LANDFORM GLOSSARY

Alluvial fan: A fan-shaped deposit formed by a stream either where it issues from a narrow mountain valley onto a plain or broad valley, or where a tributary stream joins a main stream.

Coastal plain: Geomorphological region close to the margin between the land and the sea. Narrow, flat belt of land along the ocean edge characterised by the presence of beaches (accumulation of sediments deposited by waves and long shore currents in the shore zone), dune (formed where sand deposited on the shore dries out and is blown to the back of the beaches) and delta (see next definition).

Delta plain: A plain formed by deposition of silt and alluvial sediments at the mouth of the stream. It is a low, nearly flat area of land where the sediments accumulate instead of being redistributed by the sea or by the lake water. Basically, fluvial processes build up deltas with marine influence.

Depression: (Structural). An elongated trough or depression bounded by inward facing fault scarps along faults. These depressions can vary in width. Generally, the bottom is characterised by a flat or almost flat terrain. **(Lacustrine).** A depression where the lacustro/fluvial sedimentation is the main peculiarity.

Escarpment: A fault scarp (or escarpment) is a steep, exposed slope where the land falls from a higher to lower level. Usually the escarpments can be caused by vertical displacement of the earth's surface along direct fault lines. Some of them are more defined, while others are less evident especially if weathering and vigorous erosion processes have taken place on softer rocks.

Flood plain: The relatively smooth, flat or gently sloping lands adjacent to and formed by alluviating rivers, which are subject to overflow. It is periodically flooded. Alluvial deposits occur in this area. Floodplain accumulates its sediments in two ways: by lateral migration of channels across the floodplain and by over-bank deposition from floodwaters.

Footslope: The lowest part of the slope zone is usually gently sloping with varying slope lengths. They are carved in the bedrock by weathering and erosional processes and are generally veneered with debris. Footslopes occur between mountain fronts and valleys or basin bottoms and commonly forms extensive bedrock surfaces over which the weathering products from the retreating mountain fronts are transported to the basins.

Hill: A land surface feature characterised by strong relief rises straight from the plain or surrounding areas. It is a prominence smaller than a mountain and like a mountain can be isolated or in complexes.

Inselberg: Inselberg is a word of German origin, meaning 'island mountain'. It is a steep-sided residual hill, knob or mountain, generally rocky and bare, rising abruptly

from an extensive nearly low-level land erosion surface. Some of them are surrounded at their foot by gentle rock pediments. They vary in shape and size; some being only small hills less than 100 m high while others can reach much higher altitudes.

Mountain: A feature of the earth's surface that rises high above the base and has generally steep slopes and relatively small summit area. Mountains, as hills, can be isolated features or arranged in systems. Successions of mountains (mountain ranges or mountain system) are generally closely related in position, direction and geologic features.

Plain: An extensive, generally broad tract of land, flat or gently sloping that occurs round the bases of many mountain/hill ranges. **Alluvial plain:** Plains derived by fluvial activity and characterised by alluvial deposits. **Dissected plain:** sloping land marked by intense erosive cutting with more or less constant crest level.

Plateau: An extensive flat or almost flat surface found in the upland region. It is considerably elevated above the adjacent country and limited by an abrupt descent scarp on at least one side.
Volcanic plateau is formed by eruption (successive layers of lava) of very fluid basic lava from a large number of linear or fissure vents in the crust. As successive eruptions take place, with little explosive action, very mobile basaltic lava spreads out over preceding flows. Eventually, the depth of the lava may be hundreds of meters thick, completely covering original landscape. Vertical jointing in the basalt causes the plateau edges to be very abrupt, and where rivers have dissected the plateau, the valleys tend to be steep-sided gorges. Strictly linked with the plateau, is the term steps fault platform: it is a term used to indicate a broad landform with an irregular feature produced by step faulting.
Plateau can be of volcanic origin, but upland with level summit can be found in sedimentary and metamorphic formations.

Ridge: An elongated, narrow, steep-sided elevation of the earth's surface. It has a single crest, which may have a more or less constant elevation, or may contain a number of peaks. **Complex of Ridges:** series of adjacent ridges.

Shore: The narrow strip of land immediately bordering a water body. The word shore describes a zone around the lakes that is affected by wave action or related to the seasonal fluctuations.

Swampy area: A waterlogged and/or frequently inundated land, generally flat, poorly drained and colonised by natural vegetation.

Valley: The broad area of flat, low-lying ground bordered by higher ground. Main origin can be linked with fluvial/erosion activities but the weathering actions are also an important factor in its developing processes.

Valley bottom/River bed: The flat strip in the most depressed part of the valley. The riverbed, where the water flows, is always included in it. This definition is used to

indicate the lowest part of the valley, partly covered by water, where erosion/deposition actions take place.

Volcanic cones and crater area: This unit comprises some areas where groups of small symmetrical volcanic cones occur. Composite parasitic cones are generally developed, during the volcanic activity, where subsidiary vents have reached the surface. In this class are included the rimmed structure at the summit of the volcanic cone (crater) and the caldera depression (see next definition). (Crater: A large, bowl-shaped topographic depression with steep sides. The floor is equal to the vent diameter. Caldera: a more or less circular volcanic depression whose diameter is many times greater than that of the volcanic vent).

Volcanic shield: It is a hill or mountain formed by the eruption of molten rock from a central opening or vents in the crust. Lava edifices are built by successive lava flows. The size and the shape of shield is mainly determined by the nature of the material erupted. The viscosity of the lava depends on the percentage of silica content (silica content between 20-60% acid rock -e.g. ryolite- extremely viscous and immobile. Less than 20 % of SiO_2 -e.g. trachyte- fairly viscous unable to flow far before solidifying and basalt very fluid and mobile). Free-flowing basalt in large quantities can build up a broad shield volcano because it is able to flow for long distances before solidifying. The basalt volcano generally is a large flat-area topped convex of basic lava with gently sloping sides and is usually low in height relative to a large basal diameter. Some of these shields present residual landforms called calderas. It is a large rounded depression resulting from the destruction of the upper part of a volcano in a violent eruption. Calderas are also due to subsidence. Major eruptions, by reducing the magma supply, leave a huge chasm beneath a volcano. The weight of the overlying cone becomes too great, faults develop, and it collapses into the chasm. Many calderas probably result from both explosions and subsidence.
The slope of these edifices can be deeply dissected by radial valleys. Erosion develops first on the upper slopes, and in the early stages of dissection, triangular facets of the original volcano, called planezes, may remain on the lower slopes. Eventually the planezes are also destroyed.