Participatory planning and the new ATER/ATES: An assessment of the challenges of implementation

https://doi.org/10.56238/sevened2024.018-004

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ABSTRACT

The article submits our reflections on the challenges of participatory planning and collective management of ATER/ATES services in agrarian reform settlements. The Bloomington School's conceptual framework of institutional economics is employed to interpret these challenges as problems of polycentric governance and collective action for the provision of public goods and management of commonly-owned resources. The Habermasian critique of the limits of the conception of instrumental rationality is incorporated into the analysis to broaden the understanding of the different modes of engagement in the dialogical processes of participation. Based on an integrative scheme of the two approaches and results of previous research, the article concludes by stating the impossibility of replacing the internal willingness to cooperate with institutional engineering schemes and external incentives.

Keywords: Agrarian Reform, Peri-urban Settlements, Participatory Planning, Institutional Economics, Bloomington School, Discourse Ethics.

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INTRODUCTION

The use of participatory methods of diagnosis, planning and management of collective actions and solidarity enterprises constitutes, today, the most important methodological reference of the new Technical Assistance and Rural Extension (new ATER) and of the Technical, Social and Environmental Advisory (ATES) services in agrarian reform settlements.

When compared to the "conventional" model of rural extension, adopted in Brazil throughout the 1970s as an instrument for the "modernization of agriculture", the new ATER and INCRA's ATES Program basically invert the previous logic. Instead of putting the "target audiences" at the service of an alien project of modernization and increased productivity, the current methodological orientation proposes to "put the advice at the service of the families' projects" (INCRA, 2010, p. 60).

In the context of agrarian reform, the very choice of the term "advisory" instead of "assistance" seeks to highlight that basic change in attitude and posture that should guide the performance of the new ATER/ATES agents. According to the guidance, agents should act as *facilitators* of genuinely creative processes, aiming at the endogenous construction of local solutions, and no longer as experts of persuasion, focused on the transfer of finished technological solutions, produced externally. Likewise, the inclusion of the expressions "social" and "environmental" in the name of the Program seeks to make explicit the polyvalent, multidimensional character of ATES services, beyond productive issues.

Conceived with excellence and very well articulated on paper, the political and methodological orientation of the new ATER/ATES faces enormous challenges to be put into practice in the field. The interaction of problems ranging from the basic lack of knowledge about the functioning of local agroecosystems, through historical biases in the training of agricultural science professionals, the trends of the dominant social, political, cultural and economic forces, to the multiple limitations of an institutional nature, makes the systematic understanding of the challenges and emerging contradictions an additional difficulty. in the path of actions that aim, on the one hand, to meet the "projects of the families" and, on the other, to overcome predatory forms of use of natural resources and competitive and opportunistic social relations that are often rooted in the knowledge and values of most of the agents involved.

This article aims to contribute to the understanding of the challenges of implementing participatory methods as activities that typify "collective action dilemmas".

The conceptual framework of the Bloomington School (Ostrom 2007; Aligica; Boettle, 2009), of institutional economics, is used to investigate the challenges of community social organization, with a view to the elaboration of Settlement Development Plans (PDAs) for agrarian reform. The typology of actions (social and elementary) and the "ethics of discourse", by Habermas (1990), are integrated into the analytical scheme of the Bloomington School to broaden the discussion of the

potentialities and limitations of dialogue and argumentation, as means of development and support of institutional arrangements.

The usefulness of these theoretical frameworks, for our purposes, is discussed in the context of our experiences of facilitating participatory processes in peri-urban settlements, located in the metropolitan region of Belém, capital of the State of Pará.

THEORETICAL FRAMEWORK

THE CONCEPTUAL FRAMEWORK OF THE BLOOMINGTON SCHOOL

The conceptual framework of the Bloomington School for institutional analysis of the problem of collective action has undergone a series of transformations since the publication of *Governing Commons*, by Elinor Ostrom (1990). Figure 1 shows one of the most recent attempts to portray the complex structure of governance problems in Integrated *Socio Ecological Systems* (*SES*). It represents a response to the challenge of understanding these systems, and seeks to create an adequate language to describe the complex interactions of the institutional, praxeological and normative dimensions in polycentric systems of governance (Aligica; Boettke, 2009, p. 29).

The scheme begins by recognizing that many variables affect interaction patterns and outcomes in these systems, including variables from the overarching socioeconomic and political environment (SOC) and related ecosystems (ECO). The diagram is designed to help *SES* scholars examine the attributes of a given resource system (SREC) and the units of those resources (REC) that affect user incentives (U), within a set of rules created by polycentric systems of governance (SGOV) to affect interactions (INT) and outcomes (RES) over time (E. Ostrom, 2007).

Figure 1 shows only the most abstract level of analysis of a generic SESI. To investigate real problems, in particular SESIs, researchers need to "unwrap" each of the categories shown in the figure, until they reach the level of detail of the variables that is relevant to the question under study. Table 1 presents a first list of "second layer" variables in each category. The variables marked with an asterisk (*) are the ones that most affect the chances of success of self-organization, to create local solutions to collective action problems (Ostrom, 2009).

