



**THE FUTURE OF
GLOBAL
DISASTER
RISK REDUCTION**

New Urban Agenda and DRR Challenges in Asian cities

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STRENGTHENING THE RESILIENCE of MEGACITIES THROUGH SCIENCE, TECHNOLOGY & INNOVATION

- I. Regional trends and challenges
- II. DRR Principles in Cities
- III. UN-Habitat Build Back Better project
in Asia and the Pacific Region

Asia-Pacific is highly vulnerable to climate-related disasters

- ✓ **A higher share of disasters** worldwide happen in the Asia-Pacific (77% of flood, 94% of landslides, 85% of tropical cyclones, and 72% of wildfires)
- ✓ **US\$ 3.8M in economic damages monthly** in the Asia-Pacific from 1970 to 2022. US\$ 57M in economic damages in the Asia-Pacific in 2022 only
- ✓ **Over 7,000 deaths** caused by disasters in the Asia-Pacific region in 2022
- ✓ **24M people displaced** by climate disasters in the Asia-Pacific in 2024

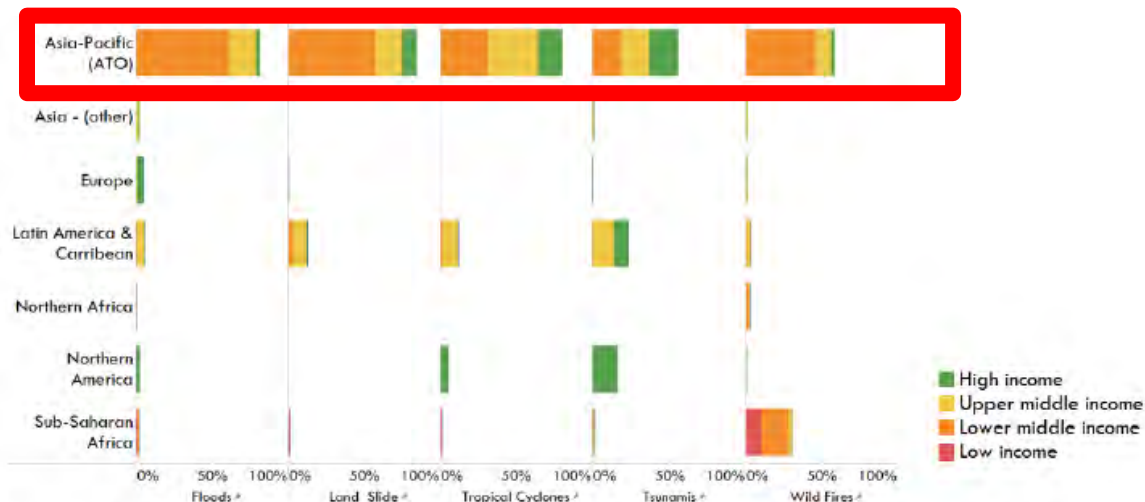


Figure 8. Share of Global Regions in the Total Occurrences of Hazard Events in Urban Areas
Source: Own analysis and visualization based on Melchiorri et al (2024)

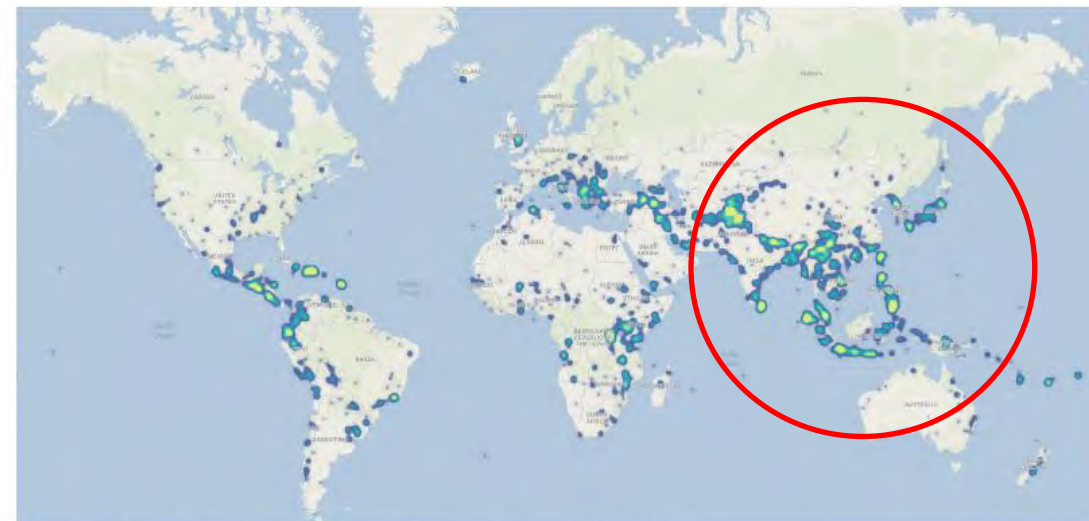


Figure 7. Distribution of Disaster Events Across the Globe (2000-2025)
Source: Own analysis and visualization based on Centre for Research on the Epidemiology of Disasters (2025)

Slow progress on SDG 11 and setbacks in SDG 13

- Progress of SDGs:**

- ✓ Progress toward achieving the SDGs is NOT on track.
- ✓ Since 2015, the Asea-Pacific region has **regressed on climate action (SDG 13)**, the only 1 of the 17 goals without any forward progress (ESCAP, 2024).
- ✓ **At least 65% of the SDG targets are directly related to the work and responsibilities of local and regional governments**, emphasizing the need for integrated policymaking and effective policy implementation.

