

UNWTO Special Workshop on Tourism Statistics
Topic 1: "Measurement of tourism for policy purposes"

How to estimate economic effect of tourism by the input-output table

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(Request for cooperation in a questionnaire survey)

1. Significance of estimate of the economic ripple effect of tourism

(a) Estimate on effect of event invitation

- Estimate on the effect of inviting a tourism event to the region.

(b) Preparation of documents for budget session with the government and municipalities

- Prepare the documents about the economic effect as a part of the budget session material to invite tourism events and to construct MICE facilities.

(c) Verification of the effect of holding and inviting the events

- Verify the effect of holding and inviting the events.

(d) Preparation of PR materials for organizers and exhibitors

- Prepare materials to help organizers and exhibitors understand the effect of tourism events.

2. Analysis of economic ripple effect of tourism in Japan

“Research study on economic impacts of tourism in Japan” (JTA)

- The Ministry of Land, Infrastructure, Transport and Tourism conducted a **“Research study on economic impacts of tourism in Japan (I, II, III)”** for three years from FY 2000 to 2002 in order to review TSA introduction and examine the economic effect of travel and tourism consumption in Japan.
- In FY 2003, the Ministry conducted a **“National tourism survey”**, as an approved statistics survey, and the results were analyzed and reviewed in order to verify the rationality of survey items and survey method for estimation based on TSA in Japan. The domestic travel and tourism consumption and the details of FY 2003 were identified to estimate the economic effect.
- Since then, the economic effect of travel and tourism consumption in Japan has been estimated every year.

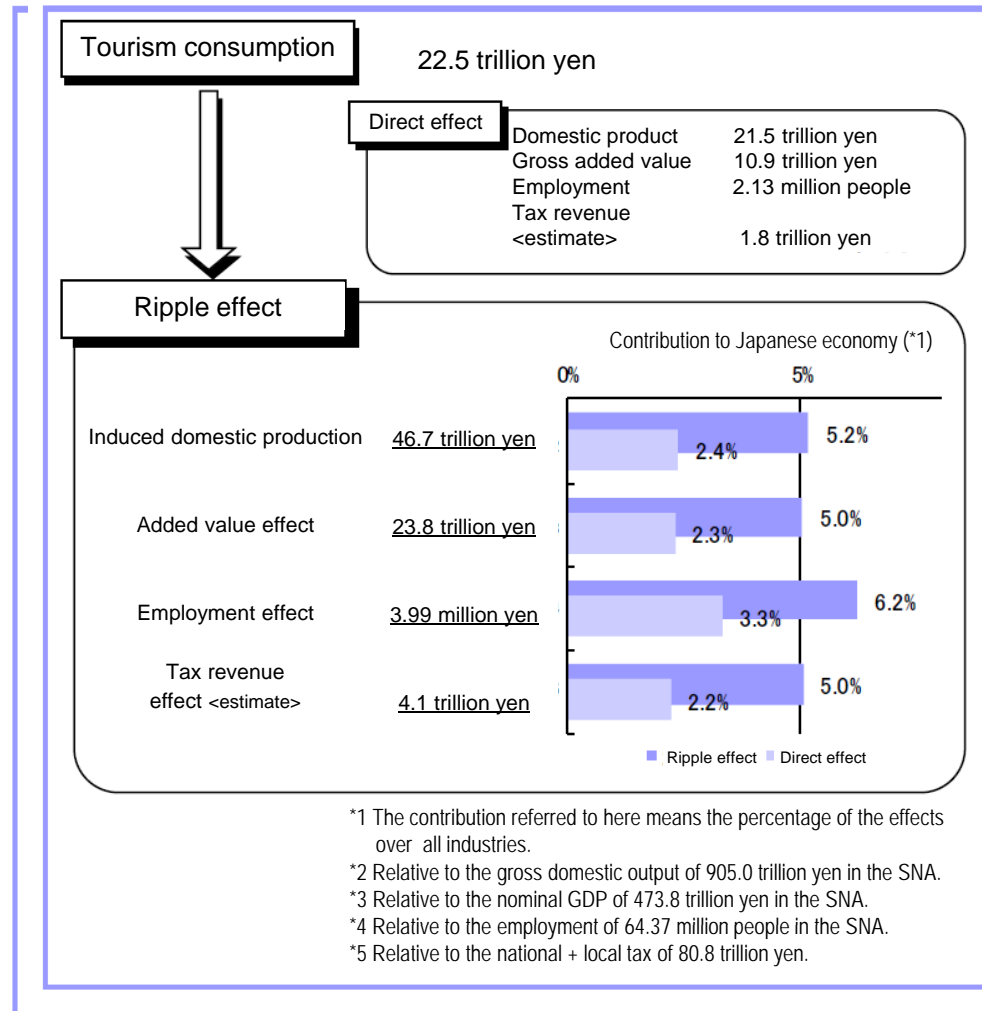
2. Analysis of economic ripple effect of tourism in Japan

“Research study on economic impacts of tourism in Japan” (JTA)

Economic ripple effect of tourism consumption in Japan (CY 2012)

Induced domestic production: 46.7 trillion yen
(Percentage in the production activity in Japan: 5.2%)

Source: Research study on economic impacts of tourism in Japan(Japan Tourism Agency, March, 2014)

