Webinar

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Kosi-Katarmal, Almora-263643, Uttarakhand

2nd September, 2020 (11.00AM -1.00 PM)

Spring Ecosystem

Definition, Scale, and Assessment Protocol

Mountain natural springs are the main fresh water sources which serve nearly 40 millions of people across the Himalayas. Over the years, these precious resources are increasingly drying up, or becoming seasonal, causing untold misery to both rural and urban inhabitants of the Indian Himalayan Region (IHR). However, the contemporary scientific knowhow on the interaction of biotic and abiotic factors affecting spring ecosystem (Box 1) of Himalayais limited. In fact, definition, scale, and health assessment protocols of Himalayan spring ecosystem is not yet satisfactorily established over the Indian Himalayan region. Subsequently, standard spring revival protocol remains alluring. In order to address this lacuna, the Centre for Land and Water Resource Management (CLWRM) of the GBPNIHE, is aiming to establish a protocol for assessing the spring ecosystem health for sustainable spring water management through an In-house research programme (Box 2).

Consequently,the research programme aims to provide a better understanding of functioning of the spring ecosystem, their basic characteristics and health status through quantifiable indicators across the Himalaya.

Definition of Spring Ecosystem

A spring ecosystem can be defined as a naturally occurring water unit which encompasses all biotic components (beneficiaries) in that area functioning together with all of the abiotic factors (physical/non-living) of the environment, both of which are responsible for quality and quantity (availability) of springs' water.

Although the springshed management for rejuvenation of springs is carried out over the Indian Himalayan region by various researchers/practitioners, efforts are mostly indirect, sporadic, and implicit with limited scientific consensus on 'Definition' and 'Methodological Framework'. This webinar, therefore, anticipated to seek solutions to these lacunas through addressing the following objectives :

Objectives of Research Programme

1. Development of 'Spring Ecosystem' inventory protocol and compilation of the baseline data/information of mountain springs
2. Selection and quantification of ecosystem health indicators, and designing of spring-ecosystem assessment protocol as a performance evaluation tool

I. Establishment of standard definition and boundary of 'Spring Ecosystem' in the context of Indian Himalayan region, and
ii. Finalization of parameters affecting 'Spring Ecosystem' variability

Expected outcomes

- Scientifically consensual definition of 'Spring Ecosystem' and its boundary conditions for the Indian Himalayan region
- Parameterization of spring ecosystem health assessment protocol with identified biotic and abiotic components

Participation

Invited eminent experts, Institute faculty and researchers