CHAPTER 8

Migration and Urbanization (Ethiopia focus plus global lens)

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Daily mobility, service catchments, metropolitan governance, transport nodes and last-mile access.

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Core indicators (migration, urban living conditions, inclusion, resilience), data pipelines, and learning agenda.

8.1) Concepts & Definitions — Migration & Urbanization

This subsection sets shared definitions for migration and urbanization used throughout Chapter 8. Ethiopia is the main focus, with terms aligned to international standards so comparisons are consistent.

Key Terms (Plain Language)

Term	Plain-language definition
Internal migration	Change of usual residence within national borders (e.g., rural→urban).
International migration	Crossing a country border to live elsewhere for a period (often ≥12 months).
Urbanization	Rising share of people living in urban areas; a demographic outcome.
Urban growth	Increase in the number of people in urban areas (can happen even if share is flat).
Peri-urbanization	Spread of city-like living at the edges of cities along transport corridors.
Circular/seasonal mobility	Repeated moves tied to seasons, jobs, or herding routes.
Commuting	Daily or weekly travel from home to work/school across administrative boundaries.
Stock vs. flow	Stock = how many migrants live in a place now; Flow = moves during a period.
Origin (source) & destination	Place a migrant leaves and place they arrive.
Selectivity	Movers differ from non-movers (often younger, more educated).
Functional urban area (FUA)	City + commuting zone based on actual daily travel links.

Core Measures & Formulas

Measure	Formula	Notes
Crude Migration Rate (CMR)	CMR = (M / P_mid) × 1,000	M = all moves (in + out) in a year; P_mid = mid-year population.
In-Migration Rate (IMR)	IMR = (I / P_mid) × 1,000	I = arrivals to an area during a period.
Out-Migration Rate (OMR)	OMR = (O / P_mid) × 1,000	O = departures from an area during a period.
Net Migration Rate (NMR)	NMR = ((I − O) / P_mid) × 1,000	Positive if more arrive than leave.
Age-Specific Migration Rate	ASMR_x = (M_x / P_x) × k	Age x moves per age x population; k = 1,000 or 100.
Total Migration Intensity	TMI = Σ_x ASMR_x	Overall propensity to move across ages.
Migration Effectiveness Index	MEI = |I − O| / (I + O)	0 = exchanges cancel out; 1 = all flows one-way.
Urbanization Rate (annual % pt)	ΔU = U_t − U_{t−1}	Change in the share urban between two dates.
Urban growth identity	dUrbPop = Natural increase + Net migration	Urban population growth decomposes into these two parts.
Gravity model (toy)	F_ij ∝ (P_i^α P_j^β) / D_ij^γ	Flows rise with population, fall with distance; α,β,γ > 0.

Urban Concepts: Administrative, Built, and Functional

Urban concept	What it captures
Administrative city	Defined by legal/administrative boundary (may not match daily life).
Built-up area	Continuous buildings seen from satellite imagery (night-time lights, footprints).
Functional Urban Area (FUA)	Built-up core plus commuting zone; captures where people actually live/work.

Worked Example (Toy Numbers)

Area	I (in)	O (out)	P_mid	IMR (/1,000)	OMR (/1,000)	NMR (/1,000)	MEI
City A	12000	9000	500000	24.0	18.0	6.0	0.14

Figure 8.1-1. Age-specific migration rate curve (hump at young adult ages)

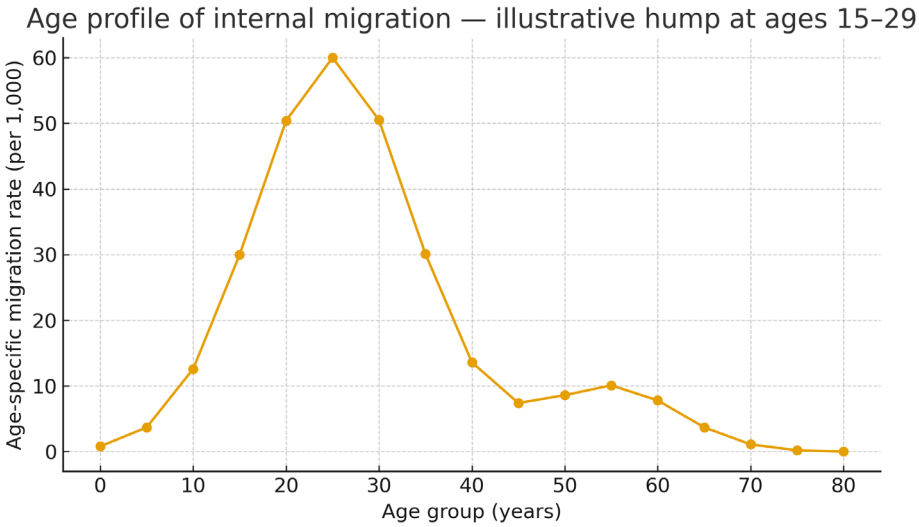


Figure 8.1-2. Urbanization level over time

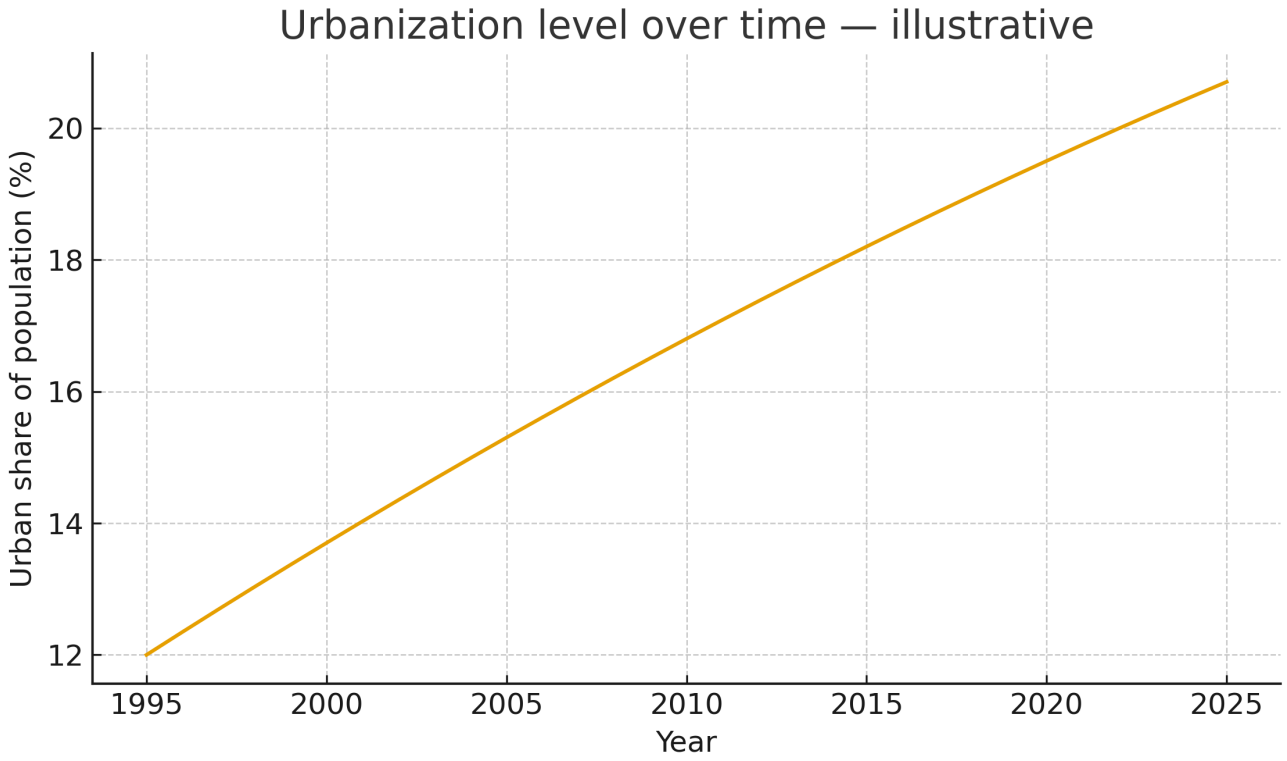


Figure 8.1-3. Urban population growth decomposition: natural increase and net migration

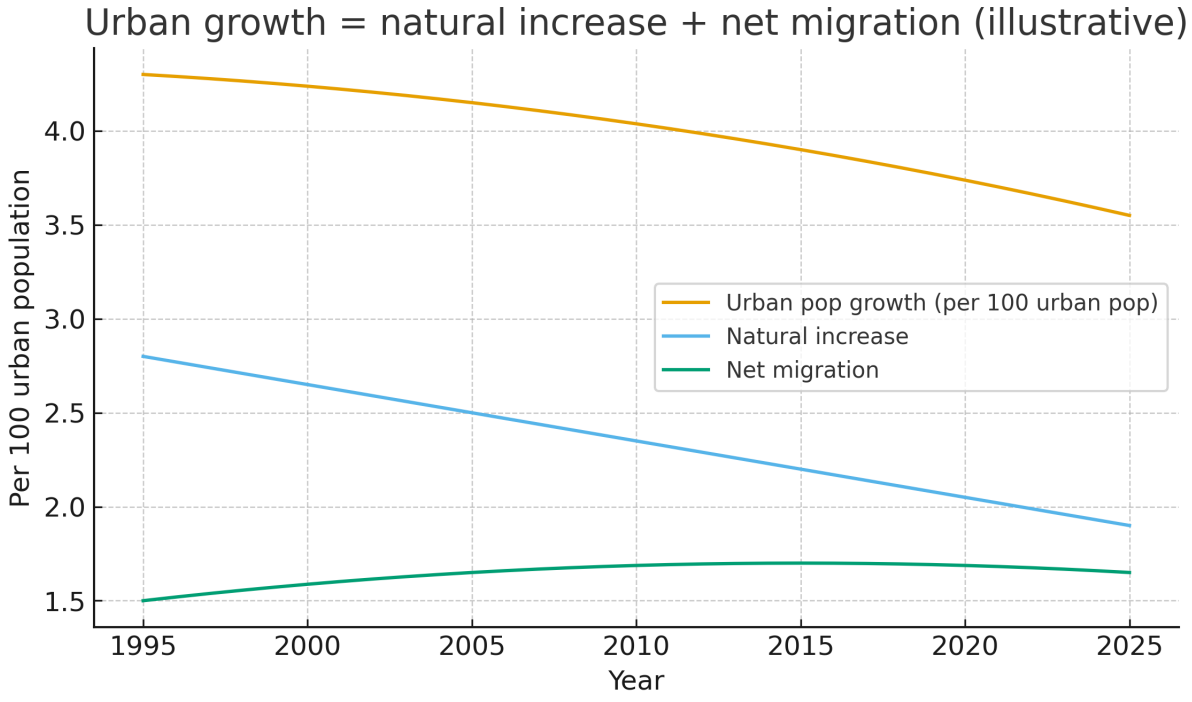


Figure 8.1-4. Migration pyramid by sex (per 1,000; males shown negative by convention)

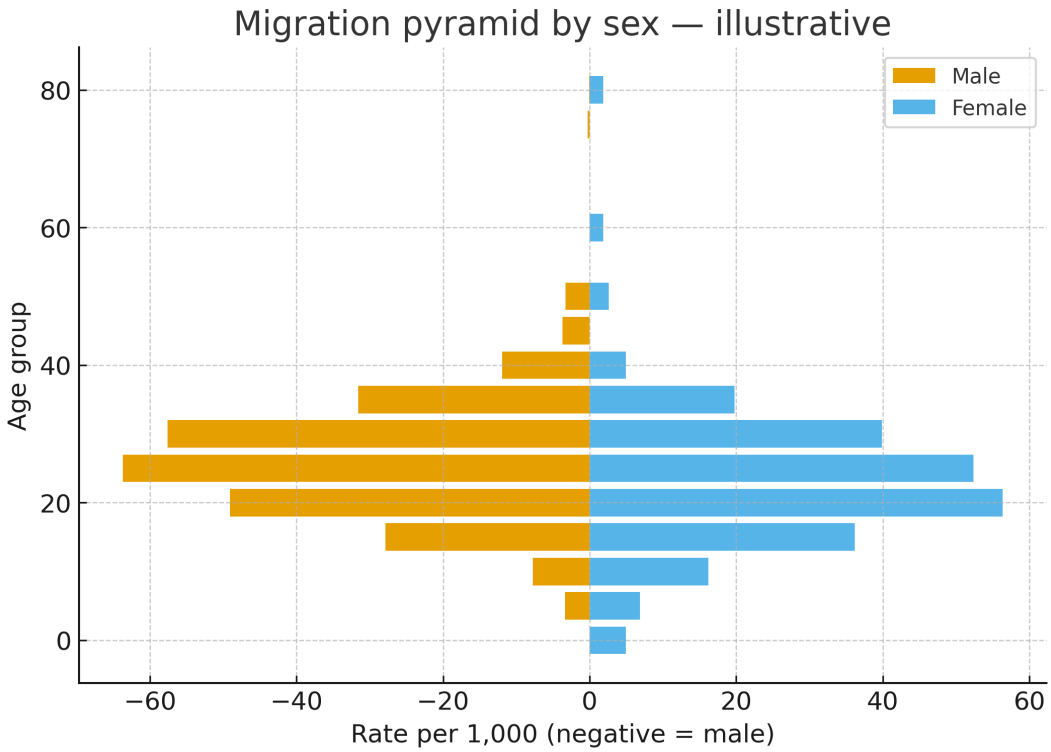
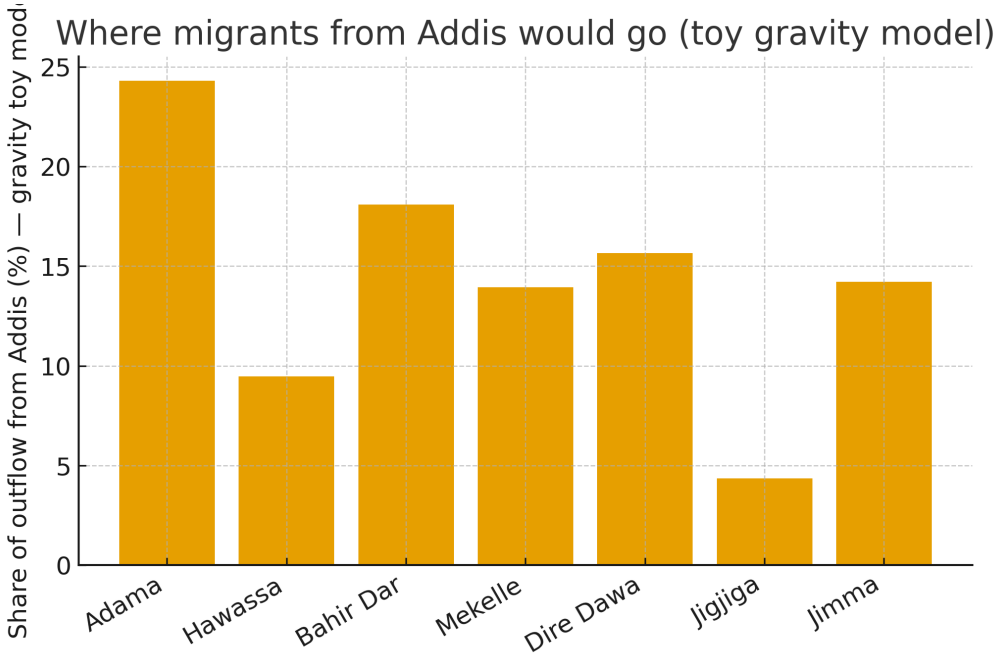


Figure 8.1-5. Gravity model toy flows from Addis Ababa (share of outflow)



Plain-Language Summary

Migration simply means changing where you usually live. It can be inside Ethiopia (internal) or across borders (international). People move for school, work, marriage, safety, or because of droughts and floods. Most movers are young adults, so a chart of age-specific migration rates usually has a “hump” in the 15–29 age range. Urbanization is different: it is the growing share of people who live in towns and cities. Urban growth—the number of people in cities—increases because of two things: natural increase (more births than deaths inside cities) and net migration (more people arriving than leaving). To describe migration, we use simple rates: in-migration, out-migration, and net migration. We also talk about stocks (how many migrants live in a place today) versus flows (how many moves happened this year). Finally, cities can be defined in three useful ways: by legal boundaries, by where buildings are actually continuous, and by where people really live and work—the functional urban area, which includes a core city plus its commuting zone. These ideas make it easier to compare Ethiopia with other countries and to plan services fairly.

References — Section 8.1

- UN DESA (2022). World Urbanization Prospects — definitions of urbanization and urban growth.

- IOM (2019). Glossary on Migration — standard terms for migration stocks and flows.

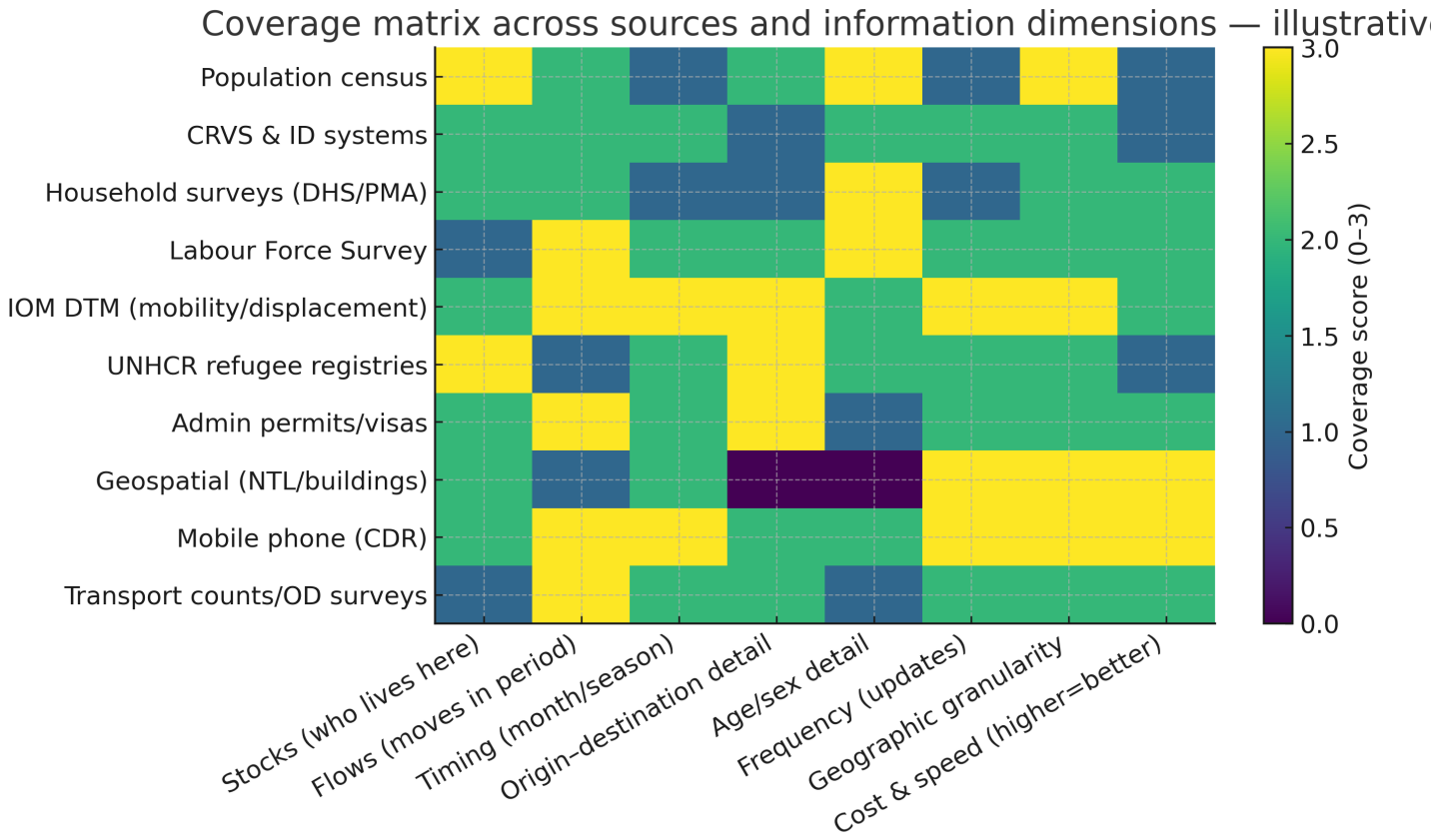
- OECD/EC (2020). Cities in the World: A New Perspective on Urbanization — functional urban areas (FUA).

- Rogers & Castro (1981). Model Migration Schedules — age profiles of migration.

- World Bank (2009, 2013). Reshaping Economic Geography; Planning, Connecting, Financing — urbanization frameworks.

8.2) Data Sources & Measurement — Migration & Urbanization

This subsection maps the data landscape for Ethiopia, aligned to international practices.



Source inventory

Source	Key variables	Typical frequency	Strengths	Cautions
Population census	Place of birth; previous residence; years at residence; urban/rural; education; occupation	~10 years	Full coverage, rich disaggregation	Long interval; recall error; definitional changes; undercount of mobile groups
CRVS & ID systems	Birth/death registrations;	Continuous	Timely, legal identity links	Incomplete coverage;

	address; nationality; IDs			address quality; privacy safeguards needed
DHS/PMA & other HH surveys	Migration module; duration, reason; education; fertility; assets	3–5 years	Comparable across years; many covariates	Sample sizes limit small-area analysis; recall bias
Labour Force Survey	Place of work; commuting; recent moves; job status	1–2 years	Labour angle; commuting insights	Often urban-biased; short recall windows
IOM DTM	Arrivals/departures; IDPs/returnees; site characteristics	Quarterly–biannual	Crisis-sensitive; flow and stock views	Crisis-focus; not population-representative
UNHCR registries	Asylum seekers/refugees; demographics; locations	Continuous	Detailed for covered groups	Covers specific legal categories only
Admin permits/visas	Work/residence permits; exits/entries	Continuous	Legal flows by channel	Misses irregular flows; policy-driven
Geospatial (NTL/buildings)	Built-up change; intensity; expansion	Annual–quarterly	Objective, wall-to-wall coverage	No direct flows; needs ground truth
Mobile phone (CDR)	Tower-to-tower moves; OD matrices	Monthly–weekly	Fine temporal/spatial detail	Coverage & bias by operator; privacy constraints
Transport OD counts	Passenger counts; intercept surveys	Occasional	Mode-specific flows	Expensive; partial coverage

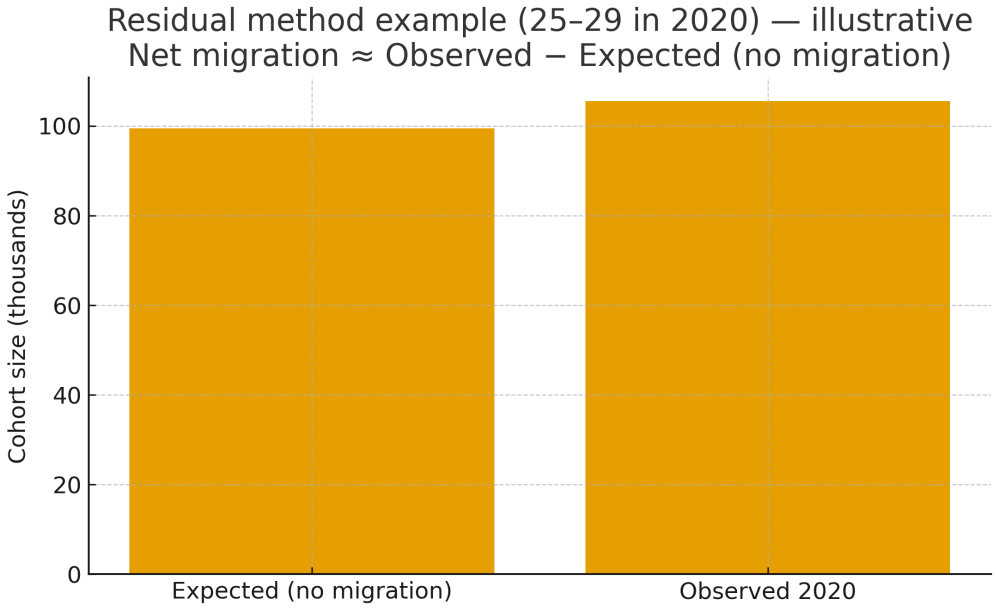
Standard questions & derived indicators

Standard question/field	Derived indicator(s)
Place of birth	% born in another region/country (lifetime migrant stock)
Previous residence & date of move	Annual in-/out-/net migration rates; recent movers by origin
Duration at residence	Share new residents (<1, <5 years); churn
Reason for move	Education, work, marriage, displacement, climate—profiles
Commuting origin/destination	Functional urban areas; service catchments
Settlement type & density	Urban/rural/peri-urban classification; built-up overlays

Bias & mitigation checklist

Issue	Mitigation
Undercount of mobile groups	Use multiple sources; oversample mobile/pastoral areas; triangulate with geospatial/DTM
Recall error on dates/places	Use bounded intervals (last 12 months/last 5 years); event calendars
Definitional drift of 'urban'	Publish criteria; provide time-consistent built-up/FUA series
MAUP (scale/zone effects)	Report results at multiple scales; use FUAs for metro analyses
Left/right censoring of moves	Ask about most recent move and lifetime moves where possible
Denominator mismatch	Align mid-year populations to rate periods; age/sex standardization
Survivorship bias (deaths/returns)	Use cohort methods; adjust with mortality/return flows if available

Figure 8.2-2. Residual method example (cohort survival)



Net migration ≈ Observed cohort − Expected survivors; Expected survivors = Population_at_start × (1 − 5q_a).

Figure 8.2-3. Urbanization by definition (administrative vs built-up vs functional)

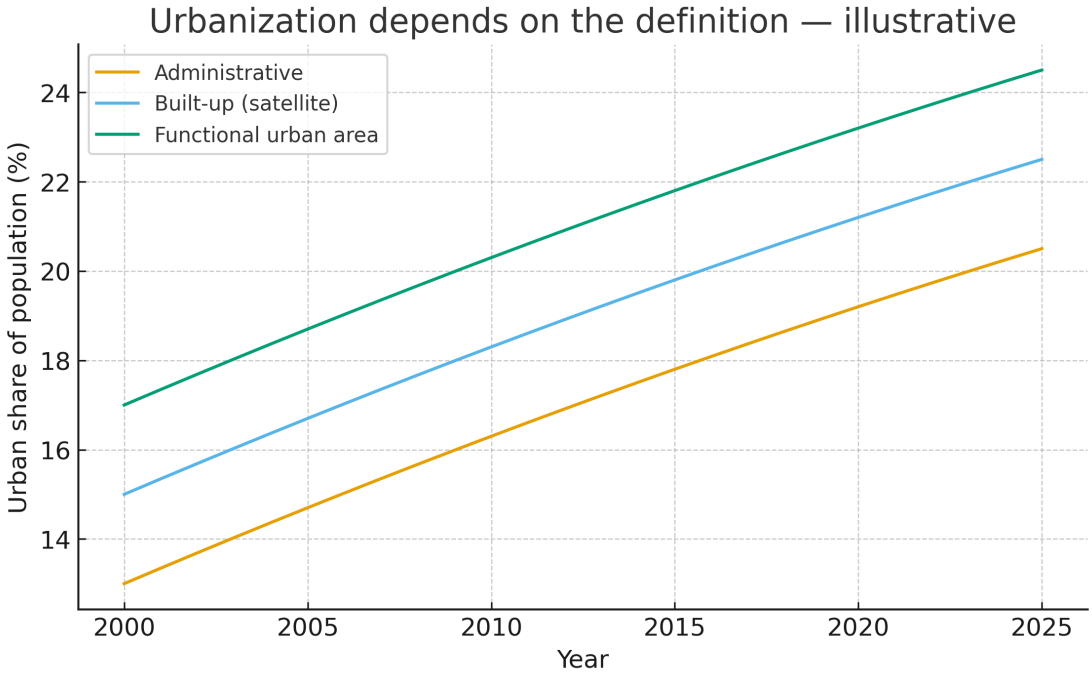


Figure 8.2-4. Survey sampling precision

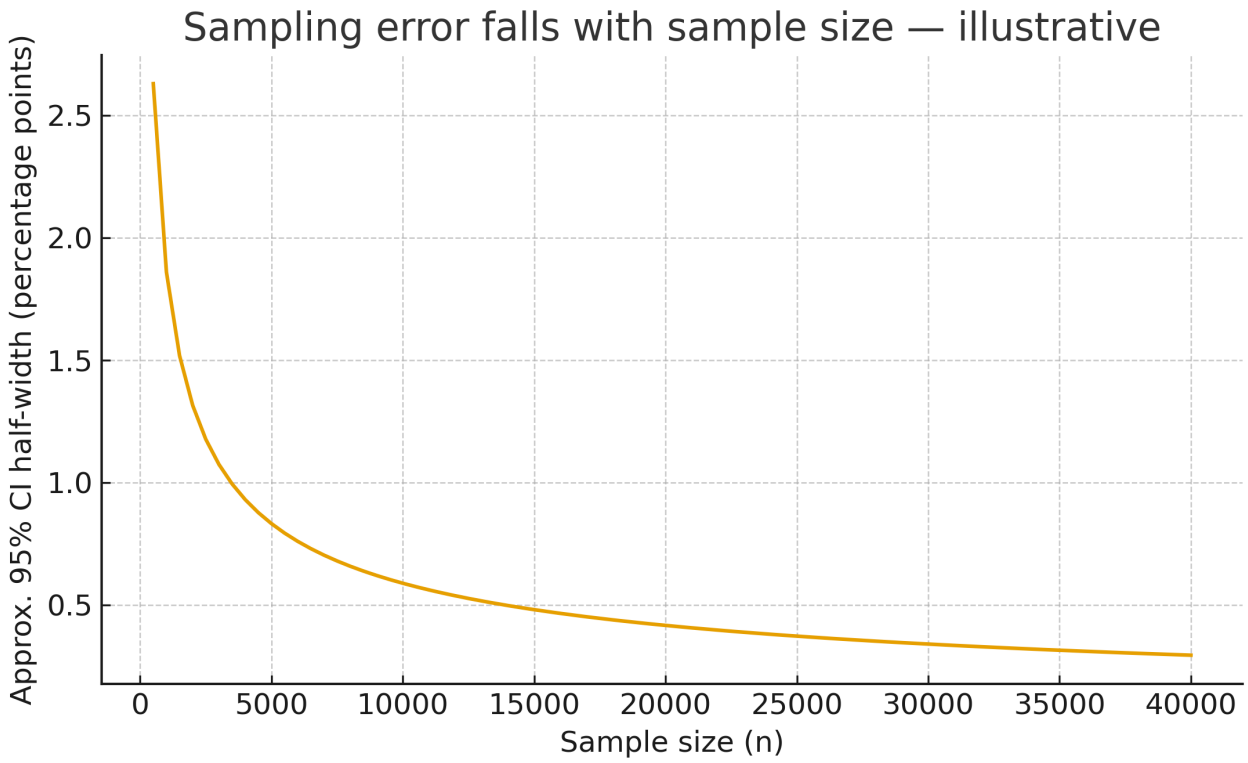
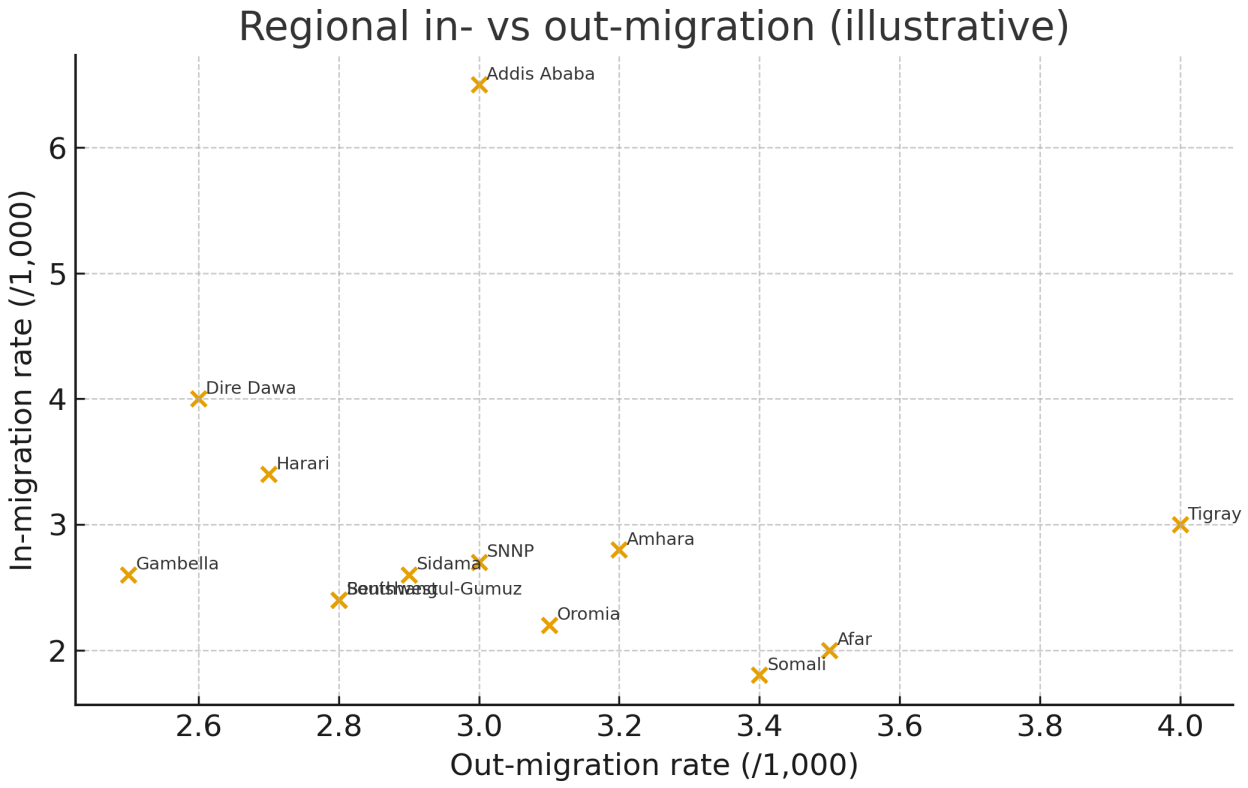


Figure 8.2-5. Regional in- vs out-migration (illustrative)



Worked example: rates & effectiveness

Area	In-migrants (I)	Out-migrants (O)	Mid-year pop (P_mid)	IMR (/1,000)	OMR (/1,000)	NMR (/1,000)	MEI
Region X	12000	15000	800000	15.0	18.75	-3.75	0.11

Plain-language summary

No single source is perfect. Censuses anchor the picture but are infrequent. Surveys add social detail but have sampling limits. Administrative systems track specific groups well; geospatial and mobile-phone data offer frequent updates but require privacy safeguards. Triangulating these sources—checking definitions, time periods, and denominators—gives Ethiopia the most reliable view for planning.

References — Section 8.2

- UN DESA (2017, 2022). Principles and Recommendations for Population and Housing Censuses.

- IOM (2019). Displacement Tracking Matrix Methodological Framework.

- UNHCR (2024). Global Trends & Population Statistics — definitions and registries.

- World Bank (2020). Population Mobility and Statistical Systems — guidance note.

- OECD/EC (2020). Cities in the World — functional urban areas methodology.

- Goodchild & Longley (2005). Geographic Information Systems and Science — MAUP discussion.

8.3) Ethiopia’s Migration History & Contemporary Drivers

This subsection sketches key phases in Ethiopia’s migration story and summarizes current drivers of movement, from economic opportunity and education to climate variability and insecurity. Replace placeholders with dated events and official statistics where available.

