

Annual Report 2004



T U L U M
Strategy and Enterprise Development

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Annual Report 2004

Summary 2004

TULUM has been in a position, in 2004, to further consolidate its profile as program and project manager, and as consulting resource for specific short term assignments, in Eastern Europe, Africa and Latin America. As in the years before, TULUM directed its services towards institutional clients in international development, mainly the Swiss Agency for Development and Cooperation (SDC) and the Swiss State Secretariat for Economic Affairs (**seco**). In the area of innovation development, TULUM has reaffirmed its ability to direct inventive energy into useful applications for agriculture, food processing, energy and the environment.

1. Institutional clients in international development cooperation

1.1 Decentralization and governance

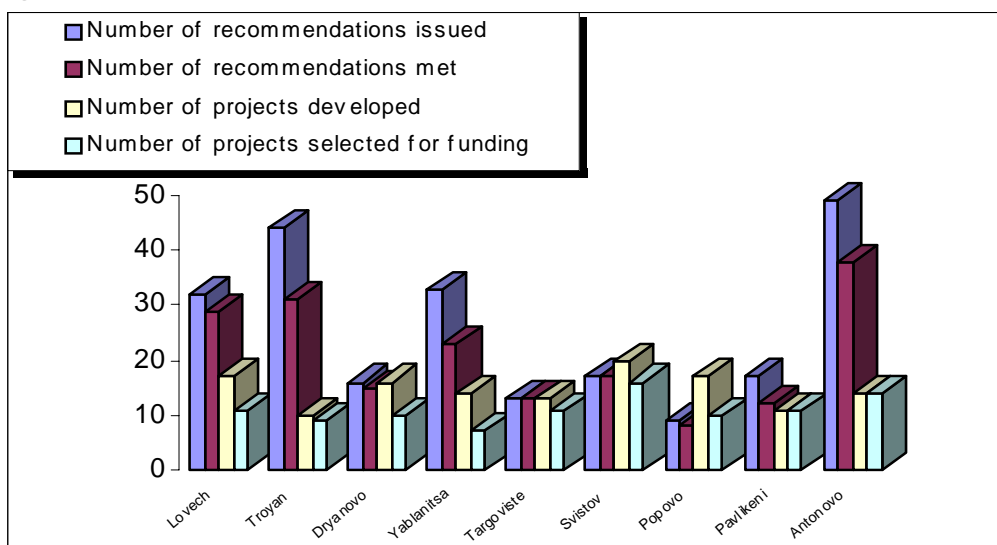
• Bulgaria – Municipal Fora for the empowerment of civil society (SDC)

Municipal Fora in Bulgaria have been in operation since the year 2000, and TULUM was called to play a key role in their design and the coaching of all involved stakeholders.

Citizen participation adds to the understanding of democracy and good governance. Participation enables people to become a part of the governance and to influence the decision-making process on matters that affect their life, their bread-earning, their communities, environment and society. Some conclusions :

What makes a Municipal Forum so unique and performing in the Bulgarian context, as shown below?

- **The participants:** All social groups in a community are represented at separate working banks in accordance with their interests;
 - **The structure:** it promotes equality and a constructive dialogue;
 - **The discussion:** forum topics are put to a wide public discussion navigated by an outside, neutral moderator;
 - **Transparency:** the forum operates in full view of the public and the media – the sessions are open, a protocol is maintained, a newsletter is issued;
 - **The consensus:** an obligatory requirement in making Forum decisions:
- The Forum is an effective tool for broad citizen participation in local development which is gaining increasing popularity and is widely used;
 - Forums can help effectively resolve problems that are significant for the community and establish public-private partnerships;
 - Community Forums pool together the positive energy of society. They raise the confidence of citizens and create the sense of joint governance;
 - The active involvement of citizens and the understanding on the part of government officials are equally important for both sides. Democracy is based on the art of public dialogue.



