

## **LOCAL PRODUCTIVE ARRANGEMENTS: THE SILVES CASE**

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### **Summary**

This article seeks to explore the concept of *Local Productive Arrangements* (*Arranjos Produtivos Locais* - *APL*, in Brazil) and presents a contemporary Brazilian case, discussing the results 10 years after its implantation and questioning whether it may truly be considered a “local productive arrangement” in the sense attributed to the term in the respective literature.

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<sup>1</sup> This article is an academics version of the official evaluation document elaborated at the end of 2006 to WWF Brazil / Amazon Program and Water Program.

The approach used by the article makes very clear the importance of the degrees of interaction and articulation among the sectors of society and of the spatial and geographic concentration of the activities, as factors favoring the injection of external resources and the surfacing of new ideas on how to use local resources to open up markets.

The article starts by delineating the concepts associated to the term *Local Productive Arrangement*, analyzing the capacity for learning and innovating of the initiative in question, goes on to describe the *Silves* case,

and ends with a discussion that mirrors the suppositions of the concept set out at the beginning against the described reality. The method used was an analysis of the narratives of the actors involved and the primary source for that was a collection of interviews carried out in 2006 as part of a participative evaluation made at the suggestion of the supporting NGO.

The conclusions point to a resulting stable social capital which over the last ten years has facilitated developments which are of public interest: the maintenance of the community in its place of origin, and

environmental conservation. It also shows up the fragility

of private sector participation thereby characterizing the

Local Productive Arrangement as being at an immature

stage of evolution where there are gaps that need to be

filled.

### **Introduction**

*Silves* is a municipality in the State of Amazonas where a local productive arrangement directed towards ecotourism and conservation was set up. WWF, a non governmental organization with international outreach, added its expertise to the local movement to restore the former regional fishery stocks, articulated financing and, together with the community, developed a way to generate income through the controlled exploitation of tourism. Those joint efforts led to a project for a community guest house which has now been in existence for ten years and is considered to be a success among environmental NGOs because of its results in terms of community development and conservation of the ecosystem. Everything, from the monitoring and inspection of the lakes to the management of local agriculture, has been the object of a search for specific, creative solutions for that anthropological and biological niche. With this process, the arrangement produced knowledge and information, boosted ideas, opened up new articulations in government and private spheres and created services and income. Over the years, the people involved have met the challenge of dealing with previously unknown practices and concepts ranging from the management of a guest house, to techniques for interventions in communities, and have managed to obtain a differentiated product but one not entirely free of problems which still crop up.<sup>1</sup>

### **I – The Concept of Local Productive Arrangements**

*Schmitz* (1997) defined the term production arrangement as a production structure typified by various complex systems of production, commercialization, distribution, technological development and supporting institutions, where it is necessary to articulate economic factors of various spheres – social, institutional,

cultural – and which cannot be dissociated from one another. The degree of development of those systems and factors (and of their spheres of origin) will indicate whether the arrangement has attained a consolidated condition or not. That approach leads us to reflect that the concept of productive arrangement is associated to a dynamic phenomenon in constant evolution in every case where it takes shape. Finally, to discover whether the stage of development of the factors and systems involved is mature or consistent, attention must be paid to how long the arrangement in question has been functioning, and ascertain whether the premise of being productive continues to apply.

*Lemos* (2003) defined the term as being “**a territorial agglomeration of economic, political and social agents with a focus on a specific set of linked and interdependent economic activities**”. A practical initiative that has been taken based on that definition is the *RedeSist - Rede de Sistemas Produtivos e Inovativos Locais* (Network of Local Productive and Innovative Systems) – an interdisciplinary research network whose formal existence dates from 1997. It is based at the Federal University of Rio de Janeiro’s Institute of Economics, and it aggregates several universities and research institutes in Brazil. It maintains partnership agreements with other institutions abroad that can boost human capacity for formulating cooperative productive systems like the arrangements, in their technical and economic dimensions<sup>ii</sup>.

Demonstrating that initiative is important, insofar as it illustrates the application of the concept and gives an indication of how society is already propagating the idea of productive arrangements, even instinctively.

*Cassiolato* (1999) showed some of the advantages obtained by small businesses when they were involved in producing nuclei (a vision that originated from the work of Marshall on the 19<sup>th</sup> century industrial districts). Small industrial enterprises organized themselves geographically in clusters, generally located on the outskirts of production centers, thereby reduced their operating costs, and they maintained a constant, interactive learning process whereby the productive activity was coordinated with the local production systems. That approach enabled a change of the focus of analysis from the center of the individual company to the relations among the companies and the different actors involved in production.

In this mesh of relationships, the State appears as a controversial actor, as the very idea of intimate relations between the private and public sectors in the coordination of sector policies is an uncomfortable one for many and gives rise to the discussion of what kind of power and control structure should be contemplated. Nevertheless, the State can play an important role in stimulating the local production process in regard to the articulation among the respective agents and in fostering the collective learning process (*Dalun, Johnson & Lundvall, 1992*).

Another kind of actor to be found in many local development relations is the social organization usually known as an NGO. They are non-profit organizations set up in the sphere of civil society and their mission is linked to matters of public interest. Accordingly, they represent groups and communities with specific interests. In Brazil they are usually referred to as *Organizações da Sociedade Civil – OSCs* (Civil Society Organizations) but in this article we will adopt the term Non Governmental Organizations which is how they are known internationally, that is, NGOs. The existence of all kinds of local networks, ranging from basic health care and education organized by the public sector, to informal ones that may be initiated by local leaderships and get to the point of creating permanent structures of organization by

territories that are capable of interfering in any economic or social initiative, is a present-day reality. Electronic sites of NGOs can be consulted and in them there is invariably a link that will disclose its most recent articulation efforts.