Figure 8.3-1. Migration drivers over time (indices)

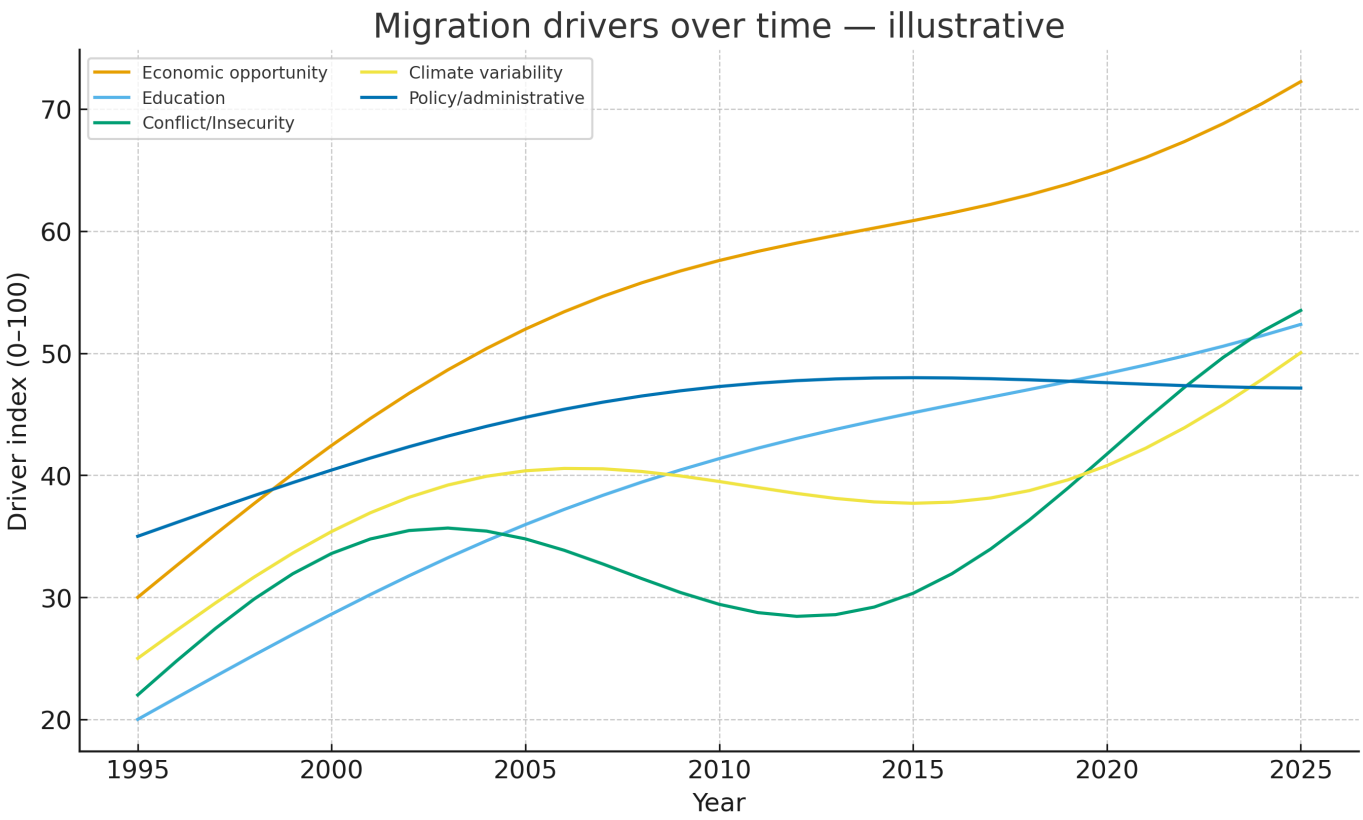


Figure 8.3-2. Major rural→city migration corridors (share of flow)

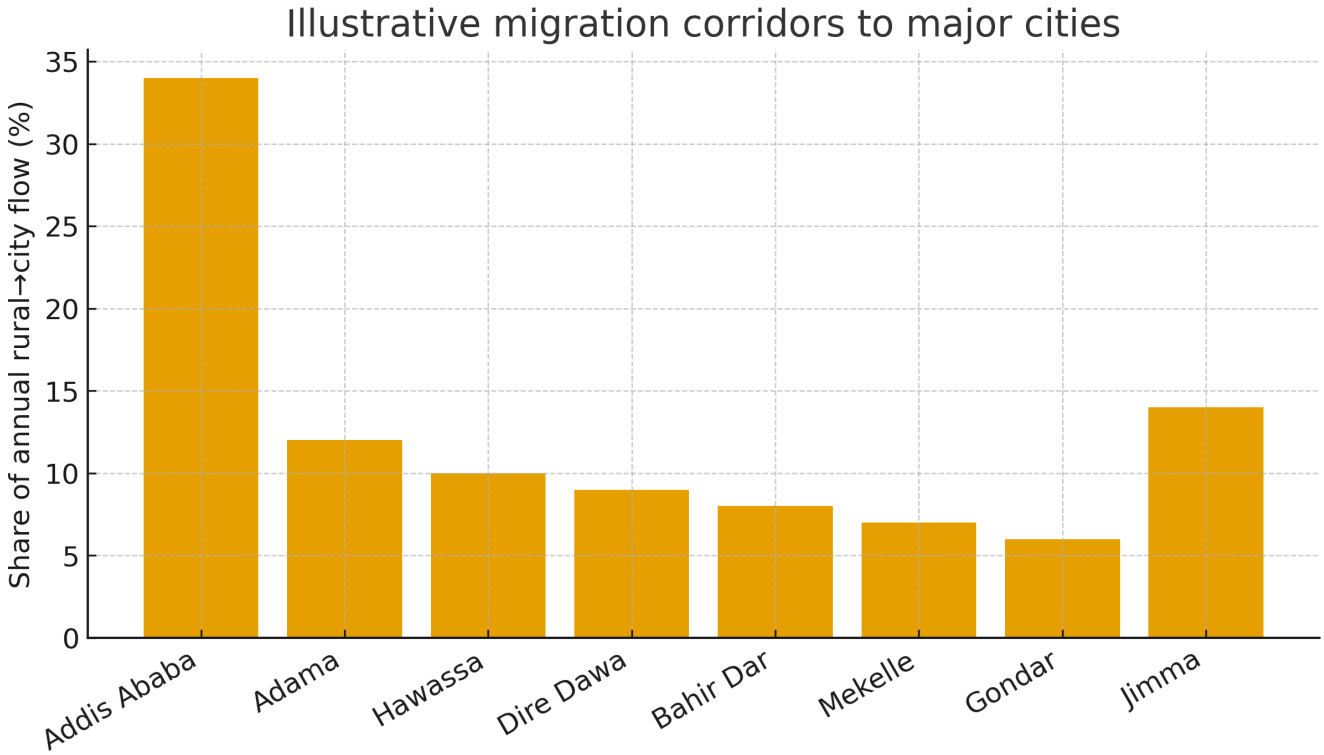


Figure 8.3-3. Seasonal & circular mobility calendar

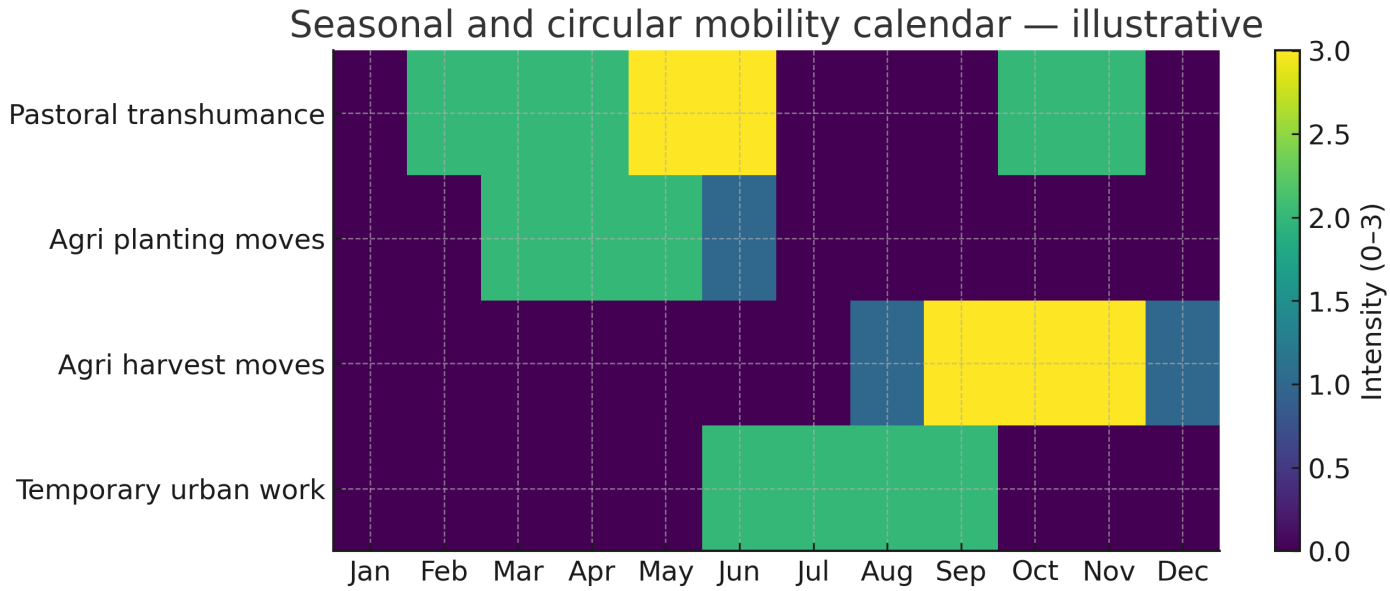


Figure 8.3-4. Relative importance of drivers by region

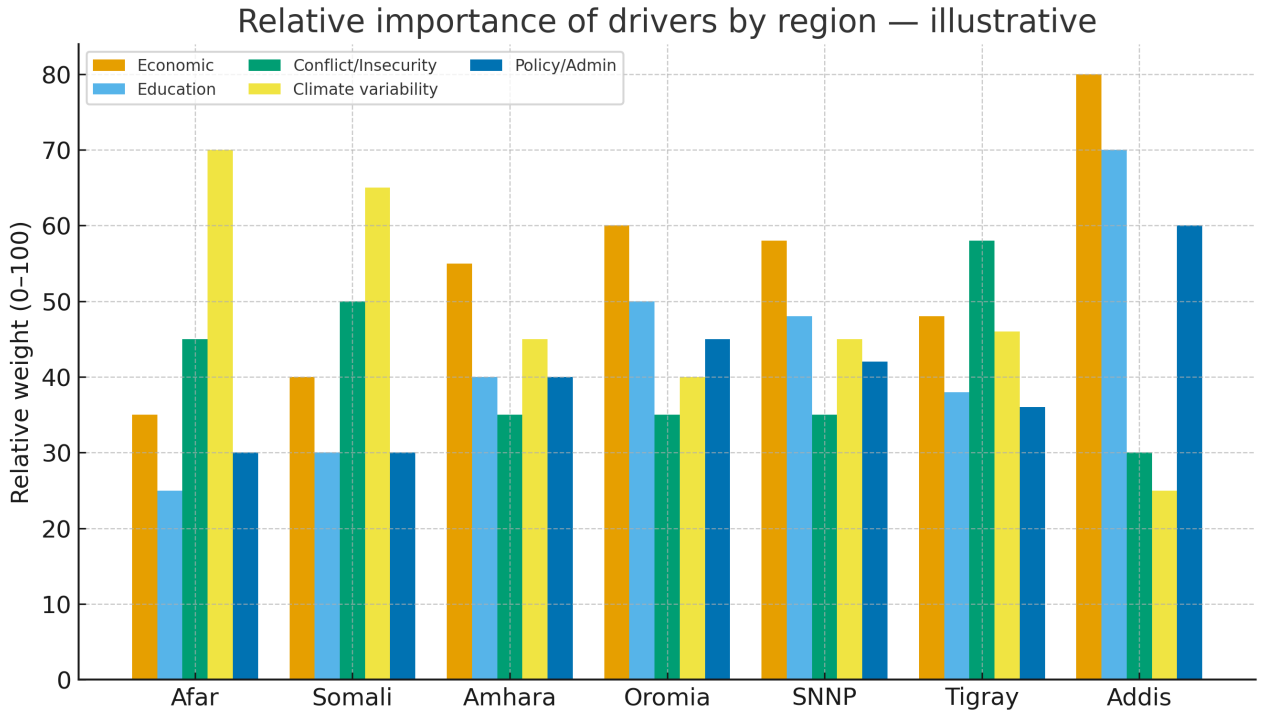


Figure 8.3-5. Age–sex selectivity hump

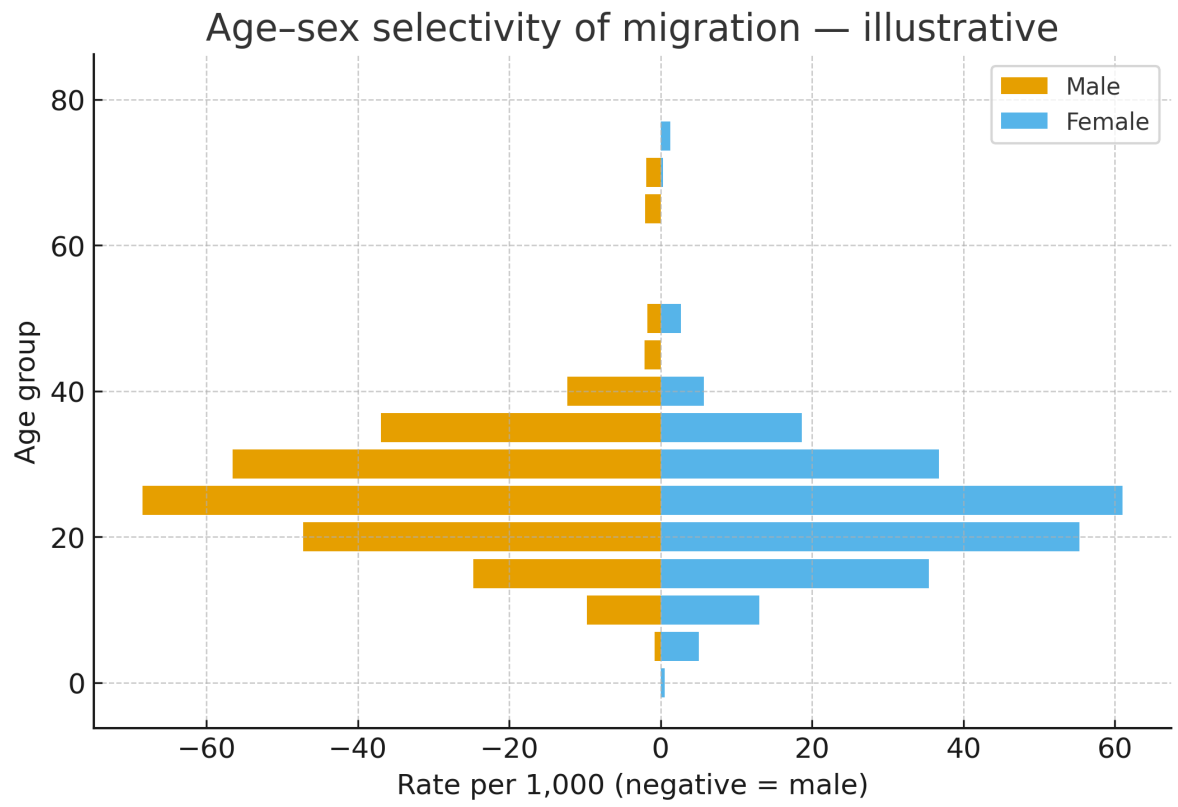


Table 8.3-A. Historical milestones (replace with precise dates/sources)

Period	Ethiopia context (illustrative — replace with precise events/dates)
1990s–2000s	Education expansion and road connectivity accelerate rural→urban migration.
2000s–2010s	Growth of secondary cities; industrial parks begin; urban housing programs scale up.
2015–2020	Drought/flood variability increases seasonal mobility; regional insecurity affects routes.
2020–2023	Pandemic disruptions; recovery with shifts in urban informal jobs and services.
2023–2025	Urban expansion plans and new corridors; mixed effects of conflict and reconstruction on moves.

Table 8.3-B. Drivers & mechanisms

Driver	Mechanisms at household and community level
Economic opportunity	Wage gaps; nonfarm jobs; market access; cost of living differences.
Education	Secondary/tertiary access; TVET; school quality; aspirations.
Conflict/Insecurity	Safety; property loss; disrupted services; displacement/re-settlement.
Climate variability	Drought/flood; pasture/water stress; crop failure; livelihood diversification.
Policy/Administrative	ID/permits; land allocation; housing; industrial parks; safety nets; mobility controls.

Table 8.3-C. Selectivity and life-course triggers

Life stage / group	Typical triggers and patterns
Age 15–19	School transitions; first jobs; marriage in some settings.
Age 20–29	Peak mobility for jobs and education; early family formation.
Age 30–39	Job changes; housing moves; children's schooling decisions.
Women vs men	Differences by reason (education, work, marriage); sector opportunities.
Pastoralist mobility	Seasonal routes; cross-border grazing; services on the move.

Table 8.3-D. Policy levers & implications

Policy lever	Migration-related implications
Urban expansion plans	Managed growth, serviced land, protection of corridors/green areas.
Industrial/job parks	Pull factors for young workers; linked housing and transport.
CRVS/ID coverage	Enables service access and formal mobility; protects rights.
Safety nets & shock response	Stabilize food and job security; reduce distress migration.
Education access	Boarding/hostel options; scholarships for rural students.
Pastoralist services	Mobile clinics/schools; water points; cross-border coordination.

Plain-language summary

In Ethiopia, people move mainly for school, jobs, safety, and because the weather and markets change. Young adults are the most likely to move—often from rural areas to towns and cities. Some moves are temporary: planting and harvest, or herders shifting animals to find pasture and water. When rains fail or prices spike, more people move for short periods. Cities pull people in with schools and work, but they also need to plan for housing, transport, water, and health services so new arrivals can thrive. By looking at both the long-term picture (how drivers changed over 30 years) and the seasonal cycle, planners can prepare better for the next few years.

References — Section 8.3

- CSA Ethiopia — Population and Housing Census reports (migration tabulations).

- DHS & PMA Ethiopia — migration, education, fertility modules (various years).

- IOM — Displacement Tracking Matrix (DTM) Ethiopia reports (IDPs, returnees).

- UNHCR — Ethiopia refugee statistics and operational data portal.

- World Bank & UN DESA — urbanization, systems of cities, and corridor analyses.

8.4) Internal Migration — Rural→Urban, Urban→Urban, Rural→Rural

This subsection describes Ethiopia’s main internal migration patterns, the age and education selectivity of movers, and how urban areas can prepare to receive newcomers. Figures are illustrative.

Figure 8.4-1. Internal migration by pattern class (annual totals)

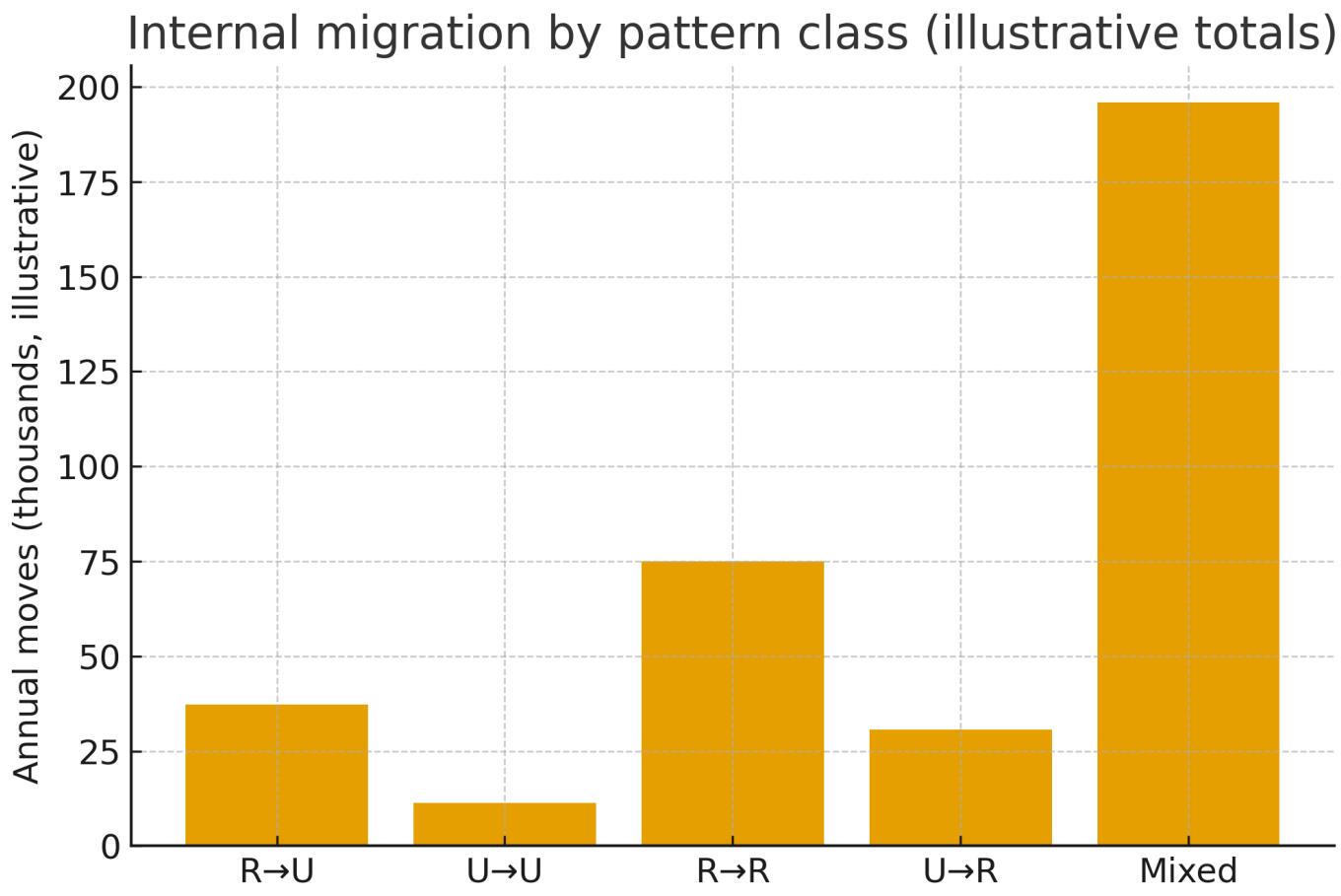


Figure 8.4-2. Age-specific migration schedules by flow type

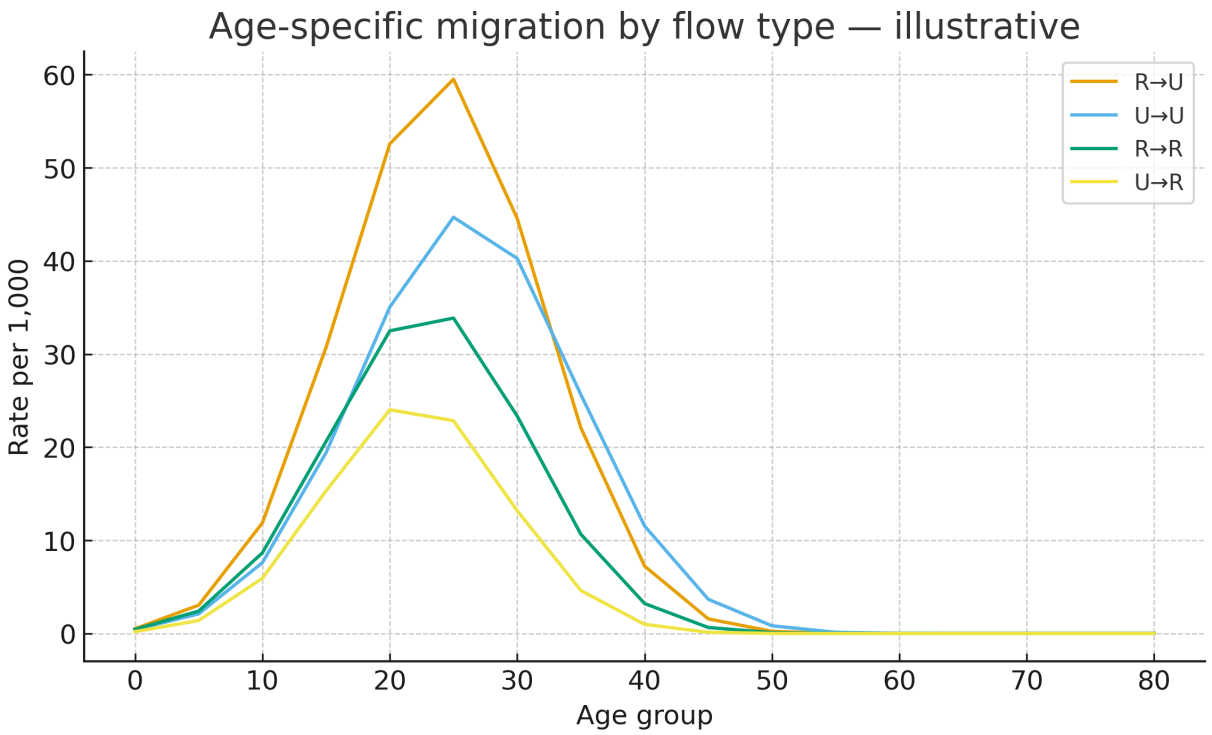


Figure 8.4-3. City newcomer accumulation (duration since arrival)

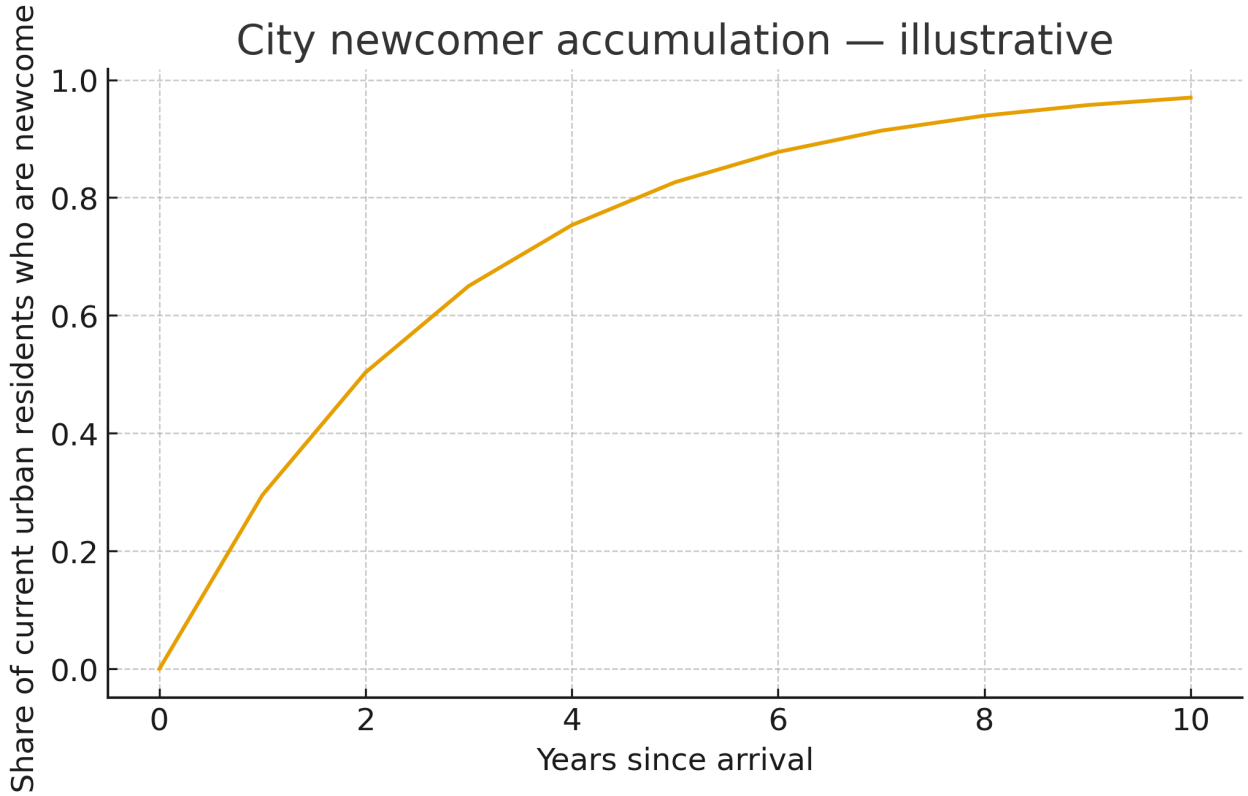


Figure 8.4-4. Urban absorption capacity indices

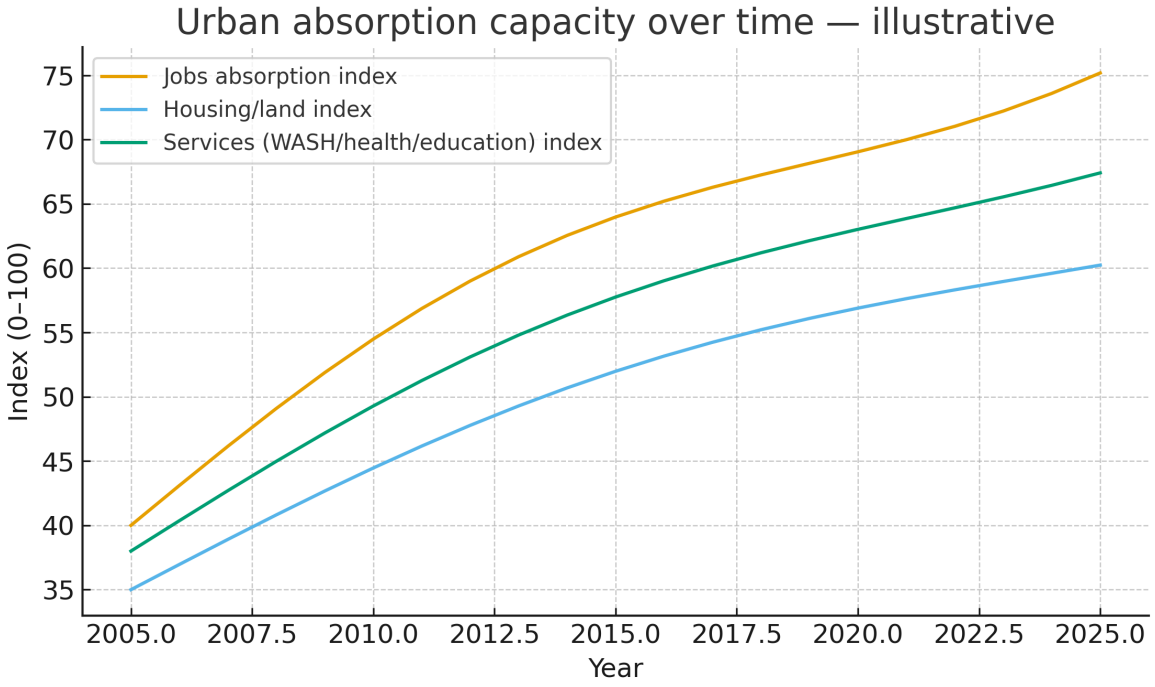


Figure 8.4-5. Top corridors by origin (selected)

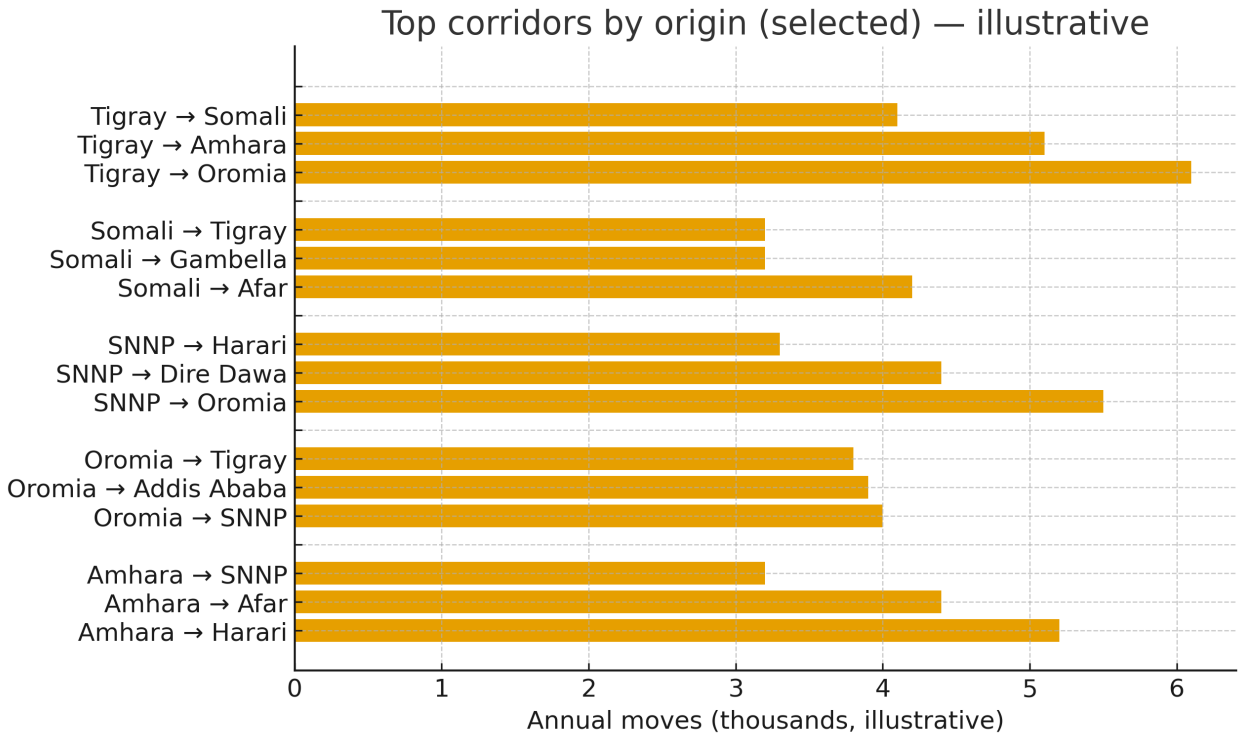


Table 8.4-A. Common reasons for moving by flow type

Flow type	Reason	Share (%)
R→U	Work/looking for work	38
R→U	Education/training	22
R→U	Marriage/family	21
R→U	Displacement/insecurity	11
U→U	Work/looking for work	46
U→U	Housing/upgrade	20
U→U	Marriage/family	18
U→U	Education/training	10
R→R	Marriage/family	34
R→R	Land/livestock	33
R→R	Work seasonal	22
U→R	Return to origin	40

Table 8.4-B. Policy levers for internal migration patterns

Policy lever	Why it matters in Ethiopia
Managed urban expansion	Serviced land, trunk infrastructure, and transport to absorb R→U flows.
Rental & starter housing	Affordable formal options reduce informal settlement growth.
Jobs & skills matching	TVET, SMEs, and placement services for young movers (women & men).
Peri-urban planning	Protect agricultural land; guide growth along transit corridors.
Rural development & connectivity	Local jobs, roads, and digital access reduce distress moves and support U→R returnees.
Data systems	Routine tracking of in/out movers at city level; harmonize definitions across surveys and admin data.

Plain-language summary

Inside Ethiopia, people move in three main ways. First, rural to urban (R→U): young adults leave the countryside for school or work in towns and cities. Second, urban to urban (U→U): people change neighborhoods or cities for jobs, housing, or family reasons. Third, rural to rural (R→R): families move within the countryside—for land, marriage, or seasonal work. These flows peak in the 20s and early 30s. Cities grow because of both natural increase (more births than deaths) and net migration (more arrivals than departures). To do well, rapidly growing cities need serviced land, affordable starter housing, transport, clean water, and health and education services. Good planning benefits everyone—long-time residents and newcomers alike.

References — Section 8.4

- CSA Ethiopia — Census migration tabulations; urbanization statistics.

- DHS/PMA Ethiopia — migration, education, and reasons for moving modules.

- World Bank & UN DESA — urbanization patterns, systems of cities, and corridor analyses.

- IOM — mobility tracking for seasonal and crisis-related movements.

8.5) Seasonal & Circular Mobility (including Pastoralist Systems)

This subsection focuses on Ethiopia’s seasonal and circular movements, especially pastoralist and agro-pastoral systems. We summarize mobility calendars, service access during mobile months, and practical planning tools. Figures are illustrative placeholders.