• **Rwanda – Peace and decentralization in the Province of Kibuye (SDC)**

In the aftermath of the violent and tragic events of 1994, Rwanda has adopted a rigorous policy of poverty alleviation, and a decentralization process aimed at providing to the local communities the required power, responsibility and means for development. Part of this approach is also the revival of ancient forms of justice (gacaca), which should help to bring the various segments of society closer to each other again. Hence, the combination of the fight against poverty, strengthening of local government and reconciliation are seen as a new departure for the Rwandan economy and society.

SDC had a strong presence in Rwanda and the Province of Kibuye before 1994. In its concept for 2001-2004, SDC intended to combine three separate, but interlinked, projects in the areas of health, justice and human rights, and decentralization. In late 2002, SDC launched a tender and chose TULUM for the final design and the implementation of the project called "Peace and Decentralization in the Province of Kibuye".

The empowerment strategy of the project, such as designed by TULUM, is based on four lines of action:

- the strengthening of human resources, through training and information,
- the strengthening of planning tools by a support to the preparation of community development plans,
- the upgrading of infrastructure and equipment of the districts and sectors, and
- the promotion of community development by supporting specific projects that reduce poverty.

TULUM was under great pressure to start the project rapidly as the planned inception phase was only to last 22 months, from March, 2003, to December, 2004. The project team installed its interface with the provincial authorities in Kibuye as planned, and recruited six district advisors.

A substantial ingredient of success can be seen in the combination between a young and dynamic advisory team of two on the spot with the periodical support by experienced specialists in decentralization, rural projects, public finances, project management, accounts and audits, and post-conflict and gender management.

By the end of 2004, the five major expected outputs of the project have been achieved:

1. The elected members of the councils at provincial, district and sector level, and the local government executives, have acquired the necessary competences to assume responsibility in the decentralization process.
2. Each district has prepared a community development plan, which reflects the needs and priorities of the population and has been approved by the concerned instances.
3. Key infrastructure and equipment of districts and sectors have been upgraded and are in use.
4. The community development plan of each district is implemented via the realization of small projects at sector and cell level.
5. Solid national expertise has been made available, through a standing arrangement with an NGO, which coaches the decentralized authorities in the implementation of the project.

SDC has decided to extend the project until the end of 2008. The corresponding planning exercises will take place in the course of 2005. With this consolidation, a rural population of about 500,000 will directly and indirectly participate in the effort of decentralization and of coming to peace again, with prospects of a better livelihood ahead. Opportunities of employment and income are scarce, and it requires talent as much as boldness to face the challenges of daily life on the hills of Kibuye....



1.2 Innovative instruments for sustainable development

• Russia – SME credit foundations are facing new challenges (SDC)

The two "Swiss Foundations for the promotion of economic reforms" in Kaluga and Voronezh have been established in 1994. The purpose was to give access to credit to small and medium enterprises (SME) in the two regions when the SME sector in the Russian Federation was in its infancy and a financial market hardly functioning.

Being part of a more comprehensive SME promotion programme of SDC, the two Foundations gradually developed towards exclusively financial service providers during the subsequent years. Up to today, they have shown good results, despite changes in implementing agencies and difficulties related to the local context throughout their existence. They managed the financial crisis of 1998 and the period that followed with very low loan losses compared to the financial sector in the country. Staff grew in competence, and both Foundations enjoy a good reputation in the two Oblasts where they operate.

Today, the two Foundations, both revolving funds, provide financial services for SMEs (exclusively small enterprises in Russian terms). Their services are characterized by investment loans (some loans for working capital) mainly for the productive sector, rather in urban areas, and flexibility in handling with enterprises in difficult situation. For a long time, they covered a gap in the existing financial market and successfully defended their niches. In addition, they played an active role in the transition process as well as partners in the dialog with Russian authorities in the field of good governance (taxes, customs, etc.).

They enjoy a remarkable reputation and are well respected institutions. The major challenges they face today are a small capital base inhibiting their transformation into banks and a foreseeable, increasing competition by other banks and non-banking financial institutions. At the same time, the constituency of the Foundation is rather fragmented, as well as the loan portfolios, by size and economic sectors.



