Learning from baseline surveys and pioneers' experiences: Introduction of Session 2

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ベースライン調査結果と先行経験から学ぶ：セッション２の趣旨

古市剛久（森林総合研究所）

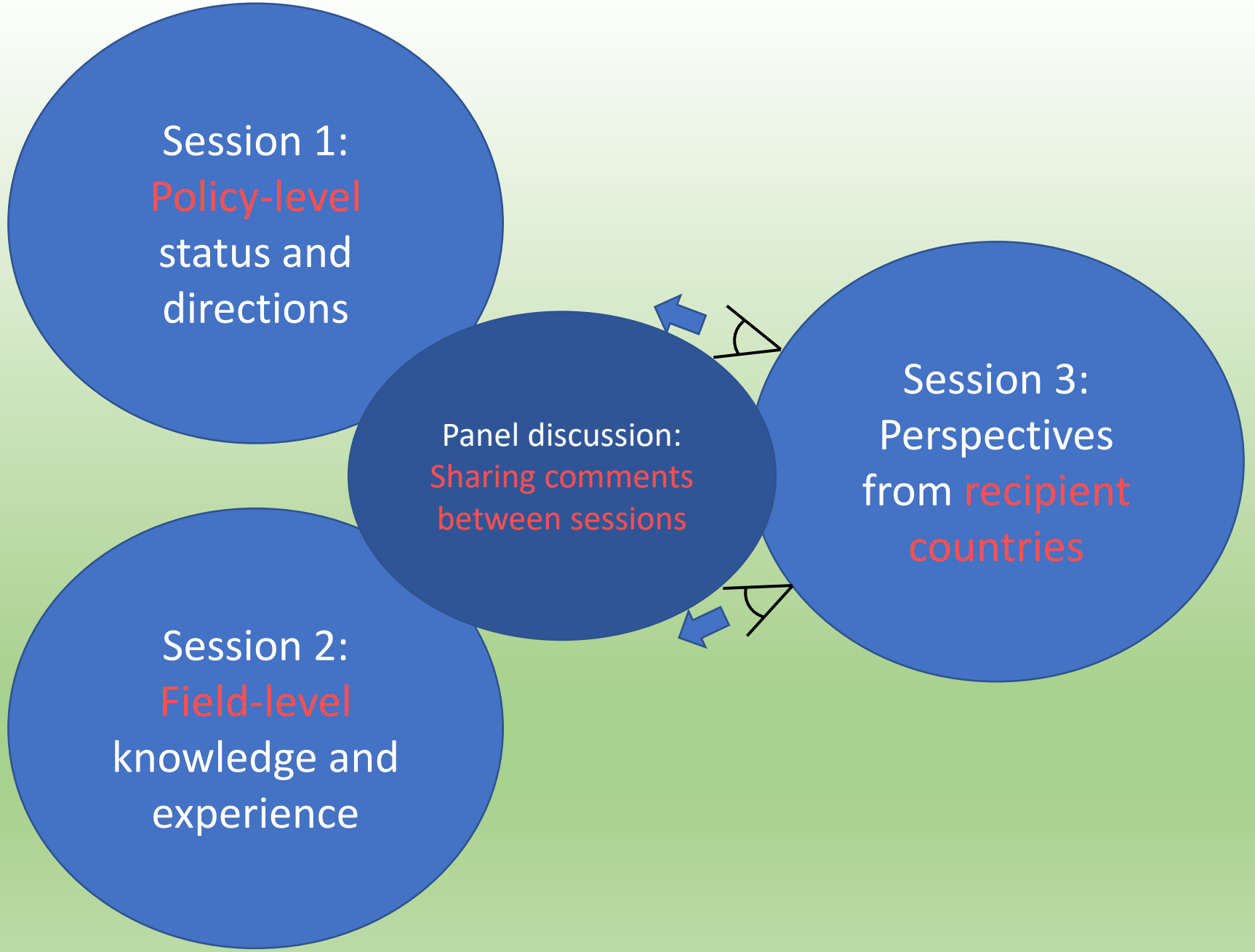
Mountain slopes and valley
in Mu Cang Chai,
Yen Bai Province,
Northern Vietnam

Structure of the Seminar

Our project:
'Development of technologies to enhance the functions of forests for disaster prevention and mitigation in developing countries' (a 5-year plan)

Three components:
1) Research and analysis
2) Technical development (field-based in Vietnam)
3) Provision of information

This seminar has been organized based on the major outputs from the component 1 (Research and analysis) in this project for the last 3 years.



