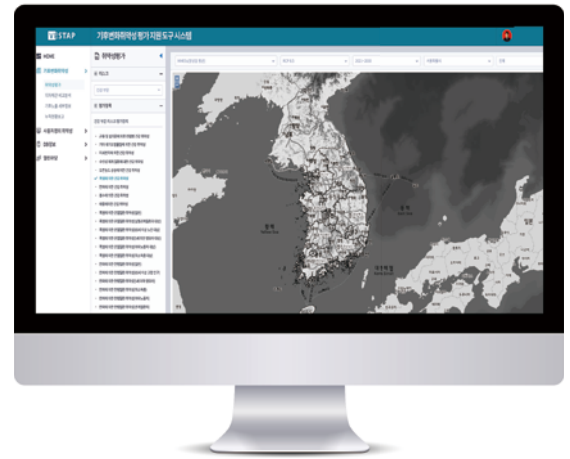


VESTAP

VESTAP is a vulnerability assessment tool that has been available since November 2014. It supports local governments' climate change vulnerability assessments and was expanded in December 2015 to support regional and local climate change vulnerability assessments.

<https://vestap.kei.re.kr/>



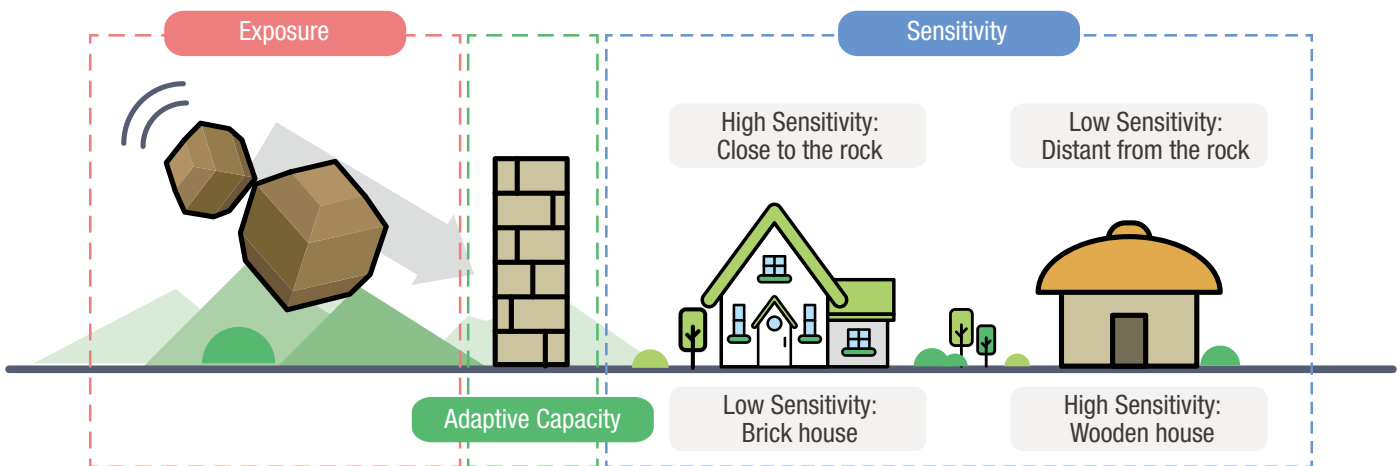
What is climate change vulnerability assessment?

- **Vulnerability assessments** integrate climate exposure, sensitivity, and adaptive capacity (*) to determine the degree to which a system of interest is susceptible to continuous damage caused by climate change or the extent to which a system (a unit such as a local or metropolitan government) is incapable of coping with the adverse effects of climate change.
- **Climate change vulnerability** refers to the relative measure of a system's ability to adapt to climate change; generally, a high susceptibility to climate change and a low adaptive capacity indicates high vulnerability (IPCC, 2007).

* **Exposure:** the degree to which a system is exposed to the impacts of climate change (temperature, precipitation, etc.)

* **Sensitivity:** the degree to which a system, such as population, infrastructure, or topography, is susceptible to climate change

* **Adaptive capacity:** the ability of a system to adapt socially and economically to climate change (policies, GRDP, etc.)



Climate change vulnerability assessment: VESTAP



Provides web-based tools

- Provides web-based vulnerability assessment tools with existing vulnerability assessments and by analyzing operational environments



Offers a variety of convenient features

- Easy vulnerability assessment inquiry
- Vulnerability assessment by local governments
- Provides convenient functions such as item management



Provides the latest data

- Creates and offers 500 indicator data
- Provides metadata information on raw data

Climate change vulnerability assessment items

- Provides 57 assessment items across 7 categories (as of October 2021)
 - 32 items (2012) ▶ 41 items (2018) ▶ 45 items (2019) ▶ 57 items (2020)



Main functions of VESTAP

- VESTAP analyzes indicators based on RCP4.5 and RCP8.5 scenarios. It also provides user definitions for performing vulnerability assessments that are customized to reflect the characteristics of each local government.



Vulnerability to climate change

- Inquiry into the vulnerability assessment map and raw data
- Comparative analysis of the evaluation results between regions (2 regions)
- Additional climate exposure information (grid map, climate model details)
- Accumulated status (adaptive capacity and sensitivity)



Customization of vulnerability

- Creates evaluation indicators
- Creates evaluation items
- Self assessment of vulnerability



Providing DB information

- Raw data
- Indicators
- Information on evaluation items

Usage by local governments

- The 2nd Detailed Implementation Plan for Climate Change Adaptation for Metropolitan Cities and Provinces using VESTAP was established.
 - Detailed implementation plans for metropolitan cities and provinces / Detailed implementation plans for each local government.



Future plans

- Development of vulnerability assessment items that consider user needs in order to increase its utilization by metropolitan/local governments.
- Development of customized education, training programs, and educational textbooks.

VESTAP organized by the Ministry of Environment is operated and supported by the Korea Adaptation Center for Climate Change of the Korea Environment Institute.
 More detailed system descriptions and manuals are available on the VESTAP online.

<https://vestap.kei.re.kr>

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