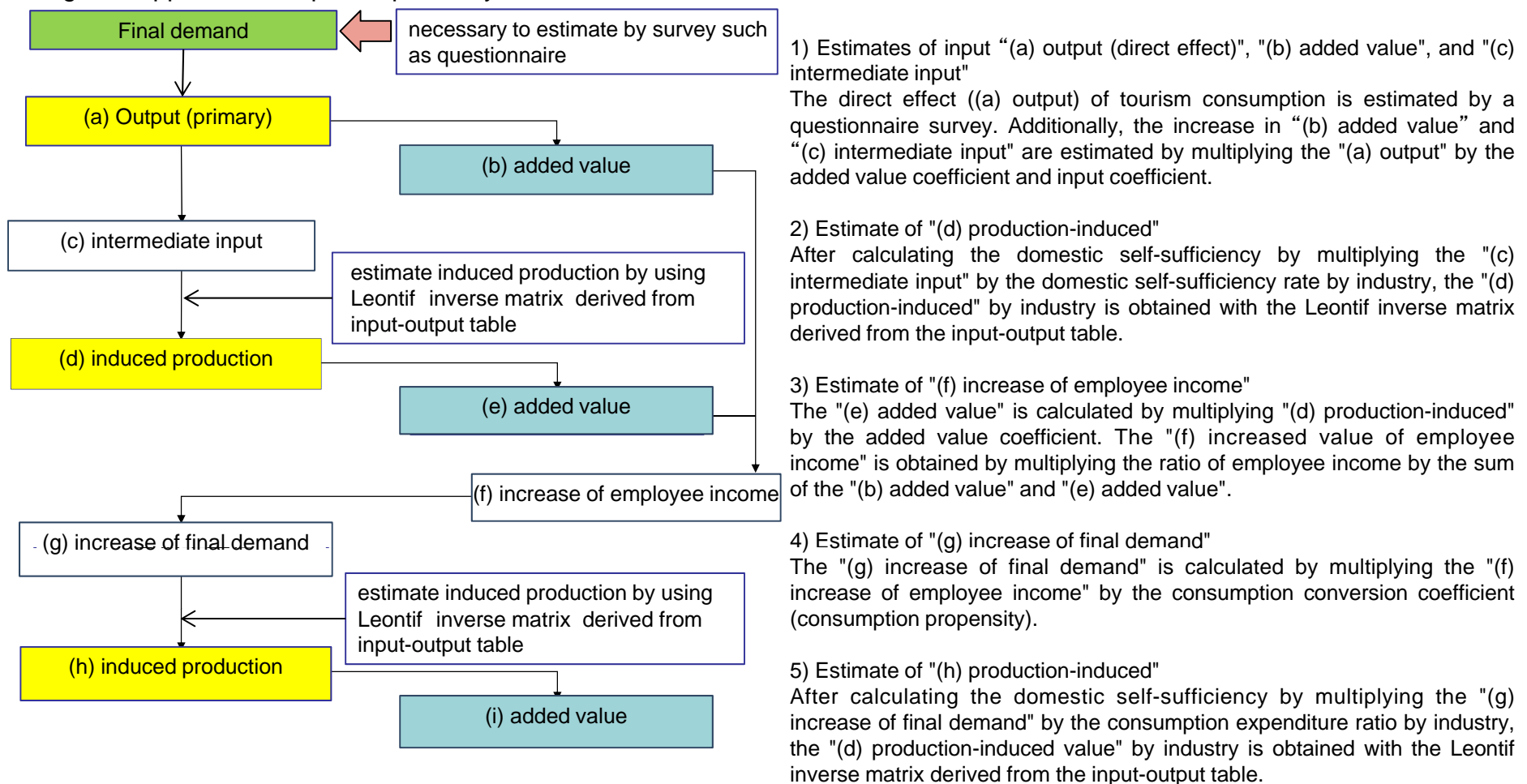


3. Analysis tools and available data for the economic ripple effect

General method

- Input-output analysis using the **national input-output table**
- Input-output analysis using the **input-output table by prefecture**

Figure: Ripple flow of input-output analysis



3. Analysis tools and available data for the economic ripple effect

Independently developed tool

(1) Easy measurement model for estimating the economic ripple effect of MICE by region (JTA)

- The Japan Tourism Agency (JTA) developed "Simple measurement model (old model)", for international conferences in FY 1999, and for MICE as a whole in FY 2000, and widely released them to public with the aim to simplify the measurement of the economic ripple effect of MICE.
 - * The model is optimized as a tool in Excel format for general use while the basic estimation method is based on the aforementioned input-output analysis.
- The understanding of the importance on the measurement of the economic ripple effect of MICE was further deepened by the old model. However, there were requests on the improvement of model functions, such as enabling the calculation of economic ripple effect focused on particular regions.
- In response, functionality of the "Simple measurement model (old model)" was expanded to enable the calculation of the economic ripple effect by "nation", "prefecture" and "international convention city (52 cities nationwide)" by using input-output tables of the respective regions, and a "Simple measurement model by region (new model)" was developed.