Figure 8.5-1. Mobility intensity by month and region type

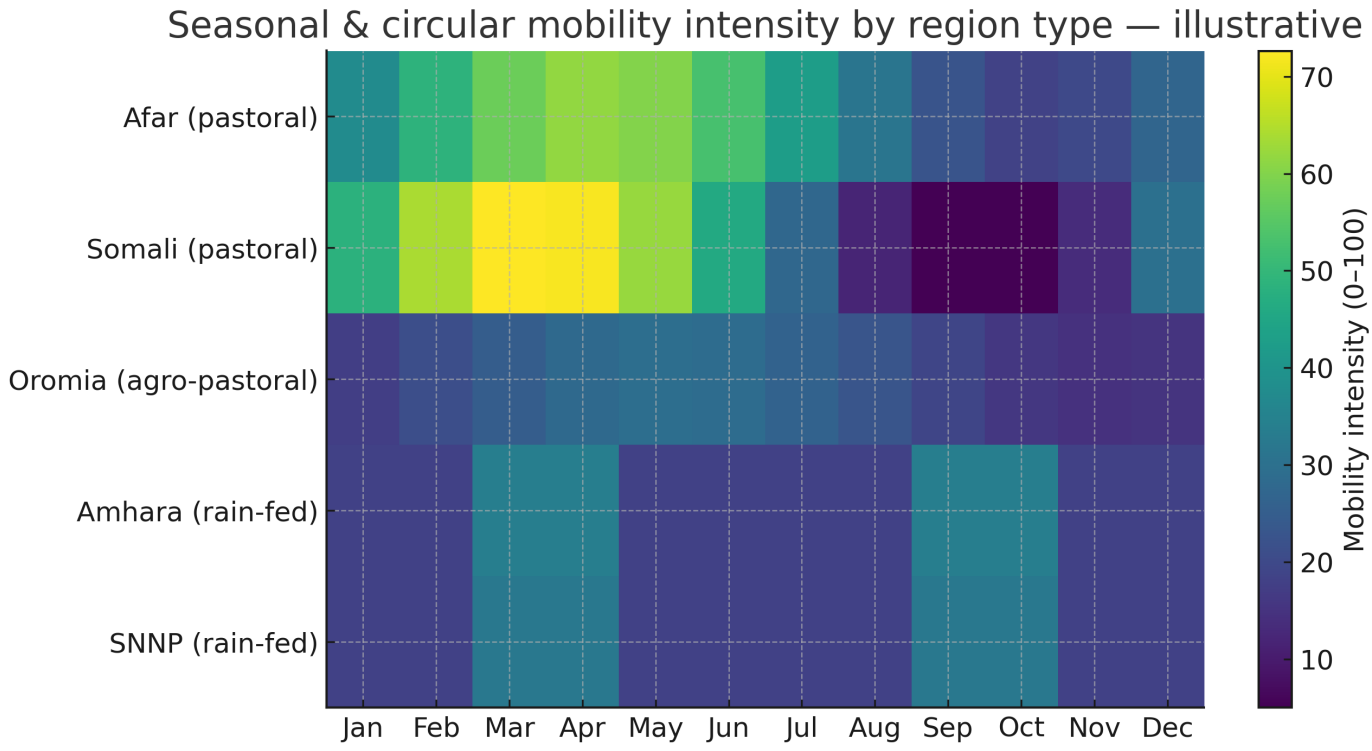


Figure 8.5-2. Service access among mobile households (by region type)

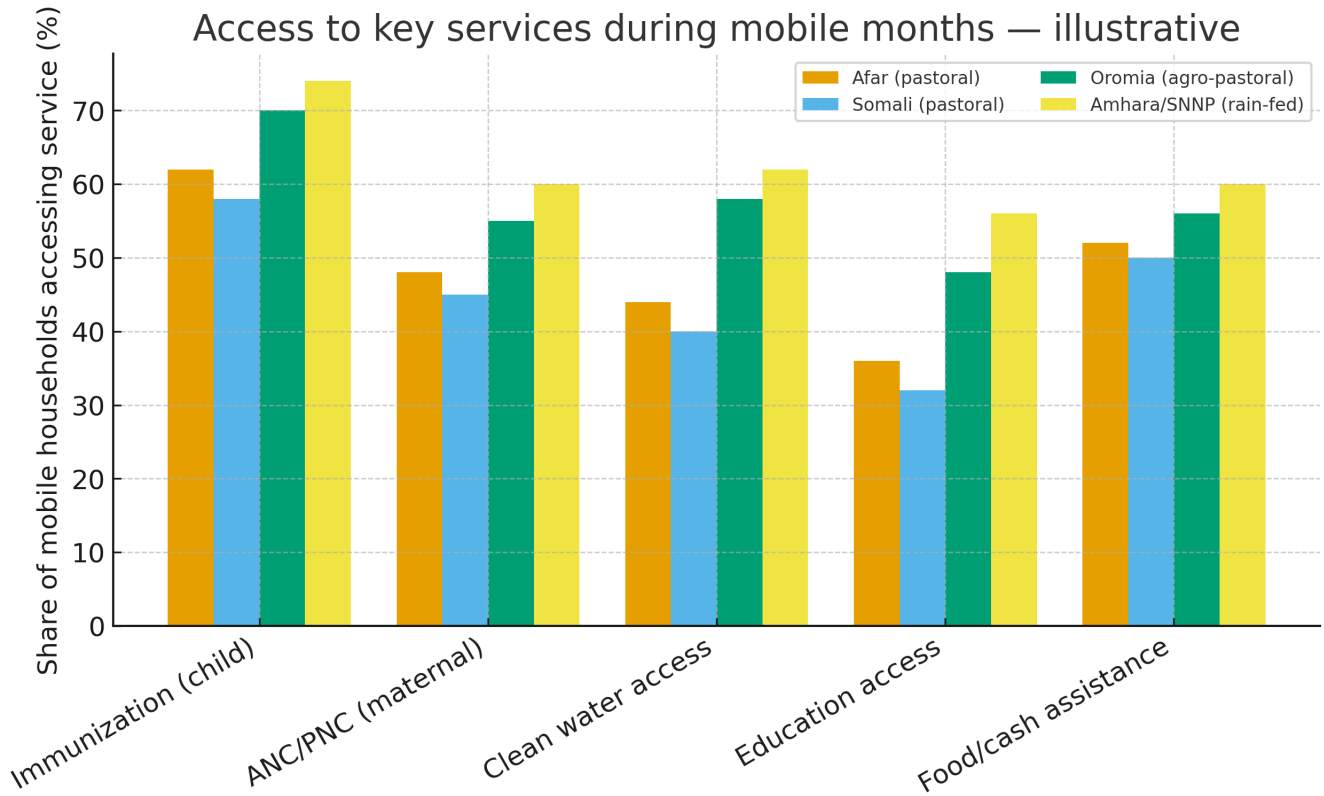
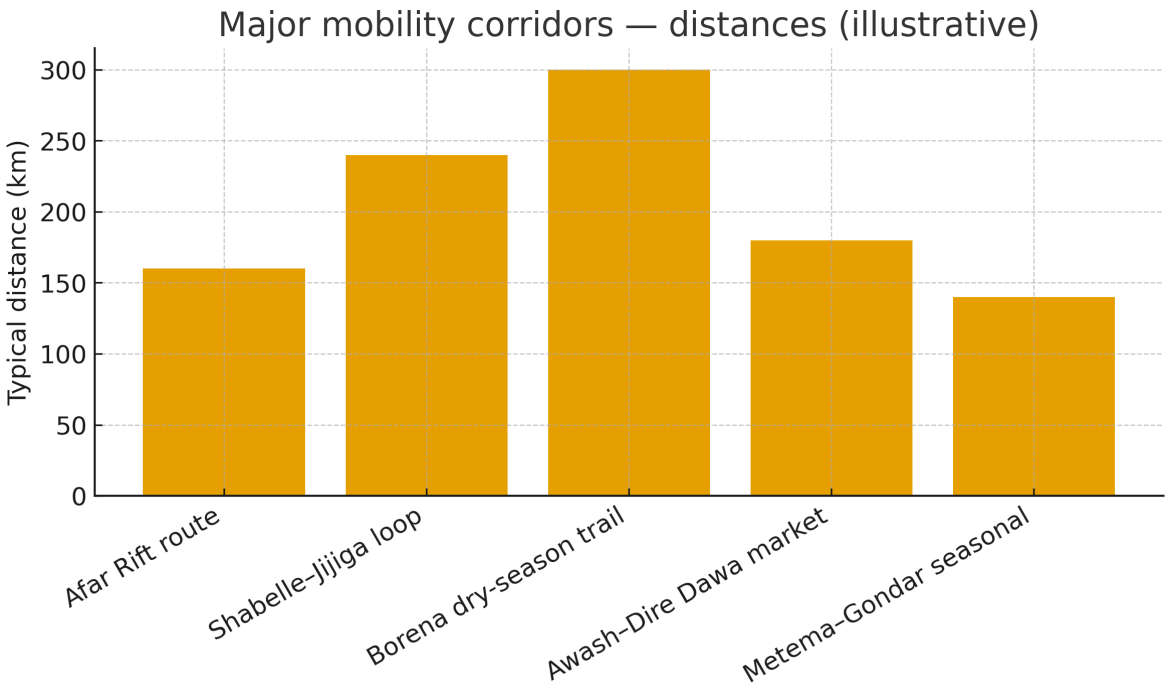


Figure 8.5-3. Major mobility corridors — distance and duration



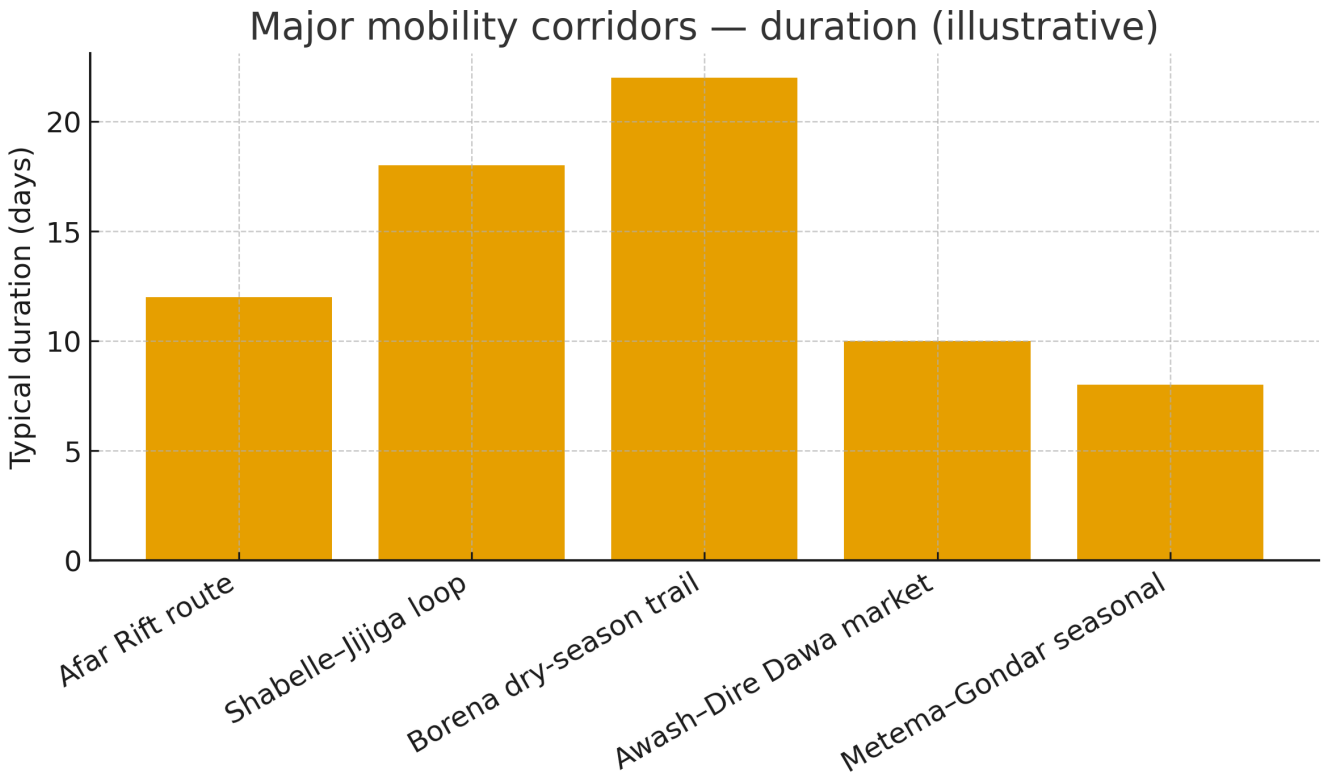


Figure 8.5-4. Monthly risk profile — conflict, drought, animal disease

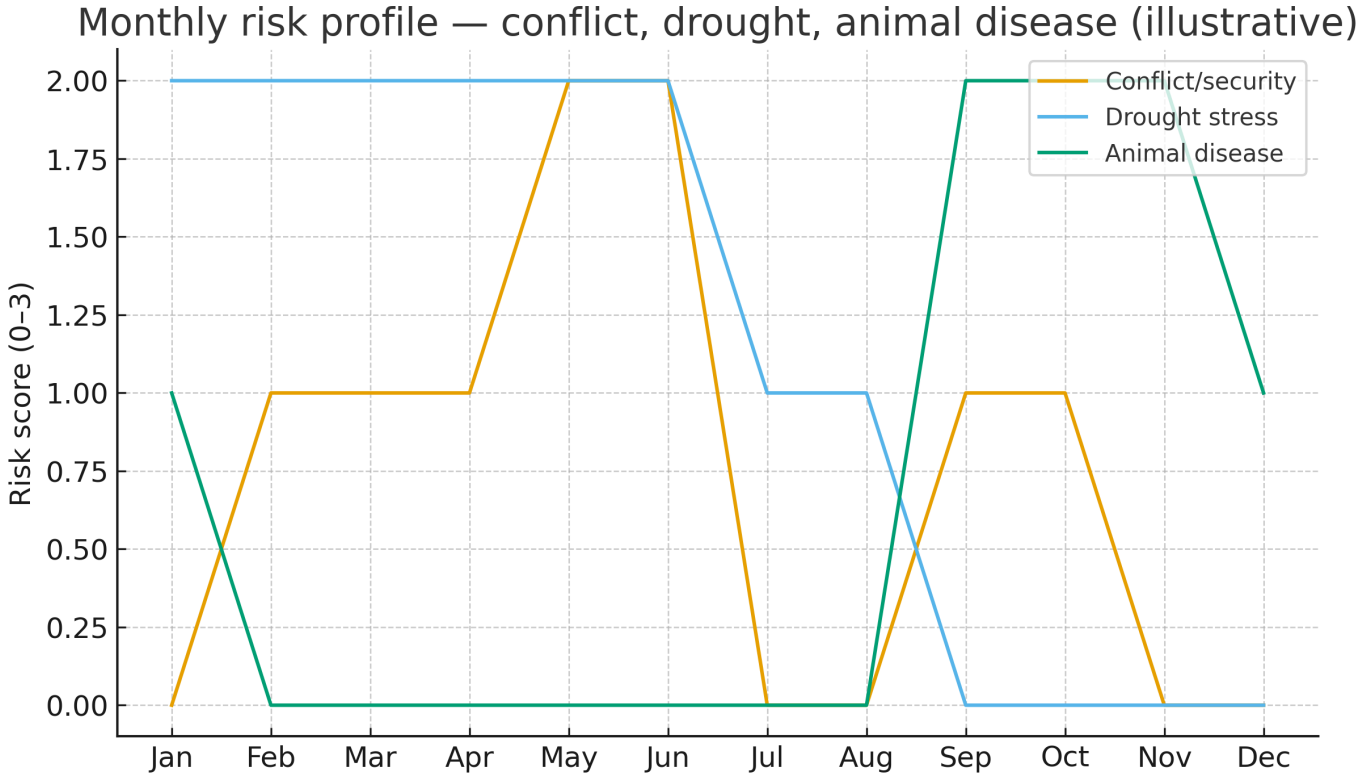


Figure 8.5-5. School attendance among mobile children by month

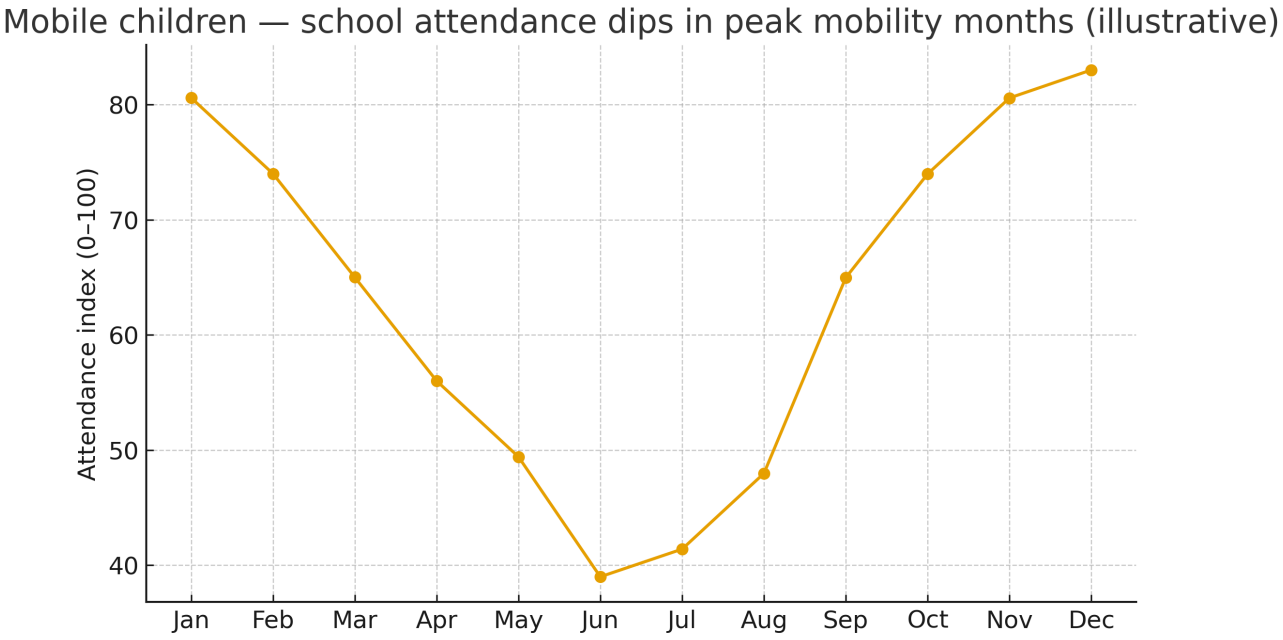


Table 8.5-A. Typology of mobility & planning implications

Mobility type	Typical pattern	Planning implications
Pastoral transhumance	Livestock & household moves following pasture/water; cross-border possible	Mobile services; water points; animal health; flexible ID/records
Agro-pastoral seasonal	Partial household mobility during planting/harvest	Seasonal clinics; childcare & cash-for-work timing
Circular urban work	Temporary moves for construction/markets; shared housing	Migrant help-desks; fair work policies; hostel options
Commuting (weekly/daily)	Return to home base; cross-woreda trips	Transport integration; functional urban areas planning

Table 8.5-B. Service delivery models for mobile populations

Model	Key features for Ethiopia
Mobile health & nutrition teams	Integrated PHC package; regular circuits; referral links; cold-chain solutions
Seasonal outreach posts	Temporary posts at water points/markets during peak months
School-on-wheels/ALP	Alternative learning programs aligned to mobility calendar
Digital ID/health records	Continuity of care across locations; protect privacy
Cash/food distribution redesign	Pre-positioning; flexible transfers timed to mobility
Animal health services	Vet outreach; One-Health links to human health

Table 8.5-C. Measurement toolkit & indicators

Tool	Indicator / use
Short-recall modules	Past 12-month moves; destinations; with calendar prompts
GPS traces / geofenced surveys	Optional, consent-based; analyze seasonal routes
Market/water-point sentinel counts	Track peaks in mobility and service access
DTM site flow data	Crisis-sensitive flows; triangulate with local admin data
School attendance by month	Term-time vs mobility dips; ALP coverage
Service coverage (mobile months)	Immunization, ANC/PNC, WASH access among mobile households

Table 8.5-D. Policy & program checklist

Priority	What to implement
Pastoralist-sensitive planning	Recognize mobility as normal; protect corridors and rangelands
Flexible service calendars	Align outreach with mobility peaks; hire mobile workers from communities
Cross-border coordination	Synchronize vet/health services across borders
Inclusive identification	Portable IDs and records; avoid service denial to mobile families
Gender & protection measures	Safe access for women/girls; GBV response in mobile sites
Data & accountability	Publish seasonal dashboards; community feedback loops

Plain-language summary

Many Ethiopian families move with the seasons. Pastoralists follow pasture and water; farm families move for planting and harvest; some people travel to towns for temporary work and return home later. Mobility is normal and often smart—it helps families manage risk. But moving can make it harder to get vaccines, antenatal care, school, and clean water if services are fixed in one place. Solutions include mobile clinics, flexible school programs, portable IDs and health records, and planning that protects rangelands and routes. By matching services to the mobility calendar—and coordinating across borders—authorities can keep people healthy and learning while they move.

References — Section 8.5

- CSA Ethiopia — Pastoralist/agro-pastoral livelihoods statistics; census/survey special modules.

- IOM DTM — Mobility tracking reports and seasonal flow monitoring.

- FMoH & MoE — Mobile/outreach service guidelines; Alternative Learning Programs (ALP).

- FAO & IGAD — Pastoral mobility, rangeland management, and cross-border coordination.

- UNICEF/WHO — Reaching mobile and hard-to-reach populations (immunization, MNCH).

8.6) International Migration & Diaspora

This subsection summarizes Ethiopia’s international migration patterns, diaspora links, remittances, and policy options, framed against standard international concepts. Figures and numbers are illustrative placeholders to be replaced with official statistics.

Figure 8.6-1. Destination regions for Ethiopian migrants

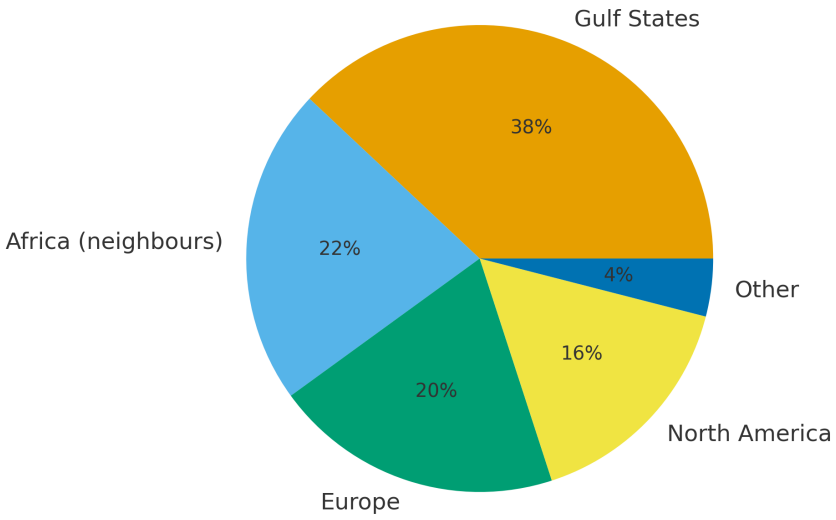


Figure 8.6-2. Remittances to Ethiopia, 2010–2025 (illustrative)

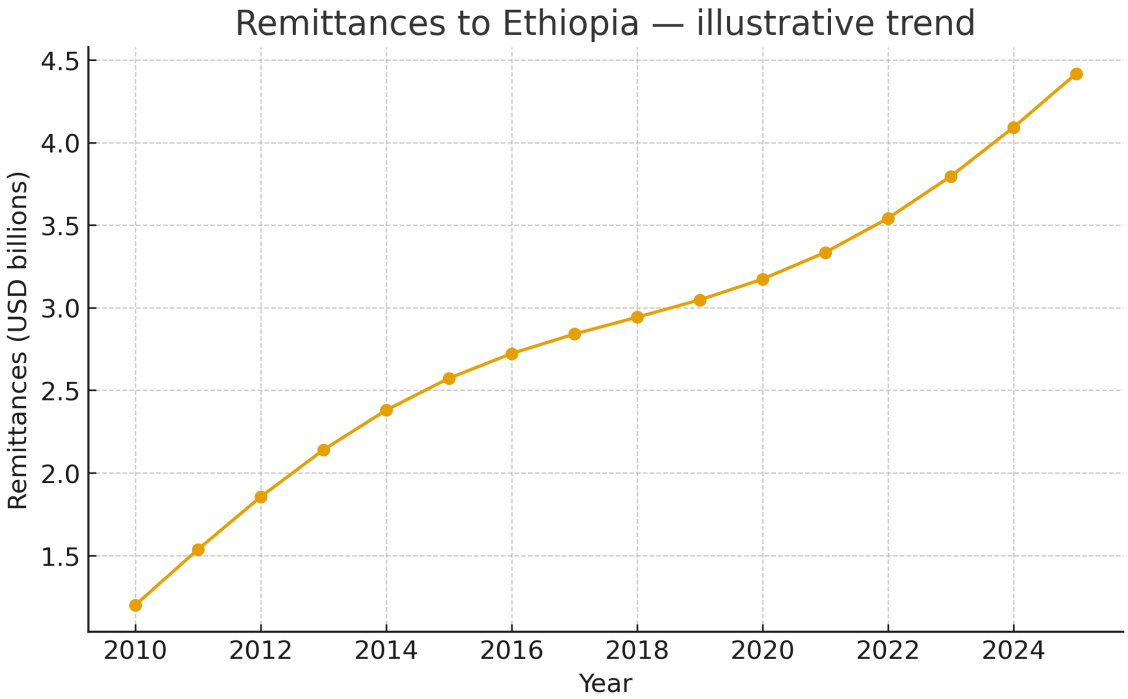


Figure 8.6-3. Cost of sending remittances by corridor

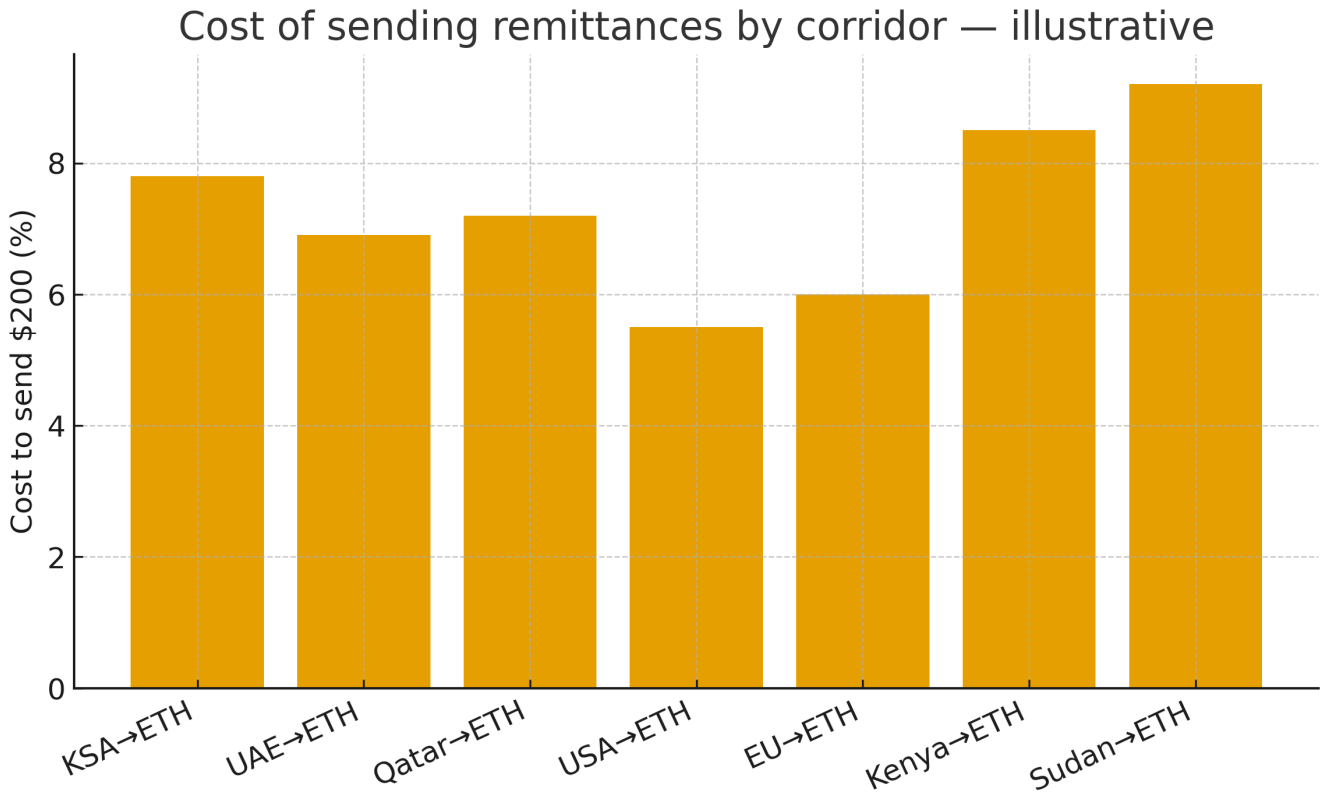


Figure 8.6-4. Skill composition by destination (stacked)

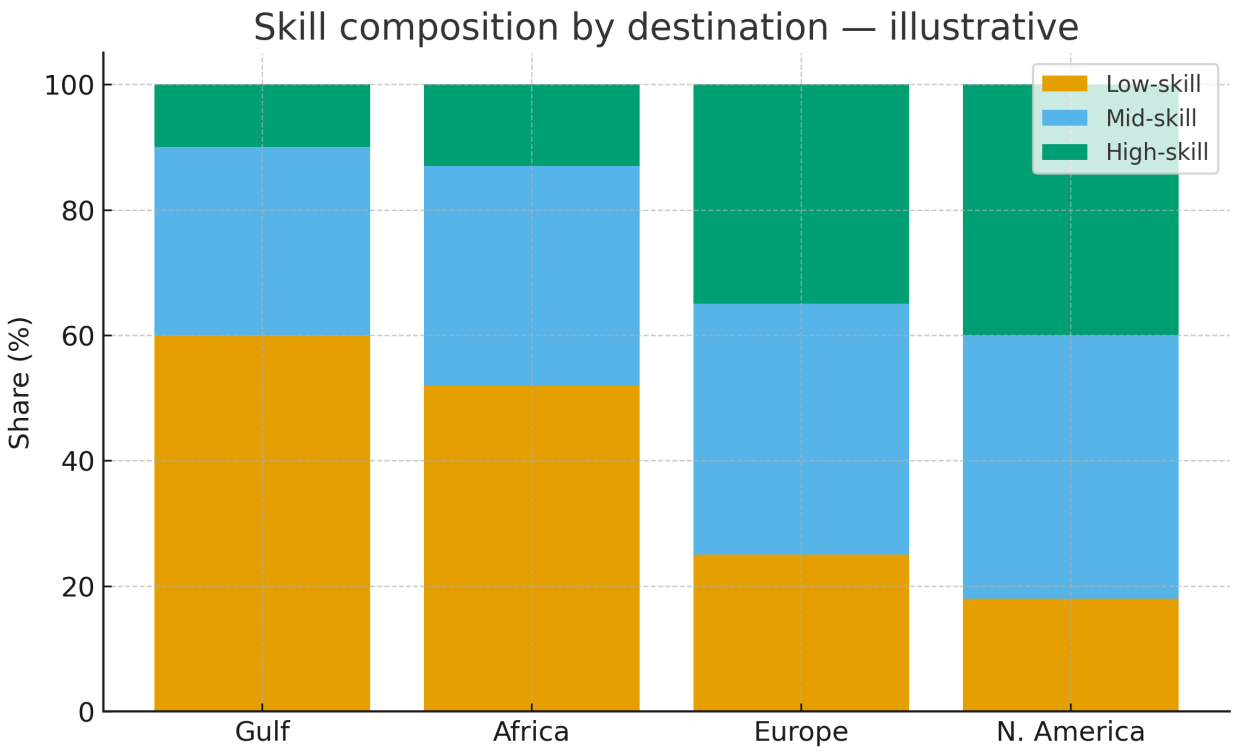


Figure 8.6-5. Gender composition by destination

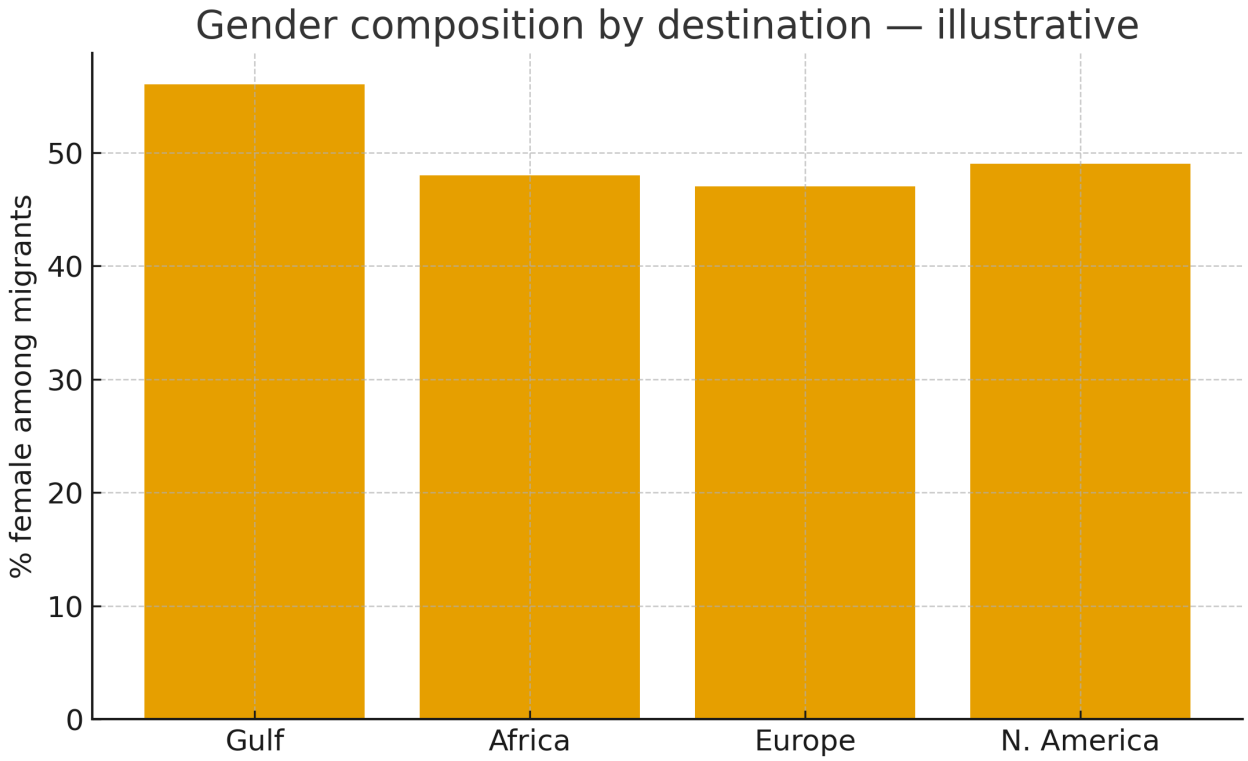


Figure 8.6-6. Returnee employment within 12 months

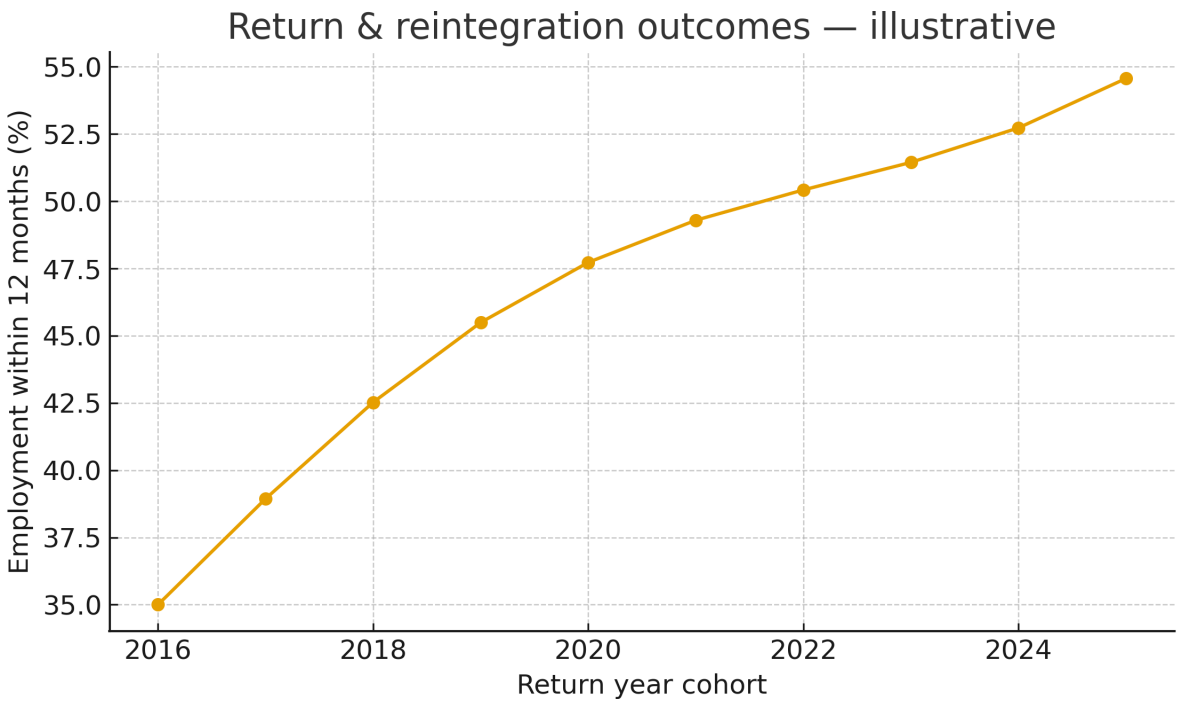


Figure 8.6-7. Diaspora engagement instruments (counts)

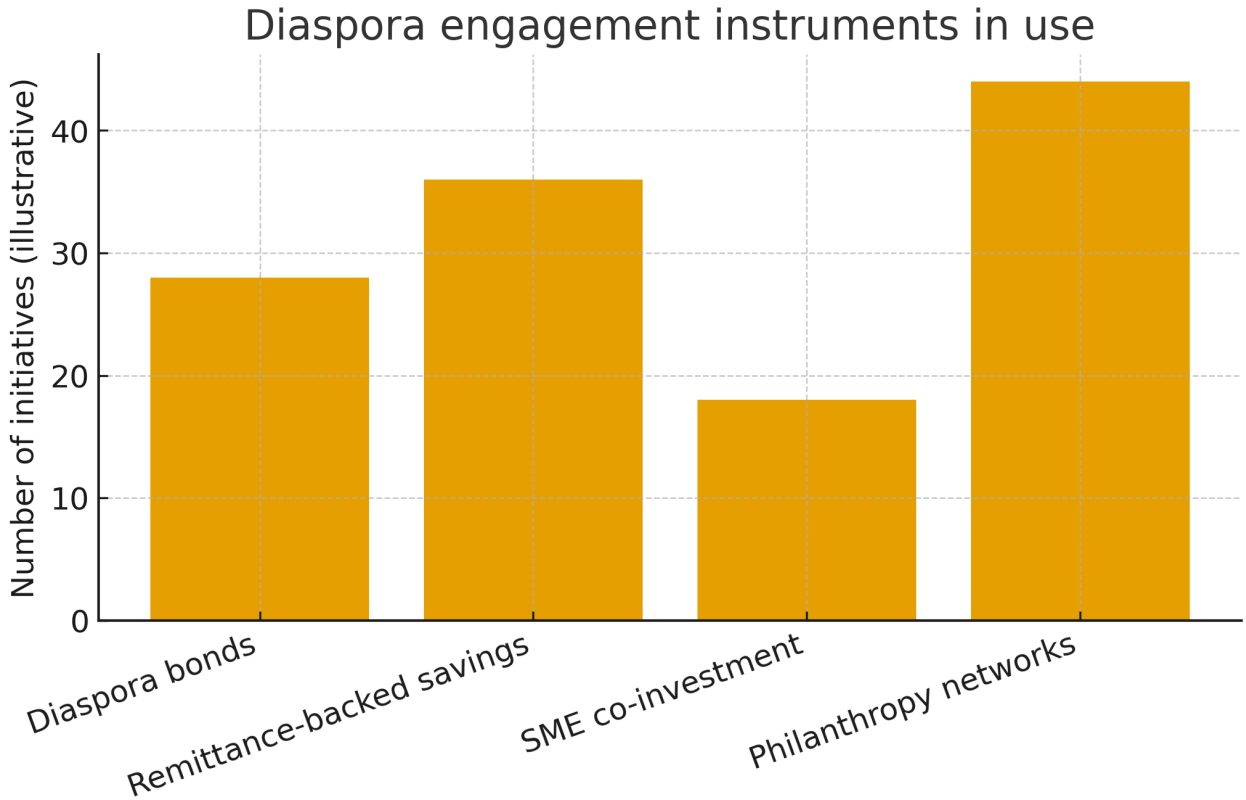


Table 8.6-A. Legal and administrative categories

Category	Plain-language definition
Regular migrant	Entered and resides under the law (visa/permit).
Irregular migrant	Entered or works without required authorization; needs protection from abuse.
Refugee/asylum seeker	Protection due to well-founded fear of persecution or conflict.
Temporary labour migrant	Fixed-term contract abroad; often tied to employer/sponsor.
Student migrant	Residence linked to study; may transition to work.
Family reunification	Joining a family member with legal residence abroad.