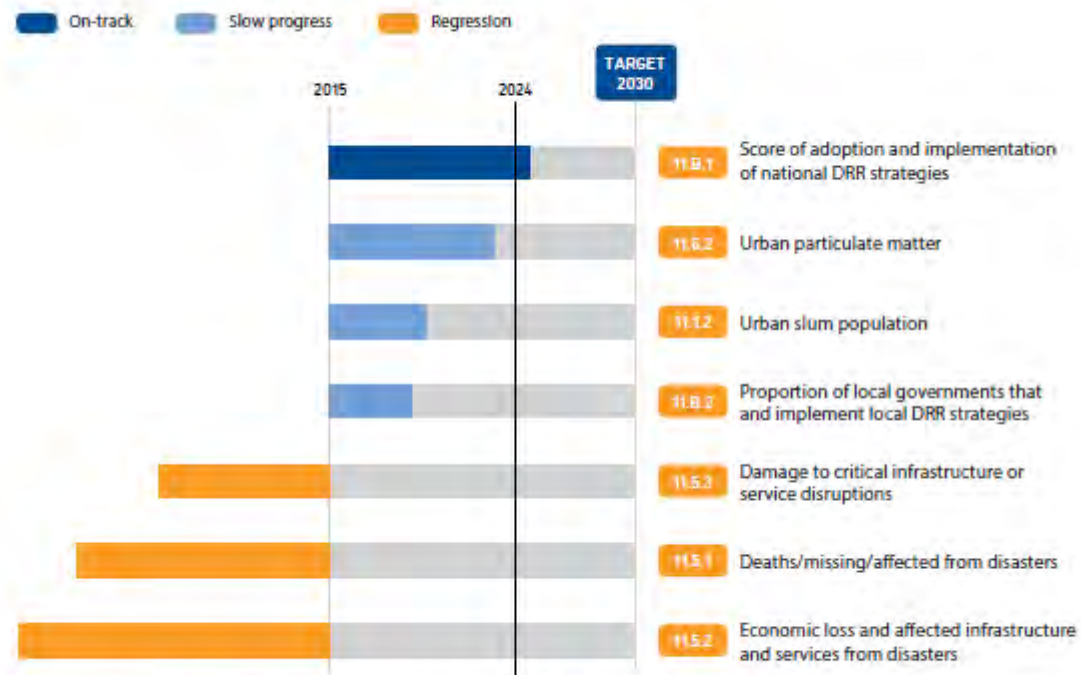


Most targets under SDG 11 are not on track

• Progress of SDG Goal 11:

- ✓ **On track:** “score of adoption and implementation of national disaster risk reduction strategies” (11.b.1).
- ✓ **Slow Progress:** “urban particulate matter” (11.6.2.), “urban slum population” (11.1.1) and “proportion of local governments that adopt and implement local disaster risk reduction strategies” (11.b.2)
- ✓ **Regression:** “Damage to critical infrastructure or service disruptions” (11.5.3), “deaths/missing/affected persons from disasters” (11.5.1), and on “economic loss and affected infrastructure and services from disaster” (11.5.2)

