

2004 PACIFIC BASIN NUCLEAR CONFERENCE

23 March 2004

# OUR NUCLEAR COMMUNICATIONS



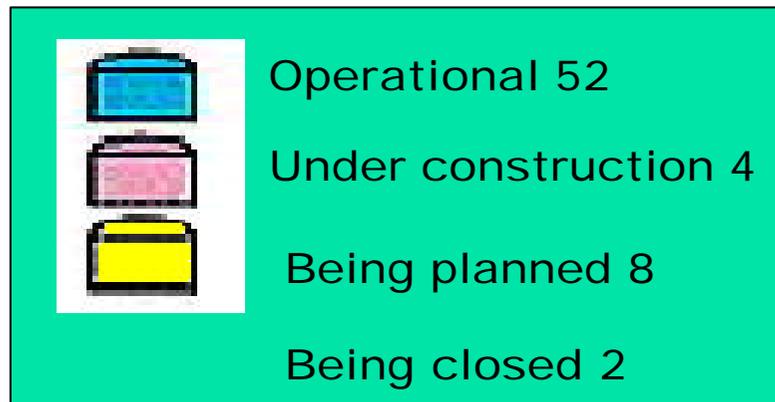
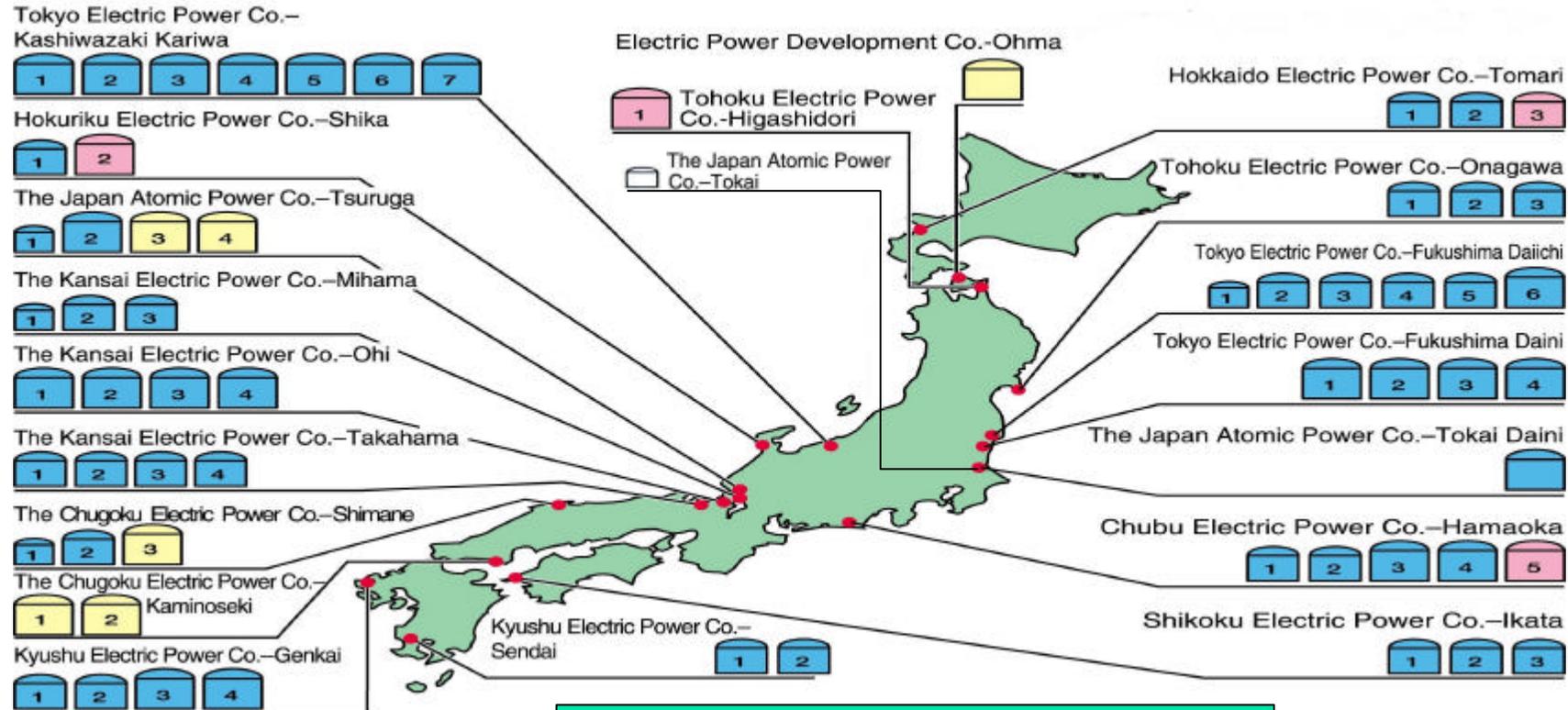
Masaaki Mizuno

Nuclear Service Company, Japan



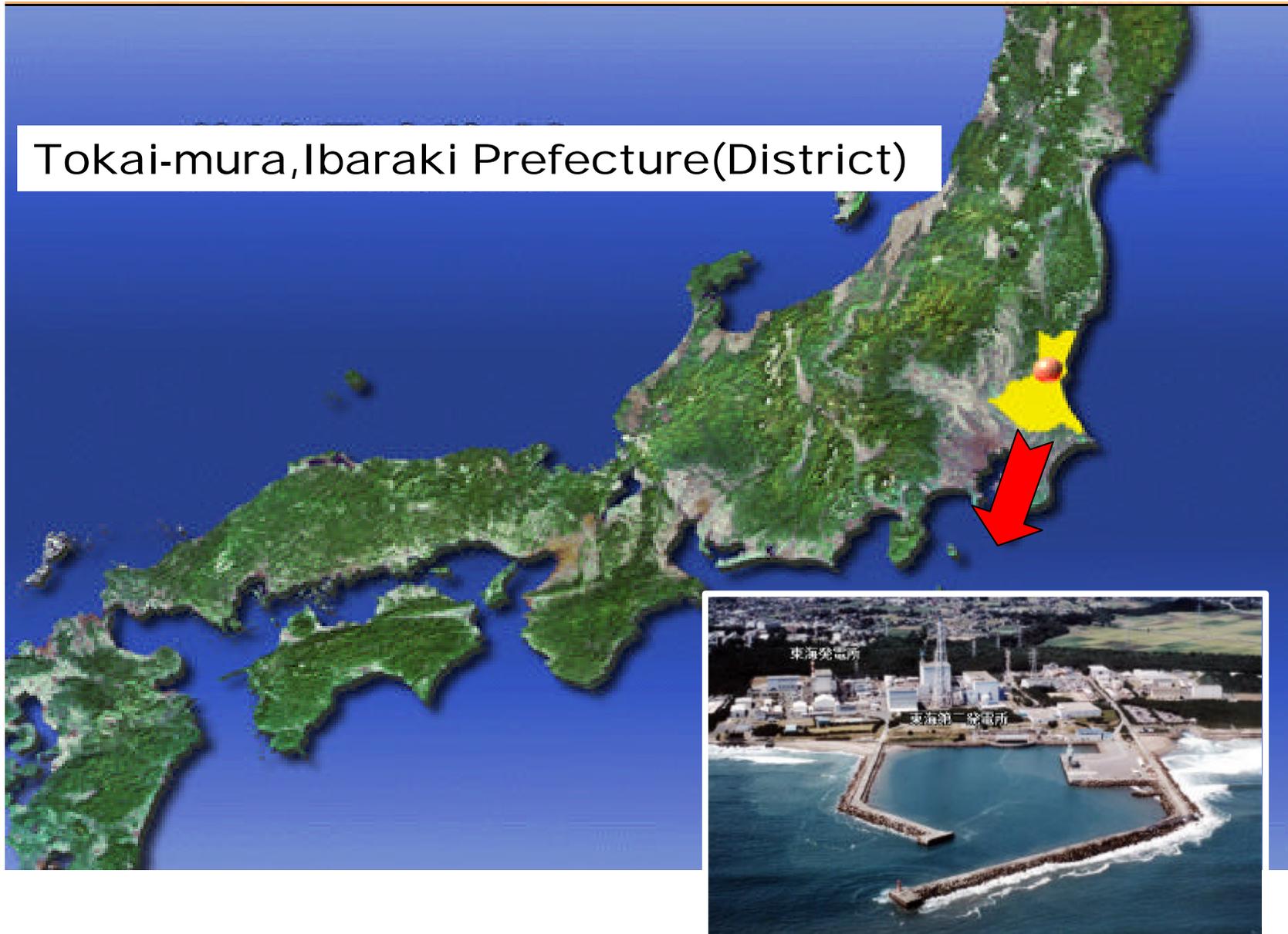
# Status of Commercial NPPs in Japan

(Commercial plants, as of March 2004)