Contents of the Session

Participation of Japanese private sectors in international development projects

Country-specific baseline survey

Session 2:
Experiences of and directions for sharing F-DRR approaches and techniques with developing countries by private sectors 14:03

Baseline surveys

Learning from baseline surveys and pioneers' experiences: Introduction of Session 2

Dr. Takahisa Furuichi (FFPRI)

Movement and trends of disaster risk reduction in Vietnam, Indonesia and Myanmar

Ms. Yoko Asada (Mitsubishi UFJ Research and Consulting Co., Ltd.)

Movement and trends of disaster risk reduction in Thailand, Philippines and India

Dr. Toru Inada (Asia Air Survey Co., Ltd.)

Pioneers' experiences

Experience of landslide prevention works in Vietnam

Dr. Takami Kanno (Kawasaki Geological Engineering Co.,Ltd.)

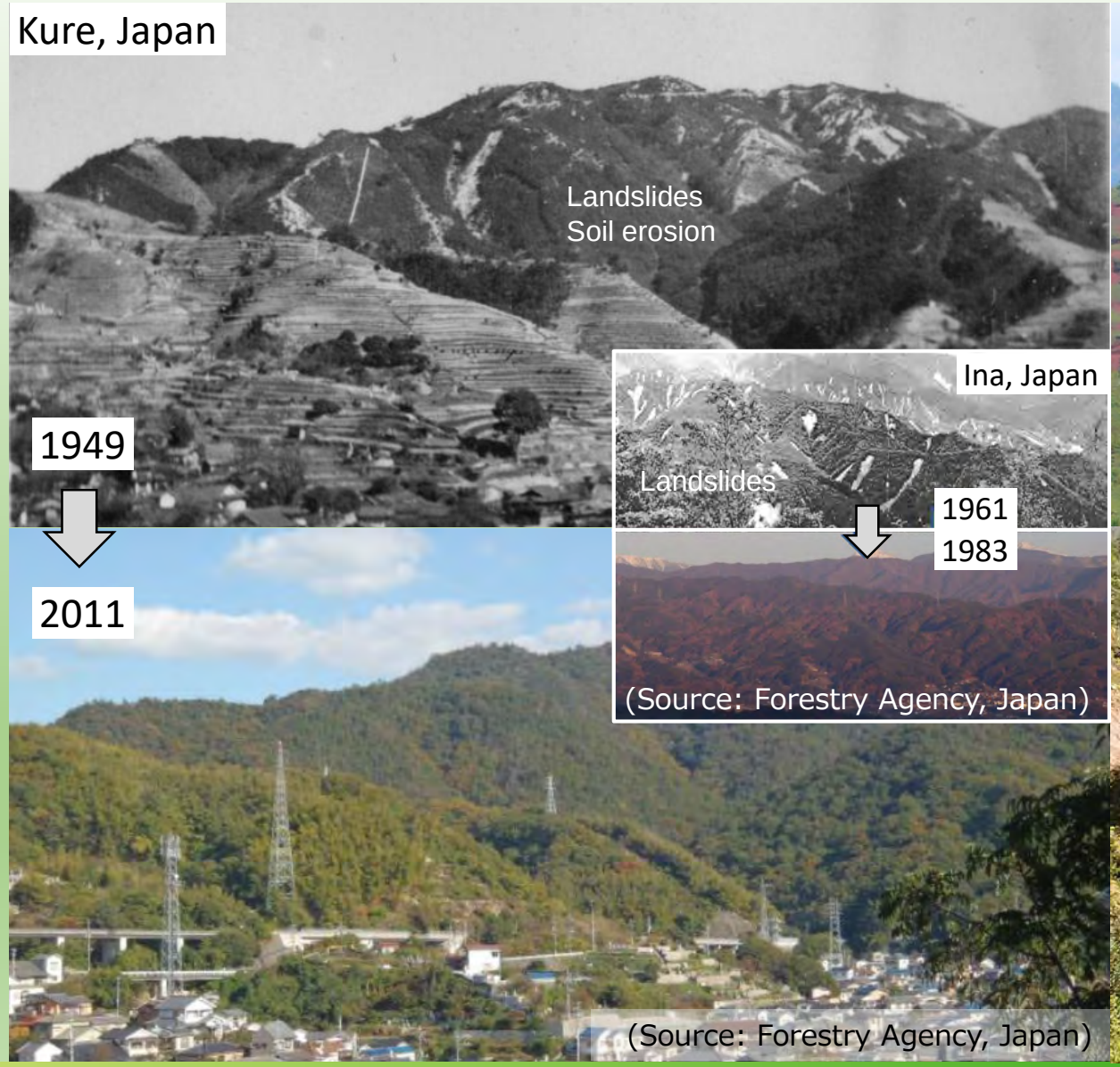
Experiences in environmental consultancy for foreign governments and international agencies