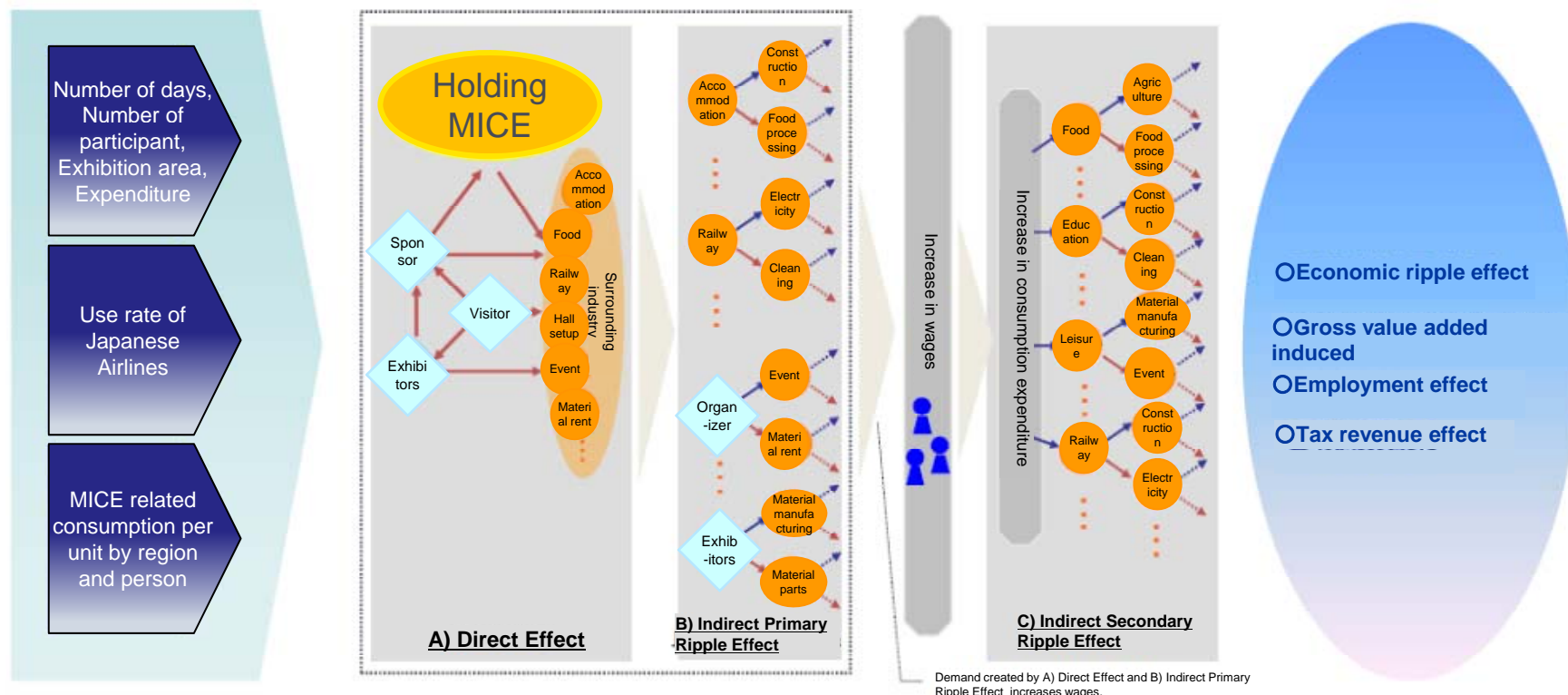
3. Analysis tools and available data for the economic ripple effect

Independently developed tool

(1) Easy measurement model for estimating the economic ripple effect of MICE by region (JTA)

Figure: Ripple flow in this model

Data Setting How to comprehend MICE economic ripple effect(Direct and Indirect Effect) **Output**



Source: Introduction of "Simple measurement model by region" for measurement of the economic ripple effect of MICE (JTA)

3. Analysis tools and available data for the economic ripple effect

Independently developed tool

(2) Interprefectural input-output analysis model (Mitsubishi Research Institute, Inc.)

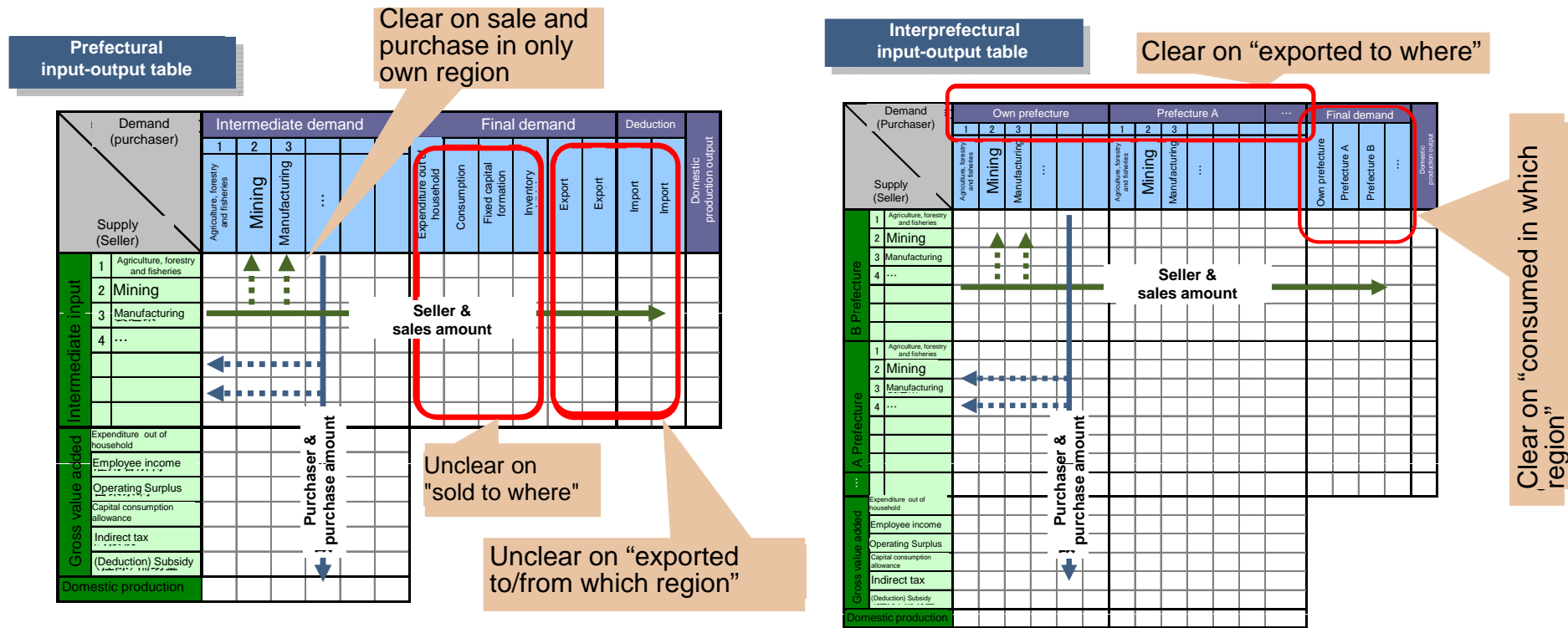
- For further detailed economic ripple effect by region, the Mitsubishi Research Institute has independently developed an interprefectural input-output table since 1995, which administrative institutions have not developed.
- The Institute has developed an interprefectural input-output analysis model using the table.
- Interprefectural trading goods and services are indicated in the interprefectural table. Therefore, the interprefectural input-output analysis model enables the estimation of the ripple effect by prefecture, not only for the host prefecture of the tourism event but also for the stimulated demand (direct effect) in other prefectures. In addition, the model takes into account the rebounding effect, the effect that reflects the effect of the hosting city through local trade to other areas and boosts demand to promote economic effect in the hosting city.

