

Geological Typologies

From Earthwise

[Jump to navigation](#) [Jump to search](#)

[Asia City Geoscience Profiles Home](#) >> Geological Typologies

For these City Profiles we have divided each city's geological setting into specific typologies, or classes, as shown in the table below.

Geological Typologies									
Geological setting	Summary of geological characteristics	Examples in Asia	Geological challenges	Geological opportunities					
DELTA	Sediments deposited by interaction of fluvial and marine processes.	DHAKA , Kolkata, HO CHI MINH CITY , Yangon	Subsidence; flooding; sea level rise; lack of aggregate resources; salinisation of groundwater; unstable building conditions	Uniform subsurface conditions; flat land; groundwater resources					
					Alluvial basin/ river plain	Sediments deposited by fluvial processes.	Varanasi, Delhi, Lucknow, Phnom Penh, Patna, Mandalay, Can Tho, Hanoi	Subsidence, flooding; lack of aggregate resources; unstable building conditions	Groundwater resources; uniform subsurface conditions; flat land

'Hard-bedded' cities

Underlain by consolidated bedrock. The upper part of the bedrock, up to tens of metres thick, is often weathered; and there may also be a thin covering (eg up to 30m?) of unconsolidated deposits overlying bedrock.

Geological properties are highly dependent on the bedrock type (sedimentary, metamorphic, volcanic, intrusive igneous). However, the subdivisions below are considered useful

Low relief	Developed in tectonically quiet regions, with slow weathering erosion processes over long periods of geological time.	Hyderabad, Mysore, Bangalore, Nagpur, Jaipur, Pune	Highly irregular weathering front/rockhead; variable ground (subsurface?) conditions; limited groundwater	No subsidence; stable ground (subsurface?) conditions (BUT WEATHERING?); aggregate resources
Basalt				
High relief	Developed in tectonically active regions, with pronounced topography.	Singapore, Hong Kong	Highly irregular weathering front/rockhead; variable subsurface and ground conditions; limited groundwater; landslide risk	Abundant aggregate resources; no subsidence; stable ground (subsurface?) conditions

'Complex-bedded' cities

Contain two or more elements of low and high relief settings

Mixed 'hard-bedded'/'soft-bedded'	Underlain in part by bedrock (sometimes of very different types) and in part by thick unconsolidated sediments.	Kuala Lumpur, Mumbai	Highly irregular weathering front/rockhead; variable ground (subsurface?) conditions	
Intramontane basins	A special case. Not described here.	Kathmandu, Tehran	Seismic risk, landslide risk	

Retrieved from 'http://earthwise.bgs.ac.uk/index.php?title=Geological_Typologies&oldid=53011'
 Category:

- [Asia City Geoscience Profiles](#)

Navigation menu

Personal tools

- Not logged in
- [Talk](#)
- [Contributions](#)
- [Log in](#)
- [Request account](#)

Namespaces

- [Page](#)
- [Discussion](#)

□

Variants

Views

- [Read](#)
- [Edit](#)
- [View history](#)
- [PDF Export](#)

□

More

Search

Navigation

- [Main page](#)
- [Recent changes](#)
- [Random page](#)
- [Help about MediaWiki](#)

Tools

- [What links here](#)
- [Related changes](#)
- [Special pages](#)
- [Permanent link](#)
- [Page information](#)
- [Cite this page](#)
- [Browse properties](#)

- This page was last modified on 26 July 2021, at 16:31.

- [Privacy policy](#)
- [About Earthwise](#)
- [Disclaimers](#)