Based on extensive empirical research, Ostrom et al. suggest that self-organization is facilitated when the SESI is small enough (SREC3) to be monitored (SGOVS8) and so that reliable information (knowledge) about its general condition (U7) can be generated at reasonable costs. The probability of success of self-organization also depends on the productivity of the system (SREC5) and the predictability of its dynamics (SREC7). The productivity of deteriorated systems must allow for viable improvements, in a reasonable time. These conditions are best met when the system has clear boundaries (SREC2) and the resource units remain fixed within them (REC1). The technology available to users (U9), both for the use and recovery of the resource, is also a prominent variable in

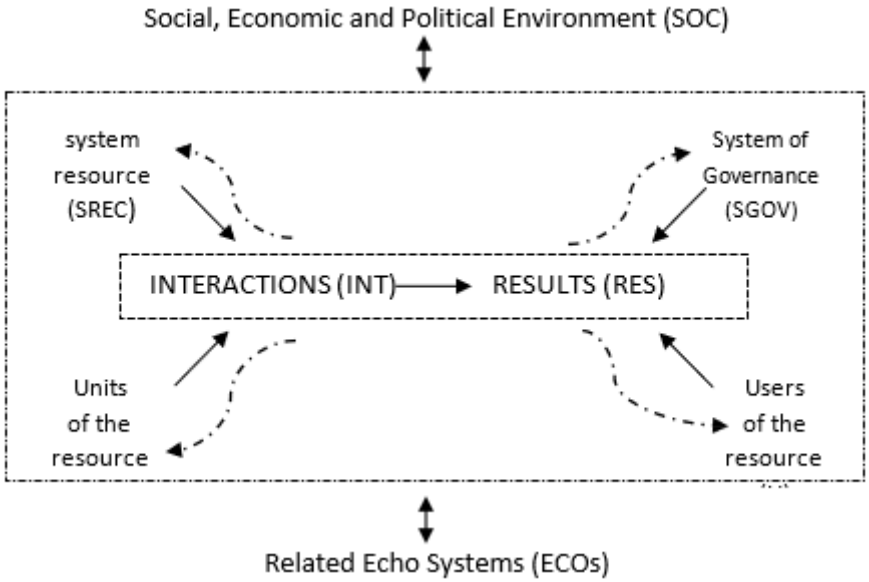
the evaluation of the chances of self-organization. This variable interacts with the socioeconomic attributes of the users (U2). The inequality of these attributes affects access to technology and, consequently, the levels of use of the resource by the various users (INT1).

The economic value of the resource units (REC4) also interacts with the user's attributes to determine a greater or lesser dependency on the resource (U8). According to Ostrom (1999), self-organization is more likely when resources are more important for the well-being of users. The research of the Bloomington School also corroborates the propositions of Olson (1965), for whom self-organization proved to be facilitated when the number of users (U1) is not very large and when there is leadership in the group (U5). In connection with property rights systems and rules of collective choice, informal norms and the quality of "social capital" (Coleman, 1988; Putnam, 2000) also contribute to the social organization of the participants and to the chances of success of collective governance arrangements.

When collective arrangements are being designed, user *participation* (U5) emerges as a fundamental principle that supports the ability of groups to sustain both the provision of the natural resource and the local governance system itself. Ostrom (1999) suggests that most individuals affected by the availability of the resource should participate in the creation and modification of the rules of use (INT3, INT7). In addition, successful collective arrangements usually have monitors (SGOV8) selected by the community, either from among the users themselves or from outside contractors. Since it is rarely possible to suppress all violations of the rules of use (INT4), even in cases where these rules have been collectively agreed, punishment mechanisms (SGOV8) that take into account the seriousness and context of the infraction seem to work better, as an instrument to reinforce the collective arrangement, than inflexible and disproportionate punishment systems. Ostrom (1999) also suggests that successful collective governance systems usually distribute benefits (SGOV4) in proportion to the individual contributions (SGOV6), necessary to enable their creation, monitoring and operationalization.

Finally, since the authority of users to create local rules of appropriation of resources of global interest is limited by broader political systems and rules (SOC4), the rights of self-organization and formulation of their own rules have to be minimally legitimized by official government agencies (SGOV1) (Johnson; Libecap, 1982). Rapid, low-cost access to local arenas for conflict resolution between users, or between users and official agents, is also referred to as an important requirement for the success of social self-organization (Ostrom, 1999).

Figure 1: Conceptual framework for analyzing interactions and outcomes in integrated ecological and social systems (SESIs) (straight arrows indicate direct causal links; curved arrows indicate systemic feedback relationships)



Source: Adapted from Ostrom (2009).

Table 1: "Second layer" variables for analysis of a SESI

SOCIAL, ECONOMIC AND POLITICAL ENVIRONMENT (SOC)	
SOC1- Economic development. SOC2- Demographic trends. SOC3- Political stability. SOC4- Settlement Policy. SOC5- Market incentives. SOC6- Media organizations.	
SYSTEM OF APPEALS (SREC)	**GOVERNANCE SYSTEM (SGOV)**
SREC1 - Sector (water, forest, pastures, fisheries) SREC2 - Clarity of boundary boundaries* SREC3 - Size of the resource system* SREC4 - Existing infrastructure SREC5- System Productivity* SREC6- System Balance Properties SREC7- Predictability of System Dynamics* SREC8- Storage Characteristics SREC9- Location	SGOV1- Governmental organizations SGOV2- Non-governmental organizations SGOV3- Structure of inter-institutional networks SGOV4- Property rights system* SGOV5- Operational rules SGOV6 - Rules of collective choice* SGOV7 - Constitutional rules SGOV8 - Monitoring processes and punishment*
RESOURCE UNITS (REC)	**USERS (U)**
REC1- Resource mobility* REC2- Growth and renewal rates* REC3- Interactions between resource units REC4- Economic value* REC5- Size REC6 - Breakdown of sales REC7 - Special and temporal distribution	U1- Number of users* U2- Socioeconomic attributes of users U3- History of use U4- Location U5- Leadership and entrepreneurship* U6- Norms and "social capital"* U7- Mental models/knowledge of the system* U8- Degree of dependence on the resource* U9- Technology in use*
INTERACTIONS (INT) → RESULTS (RES)	
INT1- Levels of use of the various users* INT2- Information sharing INT3- Decision systems INT4 - User Conflicts* INT5 - Investment Activities INT6 - Lobbying INT7-User self-organization*	RES1- Social performance indicators (e.g., efficiency, equity, accountability) RES2- Ecological performance indicators* (e.g., grazing pressure, resilience, diversity). RES3 - Externalities for other SESIs
RELATED ECOSYSTEMS (ECOS)	
ECO1- Weather patterns ECO2- Pollution patterns. ECO3- Flows in and out of SESI.	