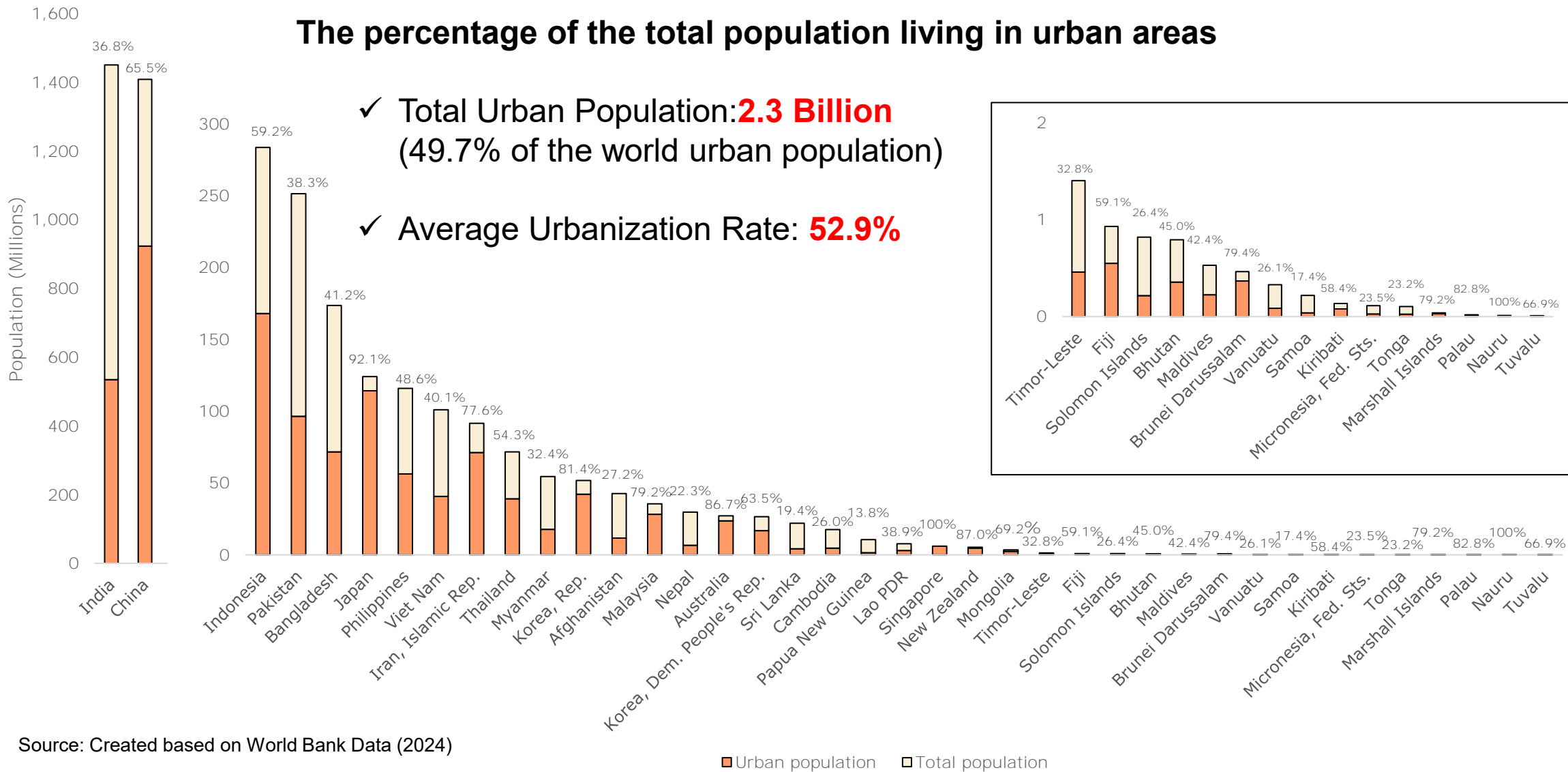
FIGURE 1.8 SDG 11 progress in Asia and the Pacific



Source: United Nations Economic and Social Commission for Asia and the Pacific, “SDG Gateway Asia Pacific: SDG Progress – Asia and the Pacific (ESCAP) Snapshot”, 2024b. Available at <https://data.unescap.org/data-analysis/sdg-progress>

Note: 6 indicators and one proxy measured out of 15 official SDG indicators.

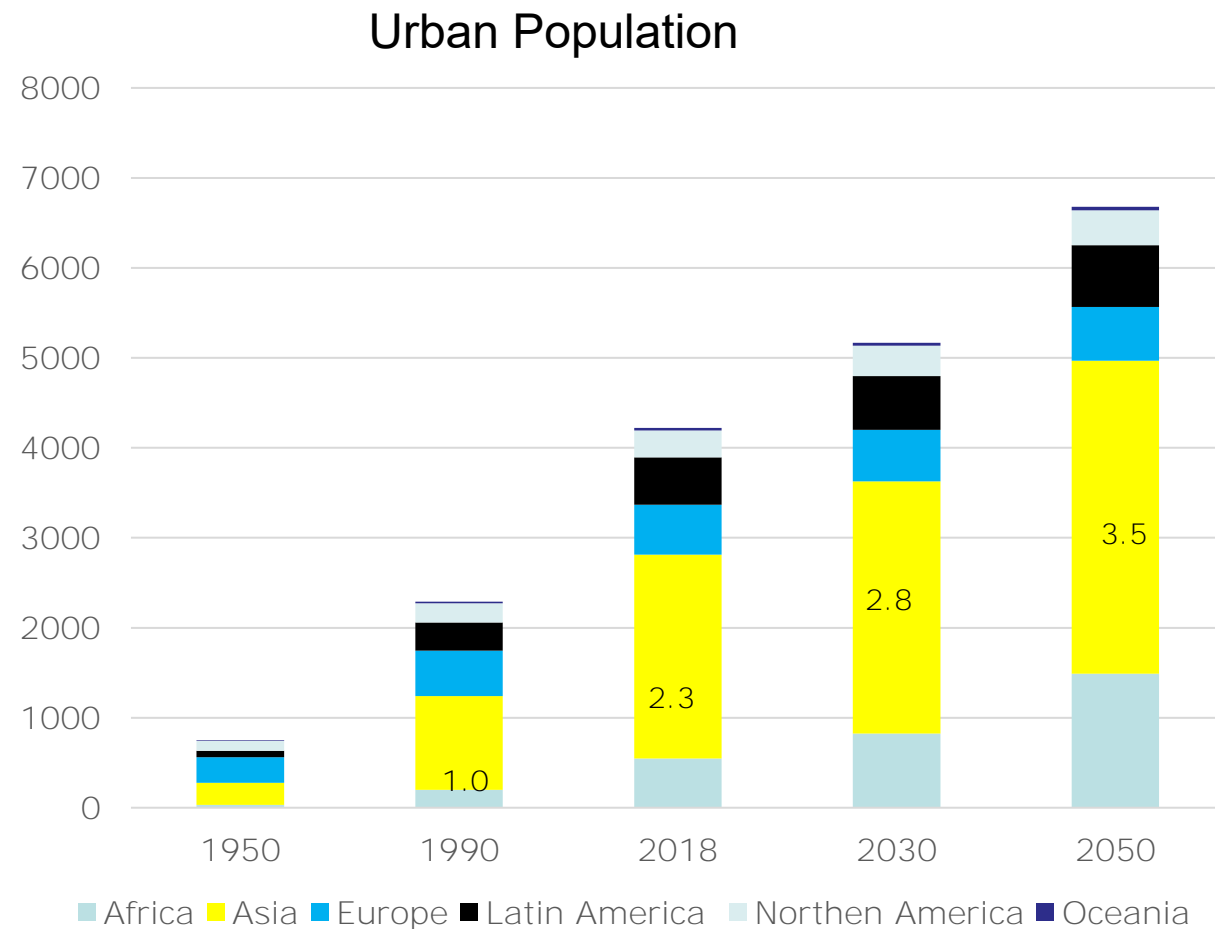
Aisa Pacific has Large Urban Populations