3. Analysis tools and available data for the economic ripple effect

Independently developed tool

(2) Interprefectural input-output analysis model (Mitsubishi Research Institute, Inc.)

Figure: Difference between the input-output table by prefecture and interprefectural input-output table



3. Analysis tools and available data for the economic ripple effect

Available data (input-output table)

In Japan, the following input-output table can be applied for economic effect analysis.

(1) Input-output table (national) (Ministry of Internal Affairs and Communications)

- Created in order to reveal the overall economic structure of Japan in the target year, and provide basic data for economic ripple effect analysis and the revision of various economic indicators.
- Created every five years, in principle.

(2) Input-output table by prefecture (prefecture)

- Input-output table created for each prefecture (created based on government manual). Describes trade of goods and services within the prefecture between industries and between industry and household, outside the prefecture and overseas.
- Created every five years, in principle.

(Note 1) The table may be extended as appropriate, during the five years' time.

(Note 2) Input-output tables by city may be created for ordinance-designated cities.

(Note 3) For prefectures like Mie, input-output tables of divided regions within the prefecture may be created.

3. Analysis tools and available data for the economic ripple effect

Available data (tourism related statistics)

Following statistics may be used to estimate the consumption per unit of tourism.

(1) National tourism survey (JTA)

- Conducted in order to understand the nationwide travel status in Japan.
- Continuously conducted since FY 2003, and expanded target to all ages since the survey in CY 2009.
- The survey target includes approx. 25,000 Japanese citizens living in Japan extracted from the basic resident register.

(2) Consumption Trend Survey for Foreigners Visiting Japan (JTA)

- Conducted in order to understand the consumption status of foreign visitors and create basic data for tourism administration.
- The survey is conducted every quarter, (January-March, April-June, July-September and October-December) starting from April-June, 2010.
- The survey target includes foreign visitors departing from Japan except for transit passengers, crew and foreigners staying in Japan for over a year, and is conducted with the aim to achieve a total of 6,600 samples per quarter (26,400 samples per year).

3. Analysis tools and available data for the economic ripple effect

Expenditure paid per foreign tourist before and during visiting Japan in 2013 (by nationality and region)

| Nationality and region | (people) | (yen/person) | (yen/person) | (yen/person) | (stay) | (yen/stay) | (yen/stay) |
|-------------------------------|-------------------|--|---|---------------------------------|----------------------------|---------------------------------------|--|
| | Number of samples | a. Package tour / roundtrip (expenditure before departure) | b. Trip expenditure during visit to Japan | c. Total expenditure (=a. + b.) | d. Average number of stays | e. Trip expenditure per stay (=b./d.) | f. Total expenditure per stay (=c./d.) |
| All nationalities and regions | 28,767 | 100,687 | 115,837 | 216,523 | 11.9 | 9,700 | 18,131 |
| Korea | 6,768 | 48,224 | 66,204 | 114,429 | 6.5 | 10,120 | 17,491 |
| Taiwan | 5,271 | 80,255 | 80,009 | 160,263 | 6.4 | 12,440 | 24,918 |
| Hong Kong | 1,964 | 80,104 | 113,198 | 193,302 | 5.9 | 19,341 | 33,027 |
| China | 3,966 | 90,389 | 189,111 | 279,500 | 19.8 | 9,529 | 14,083 |
| Thailand | 1,140 | 105,781 | 105,085 | 210,866 | 10.3 | 10,172 | 20,411 |
| Singapore | 621 | 113,679 | 135,381 | 249,060 | 7.7 | 17,601 | 32,380 |
| Malaysia | 505 | 139,287 | 111,029 | 250,316 | 12.5 | 8,912 | 20,093 |
| India | 670 | 115,829 | 138,523 | 254,352 | 25.5 | 5,426 | 9,964 |
| United Kingdom | 819 | 191,544 | 151,069 | 342,614 | 12.2 | 12,370 | 28,055 |
| Germany | 657 | 196,272 | 140,891 | 337,164 | 13.3 | 10,560 | 25,270 |
| France | 576 | 174,044 | 193,438 | 367,482 | 20.0 | 9,661 | 18,354 |
| Russia | 546 | 122,937 | 184,945 | 307,882 | 25.1 | 7,362 | 12,255 |
| United States | 2,858 | 202,234 | 156,943 | 359,177 | 15.3 | 10,227 | 23,405 |
| Canada | 647 | 160,656 | 178,192 | 338,849 | 14.7 | 12,145 | 23,095 |
| Australia | 849 | 167,236 | 194,226 | 361,463 | 13.4 | 14,505 | 26,994 |
| Other | 910 | 141,826 | 135,050 | 276,876 | 26.0 | 5,200 | 10,662 |

