

# Protecting soil biodiversity essential in adapting to climate change

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Efforts to adapt to a rapidly changing climate are entirely dependent on protecting the life in our soils.

These are among findings compiled by more than 300 researchers for the United Nation's Food and Agriculture Organisation (FAO). Lead author of the second chapter of the report, Professor Brajesh Singh and colleagues at the Global Centre for Land-Based Innovation at Western Sydney University have linked diverse [soil](#) flora and fauna, and a dramatically-changing [global climate](#), to the sustainability of human civilisation and our [natural world](#).

"Every one of us is standing upon the world's most important natural resource," said Professor Singh.

"Soil biodiversity drives the processes that humankind almost takes for granted—high-quality food, fresh clean water and healthy economies. There is extensive evidence that the world could make significant progress towards the United National Sustainable Development Goals just by protecting the life and health of our soils," Professor Singh said.

Rapid advances in DNA and genetic sequencing technologies are driving massive global research efforts to identify and adopt the most promising soil biodiversity practices.

Already, techniques such as no-till agriculture, carbon farming and satellite mapping are used to grow food and fiber with much more emphasis on keeping soils healthy and biologically-active, all of which originated from the adoption of science and research.

"What governments around the world must do immediately is include [soil biodiversity](#) as one of the main priorities to address [climate change](#) and ensure that the Australian agriculture industry can reach its stated goal of being a \$100 billion industry by 2030," Professor Singh said.

"We cannot keep treating our soils like dirt," said Professor Singh. Western Sydney University scientists Dr. Catriona Macdonald, Dr.

Eleonora Egidi and Associate Professor Uffe Nielsen also contributed to the report.

**More information:** The reports are available online:  
[www.fao.org/documents/card/en/c/CB1928EN/](http://www.fao.org/documents/card/en/c/CB1928EN/)

Provided by Western Sydney University

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