# The Japan Atomic Power Company's Power Station

Tokai-mura, Ibaraki Prefecture (District)



# Tsuruga, Fukui Prefecture(District)

Unit 1&2  
(Operational)



Image of Unit 3&4  
(plan to construct)



# The Events influencing the Nuclear Plant

1999/9/30  
Nuclear Criticality  
Accident at JCO

1995/12/8  
Sodium Leakage at  
the Monju reactor

1995/1/17  
The Great  
Hanshin&Awaji  
Earthquakes

# The Great Hanshin & Awaji Earthquakes



1995/1/17

Magnitude : 7.3

Casualties : 6433

missing : 3

injured : 43792

Destroyed Buildings: 104,906



# The Events influencing the Nuclear Plant

1995/1/17  
The Great  
Hanshin&Awaji  
Earthquakes

1995/12/8  
Sodium  
Leakage at the  
Monju reactor

1999/9/30  
Nuclear Criticality  
Accident at JCO

# Sodium Leakage at the Monju Reactor (INES 1 )

1995/12/8



Sodium leakage at the secondary loop piping room  
Leakage of 700kg of sodium (estimation) causing fire  
Vibration, generated by the flow of sodium, resonated with a thermometer sheath, subsequently damaging it.  
Operation currently suspended



# The Events influencing the Nuclear Plant

1999/9/30  
Nuclear Criticality  
Accident at JCO

1995/12/8  
Sodium Leakage at  
the Monju reactor

1995/1/17  
The Great  
Hanshin&Awaji  
Earthquakes

# Nuclear Criticality Accident at JCO

1999/9/30

(INES 4)



Criticality reached during operation

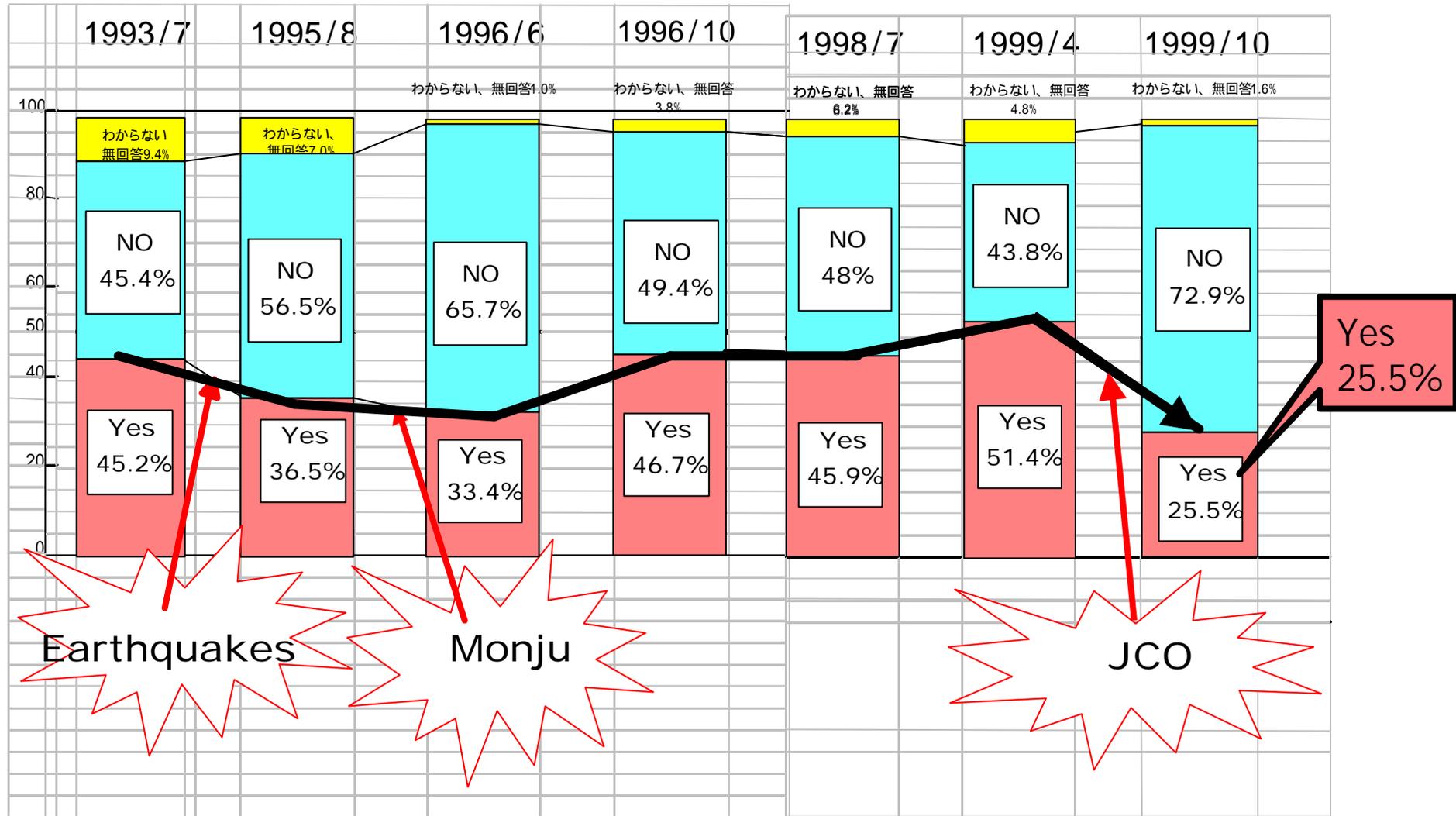
The state of criticality lasting for approx. 20 hours, emitting neutrons, gamma-rays and radioactive materials from the facility. Residents within 350 radius requested to evacuate, whereas residents within 10km radius told to stay indoors.

