

# BIOPROSPECTING FROM ECOSYSTEMS: PROVISION ECOSYSTEM SERVICES TO SUSTAINABLE CONSUMPTION

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**B**ioprospecting is the search for new substances for societal needs, which are available in our natural ecosystems as plants, animals and organisms known as provision ecosystem services. Ecosystem services are the functions of natural ecosystems that humans obtained benefits from them. They can be enhancing (service providing units) or deteriorating (service antagonizing units) the environment. One of the functions of plants, animals and organisms in the ecosystems is providing substances and products as well as bacteria and pathogens that is interested for agriculture, medicine, processing, manufacturing and tertiary industries such as foods, drinks, cosmetics, chemicals, pharmaceuticals, lubricants, remediations, public safety (medical) and sanitation, energy industrials and many more uses. But there are scarcities of substances for these uses requiring bioprospecting of ecosystems and sustainable consumption measures. This research takes an inter-generation learning approach based on information gathering of the use of different substances from ecosystems in natural and traditional environments from different knowledge pools using a think tank and investigation in protected areas. Preliminary researches have been carried out on agricultural, agroforest and dryland ecosystems to understand the linkages between the use of different substances from those natural environments by different intergeneration for sourcing bioprospecting scenarios. This can enable collaboration and cooperation for exploration researches on the substances from different ecosystems for different societal uses requiring the involvement of different researchers. Also, it can open up different interest groups for investments on re-greening ecosystems as effort to support the fight against climate change. The aim of this work is to open up research background for development of projects on bioprospecting on different ecosystems with different researchers. More details on the preliminary activities that had been carried out are presented in this work.

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