



### 1. Title

Weathering and Soil formation in Response to Environmental Changes

### 2. Type

Commission Symposium: Comm. 1.3-Soil Genesis

### 3. Organizer(s) & Convener

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### 4. Rationale

Weathering and soil formation are important biogeochemical processes which relate not only to ecosystem sustainability but also global climate change, by facilitating nutrient cycling and green house gases sinking. However, these pedological processes have often been overlooked in the past because emphasis were mainly put on soil genesis rather than ecosystem processes occur in the "critical zone". Given the altered global and local environments such as climate change and acid precipitation, the processes related to mineral weathering and soil formation should be addressed as a wholistic approach in ecosystem context.

### 5. Objectives

The main objectives are to provide participants from soil science and biogeochemistry fields a forum to discuss the most recent progress on soil formation and evolution as well as their roles in regulating and mitigating environmental changes in the context of Critical Zone (CZ).

### 6. Description

Weathering, soil formation and biogeochemical cycling of key elements (C,N,P,S and other mineral element) in response to anthropogenically affected atmospheric deposition under various climatic conditions.

Inorganic and organic carbon cycling and sequestration during soil development in various natural and artificial environments.