*Barbieri* (1997) underscores that in keeping their plans independent of governments and corporations, the NGOs are consequently not bound to short-term issues (like elections and party mandates) and for that reason can attract investments from the public and corporate sectors.

One illustrative case of NGOs acting as a bridge with the productive sector is the *Greenpeace-Foron* alliance (Stafford, Polonski & Hartman, 2000). It is a 'green' alliance that has taken on the role of encouraging entrepreneurial innovations directed at efficiency and generating clean technology. In this particular case, which occurred in Germany in 1992-3, in addition to providing an open channel among the various stakeholders, Greenpeace offered its technical, scientific and legal expertise for the construction of "strategic bridges" to give support to company and society initiatives. The concrete expression of that alliance was the commercial production of environmentally responsible refrigerators.

Another actor inherent to the process of forming productive arrangements is the social group itself, that is, the people that inhabit the space where the productive possibility emerges. In Section IV of Agenda XXI, Chapters 34 and 35 draw attention to the interaction between the scientific community and the knowledge of traditional communities, an approach that can be found in various international documents and agreements on the preservation of human and global heritage (like the Convention on Biodiversity and the Cartagena Documents).

The existence of numerous actors and roles leads us to an important characteristic of a productive arrangement: the governance capacity of the venture. Governance here is understood to be the coordination among different agents of the productive process including not only production, but also the commercialization of the goods or services.

The concept of governance used by *Cassiolato & Szapiro* (in *Lastres et alii*, 2003) is based on the overall idea of 'the establishment of the intervention and participation practices of the various categories of actor - the various spheres of the State, local private companies, workers and citizens, non governmental organizations, and so on -, in the decision making processes. They draw attention to the fact that governance is achieved either in the form of networks, where the organization of the actors allows for an equitable participation in the decision making process, or in a form of a hierarchy where one larger or more economically (or politically) important organization is preponderant in decision making.

In any event, governance establishes the relations throughout the system and in its configuration, combines public, private and community stimuli, seeking to form a virtuous circle of cooperation, capacity and competitive production.

*Freeman & Soefe* (2000), in their study of the relation between sustainable development and the generation of technological innovations, demonstrate the connectivity among economically feasible technical solutions and the wide spectrum of actors involved, including Government, consumers and NGOs that must participate in the process. Control is decentralized, the number of actors is large, and the need for learning is preponderant.

Thus we arrive at an approach that focuses on the relations among the various stakeholders rather than on the private company itself, and on how those relations can generate new ways of acting and producing. New ways require new learning: learning and innovation are the base for the formation of productive arrangements. How can that base be expanded, how can projects be designed that provide conditions that enable it to occur?

*Bartel, Saavedra & Dyne (2001)* did research on the learning conditions in communities and concluded that they could be boosted by various processes and theories that lie beyond the scope of the present article but that are the materialization of investments and effort and not mere spontaneity. In the same direction, a study carried out by *Tembo (2004)* demonstrated how communities were strengthened by capacity building which led them to extract benefits from globalization and from the possibilities stemming from the opening of new markets. Such capacity for production and innovation aroused by a planned structure for facilitating commercial production is capable of generating goods that the market accepts and that are integrated into the local economic process.<sup>iii</sup>

## **II – Methodology**

During the process of evaluating the 10 year partnership between *WWF e ASPAC*, analyses of documents was done and individual interviews were carried out with local leaders in *Silves* and with the coordinators responsible for the partnership program “Conservation and Environmental Education” at *WWF* offices, using a semi-structured interviewing questionnaire.

In-depth interviewing was the method chosen because it represents one of the most important sources of information for case studies (Yin, 1994). Based on those interviews, the case’s chronological sequence was traced out and the main events were registered. Following that, focus groups were formed to deepen the discussion on topics of structural interest for an understanding of the case.

Every effort was made to meet the requirements of the *ASPAC* team which had requested an evaluation that would serve as a record of the process and results achieved over the ten years of the partnership. The *WWF-Brasil* team felt that the evaluation should not only meet the request of the *ASPAC* but in addition it should bring with it a reflection on the organizational development challenges to be faced by ASPAC in a new scenario where WWF-Brasil’s contributions would be of a different nature and no longer in the form of financial investments as they had been over the 10 years of the relationship.

Six interviews were carried out in *Silves*, one in group and five individual ones. After the interviews a preliminary report was drawn up which set out the partial information obtained and suggested aspects that needed to be gone into more thoroughly. During a second meeting that report was discussed with the *ASPAC* team and complementary information was obtained as well as an identification of lessons learned and challenges for the future.

## **III – Description of the Case**

### **Location and Geography**

The municipality of Silves is located on the Amazon River, 200 km due east of Manaus and 250 km away by river, going upstream. It occupies an area of 3,747.2 sq. km (1,464 sq. miles) in a region of Amazonian lakes of the most varied shapes and sizes. The aquatic ecosystem is just as delicate as it is rich, due to the biological processes that regulate the fauna and flora and the traditional communities that have lived on the riverbanks for centuries, seeking to strike a balance between their vital environmental needs and the available natural resources. The Municipality is situated in a region of Amazonian lakes at the confluence of the Urubu River and the Canaçari Lake, a region of flooded forest and seasonal floodplains with an abundance of fish and rich aquatic diversity.

Tourism stands out as the major economic source, especially ecotourism which has been receiving intense investment. In 1980 the *Guanavenas* guest house was set up and since 1994, there has been the *Pousada Ecológica Aldeia dos Lagos* - Lake Village Ecological Guest House, the latter being under community management and the focal object of interest of this article<sup>iv</sup>.

### **Background**

The creation of the ASPAC (*Associação Cooperativa Gestora do Ecoturismo Comunitário na Aldeia dos Lagos*- Cooperative Management Association of Aldeia dos Lagos Community Ecotourism) took place in a social context that was marked by the mobilization and engagement of fishermen in a movement known as the Fish Movement. At the beginning of the eighties, the communities were having difficulties to survive due to the reduction in the fish stocks caused by the invasion of commercial fishing boats. Parallel to that, family-based agricultural was also facing a crisis: the prices paid for region's principal agricultural products were very low. Accordingly, the two main sources of food and income for the families were not meeting their subsistence needs. It was from that difficulty that the movement to seek alternative solutions arose.

