



The U.K.-U.S. - Japan Workshop on Performance Measurement

at
Tokyo, Japan
November 16, 2005



Schedule (1 / 3)

10:00 am	Opening: (30 min.)	
	<ul style="list-style-type: none"> • <i>Opening Remarks</i> • <i>Self-introduction</i> 	
10:30 am	Session 1: (70 min.)	
	<ul style="list-style-type: none"> • <i>Recent Activities on PM and improvement on effectiveness of budget use and transparency of road administration through PM</i> 	
	<i>U.K. (15 min.) National Performance Management in the Highways Agency</i>	<i>Mr. Paresh Tailor, Team Leader, Network Strategy Central</i>
	<i>U.S. (15 min.) Tri-National Workshop on Performance Measurement</i>	<i>Dr. Woody Stanley, Transportation Specialist, FHWA</i>
	<i>Japan (15 min.) Performance Management in Japanese Administration</i>	<i>Mr. Takashi Nishio, Senior Researcher, NILIM</i>
	<i>Discussion (20 min.)</i>	

Schedule (2 / 3)

11:40 am	Session 2: (70 min.) <i>•Performance based management at the field level</i>	
	<i>U.K. (15 min.) Performance Based Management in the Highways Agency – Operational Level</i>	<i>Mr. John Pearman, Divisional Director, Traffic Operations East & East Midlands</i>
	<i>U.S. (15 min.) Performance Based Management in Washington State</i>	<i>Ms. Daniela Bremmer, Director, Washington State DOT</i>
	<i>Japan (15 min.) Performance Based Management at the Field Level in Japan</i>	<i>Dr. Shintaro Terabe, Associate Professor, Kochi University of Technology</i>
	<i>Discussion with light lunch: (20 min.)</i>	
0:50 pm	Break <i>(Further discussions over lunch)</i>	

Schedule (3 / 3)

1:20 pm	Session 3: (20 min.) • <i>Future international cooperation and sharing of information</i>	
1:40 pm	Closing Remarks:	
	<i>U.K. (5 min.)</i>	<i>Mr. Richard Eastman, Divisional Director, Network Strategy Central</i>
	<i>U.S. (5 min.)</i>	<i>Dr. Anthony Kane, Director, AASHTO</i>
1:50 pm	Souvenir photograph	
2:00 pm	Closing	



National Performance Management in the Highways Agency

Paresh Tailor

パリッシュ・テーラー

Highways Agency

Network Strategy (Central)

Key R

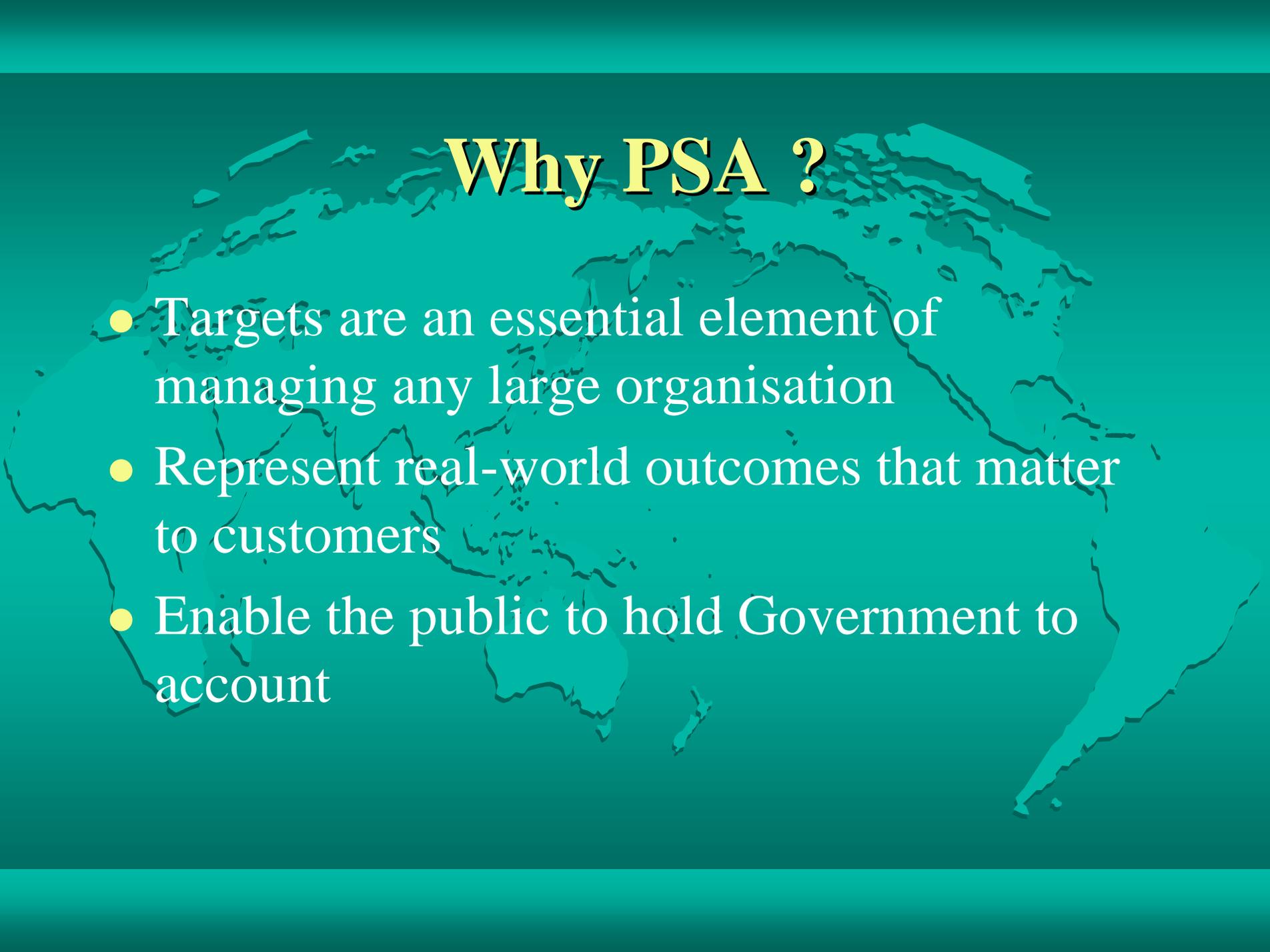
- Strategic Network – 4818miles / 7754km
- One of safest in the world
- Carries 1/3 of all traffic, 2/3 all freight – more than 15b veh km of journeys
- But only 2% of UK's total road length
- Asset valued at £72billion



Public Service Agreements (PSA)

- introduced in 1998 as part of the Comprehensive Spending Review
- commits Govt. Departments to deliver
- few in number but comprehensive and real-world outcome based
- show public what their money buys

Why PSA ?



- Targets are an essential element of managing any large organisation
- Represent real-world outcomes that matter to customers
- Enable the public to hold Government to account

Where PSA targets fit

Department for Transport/Ministers

set policy, allocate resources and agree delivery targets

Spending Review

agreed resources and PSA Targets with HM Treasury

HA Framework Document

sets formal responsibilities and relationship with DfT

Corporate Plan - Customers First

sets longer term direction and strategic priorities

Business Plan

sets out what we deliver over a three year period

Performance Management Process

manages performance to achieve Business Plan goals

Personal Development Plans

sets out what individuals will deliver

Annual Report and Accounts

reports what we have delivered

Highways Agency's PSA targets



- **Congestion**

- improve journey time reliability for the slowest journeys

- **Safety**

- 33% reduction in people killed and seriously injured on strategic network
- 10% reduction in slight casualties