Table 8.6-B. Corridors, occupations, and risk profile

Corridor	Typical occupations	Common risks/constraints
Gulf (KSA/UAE/Qatar)	Domestic work, construction, services	Contract dependence; passport retention; heat stress; injury
Europe	Care work, hospitality, logistics, skilled trades	Recognition of qualifications; housing costs
North America	Care, services, IT/engineering for highly skilled	Credential transfer; job matching
Regional Africa	Trade, transport, services; some agriculture	Border admin; documentation; market volatility

Table 8.6-C. Household uses of remittances

Use	Share of remittance (%)
Food & essentials	34
Housing & utilities	18
Education & health	22
Business & farm investment	16
Savings & debt service	10

Table 8.6-D. Policy & program options for Ethiopia

Policy lever	What to implement
Fair recruitment & pre-departure	Bilateral agreements; standard contracts; pre-departure training & rights awareness.
Protection & grievance channels	Hotlines, shelters, legal aid via consulates and NGOs.
Reduce remittance costs	Competition, digital transfers, ID/KYC inclusion; financial literacy.
Diaspora finance & investment	Diaspora bonds, MSME co-investment, mortgage schemes.
Skills & recognition	TVET alignment; credential recognition; reintegration grants.
Data systems	Embassy registries, exit/entry admin data, labour attaché reporting; privacy safeguards.

Table 8.6-E. Measurement & sources

Source	What it contributes
Admin border/permit data	Flows by corridor, legal channel, and sex/age.
Consular registries	Stocks abroad; cases; assistance needs.
Household/special surveys	Remittances, use, intentions to migrate/return; costs.
KNOMAD/World Bank data	Global remittance volumes & prices; corridor costs.
UN DESA migrant stock	International comparators for diaspora size & composition.
IOM & UNHCR portals	Flows of returnees, refugees/asylum seekers; protection needs.

Plain-language summary

Many Ethiopians live and work abroad. Common destinations include Gulf countries, neighbouring African states, Europe, and North America. People move for jobs, education, and family reasons. Money sent home—remittances—helps families pay for food, rent, school, health care, and small businesses. Costs to send money are still high on some corridors. Fair recruitment, protection while abroad, and easier, cheaper money transfers can make migration safer and more useful. Ethiopia can also benefit from diaspora knowledge and investment—through bonds, co-investment funds, and support for returning workers. Good data from embassies, surveys, and international sources help target services and policies.

References — Section 8.6

- UN DESA — International Migrant Stock database (definitions, trends).

- World Bank KNOMAD — Remittance prices worldwide; remittance inflow series.

- IOM — Ethiopia migration profiles & return/reintegration reports.

- ILO — Fair recruitment guidelines and bilateral agreement templates.

- UNHCR — Refugee and asylum statistics and protection standards.

8.7) Remittances & Development Linkages

This subsection links international remittances to household welfare, financial inclusion, local investment, and macro stability. Figures are illustrative placeholders; replace with official KNOMAD/World Bank and national data for publication.

Figure 8.7-1. Remittances & financial inclusion proxies over time

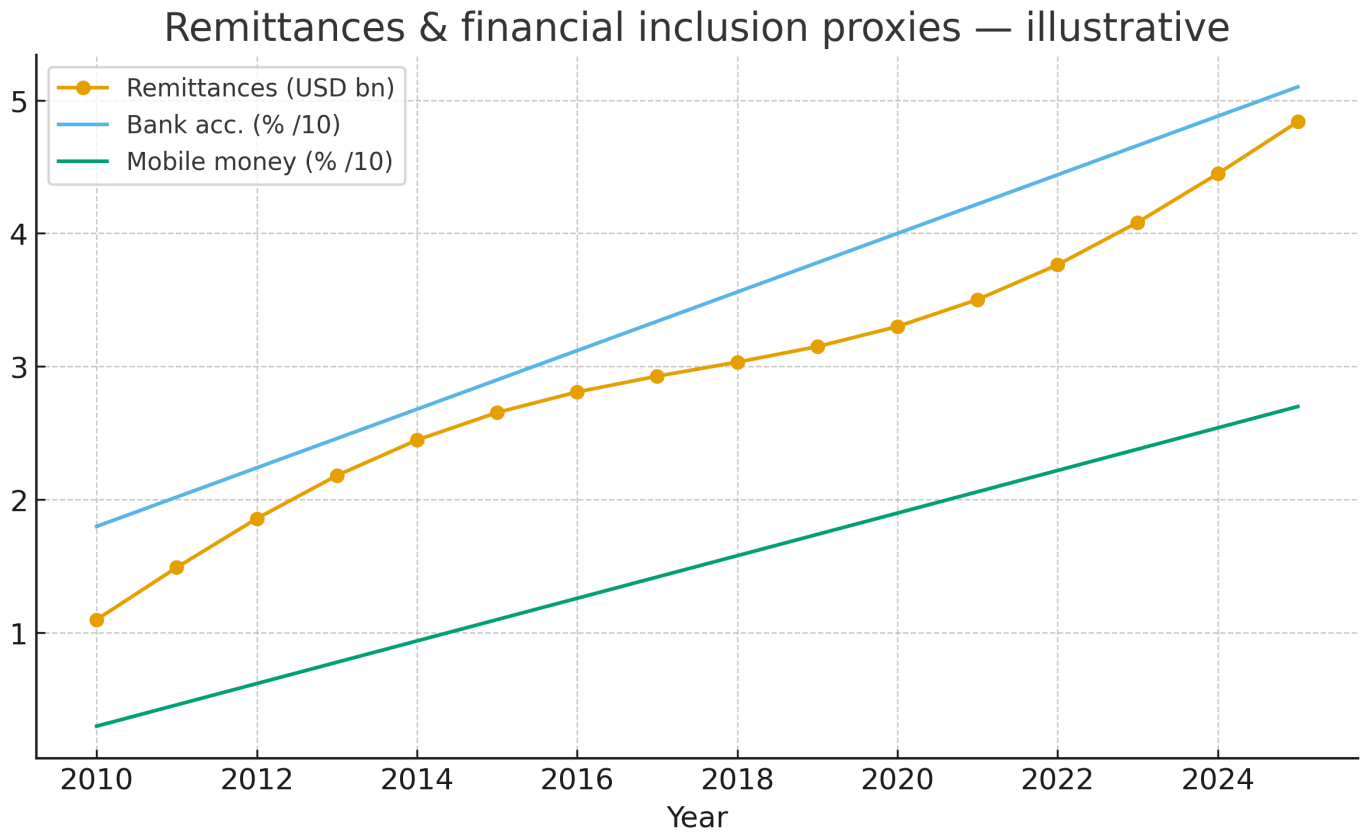


Figure 8.7-2. Average cost to send $200 (downward trend target)

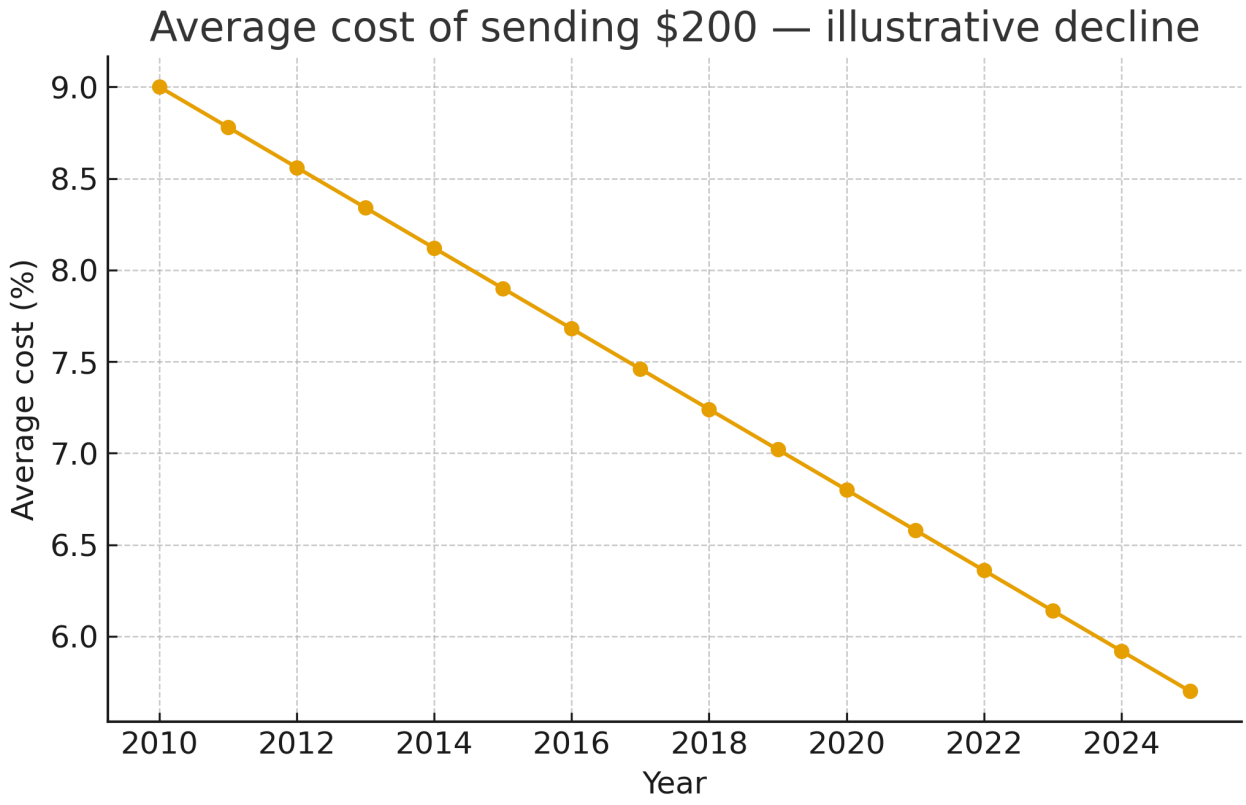


Figure 8.7-3. Corridor costs — where to focus reduction efforts

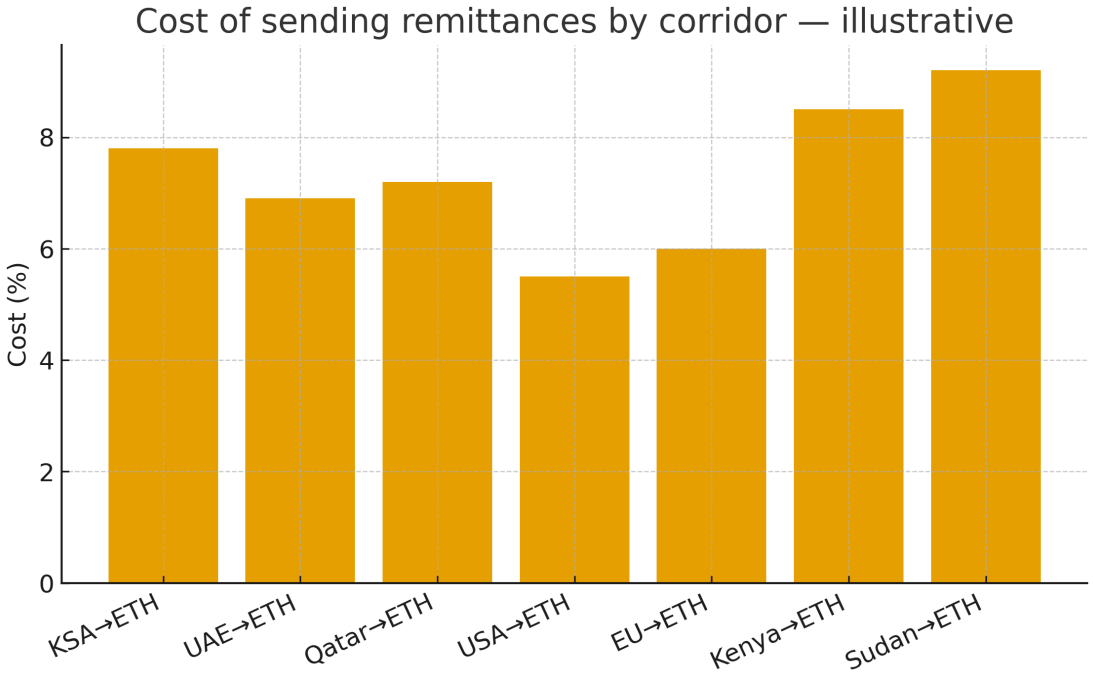


Figure 8.7-4. Household uses of remittances

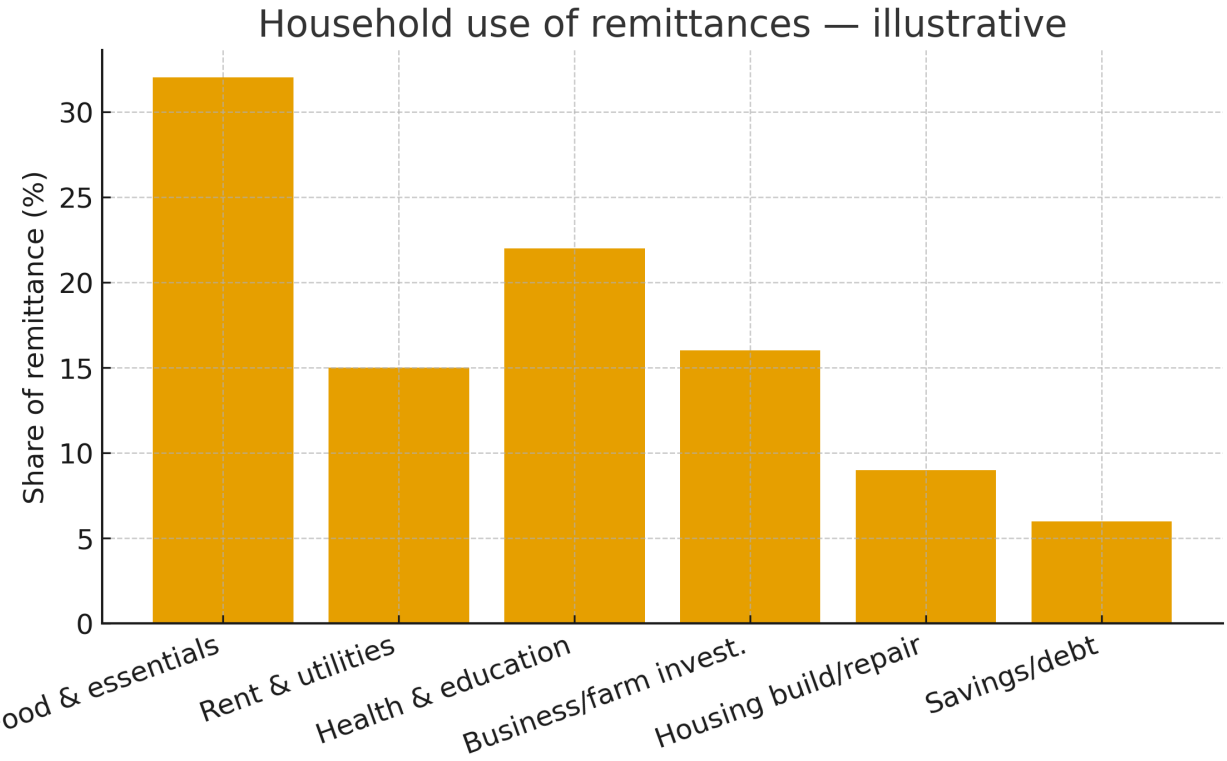


Figure 8.7-5. Households receiving remittances by region

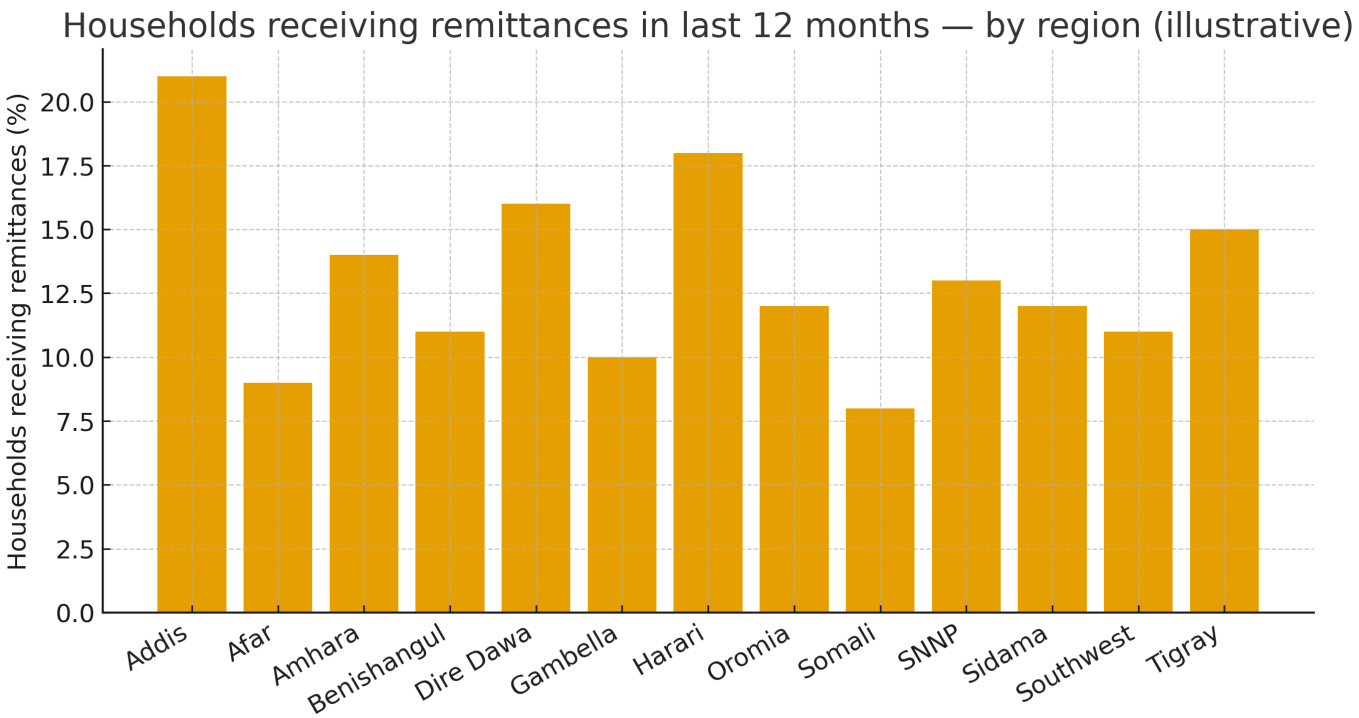


Figure 8.7-6. Volatility: remittances vs exchange rate

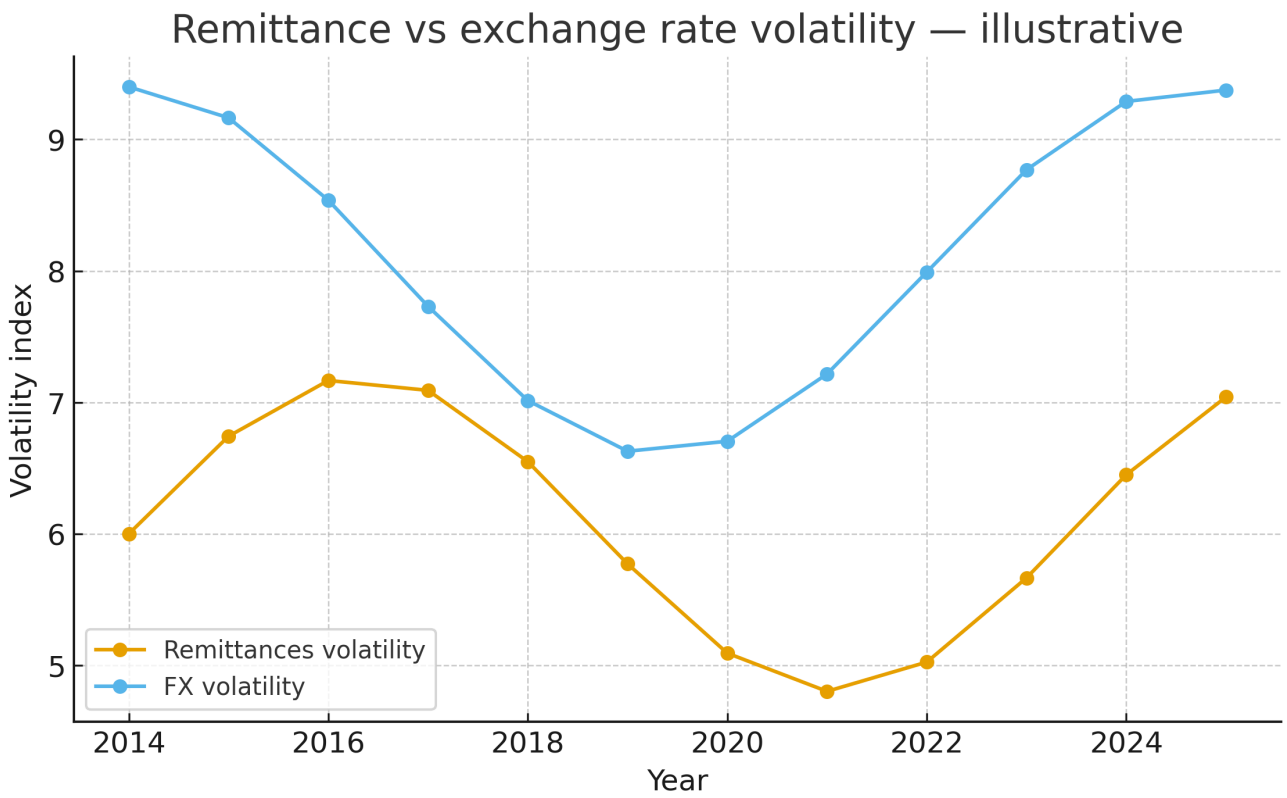


Figure 8.7-7. Local multiplier illustration

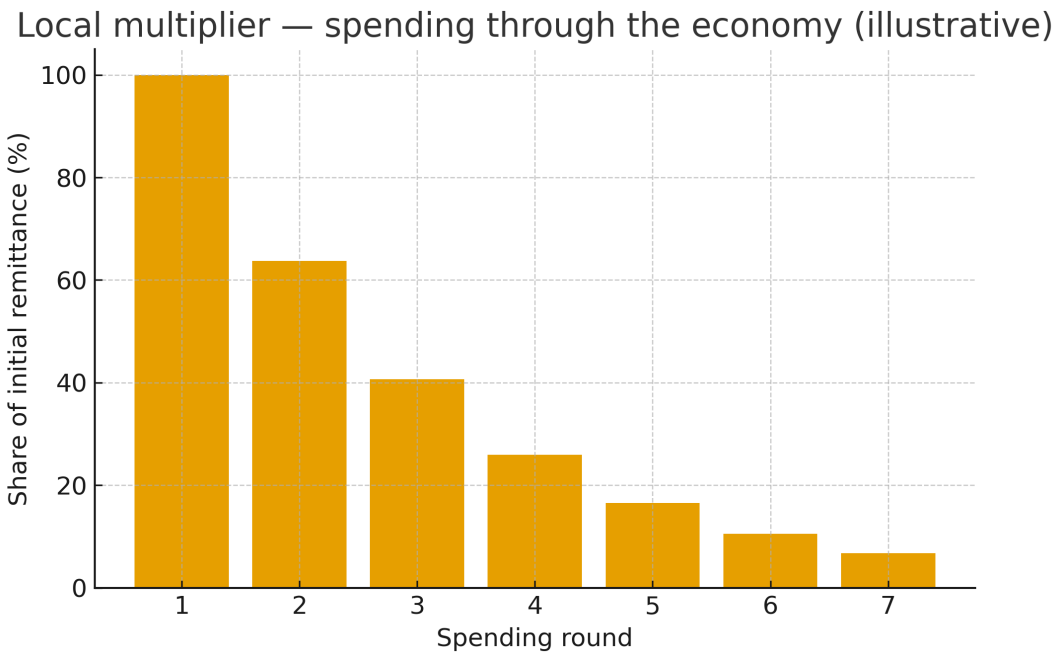


Figure 8.7-8. Diaspora engagement instruments

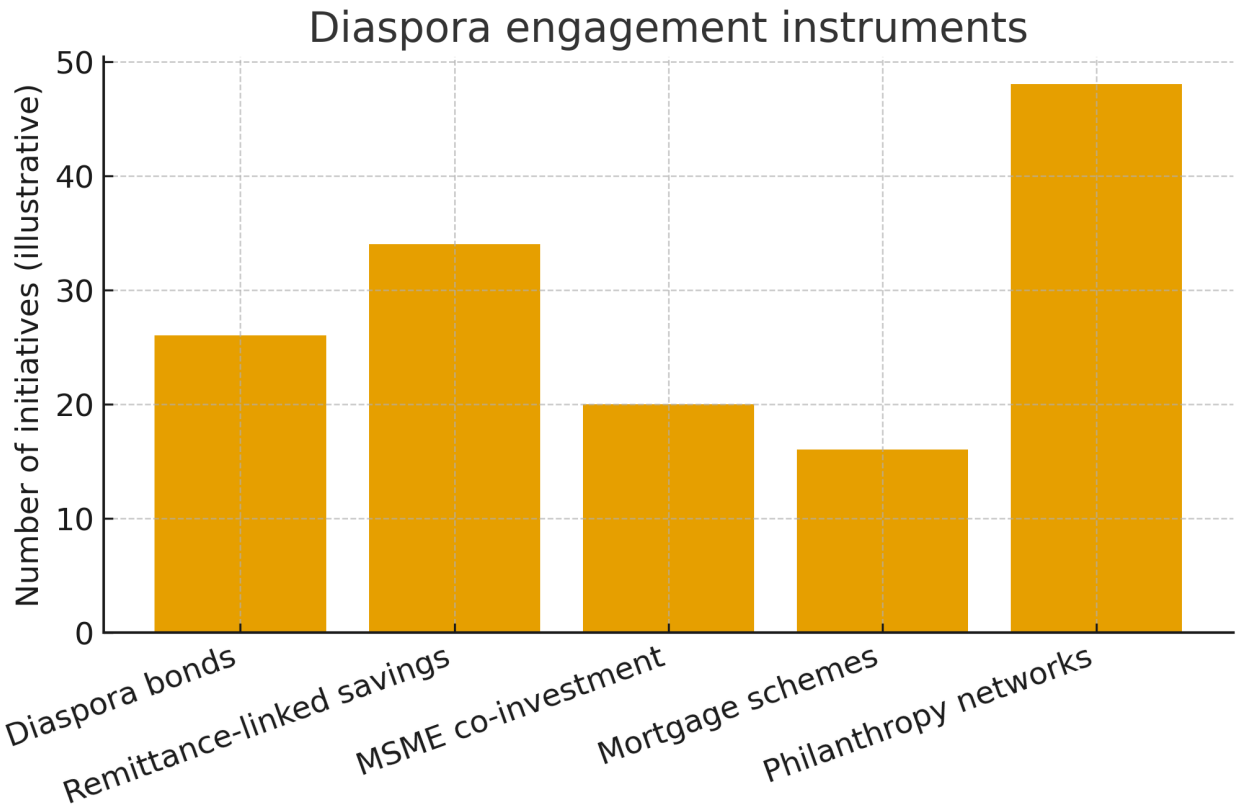


Table 8.7-A. Channels & characteristics

Channel	Key characteristics for Ethiopia
Banks & MTOs	Formal, regulated; can be slower in rural areas; compliance burdens increase cost.
Mobile money operators	Fast, convenient; requires agent networks and KYC solutions.
Informal/Hawala	Low cost, fast; limited oversight; not captured in official data.
Fintech platforms	Digital-first; competitive pricing; interoperability matters.

Table 8.7-B. Policy levers to reduce costs

Policy lever	Actions
Competition & licensing	Allow new providers; interoperability; regional switches.
KYC/ID inclusion	Digital ID; simplified due diligence for low-risk transfers.
FX market access	Transparent, predictable access for licensed providers.
Tax & fee review	Remove nuisance charges; publish total cost ‘scorecards’.
Financial literacy	Help senders/receivers compare providers; avoid fraud.

Table 8.7-C. Household welfare & investment linkages

Outcome channel	Common effects in Ethiopia/peers
Food security & health	Smoother consumption, better nutrition, protection during shocks.
Education	Higher school attendance, especially for girls.
Enterprise & farms	Capital for shops, inputs, and diversification.
Housing & utilities	Upgrades, connections, and repairs; local jobs created.
Savings & credit	Bank/mobile accounts; credit histories; insurance uptake.

‘

Table 8.7-D. Measurement & indicators

Source	Key indicators
Household surveys (DHS/LFS/SILC)	Receipt in last 12 months; amounts; uses; sender relation.
Financial inclusion surveys	Account ownership; mobile money; remittance use; costs.
KNOMAD/World Bank	Corridor cost trackers; inflow/outflow aggregates.
Banking & MTO admin data	Volumes by channel and corridor; fees.
Fintech logs (aggregated)	Digital flows, speed, failure rates; privacy-preserving stats.

Table 8.7-E. Program options for Ethiopia

Program	Design notes
Digital corridors to secondary cities	Expand agent networks; last-mile cash-out; consumer protection.
Remittance-linked savings/credit	Automatic split to savings; micro-mortgages; MSME credit.
Risk-sharing & guarantees	Lower-cost credit lines for remittance-backed MSMEs.
Diaspora co-investment platforms	Match diaspora funds with vetted local projects.
Shock-responsive transfers	Leverage remittance rails for emergency top-ups during droughts.

Plain-language summary

When Ethiopians abroad send money home, families can buy food, pay rent, cover school fees, and invest in small businesses. Cheaper and safer money transfers mean more of each dollar reaches families. Over time, remittances help people open bank or mobile money accounts, which makes saving and borrowing easier. Communities benefit too: the money is spent many times locally, creating jobs. To get the most out of remittances, Ethiopia can promote fair, low-cost digital transfers, help families save and invest part of the money, and connect diaspora resources to small business finance and affordable housing. Good data—from surveys, banks, and international trackers—show where costs are high and which regions depend most on remittances, so programs can be targeted fairly.

References — Section 8.7

- World Bank KNOMAD — Remittance inflows and Remittance Prices Worldwide.

- UN DESA — International migrant stock and trends.

- National Bank of Ethiopia — remittance channels, FX and payments system reports.

- Financial inclusion surveys (Global Findex / national) — accounts, mobile money, remittance use.

- Impact literature (Adams & Cuecuecha; Clemens & McKenzie) — welfare and investment effects of remittances.

8.8) Displacement & Returns (IDPs, Refugees, Returnees)

This subsection summarizes Ethiopia’s displacement landscape with a focus on internally displaced persons (IDPs), refugees, and returnees. Figures are illustrative placeholders; replace with IOM DTM/UNHCR official statistics for publication.