Source: Created based on World Bank Data (2024)

Urban population is expected to increase in Asia and the Pacific...

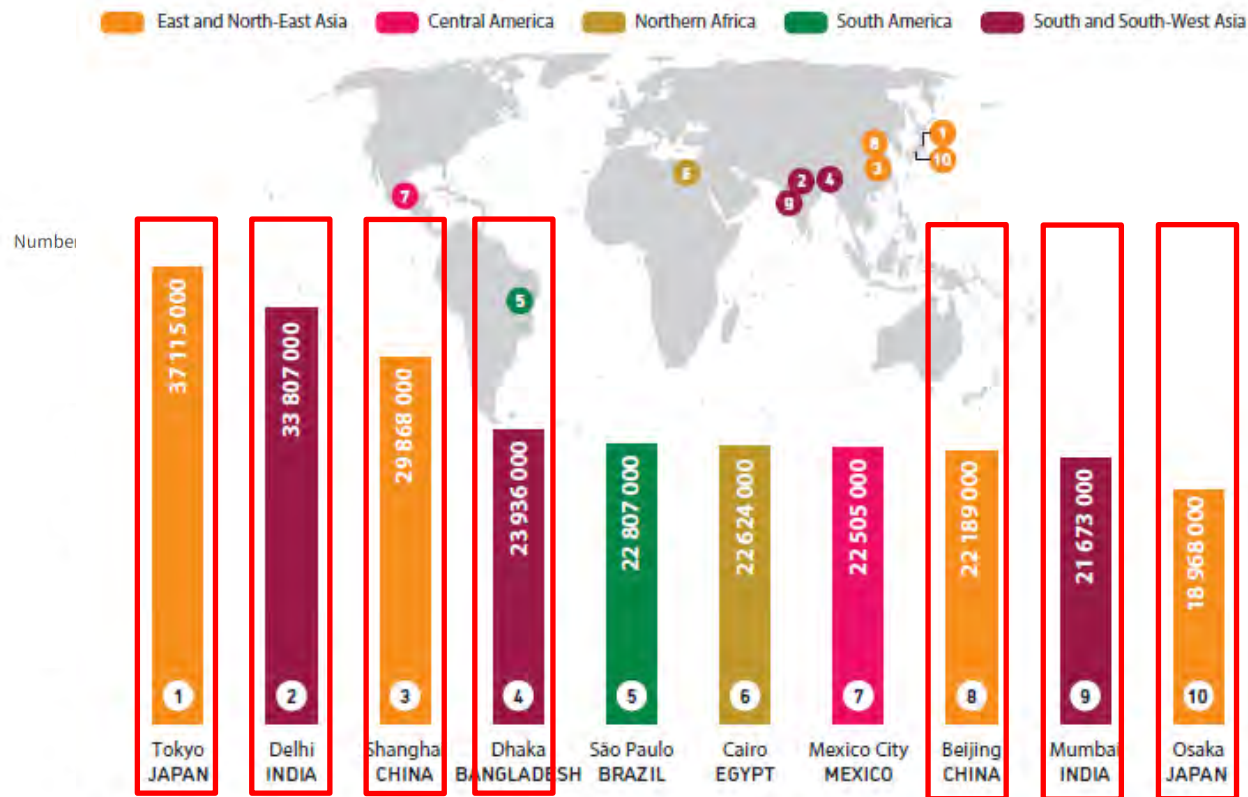
- ✓ The urban population is expected to increase **from 2.5 billion in 2023 to 3.5 billion by 2050**.
- ✓ Rapid urbanization has led to **inadequate infrastructure and services**, contributing to **housing shortages** and an increase in **slum dwellers**.
- ✓ **Classic Externality** remains or worsened: e.g. Traffic congestion and accident, air pollution



Megalopolis are concentrated in Asia

- ✓ Seven out of top ten **megalopolises** are located in Asia.
- ✓ Megalopolis faces **quantitative and qualitative challenges** due to gigantic size of urban population and geographic coverage: governance, infrastructure, environmental impact, and social issues