*They were big commercial fishing boats like the one you see in the rivers here, now they come in at this time of the year, but at that time, back in 1981 and up to 1994, when the ASPAC was created, they came in at any time of the year even in the dry season. So what happened was that there was a reduction in the shoals of fish, the fishermen, that is, the farmers began to spend more time fishing to get some food for their homes than they spent in their fields. So the economy based on 'flour' that is on cassava meal began to diminish, fish no longer appeared on the farm worker's table, so there was a need to start and people....*

*... that one of the main problems that was happening here, precisely because of the lack of fish, and furthermore, the homicide rate went right up in the eighties, so for them to get any food, let's put it this way, that when I was twelve years old my father gave me my first shotgun, gave me a shotgun to see if I could fin something for lunch while he was working.*

*So seeing that there were practically no fish, you had to kill doves, parrots, agouti, whatever you found meant lunch to eat, so people went around armed, it wasn't for any bad intent, was it. They had to do it because there were no fish. So people had to change their diet if they really wanted to eat...*

*(Statements of local residents)*

The mobilizing of the communities was stimulated by the CPT – *Pastoral da Terra* Committee linked to the ecclesiastical social movements. There was an effort made to develop projects together with the communities that could contribute to changing the situations of fishing and agriculture. During the eighties and in the early nineties, action was taken to restrain the activities of the commercial fishing vessels and in addition a fishery management project was implemented.

*At first, the efforts were directed at repelling what the riverbank dwellers considered to be the invasion of commercial fishing boats, whether originating from their own state of Amazonas or from the state of Pará. The first victory came right at the beginning when the Governor of Amazonas issued a decree prohibiting the entry of commercial fishing vessels in the Aneba and Caru lakes, the very same lakes where in the previous September the first mobilization and confrontation between riverside people and commercial boat had taken place...*

*On July 27 1993, Municipal Law 103 was promulgated in Silves creating "two kinds of ecological reserves for the protection of rivers, lakes and forests and the natural species that inhabit them (Article 1)". The Law designated nine lakes in the municipality as sanctuaries and 10 areas, among them lakes and headwaters, as maintenance areas. The municipality of Silves was the first to approve specific legislation for the management of lakes and fisheries.*

*Case Study – Sílvia Mitraud*

The need to maintain surveillance activities for the lakes provoked a discussion as to how resources could be generated for that purpose. The idea came up of a tourism and agriculture project. CPT leaders together with the Italian sociologist *Tibério Allogio* and local leaderships developed an ecotourism project. The project was given the title *Ação Turismo* (Tourism Action). The expectation was that the project could produce financial results to strengthen the movement and consequently, the communities too. The best way to structure the project and make it feasible was then discussed and in 1883, ASPAC – the Silves Association for Environmental and Cultural Protection came into being in 1993.

*So the ASPAC appeared as something grandiose, as an opportunity to strengthen and assist that community movement, supporting it by elaborating the projects, qualifying the people, mobilizing by means of partnership arrangements, ASPAC really did spring up to give support, it came into existence in 1993.*

*(Local leader)*

Tibério was responsible for the first contact made with WWF and it forwarded the project to the Austrian government, which in turn got in touch with WWF-Austria to act as the operator of resources that would be passed on to projects in Latin America. The support that was organized for the project was channeled to the construction of the guest house and other activities like marketing, training personnel and hiring the necessary staff. WWF-Brasil office took on responsibility for accompanying this and other support activity made possible by WWF-Sweden, from 1997 to 2000 and WWF-UK from 2001 to 2005 by means of the Water for Life Program.

Another important mark in the history of ASPAC was the setting up of COOPETUR to serve as a legal entity for contracting services to manage the guest house and keep it operational.

### **The Process**

From the moment it was created, ASPAC's trajectory was made up of many crises, difficulties and achievements, as is the case with any organizational biography with non linear development processes. Such cycles last for longer or shorter periods depending on factors that are internal or external to the organization. A list of the main projects developed over the 10 years of relationship with WWF, some in direct support situations and others not, now follows. Some of the critical points of the trajectory which in one way or another generated change and set the organization off in new directions will then be identified (Table 1).

## Results

The perception of results on the part of those involved was investigated in five individual interviews and one group interview. All the people interviewed had different roles whether in ASPAC or in the various different projects supported by WWF. In their perception the results were:

- ✿ The achievement of obtaining an area for building the guest house.
- ✿ WWF support for building the guest house.
- ✿ Structuring the electricity grid to meet the needs of the guest house adequately.
- ✿ The first movements to keep the commercial fishing boats away from the lakes.
- ✿ Complementary legislation to establish the different uses to be made of the lakes.
- ✿ Surveillance of the lakes undertaken by the communities themselves.
- ✿ Infrastructure for monitoring the lakes (pontoons, speedboats, radio communication equipment, etc.).
- ✿ 2nd Edition of the *Caravana Mergulhão* (Cormorant Caravan) – involvement of the communities in conservation activities, development of community ecotourism itineraries and mapping of the cattle-raising areas.
- ✿ Identification of leaderships in the course of the *Caravana Mergulhão*, in addition to capacity building in conservation and community development for adults and young people.
- ✿ Development of community awareness as to the need for fishing agreements.
- ✿ Development of permaculture. In at least one community permaculture was adopted as its way of cultivating the land.
- ✿ Qualification of leaderships. Some of the ASPAC coordinators lived out the long process of qualification during the 10 years of the partnership with WWF.
- ✿ Projects approved by different Ministries and companies. The group declared that it had learned a lot about elaborating projects in the partnership with WWF.