- **Environment**

- improve air quality

Network Performance

HA Aim

**Safe Roads,
Reliable
Journeys,
Informed
Travellers**

PSA Target

Improve journey
time reliability on
slowest journeys

Improve safety

Minimise the impact
on the environment

HA Objectives

**Reducing Congestion and
Improving Reliability**

Improving Road Safety

**Respecting the
Environment**

**Seeking and Responding
to Customer Feedback**

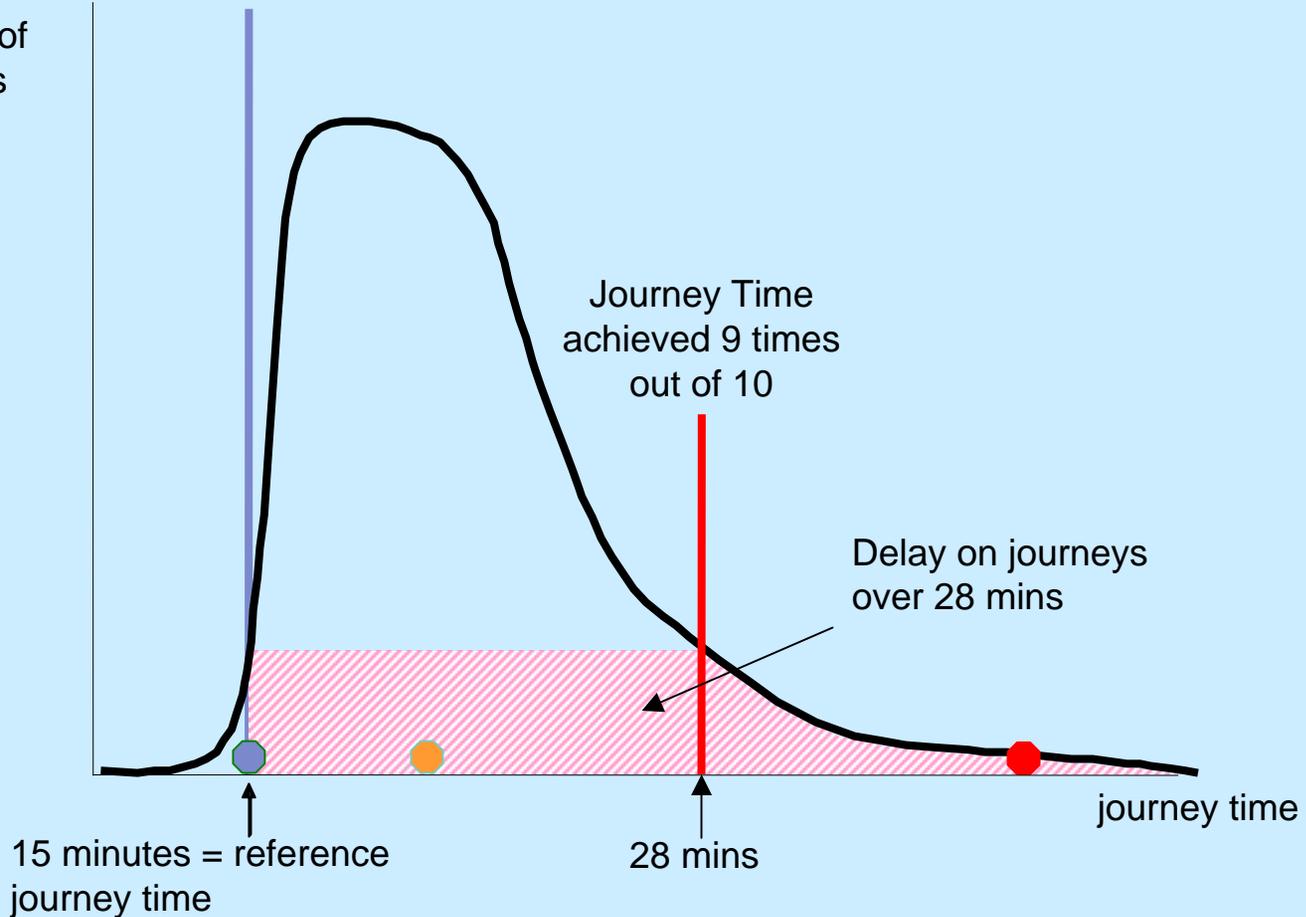
Congestion/Reliability



- Deliver the PSA target, by end of 2007-08
 - By 2007-08, make journeys more reliable on the strategic road network

Congestion/Reliability PSA target

No. of
vehs

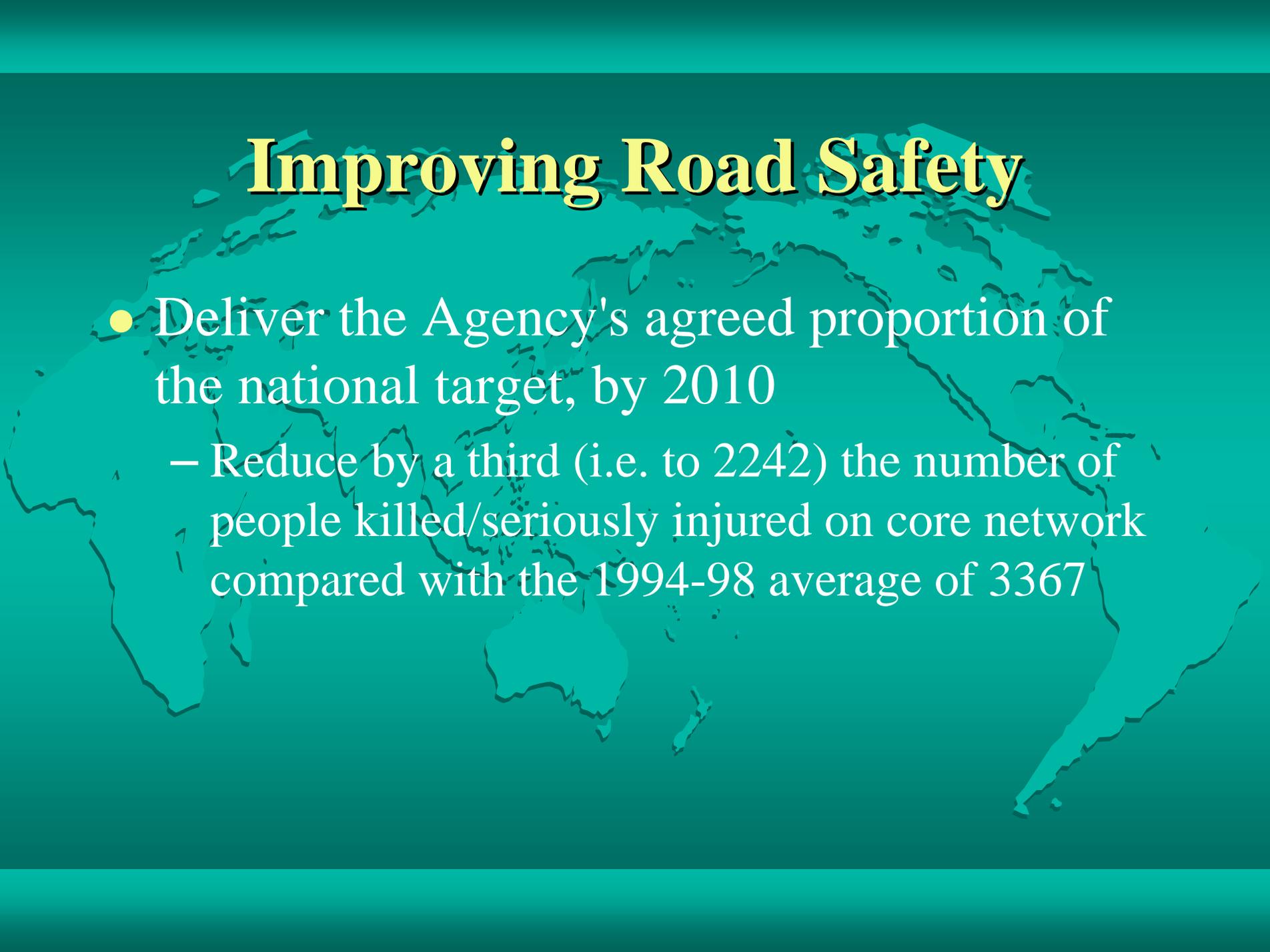


Congestion/Reliability



- Deliver improvements to journeys by reduction in incident-related congestion and minimisation of road works-related congestion
- Deliver the programme of improvements to the strategic road network
- Deliver improvements to journeys by making information available to influence travel behaviour and inform decisions

Improving Road Safety



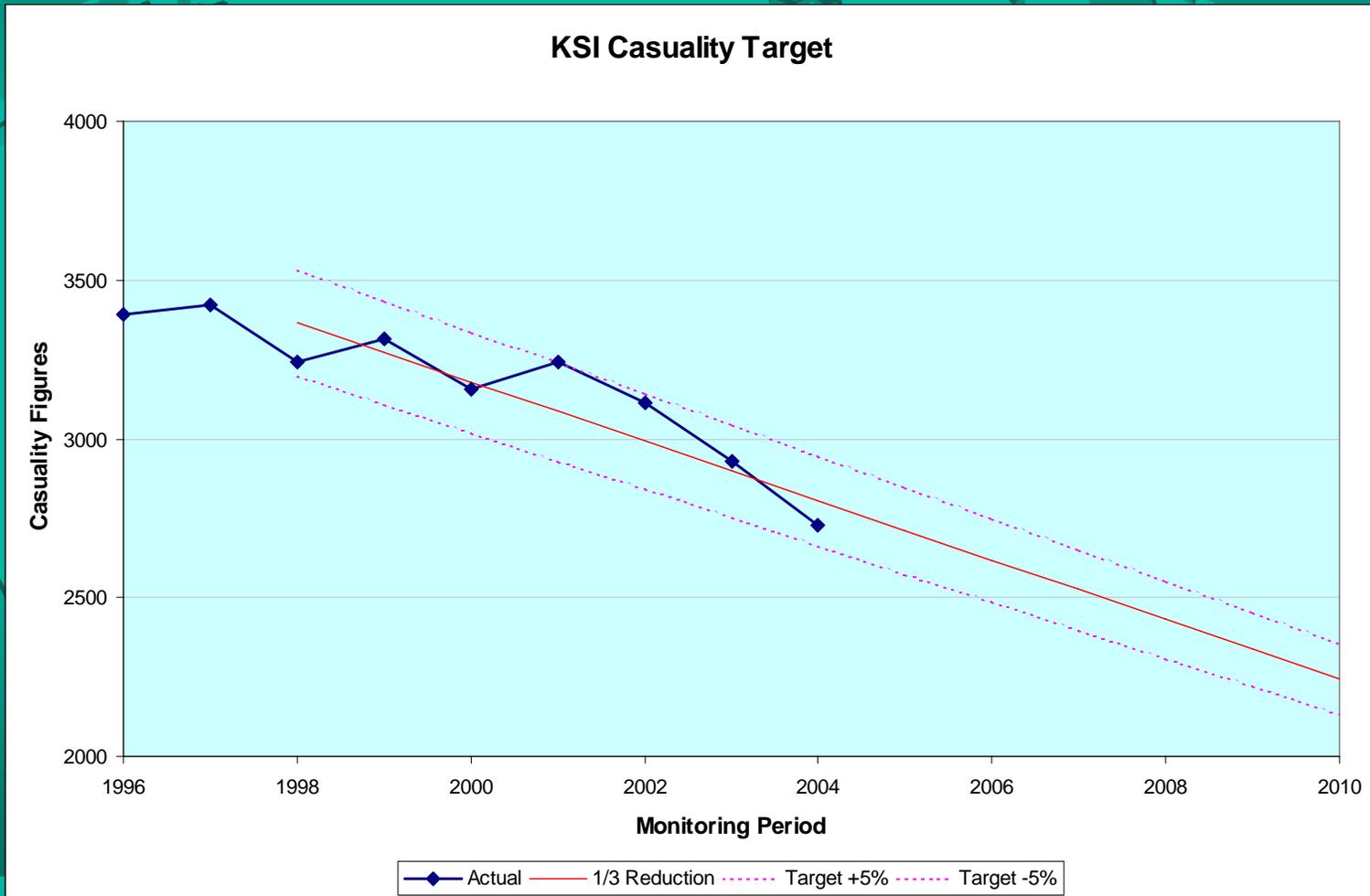
- Deliver the Agency's agreed proportion of the national target, by 2010
 - Reduce by a third (i.e. to 2242) the number of people killed/seriously injured on core network compared with the 1994-98 average of 3367

