Multidimensional assessment of technology and innovation programs: the case of INCAGRO-Peru

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This paper presents a methodological proposal and an empirical validation for the evaluation of ST&I programmes, particularly in the task of choosing indicators and metrics in a multidimensional perspective. Its most important feature is the construction of indicators designed to apprehend the wide array of characteristics displayed by the many different types of an innovation programme. Thus the method combines deductive procedures (decomposition of goals) and inductive procedures (discussion with the players involved) to evaluate results and impacts in specific dimensions linked to the nature of a given programme.

In this paper we intend to present a methodology and the results of a validation of this methodology using a World Bank Program called INCAGRO. INCAGRO is a Peruvian initiative to promote technological and non technological innovation among small agriculture producers in Peru. Its main objective is to create a culture of innovation in the agriculture sector in Peru by means of projects that aims three main activities: training, applied and strategic research, and extension services.

The proposed method is a contribution to systematize the definition of indicators and metrics for the evaluation of ST&I programmes. It is a way to define "what should be evaluated" in a given program. In ST&I programs there are many different (unforeseen) results and impacts that can emerge simultaneously with the main subject of the program. Thus, multidimensional issues and multiple actors are supposed to be considered in impact evaluation process.

The motivation to develop such a method is twofold: a) to explore all necessary dimensions and issues regarding the program that is going to be evaluated; b) to validate these dimensions and issues among stakeholders before executing the evaluation.

The evaluation of INCAGRO program was conducted in 2008 in several Peruvian productive conditions and it performed more than 900 interviews with producers, extensionists and researchers in a country level survey.