*Subset of variables that most affect the chances of self-organization. Source: Adapted from Ostrom (2007)

The conceptual framework of the Bloomington School provides important guidelines both for "macro" analyses, at the level of the National Plan for Agrarian Reform (II PNRA), for example, and for actions to facilitate social and productive organization, based on participatory methods. More specifically, participation in the effort to draft the Settlement Development Plan (PDA) can be seen as a dilemma of collective action. As a formal piece of environmental licensing, once prepared, the PDA takes on the character of a "public good", where those who have not contributed to the effort of its participatory formulation cannot be prevented from enjoying its benefits.

However, the Bloomington School's view remains constrained by a conception of *instrumental rationality* that biases the analysis of participatory processes, and obscures the role of communication as a means of *rationally justifying* the norms or rules to be agreed upon.

Without delving into the epistemological issues underlying the exclusion of other forms of rationality, except the instrumental one, the next section presents the typology of Habermas' (1984) actions. Next, the perspective of psychological structuralism is employed to integrate this typology into the analytical framework of the Bloomington School.

THE TYPOLOGY OF ACTIONS AND THE ETHICS OF DISCOURSE, BY HABERMAS

As suggested above, the recognition of alternative forms of rationality, beyond the instrumental one, involves a dense epistemological critique. This critique, which gained new impetus with the so-called *linguistic revolution*, is extremely important for the study and interventions in problems of collective action. This is because the instrumental view excludes the possibility of rational justification of actions governed by moral principles or social norms (Habermas, 1984; Heath, 2001). According to this view, it is simply not possible to rationally justify moral principles and social norms. The actions governed by these norms and principles are seen as mere conditionings or habits formed throughout the socialization processes.

This perspective makes it problematic to develop educational practices that have the purpose, precisely, of strengthening the capacity of social organization of communities so that they can create local norms for the governance of common resources and provide collective goods, such as a PDA. In particular, the exclusively instrumental view reduces the practices of communication and dialogue, at the center of participatory processes, to mere instruments of "exchange of information", without being able to exert any restriction on the alternatives of action available to the participants. This limitation becomes even more relevant to the extent that a large part of collective action conflicts have an evident moral component. Since, as the instrumental view preaches, normative arguments cannot be rationally justified, they become merely relative and contingent.

Despite the revolutionary nature of the epistemological change required to re-establish the proper (internal) rationality of moral choices and the following of social norms, *regardless of*

external consequences, "the first thing to note about Habermas's theory of communicative action is that it is a *typological* theory" (Heath, 2001, p. 13, emphasis in original). In other words, by presenting his "discourse ethics" and explaining the rationality of communicative action, Habermas does not reject the instrumental conception of rationality. Heath (ibid) explains that Habermas takes as a starting point that agents have access to a set of different patterns of choice. Communicative action is a type of action governed by a certain pattern, that is: that of producing *understanding*, while instrumental action is another type of action, governed by a different pattern: that of achieving *success* (effectiveness).

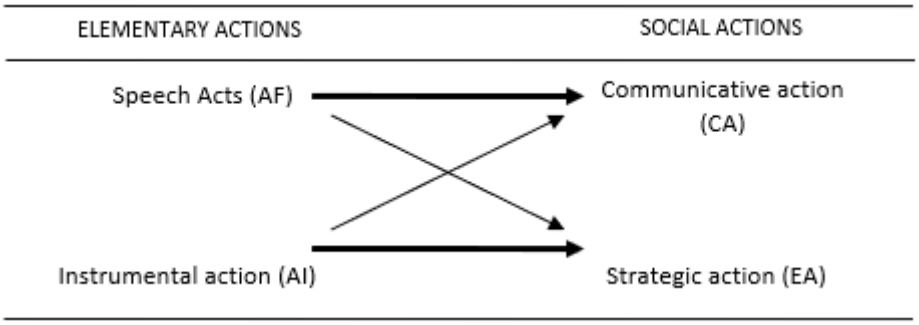
According to Habermas' typology, *instrumental action* and *speech acts* form two types of *elementary actions* (Figure 2). The introduction of a second agent in the scene generates *social action*, understood as a complex phenomenon, involving the interaction of the two elementary forms of action. According to this view, participants in social action always face the problem that their expectations are mutually interdependent. To deal with this interdependence, participants can resort to both *instrumental action* (AI) and speech acts (communication). When actors are primarily interested in the external consequences of action, social action becomes *strategic action* (SA) in the sense used in game theory. However, when communication (FA) is used to coordinate expectations, this generates the form of action that Habermas characterizes as *communicative action* (CA) (Habermas, 1990, p. 133).

This basic scheme is indicated by the horizontal lines in Figure 4. The oblique line, upwards, indicates that CA is not the same as elementary speech acts (AF). Like strategic action (EA), communicative action (CA) also presupposes the basic teleological structure of actions, in which actors are seeking to produce a certain result. In the words of Habermas (1990), the two types of social action differ in the sense that "for the model of strategic action, a structural description of the action directly oriented towards success is sufficient, while the model of action oriented towards producing understanding must specify the propositions of an agreement to be reached communicatively" (p. 134). In other words, when one is engaged in *communicative action*, it is assumed that the actors are "prepared to harmonize their plans of action *by internal means*, committing themselves to pursue their objectives only on the condition of an agreement—existing or to be negotiated—on the definitions of the situation and future results" (ibid, emphasis added). In this way, the honesty of communications is a necessary presupposition of the ethics of discourse and the rationality of communicative action.

