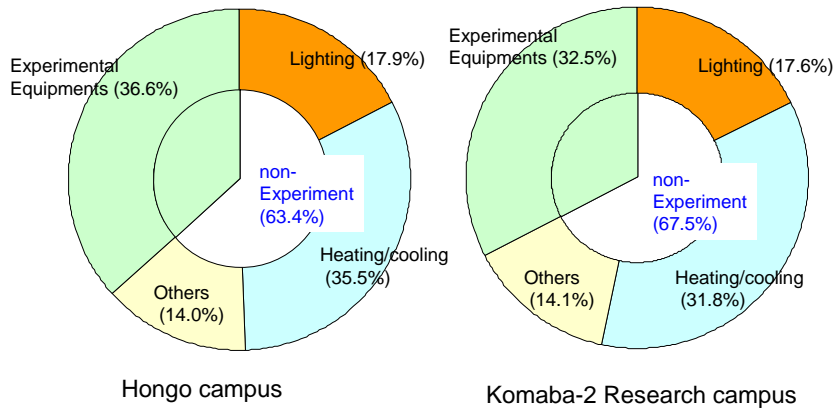
Current footprint analysis

- CO₂ emission of Todai: 136,000 ton-CO₂/year
(0.10 ton-CO₂/m²-year, 3.9 ton-CO₂/person-year)
- Electricity is major CO₂ source (79%)
- Average electricity consumption:
 - Natural science schools, hospital: 240 kWh/m²-year
 - Social science and humanity school : 72 kWh/m²-year
- CO₂ from Travel:25,000 ton-CO₂/year
 - 90% is international air (mainly North America and Europe)

Electricity consumption per floor area



Electricity consumption in Today



As whole university, about 70% is from non-experimental activities



Short-term reduction target

Action plan

TSCP 2012

- Target: **15% reduction of CO2 emission** in 2012 from 2006 level
 - monitoring and feedback to users
 - encouraging replacement of facilities and equipments with more energy- and cost-saving ones
 - promoting large-scale procurement: scale of economy for cost reduction
- Preparing agenda for 50% reduction in 2030.
- Starting in April 2008

Short-term action strategy

- Prioritization criteria
 - High CO₂ reduction/investment cost
 - Low ratio of [payback time/life time]
- Actions to be taken
 - Replacement of boiler (from oil to gas) and heat supply unit
 - Replacement of fluorescent lamp to energy-saving type
 - Replacement of heat-pump air conditioner
 - Replacement of refrigerator

Long-term actions

- Building energy performance
 - High energy saving performance for new building
 - Improving insulation when building is renovated
- Implementation of renewable energy
 - Photovoltaic cells

Kashiwa - International campus town

Collaborative planning with local government,
private sector and other university

Significant reduction of CO₂ emission (**35%
reduction from BAU level by 2030**) is one of the
development targets.

Today



Axis of campus and green



Vegetation network



Bicycle road network