

Workshop on Technologies for Adaptation

TEC and AC



shaping tomorrow with you

The Power of Information and Communication Technology for Adaptation

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Cases of Major Impacts

- 1995 Jan. The Great Hanshin Earthquake in Japan
- 2005 August Hurricane Catorena in USA.
- 2011 March East Japan great earthquake and Tsunami in Japan,
- 2011 July–Dec. The flood in Thailand
Presumed damage is 346 billion bahts. (about 865 billion yen)
- 2013 Nov. Typhoon Haiyan in Philippine
Over 6000 dead
Damage is about 571 billion pesos. (about 1.3 trillion yen)



Source: NASA



Source: Toyo keizai Net



Source: CNN co.jp

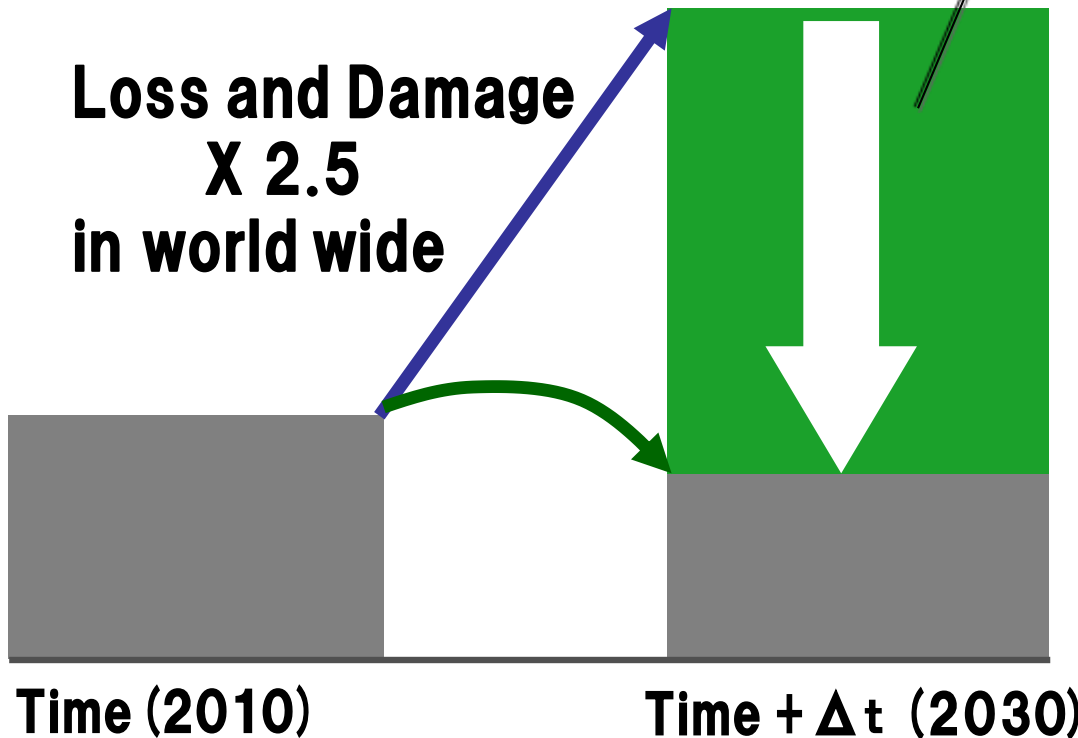
Reducing Impacts created by Global Warming

- Water resource
- Agriculture and food
- Forest and conservation of nature
- Disaster prevention
- City and area development
- Traffic transportation
- Hygiene improvement

Adaptation

Advanced technologies
 New market mechanism
 New social/financial system

Loss and Damage
 X 2.5
 in world wide



Private Sector's Contribution

Technologies
ICT: Information and
Communication
Technology

Q: What are main challenges?

**A: Adaptation has complex issues
and needs many kinds of technologies.**

Q: How would you see the available arrangements/elements?

**A: Local collaboration and local optimization are existing.
In the sector, in the country, in organization
Information and communication is most important elements
for adaptation in many fields.**

**Q: What would be the best form/model
to ensure effective development and transfer?**

**A: Wide Collaboration based on ICT is required,
ICT x Disaster prevention, weather forecast, Agriculture, Transportation . . .
Exceeding the border between sectors, organization, and countries**

