USE OF CALCULATED INDEXES FOR PRIORITIZATION OF IMPORTANT MEDICINAL PLANTS USED IN THE PREPARATION OF IMPROVED TRADITIONAL MEDICINE (ITM)

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Abstract: According to the Healing Forest Conservancy, 74% of pharmaceutical drugs derive from medicinal plants. Meanwhile, certain compounds like vincristine and vinblastine, are difficult to synthesize and other resisted to pathogen agents. Climate change, rainfall variability, and degraded landscape and ecosystem services have low agricultural productivity and provoke the strong threats on biodiversity. These threats are also occurred by the unsustainable uses and selling of natural resources. The objective of this study was to accord a priority to important plants to be used in the preparation of Improved Traditional Medicine (ITM) basis on the classification following the efficiency and sustainable-exploitation Index (Ie-se). The field work consisted, with the help of 37 traditional healers, to collect and identify plants and to detail ethnopharmacological preparation of recipes. By order of their importance, there are 9 parameters of efficiency (Ie⁹ = 9 to Ie¹ = 1) with the mean per a given plant correspond to the Index of efficiency (Ie) and 16 parameters of sustainable-exploitation (Ise¹⁶ =16 to Ise¹ = 1) with the mean correspond to the Index of sustainable-exploitation (Ise). At last, the Index of efficiency-sustainable-exploitation is the summation of the two indexes (Ie + Ise = Ie-se). The recorded plants are classified into three groups: Group I regroups plants like Pausinystalia yohimbe (5), Euphorbia hirta (7) with an Ie-se ranging between [9-5]. These plants present more previous studies necessary for the preparation of ITM and their conservation. Group II regroups plants like Cassia italica, (4,80) with Ie-se ranging between [4-3]. Previous studies are partially realized for ITM production. Group III regroups plants like Annona squamosa (2,40), Manilkara letouzeyi (1,90) with poor Ie-se and a few or no previous studies necessary for ITM preparation. Therefore we recommend the ITM production with plants of Group I because of more previous studies which have been done more than plants of Group II and Group III. This work permit us to establish a list of preferential plants for ITM preparation.

Key words: Index of efficiency, index of sustainable-exploitation, index of efficiency-sustainable-exploitation, Medicinal plants.

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