## 10. Rivers and fluvial landforms

Water is the most important exogenic element (factor).

**Oceans**
In seas and oceans → ocean currents form *abyssal canyons*.

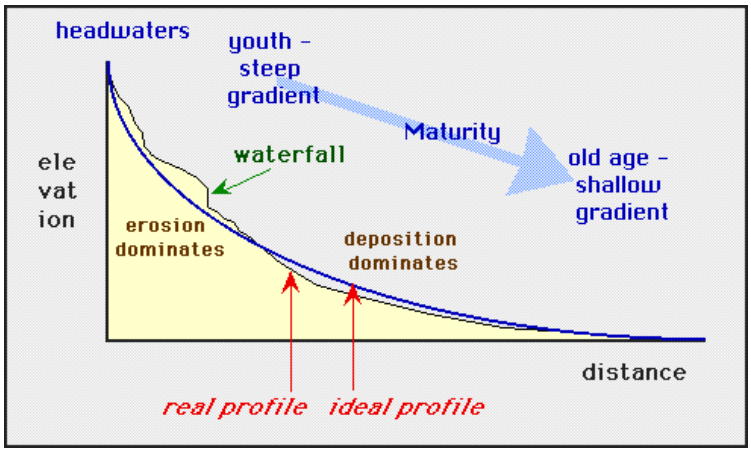
**Coasts**
At the coast → coastal erosion => many landforms due to abrasion and accumulation processes, e.g. cliffs, reefs, beaches etc.

**Slopes**
Upon inclined surfaces → water erosion of soils => results in *chanelling*

- *Gutter erosion* = water concentrated into small channels
- *Washout erosion* = channels become larger
- *Overland run-off* = water runs downslopes without any control

⇔ caused by sudden rain, huge precipitation.
In mountain valleys, due to mixing of soil and water = *mudflows*.

**Fluvial processes**
Besides deserts and polar regions, fluvial processes play an important role in landscape formation. Speed and size (intensity) of a flow determine the transport of weathered material.




Ideal profile = flow energy is appropriate to transport the material.
Erosion = energy of the flow > the gravitation => lower inclination of riverbed and slowering of the flow towards ideal profile.
Deposition = energy of the flow < gravitation => deposition of material.

All these processes result in many fluvial landforms:

- *river channel/river bed*
- *river terracettes*
- *deltas (river estuaries), meanders*
- *river valleys, waterfalls*

Rivers and their waters can form a karst very often (Slovenský kras). The principle: water dissolves rocks creating grikes, canyons, gorges, gaps and caves with dripstones (stalactites, stalagmites, columns).

**Keywords**
ocean currents, abyssal canyons, abrasion, accumulation, cliff, reef, beach, chanelling, gutter/washout erosion, overland run-off, mudflows, ideal profile, erosion, deposition, fluvial landforms, riverbed, teracette, delta, estuary, meander, river valley, waterfall, karst, grikes, gorge, gap, dripstones, stalactites, stalagmites, columns