

Leveraging digitalization for inclusive growth

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LIRNEasia: regional think tank, focusing on digital inclusion and governance, and data for development



Our Mission:

“Catalyzing policy change and solutions through research to improve the lives of people in the Asia and Pacific using knowledge, information and technology”

Digital can enable progress on 70% of SDGs – UNDP/ITU

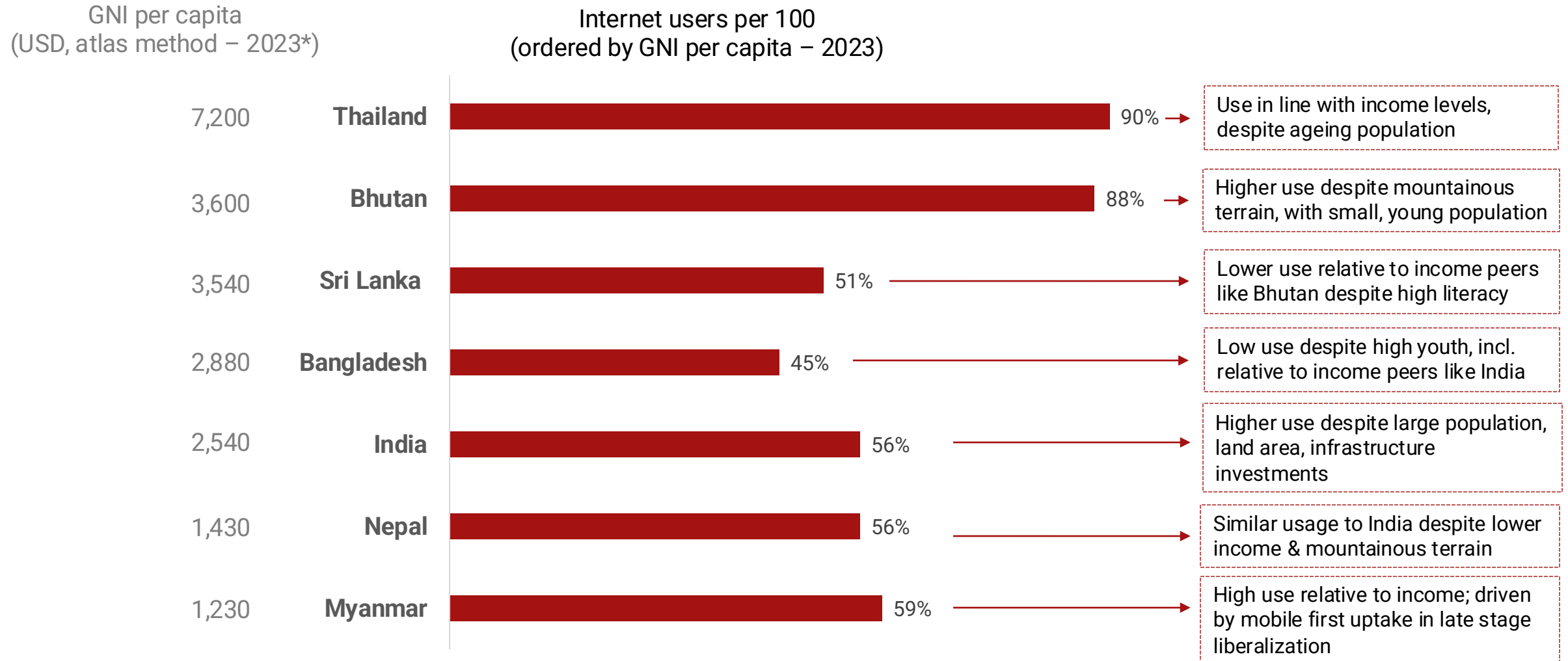
- Digital technologies are diverse, spanning widespread tools like the use of internet via mobile phones to emerging applications powered by AI and data systems
- Once seen in isolation, they are now recognised as catalysts embedded across sectors
- They are increasingly central to advancing inclusive development, service delivery, and resilience



Growing focus on enabling & developing digital economy in BIMSTEC, evidenced by targets and strategies

Country	Digital as a % of GDP		Key digital strategy/programme
	Current	Projection*/Target	
Bangladesh	n/a	n/a	National Digital Transformation Strategy (draft)
Bhutan	n/a	10% (2034)	Digital Economy Development & Transformation Strategy
India	11.7% (2022/23)	20%*(2029/30)	Digital India Programme
Myanmar	n/a	n/a	Myanmar Digital Economy Roadmap 2030 (draft)
Nepal	1.7% (ICT; 2022)	n/a	Digital Nepal Framework (v2.0 underway)
Sri Lanka	4.4% (2021)	15%	National Digital Economy Strategy 2030
Thailand	12% (2023)	30% (2027)	Master Plan for Digital Economy (2023-2027)

Heterogeneity in internet use levels in BIMSTEC, potentially impacted by income, age, geography & policy