Essence of ICT



Efficiency improvement

Downsizing

Dematerialization

Sensing and Monitoring

Analysis and Simulation

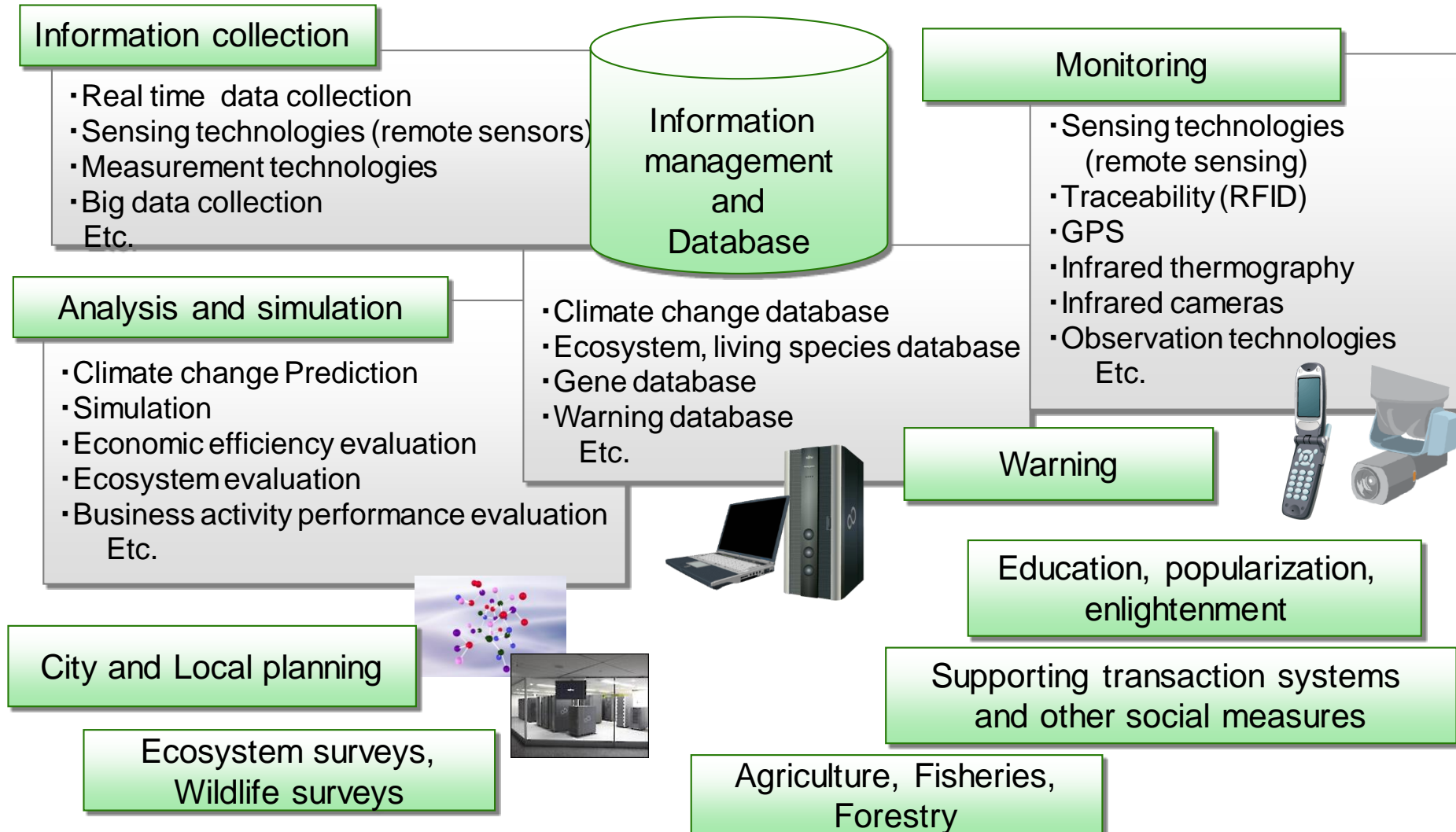
Warning and sharing of information

Transcendence of time and distance



**Further progress of ICT
is necessary for Adaptation**

ICT can contribute in following area for Adaptation





Contribution in Traffic and Transportation

Contribution on Farms

Contribution on Disaster Prevention

Contribution on Forest and Conservation of Nature

Contribution in Fishing Ground

Fujitsu Group's Green IT
Contributes to all Aspects
of Daily

- Reduction of flood damage by the weather forecast simulation
- The flood that the anomalous rainfall causes happens frequently also in Australia that concentrates 80% of the population on the coast part.
- Fujitsu is advancing the climate change measures by the weather forecast simulation, the disaster prevention strengthening, and the research of the flood measures for a joint research with Australian National Universities.



Appearance of flood of Australia



Super computer of Australian National University

- Weather and temperature is changing by climate change.
- Sensing technology for growing grapevines



System trail at Okunoda Winery
in Yamanashi Prefecture from
July 2011

Collect weather data and images
of grapevines from vineyards.
Contributing to the collection of
high-quality grapevines and
reducing agricultural chemicals.



Environ.

Energy

Food · Water

Safety

Healthcare

Transport

Government,
Government office,
Municipality office

Society

Cooperation

Private sector
Industry

University
Institute
NPO, NGO

World


UN

Cooperation

Developing
Countries

Developed
Countries

- As private sector, it is necessary to have a collaboration which exceeds the border between sectors, ICT, Energy, Food, Water, Building, Transportation, Farms, Fishery, Healthcare and Finance.
- It is significant for us to clarify the quantitative effectiveness and the priority of the technology in these cooperation.



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