(Note1) Overall average of expenditure is the average value by nationality and region weighted by the "number of foreign visitors" by JNTO.

(Note 2) Smaller digits than the digits indicated in the table are applied to all values including the average number of stays. Therefore, the digits in the above table for "expenditure per stay (e or f)" does not match the "expenditure (b or c) / average number of stays (d)".

Source: 2013 Annual Report on Consumption Trend Survey for Foreigners Visiting Japan (JTA)

4. Typical analysis cases

(1) Analysis case on the economic ripple effect of tourism events: Economic ripple effect analysis of the 1300th Anniversary of Nara Heijo-kyo Capital

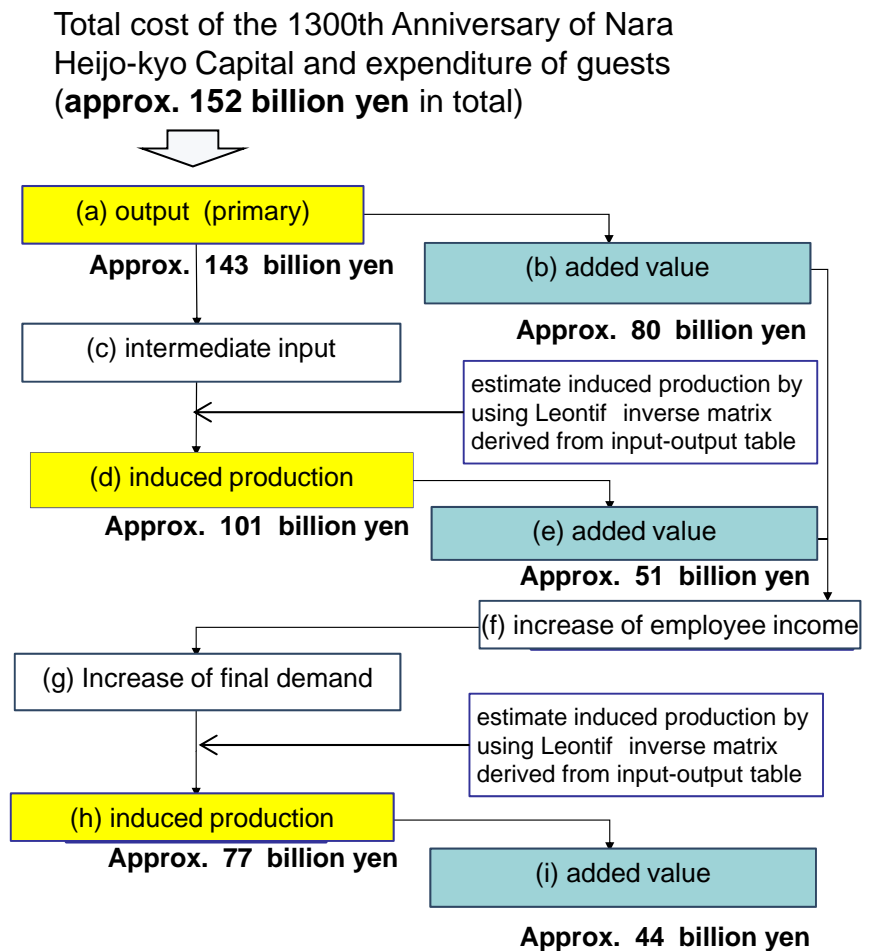
【Outline of analysis】

- A questionnaire survey was conducted targeting guests of the 1300th Anniversary of Nara Heijo-kyo Capital to understand the guests' evaluation and to measure the economic ripple effect of the event
- The economic ripple effects of Nara, Kinki and nationwide were measured to compare the results with the assumptions made in the planning stage, with hope to leverage the figures in future tourism promotion in Nara.

【Analysis results】

- Despite the downturn of economy, the event attracted guests that exceeded expectations, and resulted in approx. 321 billion yen of total effect nationwide (the sum of numeric values in red in the right figure), approx. 97 billion yen of total effect in Nara, and created approx. 10,000 jobs. The economic effect of the 1300th anniversary celebration of Nara Heijo-kyo Capital was larger than expected.

