



UNIVERSITÀ DEGLI STUDI DI MILANO

SELEZIONE PUBBLICA, PER ESAMI, A N. 1 POSTO DI CATEGORIA D - AREA TECNICA, TECNICO-SCIENTIFICA ED ELABORAZIONE DATI, CON RAPPORTO DI LAVORO SUBORDINATO A TEMPO DETERMINATO PRESSO L'UNIVERSITÀ DEGLI STUDI DI MILANO - DIPARTIMENTO DI SCIENZE AGRARIE E AMBIENTALI - PRODUZIONE, TERRITORIO, AGROENERGIA - POLO UNIMONT (EDOLO, BS) - CODICE 22377

La Commissione giudicatrice della selezione, nominata con Determina Direttoriale n. 20486 del 13/12/2023, composta da:

Prof. Matteo Carrer	Presidente
Dott.ssa Floriana Mulazzi	Componente
Dott. Luca Giupponi	Componente
Dott.ssa Anna La Tegola	Segretaria

comunica le tracce relative alla prova Orale:

BUSTA 1

Domanda:

Il candidato definisca cosa si intende per Nature Based Solutions (NbS), riporti alcuni esempi di NbS applicabili in ambito montano e descriva le azioni e gli strumenti che adopererebbe per la creazione e la disseminazione di un database di NbS.

Testo EN:

Quantifying how well Nature-based Solutions can offset anthropogenic climate change impacts is important for adaptation planning, but has rarely been done. Here we show that a widely-applied Nature-based Solution in South Africa - invasive alien tree clearing - reduces the impact of anthropogenic climate change on drought streamflow. Using a multi-model joint-attribution of climate and landscape-vegetation states during the 2015-2017 Cape Town "Day Zero" drought, we find that anthropogenic climate change reduced streamflow by 12-29% relative to a counterfactual world with anthropogenic emissions removed. This impact on streamflow was larger than corresponding reductions in rainfall (7-15%) and reference evapotranspiration (1.7-2%). Clearing invasive alien trees could have ameliorated streamflow reductions by 3-16% points for moderate invasion levels. Preventing further invasive alien tree spread avoided potential additional reductions of 10-27% points. Total clearing could not have offset the anthropogenic climate change impact completely. Invasive alien tree clearing is an important form of catchment restoration for managing changing hydroclimatic risk, but will need to be combined with other adaptation options as climate change accelerates.

BUSTA 2

Domanda:

Il candidato descriva i principali programmi di finanziamento della ricerca, pubblici e privati, nazionali e internazionali, con particolare riferimento alla nuova programmazione europea nell'ambito dello sviluppo sostenibile e del Green Deal.

Testo EN:

The Intergovernmental Panel on Climate Change (IPCC) and the Intergovernmental science-policy Platform on Biodiversity and Ecosystem Services (IPBES) indicate that addressing climate concerns and biodiversity protection are mutually reinforcing goals, and must be jointly pursued. Nature-based solutions (NbS) are gaining global attention as measures that can collectively address pressing challenges of the 21st century, including climate change, biodiversity loss, natural disasters, food security, economic development and rising inequalities among people. They include a broad range of actions such as ecosystem-based adaptation, ecosystem-based disaster risk reduction, ecosystem services management, integrated landscape management and more. In this commentary, we briefly elaborate on the art and science of NbS, relate them



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to the context of mountain hazards in the Hindu Kush Himalaya (HKH), and provide a conceptual design for replication and spread of NbS in wider spatial scale to address hazards and disaster risk in the mountains through quicker adoption and promotion with investments.

Milano, 17 gennaio 2024

La Commissione

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Dott.ssa Anna La Tegola	Segretaria