Table 1. Stages in the Development of the *Silves* Project

Stages of Development	<i>Phase 1 - 1994 a 1996</i> \$ Support WWF Austria	<i>Phase 2 – 1997 a 2000</i> \$ Support WWF Sweden	<i>Phase 3 – 2000 a 2005</i> \$ Support WWF UK
<b>Achievements</b>	<ul style="list-style-type: none"> <li>- Building of the <i>Hotel Aldeia dos Lagos</i> (Lake Village Hotel), inaugurated in 1996.</li> <li>- Strategic planning, capacity building in tourism, the first social-economic survey</li> <li>- Creation of <i>Canaçari Turismo</i> to work as the guest house operating entity</li> <li>- Annual fishing agreements and organization of sporadic and voluntary surveillance and inspection activates still in partnership with the CPT (Pastoral)</li> <li>- First tourists in the middle of 1995. Group of Italians organized by <i>WWF Italy</i> – eco-volunteers, researchers and students.</li> </ul>	<ul style="list-style-type: none"> <li>- Support in the form of capacity building, consultancy in eco tourism, marketing and environmental education</li> <li>- First edition of the <i>Caravana Mergulhão</i> project which sought to map community sensitivity in regard to environmental education and ecotourism</li> <li>- End to the activities of <i>Canaçari Turismo</i></li> <li>- Creation of the cooperative COOPTUR</li> <li>- Refurbishing and re-inauguration of the guest house with more clients and new prospects</li> <li>- Conservation Project supported by the Ministry of the Environment to bear the costs of lake surveillance personnel</li> </ul>	<ul style="list-style-type: none"> <li>- Próvarzea – Governmental Program of the IBAMA. Support for the Conservation, Ecotourism and Family Agriculture (permaculture) Project</li> <li>- Second edition of the <i>Caravana Mergulhão</i> aimed at involving the communities in environmental education, community organization, ecotourism and conservation activities</li> <li>- Installation of the pontoons and creation of the groups for community surveillance of the lakes</li> <li>- Support from an American citizen (Nicholas) via <i>WWF-Brasil</i> providing complementary resources for the lake surveillance project</li> <li>- Support in the form of capacity building and consultancy in planning, financial administration and communication</li> <li>- Support from the European Union for ecotourism and the fishing agreements</li> <li>- Support from <i>Mil Madeireira</i> – a local company that supplied material for the surveillance of the lakes</li> </ul>
<b>Challenges / Changes</b>	<p>Problems with the administration of the building work, delays, and costs underestimated.</p>	<ul style="list-style-type: none"> <li>-Loss of the support of the Municipal Authority– 2 fishery inspectors – expenses with water and electricity supply, and intervention in the community radio</li> <li>- Changes in the administration of ASPAC with some founder members leaving and new members joining</li> </ul>	<ul style="list-style-type: none"> <li>- End of WWF support for bearing the overheads of the guest house</li> <li>- Difficulties in carrying out the activities foreseen by the projects</li> <li>- Difficulties and delays in accounting</li> <li>- Drop in the activities of the guest house due to the general crisis in the tourism sector in 2003 (September 11 terrorist attack) and the valuation of the Real against the American dollar and the Euro</li> <li>- <i>WWF- Brasil</i> decision to finalize and cease support</li> </ul>

			- Changes in the board and coordinator of ASPAC
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*The big achievement was getting this space... where the hotel structure is situated, well that was the big achievement because it had to be approved by the Council, it had to be sanctioned by the Mayor, and ASPAC was being created then, it had less than forty members..it needed the support of the communities, support from some kind of institution, ...I went before the Council together with a number of other people, to force...to influence...the councilors' decision...*

*...after getting the land the big achievement was getting the support of WWF Austria for building the structure and then came the second part, the Swedish WWF.*

*...so, to avoid any resistance I showed up armed just to make an impression, at first it was difficult, there was tension, and sometimes there were ten or twelve boats and each boat had twenty men, so it was very risky. In some places that historic moment is referred to as the 'Empate' (draw, tie), because the idea was to force a draw, wasn't it, to prevent those people from going into the lakes, so that was the historic moment and that moment was called the moment of the Draw....*

*...It was already specific based on the Organic Law (of 1990...how do you call it... a complementary law... that established that the lake...in July 93...some lakes that were part of that old line were taken out and substituted by others, they even reduced the number because there were so many lakes.. it was impossible to look after all of them....*

*...after 97 we managed to get a project with that new idea of education, of trying to establish surveillance with the communities themselves using the work of volunteers from among the people...*

*...we established a pontoon there that was built by them... the pontoon we have here, the Canaçari one, near to the port, it was built at that time...we managed to get another pontoon through WWF for the bay over at Preto lake, a strategic lake, a strategic point at the boundary between Silves and Itapiranga... it was the only community that had survived from the movement... we couldn't leave it out, could we. ...*

*... the educative process did not affect everybody... we thought that we had got to about ninety-nine percent of the population ... a handful of people from the communities, two or three people or one family tried to oppose the work of the communities ... there is a new challenge there to find a way to insert those people into the work of conservation.*

*(Local leader)*

*The Caravana Mergulhão started to address larger issues, even though the resources we had at that time were not sufficient to be able to address all those themes because the demand was great, when the Caravana Mergulhão started to go around the communities the demands were almost greater than before, they addressed a number of programs that really did call for a heavy program, really heavy...in the area of environmental education and one of them that really did work was when we finally worked on the tourism inventory, which was ecotourism on a community basis. Because before that, the inventories just had how many restaurants there were, how many hotels.*