In 2004 and organized by TULUM, a "10 Year-Jubilee Future Workshop" was held with broad Russian participation in Zurich, Switzerland, in order to explore development options and to derive an Action Plan (2005/06) for the two Foundations. Under this title and time horizon, both Foundations intend to achieve a rating as financing institutions along international standards – a move that will profoundly change and enhance their potential as partners in the field of SME finance.

• Romania – A livestock federation as an engine for growth and quality (SDC)

Since 2001, TULUM carried out a backstopping assignment for the Transylvanian Livestock Reorganization and Artificial Insemination Project (REBIAT) on behalf of SDC. With Romania's prospects of joining the European Union in 2007 firming up, TULUM has been given the responsibility, in 2004, to design and implement an adequate exit strategy by December 2006.

The project builds on a three-tier organization of family farms committed to livestock breeding, i.e. 392 individual livestock associations, seven district federations and an apex organization covering Transylvania. Total membership amounts to more than 43,000 family farms with total of about 77,000 cattle in the herd books. Services offered by the district federations include claw care, artificial insemination and cattle market organization.

The odds against REBAT are numerous. The farm holdings are small although mere subsistence farmers are neither targeted nor attracted, because of the ne-

cessary professional and financial commitments implied by the membership in a livestock association. This means that the potential of economies of scale is limited. With regard to their expectations, the participating farming communities are torn between the communist past and the promise of future EU membership, which may or may not improve the fate of small family farming, especially in a critical branch such as livestock and dairy farming. Moreover, the role of the State and its sector authorities is often ambiguous and changing in attitude and outlook.

In this context, REBIAT firmly banks on values such as steady improvement of genetic stock, cattle care, health and feeding, the strengthening of self-sustainable services of the associated federations, and the development of training and coaching activities, which systematically help discovering alternatives in a rapidly changing environment. With tangible achievements until the end of 2006, the livestock sector of Transylvania should be able to thrive also when Romania will be in the EU.

• **Nicaragua – A sector-wide approach for productive rural development (SDC)**

Poverty in Nicaragua is largely rural. Half of the population lives in rural areas, and more than two-thirds of rural households fall below the poverty line in contrast with less than one-third in urban areas. The country has one of the most agriculture-intensive economies in Central and Latin America, with agriculture alone contributing to about 20 percent of the GDP and providing 40 percent of the total employment.

Since 1993, SDC has co-financed two projects focusing on agricultural innovations, together with the World Bank and the International Fund for Agricultural Development (IFAD). The monitoring of these projects was entrusted to TULUM. Although the generation of agricultural technologies has been abundant and adequate for the need of small and medium producers over the last ten years, widespread technology adoption and the increase of productivity and income levels has been slow. In view of this situation, the Government of Nicaragua, the World Bank, IFAD, SDC and a number of other bilateral donors have taken the resolve to articulate their future support to the government around a sector-wide approach (SWAp).



In 2004, SDC has given the additional task to TULUM, and its local associate SOLAGRO, to facilitate the formulation of a consensus-driven strategy document based upon the National Development Plan. This substantiated into a coaching arrangement for a national task force that has been set up for gathering facts and figures, and to build consensus – in a series of workshops and in-country tours – with sector associations, academia, civil society and the donor community. After an iterative sequence, the so-called PND-O/PRORURAL is being finalized, together with a medium term expenditure framework (MTEF).

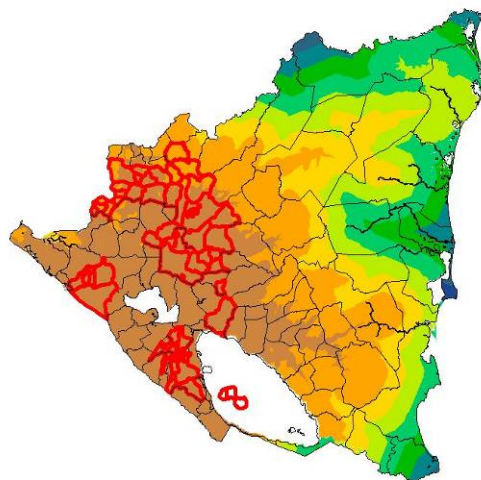
The coaching of the national task force was and still is a challenging exercise. It became rapidly obvious that this was the first time for the partners to look at the productive rural sector as a whole, to streamline visions with all sector stakeholders, and to build a common strategy among various institutions having differing, but complementary, missions.