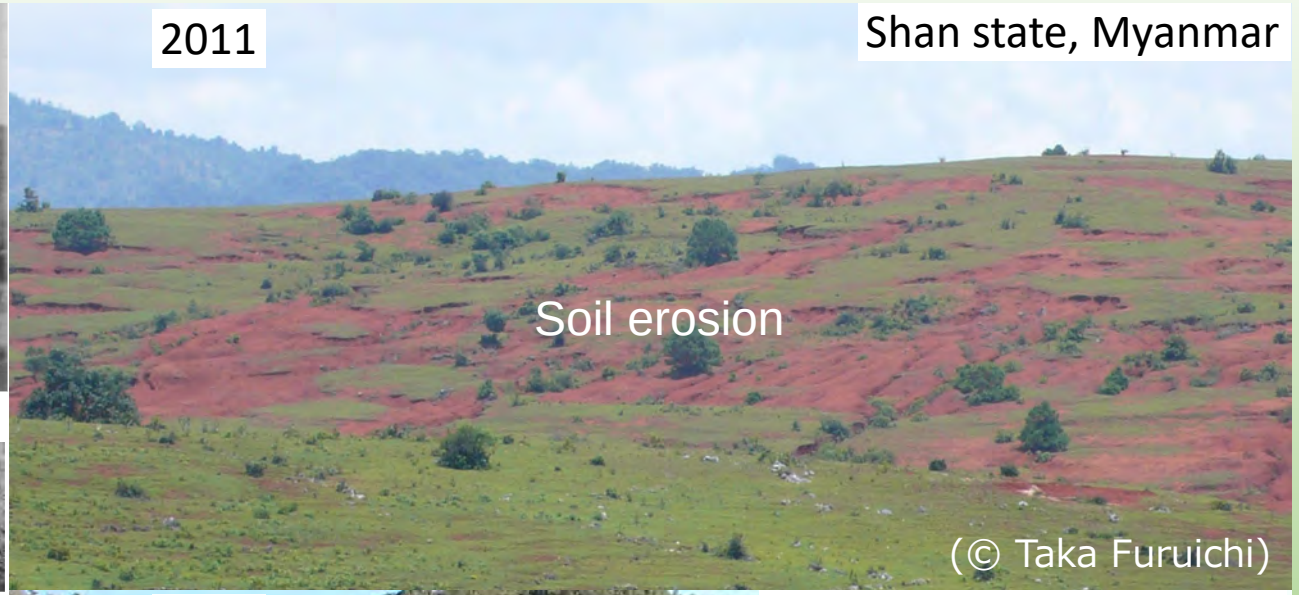
Dr. Jiro Iguchi (PADECO Co., Ltd.)