Improving Road Safety



- Deliver improvements on the network to reduce the number of people killed/seriously injured
- Maintain the network in a safe and serviceable condition

Improving Road Safety



Respecting the Environment



- Mitigate the potentially adverse impact of strategic roads and take the opportunities to enhance the environment taking into account value for money
 - Achieve across 5 sub indicators, including air quality, biodiversity, noise, landscape & water quality

Customer Satisfaction



- Deliver a high level of road user satisfaction
 - Achieve customer satisfaction levels of 83.5% on trunk roads and 87.5% on motorways

Highways Agency Balance Scorecard

HIGHWAYS AGENCY BALANCED SCORECARD

AIM

Safe roads, Reliable journeys, Informed travellers

Customer Service To deliver a high quality service by-

Reducing congestion and improving reliability

Improving road safety

Respecting the environment

Seeking customer feedback

Teamwork

To ensure-

Effective delivery

Better working relationships



Improvement

To implement-

Best practice

Innovative solutions

Improved services



Best Value

To be-

Efficient

Effective

Resourceful



Diversity

To be-

A good employer



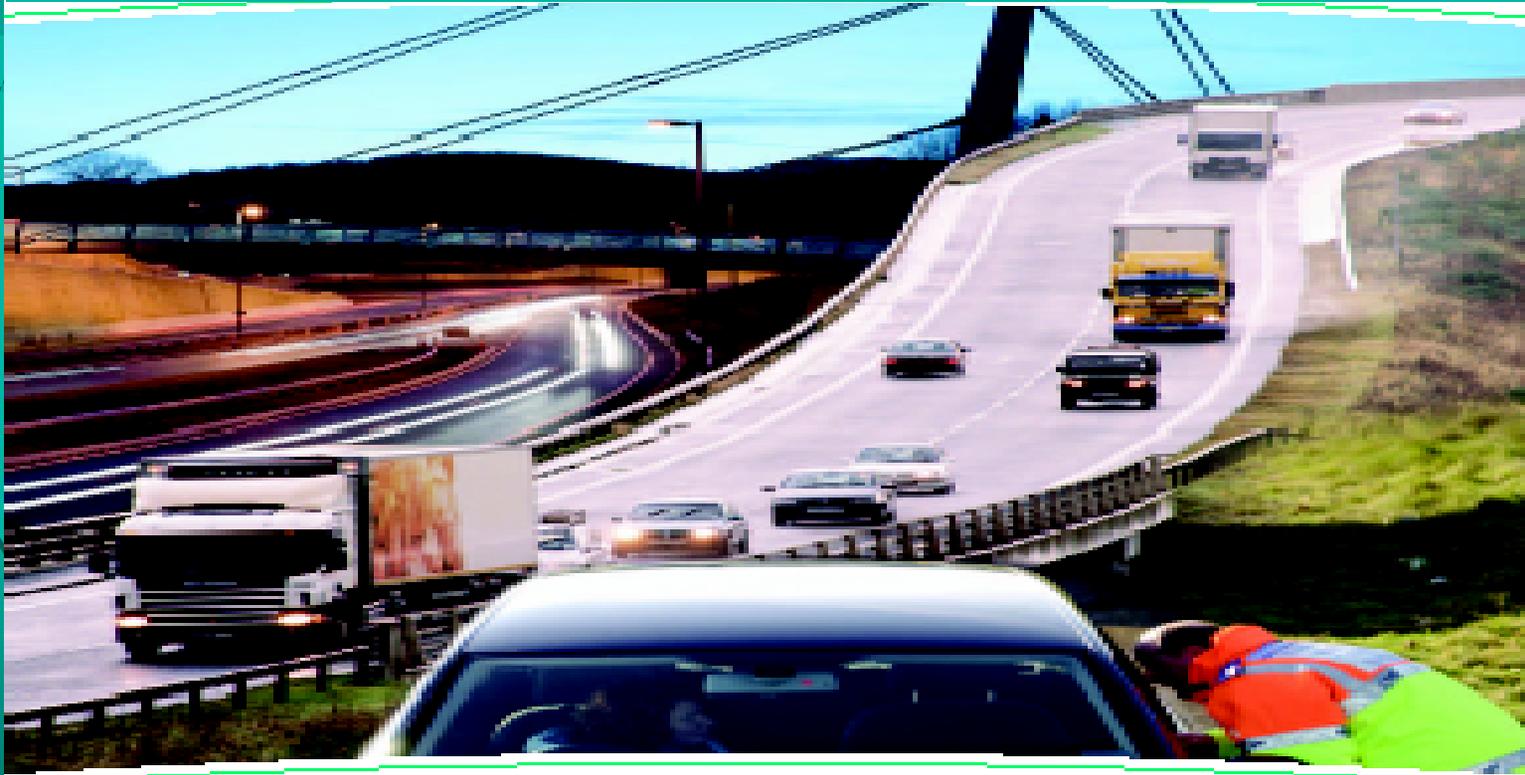
HA Balance Scorecard

- 2005/06 all directorate reporting using directorate scorecards
- Use the RAG approach
- Corporate monthly report [Corporate report.pdf](#)
- [BSCard report.pdf](#)
- Report by exception

Safe roads. Reliable journeys. Informed travel plans



www.highways.gov.uk



Email: paresh.tailor@highways.gsi.gov.uk



Tri-National Workshop on Performance Measurement

Dr. Woody Stanley, CQM
Office of Legislative and Government Affairs
Federal Highway Administration
U.S. Department of Transportation

November 16, 2005
Tokyo, Japan

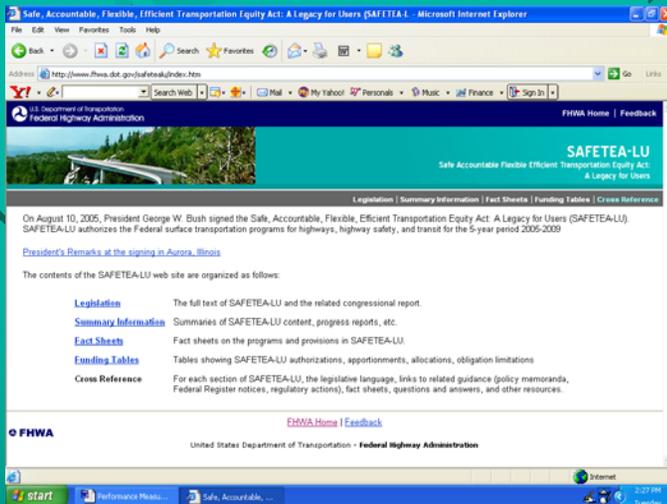
A stylized world map in shades of blue and green, serving as a background for the slide. The map shows the outlines of continents and oceans.

Outline

- SAFETEA-LU: Policy Context
- Strategic Management at FHWA
- Current Use of Performance Measures
- Recent Performance Measurement Initiatives
- Areas for Future Cooperation

SAFETEA-Legacy for Users

- Renewed core Federal Aid Highway programs
- Authorized new Highway Safety Improvement Program
- Emphasizes congestion relief, environmental stewardship, and program efficiency
- Encourages State flexibility and greater private sector role

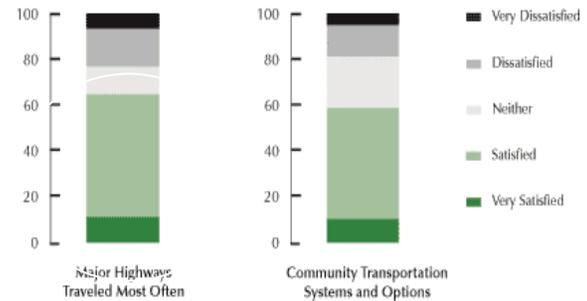


<http://www.fhwa.dot.gov/safetealu>

Traveler-Centric View: TOPS Survey

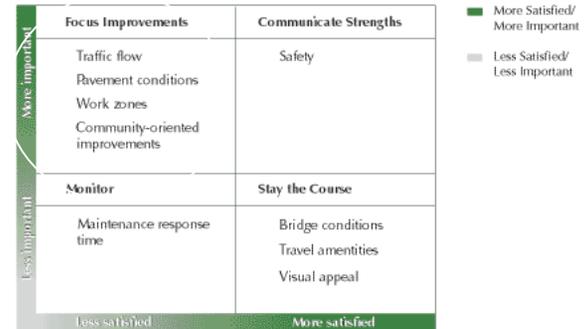


OVERALL SATISFACTION WITH MAJOR HIGHWAYS AND TRANSPORTATION IN COMMUNITIES (percent)



Most travelers are satisfied with major highways and community transportation options.