With the donor community, the stakes were equally demanding. Most of them were used to support the agricultural and rural sector through a substantial number of programs and projects, with differing objectives, approaches, funding mechanisms, administrative requirements and monitoring instruments.

The donors interested in supporting the PND-O/PRORURAL are increasingly conscious that an effort of alignment and harmonization from their part is required to give this new approach a chance of success. The “Concerted Support to the PND-O/PRORURAL” will be designed as an open platform where an increasing number of donors – and sector-related national entities – can join over the coming years. The final design of this platform and the signature of a joint Memorandum of Understanding are foreseen for the year 2005.

Poverty density is not equal to poverty incidence

In Nicaragua, poverty incidence is increasing from the Pacific to the Atlantic coast, while poverty density, as shown, has an inverse pattern. Poverty density is defined as the number of extremely poor households per municipal area. The municipalities marked in red have the highest poverty density. Close to half of the extremely poor live the quarter of the national area, which can be reached in less than four hours from the capital (brown shaded area), and which is reputed to have the highest economic potential. Why does this potential not translate into higher well-being? From what kind of assets is this population segment excluded? These and other questions have been raised during the preparation of the PND-O/PRORURAL.



1.3 Trade Cooperation

- **Bolivia – Being competitive in a difficult environment (seco)**

The **seco** supported Trade Cooperation Program with Bolivia (TCPB) started in 2000 and is now in its second phase. In its three components of *trade policy, sustainable tourism and market access*, progress is tangible but often held back by Bolivia's ongoing internal controversies on how to shape the economy, government and society and its relations with the outside world.

The formulation of a sound *trade policy* builds on effective consultation mechanisms between the public and the private sector. The TCPB succeeded in forging an alliance between the Bolivian Institute of Foreign Trade (IBCE), the export chambers and the government, which allows defining jointly key negotiating positions in the pending free trade agreement negotiations. IBCE is now considered to be a recognized private sector think tank for and trusted partner in trade negotiations. The revival of the highest PPP coordinating body, the National Export Council (CONEX), a next logical step, does however take much more time than planned.



Bolivia has an outstanding potential for various types of tourism, given the rich archeological and historic heritage, unique landscapes and the extraordinary biodiversity. The TCPB has helped to set up three Destination Management Organizations (DMOs), which join forces between the public and private sector actors around important tourist destinations. The executing agency contracted for this purpose has been Swisscontact. The first DMO has been established in the south of Bolivia, on the axis Sucre-Potosí-Uyuni, while the remaining two focus on tourist attractions in the highlands and lowlands of Bolivia, with La Paz and Santa Cruz as strategic hubs, respectively. The aim of the DMOs is to assure that all people at given destinations have a fair share of benefits, thus contributing to *sustainable tourism development*.

In order to generate wealth for all, Bolivia needs to increase the portion of *export products with added value*. The TCPB is looking for such products, convinced that also poor families have a chance to export something that has a real demand in industrialized countries, if they are adequately integrated into supply chains. Examples are Andean grains and their derivatives, criollo cocoa collected from the rain forest, and mushrooms that have made their way into pine reforestations. In 2004, the TCPB has also contributed to certify wood and charcoal from windbreaker strips in a commercial farm in Santa Cruz, a worldwide first under the label of the Forest Stewardship Council (FSC). With the same client, a new process of producing bio-certified pectin from lemon peels has been developed with the technical assistance of TULUM.



After a two-year preparation process, the TCPB has succeeded in sponsoring an agreement – the first one of its kind - on access to genetic resources between the Government of Bolivia and the biggest retail chain in Switzerland, the MIGROS Federation of Cooperatives. Under this agreement, MIGROS has the right to protect, multiply and market five native Bolivian potato varieties, and is committed to pay a sales commission to the farmers, which have developed and maintained these varieties. The in-vitro plantlets from Bolivia have passed with success the stringent quarantine regulations in Europe, and are now entering a strictly controlled multiplication sequence, in-vitro, in greenhouses and in fields.