Fatalities: 2 (employees)

People exposed to radiation: 667



# Public Perception about our Construction Plan

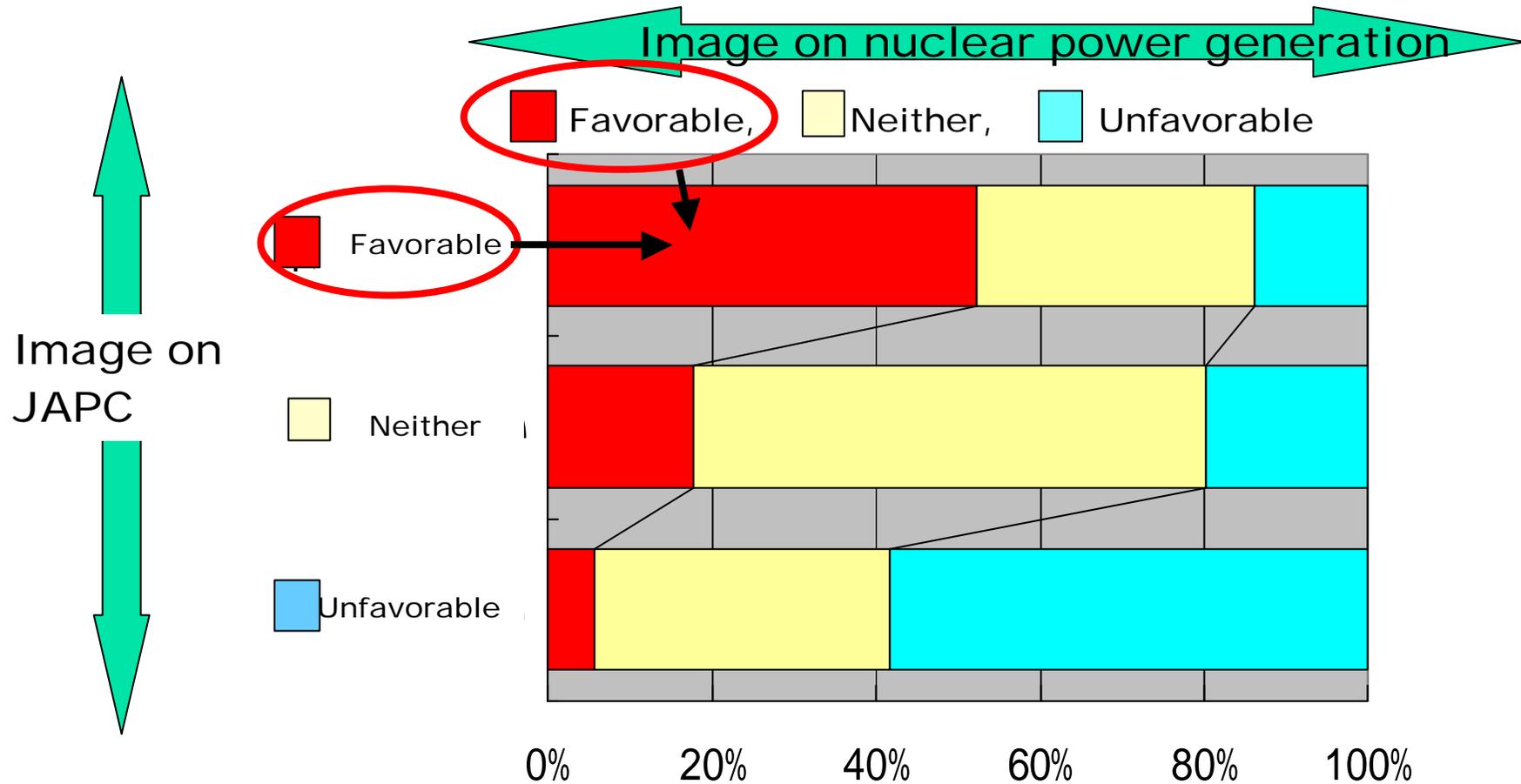


# The Governor's Conditions for our Construction Plan

1. Ensure safety
2. Assist development in the local community
3. Win the understanding of local residents

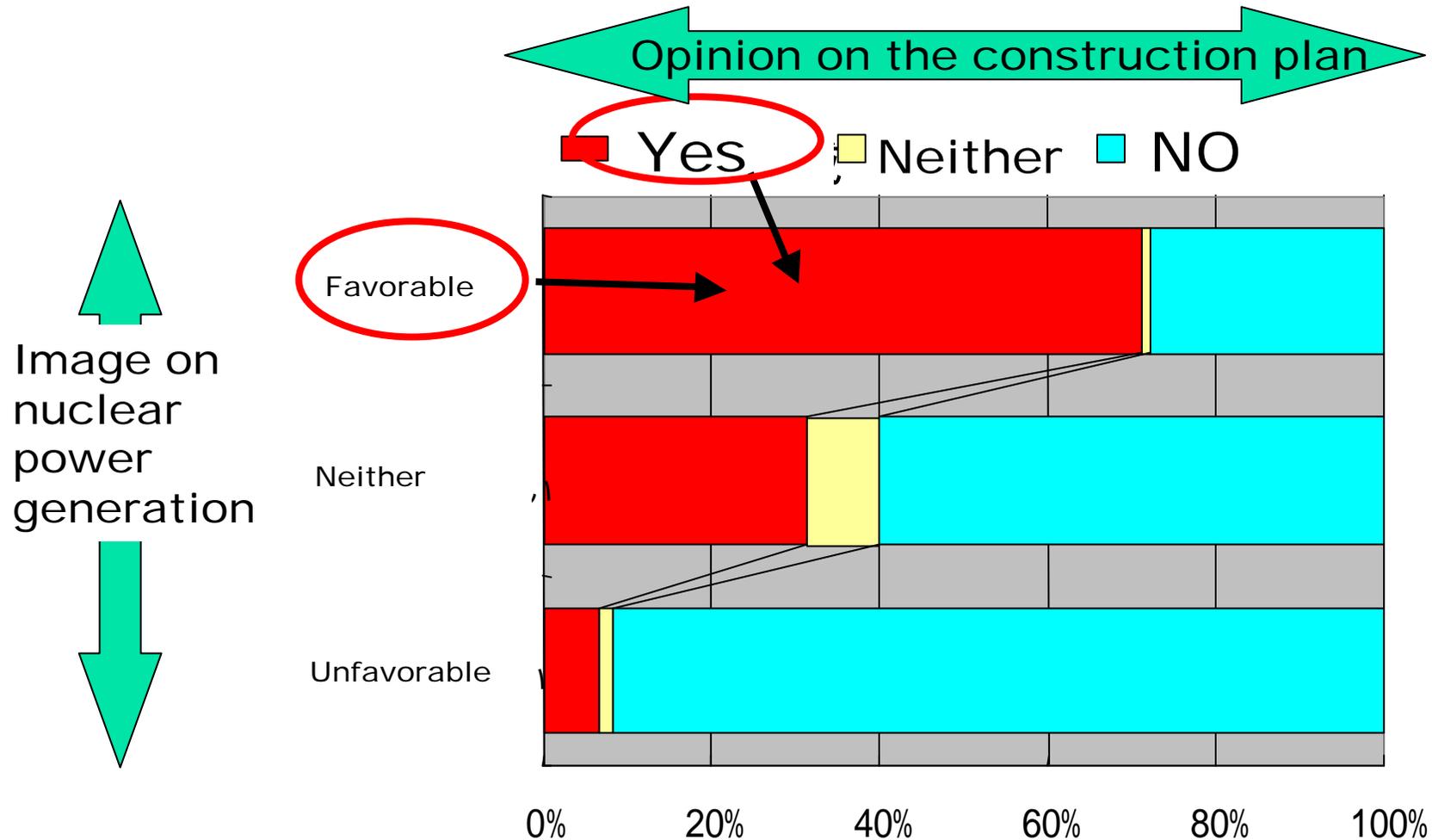
Resident opinion survey covering 2000 people, 1996