*(Another local leader)*

*a Caravana Mergulhão começou a abordar temas maiores, inclusive que até mesmo os recursos que naquele momento tinha não era nem suficiente para abordar todos esses temas porque a demanda era grande, quando a Caravana Mergulhão começou a andar nas comunidades as exigências foram quase maiores que antes disso, que abordou um número de atividades que realmente necessitavam de um programa pesado, pesado mesmo...na área de educação ambiental e um deles que realmente deu certo foi trabalhar finalmente no inventário turístico, que era eco turismo em base comunitária. Porque antes nos inventários tinha quantos restaurantes tinham, os hotéis.*

*(outro líder local)*

*Caravana practically became my life project... with a tremendous effort made by a team we had, but we managed to restore ASPAC's identity in the communities once more and the*

*great result.. drawing ASPAC and the communities closer together again... we managed to identify new articulators in the communities...that was always a difficulty that came up as we had communities with divided leadership, like one group to the left and one to the right, but we managed to bring the two sides together...we listened to those on the left and to those on the right so as to be able to work out a strategic plan to bring the two groups together, groups that weren't even speaking to one another... or respecting one another...thank God we managed to solve that problem...*

*...so the methodology we implanted in the communities with the participative mapping activities, that was a fantastic idea that came up, that participative mapping was where we traced out.. plan within the real possibilities and in fact it generated some discussion between the community...*

*(A third local leader)*

## **Obstacles**

**Inconstant and uncoordinated political support.** Some administrative authorities supported the conservation work and others did not. Over the last six years however, there has been no support from the Municipal administration. The moment that public authority showed itself willing to collaborate with the ASPAC conservation projects, it revealed the fragility of its capacity to structure any kind of conservation agenda that might open up dialogue and articulated interaction among the communities. The municipal heads of departments do not know anything about the theme.

**Resistance to agreements.** Some people in the communities opposed the fishing agreements. They were – “owners of lands that were in among the lakes, landowners, cattle farmers and especially people that did a lot of fishing” – and they did not adhere to the agreements. Now that years have gone, in recent contacts it was possible to observe a certain evolution of the situation: there is greater adherence on the part of cattle farmers and community members that initially offered resistance.

**The mode of community organization impedes continuity.** Community leaders are very often committed to a party political agenda. That means there is a tendency for community activity to be molded by the dictates of whoever is in power at the time. Furthermore, quite often, the person that performs the role of president of the community, does not have the profile of a leader that seeks to involve the community members in the discussion and solution of their problems and needs and necessities, even though he or she may have been elected to that office.

**Person to person communication poor, hampered by the Amazonian context.**

The ASPAC representatives rarely get together which makes it difficult to impart a clearer structure to their work. Furthermore, geographical dispersion makes contact difficult. Such difficulties often lead to misunderstandings that can scale up into conflicts that often jeopardize the progress of the projects.

**Precarious communication infrastructure.** Neither the ASPAC nor the Municipal authorities have access to the Internet. The fixed charges of the concessionaire providing connection via radar proved to be prohibitive and use of the service had to be suspended. The lack of an Internet connection hampers contact with the partners.

**The fragile viability of the “Guest House” business.**

The business has already passed through a series of crises. Feasibility studies demonstrated its poor potential for generating sufficient resources to support the necessary conservation activities carried out by ASPAC. In addition to the indications of the study, facts and situations inherent to the reality of the tourism market have

shown how difficult it is to keep up a constant tourist flow in the context of a hotel venture. Currently the Guest House receives foreign tourists most of whom are Italian. The arrival of groups is seasonal and there is no policy in place for attracting Brazilian tourists who have lower purchasing power (the prices are high by domestic market standards).

*.. this question of worrying about votes is directed at the collective interests of the administrators, the Mayors. So just as much in Itapiranga, as in Itaquatiaia or in Silves, the municipalities that we know, that was the biggest difficulty, when we had a mayor that did not persecute us, he did not give us enough of the support we needed either, so when he managed to give a little gasoline or stuff like that, but he didn't manage to make any of his people available to help, or when there were problems he hid himself so as not to take any responsibility for them.*

*So support was always lacking for us and when we did find that person that gave us a minimum of support as mayor, four years went by and then another person came along that didn't give any support at all, like this last one, who spent four years there and gave us no support whatever, actually, it was eight years, just ...*

*... the resistance of some people in the community, that is, there was not total acceptance of the proposal by all the people, especially by those who owned any land in among the lakes, proprietors, cattle farmers, especially people who lived by fishing, whose source of income is fishing, because there are people in the communities who make their living from fishing. So the incomprehension of those people hampered the process a bit that is, it influenced the others...*

*... Well I think that now with the question of management, that is control over fishing, there is a possibility of inserting those people in the process, so I think that now is the moment to study how to do it, how to make them participate in this so that they can believe that it is something that can come out alright. And showing results, because if we don't show results, it's no use talking, if they don't feel the results, what's even more important than showing the results is their feeling them, feeling that things have really changed, that it came out right...*

*... the fragility is that when there is a leadership, that leader, he is always closely connected to the authorities, public administration, he is always dependant on it for everything... it's as if he were a head of department in inverted commas, inside the community itself, or a head of department of the local authority itself, that is to say, that person becomes, instead of being the voice of the community....*

*There is a mistake which I think is something that has been hindering things and that is the internal communication, it's one of the fundamental obstacles... what happens is misinformation when people talk to other people, then the quarrels start, a confrontation of groups...*

*... And another case is that people accumulate jobs, one public one or even two public ones and one here or an activity as a farmer, or another here, so he is up and down, from here to there, and what happens, he doesn't do one thing or the other...*

*... it was planned that from the year 2001 on, we would have to stand on our own feet. Actually that was stupid because getting a project of this size established and experimenting with something that nobody had experience of, which meant working for four years for some kind of sustainability, working in a regular kind of economic activity instead of staying in the field planting corn, watermelon, which is what one was really qualified to do, but working with tourism in a region three hundred miles away from the state capital, you know.*