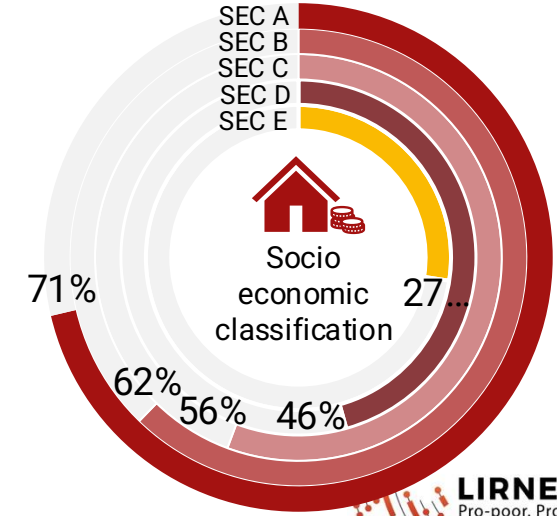
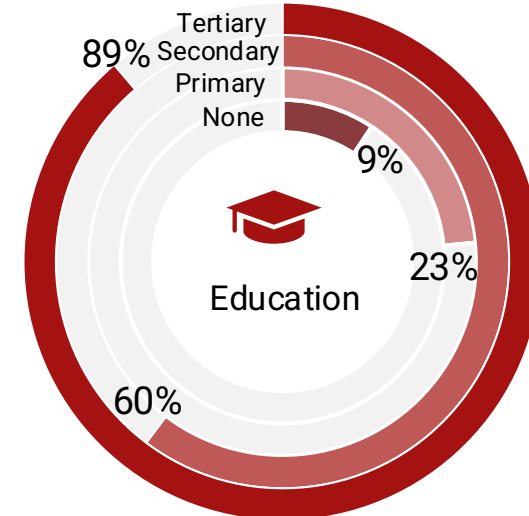
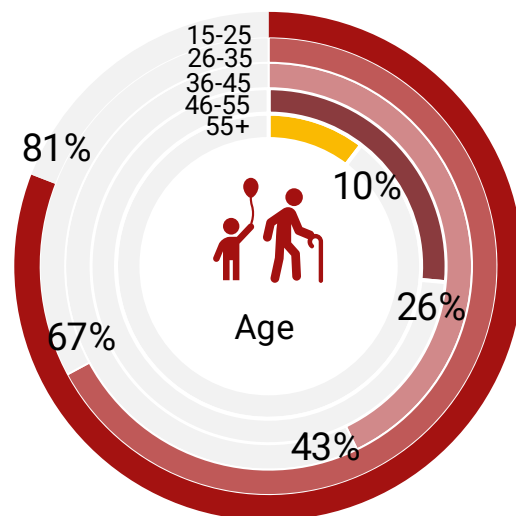
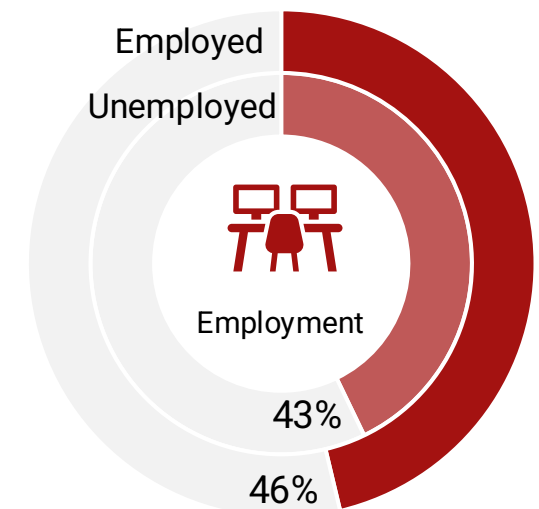
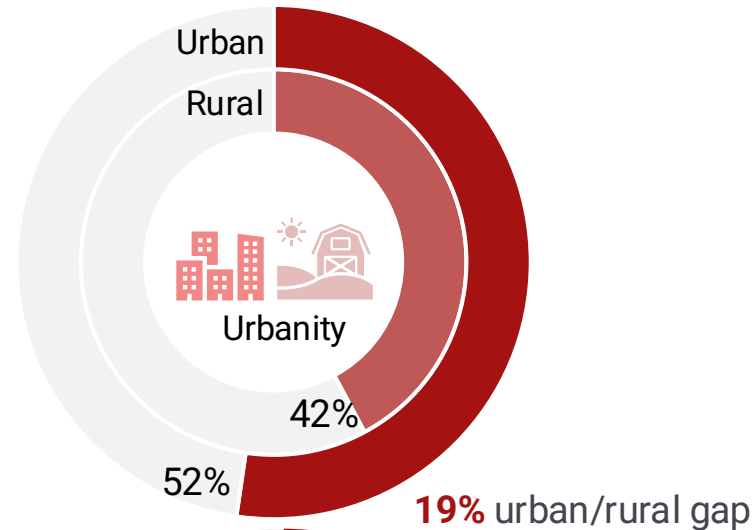
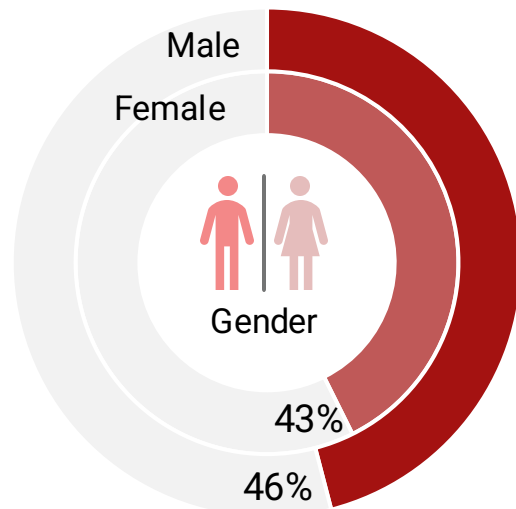