Forest-based disaster risk reduction in Japanese contexts

(Mountain *Chisan*)

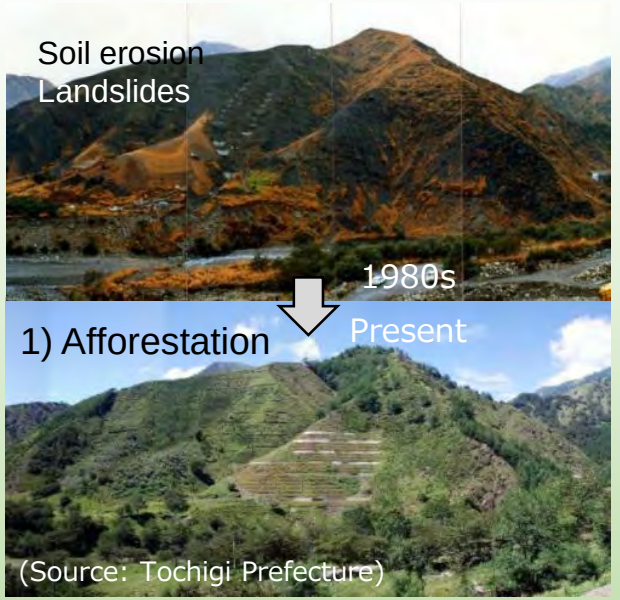
Mountain landscapes in Japan and Southeast Asia

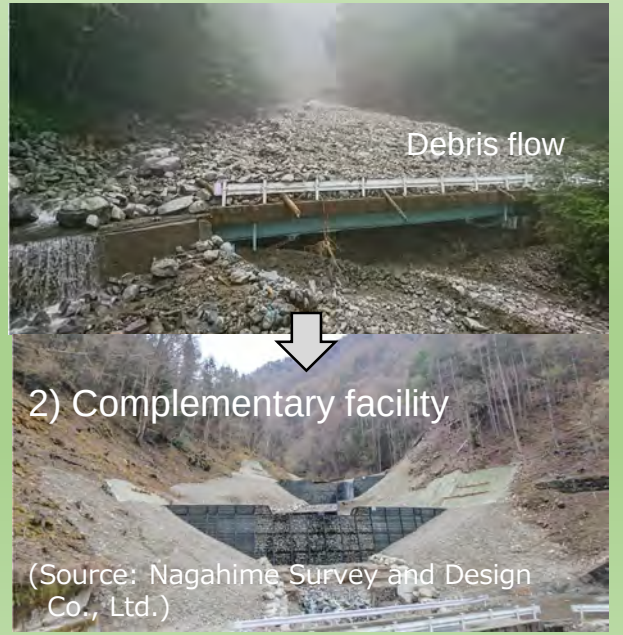




Mountain *Chisan* (Forest-based erosion control)

- *Main objective:* Prevent and reduce mountain disasters
- *Combined approach*:
  1) **Maintenance of forest** (i.e. afforestation) and
  2) **Allocation of complementary facilities** (i.e. erosion control) on slopes and along creeks in mountains.
- *Mitigation, not perfect prevention*:
  Mountain *Chisan* can not perfectly control erosion processes.
  → Must be along with **long-term land-use planning**
- *Multiple effects*:
  - Mitigate landslides and debris flows
  - Mitigate soil erosion (sediment discharge)
  - Restore groundwater
  - Conserve forest ecosystems
  - Mitigate greenhouse gas emission





Results from a baseline survey:

Participation of Japanese private sectors in international development projects

A joint survey in 2022 with the Asia Air Survey, Co., Ltd.

Point 1

Japan is a major financial contributor for international development banks and UN conventions

World Bank

Unit: USD million

Fund	2016	2017	2018	2019	2020	Total
Japan	1,813	1,738	2,119	2,475	1,360	9,505
DAC countries	11,073	10,273	14,228	11,800	11,420	58,794
Japan's share	16%	17%	15%	21%	12%	**16%**

Source: OECD, 2022 [1]. Gross Disbursements, Current USD. Author's calculation. Figures are rounded to the closest million.
[1] Members' total use of the multilateral system. As of August 2022. https://stats.oecd.org/Index.aspx?DataSetCode=MULTISYSTEM#

Unit: USD million

Donor country	Amount	% of DAC
1. United Kingdom	11,210	19.1%
2. Japan	9,505	**16.2%**
3. United States	7,192	12.2%
4. Germany	5,360	9.1%
5. France	3,401	5.8%

Source: OECD, 2022 [1]. Gross Disbursements, Current USD. Period: 2016-2020. Author's calculation.
[1] Members' total use of the multilateral system. As of August 2022. https://stats.oecd.org/Index.aspx?DataSetCode=MULTISYSTEM#