Equally, EA is not the same as AI. Like CA, EA also operates in cooperation with speech acts (FA). This is indicated, in Figure 4, by the oblique downward line. The difference is that, in this case, the communication does not imply any restriction on the actions of the participants. In EC, speech only performs the function of exchanging perceptions (or information) about the situation and the

other participants in the action, and can be used, including, but not necessarily, to deceive or deceive others.

Figure 2 – Typology of elementary and social actions.



Source: Adapted from Heath (2001, p. 25)

MENTAL STRUCTURES, COMMUNICATION, AND REVIEW OF PERSPECTIVES IN COLLECTIVE ACTION

As previously pointed out, discourse ethics and the assumptions of rationality of communicative action are important for the processes of social organization, especially when aimed at resolving situations in which rationality or individual gains conflict with rationality or collective gains (the *so-called collective action dilemmas*).

The conflict between individual and collective interests is what highlights the importance of the epistemological discussion about the rationality of moral choices and acts. As Heath (2001) observes, while there are many mysterious things about morality, perhaps the strangest is the fact that what it seems to require us to make choices that run counter to our individual interest. "Morality, therefore," says Heath (ibid, p. 3), "presents itself to us as a duty to refrain from pursuing individual advantage."

Bypassing the epistemological discussion, the theme of moral choices refers us directly to the paradigms of phenomenology and psychological structuralism. According to Wilber (2000), there is a strong convergence of psychological development models, pointing out that people's internal willingness to cooperate with the common good, accepting self-sacrifice and the postponement of gratification, is a capacity that is affirmed late, in the order of subjective development, when the individual reaches higher *stages* of inner growth.

Although it is simple to accept this conclusion in the case of child development, there is great resistance to admitting it to be true in the case of adult development (precisely because of the epistemological difficulties of rational justification of moral acts). In any case, this conclusion is implicit in Habermas' typology of actions (Figure 4) and is made explicit in his analysis of the development of communication capacities and styles. In *Moral Consciousness and Communicative Action*, Habermas (1990) draws a parallel between his explanation of the development of the

capacities required for communicative action (CA) and the stages of moral development in Laurence Kohlberg's model. According to Habermas, the agent's willingness to assume the communicative attitude (CA), following the ethics of discourse, requires a more advanced development of various subjective capacities, including cognition, than the development required for the strategic attitude (SE).

Figure 3 is a readaptation of the conceptual scheme previously adapted by Ostrom (2005), based on Denzau and North (2000). The original scheme is inscribed in the approach of the so-called "cognitive institutionalism" that seeks to understand the interactions between cognition, belief systems and institutions, and how these interactions affect economic performance (Mantzavinos; North; Shariq 2004).

Cognitive institutionalism (CI) adopts a view of the mind as a complex structure that actively interprets and simultaneously classifies the signals received by the senses. Updated interpretations and categorizations outline a series of "mental models" that participants make about the action situation. These mental models are understood as flexible knowledge structures that "evolve gradually throughout cognitive development to organize our perceptions and maintain control of our memories" (Mantzavinos; North; Shariq 2004, p. 76).

Proponents of CI adopt a so-called "pragmatic" notion of mental models. For them, these models are understood as expectations (or predictions) of the results of actions, which agents make *before* receiving feedback from the environment (Figure 3).

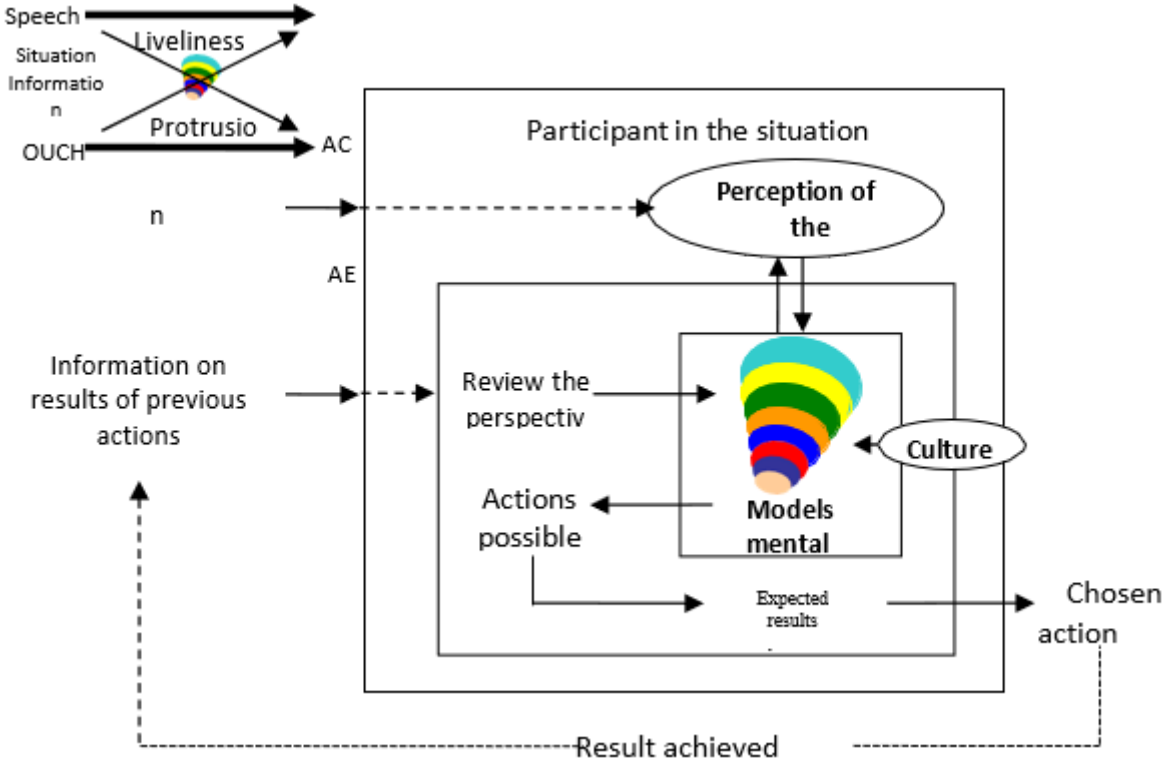
In this formulation, a "belief" is a relatively "crystallized" mental model, which has become stabilized "when environmental *feedback* confirms the same model many times." A "belief system" is simply an interconnection of beliefs, or crystallized mental models, and which may be more or less consistent with the signals of the environment.