Source: World Bank (2023)

* for all countries except Bhutan, which had 2022 values

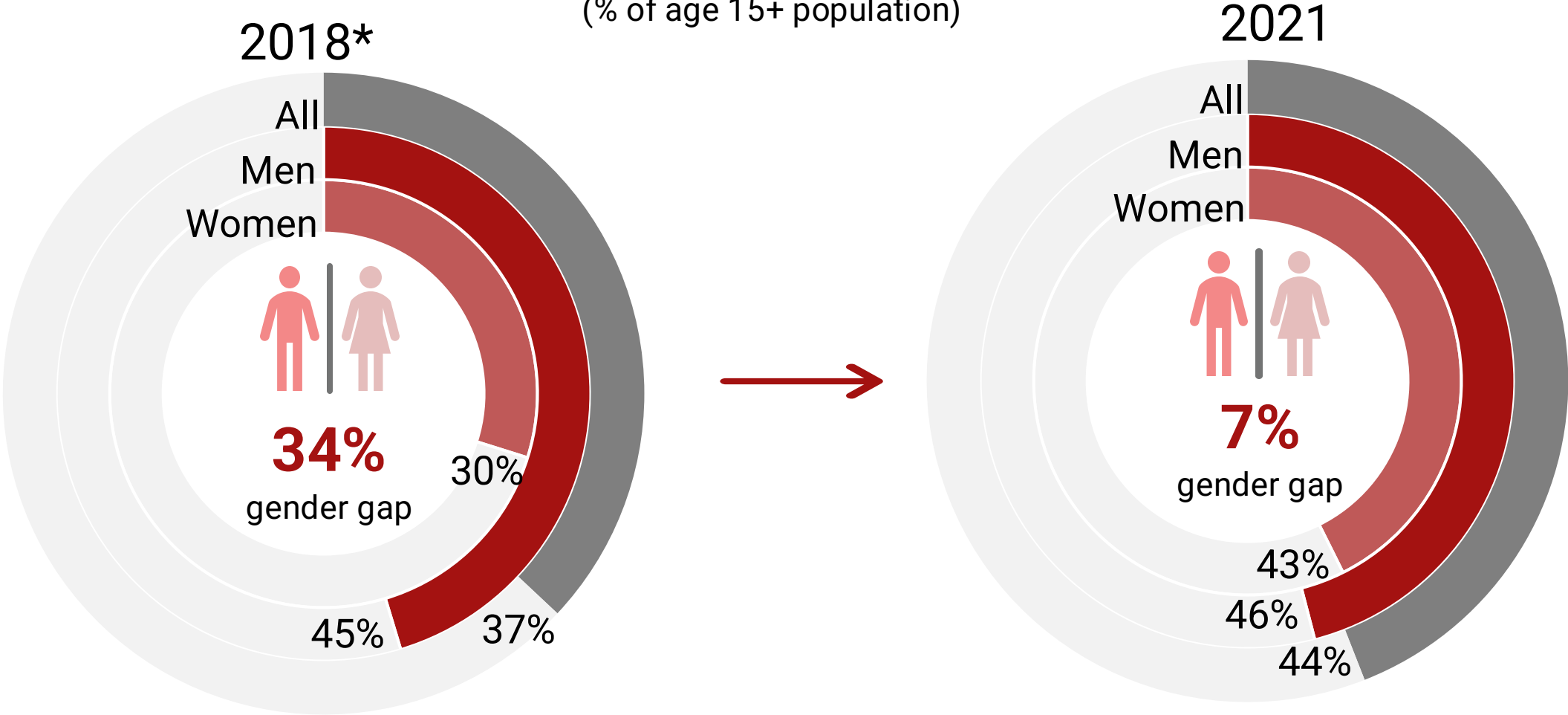
Internet use lower among the poor, less educated, elderly, rural, unemployed and women in Sri Lanka

Internet use
(% of age 15+ population)



Some gaps reduced -- gender gap fell from 34% to 7% over 4 years

Internet use – Sri Lanka
(% of age 15+ population)



* for the ages of 15-65 population

Q: Have you ever used the Internet? (Websites and applications like Google, Facebook, WhatsApp, email, etc.)