Asian Development Bank (ADB)

Unit: USD million

Fund	2016	2017	2018	2019	2020	Total
Japan	423	403	383	378	531	2,118
DAC countries	1,191	1,176	897	920	1,017	5,201
Japan's share	36%	34%	43%	41%	52%	**41%**

Source: OECD, 2022 [1]. Gross Disbursements, Current USD. Author's calculation. Figures are rounded to the closest million.
[1] Members' total use of the multilateral system. As of August 2022. https://stats.oecd.org/Index.aspx?DataSetCode=MULTISYSTEM#

Unit: USD million

Donor country	Amount	% of DAC
1. Japan	2,118	**40.7%**
2. Australia	838	16.1%
3. United Kingdom	557	10.7%
4. United States	373	7.2%
5. Canada	317	6.1%

Source: OECD, 2022 [1]. Gross Disbursements, Current USD. Period: 2016-2020. Author's calculation.
[1] Members' total use of the multilateral system. As of August 2022. https://stats.oecd.org/Index.aspx?DataSetCode=MULTISYSTEM#

Global Climate Fund (GCF)

Unit: USD million

	2016	2017	2018	2019	2020	Total
Japan	354	343	349	0	386	1,432
DAC countries	1,661	2,001	1,188	604	2,414	7,868
Japan's share	21%	17%	29%	0%	16%	**18%**

Source: OECD, 2022 [1]. Gross Disbursements, Current USD. Author's calculation. Figures are rounded to the closest million.
[1] Members' total use of the multilateral system. As of August 2022. https://stats.oecd.org/Index.aspx?DataSetCode=MULTISYSTEM#

Unit: USD million

Donor country	Amount	% of DAC
1. Japan	**1,432**	**18.2%**
2. United Kingdom	1,214	15.4%
3. United States	1,000	12.7%
4. France	982	12.5%
5. Sweden	869	11.0%

Source: OECD, 2022 [1]. Gross Disbursements, Current USD. Period: 2016-2020. Author's calculation.
[1] Members' total use of the multilateral system. As of August 2022. https://stats.oecd.org/Index.aspx?DataSetCode=MULTISYSTEM#

Global Environment Facility (GEF)

Unit: USD million

	2016	2017	2018	2019	2020	Total
Japan	138	135	0	217	222	712
DAC countries	928	874	997	941	801	4,541
Japan's share	15%	15%	0%	23%	28%	**16%**

Source: OECD, 2022 [1]. Gross Disbursements, Current USD. Author's calculation. Figures are rounded to the closest million.
[1] Members' total use of the multilateral system. As of August 2022. https://stats.oecd.org/Index.aspx?DataSetCode=MULTISYSTEM#

Unit: USD million

Donor country	Amount	% of DAC
1. Japan	**712**	**15.7%**
2. Germany	709	15.6%
3. United States	622	13.7%
4. United Kingdom	409	9.0%
5. France	319	7.0%

Source: OECD, 2022 [1]. Gross Disbursements, Current USD. Period: 2016-2020. Author's calculation.
[1] Members' total use of the multilateral system. As of August 2022. https://stats.oecd.org/Index.aspx?DataSetCode=MULTISYSTEM#

United Nations office for Disaster Risk Reduction (UNDRR)

Unit: USD million

	2016	2017	2018	2019	2020	Total
Japan	1.6	2.2	4.8	3.3	3.4	15.2
DAC countries	10.9	13.5	23.0	23.5	34.3	105.1
Japan's share	14%	16%	21%	14%	10%	**15%**

Source: OECD, 2022 [1]. Gross Disbursements, Current USD. Author's calculation. Figures are rounded to the closest USD 100,000.
[1] Members' total use of the multilateral system. As of August 2022. https://stats.oecd.org/Index.aspx?DataSetCode=MULTISYSTEM#

Unit: USD million

Donor country	Amount	% of DAC
1. EU Institutions	26.4	25.1%
2. Sweden	24.7	23.5%
3. Japan	15.2	**14.5%**
4. Germany	13.6	13.0%
5. Norway	10.3	9.8%

Source: OECD, 2022 [1]. Gross Disbursements, Current USD. Period: 2016-2020. Author's calculation.
[1] Members' total use of the multilateral system. As of August 2022. https://stats.oecd.org/Index.aspx?DataSetCode=MULTISYSTEM#

Point 2

However, Japanese private sectors have only minor participation in those projects.