An important part of the difficulties of social organization thus comes from the fact that the agents have different beliefs (interpretations) regarding the situation of the action, and tend to support their opinions of how the situation should be managed in *equally divergent normative* orientations. It is at this point that communication emerges as a potentially useful resource. The idea is that repeated opportunities for communication can help in the convergence of mental models and thus facilitate the coordination of collective action (cf. Denzau; North, 2000). When considering the agents' communications, Frohlich and Oppenheimer (2001) point to the *liveliness* and *salience* of the facts observed in the environment as elements that would explain the selective aspect of attention and the "contents" of communications. Ostrom (2005), in turn, incorporated these aspects into the original scheme of Denzau and North (2000).

However, because the instrumental conception of rationality, underlying the analysis of the CI, does not support the idea of the rational justification of normative principles, the CI needs to

admit that no argumentation is capable of substantiating the *validity* of the proposed norm, nor of demonstrating its superiority of principles in relation to any viable alternatives. Inevitably, verbal communication is then reduced to its strategic form (Figure 2), starting to fulfill only the function of a vehicle for the exchange of impressions (beliefs, opinions) about the situation, without imposing any effective restriction on the actions chosen by the participants. To overcome this limitation, we used, in Figure 3, Habermas' typology of elementary and social actions (Figure 2), instead of exclusively strategic communication, admitted in the scheme adopted by Ostrom (2005).

Figure 3 – The structuring of inner development (lines and stages) conditions the perception and review of perspectives on the arena of action, as well as the attitudes of the participants towards communication opportunities.



Source: Authors' configuration. Adapted from Ostrom (2005)

As previously pointed out, this incorporation also implies integrating into the scheme the perspective of developmental psychology, that is, the notions of lines and stages of inner development, supported by the paradigms of phenomenology and psychological structuralism. On the one hand, this means that the participants *do not* have full freedom to review their perspectives on the situation, since the information about the external situation, the perception of what is lively and salient, and the understanding of the results of previous actions, all this is built, and rebuilt, according to the capacities of each *stage* of development. Although it can be admitted, as Ostrom (1999) does, that all participants possess "limited and very similar capacities for reasoning and discovering the structure of complex systems" (pp. 25-26), the moral nature of the choices and behaviors required to

sustain local rules of governance in collective action dilemmas again highlights the differences in the participants' degrees of inner development.

According to developmental psychology, the revision of perspectives on the situation (Figure 3) is conditioned by its own "laws" of subjective transformation, which are the basis of structuring in stages and are not altered by external conditions (Wilber, 2000). This helps to answer the question posed by Mantzavinos, North and Shariq (2004), regarding the persistence of mental models, beliefs and belief systems, supposedly inconsistent with the signs of the environment.

For our purposes, however, it is more important to highlight the convergence of psychological models regarding the gradual *reduction of egocentrism* and the corresponding *increase in the willingness to cooperate*, as basic characteristics of the process of inner development (Wilber, 2000). Working under controlled conditions, in laboratory experiments, Meyer (2010) produced evidence that these qualitative transformations, evaluated according to Clare Graves' (1970, 2005) model of psychosocial development, have significant implications for participants' choices in proposing and respecting (or violating) norms capable of solving collective action problems. The current challenge is to take this knowledge to field conditions, and to verify its relevance in facilitating participatory processes, with an emphasis on dialogue and the "exchange of knowledge", as preached by the current methodological orientation for ATER/ATES services.

METHODOLOGY

The extension of the knowledge generated in research on collective action, and the opportunity for its review and development, are at the center of the activities of the UFRA Program in Agrarian Reform, of the Federal Rural University of the Amazon (UFRA). In line with the general methodological guidelines for the services of ATER/ATES (INCRA, 2010), the actions of the Program are guided by the pedagogical conceptions and strategies of the "GESPAR" method of facilitating participatory processes (BNB/UNDP, 1995; BNDES/UNDP, 2000).

GESPAR's methodological strategy combines three simultaneous macro-processes (BNDES/UNDP, 2000, p. 47): *inter-institutional consultation*, *training* and *monitoring*. The inter-institutional consultation actions aim at the formation of partnerships and the construction of institutional arrangements relevant to the purposes and scope of the intervention. These actions are supported by training processes for institutional and community development, with a focus on the construction of polycentric governance arrangements that enable citizen participation and social control of the state, rescuing the representative legitimacy of social, political, cultural and religious organizations.

In addition to institutional and community development, the training includes the productive and environmental dimensions. The first emphasizes entrepreneurial potential and qualifications for

managerial and operational roles. In this (productive) dimension, the GESPAR methodology seeks to develop the spirit of solidarity, stimulating forms of business cooperation (BNDES/UNDP, 2000, p. 48). In the environmental dimension, GESPAR works on "the awareness and commitment of individuals, companies, social organizations and institutions to environmental problems and their possibilities of solutions [...]" (BNDES/UNDP, 2000, p. 49). In combination with productive capacities, sustainable alternatives of enterprises (eco-enterprises) are sought that internalize the vision of environmental rationality to the mechanisms of business management.