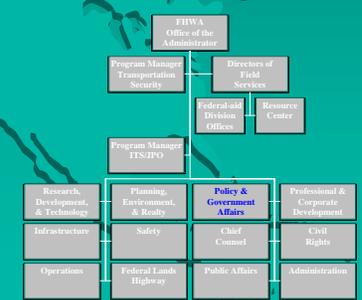
STRATEGIC OPPORTUNITIES



The relative importance and impact on satisfaction of actions the public would find helpful.

<http://www.fhwa.dot.gov/reports/movingahead/>

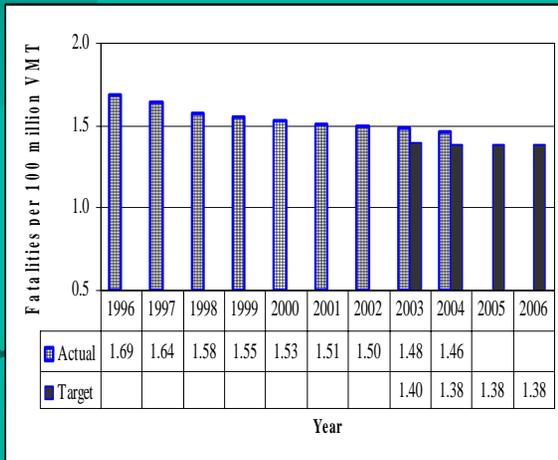
Strategic Management at FHWA



Strategic Goals and Outcome Measures



Use of Outcome Measures



Annual Trends



Focus States

Highway and Bridge Investment

Highway and bridge investments with the changes in conditions and operational is an analysis of whether the gap identified in Chapter 6 between current funding intent with recent condition and operational performance trends.

Future levels of investment would be expected to have on highway conditions and (derived solely from the Highway Economic Requirements System (HERS), and the Bridge Investment Analysis System (BIAS)). Impacts are presented for a variety of scenarios in Chapters 7 and 8 and other levels corresponding to certain levels at the different levels was derived using the external adjustment procedures used. Bridge preservation investments from NBIAS were interpolated from the two closest spending levels.

Performance Trends and Recent Spending Trends

As discussed in Chapter 6, capital spending by all levels of government has increased from 1997 to 2000 by 33.7 percent, from \$48.4 billion to \$64.6 billion. This equates to a 19.9 percent increase in constant dollar terms, as spending grew much faster than the rate of inflation. Over the same period, the percentage of total capital outlay used for system preservation rose from 47.6 percent in 1997 to 52.0 percent in 2000. The combined result of this increase in total capital investment and the shift in the types of investments being made was a 45.7 percent increase in spending on system preservation, from \$23.0 billion to \$33.6 billion. As indicated in Chapter 6, the term system preservation is used in this report to describe capital improvement on existing roads and bridges intended to preserve the existing pavement and bridge infrastructure.

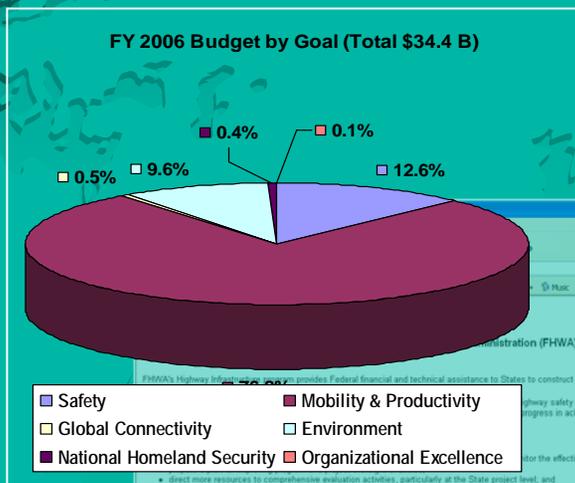
The percentage of capital outlay used for system expansion fell from 44.4 percent in 1997 to 40.2 percent in 2000. Spending for system expansion grew more slowly than that for system preservation over this period, rising 20.6 percent from \$21.5 billion dollars in 1997 to \$25.9 billion in 2000.



Investment Impact

- [CMR Finance](#)
- [Part II Investment Performance Analysis](#)
- [CMR Capital Investment Requirements](#)
- [CMR Calculations of Spending and Investment Requirements](#)
- [CMR Investment Analysis](#)
- [CMR Sensitivity Analysis](#)

Performance Budget Integration



Performance Budget (by Goal)

Program Assessment Review Technique (PART)

Performance & Accountability Report

The screenshot shows the FHWA website with the following content:

- Federal Aid Highway Program -**
- Environment**
- While transportation ties us together as a Nation, it can also produce unwanted side effects such as air and water pollution, the loss of ecosystems and disruption of communities. Americans want solutions to transportation problems that are consistent with sound environmental planning. DOT is committed to avoiding or mitigating the adverse environmental effects that can accompany transportation as stated in our strategic goal: *Protect and enhance communities and the natural environment affected by transportation.* Highlights of our results in the environmental area follow.
- The establishment of Executive Order (EO) 13274, Environmental Stewardship and Transportation Infrastructure Project Reviews, signed on September 16, 2002 by President George W. Bush, advanced DOT's commitment to enhancing the nation's transportation infrastructure while remaining good stewards of the environment. Secretary Norman Y. Mineta designated thirteen projects as priorities to receive accelerated environmental review this past year. One project designated was the post-9/11 transit recovery projects in Lower Manhattan.

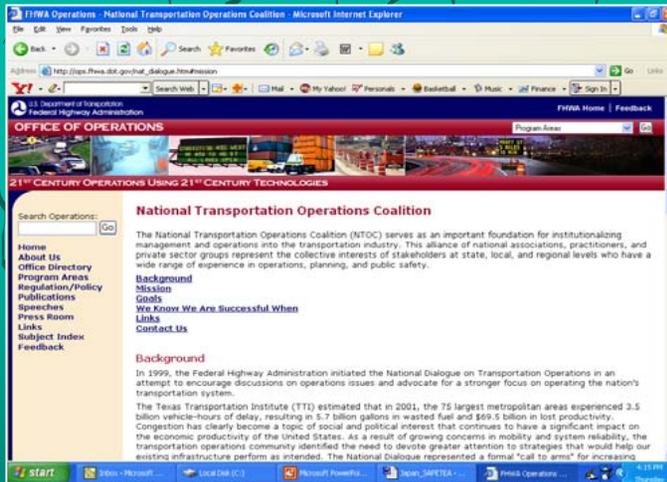
Current Measurement Initiatives



- Commonly-accepted outcome measures (e.g., NTOC).
- New methodologies and measures (e.g. traffic congestion/reliability).
- Performance budgeting refinements.
- Use of management dashboards.

Commonly-Accepted Outcome Measures

National Transportation Operations Coalition (NTOC) Performance Measurement Initiative (2005)



Proposed List of Performance Measures

- Customer Satisfaction
- Extent of Congestion – Spatial/Temporal
- Incident Duration
- Non-Recurring and Recurring Delay
- Speed
- Throughput – Person/Vehicle
- Travel Time – Link/Trip
- Travel Time - Reliability

http://www.ntoctalks.com/ntoc/ntoc_final_report.pdf

New Methodologies & Measures

Dashboard Report - Congested Travel October 2005

Status: Yellow
 Progress: Green

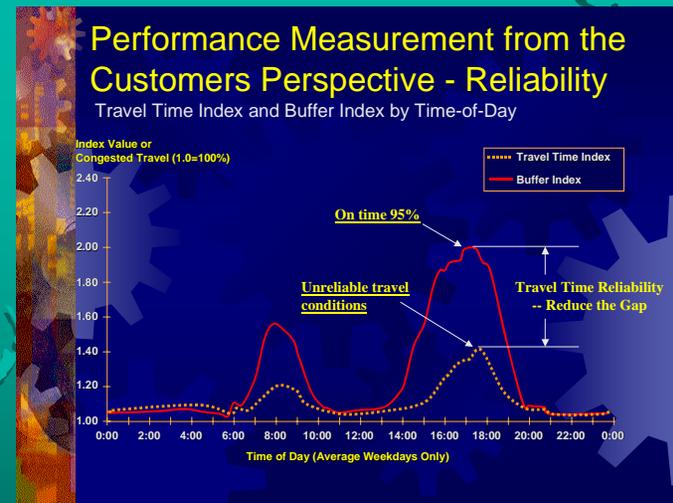
NATIONAL CONGESTION INDICATORS			
	Hours of Congested Travel Per Day	Travel Time Index	Planning Time Index
Current Quarter	4,453	1,259	1,657
Same Quarter, Previous Year	4,818	1,269	1,645
Change, vs. Previous Year	7.6% ↓	0.8% ↓	0.7% ↑
NATIONAL CONGESTION PATTERN	# of Cities DOWN >5%	# of Cities NO CHANGE	# of Cities UP >5%
Total Cities: 19	9	4	6
NATIONAL CONGESTION PATTERN	# of Cities DOWN >5%	# of Cities NO CHANGE	# of Cities UP >5%
Total Cities: 19	9	4	6

For the period July-September 2005, there were nineteen UCR cities where a comparison could be made against the same period in 2004. Composite hours of congested travel declined 7.6% compared to the same period in 2004. The decrease in hours of congested travel was the result of large decreases in Orange County and Sacramento, offsetting a large increase in duration of congestion in Pittsburgh, Houston and Seattle. Travel time index also declined, a 0.8% decrease compared to the same period in 2004. In contrast, planning time index increased slightly (0.7%), led by a large jump in Houston. All three congestion measures rose in Houston, including a 13% increase in congested hours and a 32% increase in planning time index, reflecting the impact of evacuation traffic in response to Hurricane Rita.