FIGURE 1.2 Ten largest cities in the world in 2024

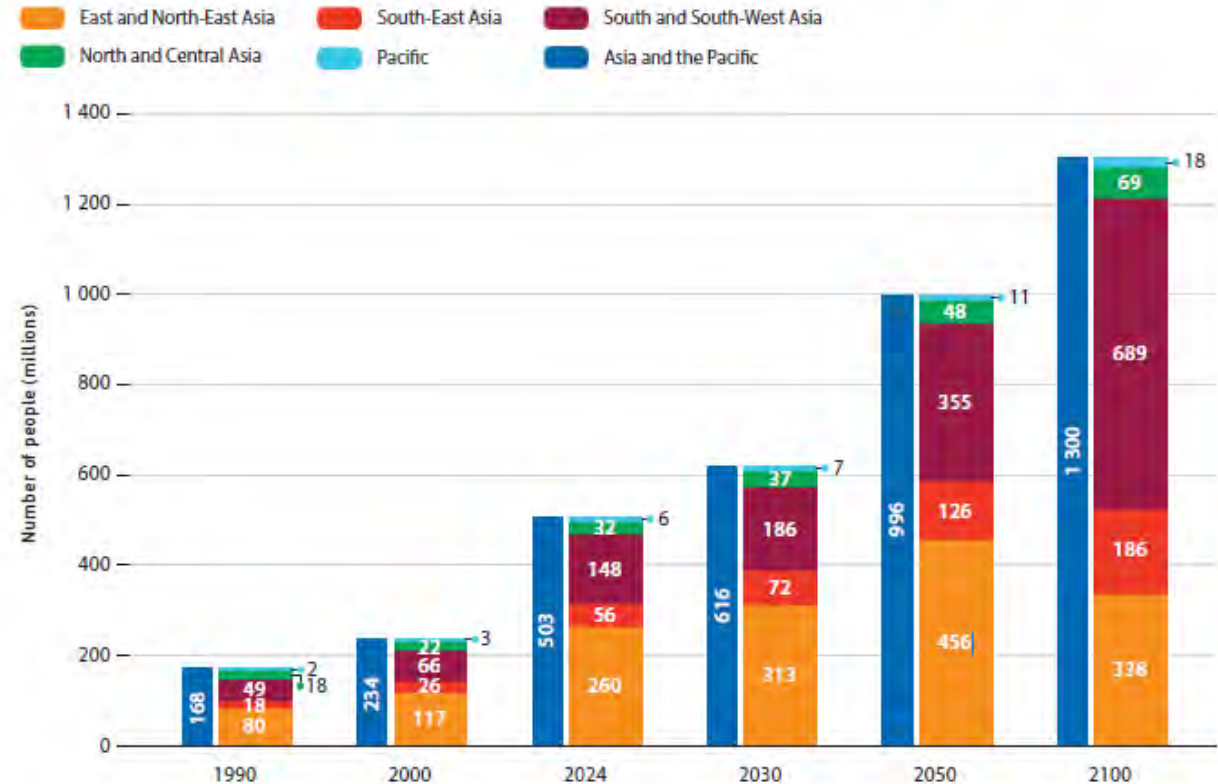


Source: World Population Review, "World Population by Country 2024 (Live)", 2024. Available at <https://worldpopulationreview.com/cities> (accessed on 13 January 2025).

Aging and Shrinking cities are emerging challenges

- **Population decrease and aging in some countries/cities**
- ✓ In the context of ageing populations, low birth rates and slowing rates of urbanization, new phenomenon has emerged in the region: **shrinking cities**.
- ✓ Although **aging population** is currently centered in East Asia, it is anticipated to extend to South and Southeast Asia.
- ✓ This leads to growing need for **age and disability friendly housing and infrastructure**.