In the four dimensions of training (institutional, community, productive and environmental), the gender focus is addressed in a transversal way. Recognizing the *differences* between men and women that underlie the principle of gender equality, all actions facilitated by the GESPAR method seek to "identify needs and opportunities to improve women's access and/or control over resources and benefits" associated with development processes (BNDES/UNDP, 2000, p. 49).

As for the pedagogical focus of the training, the GESPAR method has as theoretical and philosophical references the School of Genetic Psychology of Vygotsky, Luria and Leontiev, the Genetic Epistemology of Piaget, the Pedagogical Method of Paulo Freire and the Critical Theory of Society (Frankfurt School). These references guide an ethical, as well as pedagogical, effort that places the human being at the center of development actions and identifies the need to reflect on the paradigms, symbolic thinking, language and mental structures of societies as the greatest challenge of today for the understanding of contemporary and future phenomena in the world (BNDES/UNDP, 2000, p. 50-51). From this perspective, the GESPAR methodology seeks to develop capacities for collective action and support "the construction of citizen empowerment so that the benefits of development are focused on human fulfillment" (ibid, p. 48).

Regarding operationalization, the stages of the GESPAR method are grouped into three main phases: (1) preparatory phase (PRE), (2) the application phase of the basic methodology (AMB) and (3) the specific technology transfer phase (TTE) (Figure 4). In the PRE phase, inter-institutional consultation, mobilization and awareness of communities and their organizations are highlighted. The PRE phase also includes technical seminars and training of the team of facilitators in the procedures and techniques used in the stages of the AMB phase. In addition to the technical aspects, these trainings aim to strengthen the humanistic training of the facilitators, with emphasis on the attitudes and postures required by the new conception of ATER/ATES, commented on in the introduction.

The AMB phase consists of eight stages grouped into five "workshops" and three "field cycles". The workshops are events held with groups called "local teams", generally composed of participants and collaborators from pre-existing social organizations, whether formal (associations, cooperatives) or informal (e.g. youth group, women's group). The field cycles consist of actions

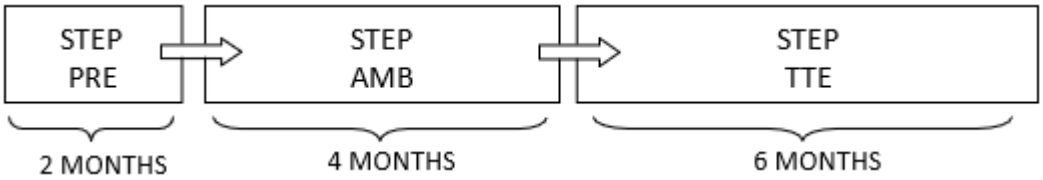
developed with the broad universe of producers and families associated with the organizations of local teams.

The GESPAR method provides for three field cycles, aimed at: (1) building the group's "conceptual project" or "vision of the future", to be supported by the social organization and local teams; (2) identify and diagnose the productive resources available to families through the use of the "property notebook" or "batch notebook", and (3) instrumentalize the management (planning, evaluation and control) of activities, through the "management notebook".

With the local teams, the GESPAR method provides for the holding of five workshops, with the following themes: (1) participatory diagnosis, to identify the forces in favor and against the realization of the collective project (vision of the future), (2) planning of immediate actions, to solve the main "bottlenecks" identified in the diagnosis, (3) evaluation of the performance of the existing social organization, (4) preparation of the Integrated Development Plan, and (5) organization and management of the collective enterprise.

In the TTE phase (transfer of specific technologies), the teams of facilitators start to act less as executors and more as articulators of training opportunities in specific techniques and knowledge, offered by specialized entities and institutions, in the various areas of interest of the organizations (BNB/UNDP, 1995, p. 32). In general, content related to production, credit, marketing, agribusiness, markets, education and environmental legislation, among other subjects considered relevant, in accordance with local situations, is included here.

Figure 4 – The three phases of the GESPAR methodology.



Source: BNB/PNUD (1995, p. 10)

RESULTS AND DISCUSSION

In this section, we organize our reflections on the challenges of participatory elaboration of Development Plans in agrarian reform settlements (PDAs) and the social management of the ATES Program. The categories proposed by the Bloomington School (Figure 1 and Chart 1) guide an analysis in which individual involvement in participatory planning and social management efforts are seen as dilemmas of collective action for the provision of *public goods*. The categories of Habermasian analysis (Figure 2) and developmental psychology are used to broaden our understanding of the potentialities and limitations associated with the opportunities for dialogue around these issues, created within the scope of participatory methodologies.

SOCIAL, ECONOMIC AND POLITICAL ENVIRONMENT (SOC)

As highlighted in the introduction, the political context in which the II National Plan for Agrarian Reform (II PNRA) and the new National Policy for Technical Assistance and Rural Extension (PNATER) are inscribed is largely favorable to the use of participatory planning and management methodologies. This orientation is clearly reflected in the methodological references of the Technical, Social and Environmental Advisory Program (ATES) of INCRA (MDA/INCRA, 2010).

These methodologies are also important for the current policy, which prioritizes the qualification of existing settlements and their insertion into local economies, rather than the expansion of the number of new settlements. On the other hand, cuts and contingencies of resources from the Union budget recurrently compromise INCRA's ability to coordinate and finance the ATES Program. Contingencies such as those observed in 2012 impose discontinuities that are highly detrimental to mobilization processes and participation in planning work.

SYSTEMS (SREC), RESOURCE UNITS (REC) AND RELATED ECOSYSTEMS (ECO)

As a nationwide Plan, the II PNRA encompasses a variety of integrated ecological and social systems (SESIs), with different degrees of complexity, involving different types of resources and histories of use. Even within the area under the jurisdiction of the Regional Superintendence of Pará (INCRA/SR-01), the diversity of ecosystems in areas of agrarian reform settlements imposes a substantial challenge to the ability of providers to offer adequate ATES services in different circumstances.