World Bank

(Source: The workshop document of the World Bank Tokyo Office)

Ranking of World Bank project contracts by country in 2021 (provisional data)

Total		Amount (100 M$)	Goods		Amount (100 M$)	Civil works		Amount (100 M$)	Consultant works		Amount (100 M$)	Services except consultant works		Amount (100 M$)
1	China	36.88	1	China	3.65	1	China	33.11	1	World	1.46	1	United States	0.75
2	India	12.79	2	Switzerland	3.63	2	India	10.22	2	India	1.28	2	World	0.37
3	Turkey	4.34	3	World	2.37	3	Tunisia	3.09	3	Turkey	0.91	3	Indonesia	0.32
4	World	4.22	4	Turkey	1.86	4	Vietnam	2.20	4	Nigeria	0.91	4	South Africa	0.31
5	Switzerland	4.19	5	India	1.18	5	Turkey	1.56	5	France	0.66	5	Pakistan	0.22
6	Tunisia	3.45	6	Italy	1.14	6	Lebanon	1.23	6	Japan	0.63	6	Switzerland	0.19
7	Vietnam	2.78	7	Nigeria	0.61	7	Poland	1.12	7	Kenya	0.43	7	Spain	0.17
8	Nigeria	2.77	8	Korea, Republi	0.60	8	Nigeria	1.10	8	Congo, Democ	0.41	8	Portugal	0.16
9	Italy	2.14	9	Croatia	0.58	9	Kenya	0.91	9	United States	0.33	9	Nigeria	0.15
10	United States	1.75	10	Vietnam	0.55	10	Italy	0.83	10	Germany	0.31	10	India	0.10
21	Japan	0.93	31	Japan	0.13	39	Japan	0.17					Japan	NA
	Total Amount	75.32		Total Amount	16.18		Total Amount	55.36		Total Amount	7.35		Total Amount	2.74

Data are summarised for a registered country of a bidder. Records of subsidiary companies are added to countries of their registration.
'World' means 'international organizations', such as UN agencies.

Asian Development Bank (ADB)

Ranking of ADB project contracts by country in 2021

(Source: 2021 Annual Procurement Report, ADB)

	Total	Amount (Million USD)		Goods, Civil works, others	Amount (Million USD)		Consultant	Amount (Million USD)
1	China	3,329.5	1	China	3,294.9	1	India	93.1
2	India	2,812.9	2	India	2,719.8	2	Indonesia	53.8
3	Bangradesh	1,117.0	3	Bangradesh	1,108.4	3	Japan	50.4
4	Philippines	490.2	4	Philippines	467.2	4	France	48.1
5	Vietnam	355.1	5	Vietnam	343.1	5	Australia	35.1
6	Indonesia	334.8	6	Pakistan	297.7	6	China	34.6
7	Pakistan	311.4	7	Indonesia	281.0	7	Spain	34.2
8	Sri Lanka	241.1	8	Sri Lanka	231.7	8	Korea	28.5
9	Mongolia	169.8	9	Mongolia	159.9	9	Singapore	18.3
10	Nepal	142.4	10	Nepal	134.4	10	Turkey	16.6
21	Japan	58.1	34	Japan	7.7			
Total		10,658.4			9,961.4			697

Point 3

Also, the numbers of projects related to F-DRR have been limited.

World Bank

2001-2021

Unit: USD million

All contracts	Amount	Forest	Amount	Disaster	Amount	Forest + Disaster	Amount
1. China	50,119.3	1. Russia	78.8	1. Bangladesh	409.6		n/a
2. India	28,817.8	2. Internat. Org.	56.1	2. India	262.4		n/a
3. Brazil	11,149.6	3. Congo Dem.	46.9	3. Viet Nam	124.9	No contract	n/a
4. International Organization	8,758.8	4. Uruguay	40.0	4. China	74.4		n/a
5. Turkey	7,326.7	5. Argentina	37.7	5. Cambodia	71.0		n/a

