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Development of a Master course module dedicated to Nature-based adaptation Solutions

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While the importance of Nature-based Solutions for climate change adaptation (NbaS) is being increasingly acknowledged, this concept should be introduced in higher education. It looks particularly important for master's programs, because they usually lead to management jobs. Future graduates will therefore be required to make decisions in land use planning, urban planning, risk and resource management for example.

Based on a survey questionnaire, several interviews and a text mining analysis of the Master's contents, a first analysis was conducted to identify, localise and analyse the French Masters that presented links with NbaS related concepts. This analysis revealed that the notion of NbaS is far from being mastered. This might be caused by a conceptual misunderstanding of definitions.

A combined analysis of the findings derived from this study and the results acquired within the framework of the European ARTISAN project (Achieving Resiliency by Triggering Implementation of nature-based Solutions for climate Adaptation at a National scale, www.life-artisan.fr), a training module dedicated to NbaS has been designed. Covering a wide spectrum of topics, it is composed of 8 courses of 3 hours: (i) Introduction to climate change, (ii) NbS and NbaS: from terminology to reality, (iii) Ecological engineering and multidisciplinary approach, (iv) NbaS and geosciences, (v) Actors: mobilization, consultation and acceptance, (vi) Regulatory and normative framework, (vii) Methods and tools, (viii) Implementation of a NbaS.

Each course contains a general part gathering basic knowledge, and a second more specific part called in-depth. The latter makes it possible to adapt to the environment highlighted by the training in which the module is provided (urban, agricultural, humid, maritime and coastal, mountainous, natural, forest, or all environments). This structuring allows the module to be flexible and adaptable to the level and field of application of the targeted training.