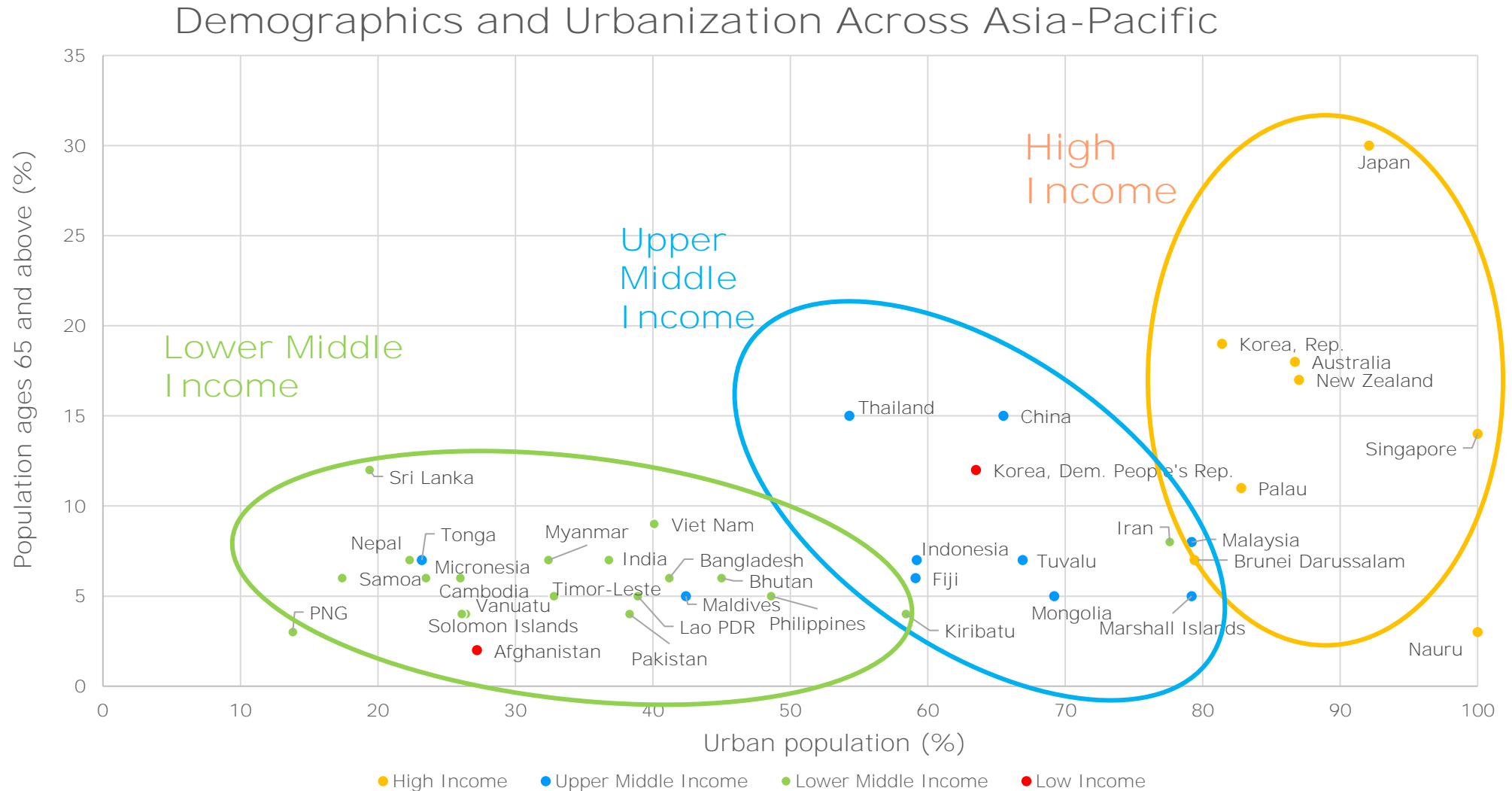
FIGURE 1.1 Number of people aged 65 years or over in Asia and the Pacific, and by subregion, 1990–2100



Source: United Nations, Department of Economic and Social Affairs (UN DESA), Population Division, "World Population Prospects, 2024", 2024a. Available at <https://population.un.org/wpp/graphs?loc=LocID&type=Demographic%20Profiles>

Demographics and Urbanization

- ✓ **Type 1 (Yellow):**
Relatively higher income countries are urbanized and enter into aging society, with increasing need for healthcare for the elderly.
- ✓ **Type 2 (Blue):**
gradually moving into the Type1.
- ✓ **Type 3 (Green) :**
Relatively lower income countries are urbanizing and having large active labor force, with strong need of the young for decent work.

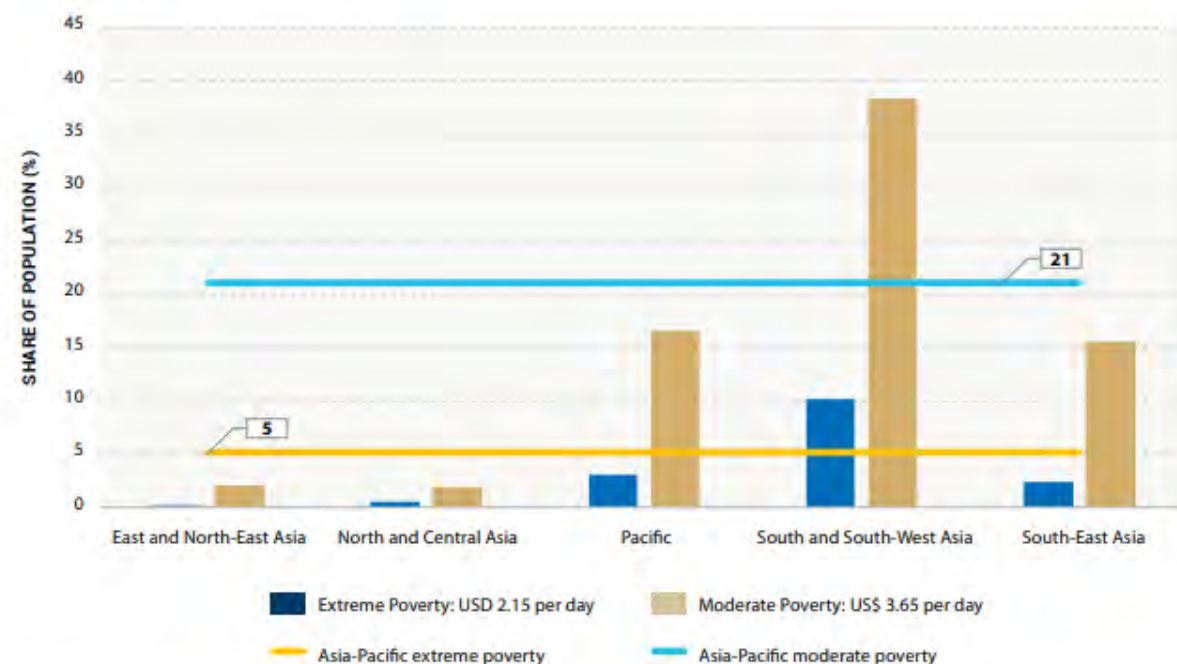


Source: Created based on World Bank Data (2024)