Figure 8.8-1. Displacement stocks over time

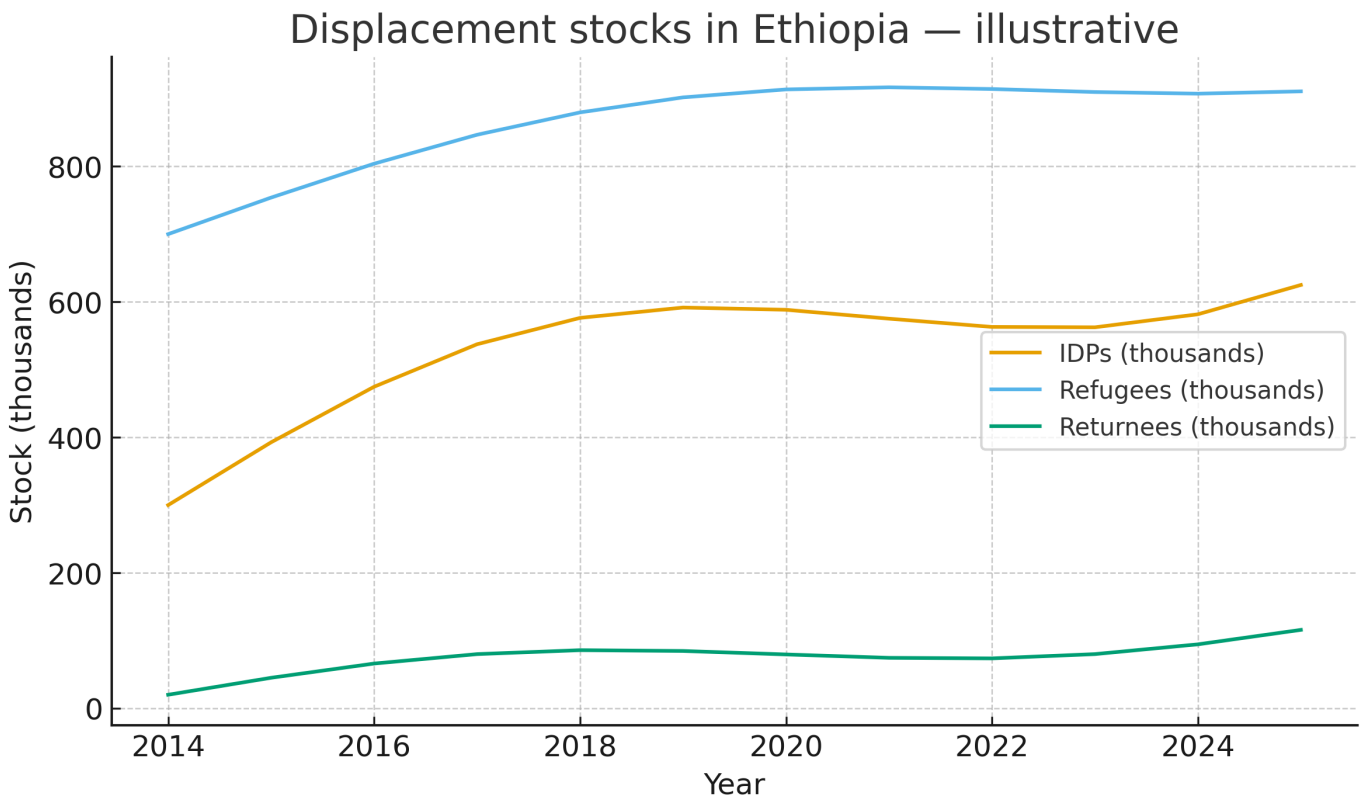


Figure 8.8-2. Annual flows: new movements, returns, and arrivals

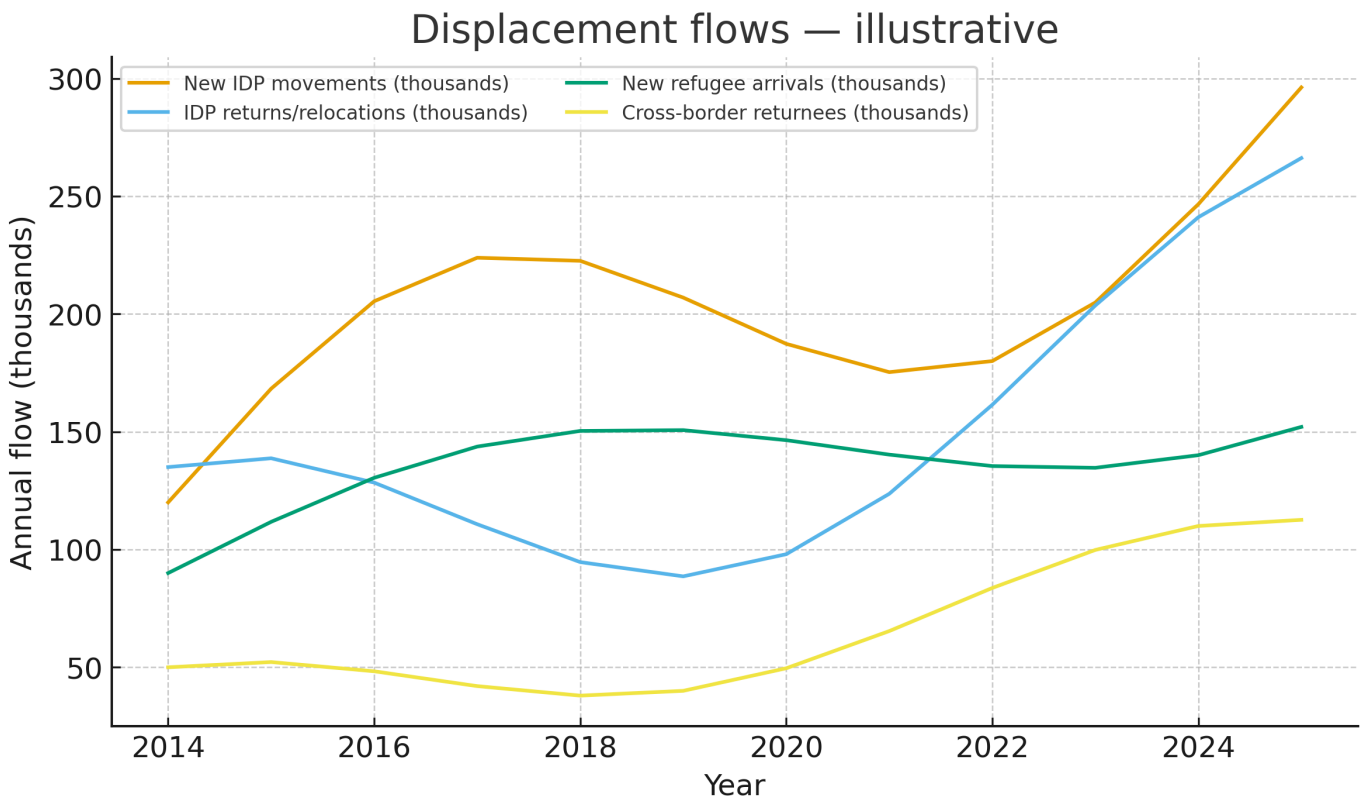


Figure 8.8-3. Regional distribution of displaced populations

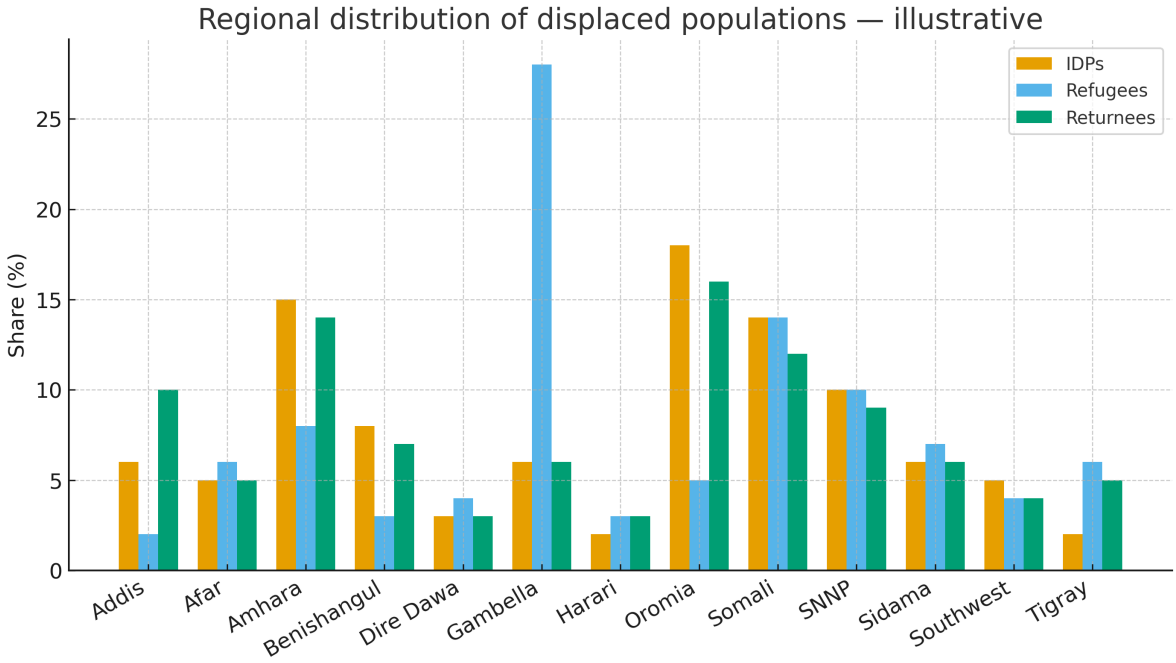


Figure 8.8-4. Essential service coverage in IDP vs refugee sites

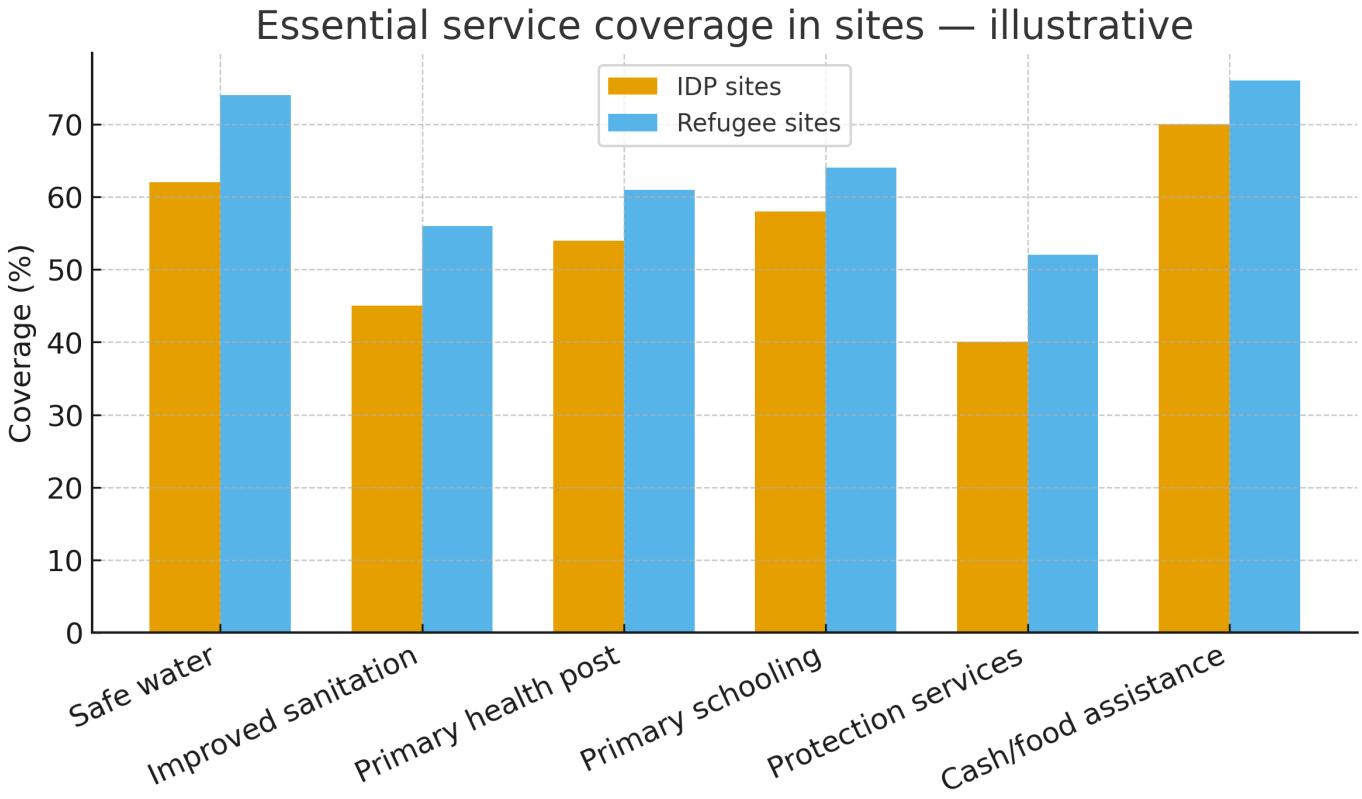


Figure 8.8-5. Progress toward durable solutions across criteria

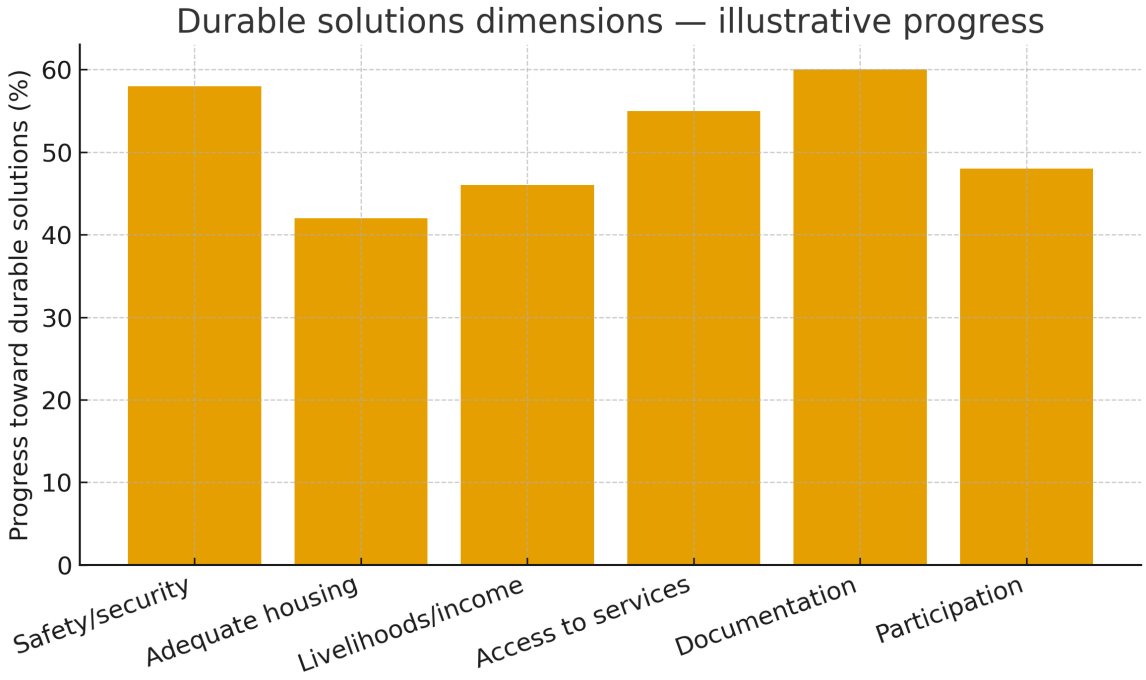


Figure 8.8-6. Protection incidents by site type

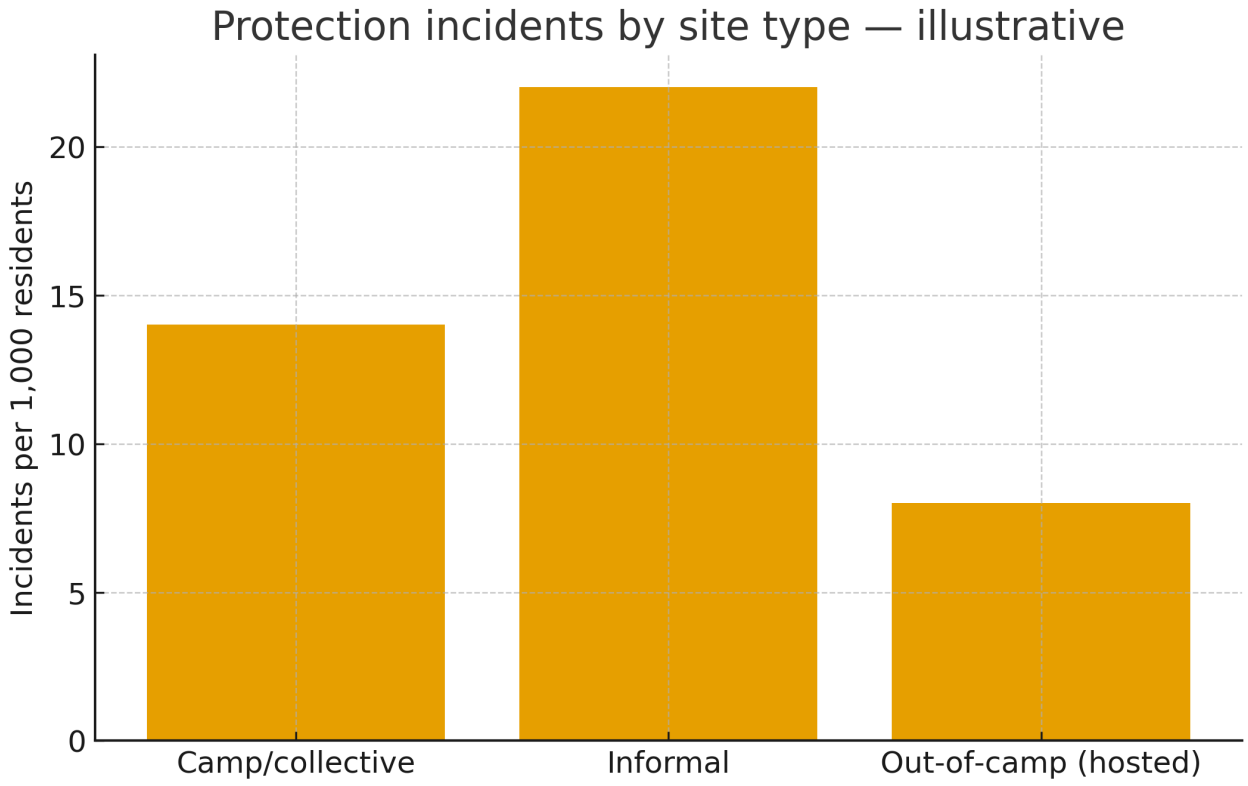


Table 8.8-A. Definitions

Term	Plain-language definition
IDP (Internally Displaced Person)	Forced to flee home but stays within Ethiopia’s borders.
Refugee	Crosses an international border seeking protection from conflict/persecution.
Returnee	Person returning to origin country or area after displacement abroad or within country.
Durable solutions	Voluntary return, local integration, or resettlement (refugees); safe return/reintegration for IDPs.
Protracted displacement	People displaced for an extended time without a durable solution.

Table 8.8-B. Data sources

Source	What it contributes
IOM DTM Ethiopia	Site and village assessments; flow monitoring; IDP/returnee stocks and movements; multisector indicators.
UNHCR Operational Data	Refugee/asylum seeker registration, demographics, locations, assistance coverage.
CSA surveys & census	Household displacement modules, reasons for move, living conditions.
Admin records (ARRA, RRS, FMoH, MoE)	Service access, health/education use, documentation.
Humanitarian cluster 4W	Who-does-what-where; program coverage for triangulation.

Table 8.8-C. Core monitoring indicators

Domain	Example indicators
Stocks & flows	Total IDPs/refugees/returnees; new movements; returns; relocations; local integration.
Protection	Incidents per 1,000; GBV response; legal documentation; birth registration coverage.
Services & living conditions	Water/sanitation, shelter adequacy, health & education access; market access.
Self-reliance & livelihoods	Employment rate; income sources; business grants; cash-assistance graduation.
Intention & solutions	% intending to return/integrate; barriers; achieved durable solution status.

Table 8.8-D. Program options & principles

Program/Principle	What to implement in Ethiopia
Area-based approaches	Invest in services for hosts and displaced together; avoid parallel systems.
Social protection links	Shock-responsive safety nets; registry links; portable benefits.
Jobs & enterprise	Permits, training, and finance for self-reliance; include host SMEs.
Site upgrading & decongestion	Minimum standards; safe water/sanitation; planned relocations only when voluntary/safe.
Data & accountability	Open dashboards; protection of personal data; community feedback channels.

Plain-language summary

Displacement happens when people must leave home because of conflict, violence, disasters, or other threats. In Ethiopia, there are IDPs who move inside the country, refugees who cross borders into Ethiopia, and people who return home after a crisis. The goal is not just to provide emergency help but to reach ‘durable solutions’—safe housing, jobs or incomes, access to services, and legal documents so families can rebuild. Good data from IOM’s DTM, UNHCR, and national systems show where needs are greatest. Programs work best when they support both displaced people and host communities—upgrading water, sanitation, health posts, and schools; linking to social protection; and creating fair opportunities for work and small businesses.

References — Section 8.8

- IOM Displacement Tracking Matrix (DTM) — Ethiopia: site and flow monitoring reports.

- UNHCR Operational Data Portal — Ethiopia: refugee statistics and protection updates.

- IDMC — Internal displacement data and analytical reports for Ethiopia.

- OCHA & Cluster coordination — humanitarian response plans and 4W datasets.

- World Bank & UN — Durable solutions framework and area-based approaches.

8.9) Urbanization Trends & Patterns

This subsection charts Ethiopia’s urbanization level, city-size distribution, primacy vs polycentricity, trends in secondary cities, and the relationship between built-up expansion, density, and informal housing. Figures are illustrative placeholders.

Figure 8.9-1. Urbanization level (% urban) over time

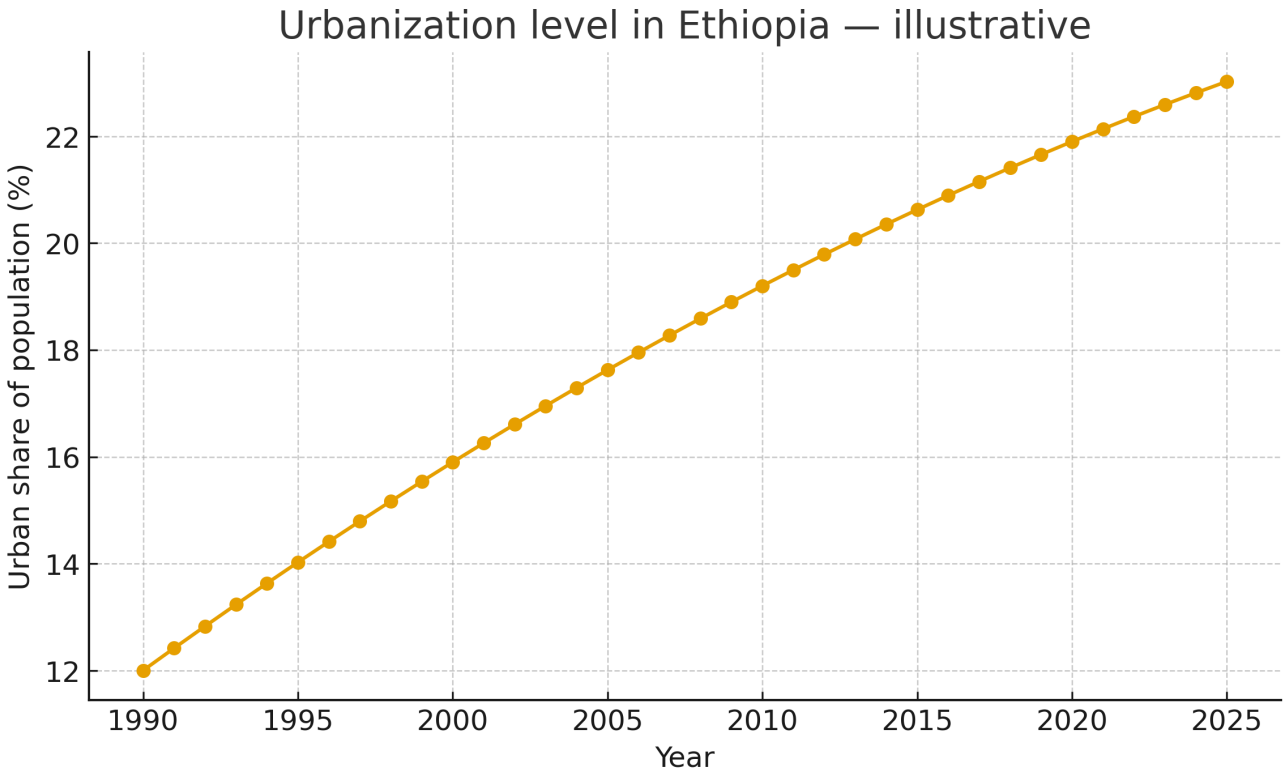


Figure 8.9-2. Urban vs rural population levels

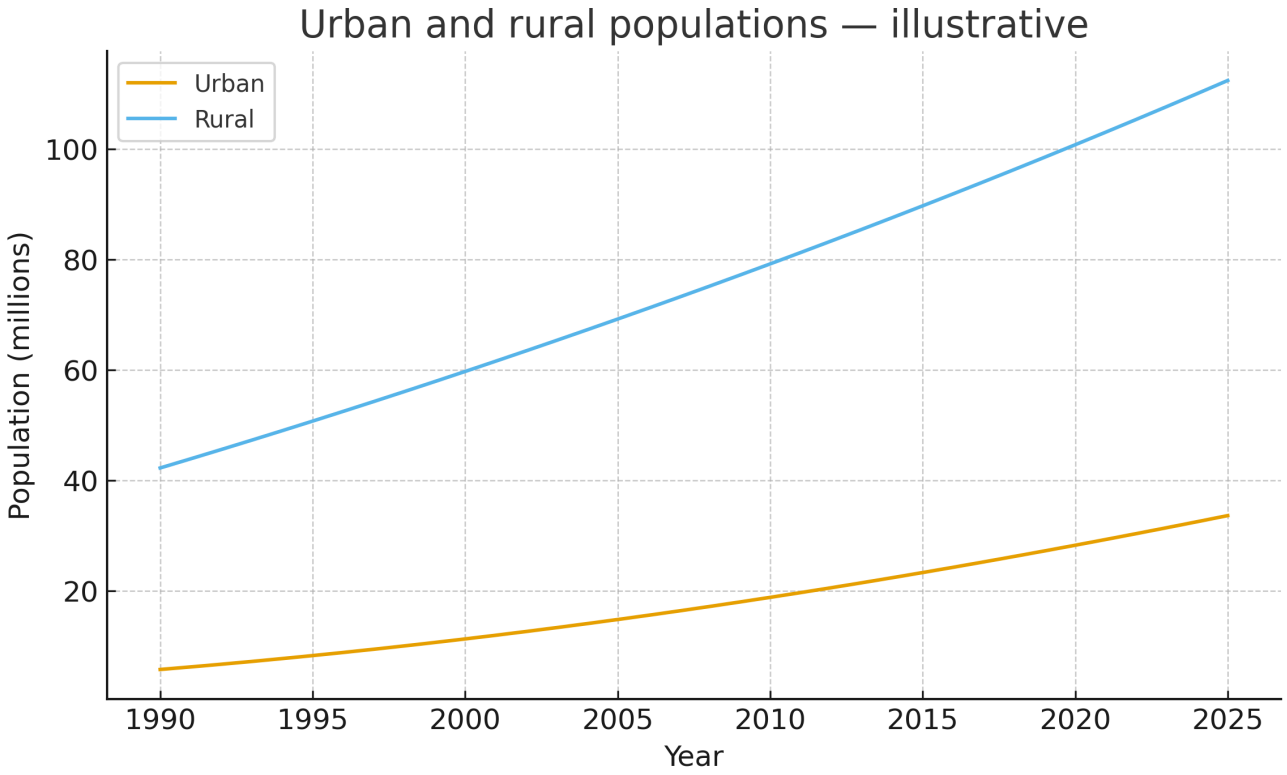


Figure 8.9-3. Rank–size (Zipf-like) distribution of cities (2024)

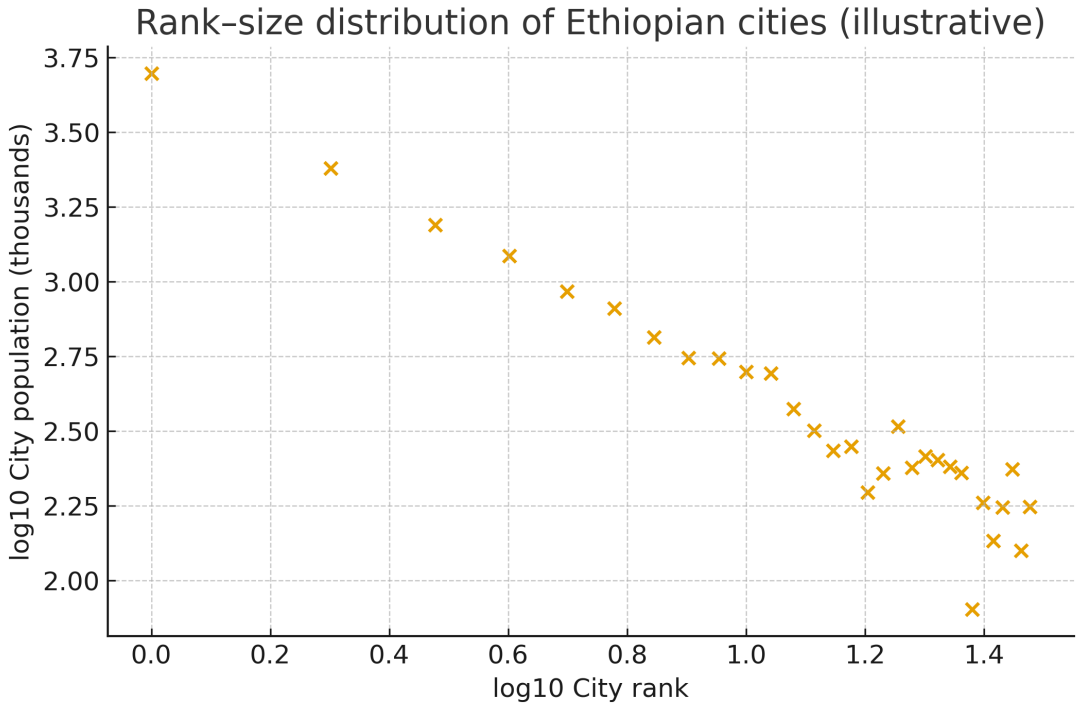


Figure 8.9-4. Urban primacy and concentration over time

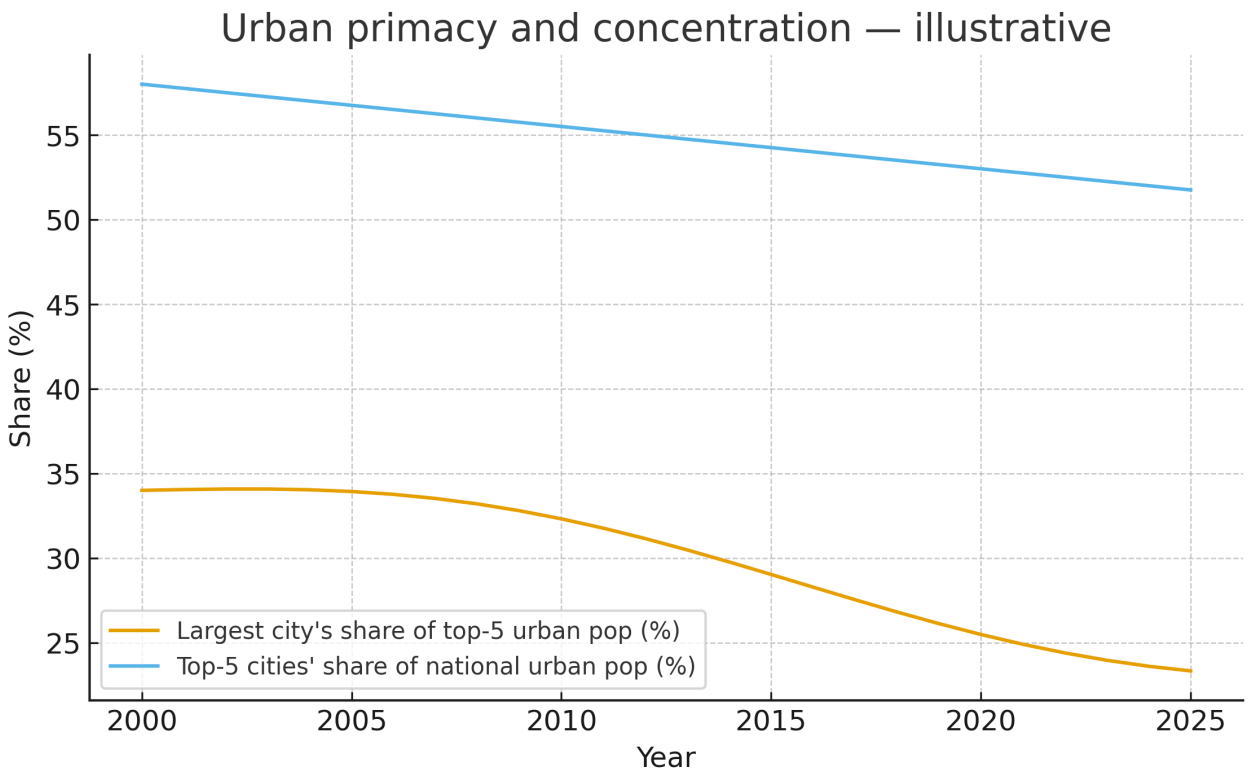


Figure 8.9-5. Growth of selected secondary cities (CAGR)

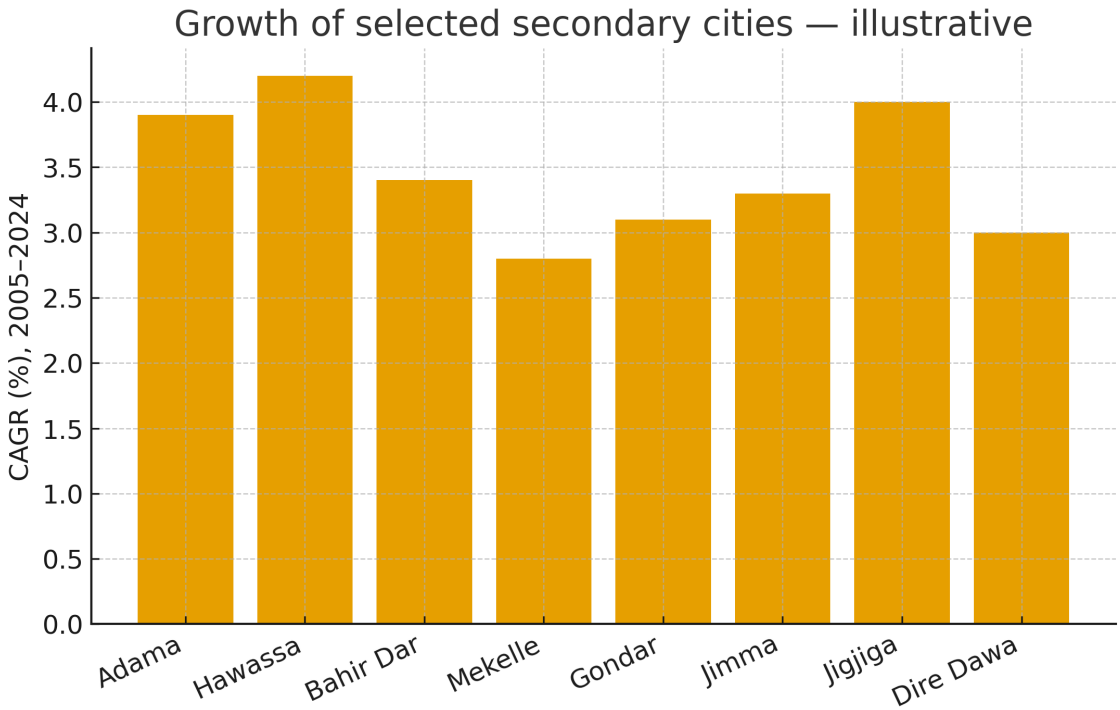


Figure 8.9-6. Informal housing (slum) proxy over time

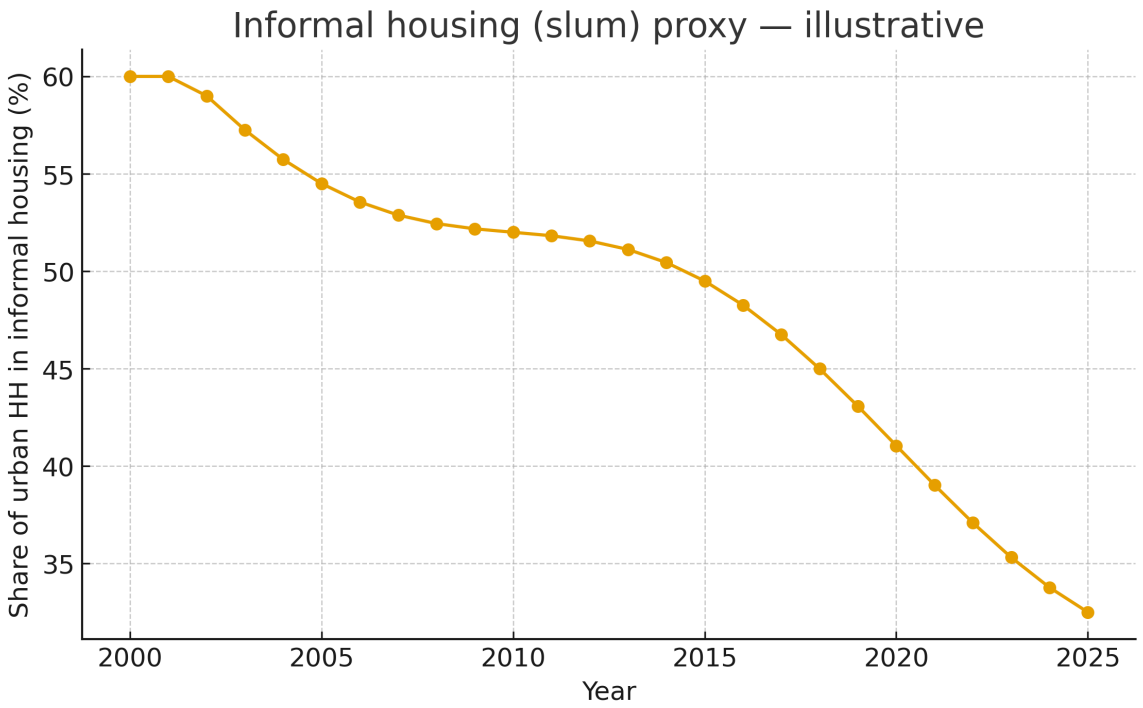


Table 8.9-A. Core indicators & definitions

Indicator	Plain-language definition
Urbanization level (U%)	Share of total population living in urban areas.
Urban growth rate	Annual % change in urban population.
City growth rate (CAGR)	Compound annual growth for a city over a period.
Primacy index	Largest city's share of top-n urban population (e.g., top-5 or national urban).
Rank–size slope	Slope of log(pop) vs log(rank); ≈−1 under Zipf's law.
Density (pop/km²)	Population divided by built-up area; track compactness/sprawl.
Informal housing share	% of households in informal/slum housing per operational definition.