# Correlation between a Positive image on JAPC and Acceptance of Nuclear Power Generation



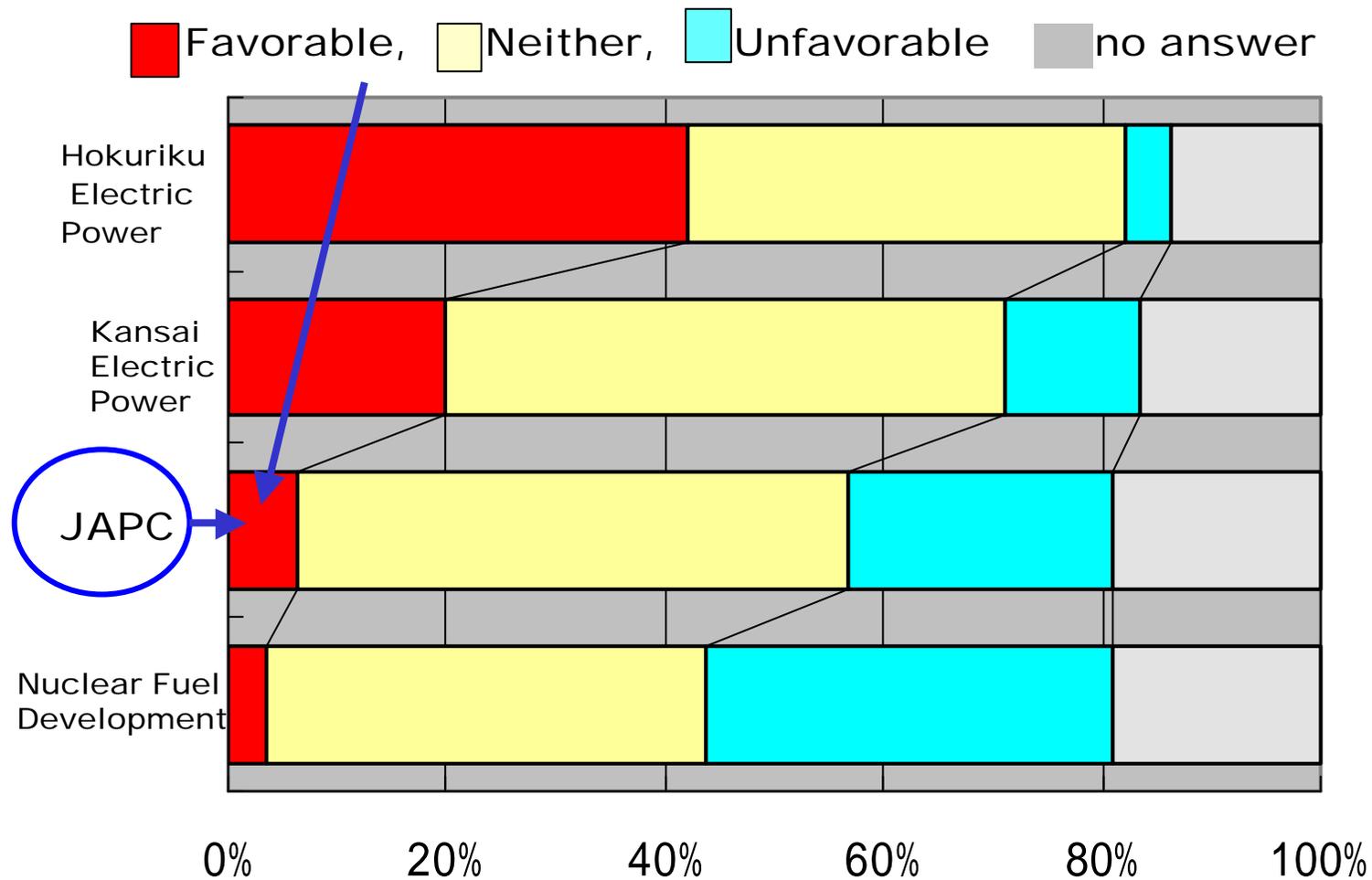
Resident opinion survey covering 2000 people, 1996

# Correlation between a Positive image on JAPC and Opinions on the Construction Plan

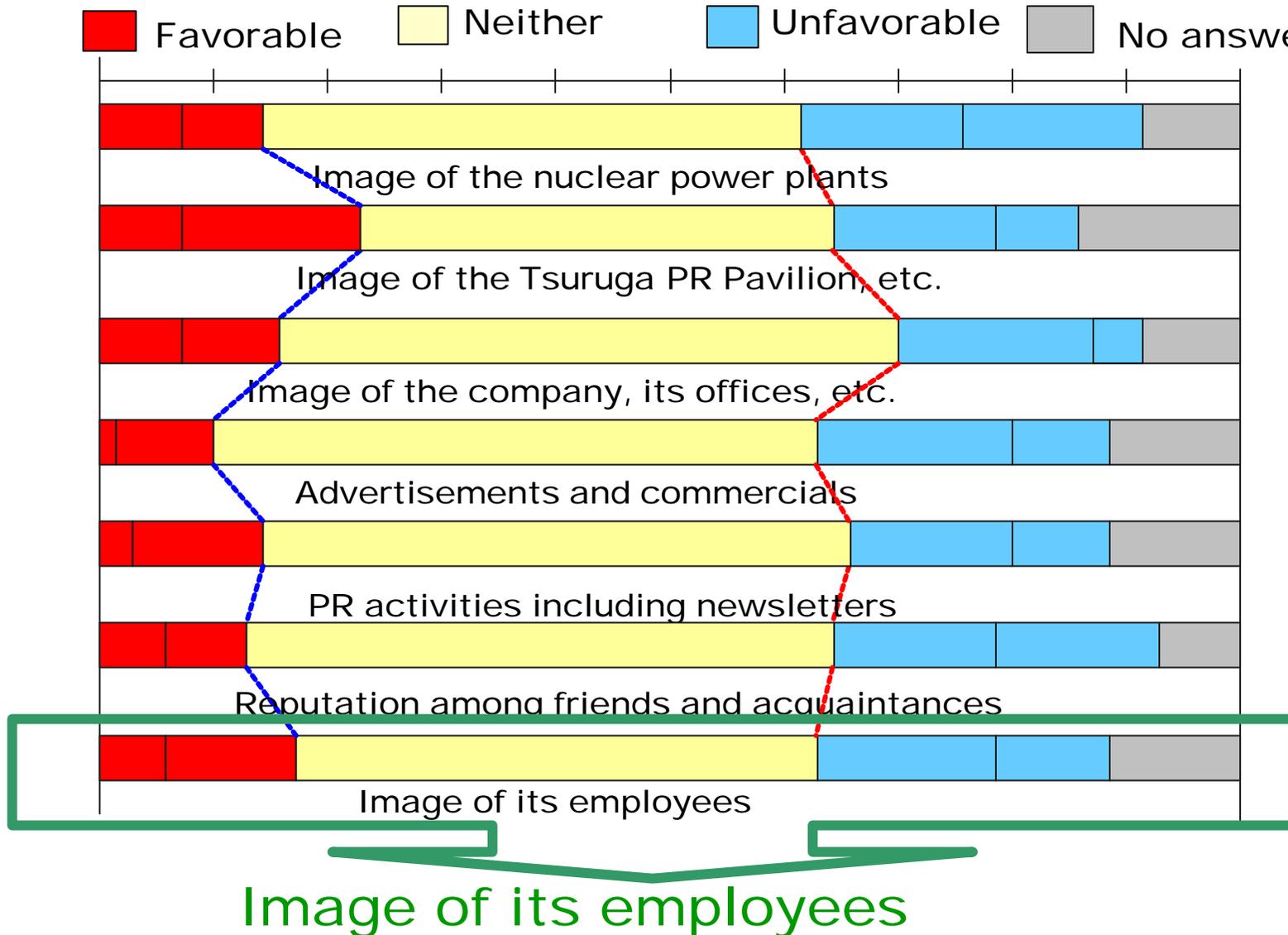


Resident opinion survey covering 2000 people, 1996

# Positive Impression of Electric Power Companies



# Factors forming a Positive Image on JAPC



# Our Nuclear Communications

A ) Initiators : All employees

( B ) Receivers : Residents of Fukui District

( C ) Activities:

- Direct dialogues

- Meetings

- Local influencers

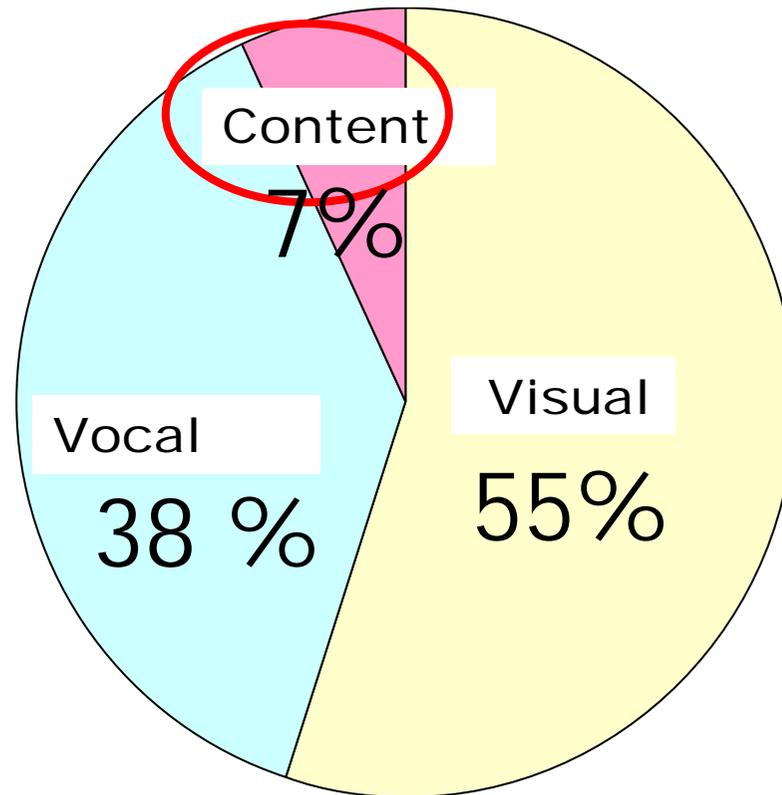
- Disclosure to the mass media

- Advertisements, commercials

- Sponsoring

## Theory of Dr. Albert Mehrabian

"Major factors in forming an impression of speech"



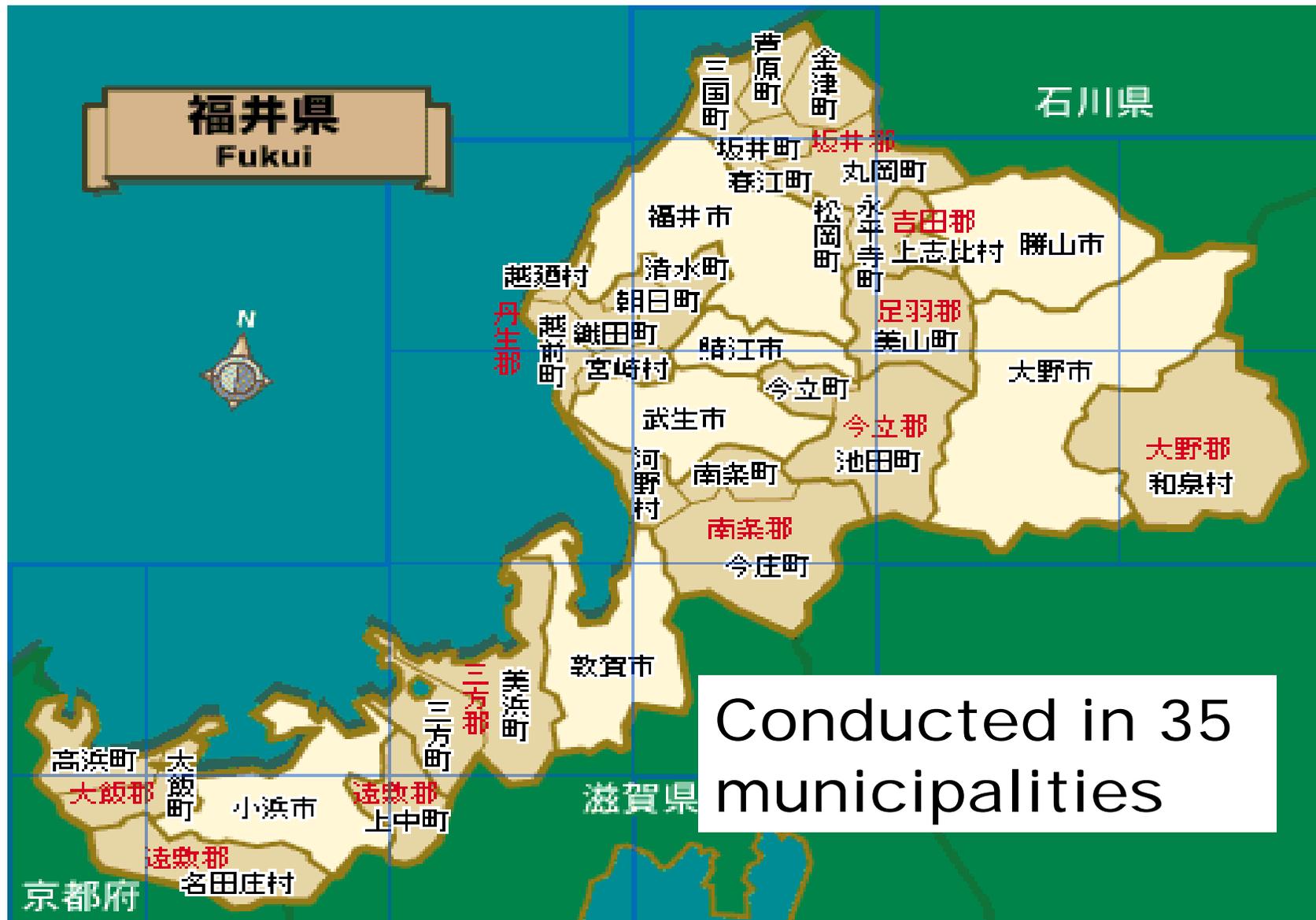
**I find it doubtful that the law can be applied to all cases.**

# Direct Dialogues with Residents

(Home visits)



Visiting all 26,000  
households in Tsuruga



# Meetings with the Residents (phase-1)



At takahama



At echizen

2600 participants



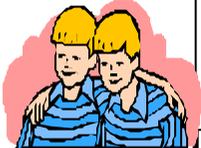
# Meetings with the Residents (phase-2)



2400 participants

# High context cultures and Low context cultures

Edward Hall



	High context cultures	Low context cultures
Human relations	Deep association	Individualism
Information	Shared	Not shared
Communication method	plain messages for inference	Explicit messages to put forth one's opinions
Typical example	Japan	USA

# Exchange with Opinions Formers



# Disclosure to Mass Media (Primary coolant leakage at Tsuruga -2) (INES 1)



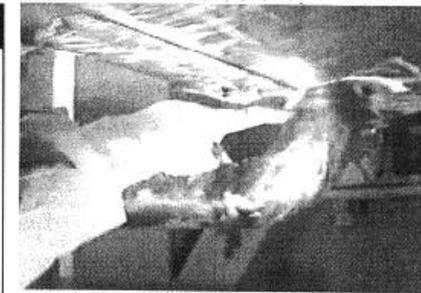
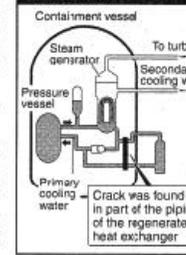
Leakage of primary coolant in the reactor containment 51 ton  
Manual shutdown of the reactor  
No radioactive impact on the environment

## Source of plant's coolant leak located

An 8-cm crack has been found in a pipe in the containment building of the Fukui nuclear power plant where a massive amount of radioactive cooling water leaked Monday, government officials reported to the Nuclear Safety Commission on Tuesday.