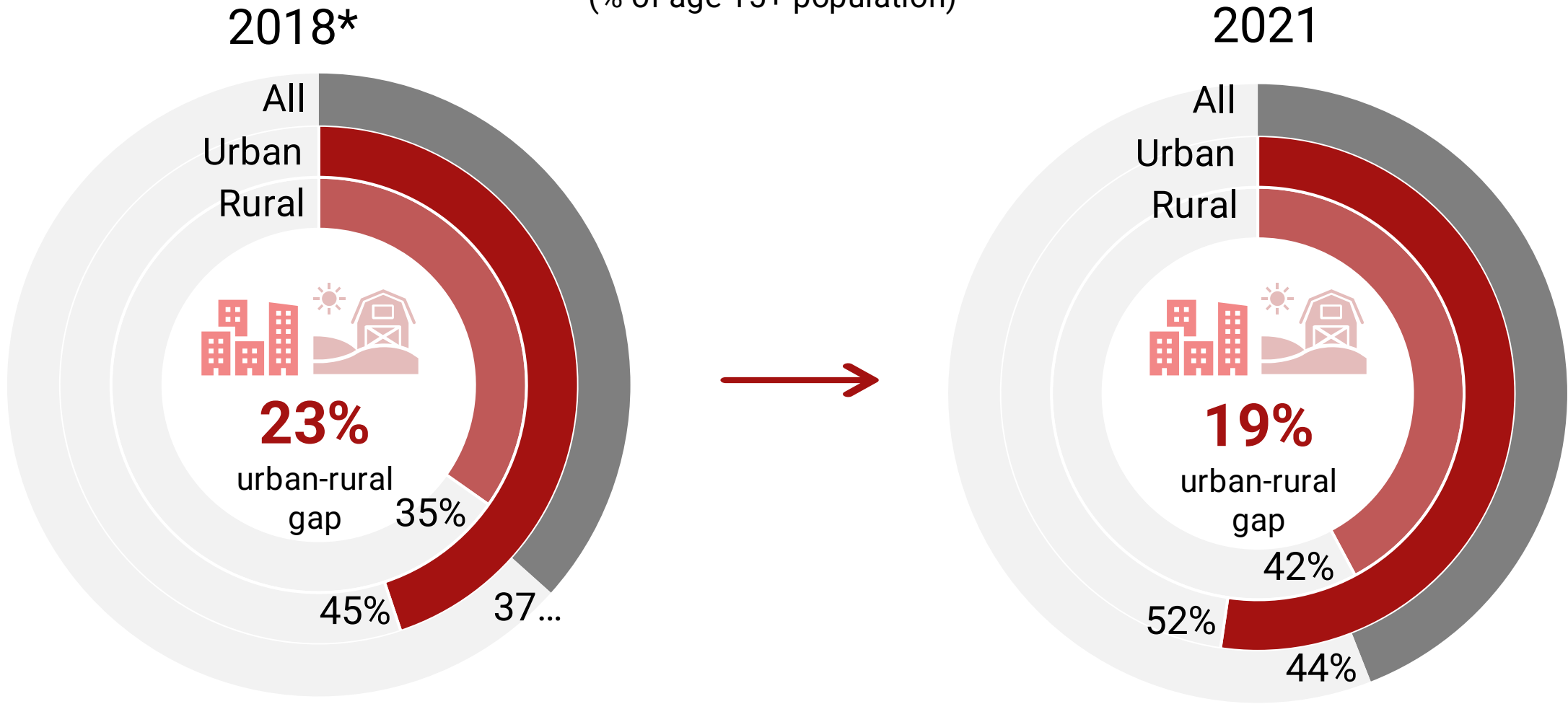
LIRNEasia (2018; 2021)

Gender gap in Internet use (%) =
$$\frac{\text{Male internet users (\% of male population)} - \text{Female internet users (\% of female population)}}{\text{Male internet users (\% of male population)}}$$

LIRNEasia
Pro-poor. Pro-market.

But some other gaps remained (rural, elderly, PWD)

Internet use – Sri Lanka
(% of age 15+ population)