SUPPLEMENTAL INDICATORS - October 2005			
Program Area	Current	FY06 Goal	Status

Traffic Congestion - archived data from traffic management centers in 19 cities.

New Measure: Reliability



Performance Budgeting Refinements



Use of Management Dashboards

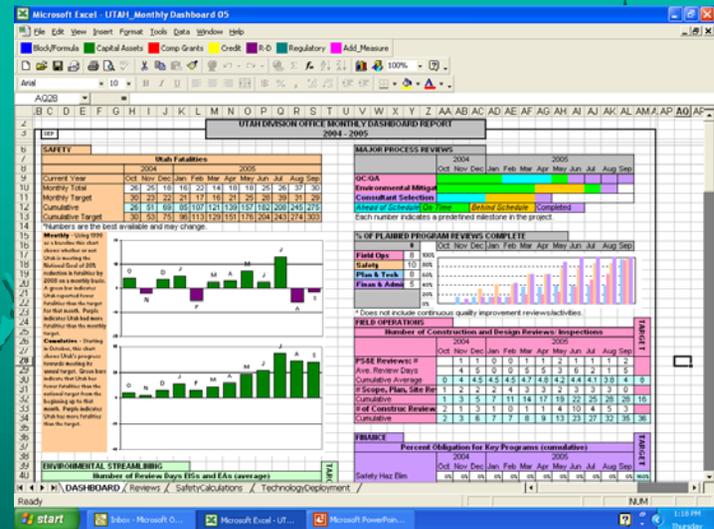
FY 2004-05 Dashboard Report October 2005

Performance Measure	2003		FY 2005				2005 Target	Status	Progress	Notes Data Availability
	Result	Result	Q1	Q2	Q3	Q4				
Highway Fatalities per 100 million VMT	1.40	1.40	1204	305	605	905		R	Y	NHTSA released 2004 data indicates 1.66 fatality rate. 2005 data not yet available.
Number of States with Statewide Strategic Safety Plans	7	16	16	16	20			Y	Y	Includes Massachusetts. 20 states completed, 11 plans under development.
Hours Congested Travel per Day - % Change	5.63 hr	5.84 hr +2.8%	5.92 hr -3.9%	5.83 hr 0.8%	5.51 hr 5.9%	4.45		Y	▲	Slow the growth of congested travel.
Number of Areas in Transportation Conformity Lapse	6	6	6.8	7	6.7	5.8		S	▲	FY2005 Average: 6.8
Median Time to Complete an EIS, in months	67.6	54	54	61	60	56	45	R	▲	Number of EIS approved during the 12 month period: 26
Median Time to Complete an EA, in months	26	25	23	22	23	25	15	R	▼	Number of EAs approved during the 12 month period: 95
Percentage of cost growth for construction	102.8	102.8	102.8	102.8	102.8	100.0			▲	*Basis: percent an average of the NEPA Total both (A) for all

Leadership Team Dashboard



Unit-Level Dashboard





Areas for Future Cooperation

- Sharing information about performance measurement practices
- Improving data collection methods and reporting tools
- Developing appropriate and timely performance measures
- Exploring new approaches to program impact evaluation



National Performance Management in Japan

Takashi Nishio

Senior Researcher, Traffic Engineering Division
National Institute for Land and Infrastructure Management
Ministry of Land, Infrastructure and Transport

The UK-US-Japan Workshop on Performance Management
November 16, 2005
Tokyo, Japan

Presentation Outline



- **Roles of Subcommittee**
 - Road Administration in Japan
 - Japanese Performance Management

Criticism from the Public

- "Budget money have not allocated to the worst problems."
- "Government officials hardly consider the public interest."
- "Local government or Private company could use budget money more efficiently."

Accountability and efficiency in administrative management are necessary.



Performance Management

Partnerships for Performance Management



- Road administration start management process in FY2003
- Development of policy framework and strategy
- Promotion of new management system into the whole agency

- Concept development
- Customers perspective
- Reference to private company's activity
- Peculiarity of public infrastructure
- Peculiarity of Japan

Establishment of Subcommittee

- Established in January, 2005
- 3 years
(will be extended)
- Participation from
Academia, consultants and
government officials
- Member: 43
- Boarding member: 14

Japan Society of Civil
Engineers

Infrastructure Planning
Committee

**Subcommittee on
Infrastructure
Policy Management**

Objectives of Subcommittee



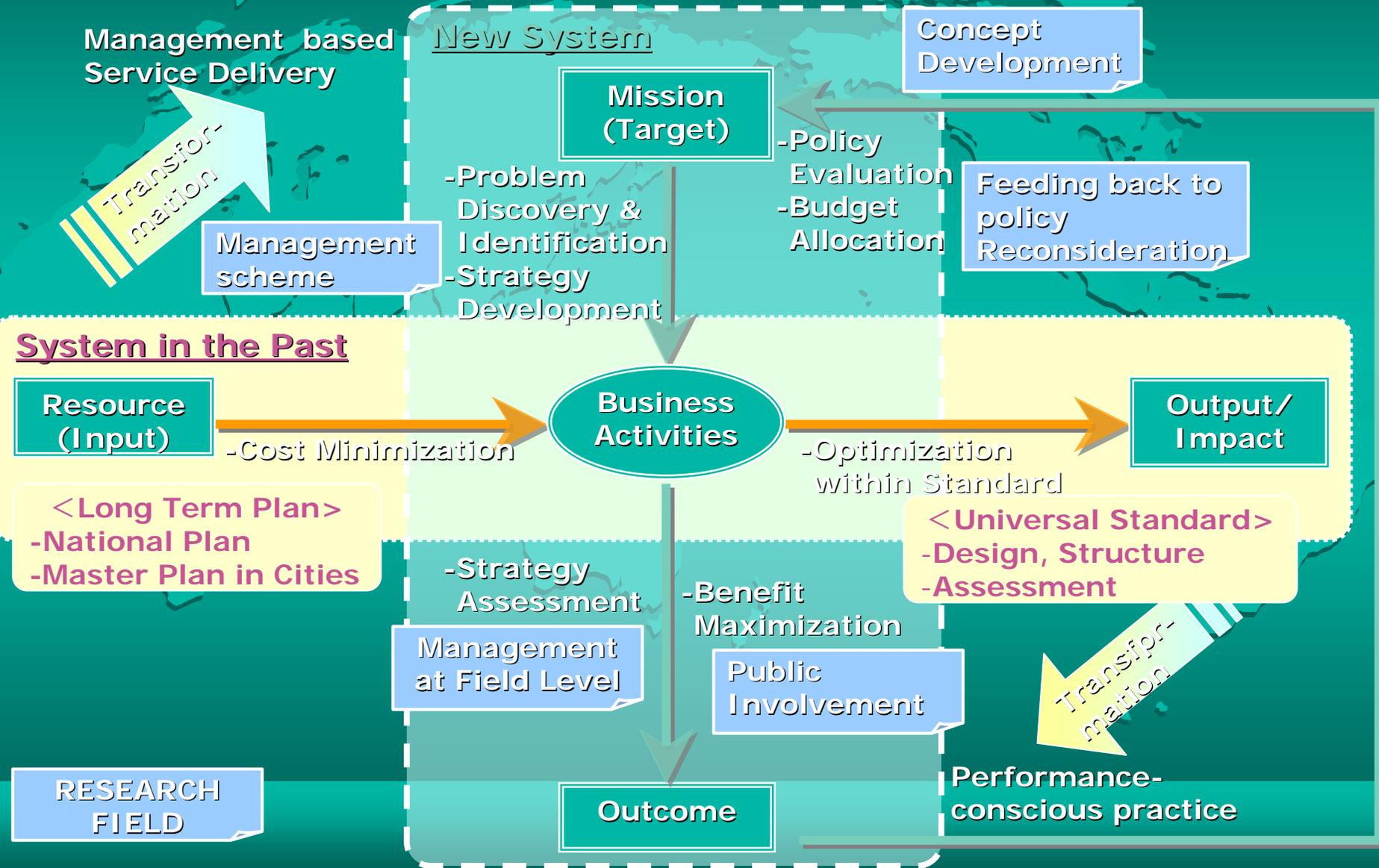
- Creating new scheme in policy management
- Developing new research fields from the viewpoint of customer needs
- Promote implementation of new policy management at both policy level and field level

Research Fields to Start



- Research on schemes of policy management for infrastructure
 - Historical aspects
 - international comparison
 - economical approach, etc.
- Research on business management and assessment of policy
 - Case study in business fields
 - Adoption to policy fields (budget, projects, etc.)
- Promotion of implementation in actual administration/operation
 - Utilization of customer satisfaction
 - Assessment of policy
 - Public outreach and management strategy
 - Performance indicator

Research Map (under development)



Activities of Subcommittee



● Lectures

- New public management (Apr.)
- Administration management in local governments (Oct.)
- Public accounting system (Oct.)

● Special session in conferences

- Spring conference held by IP Committee (June)

● International Cooperation

- Participation in PM Committee, TRB (Jan. July)
- THIS WORKSHOP !

● Open seminar

- THIS AFTERNOON !

● Publicity

- Website (May)
- Special issue of JSCE journal (Next Jan.)
- Activity report (Next Mar.)

Next topic is...

- Roles of Subcommittee
- **Road Administration in Japan**
- Japanese Performance Management

Road Related Organizations



National Expressway etc.