*Well OK, after all the objective was very clear, and we could say, well made, well thought out, but afterwards, when the economic viability study was made, if the viability study had been done first, then this ecotourism project would never have happened because it was not viable for a place like this, for you to persuade a select group of tourists to come here, three hundred kilometers away from Manaus...*

*...when it was September which was the moment, which was really the moment for the reservations for the coming year, because we had almost nothing in the way of reservations, because in the year 2001 we were left practically without electricity here because the electricity supply which used to be on all the time, we couldn't even plug in a freezer here,*

*so then the structure was adapted for the air conditioners and so on, hot showers, because whether you like it or not, eco-tourists are normal people...*

*... we had to see how those fundamental things would be in regard to the market, marketing, and a plan, not a work plan, finalize the business plan, we have looked at the present price situation, the flow of visitation which this year is also low...if the eco-tourism project just had to sustain itself alone, just itself, then we would be fine, but today, on its own it is not capable of meeting all the demands of the whole of APAC...*

*...So let's say, at the moment I am trying to equate it this way, and for you to get an idea, the only MDA project that was approved for the state of Amazonas was ours. If you take a look at the list of those approved, in all the programs for Amazonas there is only one approved which was ours, but it was the only one that passed of the projects that were sent in, in*

*February*

*(ASPAC leaders)*

## **Lessons learned**

**Community involvement in projects.** Some ASPAC activities have been unsuccessful because they were produced within the confines of an office. At the stage when the projects were being elaborated there was no concern to hear the community's opinion in regard to its needs and the contents of the projects. An example of such situations was what happened with the permaculture proposal. In spite of the positive message it embodied in conservation terms, it proposed a kind of agriculture far removed from the family farming practices that are normally used there. Those projects that have been elaborated more recently have already incorporated the idea of their not being "for" the community; but rather, "of" the community and that consequently the community must be involved and take on responsibility for them right from the beginning.

**Standardized projects.** Many of the communities' needs fail to be met because the projects are standardized. Single or standard solutions or products for all communities do not combine with their different characteristics and needs which require specific products and actions. The lesson learned is that there is no such a thing as a single solution for all the varied demands, and that accordingly, the projects need to be made flexible and regionalized to address different publics and necessities.

**Environmental Education and learning.** The *Caravana Mergulhão* served as a laboratory for learning about community mobilization. The idea of going to the community, hearing about its needs and demands and making some proposals worked as a discovery process for the ASPAC team. It was able to get to know the communities themselves in greater depth, and to establish bonds for building a partnership for activities in ecotourism and conservation. The lesson learned here concerns the fact that willingness to travel to the home of the person that you wish to have as a partner, and to go there with an open mind, ready to be told about other the realities and to get to know them, brings with it many gains for both sides.

**Appropriation of new languages and rhythms.** During the years of partnership between ASPAC and *WWF-Brasil*, countless administrative problems arose involving delays and misunderstandings in regard to accounting for expenditure. There are two main dimensions to the challenges faced by the two sides: rhythm (expected time *versus* time actually necessary) and language (formats, structures). On the one hand *WWF-Brasil* needs to comply with an accounting agenda established with the sponsors in specified periods and formats. On the other hand, the rhythm of implementing the ASPAC projects does not coincide with the periodicity of the accounts demonstrations. The difficulties in communication added to the lack of

knowledge and practical ability in implementing the various components of the projects (construction, mobilizing the community, accounting etc.) all took much more time than had been allowed for. The lesson learned is that in partnership relationships there is a need to make out an initial diagnosis of management capacity and should it be necessary, invest in improvements in that area before going on to establish the agreements. Thus it should be borne in mind that in addition to technical support, the partner may need to undergo managerial capacity building. Another lesson learned is that whoever is executing the project needs to pay attention to the terms of the contracts that have been signed. If one of the partners specifies a date for demonstrating accounts, it is because it needs the information by that specific date. Difficulties encountered during execution of the project cannot be considered any more important than a partner's need to complete a demonstration of accounts for its investor.

**Credibility and engagement are built up from results.** The conservation activities have produced results that are perceptible to part of the community and that have facilitated greater engagement on their part. The blockade to prevent commercial fishing boats from entering the lakes that were under surveillance seems to have fostered a greater production of fish to be caught by the communities. Nowadays it is quite common for ASPAC to receive denunciations of illegal fishing in forbidden areas or periods. At the beginning of its activities ASPAC was viewed with suspicion by some communities. The lesson learned here concerns the time, the effort and the results that are necessary to construct a good reputation. Some of the populist and sporadic actions of politicians are now clearly perceived and 'relativized' by the communities who have acquired a good idea of what is really necessary for effective conservation work.

**Learning to demand.** The communities have become aware of the need to make themselves heard. The *Caravana Mergulhão* aroused communities' awareness of the possibility of identifying their problems and seeking solutions for them on their own or from the appropriate bodies of the public authorities. The learning stemming from that change of attitude translates into widened possibilities for intervention and for fostering initiatives which were formerly dormant.

**Handling innovations.** Over the years the team has had to face the challenge of dealing with practices and concepts formerly unknown ranging from running a guest house, to interventions in communities. A lesson learned during that process was one concerning the risk involved in taking on responsibility for something without being adequately prepared to do so or without enjoying the approval of the groups involved. The challenges and risks of operating in fields or on issues that are not well known need to be fully discussed with the stakeholders: ASPAC associates, COOPTUR members, the public sector, and community representatives. Only in that way will it be possible create a situation of co-responsibility in regard to actions, thereby sharing the responsibility for the eventual successes or errors.

### **Present status and challenges**

ASPAC is presently finalizing the work of the fishery agreements. Part of the support for the activity came from *WWF-Brasil*. The zoning of the areas has been defined and all the necessary documents are now being analyzed by IBAMA. The project enjoys the support of the European Economic Community and of the *Mil Madeireira* Company.