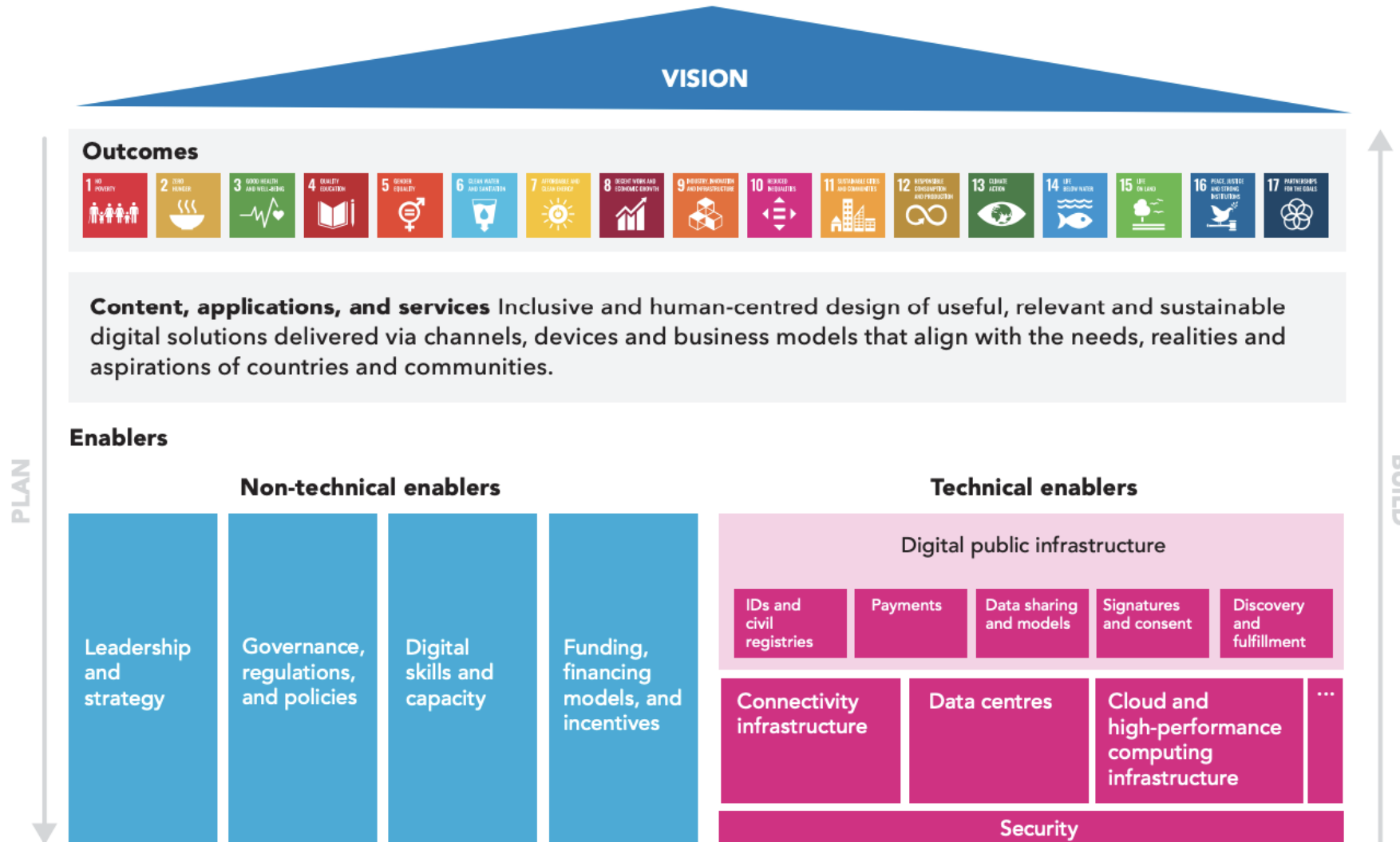
* for the ages of 15-65 population

Q: Have you ever used the Internet? (Websites and applications like Google, Facebook, WhatsApp, email, etc.)

LIRNEasia (2018; 2021)

Urban-rural gap in Internet use (%) =
$$\frac{\text{Urban internet users (\% of urban population)} - \text{Rural internet users (\% of rural population)}}{\text{Urban internet users (\% of urban population)}}$$

Achieving inclusive growth via digital requires a variety of enablers, including policies, skills and infrastructure



ITU & UNDP (2023)

Case study 1

Data for social assistance programmes

Social assistance schemes often operate in silos, limiting system-wide coordination



Multiple schemes

Most countries operate multiple social assistance schemes, for cash, in-kind support, school benefits, and health allowances



Fragmented systems

- Programmes are often managed by different ministries or departments
- Data is housed in separate systems or offline processes
- Few have common platforms or unified registries



Partial integration

Even where integration exists only a subset of programmes is included, most remain outside