National Highway

Prefectural Road

Classification of Roads

1. National expressway

- 7,300km (0.6%)
- 150 million VKT (7%)

[Administrator]
Expressway Holding Agency &
Expressway Companies
approved by MLIT

2. National highway

- 54,000km (4.6%)
- 480 million VKT (23%)

Designated Section
22,000km

Non-designated
Section 32,000km

MLIT

"Arterial High-
Standard Highway"

3. Prefectural road

- 128,700km (10.9%)
- 470 million VKT (23%)

Prefecture
governments

4. Municipal road

- 992,700km (83.9%)
- 990 million VKT (47%)

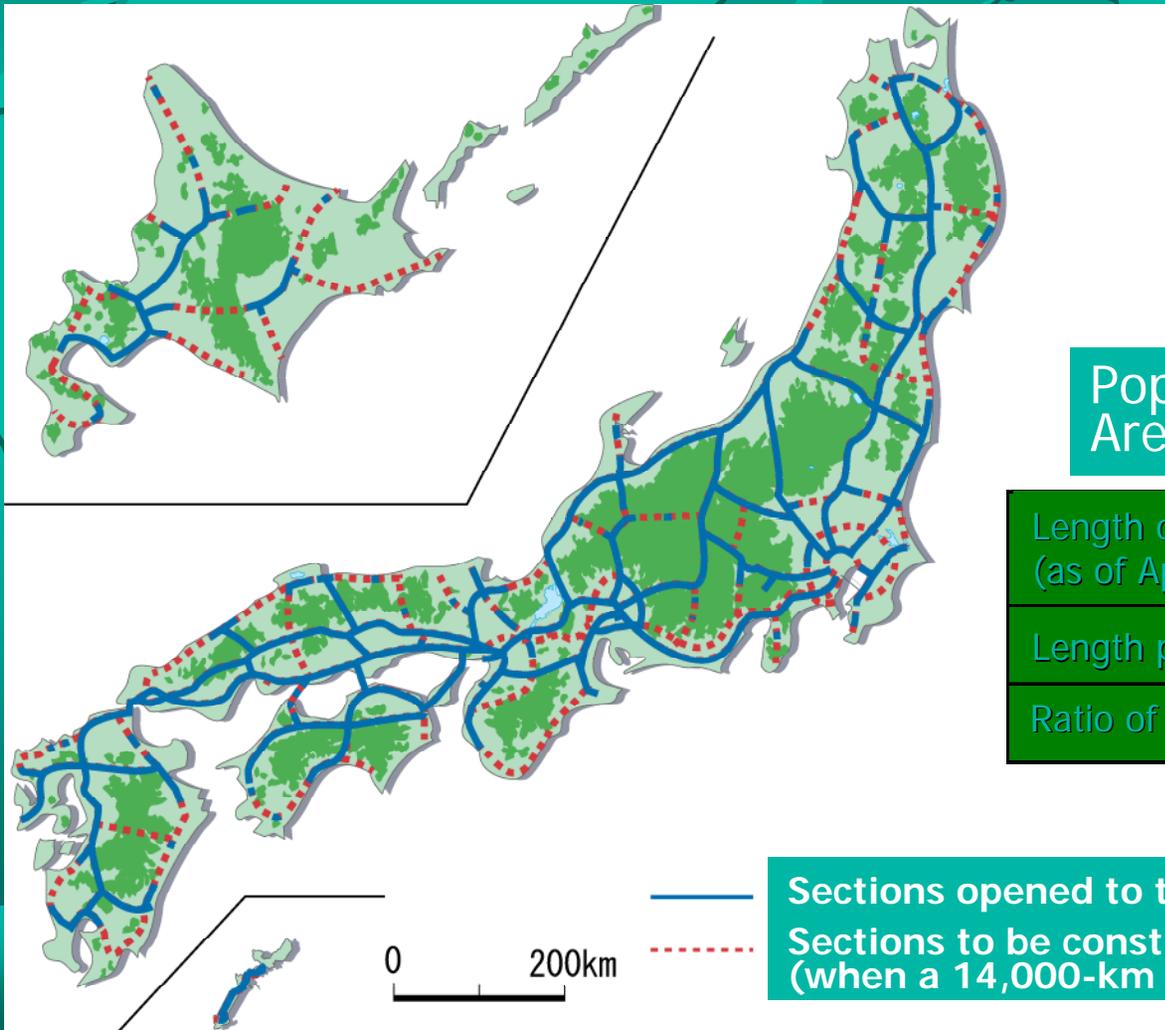
Municipal
governments
(City, Town and
Village)

Total 1,182,700 km (100%)
2,100 million VKT (100%)

(VKT: Vehicle-kilometer traveled per day)

Arterial High-Standard Highway

- Only 62% has been constructed



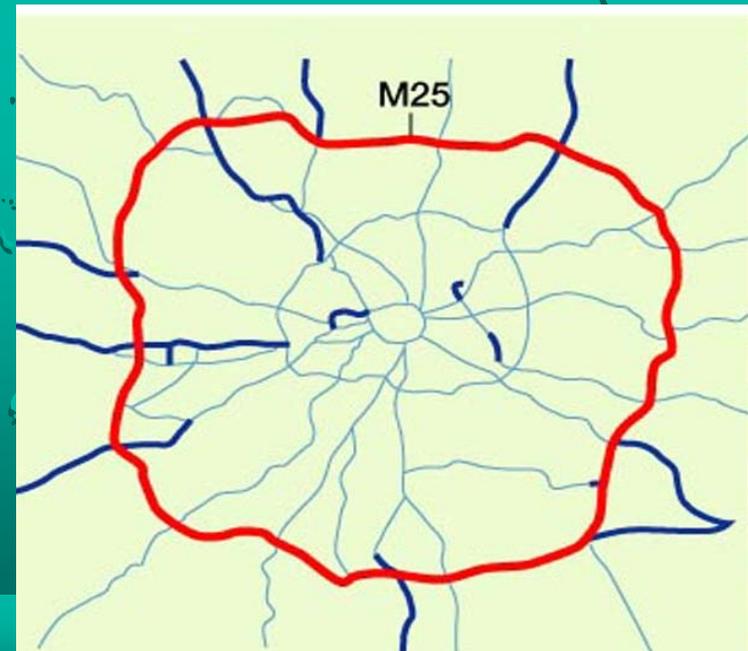
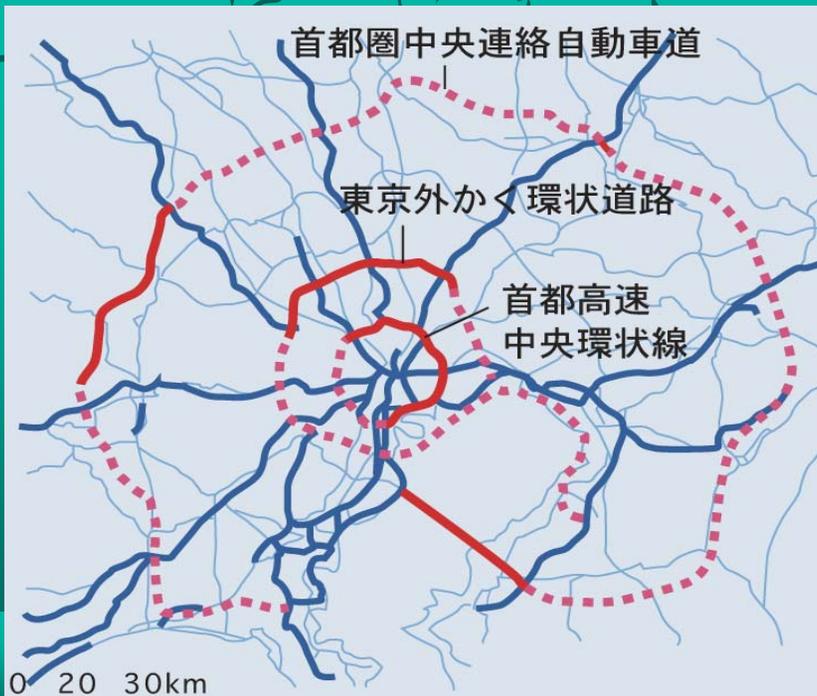
Population: 120million
Area: 370,000km²

Length opened to traffic (as of April 2005)	8,730km
Length planned	14,000km
Ratio of completion	62%

Capital Beltway...A Quarter

- Tokyo
- Population: 29million
- Completed
122km/518km(24%)

- London
- Population: 9million
- Completed
188km/188km(100%)



A Large Variety of Problems even in National Highways



Many houses along heavy traffic highway (NH23)



Slope failure after heavy rain (NH220)



Drive over mountain (NH360)



Road without sidewalk (NH166)

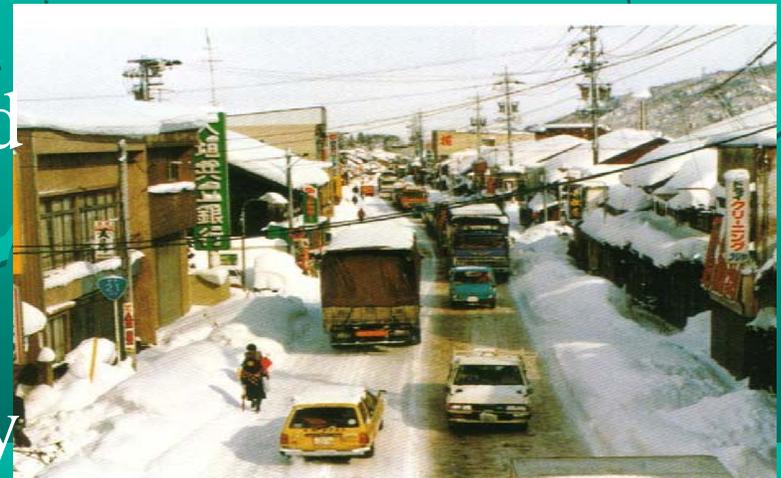
A Large Variety of Problems (Contd.)