Source: Report on the questionnaire survey conducted on guests and the economic ripple effect survey of the 1300th anniversary of Nara Heijo-kyo Capital. (Communication Designing Institute) (March, 2011)

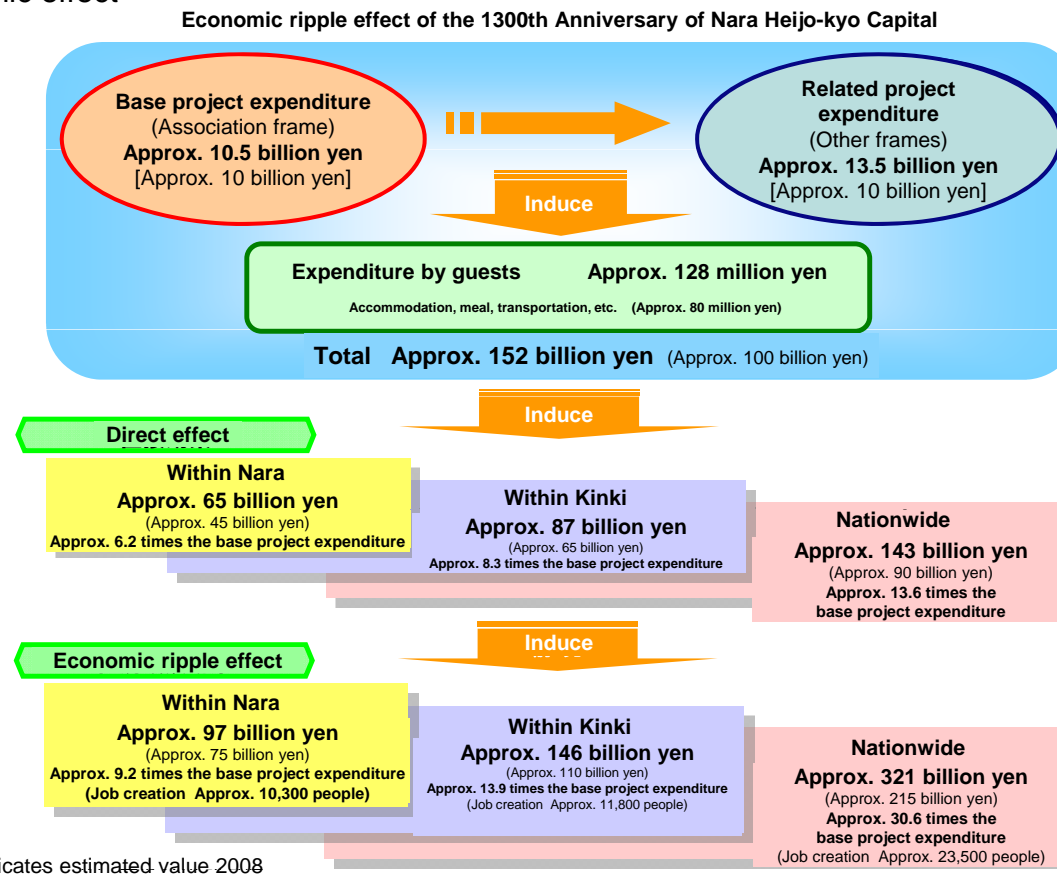


* Values are a national total

4. Typical analysis cases

(1) Analysis case on the economic ripple effect of tourism events: Economic ripple effect analysis of the 1300th Anniversary of Nara Heijo-kyo Capital

Ripple flow of economic effect



Source: Effect of the 1300th Anniversary of Nara Heijo-kyo Capital (1300th Anniversary of Nara Heijo-kyo Capital Association, March, 2011)

4. Typical analysis cases

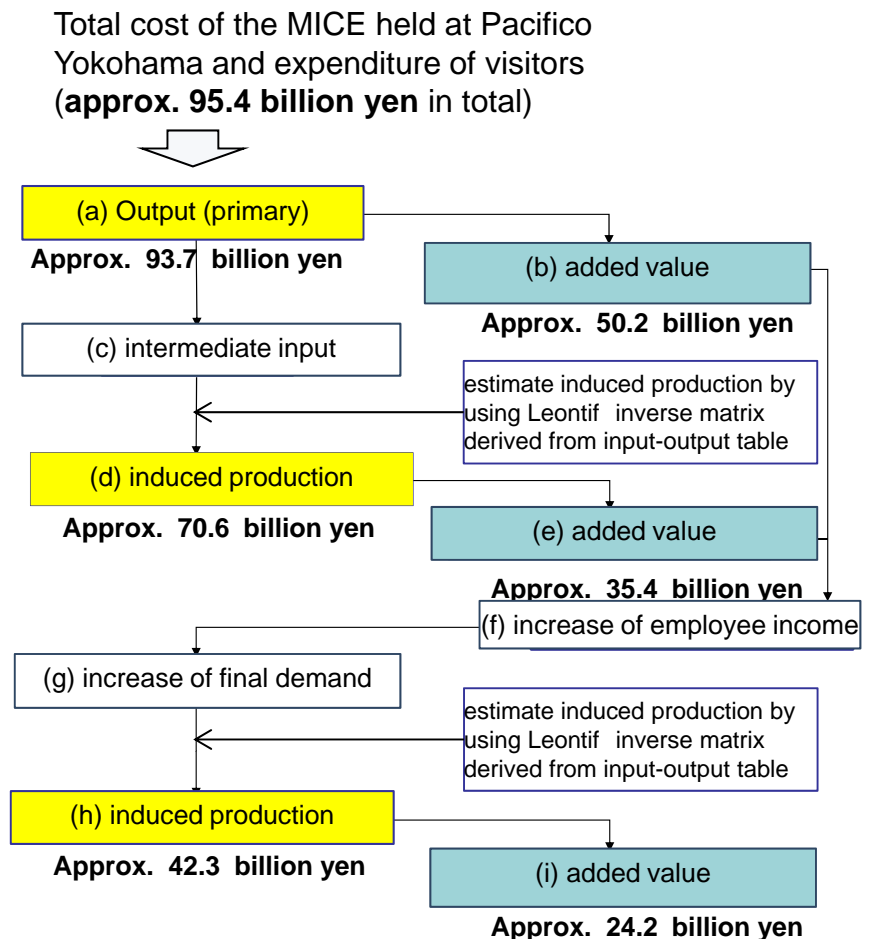
(2) Analysis case on the economic ripple effect of MICE facilities: Measurement of economic ripple effect of MICE at Pacifico Yokohama

【Outline of analysis】

- Pacifico Yokohama is a facility that attracts many people from inside and outside the region and the consumption behavior by visitors and convention organizers have a great impact on the vitalization of the local economy.
- In order to measure the contribution to the regional economy, a survey on the economic ripple effect of MICE in FY 2012 was implemented.