Sri Lanka - case study

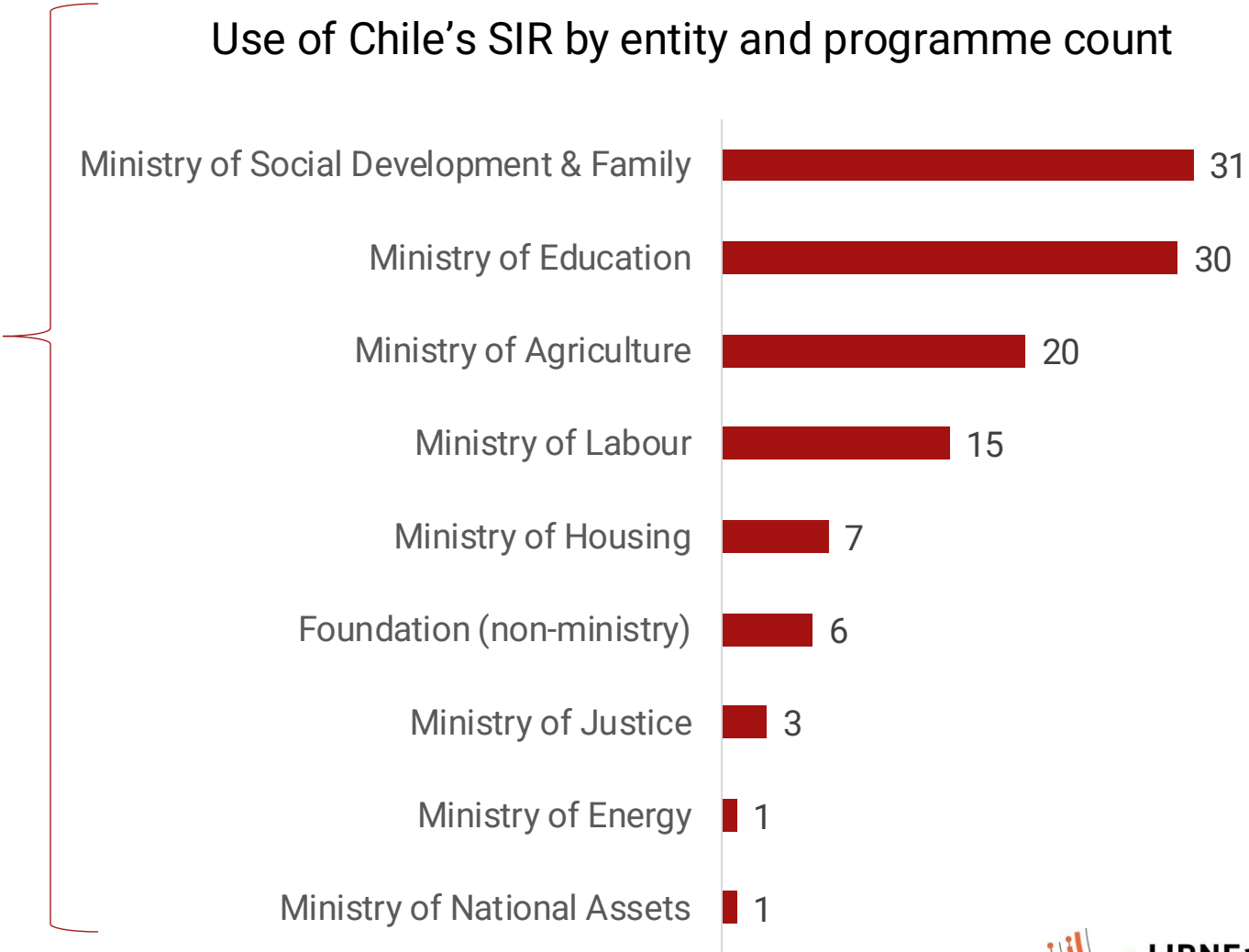
- Over 25 social assistance schemes
-- e.g.: Aswesuma, senior citizen's assistance, disability assistance. Mahapola, Thriposha
- Managed by multiple agencies, despite existence of Integrated Welfare Management System (IWMS) under the Welfare Benefits Board
- Only 4 programmes currently in IWMS

Chile, Türkiye & Pakistan among countries with unified social registry/integrated system

Programmes in system/registry in benchmark countries







Country	Registry/system	No. of programmes
Chile	Social Information Register	114 (2022)
Türkiye	Integrated Social Assistance System	50 (2022)
Pakistan	National Socio-Economic Registry	30 (2024)

Use of Chile's SIR by entity and programme count



Source: World Bank (2025), Digital Convergence Initiative (2022)

Safe data sharing can help verify information for eligibility determination

Unit	Name of Service
 Tapu ve Kadastro Land Registry and Cadastre Directorate General (TAKBİS)	Real Person Land Registration Data Inquiry
 TC MB MALİYE BAKANLIĞI Ministry of Finance-Revenue Administration	Inquire Tax Payer Status Inquire Vehicle Information (MOTOP)
 VGM FOUNDATIONS FOUNDATIONS Directorate General (VGM)	Inquire VGM Assistance
 KYK Higher Education Credits and Dormitories Agency Directorate General (KYK)	Inquire Tuition Fee Loan and Scholarship
 TC MB TÜRKİYE CUMHURİYETİ MERKEZ BANKASI Central Bank of Republic of Turkey	Inquire Balance Information Inquire Account Extract
 İŞKUR TÜRKİYE İŞ KURUMU Turkish Employment Agency (İŞKUR)	Inquire Compensation Status (Inquire İşkur Allowance) Register Person with İŞKUR – Request Appointment Inquire İŞKUR Status Inquire Job Seeker Inquire Employment Movement Inquire Employment Profile Movement Inquire Training Movement Inquire TYP (Community Service Program) Movement