According to the Natural Resources and Energy Agency as well as plant officials, the crack was found in a stainless steel pipe in a regenerated heat exchanger in the containment building after five workers at Japco Atomic Power Co.'s Tsuruga plant entered the facility just before 7

Tsuruga nuclear plant No. 2 reactor



An official of Japan Atomic Power Co. points to the Tsuruga nuclear plant No. 2 reactor where a massive amount of radioactive water leaked from a crack. COURTESY OF JAPAN ATOMIC POWER CO.

led to conduct the next of checkups in 2001, id. Members of the Nuclear Commission pointed possibility of a defect product, because the crack formed in the middle of the pipe, not in a weld where pipes are connected. Minister of International Trade and Industry Kaoru Yosano told a news conference. CONTINUED ON PAGE 2

# Disclosure to Mass Media (Primary coolant leakage at Tsuruga-2)

Thorough information  
disclosure

Establish a **local media center**  
to extend detailed  
support to reporters.

**Release information on-site,**  
video footages and graphic  
images.



# Disclosure to Mass Media (Primary coolant leakage at Tsuruga-2)

## Evaluation by media

"News of an accident at a nuclear power station would make anyone feel concerned because of its association with invisible radiation. Yet, what deserves credit in this incident is the fact that all persons involved fulfilled their respective responsibilities, prevented radiation leakage to outside the facility, and delivered information accurately and swiftly to the general public. The commitment on the part of all nuclear power operators to sincerely undertake their duties and eliminate the need for cover-up, would be the only way toward building a sense of security among the Japanese public."

"Despite the possibility of causing misunderstanding, I dare say that this has been the most refreshingly pleasant media coverage of an accident at a nuclear power station"



# Disclosure to Mass Media

(Primary coolant leakage at Tsuruga-2 reactor )

**Information disclosure is an extremely important task. In this aspect, the reactor operator and administration authorities should be congratulated for their handling of the accident.**

(excerpt of opinion report, 1999/10/25)

[the Nuclear Safety Commission](#)

# Newspaper Advertisements

**でんインフォメーション**

●教賀発電所で働く仲間たち―8●

手作りのおいしさが、  
発電所の活力源となっています。



元気で働くには、おいしく健康的な食事は欠かせません。教賀発電所 献立は専員の栄養士が担当。週に1回のバラ

安心できる発電所をめざして



食堂スタッフの皆さん

Safety First  
げんであい

自分の仕事も電力供給を支えていると実感、やりがいを感じます。

教賀発電所・電力係長 門馬伸之



Safety First  
げんであい

確かな環境モニタリングで、地域の皆様に安心をお届けしたいです。

教賀発電所・環境係長 北田 麗

安心できる発電所をめざして

**おでかけください！ げんでんふれあいギャラリー**

**開催中！「日英小学生絵画交流展」 12/26(木)まで**

～教賀市とイギリスの小学生たちの絵画交流展～

入場無料 観覧時間10:00～16:30(年末年始を除き年中無休) 教賀駅より徒歩10分

お問い合わせ ☎0120-749-201 (女かよくふれあい)

詳細はこちらのホームページをご覧ください。

●教賀市環境教育センター ●

運転手は発電所の「足」であり「顔」。  
安全で快適な運転を心がけています。



運転手 橋本 浩一

**げんでんふれあいセンター**

**「えねるぎーお話し場」が開きます**

12月10日(土)17:00～19:00(受付は開場前より)

会場 教賀市環境教育センター

TEL: 0120-749-201

開催場所は「えねるぎーお話し場」

☎ ☎ へ原子力発電株式会社

教賀発電所 環境係長 橋本浩一

# TV Commercials



# Sponsoring Newspapers and TV Programs



番目前のお忙しい中、熱のこもったお話に皆さんの意気込みを感じることができました。

あでやかなお市の方はミス福井グランプリ



「昭和二十七年に始まった『だけ菊人形』の前年に結成された武生菊花同好会、今年で四十五年になりますかね」と、会長の大下さん。会場にズラリと展示されている大小さまざまな見事な菊花は、会員さんたちの丹精込めた作品です。「菊づくりなんかやっていると、愛人あつかいされますよ(笑)」。それほど菊づくりはむずかしい大変らしい。

菊の開花は日本全土、満開は十一月初旬。一月ともなると早くような土地柄。だが『移』は開催を十月二部と咲吹の部に分けています。早咲の部に出展すから日照や温度など、十月に満開にしません。「それには、

日間は、どこにも行けません。もちろん、家族に任せるワケにもいきません。菊畑様のお守りで、つきつきり、台風の時には、すべての鉢を座敷にいれました」と、笑う木下さん。会場への搬入にも細心の注意を払います。土づくりから始め、さし芽、鉢上げ、支柱、苗の選定、肥料調整、夏越し対策などなど、一年間手廻りにかけて咲かせた菊の花が何かの弾みでポロッと落ちてしまう悲劇もありま



会長の大下さん

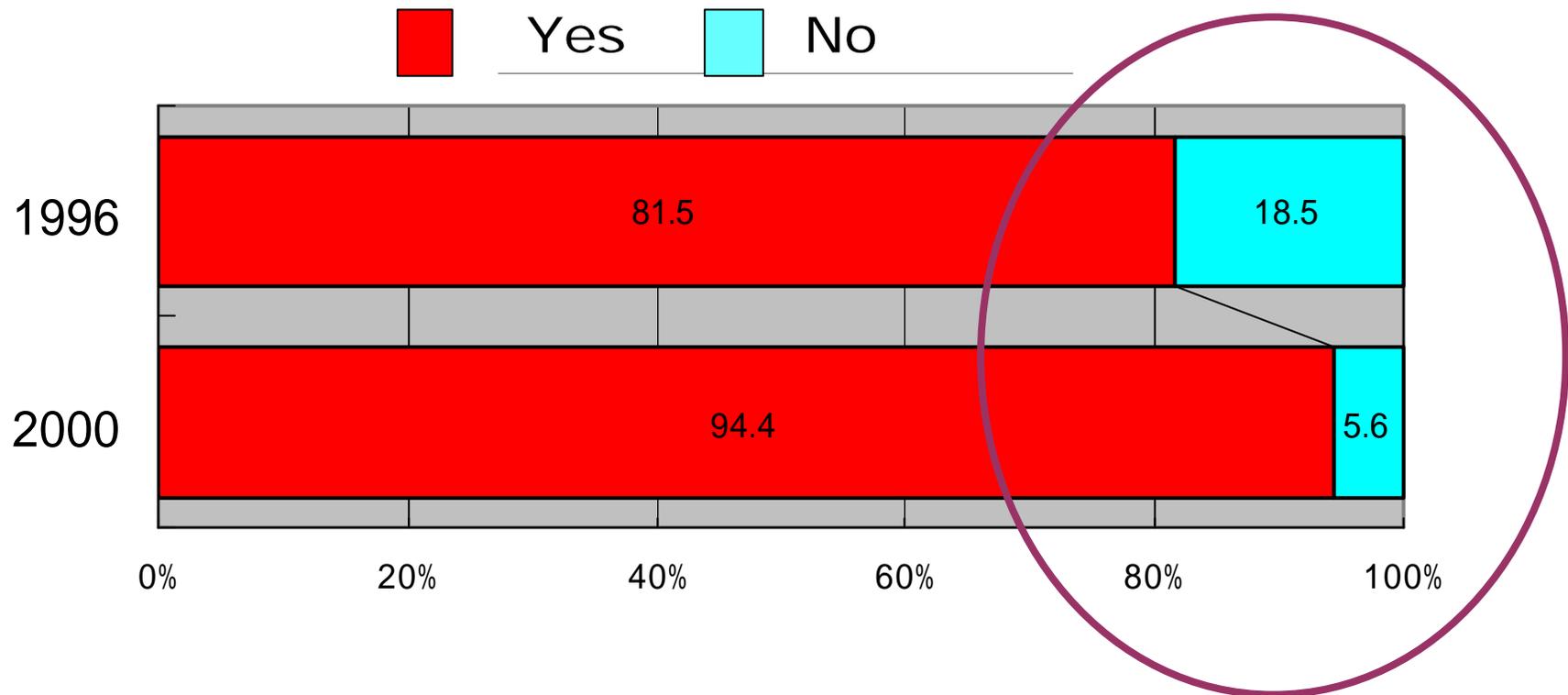


あでやかなお市の方はミス福井グランプリ... (transcription of vertical text)