Table 8.9-B. Urban hierarchy snapshot (illustrative, 2024)

Rank	City	Population (thousands)
1	Addis Ababa	4963.1
2	Adama	2392.3
3	Hawassa	1544.0
4	Dire Dawa	1214.9
5	Bahir Dar	927.1
6	Mekelle	811.0
7	Gondar	649.5
8	Jimma	555.3
9	Jigjiga	552.3
10	Shashamane	498.7
11	City 11	492.3
12	City 12	374.4

Table 8.9-C. Primacy worked example

Largest city pop (thou)	Sum of top-5 (thou)	Primacy (largest / top-5) %
4963.1	11041.4	44.9

Table 8.9-D. Policy levers for balanced urbanization

Policy lever	Why it matters in Ethiopia
Managed urban expansion	Serviced land & transport corridors guide growth and limit sprawl.
Secondary city investment	Industrial parks, skills, universities, and logistics in intermediates.
Affordable housing & rental	Starter units, rental reforms; land value capture for infrastructure.
Transit-oriented development	Densify near mass transit; integrate land use and mobility.
Data standards & FUAs	Use functional definitions for metros; publish consistent time series.

Plain-language summary

Urbanization means a bigger share of the population lives in towns and cities. In Ethiopia, that share has been rising for decades, and the number of people in cities grows even faster because the whole country is growing. Some countries are dominated by a single huge city (high ‘primacy’). Others spread growth across many cities (more ‘polycentric’). Ethiopia shows a mix: the capital is large, but several secondary cities are also growing. City systems often follow a ‘rank–size’ pattern: the second city is about half the size of the first, the third about one-third, and so on. As cities expand, built-up land can grow faster than population—causing sprawl and long commutes—or slower, which raises density. Managing land, transport, and affordable housing helps cities grow in a compact, healthy way and reduce informal settlements. Using consistent definitions of what counts as ‘urban’—especially functional urban areas—makes it easier to compare numbers over time and across countries.

References — Section 8.9

- UN DESA, World Urbanization Prospects — urbanization levels and trends.

- OECD/EC (2020). Cities in the World — functional urban areas and concentration metrics.

- World Bank (2009, 2015). Reshaping Economic Geography; Systems of Cities — primacy and secondary cities.

- Angel et al. (2016). Atlas of Urban Expansion — built-up area and density methods.

- UN-Habitat — Slum household definitions and indicators.

8.10) Housing, Slums & Urban Services

This subsection reviews Ethiopia's urban housing and services through the slum/informal lens—tenure, affordability, materials, and key services—and summarizes practical upgrading and policy options. Figures are illustrative placeholders to be replaced with official data.

Figures (illustrative — replace with official estimates)

Figure 8.10-1. Housing tenure by city

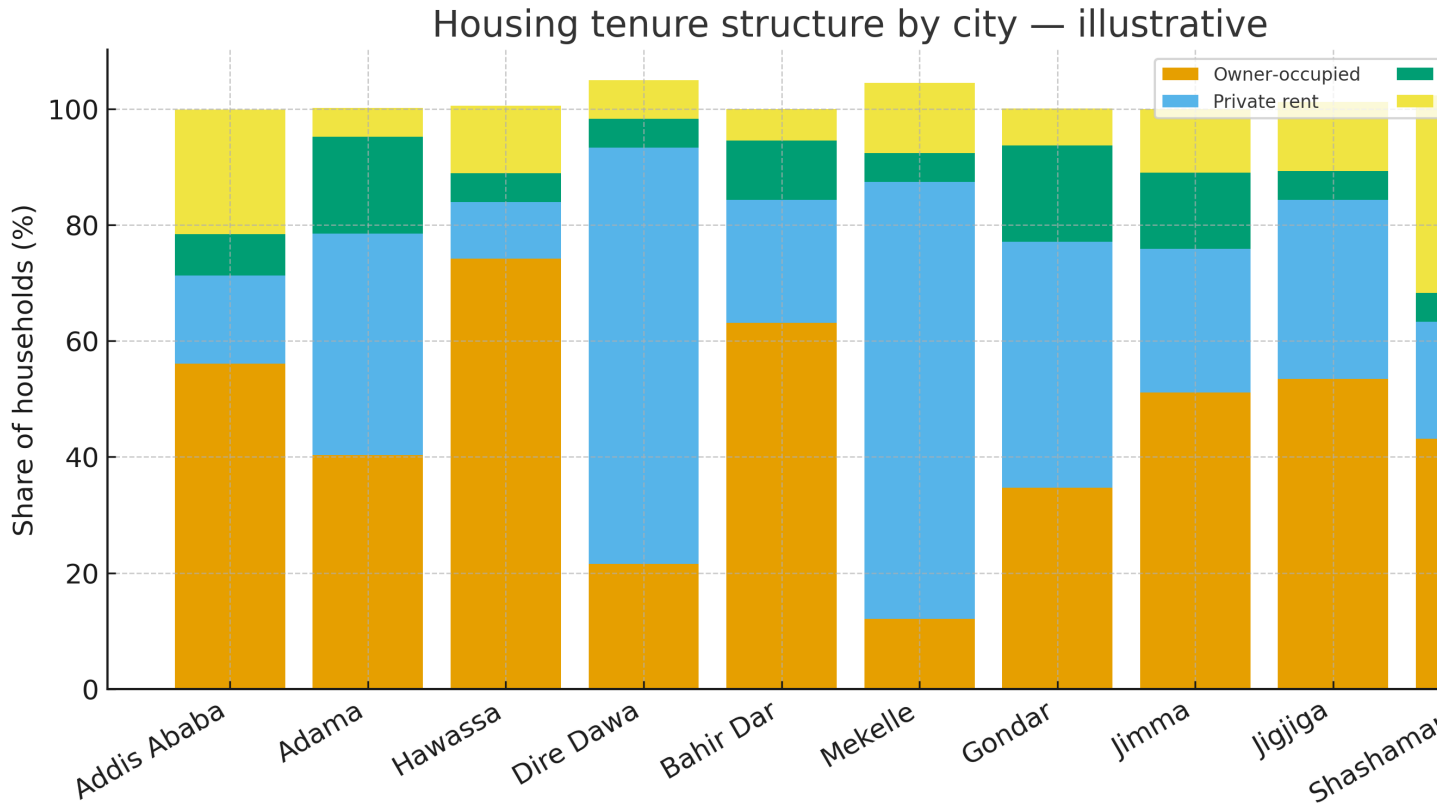


Figure 8.10-2. Components of slum/informal conditions — sample cities

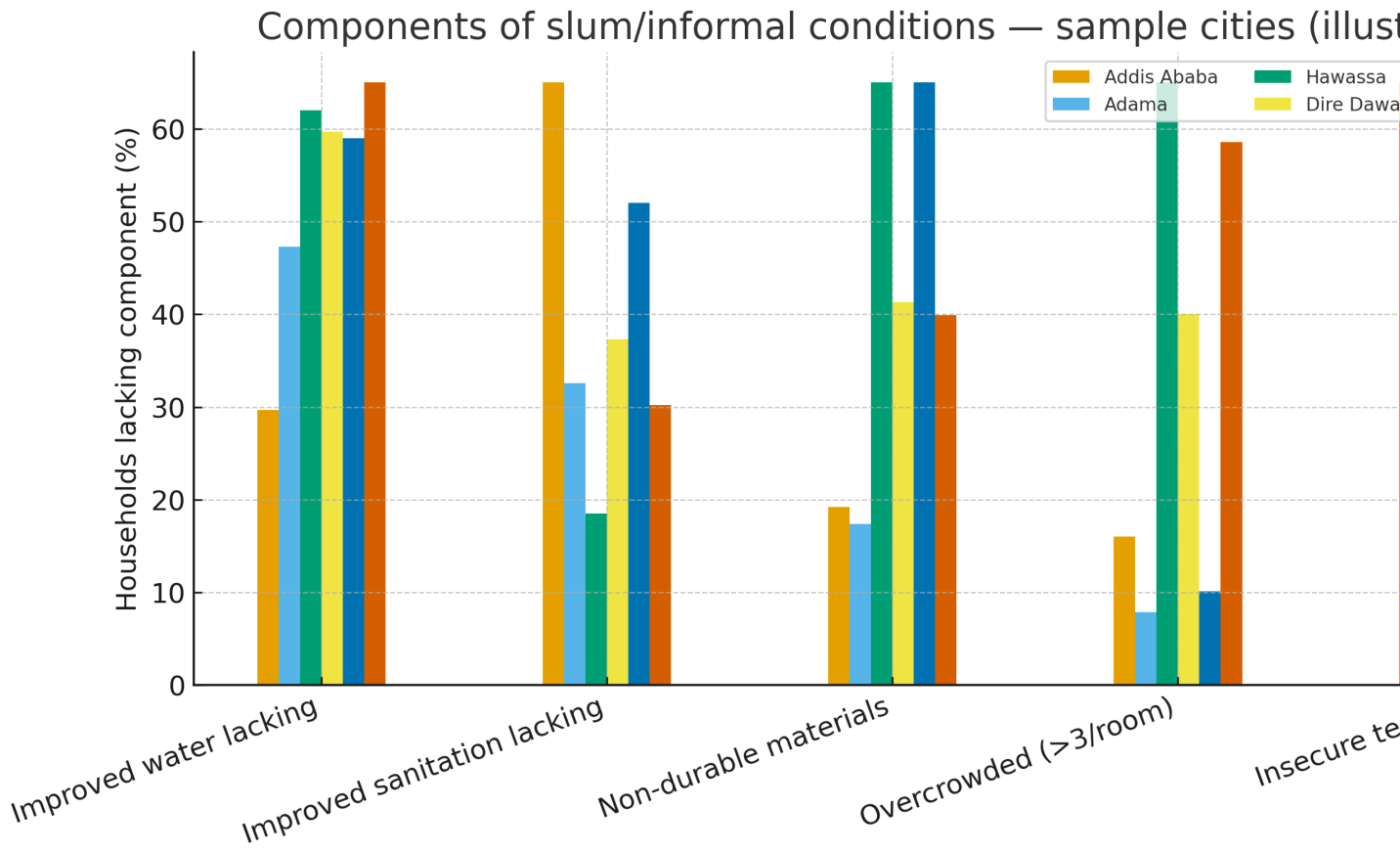


Figure 8.10-3. Urban service access trends (national urban)

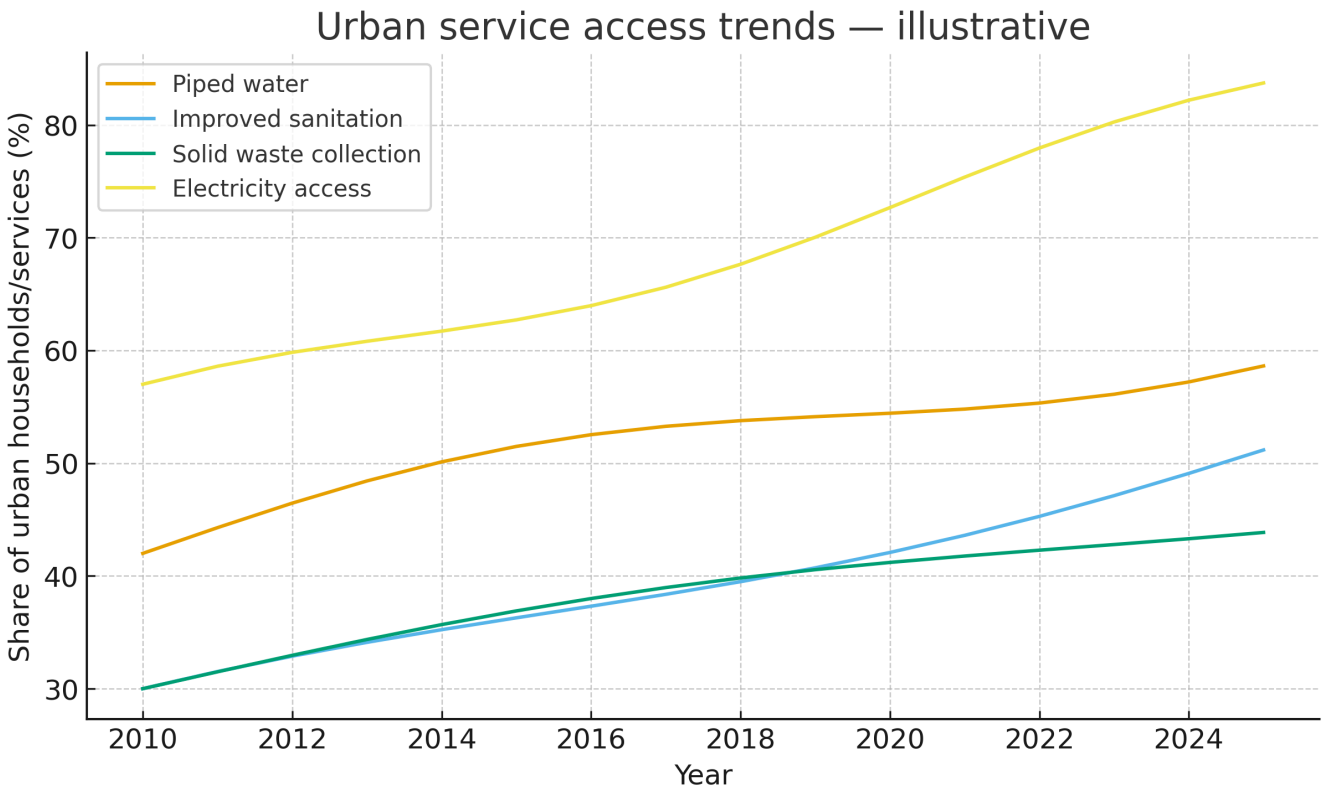


Figure 8.10-4. Housing affordability — rent-to-income by city (median renter)

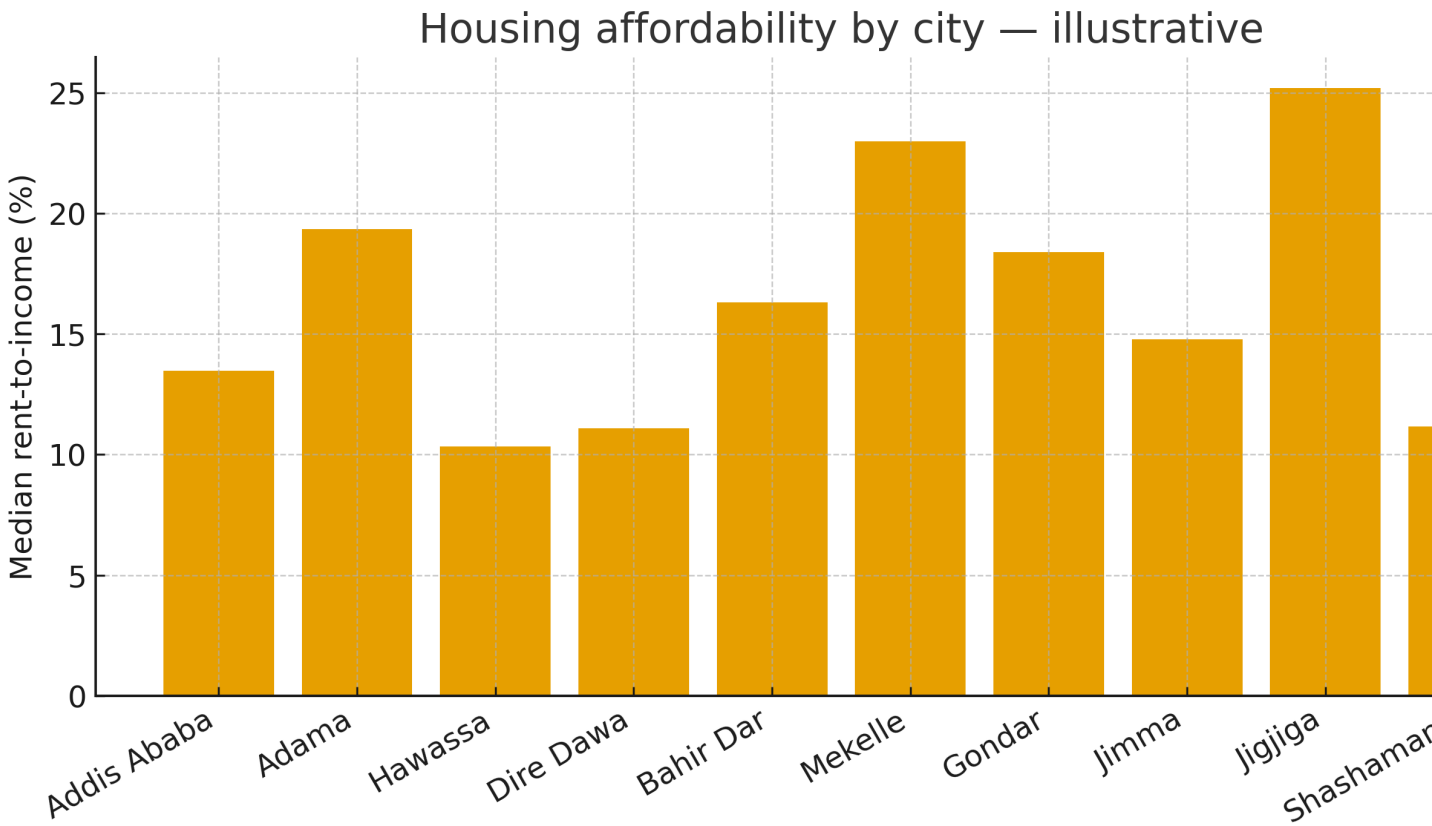


Figure 8.10-5. Urban housing need and backlog

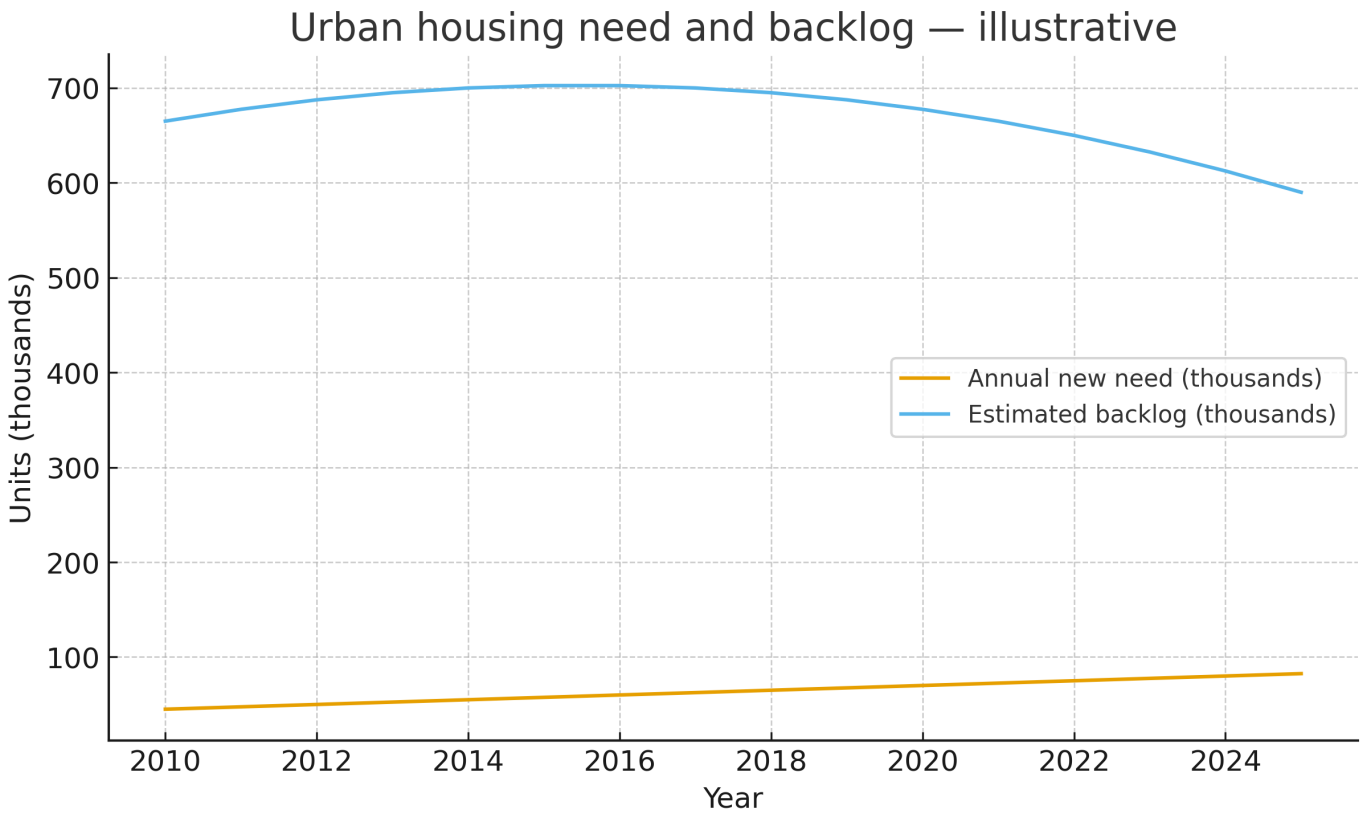


Figure 8.10-6. Service coverage across cities

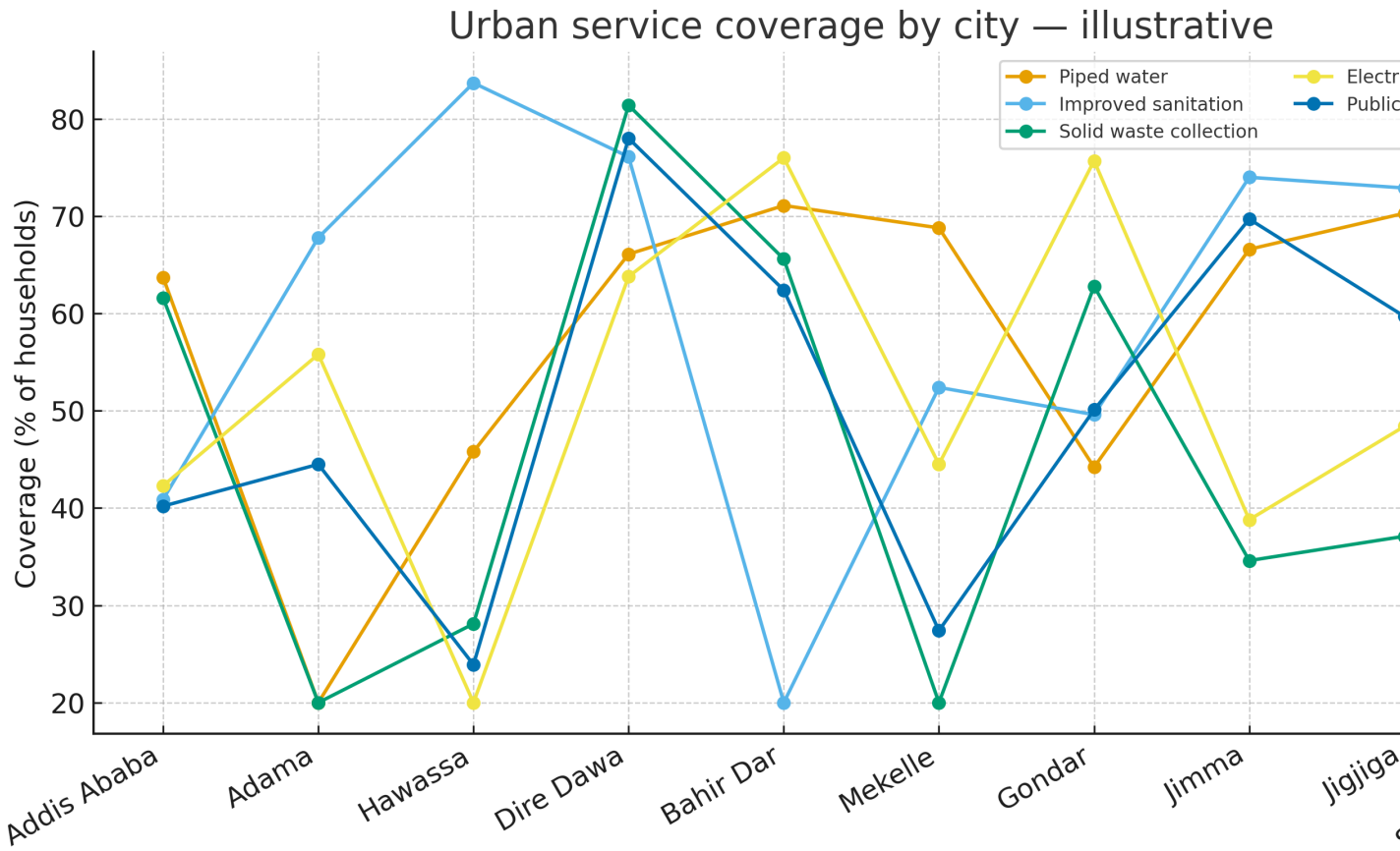


Figure 8.10-7. Share of new urban households settling informally

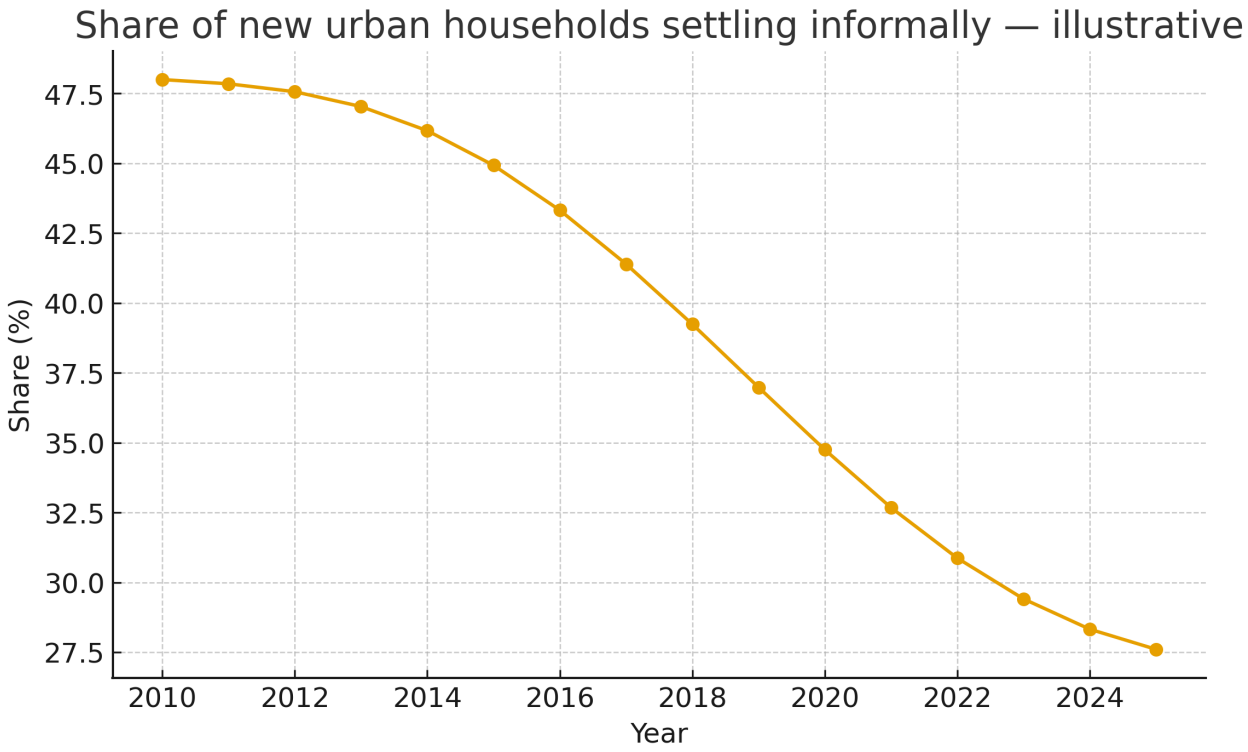


Table 8.10-A. Definitions & standards

Term	Operational definition
Slum household (UN-Habitat)	Household lacking ≥1 of: improved water, improved sanitation, sufficient living area (crowding), durability, tenure security.
Improved water	Piped into dwelling/yard/plot or protected source within 30 minutes.
Improved sanitation	Private or shared improved facility not shared with too many households; safely managed where possible.
Durable materials	Walls/roof/floor built with permanent materials.
Sufficient living area	≤3 persons per room used for sleeping.
Tenure security	Documented or perceived security against forced eviction.

Table 8.10-B. Service norms/targets (illustrative)

Service	Norm / target (illustrative)

Water	≥50–100 L/person/day; standpost within 200–300 m; 24/7 target.
Sanitation	One improved toilet per ≤20 people; safe emptying; handwashing with soap.
Solid waste	≥80% household collection; transfer stations for dense areas.
Electricity	≥95% urban household access; safety and metering.
Transport	Public transport stop within 500 m; safe pedestrian access.

Table 8.10-C. Slum upgrading program menu

Component	What it includes
Basic trunk infrastructure	Road access, drainage, water mains, sewers/feacal sludge chain, power lines.
Plot/service regularization	Participatory re-blocking, addresses, plot certificates where feasible.
Housing improvement finance	Micro-mortgages; incremental shelter loans; building standards & technical help.
Social services & livelihoods	Schools, clinics, community centers, market space, skills and jobs links.
Risk reduction	Flood-safe design, slope stabilization, fire safety, lighting, green buffers.
Data & inclusion	Participatory mapping, grievance redress, gender & disability inclusion.

Table 8.10-D. Measurement & indicators

Source/tool	Indicators
Household surveys	Tenure, rent, materials, water/sanitation, crowding, service connection.
Admin & utility data	Connections, tariffs, outages, collection coverage, volumes.

City audits & GIS	Built-up growth, informal footprint, walk/catchment distances to services.
Community mapping	Enumeration of structures, plot boundaries, basic services.
Remote sensing	Building footprints, roof materials proxy, night-time lights.

Table 8.10-E. Policy levers for Ethiopia

Policy lever	Implementation notes
Serviced land & expansion areas	Release planned land with trunk services; prevent leapfrog sprawl.
Affordable rental & starter housing	Inclusionary zoning; public-private delivery; rent guidelines; student/worker hostels.
Slum upgrading at scale	Area-based programs; secure tenure options; community finance.
Utility reforms	Performance contracts, cost-recovery with lifeline tariffs; non-revenue water reduction.
Transit & street networks	Bus rapid transit, feeder routes, safe sidewalks/cycling; TOD around stations.
Data transparency	Publish city dashboards for service coverage, affordability, and informal settlement footprint.

Plain-language summary

Many city residents in Ethiopia rent, and a sizeable share live in informal or overcrowded housing. Slum conditions are defined by missing basics: safe water, sanitation, durable structures, enough space, and secure tenure. The charts show that services have improved in many places, but not fast enough to keep up with growth. Housing is expensive for many renters. A practical way forward is to plan serviced land, upgrade existing informal areas with roads, water, drainage, and safe toilets, and provide affordable rental and starter homes. Utilities should expand connections and reduce outages, while cities improve public transport and safe streets so people can reach jobs and services. Progress should be tracked with clear indicators and shared publicly so communities can see change.

References — Section 8.10

- UN-Habitat — Definitions of slum households, service standards, and urban basic services.

- World Bank — Housing sector diagnostics and urban services reports for Ethiopia and peers.

- National utilities & city authorities — water, sanitation, solid waste, electricity, and transport coverage statistics.

- CSA/DHS — Materials, tenure, water and sanitation indicators; crowding metrics.

- Remote sensing resources — building footprints and service catchment analyses.

8.11) Urban Form, Land Use & Transport

This subsection links Ethiopia’s urban form to mobility outcomes: density gradients, land-use mix, block sizes and intersections, mode shares, commute times, transit accessibility, and vehicle-km traveled. Figures are illustrative placeholders to be replaced with official data.

Figure 8.11-1. Population density gradient — Addis Ababa

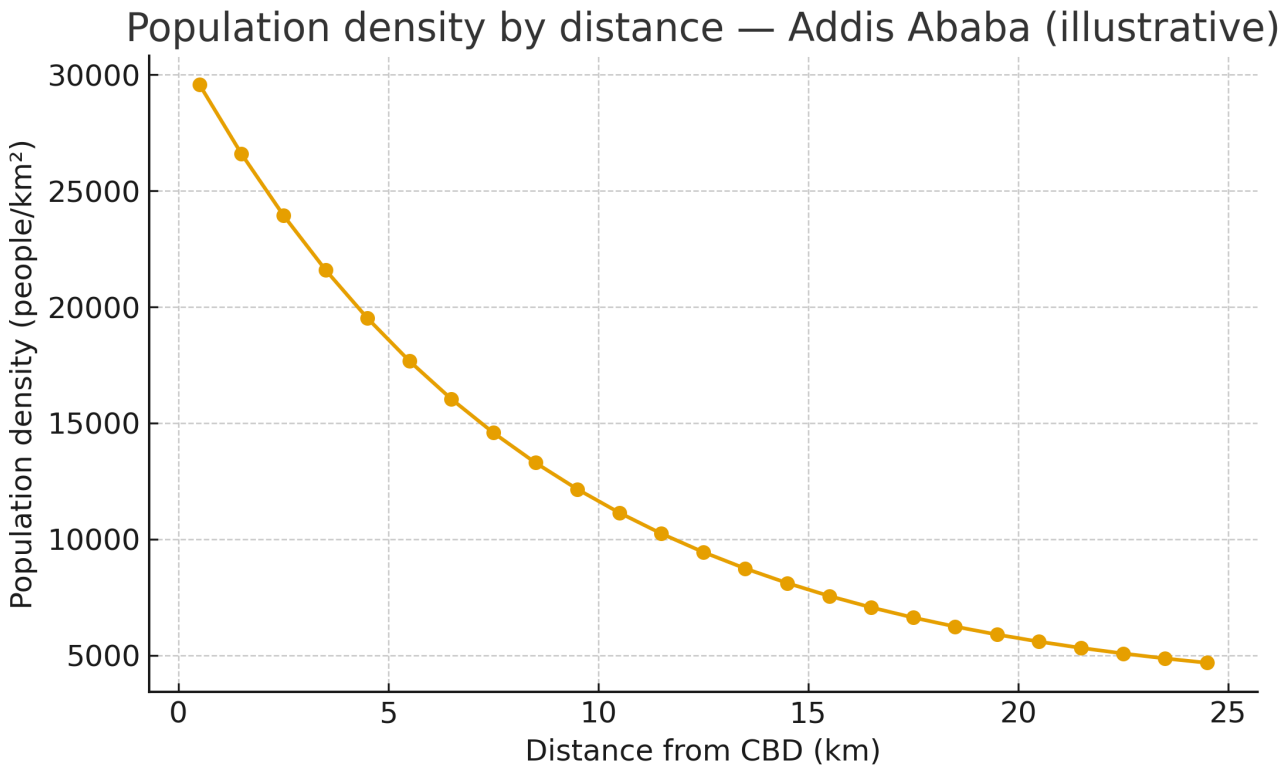


Figure 8.11-2. Travel mode shares by city

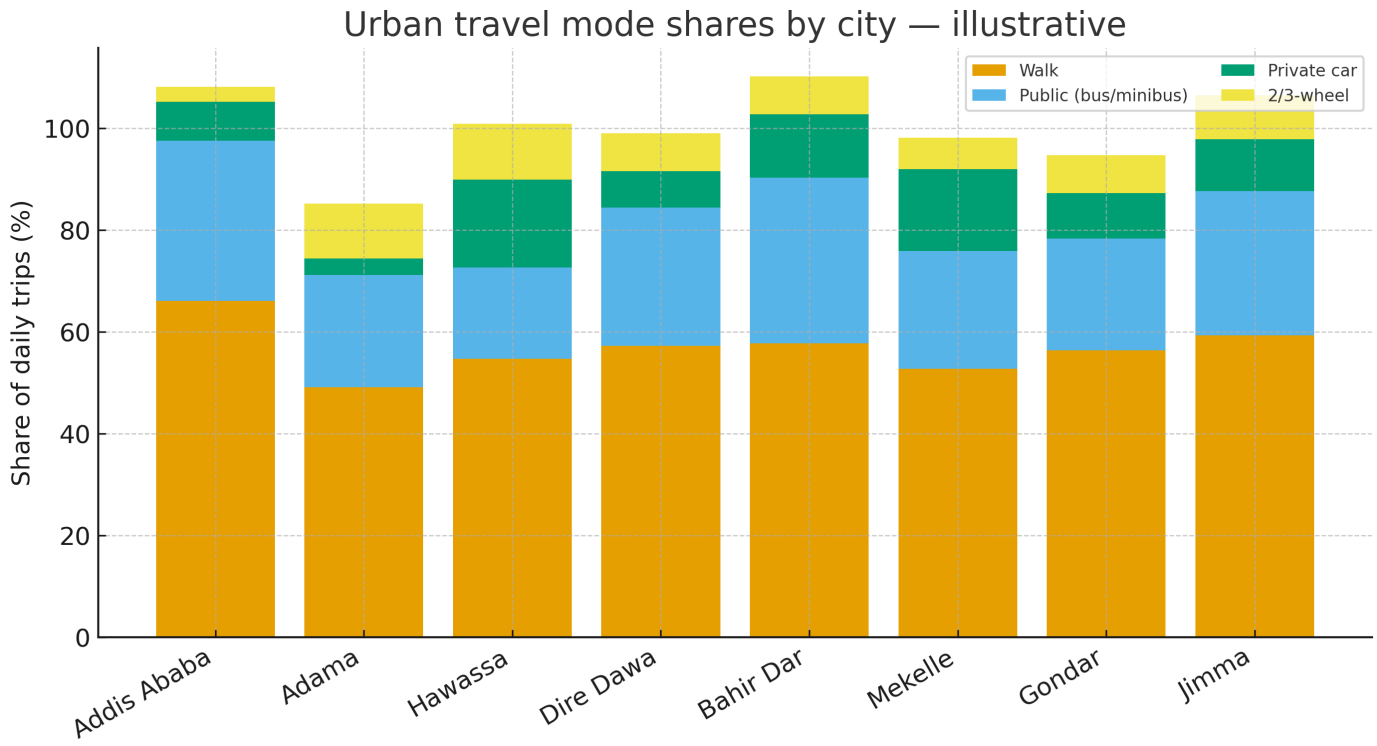


Figure 8.11-3. Commute time trend (Addis vs urban average)