Case study: Türkiye

- Türkiye's ISAS links to 29 databases (beyond social assistance) maintained by a number of institutions, including civil registration, health, tax, employment, and land records (sample shown on the right)
 - Information is updated every 45 days, with real-time query access for caseworkers
 - Complemented by annual household visits to capture changes not reflected in administrative data
-
- In early stages, data links can support simple verification. Possibilities can be explored to reduce duplication in data collection
 - Does not imply automating eligibility decisions – human judgement remains key

Data collection, sharing and storage subject to (often new) legal provisions



Data protection laws are becoming more common globally, including across BIMSTEC – these have implications on data collection, sharing, and storage



Purpose limitation is a foundational principle for data collection

- Personal data collected for one specific, clearly defined purpose must not be reused for another incompatible purpose without a new legal basis or additional safeguards



Consent is required in most cases (unless national interest/legitimate use proven, in some countries)

- Most countries adopt opt-in models (e.g., EU's GDPR)
- India: consent is built into system architecture, operationalized through consent managers



Data localization requirements may be challenging without adequate infrastructure

- Data localization (storage of data within national borders, linked to sovereignty) present in European legislation, however not practical in resource constrained environments
- Successive drafts in India saw loosening of requirements; similar in Sri Lanka

Digital Public Infrastructure (DPI) of increasing popularity – integrate into data sharing, storage solutions

DPI: “Common, foundational digital systems that enable the delivery of services in the digital age. .. DPI needs to be standards-based and re-usable” (OECD 2024)

Current consensus on DPI elements



Digital
ID



Data
exchange



Payments
platform

- Coordinating with foundational DPI efforts when developing sectoral solutions helps avoid duplication of effort and builds long-term scalability.
E.g.: develop pathway for using national data exchange for social assistance

Case study 2

Economic inclusion through digital work platforms

Digital labour platforms have provided pathways to economic inclusion for some

- Remote opportunities have allowed some groups who would otherwise be excluded (e.g.: women with caregiving responsibilities, persons with disability) due to inability to travel to enter the labour market
- Flexibility helped groups such as university students, and women with caregiving responsibilities
-- *can exacerbate double/triple burden*
- Incomes varied, often serving as a supplementary/transitional source of income with little consistency. However, some were of the view that they could earn more than they could in traditional jobs.

Success stories from Myanmar and India

"My physical condition was very bad, so I was not able to do 12th, then I did a typing course. I have speed of 60 words per minute.... I can't travel much so I sat at home and started working from home"
Sanjay*, Male, Digital worker (cloud work platform), Mumbai, India (physical disability)

"By working online, I can't get a consistent salary, but I can work comfortably and compared to full time, I think I can earn more."
Shwe Win*, Female, Digital worker (cloud work platform), Yangon, Myanmar

"As I'm a mother [...] I want to give most of my time for my daughter. So, it is not possible to give my time for my child if I work at full-time jobs. [...]" – Phyu Phyu*, Female, Digital Worker (translator), Myanmar

*Name changed

Connectivity, devices, and payment systems a precondition to inclusion via digital work platforms



Access to digital devices, software, and internet access is critical

- Some work such as driving for ride-hailing apps, is possible using widely available smartphones. Higher-value tasks often require access to a laptop



Robust payment systems are essential, especially for non-location-specific work involving cross-border transactions.

- Absence of PayPal has led to workarounds, but requires skills and networks

"I created [a Malaysian PayPal account] from [Sri Lanka]. [...] There is a little trick we should change the IP addresses and create the account. [...] The money goes to Malaysia and then comes to me. Although I have an account in Malaysia, I don't withdraw from it there. I withdraw it from here."