【Analysis results】

- The economic ripple effect of the event held at Pacifico Yokohama in FY 2012 was approx. 207 billion yen nationwide (the sum of numeric values in red in the right figure, 1.07 times compared to FY 2007), approx. 87 billion yen in Yokohama city (1.26 times compared to FY 2007).
- Effect within the city is considered to have increased due to the improvement of regional self-sufficiency in services for businesses and individuals in Yokohama.



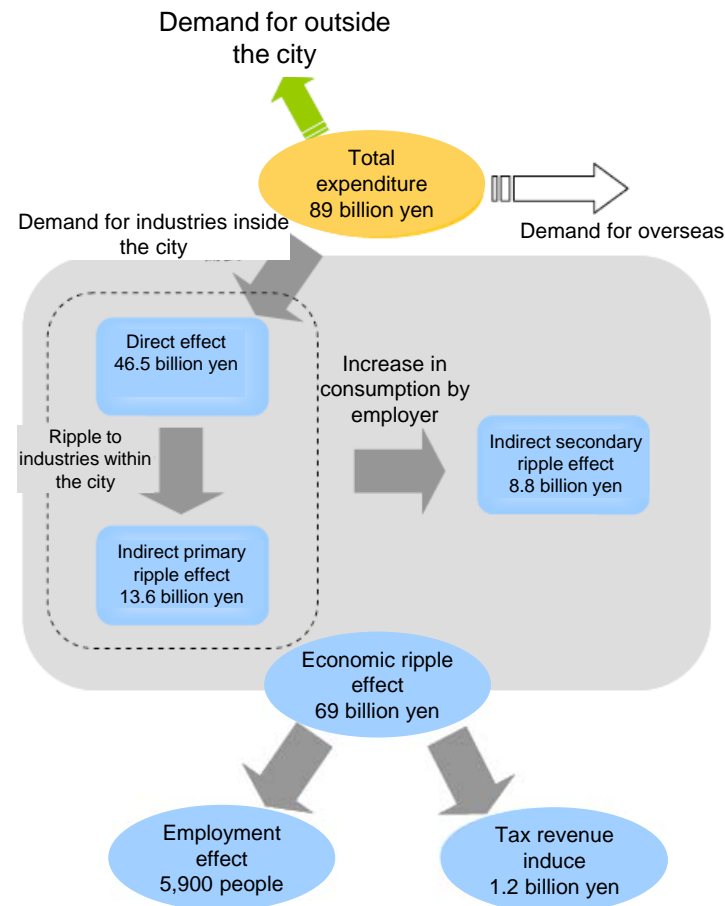
* Values are a national total

Source: PACIFICO NEWS March 20, 2014

4. Typical analysis cases

(2) Analysis case on the economic ripple effect of MICE facilities: Measurement of the economic ripple effect of Convention at Pacifico Yokohama

Ripple flow of the economic effect in Yokohama



Source: Measurement of the economic ripple effect of conventions held in Pacifico Yokohama (Pacific Convention Plaza Yokohama, October, 2008)

5. Estimate of the economic ripple effect in Nara Tourism Statistics Week

(Request for cooperation in a questionnaire survey)

【Objective of analysis】


- One of the goals is to examine the economic ripple effect of Nara Tourism Statistics Week and widely publish the estimated results within the year.
- This will enable event participants to understand the economic ripple effect of the event by actual experience and will deepen the understanding in the significance and importance of tourism statistics.
- The analysis will also help the implementing organizations of MICE promotion policy including JTA, JNTO, municipalities and Convention Bureau (CB) to understand the economic ripple effect of a particular event more specifically and practically instead of the effect at a national level that has been estimated until now.

【Estimation method】

- Questionnaire survey for participants (Please fill out the questionnaire on the website or paper).
- Estimate of direct effect based on the questionnaire survey.
- Estimate of regional effect by interprefectural input-output analysis.

5. Estimate on the economic ripple effect in Nara Tourism Statistics Week

Please answer the questionnaire!

Nara Tourism Statistics Week  English

Questionnaire Survey for participants of Nara Tourism Statistics Week

This questionnaire survey is to research about expenditures spent by the participants of Nara Tourism Statistics Week during their stays in Japan. The objective of this Survey is to analyze the economic effects of this event for Nara prefecture and the surrounding areas, based on the result of this questionnaire survey. This Survey is conducted on an anonymous basis, and information provided in this questionnaire will be used exclusively for the purpose of the research. We thank you for your time and courtesy in responding to the questionnaires.

◆If you answer on the website, please go to this URL ⇒ https://www.sureco.jp/nara_e/
Enter your 4-digit Registration ID No.