Two other projects that have already been approved by the respective government bodies are about to be started. The first is financed by the Ministry of Agrarian Development (Capacity building in family farming, agro-ecology and agro-industry and the qualification of multiplying agents to act in their own communities, all with a view to diversifying the farming and livestock raising activities). The second will be financed by the Ministry of the Environment (actions for consolidating the fishery agreements and the implantation of alternative productive activities for the communities). Demonstration fish and turtle tank projects will be implanted and agro-forestry systems will be developed on 20 properties.

In addition to the projects already approved, a project for refurbishing the guest house is presently being discussed with the European Economic Community. The idea is to repair the roofs and refurbish the kitchen. Another discussion that is underway in the sphere of the approved projects is that of re-establishing the communication system via Internet.

### **Case conclusions**

The projects mentioned are evidence of the capacities that ASPAC members have developed over the years. The approval of their projects in competitive tendering and selection processes demonstrates an important accumulation of experience in elaborating projects. In addition to the question of projects, ASPAC shows its competence in establishing relationships with non governmental partners. The support given by the *Mil Madeireira* company and the European Economic Union (Manaus Office) represent important reinforcements for the Guest House and conservation activities.

The weaknesses march side by side with the strengths. During the mandate of the present ASPAC managing group it has been facing a challenge regarding communication among members of the coordination. Most of the coordinators have work commitments outside Silves; all the coordinators need work other than their ASPAC work, and with a lot of working hours, in order to guarantee their families' sustenance. Accordingly, the activities involved in ASPAC affairs are restricted to very short meetings and events. The difficulty there is to meet and sustain a dialogue is a potent brew for producing conflicts. The challenge posed by such situations is to work up projects or institutional support that could keep the money coming in for salaries that would enable the occupants of coordinating positions to have their work remunerated.

Another aspect that has been a challenge is the managing of the Guest House. Although the gains in competence in the activity that have been achieved are clearly perceptible, both ASPAC and COOPTUR members are well aware of the need to formulate a business plan for the guest house. The prices charged are compatible with the purchasing power of foreign tourists but that is a public that has been diminishing year after year. A strategy needs to be developed to attract Brazilian tourists as well. A business plan would be useful for developing products for Brazilians and for foreigners making the price for them compatible with the profiles of the respective publics. The business plan should also embrace marketing strategies. In addition to those aspects, there are other needs that cannot be ignored in a hotel venture: maintenance of the physical structure and training in various aspects of hospitality (service, kitchen, etc.).

### **III – Discussion of the Case**

In the light of the concept of Local Production Arrangements, there now follows a discussion of the extent to which it permeates the *Silves* case.

We will make the reflection by considering those topics that synthesize the presuppositions of the APLs.

### **Economic interdependence among the agents and territoriality.**

The origin and features of an APL are usually associated to a historical trajectory of certain actors bound to a certain territory, and which starts from a common base that both unites them and stimulates them to interact.

As we have seen in *Schmitz* (1997) and *Lemos* (2003), the APL is based on the premise of interdependence and territoriality of the actors. In the case that has been described, dependence exists in the form of economic ties because the residents, the Cooperative, the logging company, the commercial fishing businessmen, and the tourism companies depend on the sustained exploitation of natural resources. In the sphere of political ties, the Federal Government is under national and international pressure to preserve the Amazonian ecosystems and the Municipal authority (Mayor and councilors) seeks to minimize problems and increase its votes. The cultural and anthropological bond can be detected in the community's quest to consolidate its identity.

It is worth remembering that the territorial dimension represents a specific transect of analysis and political action and defines the space where the productive, innovative and cooperative processes are situated, but it goes beyond its material and concrete nature; it has economic, symbolic and political significance and culminates in the concept of territoriality which refers to the relations between the social groups and their environment (*Raffestin*, 1993).

### **Cooperation.**

In *Silves* cooperation took place at various levels:

- In the systematic exchanges of information that were made between the support agency *WWF-Brasil*, community leaderships, the logging company, the Government (IBAMA) and the international agents;
- In the interaction of people that were willing to be trained to carry out the work of the new ecotourism market;
- In the practical organization of the surveillance work for the lakes and the work of running the guest house;
- In the execution of joint projects including those for improving services and processes and even the search for new solutions.

The forming of the Cooperative may have been an evolution of that attitude of cooperation and the results obtained with the Ministry of the Environment for bearing the costs of the personnel carrying out the surveillance of the lakes also serve to shed light on the evidence that there is an attitude of cooperation present in the case.

### **Reduction of Costs.**

When *Cassiolato* (1999) demonstrated the advantages of organizing companies in clusters and the reduction obtained in transaction costs, we could identify a strong presupposition for the existence of an APL.

In the *Silves* case, the cooperative that was created had the characteristics of an autonomous and voluntary association which, with its own particular nature and form of

legal constitution, sought to generate working conditions for members of the community and at the same time to insert itself into the market in a competitive manner with reduced costs.

The phase out of the former private enterprise company, *Canaçari Turismo* and the setting up of the COOPTUR, was done with an eye to reducing costs. There could be better opportunities if agreements were established with special suppliers, if there were more intense engagement in the business, but evolution to that stage is still only incipient.

### **Governance.**

*Chernela* (2005) discusses the *Silves* case highlighting its governance capacity as something innovative and multi-sector. The interactive roles of the various actors were clearly perceptible in *Silves* where the initial negotiations with the commercial fishermen were established and worked as a catalyst for the regulatory role of the State and along the way it involved financing that originated from private individuals and legally constituted entities, the WWF organizations of three countries, international tourism organizations and the local logging company.

The principals of governance are present and can be identified in the transcribed interviews: the focus on the mission, the responsibility for planning the projects and the business, the orientation towards learning and self-appraisal and the concern shown for improving the decision making processes.