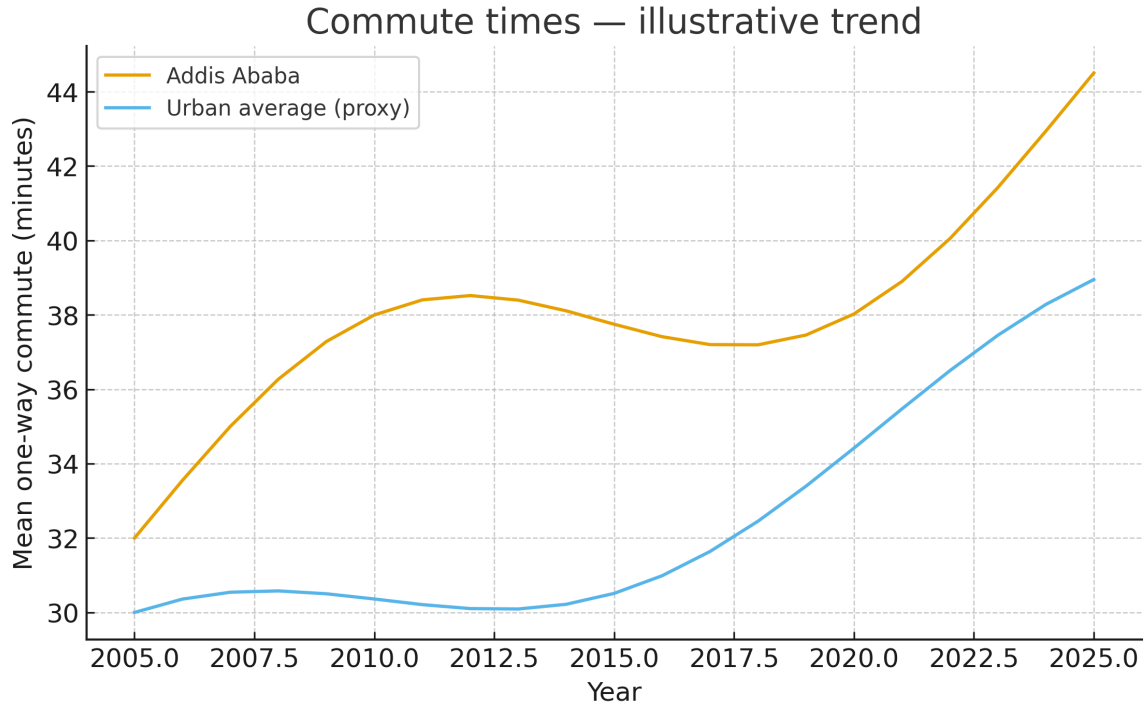


Figure 8.11-4. Land-use mix (entropy) by neighborhood type

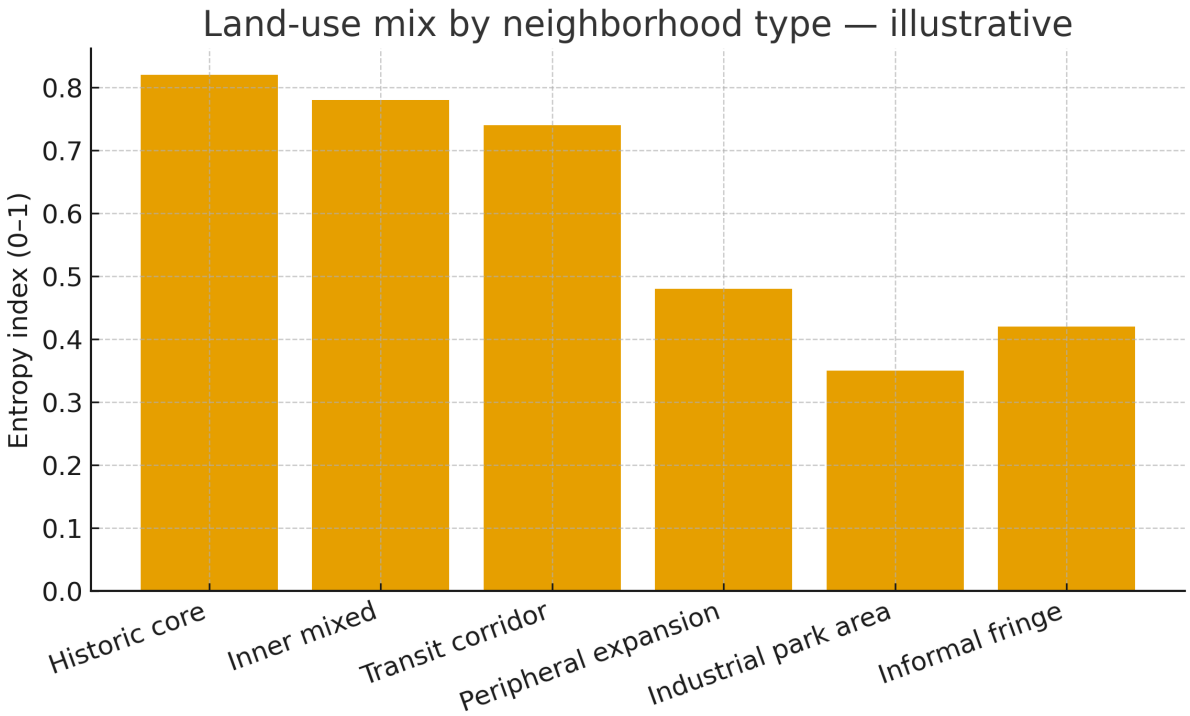


Figure 8.11-5. Block size distribution — Addis sample

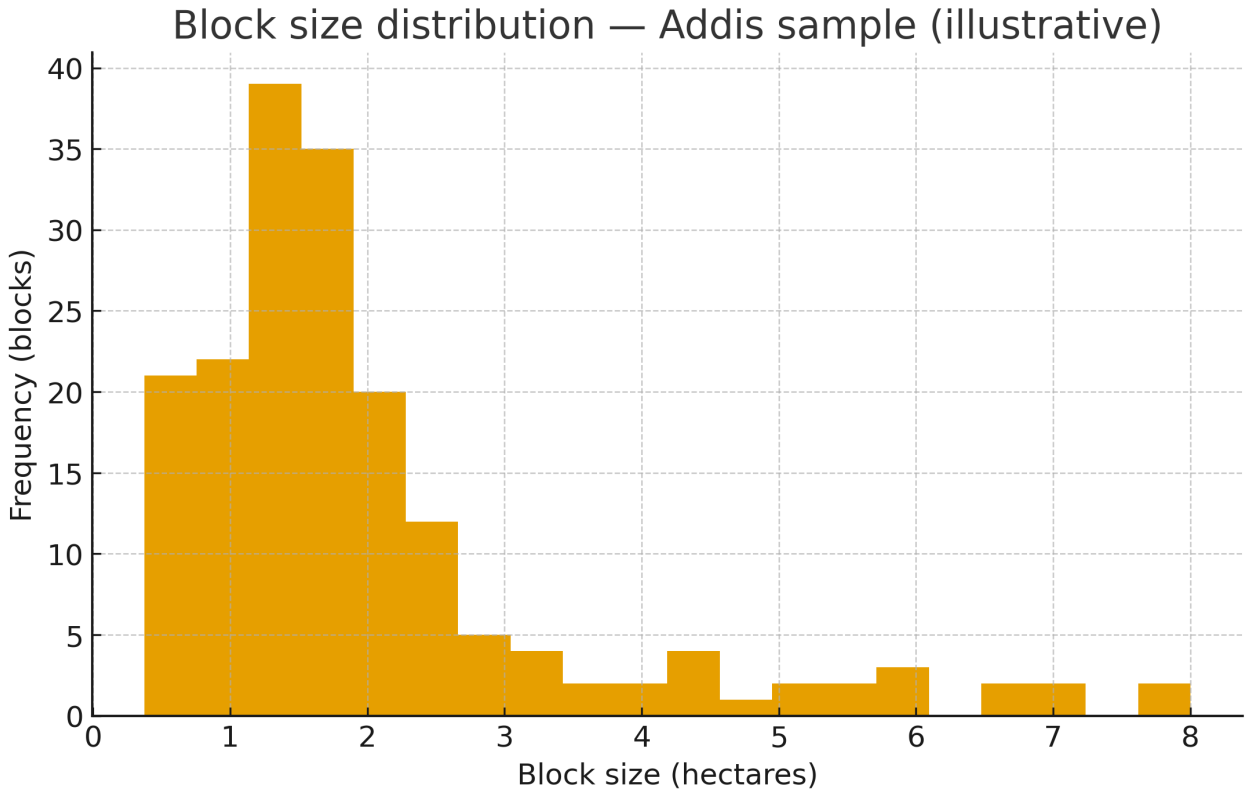


Figure 8.11-6. Intersection density by city

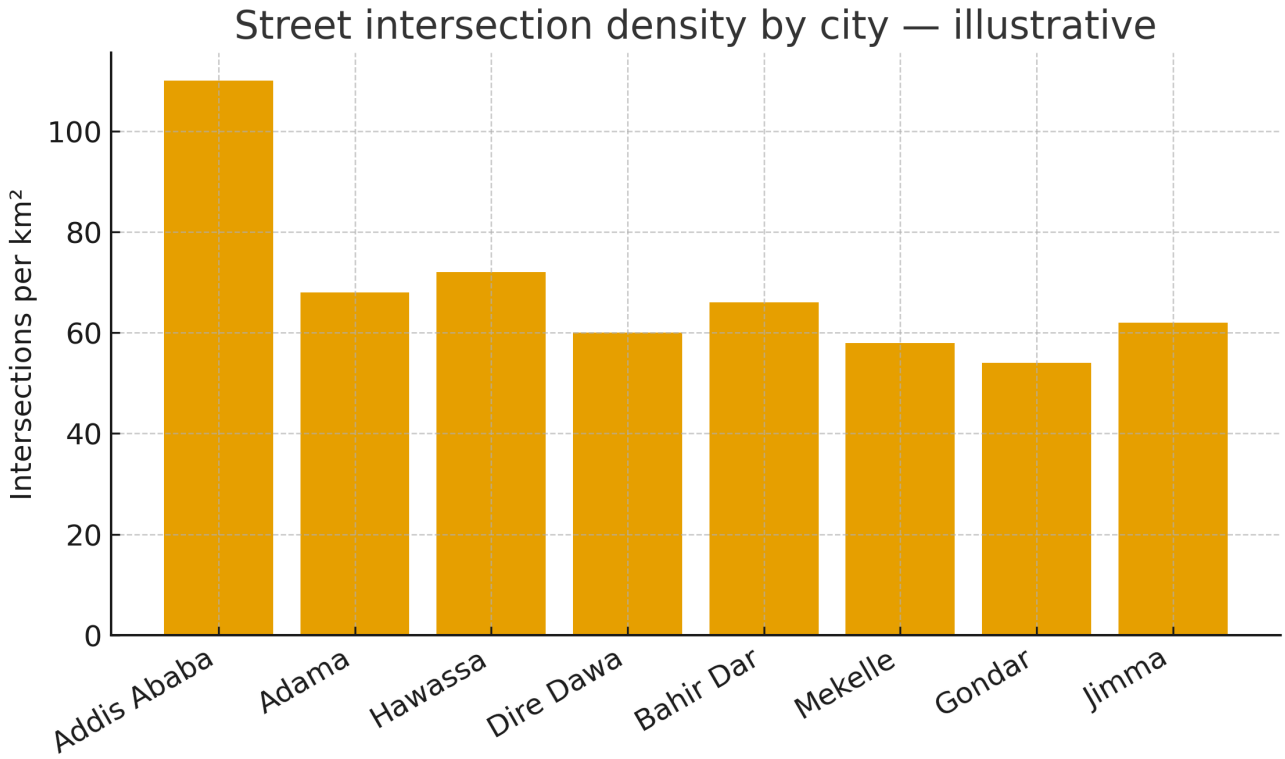


Figure 8.11-7. Transit accessibility: jobs within 45 min

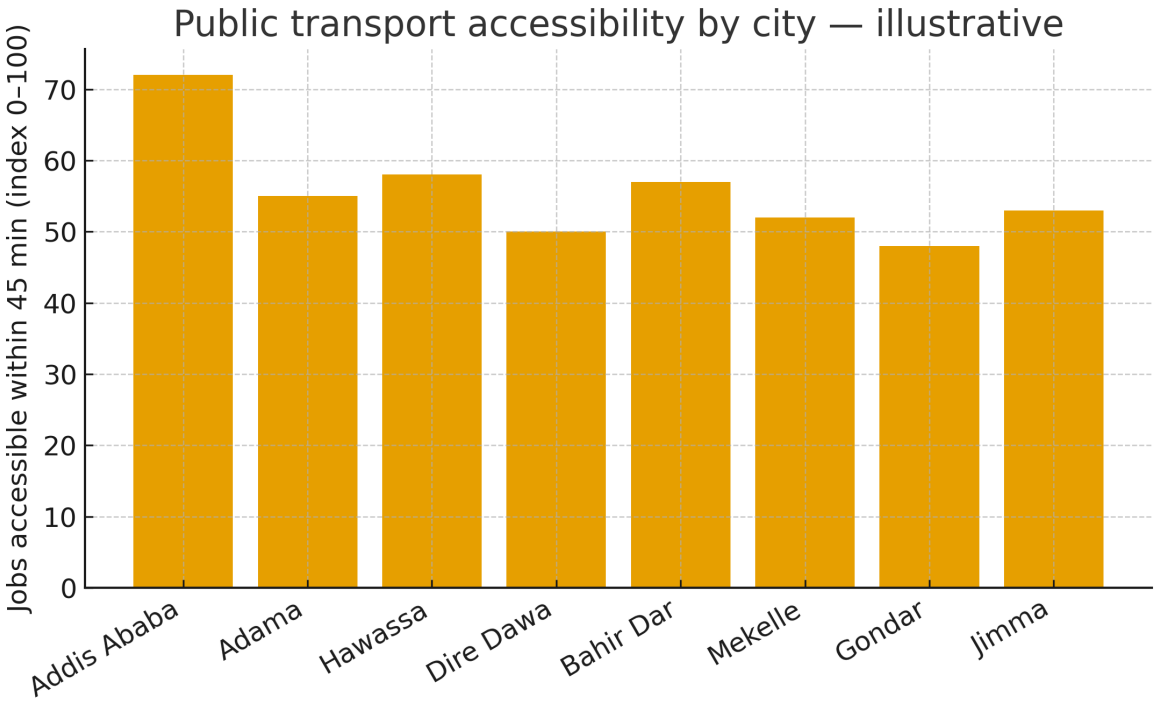


Figure 8.11-8. Motorization: vehicle-km traveled per capita

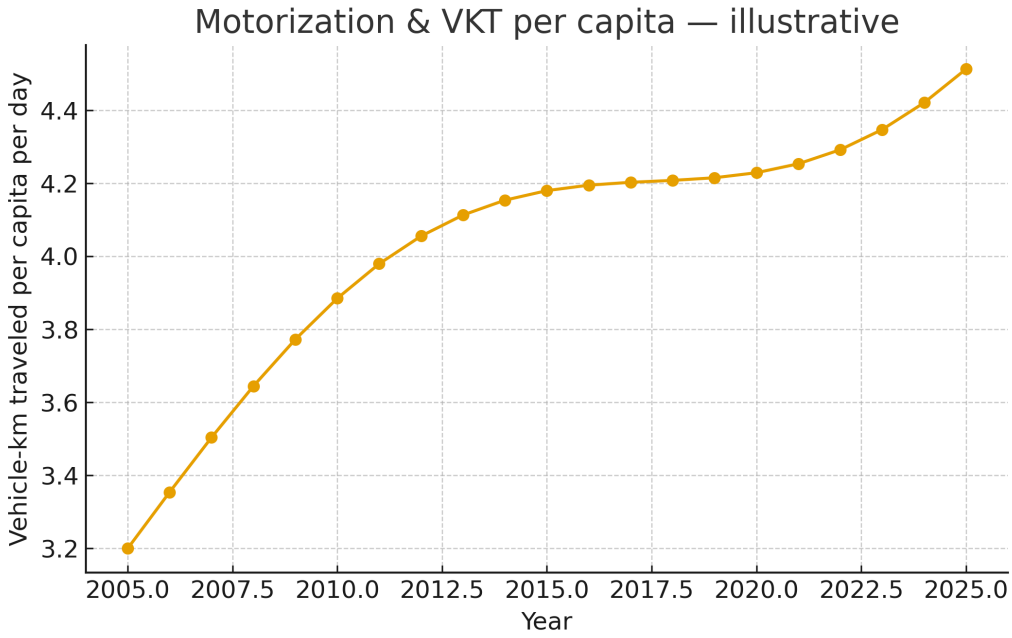


Table 8.11-A. Core indicators & formulas

Indicator	Formula / definition
Population-weighted density	Sum(pop_i × density_i) / Sum(pop_i).
Density gradient	Fit of ln(density_r) = a + b·distance_r; b<0 implies decay from center.
Modal split	% of trips by mode (walk, public, private, 2/3-wheel).
Commute time	Mean one-way minutes from survey or mobile/GPS data.
Land-use entropy (0–1)	−Σ p_k ln(p_k) / ln(K); p_k share of land in use k across K uses.
Intersection density	Intersections per km²; higher = more walkable grid.
Jobs accessibility (T_45)	Share of jobs reachable by public transport in ≤45 min (cumulative opportunities).
VKT per capita	Total vehicle-km traveled / population; proxy for emissions/congestion.

Table 8.11-B. Addis worked examples (rings and density)

Ring distance (km)	Density (people/km²)	Cumulative pop share (%)
0.5	29569.0	27.4
3.5	21597.0	47.4
6.5	16035.0	62.3
9.5	12155.0	73.5
12.5	9448.0	82.3
15.5	7559.0	89.3
18.5	6241.0	95.1
21.5	5322.0	100.0

Table 8.11-C. Transit-Oriented Development (TOD) checklist

Design element	What to implement in Ethiopia
Compact density near stations	Min FAR/height around BRT/LRT nodes; mixed income housing.
Mix of uses	Daily needs within 10–15 minute walk; ground-floor retail.
Street network & public realm	Short blocks (~80–120 m), <600 m² intersections/km²; shaded sidewalks, lighting.
Parking & demand management	Limit minimums, price curb space, support shared mobility.
First/last mile	Safe bike lanes, feeder minibuses, pedestrian shortcuts.
Social inclusion & safety	Universal design; gender-sensitive lighting; safe crossings.

Table 8.11-D. Measurement & data sources

Source/tool	What it provides
Household travel surveys	Trip purpose, time, mode, cost; origin/destination.
Mobile/GPS/bus smart-card (aggregated)	Speeds, delays, OD matrices; privacy-preserving.
OpenStreetMap & road centerlines	Block sizes; intersection density; sidewalk coverage.
Remote sensing (buildings/land cover)	Built-up expansion; density; land-use proxies.
Transit GTFS schedules	Accessibility calculations (T_45) and reliability.
City admin & utility data	Parking, fares, fuel use, traffic counts.

Table 8.11-E. Policy levers for urban form & transport

Policy lever	Implementation notes
Managed expansion & greenbelts	Guide growth along corridors; protect floodplains and hillslopes.
BRT/LRT network + feeders	High-capacity spine with reliable feeders; integrated fares.
Street grid completion	Open/extend key links; complete sidewalks; universal access.
Affordable housing near jobs	Land value capture; inclusionary zoning; student/worker housing.
Freight & logistics management	Truck routes/time windows; intermodal yards; urban consolidation.
Data & transparency	Publish transport dashboards; open GTFS; community feedback.

Plain-language summary

City shape affects how people move. When homes, jobs, and services are mixed and streets connect well, more trips can be walked, cycled, or taken by bus or light rail. Long blocks and low intersection counts make walking difficult and push people toward cars or crowded minibuses. Addis Ababa shows a strong center that thins out with distance. Commute times have been rising; reliable public transport and better first/last-mile connections can help. Building new housing and schools near transit, finishing the street grid, and making sidewalks safe will reduce travel time and costs. Measuring progress with simple indicators—mode share, commute time, access to jobs within 45 minutes—helps planners stay on track.

References — Section 8.11

- Cervero & Kockelman (1997) — ‘3Ds’ of urban form and travel: density, diversity, design.

- OECD/EC (2020). Cities in the World — functional urban areas and accessibility methods.

- World Bank (2015). Systems of Cities; (2023) Transit oriented development toolkits.

- UN-Habitat — Urban mobility indicators; Street design and walkability guides.

- OpenStreetMap/GTFS documentation — methods for intersections and transit accessibility.

8.12) Governance, Finance & Planning for Cities

This subsection outlines who does what in Ethiopia’s urban system, how cities raise and spend funds, and tools to plan and finance serviced, connected urban growth. Figures are illustrative placeholders to be replaced with official PFM, PEFA, and city budget data.

Figure 8.12-1. Municipal revenue composition over time

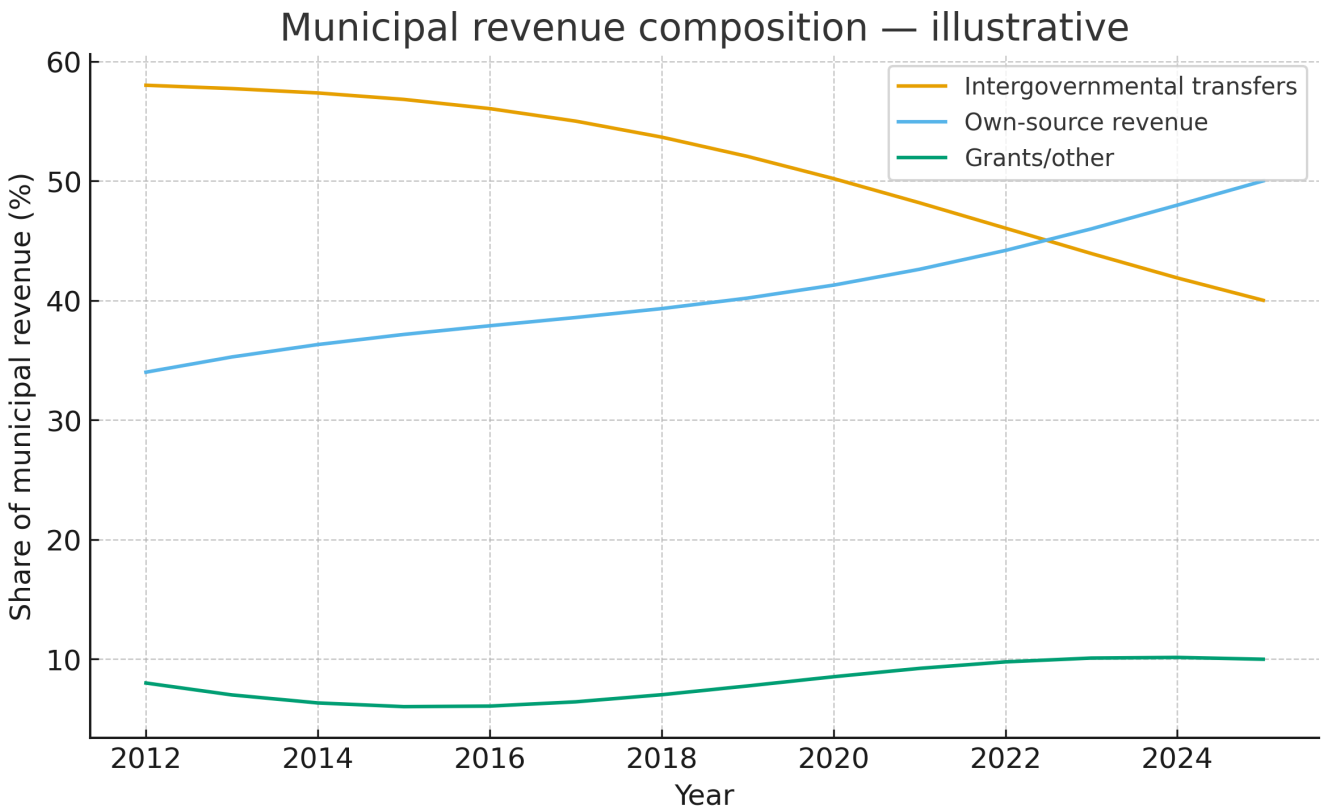


Figure 8.12-2. Per-capita revenue, expenditure, and fiscal gap

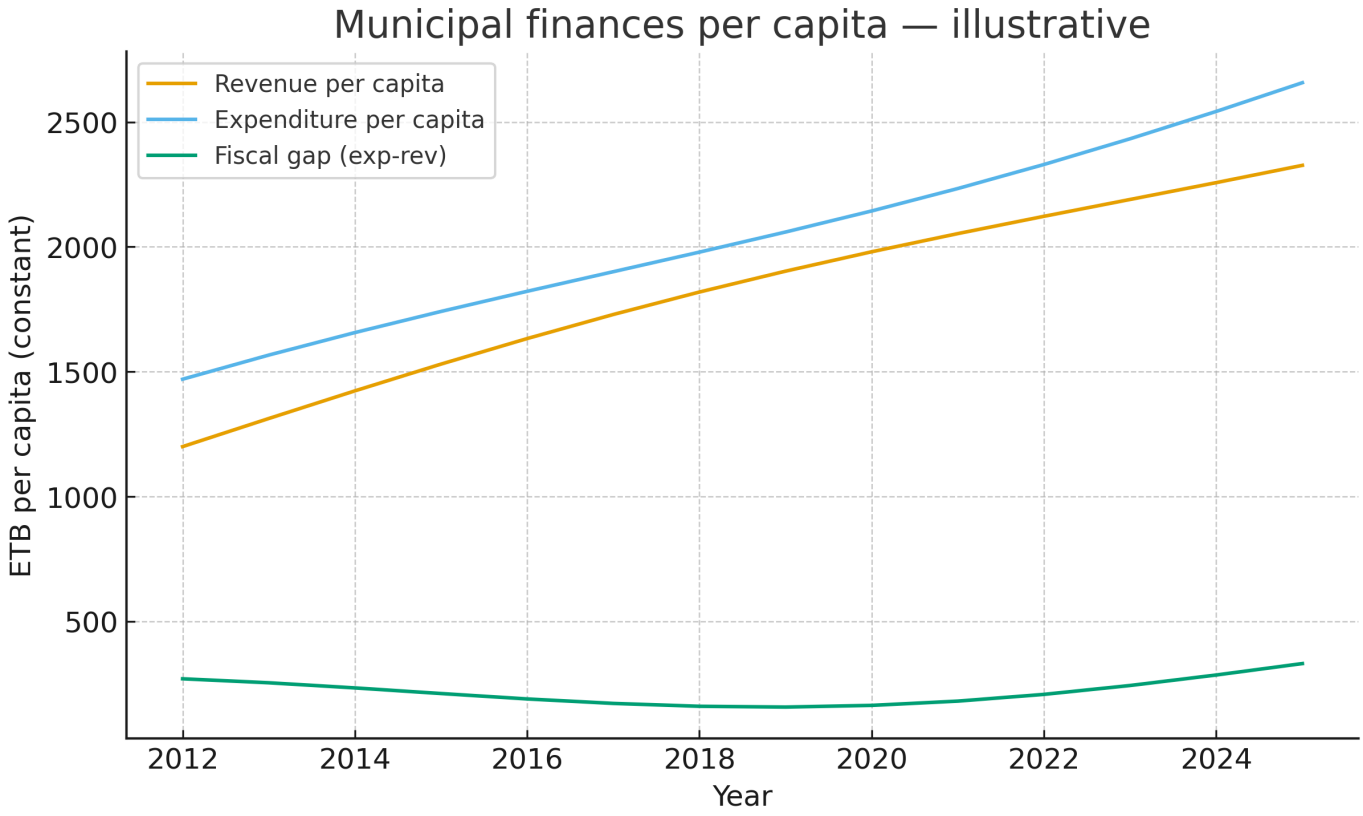


Figure 8.12-3. Capital investment by sector (2020 vs 2025)

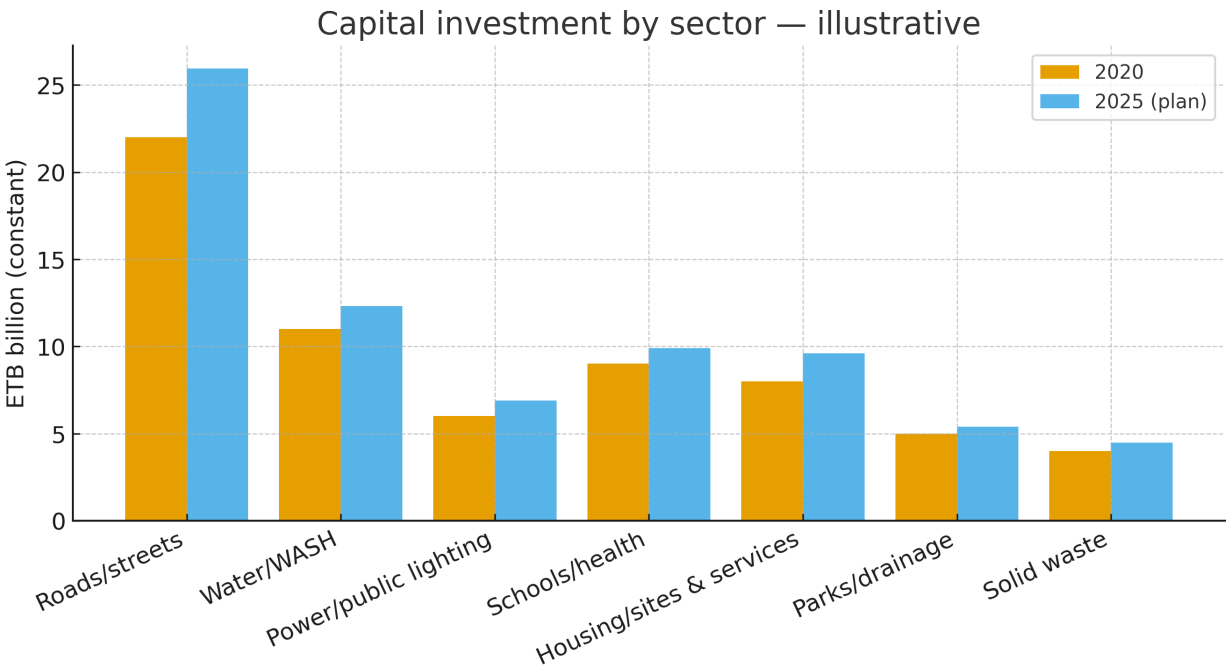


Figure 8.12-4. PFM/creditworthiness sub-scores by city

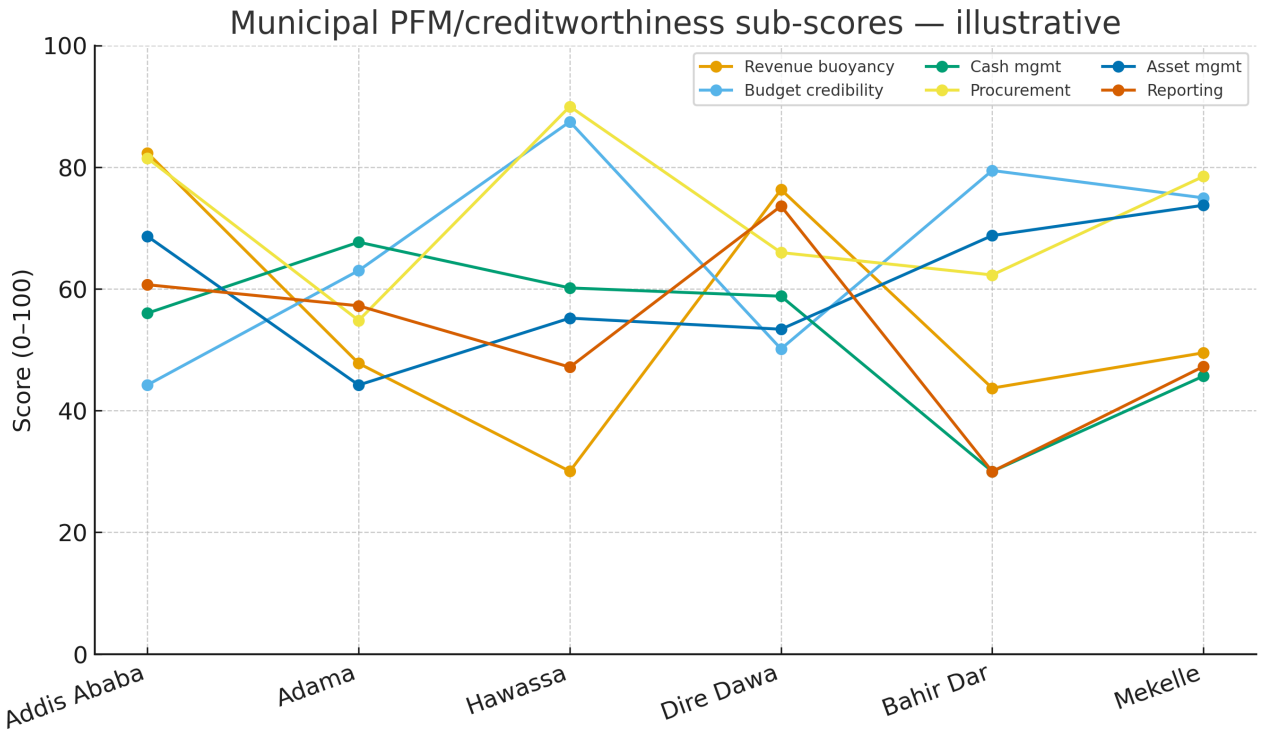


Figure 8.12-5. City PPP/project pipeline by stage

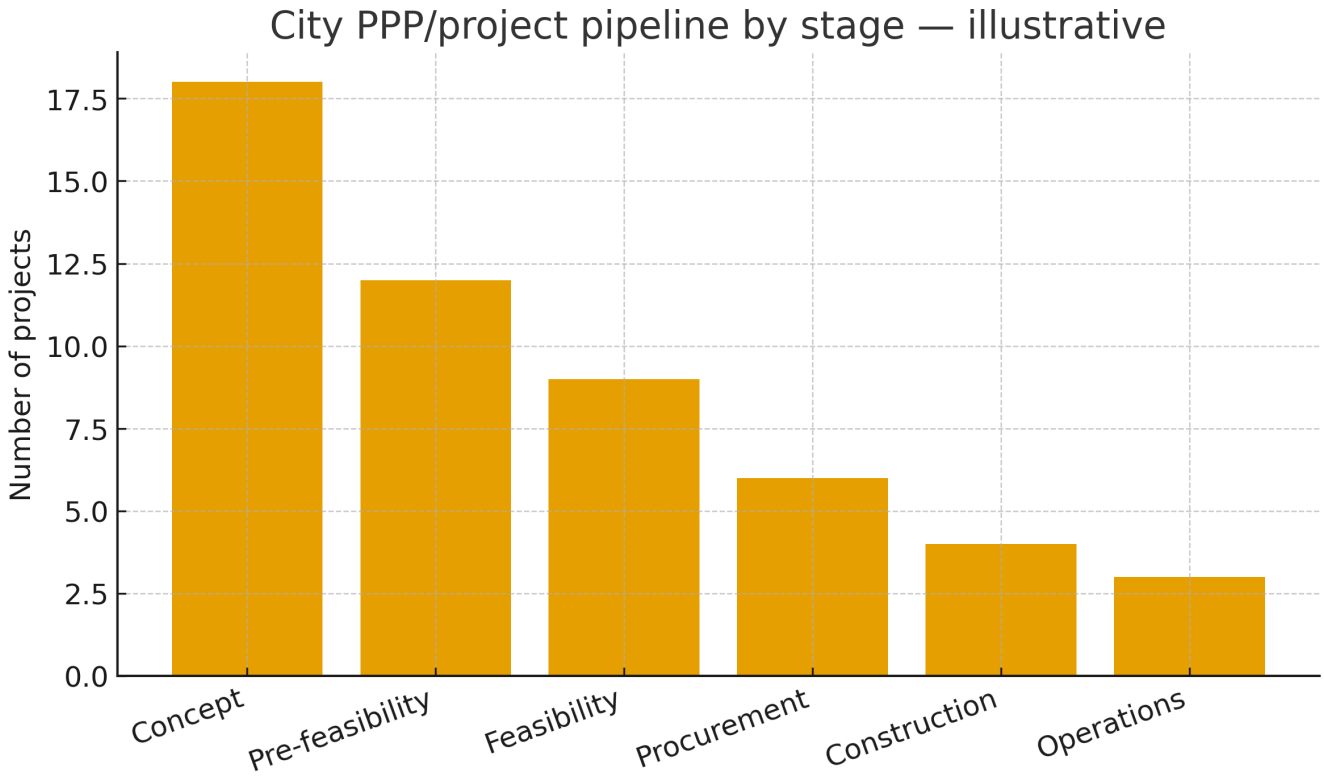


Figure 8.12-6. Governance index across cities

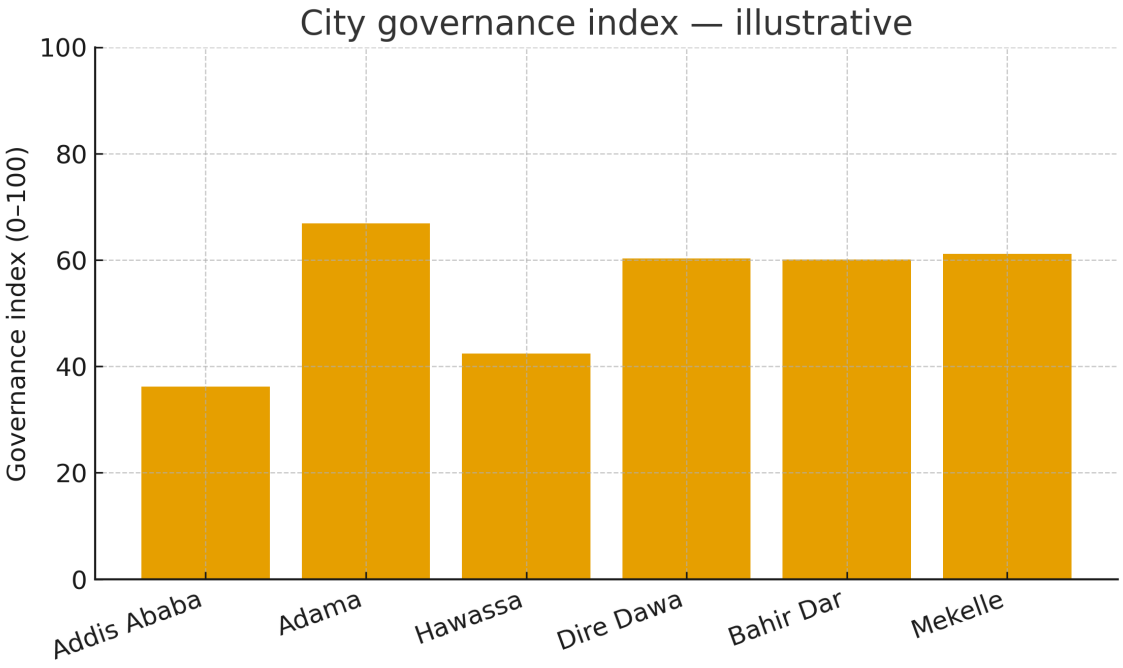


Table 8.12-A. Roles & responsibilities in Ethiopia's urban system (illustrative)

Function	Primary responsibility in Ethiopia (illustrative)
Land use & planning	City governments lead; regions approve structure plans; national sets standards.
Basic services (water, sanitation, solid waste)	Utilities/enterprises operate; cities set service areas; regulators set tariffs/standards.
Local roads/streets	Cities plan/maintain; regions support trunk links.
Public transport	City transport authorities/regional agencies; franchise/licensing for minibuses.
Housing & slum upgrading	Cities with housing agencies; national housing policy/finance; community participation.
Revenue administration	Cities collect property/business taxes & fees; national sets legal framework.