• **Peru – Building trade capacity at micro, meso and macro levels (seco)**

In late 2003, **seco** entrusted TULUM with the design and implementation of a first (pilot) phase of a trade cooperation program with Peru (TCPP), with a view to arrive, within 18 months, at a definite cooperation program. The pilot program has been active in three areas: *trade strategy and negotiations, external market access for Peruvian products, and improving the trade account in services* which consists in Peru mainly of tourism.

The TCPP supported the official Peruvian counterpart, the Ministry of Trade and Tourism, in their effort to establish the first eight regional strategic export plans, in the framework of its National Strategic Export Plan. In two of these – regional hubs in the North and the South of the country – it is suggested to help implement these plans through public-private partnerships/PPPs. The other four projects promoted the private sector through private sector counterparts, two in Lima and two in the South of the country.

The SME-oriented Exporters' Association ADEX implemented a capacity-building process among 265 micro, small and medium-sized enterprises, selecting those with real chances to become direct or indirect exporters in the short run for technical assistance support; it is working now with a portfolio of 117 SMEs which responded positively to all requirements of training and investment; about 30 succeeded, within 18 months, in placing their products in export markets, for a value of some USD 1 million.

Also in Lima, a second project promoted the self-organization of the business community with a view to contribute constructively to the negotiation of a free trade agreement with the USA. A common entity has been established by the private sector for this purpose, defining negotiating positions by the private sector and a proposal for the training and formation of professionals and SMEs in issues deriving from such negotiations which are relevant for taking advantage of opportunities which international agreements open up.

In the South (Arequipa), TULUM worked with the regional development institute PROSUR supporting small local investors in identifying and producing innovative export products with substantial value addition. 11 technical assistance contracts have been signed, production processes improved and importers identified. An example are a group of local entrepreneurs who have been induced into the opportunities for snail farming, given a market deficit of 10,000 metric tons per year, for France alone. With the help of PROSUR and TULUM, these promoters have started, at their own cost, a pilot project to test the technical feasibility of the project. A buyer's mission from France is planned for 2005.



In the field of tourism, the TCPP tested in the South the approach which **seco** introduced successfully through its TCP in Bolivia: the establishment of Destination Management Organizations (DMOs), a PPP-approach to improve the management and development of a sustainable tourism in Peru. The pilot phase revealed that such an approach is, indeed, well received and needed also in Peru. The TCPP has also been approached by the private sector of the major tourism area of Peru, Cusco, to offer its support in this respect.



In the course of the pilot project, the foreign trade environment in Peru has been substantially dynamized by the markets (37% increase in export of goods, 20% increase in tourism), by government policies (creation of a Ministry of Trade and Tourism, elaboration of a National Strategic Export Plan and of such regional plans, elaboration of a National Strategic Plan in Tourism which adopted the TCPP's DMO-strategy to implement it), by the business community (establishment of a common Council for International Negotiations) and by external initiatives (the offer of the USA to negotiate bilateral free trade agreements with Andean countries). The TCP has found itself in the midst of this development.

• **Serbia and Montenegro – An integrative multi-stakeholder approach (seco)**

In 2003, **seco** has decided to assist the Union of Serbia and Montenegro with an integrative Trade Cooperation Program, the TSPSM. It aims at opening substantial windows of opportunity in foreign trade by supporting projects in the three areas of *trade policy, trade efficiency and trade promotion*.

A key issue for the integration of Serbia and Montenegro into the international trade system is its accession to the World Trade Organization (WTO). Under the *trade policy component* and with the help of a specialized consulting firm, IdeasCentre in Geneva, the concerns of the Republics of Serbia and Montenegro are being addressed in three areas of interest: agriculture, services and trade regimes for industrial goods. In 2004, IdeasCentre implemented three widely attended workshops on these crucial areas.