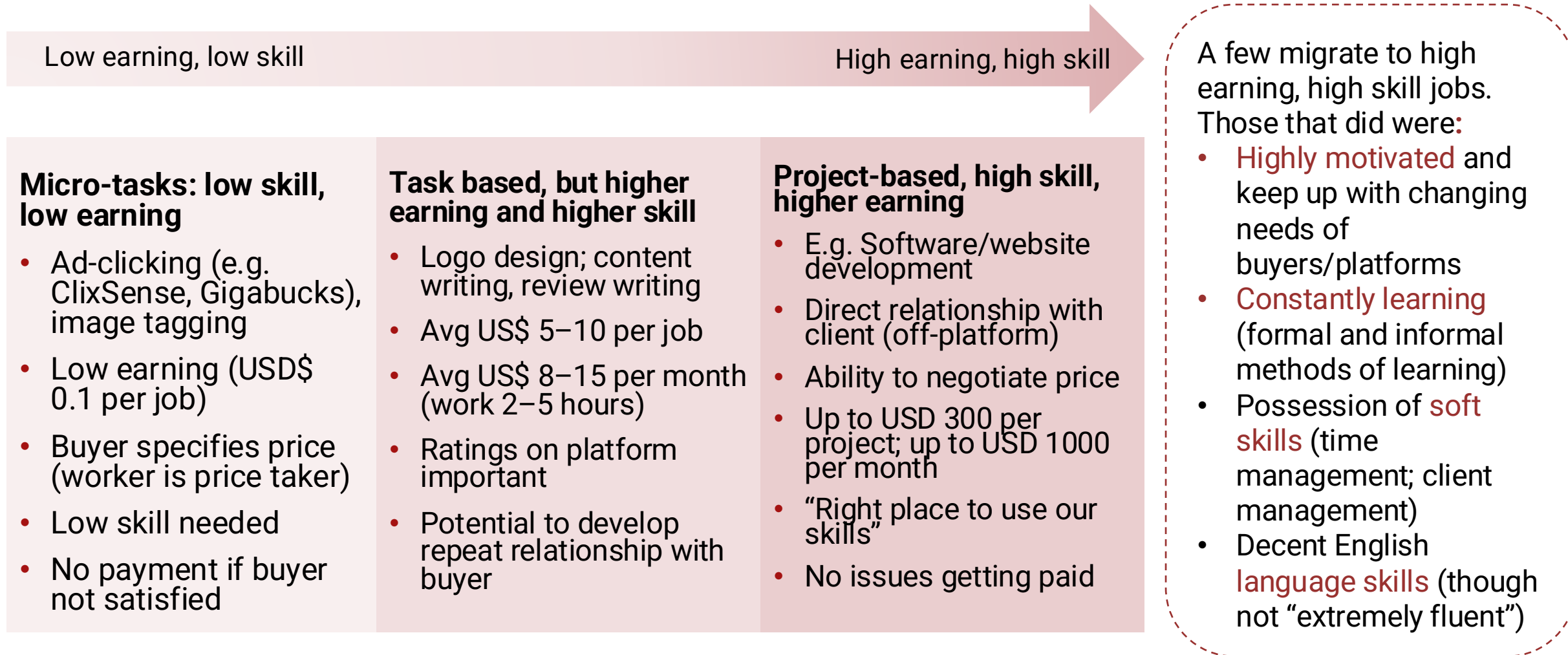
– Rajeev*, Male, Digital worker (cloud work platform), Colombo, Sri Lanka

"The Paypal account that I use is in Singapore, it's done by a friend of mine who is in Singapore. It's because it cannot be done in Lanka"

– Kusal*, Male, Digital worker (cloud work platform), Colombo, Sri Lanka

*Name changed

Continuous learning, language and soft skills, and motivation were amongst drivers of success



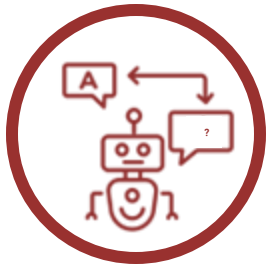
Competition for labour, in the age of AI, could lead to a race to the bottom



Use of Generative AI (GenAI) tools is becoming increasingly common. This can pose risks to current forms of employment, particularly online freelancing—especially non-location-based, lower-skilled, task-based jobs



South Asia accounts for nearly half of the world's online freelancers, driven by strong English proficiency and technical expertise in countries such as India, Bangladesh, and Pakistan



However, this pool of online freelancers may expand geographically as the dominance of English diminishes with the diffusion of AI-enabled machine translation

Sources: Baldwin (2019), Brynjolfsson, Hui, and Liu (2019) — both cited in Nayyar et al. (2024); UNDP (2025)

Build balanced social protection frameworks for platform workers

- Most digital workers lack access to formal benefits (extension of high levels of informality – not uncommon in developing countries)
- The EU model, including the EU Platform Work Directive of 2024, introduces a model for extending social protection for platform workers – enforcement more challenging for non-location specific work
- Questions to ponder may include:
 - Will such models work in BIMSTEC?
 - Will there be/what will be the tipping point before firms exit markets? (as seen with Deliveroo exits in Europe – even before 2024 directive)
 - Can we live with the tradeoffs?

Key features of EU Platform Work Directive

Legal Status

Introduces measures to determine if the platform worker is an employee or not
-- platform workers are presumed employees unless the employer can prove otherwise

Algorithmic rules

Requires transparency and human oversight of automated decisions

Worker voice

Right to organise and engage in collective bargaining, regardless of their employment status

Key takeaways

- **Access and skills challenges must be addressed to prevent further inequality**
Gaps in connectivity and availability of digital devices continue to limit participation, especially for marginalised groups. Without these basic conditions being addressed, inequalities will widen
- **Balancing between rights protection and enabling growth is key**
Necessary to find ways to protect data, worker rights and ensure social protection, given changing nature of economy and work – particularly with rise of AI
- **Institutions must evolve to meet new demands**
Areas like social assistance show the potential for data use, but fragmentation, unclear mandates, and siloed systems often reduce effectiveness
- **DPI can support inclusion if coordinated and scalable**
Foundational systems such as ID, payments, and data exchange can play a role in improving delivery and reduce duplication. However, they require shared standards, institutional buy-in, and long-term coordination
- **Consider local capacity and resources when developing policies, solutions**
Global approaches reflect different priorities and starting points. Regional examples show what is possible, but the focus should be on adapting models to local priorities, politics, and capacity



Thank you!

For further information
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