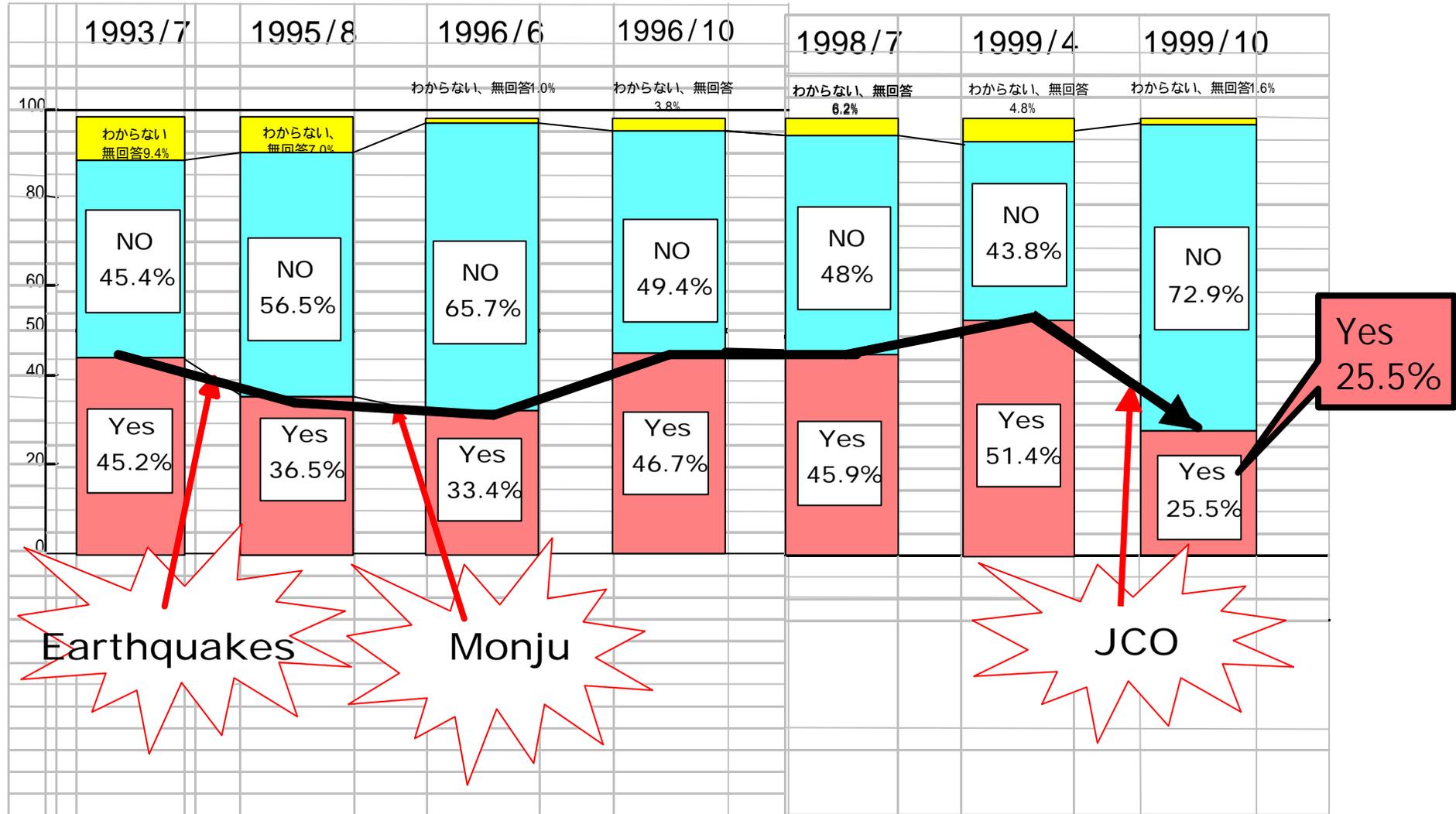


舞踊の三浦さん

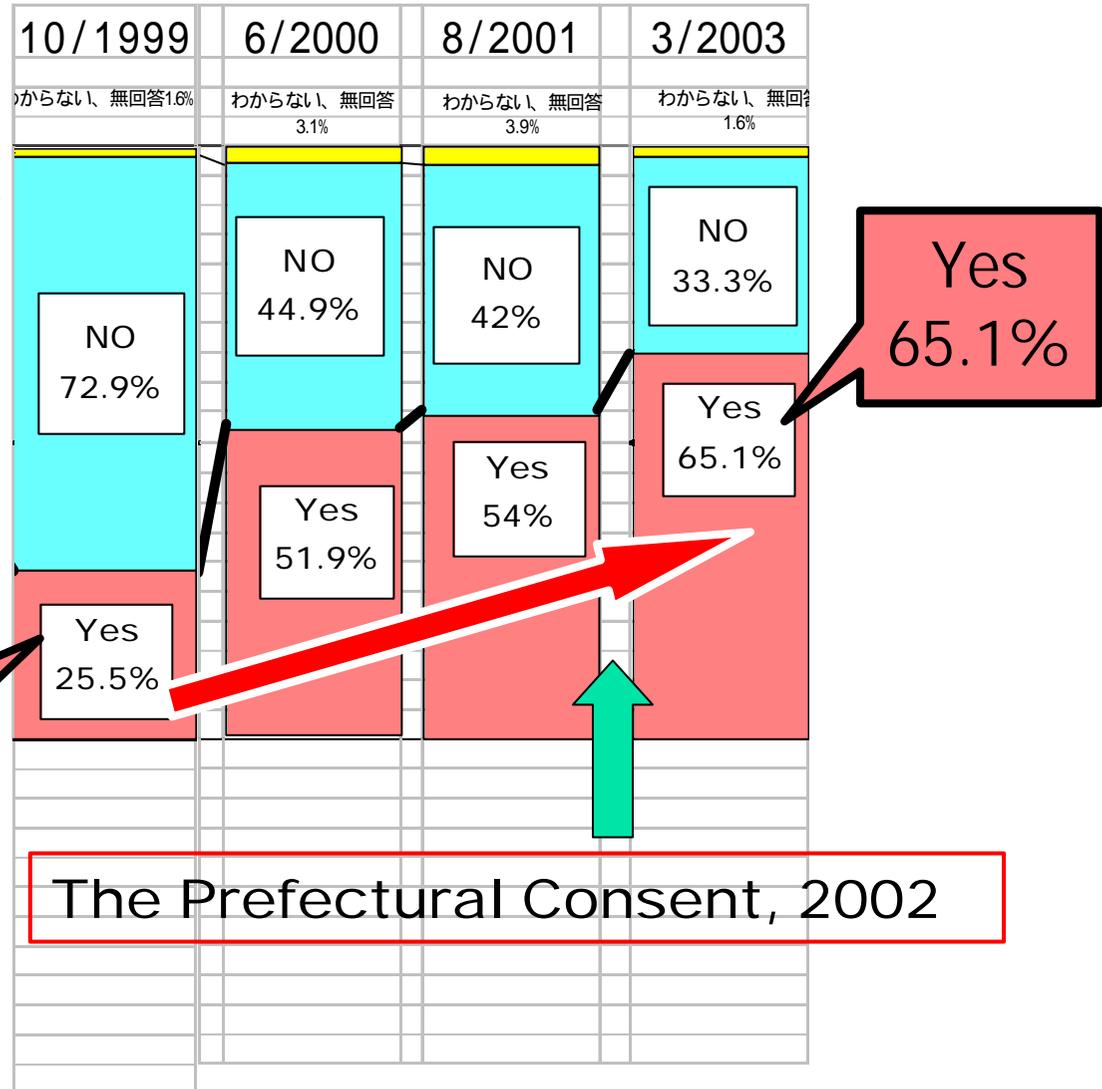
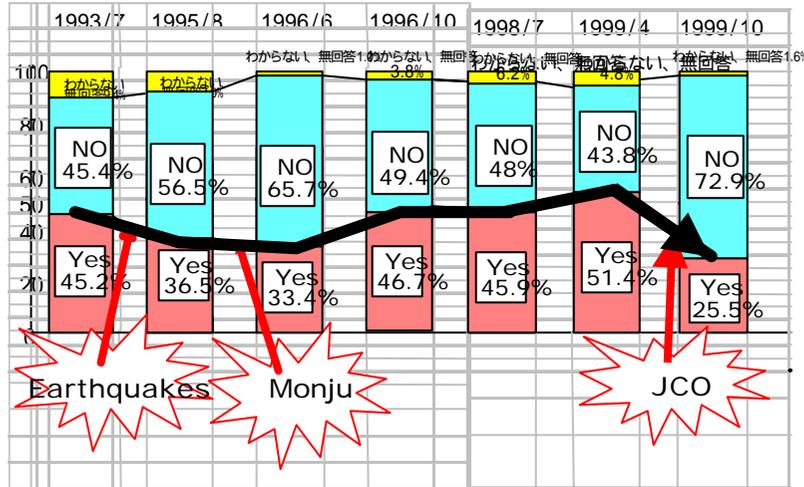
# Resident's Recognition of JAPC