The formal processes of creating new settlement projects require clear demarcation of boundaries and detailed inventories of existing physical and biological resources. These delimitations and surveys should facilitate the social organization required for the participatory elaboration of the PDA. However, with respect to the peri-urban settlements with which we have worked, the histories of previous land use have negatively impacted the productivity of ecological systems and impose greater difficulties for the agroecological transition, encouraged by the ATES policy.

Located in a region considered to be of high biological importance and a priority for corrective measures (MMA, 2007), these settlements are marked by major changes in primary forest cover and many social and environmental problems. Alternatives to deal with these limitations should emerge from detailed studies carried out in partnership with the settlers, carried out by multidisciplinary teams, using participatory planning methodologies (CONAMA, 2006). However, in peri-urban areas, with higher labor opportunity costs, the low productivity of the systems acts as a disincentive to self-organization (Chart 1). Involvement in the development of complex plans, such as PDAs, is also limited by factors related to governance systems and user attributes.

GOVERNANCE SYSTEMS (SGOV)

The document presenting the II PNRA (MDA, 2004) suggests that the success of the Plan depends on the ability to make operational a complex system of polycentric governance, in which multiple actors, public and private, interact, with different levels of action, authority and responsibility. In the area of government, in addition to the Ministry of Agrarian Development (MDA), where the II PNRA was prepared, five other ministries are mentioned due to their important roles in supporting the Plan (MDA, 2004, p 16.): Ministry of Development and Social (MDS), Ministry of the Environment (MMA), Ministry of Health (MS), Ministry of Education (MEC) and Ministry of Culture (MinC). Various programs with both complementary and overlapping purposes are developed in these ministries and operationalized by complex bureaucratic structures that further fragment authority and responsibility.

To address environmental issues, the National Council for the Environment (CONAMA) published a Resolution (No. 387/2006) that defines the requirements for the environmental licensing of agrarian reform projects. Among other studies to be produced in different phases and circumstances of the licensing process, the Settlement Development Plan (PDA) stands out as a fundamental instrument for planning the social and spatial organization of projects "in strict accordance with the diversity of cases" (CONAMA, 2006). The preparation of the PDAs requires the collection of data and the production of detailed information on the physiographic, social, economic, cultural and environmental aspects particular to each settlement project. The PDA should function as a basic instrument for the formulation of technical projects and other activities to be carried out in the areas of the settlement, serving as a reference for the monitoring and control of development actions.

In accordance with the guidelines established in the National ATER Policy (PNATER), CONAMA Resolution 387 explicitly requires that the PDAs be prepared by multidisciplinary teams, together with the settlers, using participatory planning techniques and action research methodology (CONAMA, 2006). However, as a formal part of environmental licensing, the PDA takes on the character of a *public good*, since the lack of individual involvement, in the effort to prepare it, does not exclude the individual from the benefits generated. To this "free rider effect" are added others, associated with the organizational structures for the management of the ATES Program, the training of technicians and the forms of financing and control of the execution of outsourced ATES services.

According to PNATER guidelines, the Brazilian System of Technical Assistance and Rural Extension (SIBRATER) aims to organize ATER/ATES services in a decentralized way, covering a series of committees, councils and other representative entities. The organizational structure for SIBRATER's social management includes a National Committee for Technical Assistance and Rural Extension and a National Council for Sustainable Rural Development (CONDRAF). In addition,

there are also State Councils for Sustainable Rural Development (CEDRS), ATER Chambers and ATER thematic networks, formed by governmental and non-governmental organizations.

Sá *et al* (2012) draw attention to the challenges arising from this complex organizational structure for the management of the ATES Program. As a basis for the experience of the ATES articulators in Rio Grande do Sul, the authors point to conflicts in the systems of activities, authority and communication. As for advisory activities, they point to distances between the needs of the settlers, what can be offered by the providers and what the INCRA technicians want. In the dimension of authority, they call attention to problems arising from the duality of command to which the executors of ATES are subjected, simultaneously integrated into the organizational structures of the providers and the management model proposed by INCRA. In the face of these conflicts, the authority of the paying source (INCRA) tends to prevail over the autonomy of the providers (Sá *et al*, 2012, p. 152). In this context, the flexibility necessary to place ATES services genuinely at the service of family projects, as preached by PNATER, conflicts with the management model that aims to ensure maximum control of the application of public resources, through the establishment of goals and predetermined contractual terms.

Caporal (2005), in turn, mentions four groups of problems with negative impacts on participatory planning in agrarian reform projects. He considers that the public institutions of ATER/ATES services are not yet prepared to provide and evaluate the results of actions aimed at promoting the agroecological transition recommended by the National Policy. He extends this criticism to most private ATER providers, and suggests that the development of said ATER social networks is not advancing due to competition for limited public funds. The author blames, at least in part, the education system for this situation. He suggests that professional training in most rural universities is still linked to the technology transfer model of the "green revolution", based on didactic methods that contribute neither to the attitude nor to the knowledge required by the new PNATER.

The agrarian reform governance system is also hampered by failures in the operational performance of the public entities responsible for the policy at different levels. These problems negatively affect credit authorization, infrastructure provision, recruitment and financing of services, monitoring and control of the performance of ATES providers. Such operational failures are often linked to structural deficiencies, including insufficient human resources.

USERS (U) AND INTERACTIONS (INT)

The expanded conception of agrarian reform, proposed in the II PNRA, also implies a great expansion of the target audience. Reaching about 50 million people, according to the document (MDA, 2004), this public includes small family farmers, people living in rural and traditional

riverside communities, those affected by dams and other large infrastructure works, non-indigenous inhabitants of indigenous areas, rural workers and rural youth, as well as other segments of a population linked to agricultural activities who live in rural municipalities.