- Congested NH1 pushes commuter cars away to go through back street



Back street of NH1

- Closed Expressway forced freight traffic to go through NH21, which caused traffic jam in a city



Heavy traffic in a city (NH21)

Toll Road and Freeway

- **Kosei Toll Road**
- 2+2 lanes
- 830yen/17km
- Congestion index: 0.67
- **NH161**
- 1+1 lanes
- Free
- Congestion index: 2.26



Kosei Toll Road

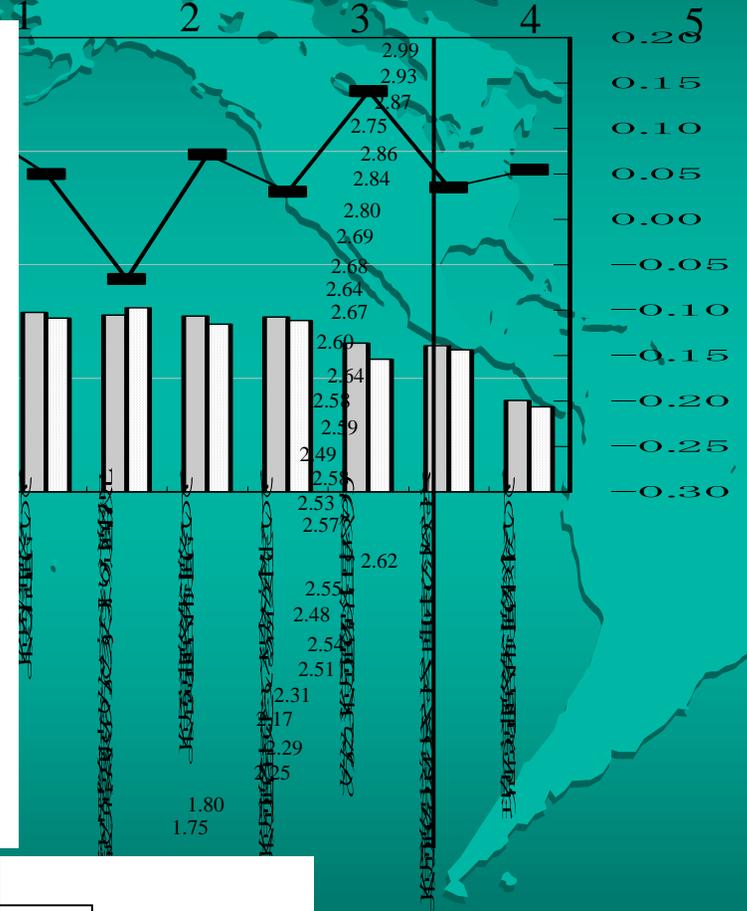
NH161

Next topic is...

- Roles of Subcommittee
- Road Administration in Japan
- **Japanese Performance Management**

Customer Satisfaction Survey

Degree of Satisfaction (point)



FY2004
 FY2003
 Comparison by year

Difference between FY2003 and FY2004 (point)

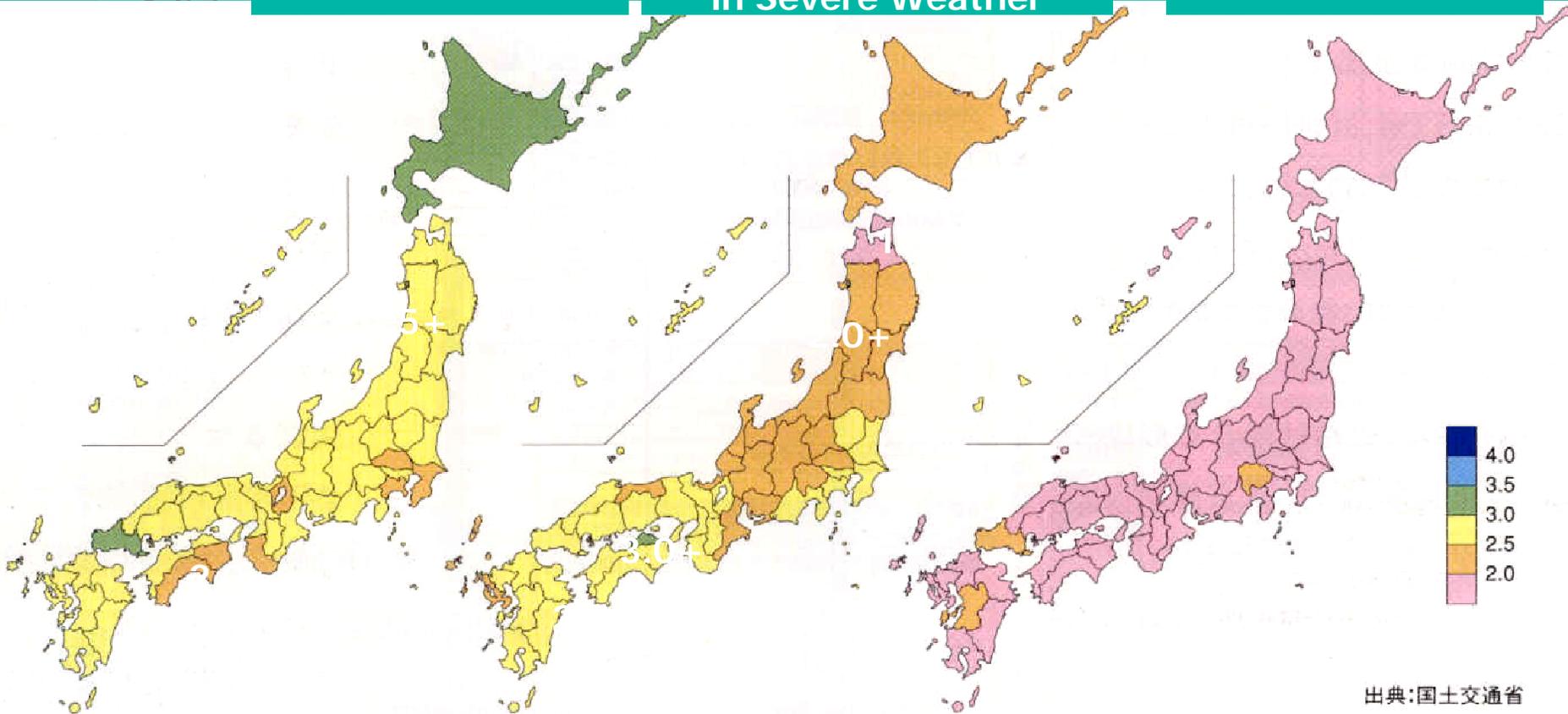
Satisfaction by Regions

- Satisfaction level varies by prefecture

Overall Satisfaction

Satisfaction with Roads
in Severe Weather

Satisfaction on Toll



出典:国土交通省

Performance Plan

- Various 17 types of indicators
 - Time loss by traffic congestion
 - Hours of road work
 - Rate of achievement of NO2 environment target
 - Rate of traffic accidents with death/injury
 - Rate of traffic on high-standard roads
 - Rate of cities where wide area rescue routes are ensured during disasters

(Please refer to the distributed brochure for further information on indicators)

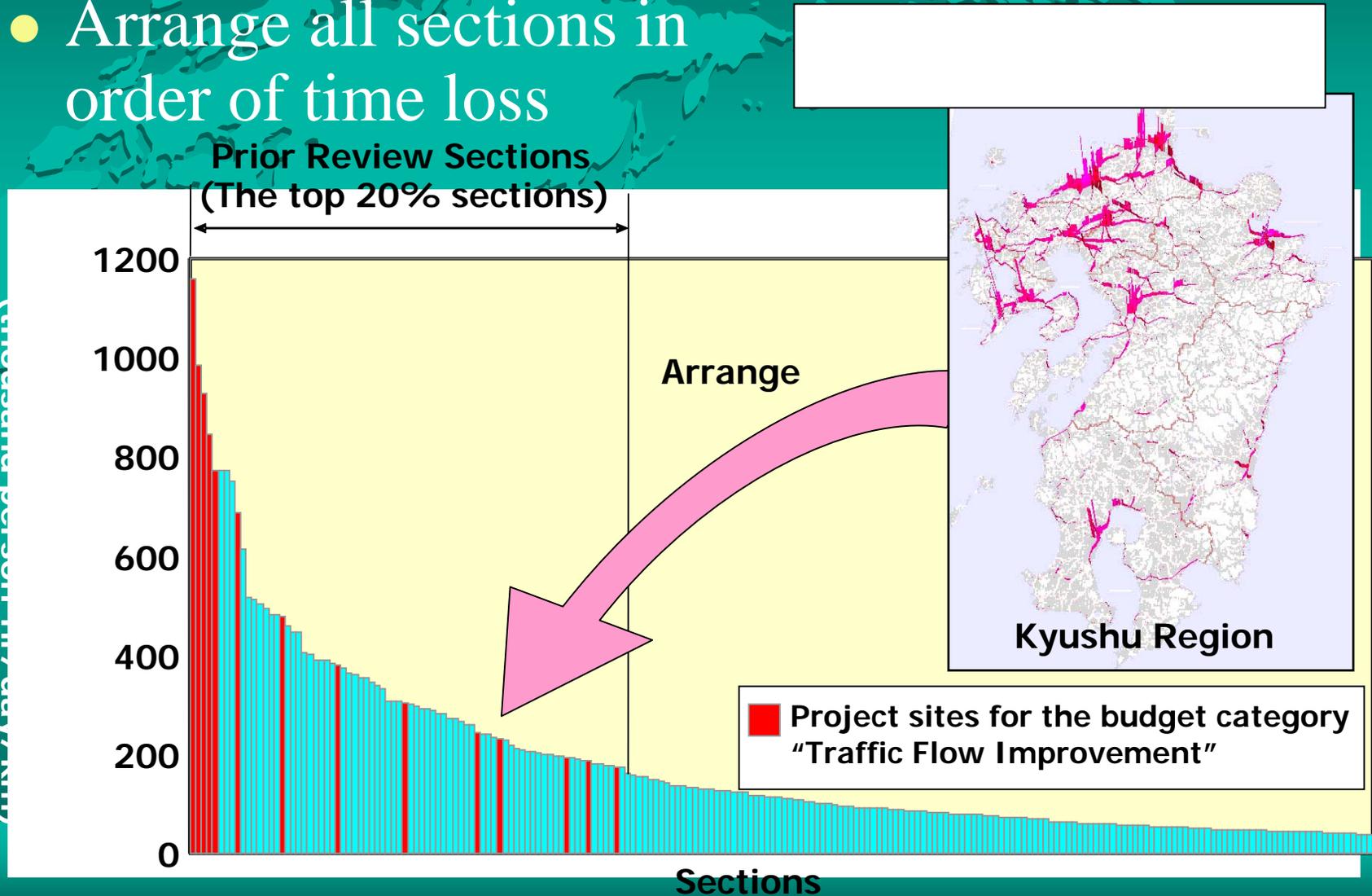
- Announcing indicator of each region
- Particular needs of each region