# Public Perception about our Construction Plan



# Public Perception about our Construction Plan



# the Governor's Prefectural Consent

2002/12/25

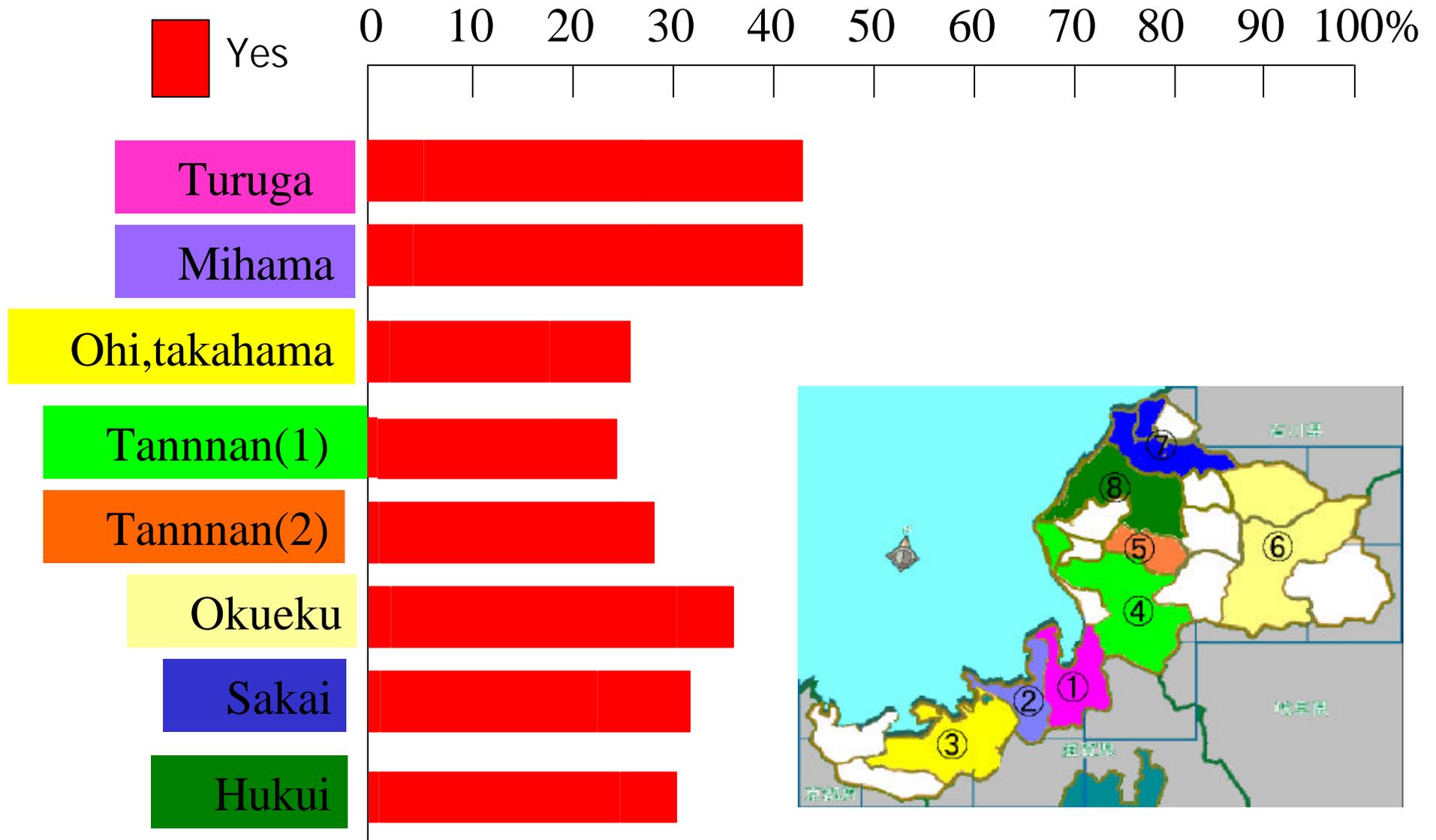


Thank you !

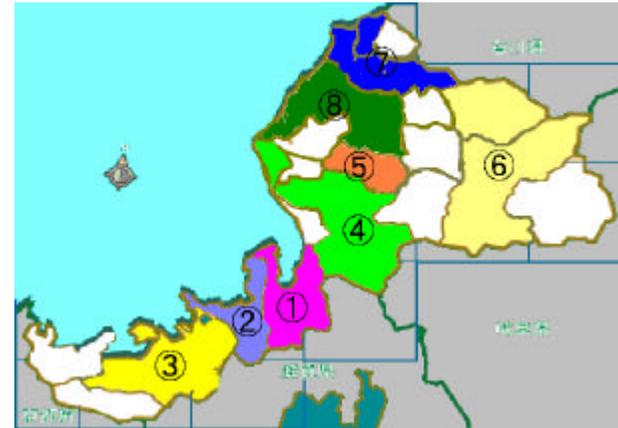


# Approval for our construction plan

Resident opinion survey 1999



## A local resident's concerns



	Turuga	Construction planning, Radioactive waste treatment, Accident Disaster prevention measures
	Mihama	Construction planning, Decommissioning of reactor, Plant life
	Ohi, Takahama	Siting Criterion, Safety issue, Energy Resources problem
	Tannan(1)	Disaster prevention measures, Radioactive waste treatment
	Tannan(2)	Disaster prevention measures, Radioactive waste treatment
	Okueku	Accident, Disaster prevention measures, Siting Criterion
	Sakai	Disaster prevention measures, Siting Criterion, Local promotion
	Hukui	Siting Criterion, Plant management