Table 8.12-B. Own-source revenue instruments

Instrument	Implementation notes
Property tax	Requires cadastre/valuation; strong growth potential.
Business license & market fees	Improve billing/collection; e-payment options.
Land lease/conversion fees	Use transparently; fund infrastructure; avoid one-off dependence.
User charges (waste, parking)	Cost-recovery with lifeline subsidies; earmark for service quality.
Development charges/impact fees	Finance trunk infrastructure for expansion areas.

Table 8.12-C. Expenditure assignment examples

Spending type	Examples in city budgets
Operating (O&M)	Routine street repair, waste collection, street lighting bills.
Capital (CapEx)	Roads, water mains, drainage, schools/clinics, depots.
Social programs	Targeted housing upgrades, safety nets links, youth skills.
Debt service	Loan repayments; ensure affordability & disclosure.

Table 8.12-D. Financing instruments menu

Instrument	When to use
Intergovernmental grants	Formula-based, performance-linked windows for CapEx.
Municipal borrowing	From development banks or bonds where legal; requires audited statements.
PPP/concessions	For bus depots, waste-to-energy, street lighting, water PPPs.

Land-value capture	Betterment levies, tax-increment, joint development at stations.
Donor/IFIs	Project loans/grants; technical assistance.
Climate finance	Green bonds; resilience funds for drainage, energy efficiency.

Table 8.12-E. Planning instruments stack

Instrument	Purpose
National urban policy	Overall framework & standards.
Regional/metropolitan plan	Corridors, greenbelts, functional urban area delineation.
City structure plan	Land-use, transport networks, growth areas.
Local development plan	Plot layout, densities, public space, services.
Capital investment plan (CIP)	Prioritized, costed 3–5 year pipeline.
Annual budget/MTFF	Financing plan with performance targets.

Table 8.12-F. Transparency & accountability dashboard (KPIs)

KPI	Definition/frequency
Budget execution (%)	Executed/approved budget; quarterly.
Own-source revenue per capita (ETB)	Level and yoy growth.
Procurement lead time (days)	Median tender to award time.
CapEx delivery (%)	Projects completed vs planned.
Service coverage (%)	Water, sanitation, waste, street lighting.
Citizen feedback resolution (%)	Complaints resolved within SLA.

Plain-language summary

Well-run cities are clear about roles, plan ahead, and publish their budgets and results. In Ethiopia, most city money comes from transfers, but own revenue like property tax can grow with better records and e-payments. Good spending means finishing projects on time and maintaining what exists. Cities can finance big projects using targeted grants, affordable loans, or public-private partnerships, as long as they are transparent and debts stay affordable. Each year, cities should follow a simple cycle: diagnose needs with communities, set a shared plan, choose and cost priority projects, approve a budget, buy services fairly, and report progress openly. Simple indicators—like revenue per person, on-time project delivery, and service coverage—help leaders and residents track improvement.

References — Section 8.12

- PEFA Secretariat — Public Financial Management performance framework.

- World Bank & UN-Habitat — Municipal finance and urban planning toolkits for Sub-Saharan Africa.

- Government of Ethiopia — Intergovernmental fiscal system, urban development policy, and city budget reports.

- AfDB & IFC — Municipal creditworthiness, PPP guidelines, and project prep resources.

8.13) Climate Resilience & Green Urban Transitions

This subsection connects Ethiopia’s urbanization to climate risks and opportunities for green transitions. We profile flood, heat, and drought risks; sketch city emissions profiles; and summarize adaptation, mitigation, and finance options. Figures are illustrative placeholders.

Figure 8.13-1. Flood exposure by city

Figure 8.13-1. Heat exposure by city

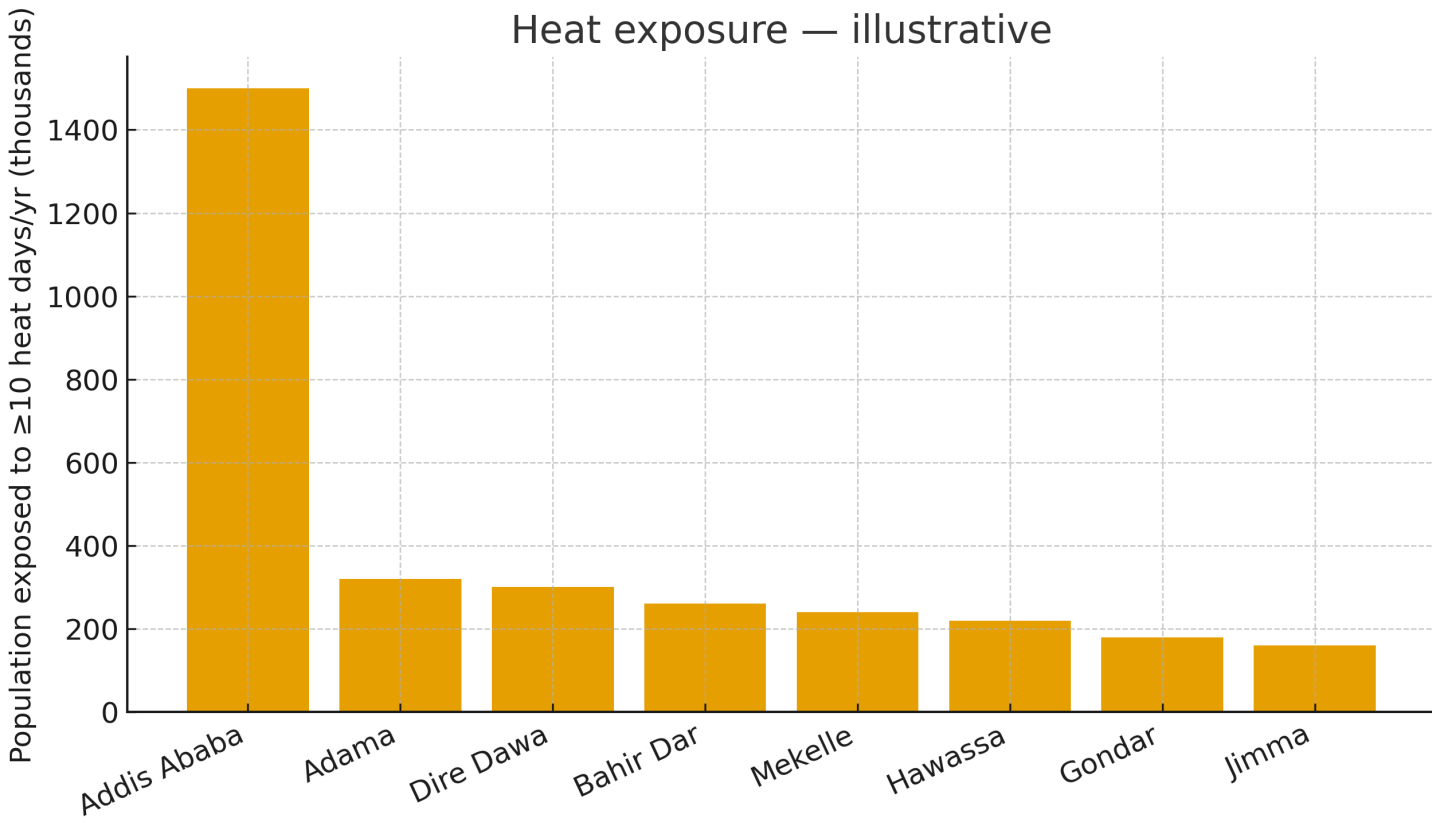


Figure 8.13-2. Urban GHG emissions by sector

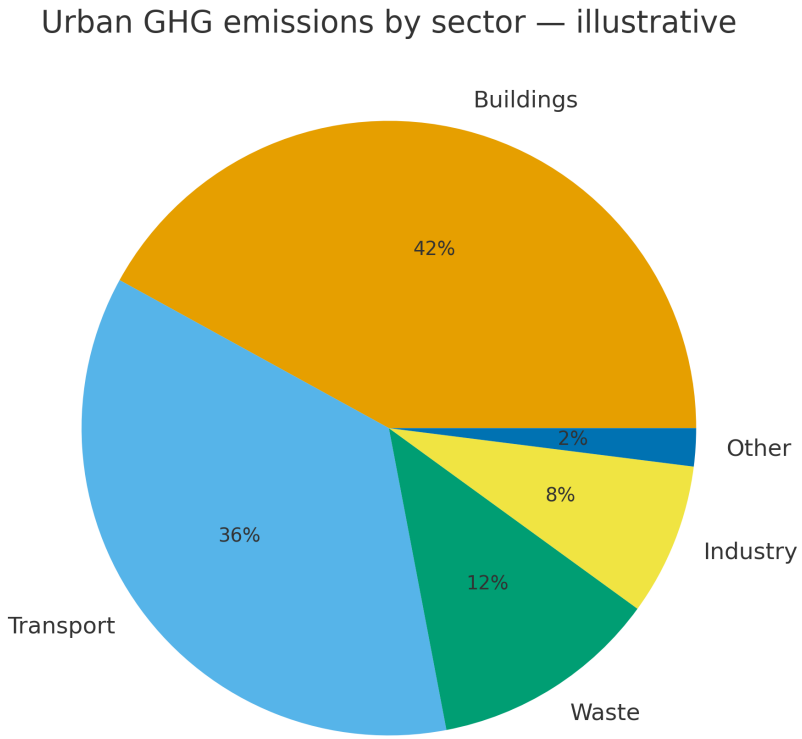


Figure 8.13-2. Mitigation potential by measure

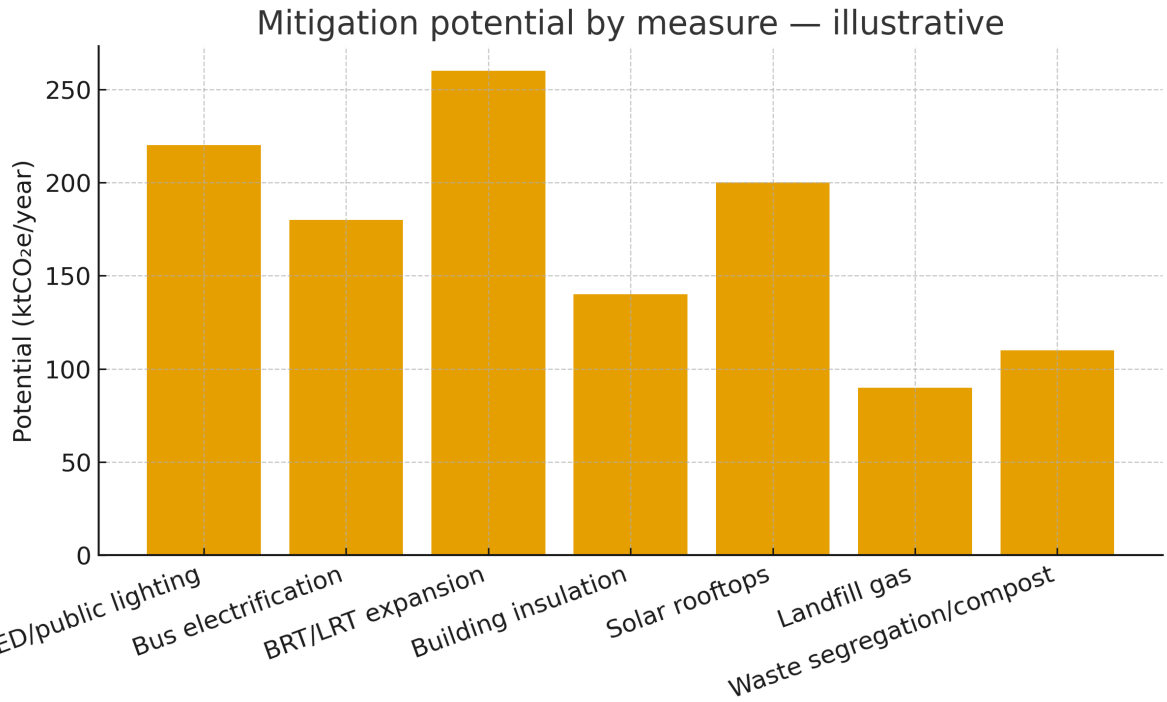


Figure 8.13-3. Abatement cost by measure

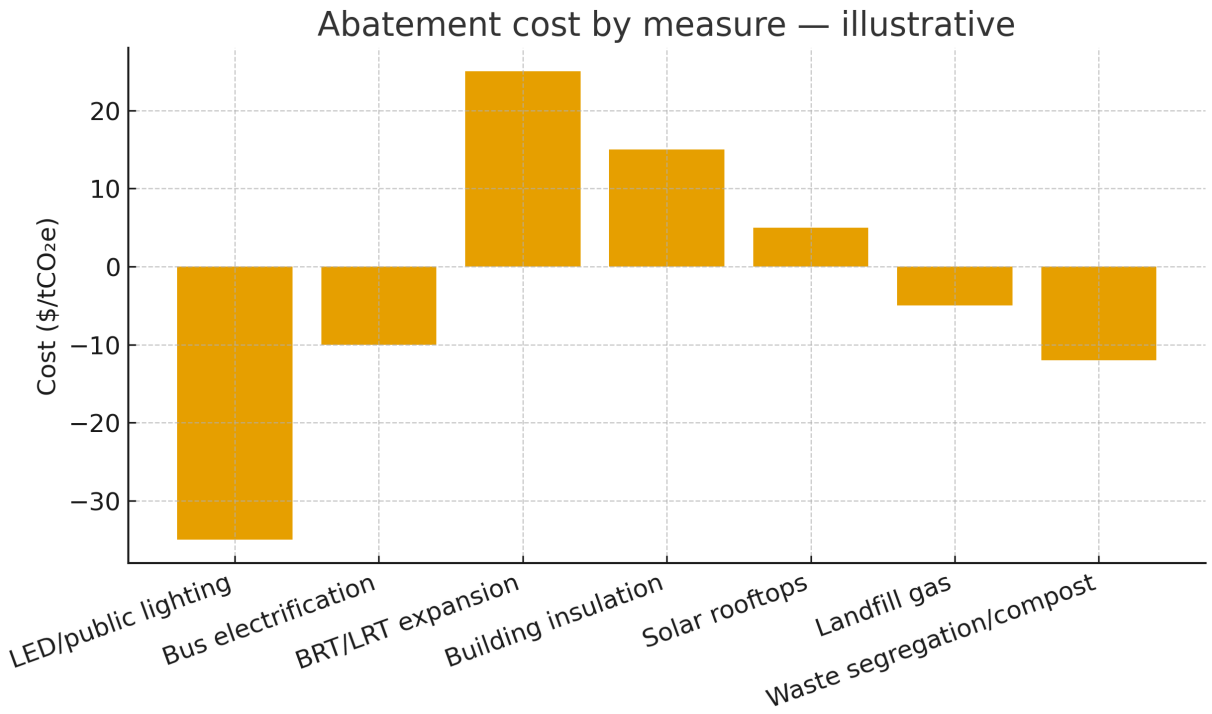


Figure 8.13-4. Urban green space per capita

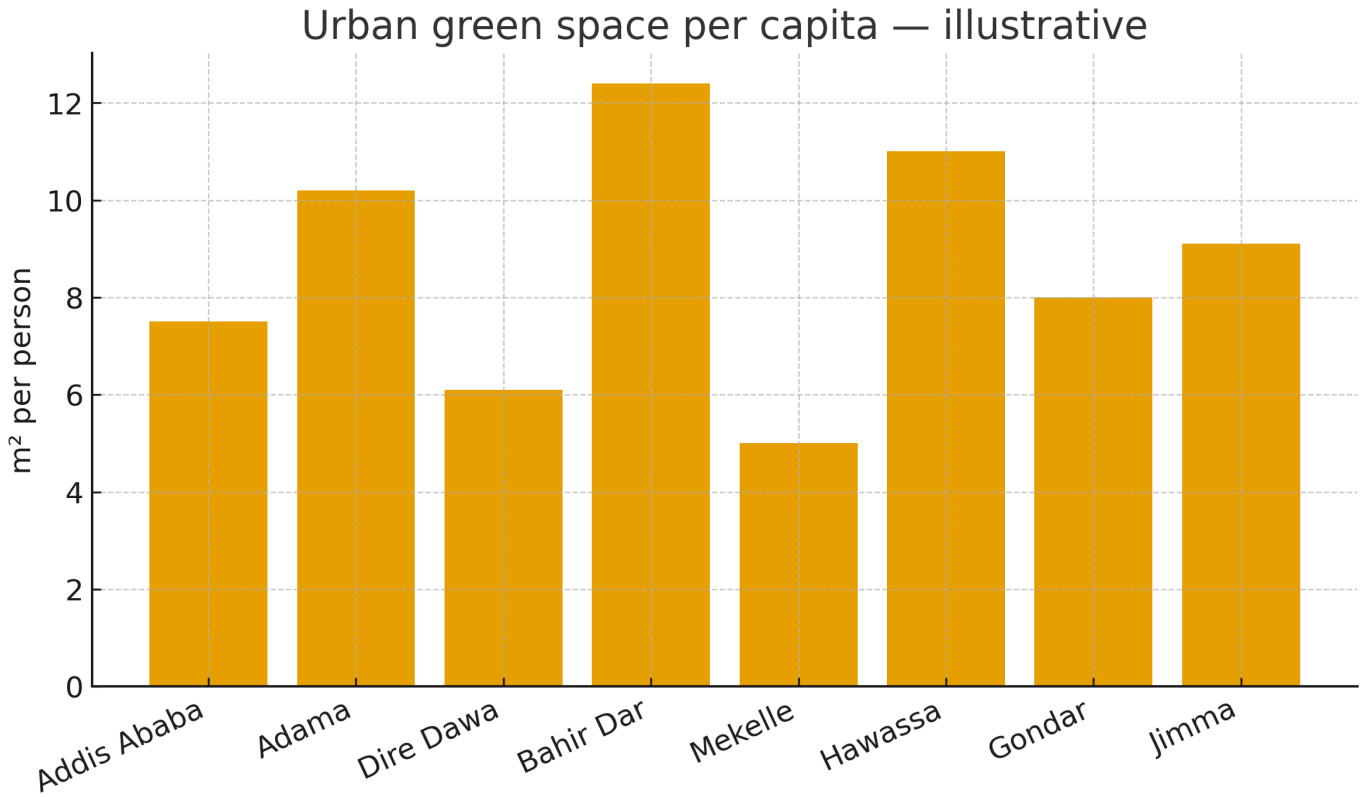


Figure 8.13-5. City climate finance pipeline

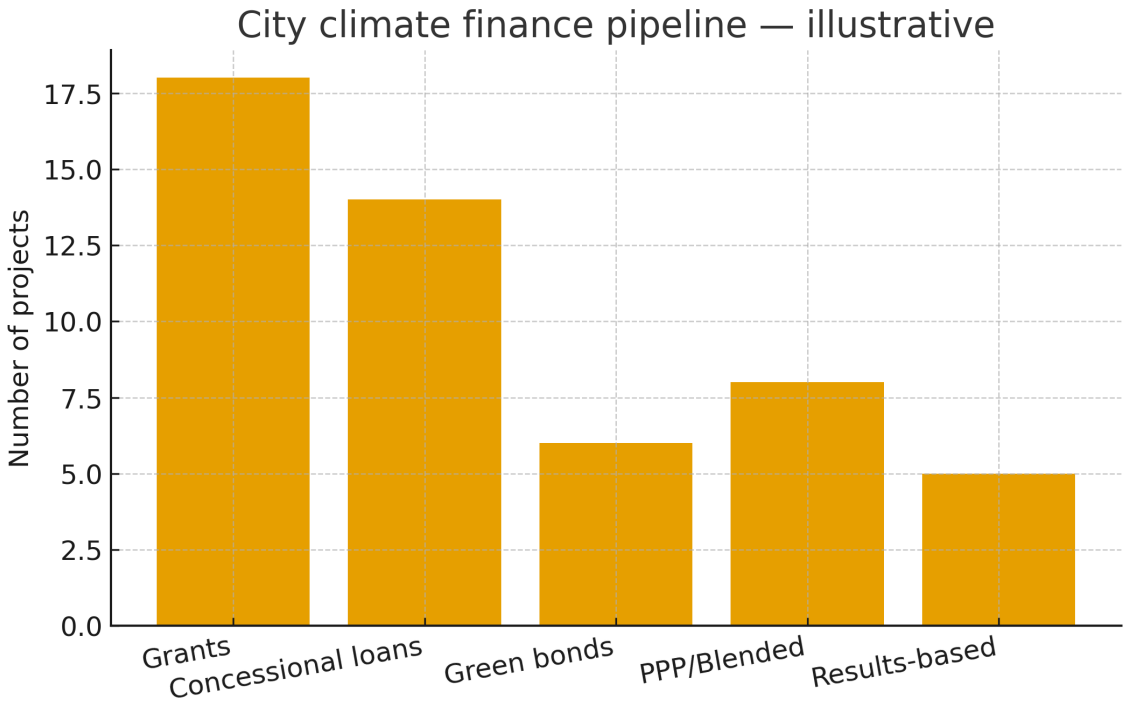


Figure 8.13-6. Building energy efficiency potential

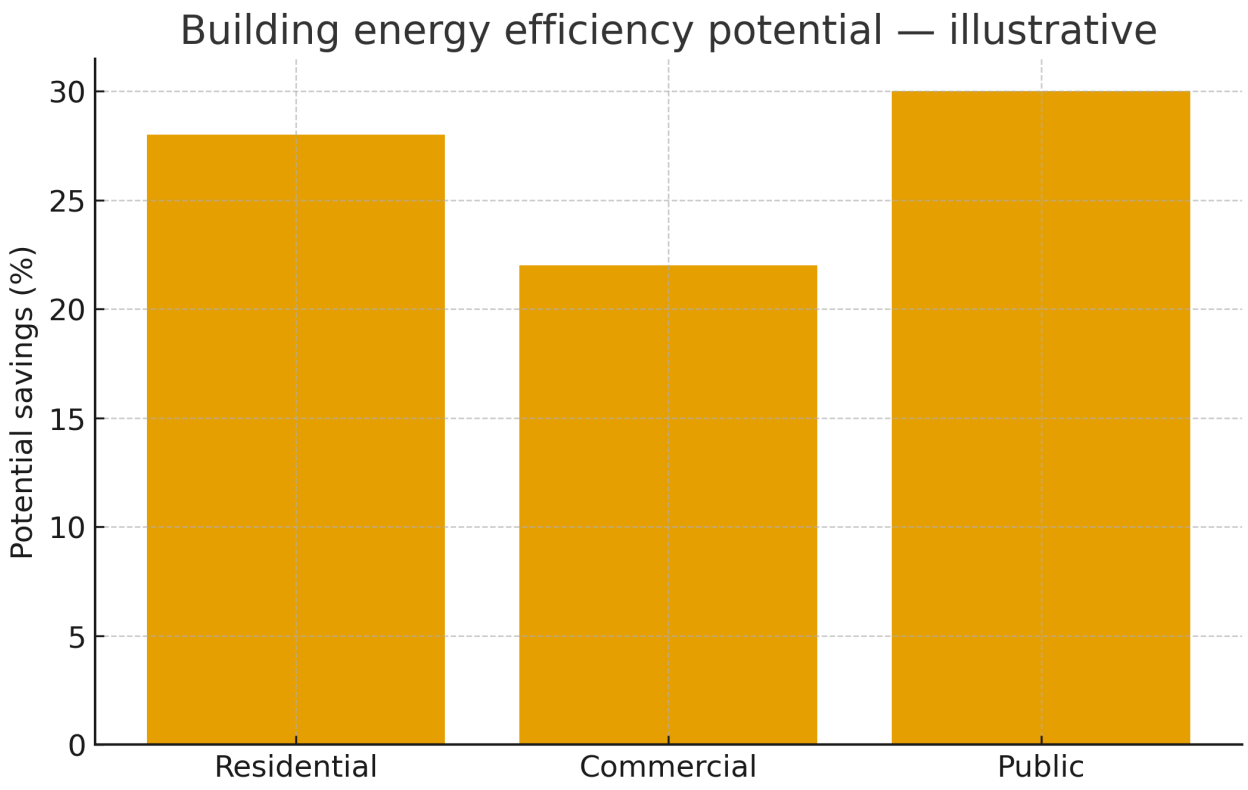


Table 8.13-A. Concepts & definitions

Term	Plain-language definition
Climate resilience	Capacity of systems and people to anticipate, absorb, accommodate, and recover from climate shocks.
Mitigation	Actions that reduce GHG emissions or enhance sinks.
Adaptation	Actions that reduce harm from climate impacts or exploit beneficial opportunities.
Nature-based solutions	Use of ecosystems (parks, wetlands, urban trees) to address hazards while providing co-benefits.
Risk	Hazard × Exposure × Vulnerability; reduced by lowering any component.

Table 8.13-B. Urban hazards, pathways, and impacts

Hazard	Pathway	Typical urban impacts
Floods	Intense rain + impermeable surfaces → flash floods	Housing damage, business losses, health risks
Heat waves	Urban heat island + rising temps → heat stress	Worker productivity loss, health emergencies
Drought/water stress	Variable rainfall, demand growth → shortages	Service interruptions, food price spikes
Landslides	Steep slopes + saturation → failures	Casualties, infrastructure damage
Air pollution	Traffic, industry, waste burning	Respiratory illness, mortality, learning loss

Table 8.13-C. Adaptation options matrix

Adaptation option	Key elements for Ethiopian cities
Drainage upgrade & WSUD	Permeable streets, detention basins, green roofs; early warning
Floodplain management	No-build zones, river restoration, relocation support
Heat action plans	Cooling centers, early warning, work-hour shifts, cool roofs & trees
Water security	Leak reduction, reuse, watershed protection, demand management
Slope risk management	Check dams, retaining structures, reforestation
Health systems	Surge capacity, vector control, surveillance for heat & flood events

Table 8.13-D. Mitigation options & co-benefits

Mitigation option	Co-benefits in Ethiopia
Efficient lighting & appliances	Rapid utility/municipal retrofit; saves money; improves reliability
Public transport & BRT/LRT	Mode shift, less congestion; cleaner air; equity benefits
Active mobility & street design	Short trips by foot/bike; safer streets; health gains
Building codes & retrofits	Insulation, shading, efficient AC; jobs in construction
Solar PV & solar water heaters	Peak shaving; energy access; local industry potential
Waste management & landfill gas	Reduced methane; energy recovery; cleaner neighborhoods

Table 8.13-E. Measurement & indicators

Indicator	How to measure annually
Flood risk index	% population in 100-yr floodplain; drainage km upgraded
Heat resilience index	Tree canopy %, cool roof coverage, heat early-warning activation
Water security	Non-revenue water %, per-capita supply, reuse share
GHG inventory	tCO_2e by sector; emissions per capita
Finance & delivery	Climate projects funded; % on-time delivery; benefit to low-income areas

Table 8.13-F. Financing & delivery instruments

Instrument	Where it fits
Grants & concessional loans	Adaptation infrastructure, social protection links
Green bonds/sustainability bonds	Large capital programs with measurable outcomes
PPP & energy service contracts	Street lighting, solar rooftop, transit depots
Land value capture	Stormwater parks and transit through development charges
Insurance & risk pooling	City catastrophe insurance; parametric drought cover

Plain-language summary

Cities feel climate change through floods, heat, and water stress. In Ethiopia, heavy rain can flood streets and homes, very hot days harm health and work, and drought reduces water supplies. The good news is that many solutions protect people and also improve daily life. Planting trees and restoring rivers reduce heat and floods; better drainage and early warning save lives; efficient buses, trains, and cleaner energy cut air pollution and save money. Making buildings cooler and more efficient lowers bills. Cities can use grants, low-cost loans, and green bonds to finance projects—while tracking results like fewer people in flood zones, more shade and parks, and lower emissions.

References — Section 8.13

- IPCC AR6 — Urban climate risks and adaptation pathways.

- UN-Habitat — City Resilience Profiling Tool; urban climate adaptation guidance.

- World Bank — Climate risk and resilience diagnostics for cities; urban heat and flood management.

- Global Protocol for Community-Scale GHG Emissions (GPC) — inventory methods.

- Green finance guidance — Green bonds principles; C40/ICLEI resources on city climate action.

Chapter 8 — Migration & Urbanization: Landing-Page Summary (Ethiopia + Global Lens)

Chapter 8 connects Ethiopia's migration dynamics—internal, seasonal, international, and displacement—with urbanization patterns, city systems, and policy responses. It blends Ethiopia-specific insights with global concepts so readers can interpret current trends, plan for inclusive cities, and benchmark against peers. This landing page orients you to the chapter and defines key terms used throughout.

How to use this chapter

• Read 8.1–8.4 to grasp core migration/urban concepts and measurement.
• Use 8.5–8.9 for mobility typologies, diaspora links, displacement, and city growth patterns.
• Apply tools from 8.10–8.13 for housing/services, urban form & transport, governance/finance, and climate action.
• Each subsection ends with a plain-language summary and references for deeper reading.

At-a-glance insights (Ethiopia)

• Urbanization has accelerated, driven by natural increase and migration to secondary cities and the Addis Ababa metro area.

• International migration is diversified (Gulf, regional Africa, Europe/North America), with remittances supporting household welfare and investment.

• Seasonal and circular mobility—especially among pastoralist systems—requires flexible service delivery and mobile data collection.

• Displacement (IDPs/refugees/returnees) remains significant; durable solutions work best when host communities are included.

• Urban challenges include housing affordability, informal settlements, and service gaps; opportunities lie in serviced land, upgrading, and transit-oriented development.

• Climate risks (floods, heat, drought) intersect with fast urban growth; nature-based solutions and clean transport offer co-benefits.

Quick metrics panel (what to track)

• Net migration to cities and urban growth decomposition (natural increase vs migration).

• Remittance inflows and average corridor cost to send $200; share of households receiving remittances by region.

• IDPs/refugees/returnees: stocks, new flows, and progress toward durable solutions.

• Urban housing: rent-to-income ratio, informal/slum share, and service coverage (water, sanitation, waste, electricity, transit).

• Urban form & transport: mode share, commute time, intersection density, and jobs accessible within 45 minutes by public transport.

• Climate & environment: % population in floodplains, heat exposure days, tree canopy/green space per capita, and sectoral GHG emissions.

Key datasets & sources (see each subsection for precise citations)

• CSA (census/surveys), National Bank of Ethiopia, sectoral ministries and utilities (urban services, housing, transport).

• IOM (DTM), UNHCR, IDMC, OCHA (displacement flows, site conditions, response).

• World Bank/KNOMAD (remittances, prices), UN DESA (migrant stock, urbanization), UN-Habitat (slum indicators).

• Geospatial: satellite-derived built-up maps, night-time lights, gridded population, OpenStreetMap, GTFS.

Methods notes (read before using numbers)

• Distinguish between de facto and de jure definitions when comparing datasets.
• Verify urban definitions (administrative vs functional urban area) before trend analysis.
• Use triangulation: combine surveys, admin records, and geospatial layers to validate estimates.
• Treat synthetic or illustrative figures in this chapter’s drafts as placeholders to be replaced with official statistics before publication.

Glossary of key terms (Chapter 8)

De facto population
People present in a place on census/survey day, regardless of usual residence.

De jure population
People who usually live in a place (usual residence), present or absent on reference day.

Internal migration
Movement within national borders for residence, work, or study.

International migration
Movement across borders to reside in another country (temporary or permanent).

Seasonal/circular mobility
Repeated, often predictable moves tied to seasons, jobs, or pastoralist systems.

IDP (Internally Displaced Person)
Someone forced to flee home but remaining within national borders.

Refugee / Asylum seeker
Person crossing an international border for protection due to conflict or persecution.

Returnee
Person who returns to origin (country or area) after displacement or migration.

Urbanization level
Share of the national population living in urban areas.

Rank–size rule (Zipf)
Approximate relationship where city size is inversely proportional to its rank.

Urban primacy
Dominance of the largest city in the urban system.

Informal settlement / Slum
Neighborhood where households lack one or more of: improved water/sanitation, durable materials, sufficient space, or tenure security.

Tenure
Legal/administrative status of occupancy (owner, renter, informal, etc.).

Transit-oriented development (TOD)
Compact, mixed-use development within walking distance of high-capacity transit.

Accessibility (T_45)
Jobs (or services) reachable within a set travel time threshold (e.g., 45 minutes) by public transport.

Vehicle-kilometers traveled (VKT)
Total distance driven by vehicles, often expressed per capita.

Remittances
Money sent by migrants to people in their home country.

Remittance cost
Total fee and exchange-rate margin to send a fixed amount (e.g., $200) on a corridor.

Durable solutions
Status where displaced people enjoy safety, housing, services, and livelihoods comparable to non-displaced residents.

Nature-based solutions (NbS)
Use of ecosystems—trees, wetlands, restored rivers—to manage climate risks and provide co-benefits.

Greenhouse gas (GHG) inventory
Account of emissions by sector (buildings, transport, waste, etc.) for a city or region.

Chapter-level reference pointers (see subsections for full citations & URLs)
• UN DESA — World Urbanization Prospects; International Migrant Stock.

• World Bank/KNOMAD — Remittance Prices Worldwide; migration & remittance data.

• IOM DTM; UNHCR Operational Data — displacement and protection statistics.

• UN-Habitat — Slum indicators and urban basic services; City Resilience tools.

• OECD/EC — Functional Urban Areas methodology; accessibility metrics.

• CSA Ethiopia — Census and household surveys; sectoral admin data; city budgets.