To a certain extent, the existing modalities of access to land contribute to reducing the heterogeneity of beneficiaries, especially in ethnic settlements (indigenous and Afro-descendant). Also, the so-called "agroecological forms" of access to land favor symmetry in terms of the degree of dependence on resources and the technology used. Among the traditional forms of access to land, land regularization tends to favor knowledge of the systems (SESIs).

On the other hand, the dilemmas associated with user attributes and interactions are more important to the beneficiaries of expropriated land. It turns out that land expropriation processes are usually forced by occupations of rural properties led by social movements. The socioeconomic and cultural heterogeneity of people living in camps and occupied areas increases as these movements recruit people on the outskirts of cities to strengthen pressure on the authorities and get public attention.

Considering the settlements with which we have been working, located in the surroundings of the metropolitan region of Belém, social organization is hampered by the unequal dependence on common resources. On the one hand, this disproportion results from an autonomous spatial organization, which takes place even before the formal constitution of the settlements. On the other hand, the proximity to urban centers generates alternative income opportunities for settlers less inclined to agricultural work. This situation greatly complicates participation in planning processes. Conflicts between users and between users and employees of INCRA often end in threats or effective aggression.

The political struggle to expropriate land belonging to political figures and multinational corporations also favors the demobilization of collective action once political targets are achieved. At this point, the different social movements and organizations began to dispute ascendancy over the settlers grouped around competing leaderships. Although the development of subgroups helps both the exchange of information and the processes of deliberation (Ostrom, 2002), the polarization of interests undermines the governance of collective actions and the creation of norms for the management of common resources.

RESULTS (RES)

The philosophical foundations and guidelines of the II PNRA and the new PNATER imply profound changes in the conventional evaluation criteria used to measure the performance of the policy.

Sparovek (2003) highlights the need to go beyond the usual information on the number of families settled and the total value of the reformed area. The evaluation of the effectiveness of land reorganization must take into account the number of families actually living in the settlements, in relation to their total capacity, the number of abandoned and agglutinated parcels, in addition to the relationships between the total area of the settlements and the areas of Legal Reserve (RL), Permanent Protection Areas (APP) and areas that are not being used productively (Sparovek, 2003).

In addition to these indicators, the evaluation of the performance of the II PNRA should add a series of qualitative information. Sparovek's estimates for the qualitative aspects of land reform performance include three composite indicators. The first (quality of life) characterizes the basic infrastructure (housing, electricity, roads, water supply), the family's access to health services, education and transportation in the settlements, after government intervention. The second (social organization) refers to the relations between the settlements and the external community (for example, commercialization) and the internal social organization (participation in associations and cooperatives, for the collective use of common areas). The third (operational efficiency) basically measures the release of support resources and the provision of basic infrastructure, provided for by the ATES Program.

The main instruments to improve these qualitative dimensions are the qualified ATES services and the operational efficiency of INCRA, including the monitoring and auditing of contracted ATES services. The evaluation of the effectiveness of participatory planning and management methods represents one of the greatest challenges of the new Policy. In our view, the recourse to referendum, by the settlers, of proposals prepared by the technicians, is a very unsatisfactory palliative that, in essence, betrays the real purposes of genuinely participatory methods.

New challenges arise due to structural limitations, at INCRA, to assess the effective quality of participatory methods and the degree of empowerment achieved in the field. In addition, the quality of monitoring activities is hampered by the weakness of internal controls.

CONCLUSIONS

The Brazilian government's official support for participatory planning and social control methodologies, aimed at promoting the sustainable development of rural territories, has a deep philosophical significance, in terms of political superstructure (worldview). This new posture expresses a paradigm shift in relation to the authoritarian style of planning and execution that prevailed throughout the military period (1964 - 1985).

At the same time, after the neoliberal policy that prevailed between 1990 and 2003, the II PNRA and the reconstruction efforts of the Brazilian System of Technical Assistance and Rural Extension (SIBRATER) reveal that the State has regained leadership in socioeconomic development

in a direction that contradicts that which would be dictated by purely economic interests and market forces.

Rising above the conventional dichotomy between government and market, polycentric governance systems emerge as a form of adaptive organization with the potential to balance government command power, preventing it from becoming authoritarian and corrupt. In the search for this balance—fundamental to the very existence of democratic societies—participation and social control become key elements. As Aligica and Boettke (2009) indicate, the discussion of polycentrality is not only related to "legitimacy", the distribution of "power" and the multiplicity of "decision-making centers", established in a general system of "rules", but also to a discussion of fundamental political values, leadership and coalition formation.

However, the form of participation needed to engage in political activities aimed at generating public goods and maintaining the polycentric (democratic) order is difficult to achieve. This type of participation requires more than self-interest advocacy and is strongly associated with the development of moral conscience (Meyer, 2010). Consistent with regular classroom practice, observations produced both in the laboratory (Ostrom, Gardner; Walker, 1994; Meyer, 2010) and in the field suggest that no institutional engineering can function as a substitute for true willingness to cooperate. The concepts of authority, justice and the motivations that shape the choices of individuals, as well as their expectations in relation to the behavior of others, are subject to internal processes of transformation of cognitive structures that cannot be changed by simple social reinforcement (Maslow, 1954; Graves, 1970; Kohlberg, 1981; Selman, 1980; Heiner, 1983; Habermas, 1990; Wilber, 2000).

An important aspect in discussions about the viability of polycentric systems of governance and the effectiveness of participatory planning methods is neglected if the role of cognition, value systems, and moral choices is not properly considered. Without this consideration, there is a risk of causing all efforts at social organization and participation in decision-making processes to degenerate into exchanges of personal advantage and detestable battles for undeserved power and prestige. This type of collapse of the public interest, which should guide participatory planning in agrarian reform settlements, jeopardizes not only the protection of environmental resources of global interest, but also the very spirit of democratic government and social control on which the II PNRA is based.

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