### **Innovation and Learning.**

*Afuah* (1998) defined innovation as "the use of new technological and marketing knowledge to offer products or services to clients". From such a definition we can see that it is not merely a simple novelty or new idea that can be called innovation; there is more to it than that: it is the adoption of it by the market, whereby people legitimate the importance of the novelty by using it, buying, selling it or spontaneously accepting it as useful to the process to which it is related.

*Dosi* (1988) discussed the process of technological innovation as being a change of paradigm whose essence lies in the quest for the discovery, development, imitation and adoption of products, while Freeman and Perez (1986), *apud* Dosi, already used the expression 'technological paradigm' in describing the process. Thus in this expanded concept of Innovation, we can advance towards various possibilities: in the organizational dimension, innovation may be *technological* (products or services improved or developed and generated for the market, or *administrative* (organizational structure and administrative processes improved or developed and generated). In the cultural and economic dimension, *radical* innovation could be identified (that which demands knowledge very different from any existing knowledge and makes it obsolete) or even *incremental* (that which supports itself on existing knowledge without destroying it). Radical innovation is considered to be destructive of previously acquired competences as it is installed demanding totally new skills for the implantation of extremely new methods. Incremental innovation however is held to provide "leverage" to competences as it represents an evolution of what is already known, aggregating the new skills to it.

Irrespective of the degree of novelty associated to an innovation, the main consideration is that it should guarantee the sustainability of the organization in its institutional mission.

Barbieri (2003) identified various models of innovation processes among which the 'demand pull' one, which is a linear model whereby the needs of the market provide

the impetus for generating ideas. In the case we are examining, the business planning was highly orientated by the ecotourism demand and the innovation was induced by it too.

To achieve the innovation we have described a great learning effort was needed. As *Lundvall & Johnson (in Cassiolato, 2005)* have underscored, the creation of competences is a powerful instrument for social cohesion and to create them it is necessary to accelerate the learning process.

Of the various ways of learning, the interactive form is the one that most allows for the transmission of tacit knowledge, the kind of knowledge that is not formally described or officially registered. In the *Silves* case, that kind of learning was essential for the people to evolve in their productive activities. They learned new subjects, destroyed part of their former knowledge but, above all they aggregated new knowledge, incrementing their ability to innovate. The nature and intensity of the social and institutional relations that were created facilitated learning associated to innovation.

The major novelty in *Silves* was the new mode of tourism: community tourism. It is something different from ecotourism where the ecological environment is the main focus. In community tourism, the focus is on culture and the community's way of life. To make that feasible for the tourist the entire community needs to be intensely involved in the 'spirit' of the initiative because the "product up for sale" and for public admiration is the "cultural essence".

#### **IV - Conclusions**

The *Silves* case does indeed have the configuration of a Local Production Arrangement. It fully satisfies four of the five requirements for Arrangements that the bibliographical review delineated, but it is poorly expressed in the aspect of aggregating firms to collaborate in the production process to reduce the costs of the transaction. Functional integration with companies in the geographic proximities, which could produce synergy and consequently heighten competitiveness, has still not taken place to any significant extent. It is true that there is an embryonic arrangement in that sense: the one that links ASPAC, COOPTUR, local and international tourism operators and the *Mil Madeireira* company, which by taking on the onus of materials needed for surveillance, participates in the production chain of tourism services as cost bearer in the maintenance of the landscape and the fishery stocks.

What comes over very strongly in *Silves* is the stable social capital which over the last ten years has fostered an atmosphere of confidence and mutual assistance among all those involved in the initiative and that in turn has facilitated the very things which are the object of public interest, namely: adequate environmental conservation and the maintenance of the community in its place of origin. The predominate feature of the social action that has been carried out there is much more one of socialization, given that the action was conceived, constructed, re-directed, and discussed in the light of the local social context, than of individual independence that seeks for utility, as described by Coleman (1988). This principle of social action which has rational action as its starting point without however, accepting the typical individualism that usually accompanies it, is structural in the formation of human capital as a development strategy.

It becomes easier to understand the *Silves* experience if we aggregate a less restrictive concept to that of the APL, the concept of "social technology". One of the

definitions of social technology proposed by the Institute of Social Technology is: 'a set of transforming techniques and methodologies developed and/or practiced in interaction with the population and appropriated by it, that represents solutions for social inclusion and improving living conditions' (Barbieri & Rodrigues, 2005). The recognition that Silves demonstrated the capacity to transform its social capital into social technology on the way to an APL, is very promising.

The strategy for overcoming the problems also achieved victories in the legal field bringing with them palpable and visible results. The production of services is evolving and indicates that it may mature as a tourism sector APL. Over the last ten years Silves has been effective in building a structural and human base for offering tourism and environmental services. However, its effective inclusion in the market and consolidation as a business producing value depend on many contextual conditions, and on the performance of other actors beyond the community– the various spheres of government, the general public that is the consumer of its services. Perhaps then, they will no longer need philanthropic investments once the communities are decently inserted in the social-economic workings and articulated with the corporations as well.

What remains is the challenge of boosting the participation of the private sector to achieve a reduction in costs. That is a frontier that needs to be discussed and incorporated into the next stage of local planning.

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<sup>i</sup> The *Silves* project can be consulted at [http://www.wwf.org.br/natureza\\_brasileira/meio\\_ambiente\\_brasil/agua/agua\\_acoes\\_resultados/projetos\\_demonstrativos/index.cfm](http://www.wwf.org.br/natureza_brasileira/meio_ambiente_brasil/agua/agua_acoes_resultados/projetos_demonstrativos/index.cfm) .

<sup>ii</sup> [www.ie.ufrj.br/redesist](http://www.ie.ufrj.br/redesist)

<sup>iii</sup> SEBRAE - - has a collection of technical texts on Local Productive Arrangements available at <http://www.sebrae.com.br>

<sup>iv</sup> Tourism information collected at the site:<http://www.viverde.com.br/silves.html>, accessed on 28/4/2007.