233 million people are still living below the extreme poverty line

- **Social Inequality and Persisting Poverty**
- ✓ In the Asia-Pacific region, poverty reduction has progressed over the decades. However economic disparities remain striking, with an estimated **233 million people**, equivalent to **5% of the population** (excluding high income countries), living below the international extreme poverty line of **\$2.15 per day**.
- ✓ This economic **gap hinders access to essential services** and contributes to **social unrest**, highlighting the urgent need for inclusive urban policies.

FIGURE 1.2 Share of population living in extreme and moderate poverty, by ESCAP subregions excluding high-income countries



Source: ESCAP estimates based on World Bank Poverty and Inequality Platform accessed on 15 May 2024.

Note: Estimates follow ESCAP definitions of subregions and are based on the latest international poverty lines estimated by the World Bank at \$2.15 and \$3.65 a day at 2017 purchasing power parity. Therefore, in total 26 countries with data available in 2017-2022 are included. The figure excludes all high-income countries in Asia and the Pacific. In India, poverty rates are projected to recent periods by the World Bank due to lack of recent household surveys.

The highest number of slum population living in Asia-Pacific

• **Slums and Informal Settlements**

- ✓ The Asia-Pacific region has the highest number of people **living in slums**. With approximately 600 million people accounting for about **60% of the world's total slum population**.
- ✓ The slum population forecasted to increase from around 500 million in 2020 to **1.52 billion in Southern and Central Asia**, and from around 350 million to **465.4 million in East and South-East Asia** by 2050 (UN-Habitat and others, n.d.).
- ✓ Significant slum growth is projected to take place in **India, Pakistan and the Philippines**. Over half of all urban dwellers in Afghanistan, Bangladesh, the Lao PDR, Myanmar and Tuvalu live in slums (ADB, 2024).

Urban Slum Population in Asia and the Pacific

Region / Sub-region [↗]	2022 [↗]	
	Urban Slum Population (000s) [↗]	% of Urban Population [↗]
Northeast Asia [↗]	252,323	22.7
Central Asia [↗]	2,114	5.8
South Asia [↗]	332,303	44.7
Southeast Asia [↗]	109,898	31.5
The Pacific [↗]	714	N/A
Total for Asia-Pacific[↗]	697,352	
Asia-Pacific as % of World[↗]		62.1
World[↗]	1,123,702	

Source: UN-Habitat (2024) World City Report 2024: Cities and Climate Action



Yangon Informal Settlements
– Resettlement Programme
(YIS-RP) Myanmar (UN-Habitat)



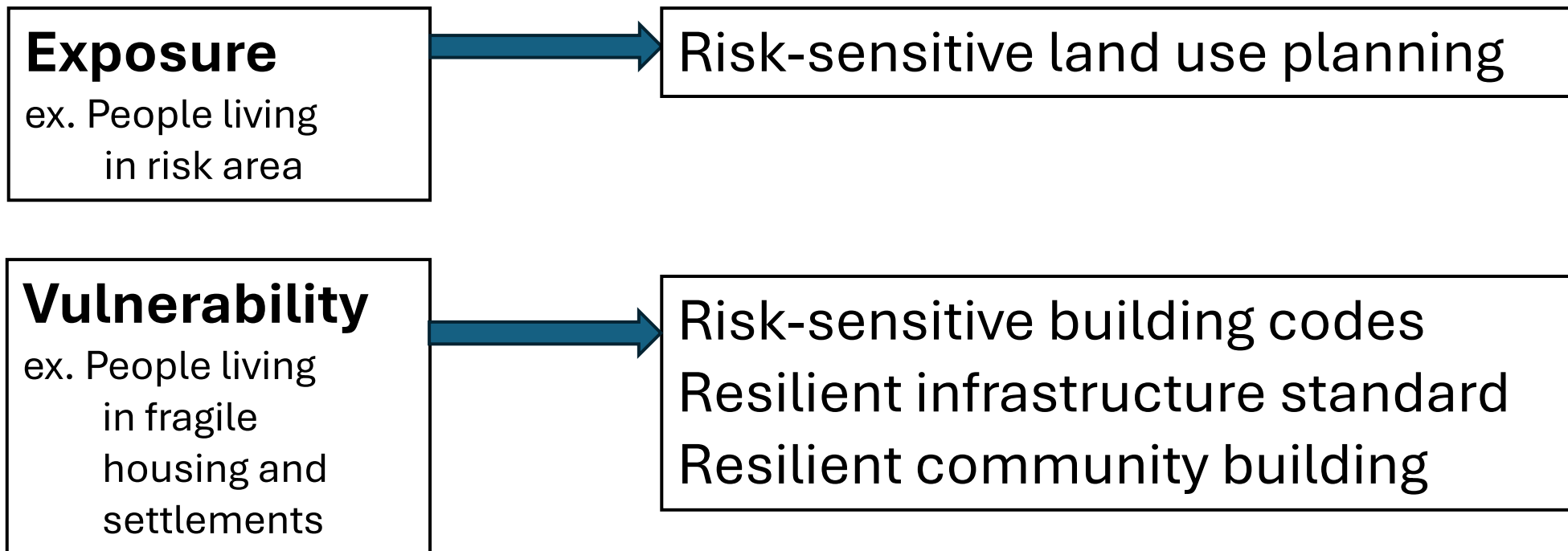
Phnom Penh - Partnership for
Urban Poverty Reduction-
Phase II - Slum
Upgrading(UN-Habitat)