Under its *trade efficiency component*, the TCPSM is supporting the Serbian Railways, which had previously designed OPTIMUS - a real time infrastructure and traffic monitoring software. The objective of the project is to enable the installation of OPTIMUS on Corridor X, the international transit axis through Serbia that absorbs about 70% of the transit traffic on rail, by 2007. OPTIMUS has successfully been tested in 2004 on the urban railway network in Belgrade. MExTraSys, a leading consortium of transport consulting firms in Switzerland, implements this project.

In the second project under this component, The Swiss Customs Administration seconds a railway customs adviser to the Serbian Customs Administration, through CAFAO, the Customs and Fiscal Assistance Office of the European Union in Belgrade. In 2004, the adviser has completed a gap analysis, which serves as a basis for the reform of railway customs procedures in Serbia, consistent with the requirements of EU standards. This project has an obvious relationship with the project aimed at the installation of OPTIMUS on Corridor X. A permanent interface between ZTP Beograd and railway customs of Serbia and Montenegro has been established.



The Swiss Import Promotion Programme Organisation (SIPPO) has joined the TCPSM in its *trade promotion component* and elevated Serbia and Montenegro to the status of concentration country. SIPPO promotes imports from emerging markets and markets in transition, and operates under the patronage of **seco**. A better participation in exports of small and medium enterprises (SMEs) - SIPPO's main target population - enhances job security, creates new jobs and promotes economic growth on an overall scale. In 2004, SIPPO has started its activities, such as export and branch seminars, and has brought firms from Serbia and Montenegro to European fairs. A local representation office, managed by the TCPSM, is now the focal point for all SIPPO related activities.

The second project in the *trade promotion component* evolves around EUREPGAP, the European Retailers Program for Good Agricultural Practices. This is an initiative that gains rapidly common ground among big retailer chains in Europe and associated firms, such as suppliers of agrochemicals.



The EUREPGAP standards have technical, hygienic and social dimensions and put emphasis on traceability of the goods produced. They are audited by independent certifying entities, and constitute increasingly a key requirement for agro-exports to the EU and Switzerland. The EUREPGAP guidelines and checklists have been translated into Serbian in 2004, and preparations for the foundation of a local branch organization – the future owner of “SERBGAP-Standards” – are under way. The project is implemented by Widmer Consulting, a specialized firm in quality assurance for horticultural crops.

The multi-stakeholder approach of the TCPSM, with private and public entities in Serbia and Montenegro, is also reflected by an array of sub-contractors from Switzerland that avail of competitive advantages in their respective fields. The integrative character of the TCPSM has also resulted in intense donor coordination with GtZ, USAID and the EU, to name the most important ones.

1.4 Specific short-term assignments

• Learning lessons from twelve years of cooperation with Eastern Europe (SDC and seco)

In a comprehensive assessment of twelve years of cooperation with Eastern European countries of SDC and **seco**, TULUM received the key mandate to conceptualize the overall framework of the study and to carry out the baseline report on results and shortcomings of the transition process in its first decade. The general assessment was to help formulate lead questions to several separate research teams who, against the backdrop of the baseline study, assessed the performance of Swiss cooperation.

The study was published in 2004 in two volumes, and used by the members of parliament to decide on the extension of the legal base and the financial volume of Swiss transition policy. A concise summary publication was issued in English, French, German and Italian language (The long road to democracy and the market economy), again by SDC and **seco**, Berne. See also http://www.deza.admin.ch/ressources/deza_product_d_e_922.pdf

• Designing trade cooperation projects (seco)

An essential challenge of international cooperation agencies is to facilitate trade with a poverty reduction impact. TULUM has been mandated by **seco** to design trade cooperation programs in two African countries: Mozambique and Tanzania, in addition to Bolivia, Peru and Serbia and Montenegro, with the explicit assignment to concentrate on possibilities for enhancing export capacities of SME's.

on the marketing side of coffee and cashew; but also to help upgrade raw material production and processing standards in order for its target groups to tap into more profitable sales channels.