Source: World Bank, 2022 [1]. Author's calculation. Period: 2001-2021. As of March 2022.
[1] https://finances.worldbank.org/Procurement/Major-Contract-Awards-Prior-reviewed-since-FY-2001/4bhp-2q7b

Asian Development Bank (ADB)

2017-2022

Unit: USD million

All contracts	Amount	Forest	Amount	Disaster	Amount	Forest + Disaster	Amount
1. India	15,035.9	1. China	71.6	1. Indonesia	1,000.0	1. UK	0.1
2. China	12,353.6	2. Philippines	15.4	2. Philippines	500.7	2. Mongolia	0.1
3. Philippines	9,181.4	3. Indonesia	12.6	3. Nepal	124.9		
4. Indonesia	8,936.0	4. Pakistan	8.6	4. Pakistan	80.7		
5. Pakistan	6,035.2	5. Mongolia	3.6	5. Tonga	24.1		

Source: ADB, 2022 [1]. Author's calculation. Period: 2017-2022. Based on contract amounts.
[1] Operational Procurement Database 2017-2022. https://data.adb.org/dataset/operational-procurement-database

Point 4

Why Japanese private sectors have only minor participation?

How to promote more participation?

Consultant services – Competition with firms in developing and emerging countries

1) **Price competitiveness**
   Consulting firms of developing and emerging countries can offer lower price, significantly due to lower salary of engineers. Japanese firms are facing to hire engineers internationally through various channels.

2) **Human resource**
   Not only technical ability, but also communication/negotiation skills with recipient countries and international organizations and ability for policy design and coordination are desired.

3) **Globalization, meaning localization**
   Again, it is not feasible to win a bid by a team organized only by Japanese engineers. Consultants in other DAC countries are said to have tried to localize themselves for being competitive.

4) **Partnership with local and international firms for credentials in local markets**
   Experience and records in a specific country, in a specific area, in a specific organization promote competitiveness. Good partnership with reliable local and international firms will enhance opportunity to win a bid.

Goods and civil works – More complicated challenges

1) **Price competitiveness**
   Japanese goods and civil works have high quality but high cost.

2) **Appropriate technique**
   High quality Japanese goods and civil works may not necessarily fit the specification and price in recipient countries. High quality alone cannot be an advantage to win a bid.

3) **Various risks for investment**
   Initial investment is far larger than consultant businesses. Manufacturers are generally need a longer payout period which increases various risks.

4) **Creating a joint project with differently specialized firms, finding relationship with local partners, gaining credence from government**
   Creating these relationships takes time and efforts which need investment and increase risks.

Opportunities and challenges 1: Private sectors

Be competitive with firms of developing and emerging countries

1) **Leadership and management for being a global firm**
   Need a corporate decision if a firm will invest for winning bids in international development projects, because business manners and framework are very different between Japanese ODA projects and international development projects.

2) **Still, leverage the experience through Japanese ODA**
   Japanese ODA experiences are still useful to create a joint venture, to find local partners, to gain credence from local government. For instance, JICA TA → JICA loan →[Get experience]→WB TA →WB loan.

3) **Adapt the F-DRR technique beyond forestry**
   Appeal and utilize *Chisan* technique in various disaster-related projects, such as for stabilization of roadside and riverside slopes by afforestation. This would be enhanced through networking on various platforms and/or collaboration between private sectors and academics.

Opportunities and challenges 2: Donors and governments

Private sectors cannot participate in if projects are not planned and implemented.

1) **Embrace *Chisan* as an approach of NbS for disasters due to the climate change**
   The World Bank has a clear policy to enhance the benefits of NbS for disaster risk reduction. As such, the international development banks (World Bank, ADB) and UN Conventions (GCF, GEF) are likely increasing investment in this area. The *Chisan* projects have the significant potential to contribute to the movement.

2) **Better assess multiple benefits of mountain forest management**
   The multiple benefits of *Chisan* projects below may not be clearly and easily assessed and valued. It would be worth studying these aspects in a model project.

   - Mitigate landslides and debris flows
   - Mitigate soil erosion (sediment discharge)
   - Restore groundwater
   - Conserve forest ecosystems
   - Mitigate greenhouse gas emission

For more information:

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