I. Regional trends and challenges

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in Asia and the Pacific Region

Disaster risk =
Hazard x Exposure x Vulnerability



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Common characteristics of UNH projects in Asia and the Pacific Region

- ✓ People's process: people/community centered approach
- ✓ Build Back Better
- ✓ Gender sensitive: Female participation and empowerment
- ✓ Capacity building for people (e.g. training of construction method)
- ✓ Utilization of local construction method & materials

PHILIPPINES: Huy-anan nan Bajau sa Surigao (Homes for Bajaus in Surigao)



YEAR: 2023-2024

REGION/CITY: Surigao City

DONOR: Spanish
Cooperation (AECID)

Context: Surigao del Norte, with Surigao City as its capital, is one of the localities worst-affected by **Super Typhoon Rai/Odette** (December 16, 2021) which further aggravated the development challenges in the 4th poorest region in the country. The hazard maps indicate that most of the areas are susceptible to **storm surge and typhoons as well as tsunamis and earthquakes** thus making it among the most vulnerable provinces in the country. The **indigenous sea-based Sama Bajau community** living in the city are among the most vulnerable groups.

Achievements: **20 model houses** constructed for 20 families and **supporting livelihood opportunities for 100 families**, benefitting mostly women and children. Skilled **community workers with certificate** from national agency providing opportunities for work beyond project and becoming pool of community workers for maintenance and repairs.

Appealing point: Low-cost housing using nature-based solutions which harnessed the indigenous knowledge of the Bajaus in constructing houses on stilts on the sea. **People's Process** implemented involving the community in all processes from site identification and planning to resilient house design, construction and monitoring.



YEAR: 2004 - 2024

REGION/CITY: North, East, North-west, Central, Western and Southern Provinces

DONOR: Govt of India; EU, Govt of Australia, Swiss Development Agency, Gov of Japan and UAE, Municipality of Munich, UNHCR, UNDP, International Federation of Red Cross and Red Crescent Societies

Context

- Expanded with **tsunami and post conflict reconstruction** and **displacement** due to development. UN-Habitat supports **peace-building** and conflict resolution through improving access to **secure tenure, housing and infrastructure**.

Approach

- Guided by the **People's process**, (a) owner and **community driven planning** and reconstruction; (b) **vocational skills building**; (c) **integrating DRR and climate resilience and LNOB** into reconstruction **policies**, planning and implementation.



Achievements

- 46,000+ houses** reconstructed; improved access to **21,000+ land titles** ; **community infrastructure** constructed
- Empowering **households, particularly women** who manage the construction process, improved tenure security, long term local economic development.
- Capacity building** for facilitation and quality assurance of the reconstruction process

YEAR: 2024 – 2028(ongoing)

REGION/CITY: Kampot and Koh Kong

DONOR: Adaptation Fund



Contexts

In project target areas, the majority of the houses incur damages on the roofs, walls, and foundations brought about by **strong winds**. They pose great threats to property, finances, and the lives of the poor and marginalized.

Key Target

- **60 resilient housing and toilets** will be constructed in the 2nd and 3rd year.
- **2,000 families** will attend the workshop and learn about resilient housing construction techniques.
- About **450 families** will indirectly benefit from on-site upgrading.

Appeal Points

- **Participatory Construction:** Unskilled and semi-skilled community residents will build their capacity on resilient housing construction techniques through capacity-building sessions, and the project recruit them instead of external construction companies.
- **Youth participation:** The project plans to promote **youth (10 young graduated architect students) participation** in housing design and construction.

References: [web story](#), [leaflet](#)

Reflection from my experience: Some challenges for disaster risk reduction in cities

- **Insufficient data:** Need to strengthen data collection to design evidence-based disaster risk reduction strategies. Especially most vulnerable areas (e.g. slums and informal settlements) lack data. Interoperability of data is also an issue.
- **Cross-sectoral partnership:** DRR is a cross-sectoral issue. We need to mobilize and discuss with, not only UN Habitat's traditional line ministries but also, DRR ministry, ministry of finance and ministry of social welfare.
- **Community awareness:** DRR starts at community level. Sadly, government capacity is limited facing catastrophic disaster. People need to help each other in their community.
- **Private sector engagement:** Private sector is important even in DRR. They have technical expertise, for example, in developing risk models. They also contribute to the livelihood continuity, if they continue business by BCP. We need to strengthen our partnership with private sector.
- **Disaster risk reduction, climate change and gender:** must be mainstreamed in urban policies to further promote SDGs.

**ご清聴どうもありがとうございました！
Thank you very much for your attention!**