Q1 Please specify the country or region of your nationality. (Choose one)
 1. Japan 2. Korea 3. Taiwan 4. Hong Kong 5. China 6. Thailand 7. Singapore 8. Malaysia
 9. Indonesia 10. Philippines 11. Vietnam 12. India 13. UK 14. Germany 15. France
 16. Russia 17. United States 18. Canada 19. Australia 20. Other ()

Q2 Please specify where you are currently living. (Choose one)
 1. Japan 2. Korea 3. Taiwan 4. Hong Kong 5. China 6. Thailand 7. Singapore 8. Malaysia
 9. Indonesia 10. Philippines 11. Vietnam 12. India 13. UK 14. Germany 15. France
 16. Russia 17. United States 18. Canada 19. Australia 20. Other ()

Q3 Sex, Age

| Sex | Age |
|------------------------------------|--|
| <input type="checkbox"/> 1. Female | <input type="checkbox"/> 1. 10's - <input type="checkbox"/> 2. 20's - <input type="checkbox"/> 3. 30's - <input type="checkbox"/> 4. 40's - <input type="checkbox"/> 5. 50's - |
| <input type="checkbox"/> 2. Male | <input type="checkbox"/> 6. 60's - <input type="checkbox"/> 7. 70's - |

Q4 Occupation 1. Admin. officer 2. Teacher, Researcher 3. Tourism-related company member
 4. Student 5. Other (Specify:)

Q5 When did you arrive and when do you (plan to) leave Japan? *If you reside in Japan, specify the dates you left and plan to leave for this event.
 [Date of entry] [Date of departure (plan)]
 Month/Date Month/Date

Q6 Which airline did you use when you landed in Japan? *No need for residents of Japan to answer this question.
 1. JAL 2. ANA
 3. Other Japanese airline company()
 4. Non-Japanese airline company()

Q7 Please specify the amount of your airfares for arriving/leaving Japan.
 *No need for residents of Japan to answer this question.
 [Amount] [Currency] 1. Japanese yen 2. Other()

Q8 Please specify the total amount of transportation fees you spend in Japan? (Please answer in round numbers) *If you now live in Japan, please answer the expenditure during the round trip for this event.
 [Amount] [Currency] 1. Japanese yen 2. Other()

Q9 Please specify the amount of expenditures except for transportation fees that you have spent (or plan to spend) in Japan during this stay, by prefecture of your visit. (Please answer in round numbers)
 *If you now live in Japan, please answer the expenditure during the round trip for this event.
 Currency 1. Japanese yen 2. Other ()

| Prefecture of your visit | Accommodation | Wining & Dining | Amusement services | Foods & Drinks | Consumer electronics | Accessories | Other |
|------------------------------|--|---|---|---|-------------------------------|-------------|-------|
| Nara | | | | | | | |
| Kyoto | | | | | | | |
| Osaka (Incl. Kansai Airport) | | | | | | | |
| Tokyo (Incl. Narita Airport) | | | | | | | |
| Other region (Specify:) | | | | | | | |
| Specific example: | Restaurant, ramen shop, Japanese-style pub | On-site tour, fees for entering temple museum, theme park, or for watching sports games, etc. | Confectioneries, foods, drinks, alcohol, etc. | Camera, PC, audiovisual equipment, etc. | Clothing, bags, jewelry, etc. | | |

Please turn over →

Q10 (Answer if you reside in Japan.) Please specify the total amount you have spent (or plan to spend) for the trip before and after the visit. (Please answer in round numbers)

【Before the visit】 Japanese yen (Example) clothing, bags, shoes, drink, alcohol, confectioneries, hair salon, cleaning, photo printing service, etc.

【After the visit】 Japanese yen

【Satisfaction with your visit to Japan】

Q11 Please check the appropriate answer for each category.

| | 1. Very Satisfied | 2. Satisfied | 3. Neutral | 4. Slightly Dissatisfied | 5. Dissatisfied |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Accommodation | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Accessibility | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Language/English Signage | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Dining & Drinking | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Sightseeing(Including Technical Tour) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Internet Access / Wi-Fi | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ATMs / Currency Exchange | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Safety & Security | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Price | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Meeting Facilities (if you visited any) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Meeting Management | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Total Satisfaction | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Q12 Do you plan on visiting Japan again on a private holiday? (Choose one)

*Please answer this question if you are from foreign countries and not Japanese citizen.

1. Yes 2. Probably 3. Not sure 4. Not really 5. No

Q13 Attractiveness of Japan as business travel destination (Choose one)

*Please answer this question if you are from foreign countries and not Japanese citizen.

1. Very attractive 2. Attractive 3. Neutral 4. Not very attractive 5. Unattractive

*That is all for the questionnaire.
Thank you very much for your cooperation.*

*This questionnaire survey is commissioned to Mitsubishi Research Institute
by Japan Tourism Agency.*

*contact:
Mitsubishi Research Institute, Inc.
Social and Public Management Research Division
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5. Estimate on the economic ripple effect in Nara Tourism Statistics Week

Please answer the questionnaire!

Nara Tourism Statistics Week 17-21 November 2014
13th Global Forum on Tourism Statistics co-organised by OECD and Eurostat / UNWTO Special Workshop on Tourism Statistics

Welcome

13th Global Forum on Tourism Statistics

UNWTO Special Workshop on Tourism Statistics

Venue

Technical Tour

Accommodation

Registration

General Information

Statistical Information

Questionnaire Please click ⇒ [English version](#) [Japanese version](#)

Please click

What's New

2014.11.10 Please fill in the questionnaire. [English version](#) [Japanese version](#)
[Program for Global Forum](#) has been updated.
[Program for UNWTO](#) has been updated.
[Statistical Information](#) has been updated.