



## SELECTING ASSESMENT FACTORS IN SOIL FOR STRATEGIC ENVIRONMENTAL ASSESMENT (SEA) IN KOREA

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### ABSTRACT

#### Introduction & Method

In 2008, Korean government introduced the Strategic Environmental Assessment (SEA) into the Environmental Policy Act. Since then, impact on soil (mainly on contamination issue) has been considered in the early stages of planning when establishing the basic plan development. However, the SEA has not fully taken into account valuable soil functions.

The purpose of this study was to select assessment factors in soil for Korean SEA. Fifteen plans of administrative plan and eighty six plans of development basic plan were analyzed to determine assessment factors in soil. Furthermore, the assessment factors were selected through analyzing current legislation and SEA report guideline.

#### Results & Discussion

In the case of development basic plan whose physical boundary is roughly determined, the assessment on soil was performed in separate section in SEA procedure. However, in case of administrative plan whose physical boundary could not be determined, the soil was not properly assessed in the SEA.

Therefore, we suggest, in case of administrative plan, that it is necessary 1) to review and determine alternatives on soil conservation area and less development area (due to soil contamination problem), 2) to check out whether a land use plan takes into account soil process (slope, salinity, soil moving etc.) or not, and 3) especially, to review extents of impacts on soil process (soil erosion, soil sealing, soil contamination, and soil moving, etc.) by the administrative plan and to propose alternatives with less impacts on soil process.

In case of development basic plan, we propose that it is necessary 1) to establish conservation area in terms of soil ecosystem protection, and its area could be determined by weighing current and future land use, topography and geology, soil characteristics (texture, structure, quality, et al.), soil contamination sources, landslide risk map, and ecological and nature map data, and 2) to review and assess soil diversity, soil nutrients, soil erosion, soil moving, soil contamination, regarding soil characteristics.

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