→ Regional Performance Plan

41/47 prefecture prepared

Congestion Mitigation

- Arrange all sections in order of time loss



Management of Road Work

- The second worst satisfaction
- Benchmark method has been utilized
 - Hours of road work are totaled every month by bureau/office
 - Results are fed back to all bureaus and offices
 - Also announced at website

Hours of road work was decreased by about 30% in FY2004

Regional Bureau/Field Offices

- Totaling hours of road work by field offices
- Feeding back to promote improvement of road work management



The Headquarters

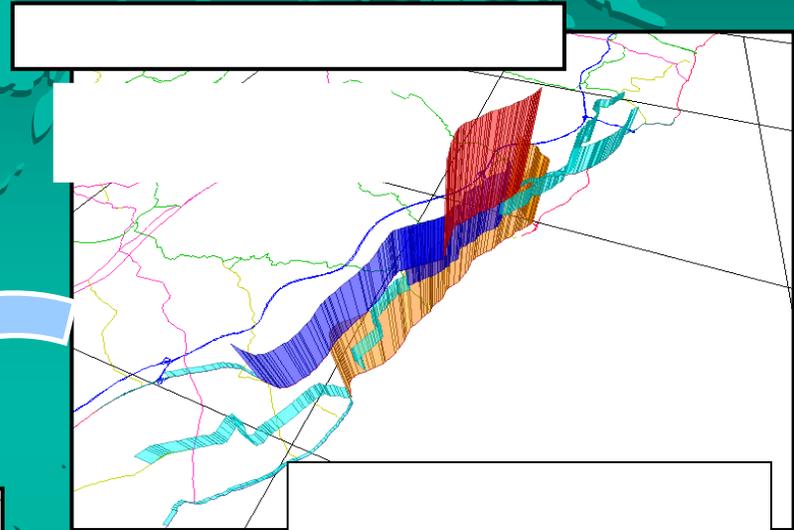
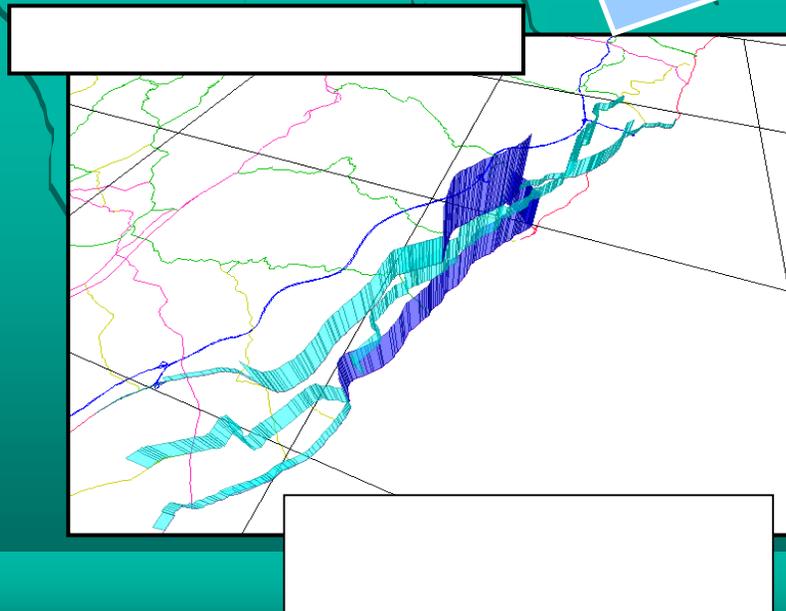
- Arranging all data in a table to be comparable by bureau/office
- Totaling hours of roadwork to be checked with the national target

Announcement on websites

Reduction/improvement of roadwork

Solving Regional Problems

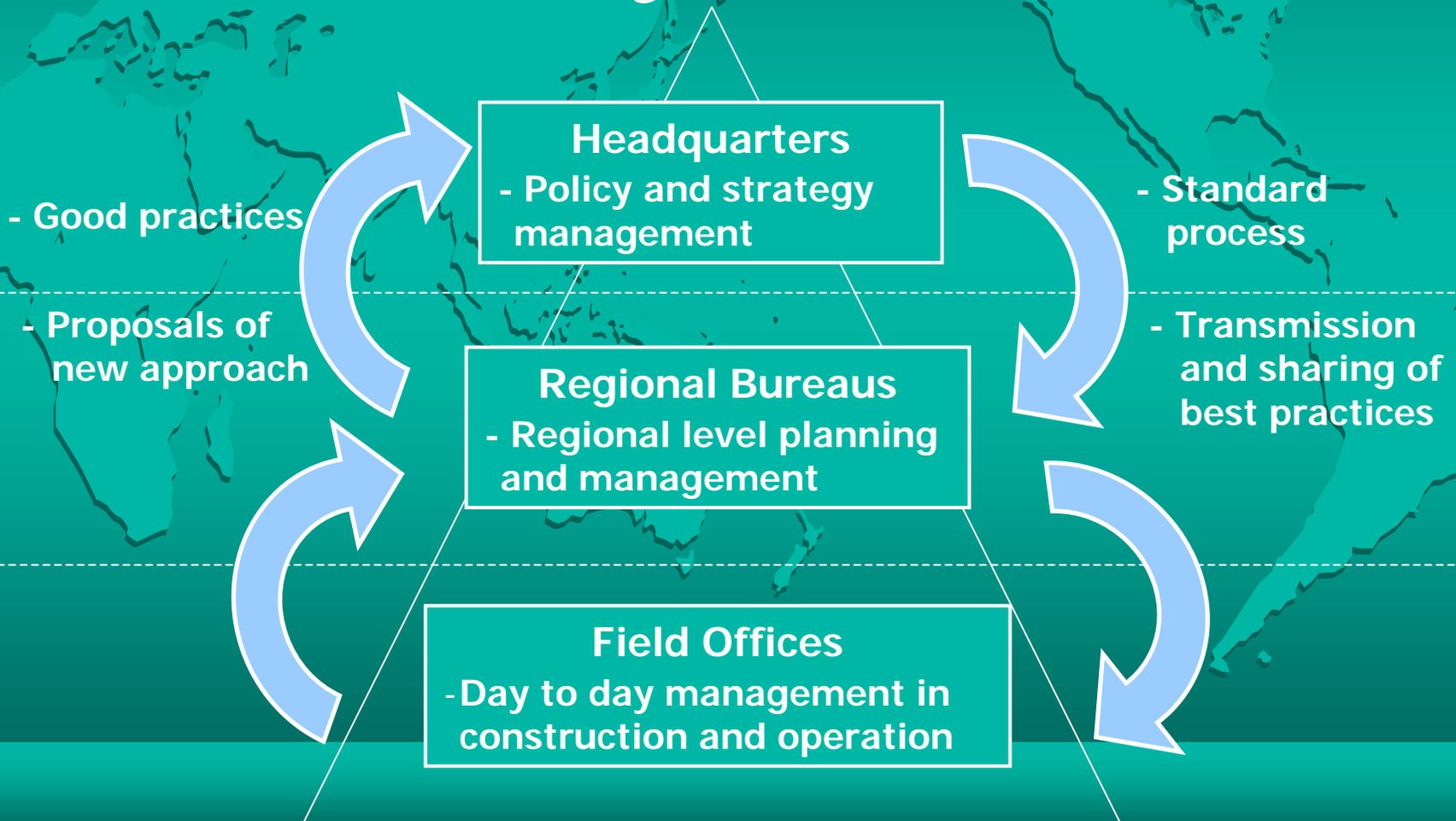
- Demonstration of a half toll discount on Joban National Expressway
- One month demo
- Based on regional proposals



The higher each section, the greater the congestion loss in each section.

Cascade style management

- Hearings and day-to-day discussions are critical for efficient management



Future Challenge



- Encouraging field offices to concentrate on performance based management
- Regional Planning and management
- Cooperating with related organizations
- Improving communication to the public



Thank you!