

1st ISATA – International Symposium on Agricultural Technology Adoption: studies, methods and experiences



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Abstracts – Poster presentations

SESSION 1 - Technology transfer and analysis

Fundamentals of a participatory methodology for Embrapa's technology adoption

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When developing projects with farmers, it is essential to use tools that can support the construction of a sound decision-making knowledge base, as to improve socioeconomic conditions and promote environmental services. In this sense, the objective of this study is to present the foundations of a participatory methodology directed to the adequate management of rural establishments, basis of the projects “Environmental management for small farms”, financed by Embrapa; and “Inovaflora”, funded by the Amazon Fund. By applying the methodology presented here, the objective is to organize ‘Reference Units of Agro-Environmental Adequacy’, where the knowledge and technologies generated by Embrapa are validated and adopted. The proposed methodological process is being applied at ‘Tarumã Açú/Tarumã Mirim’ Environmental Protection Area, which overlaps the Tarumã-Mirim Rural Settlement, in the rural area of Manaus (AM, Brazil). The main objective is to build an appropriate decision-making process with the families, taking into consideration: (i) diagnostics; (ii) strategic, tactical and operational planning; (iii) implementation and (iv) evaluation. Diagnostics are carried out on the community and on the farmstead scales, seeking to understand the local reality and to provide information to devise proposals for food diversification, income generation and reclamation of degraded areas. The family chooses a productive activity to be the flagship of the farm, in which efforts are dedicated in order to reach greater impacts on income generation. Social aspects include family health, food safety and security, formation or strengthening of associations and cooperatives, in order to reinforce solidarity, claim infrastructure improvements, develop cooperative work, collectively produce and trade, and achieve grea-

ter efficiency in the use of resources. Non-formal education contributes to the development of skills and technical competence, by providing elements for farmers' autonomous decisions on their establishments. In this sense, courses, lectures, technical visits, conversation circles, etc. are held, when various topics are addressed, with different forms of interaction. In what concerns the environmental management, measures are adopted to comply with related legislation, considering special areas such as Mandatory Protection Areas (APP) and Legal Reserve, as well as Areas of Restricted Use. Models applied toward environmental reclamation vary depending on family preferences and degree of observed degradation. Water management actions include protection of springs and stream banks using green infrastructure such as 'Nature-Based Solutions' (NbS). In each activity, periodic evaluations are carried out and, throughout the process, adjustments are promoted in accordance with current requirements. To appraise the adoption of technologies, the 'System for Environmental Impact Assessment of Agricultural Technology Innovations' (Ambitec-Agro) is applied, which consists of integrated modules of multicriteria environmental and socioeconomic indicators. Participatory methodologies are essential to the success of research and technology transfer activities with family farmers. Their implementation necessitates due consideration of the multidimensional nature of sustainability and the recognition of the multiple expressions of social vulnerability, which increases the complexity and transcends the 'economicist' spheres of development.