After the pertinent analyses, TULUM identified the opportunity to upscale the efforts of the American NGO TechnoServe (TNS) in both countries. TNS selects and coaches rural businesses with a view to generate a sustainable income increase for rural producers and related economic actors, such as processors and traders. TNS has been focusing on two products with interesting sales perspectives in foreign markets: cashew nuts and coffee beans. To develop sustainable rural business, TNS has chosen not only to intervene

With the support of **seco**, TNS helps now re-build and expand in both countries a number of adequate domestic processing facilities of cashew nuts, and of coffee in Tanzania, with a view to promote higher-quality products. In Mozambique, TNS has already decided to go for an introduction of EUREPGAP Standards with the participating cashew nut producers and processors. In this area, TULUM is pursuing similar efforts in Serbia and Montenegro. This strategy clearly targets up-market international consumer segments, which will then become the source of higher and sustainable income increases for poor producers. So far, first sales of higher-quality products have brought encouraging results for poor farmers.

• Irrigation water is a strategic commodity (SDC and seco)

Both SDC and **seco** have strong commitments with water, irrigation and sanitation projects. TULUM has implemented a short-term assignment in 2004 for SDC and the Federal Office for Economic Supply Security. Switzerland chairs two committees in the framework of the Partnership for Peace, one on drinking water supply security and the other on national and regional security of irrigation schemes. TULUM helped to visualize the complexity of security aspects related to irrigation systems, and the corresponding key criteria, and to devise a path for consensus building on technical and organizational measures aiming at enhanced security in irrigation-dependent production systems.

Building on an evaluation of the Irrigation Pump Rehabilitation Project in Upper Egypt, which has been implemented by TULUM in 2001, **seco** has asked a team from TULUM in 2004 to carry out an assessment on the requirements and critical control points for a possible extension project. The peculiarities of **seco**'s support modus are linked to the mechanisms of so-called Mixed Credits, through which projects – that are otherwise not commercially viable – can be funded for the benefit of health, education, poverty alleviation and sustainable resource management. In both cases reported here, water for irrigation is indeed a key strategic commodity; an area where still more quality advice is likely to be required in the future.

2. Corporate Clients

• Information and communication technologies boost sales (various local SMEs)

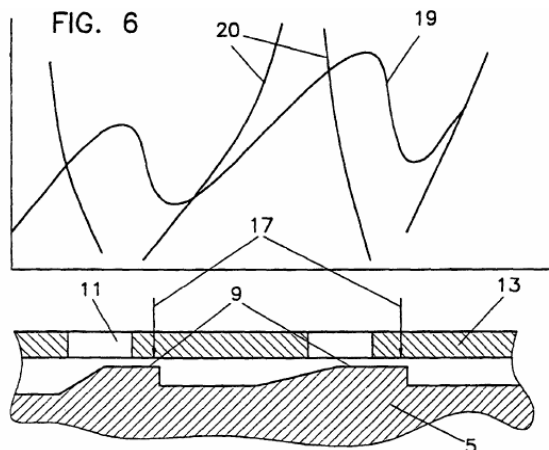
During 2004, TULUM has steadily expanded the local customer basis for IT services. This included the maintenance and upgrading of a management information system (MIS), developed by TULUM in 2002, for a leading firm specialized in cleaning corporate premises. In addition, several web sites for

small and medium enterprises have been designed and periodically adapted. In this emerging and growing business area, TULUM has established valuable contacts with talented sub-contractors in this field, with the intention to further provide qualified advice to local SMEs.

• **Innovations development in agriculture, food, energy and environment**

Since its foundation in 1996, TULUM has had a vivid interest in innovations related to agriculture, food, energy and environment, mostly thanks to an intense collaboration with associates having a strong inventive drive. In 2004, TULUM consolidated its ownership of several patents for supercritical extraction of oils from oilseeds. With a licensee in the US, up-scaling trials have been pursued, and possible alliances with other oil press manufacturers explored.

The art of supercritical extraction in oil presses consists in creating and fine tuning pressure and temperature ranges, which assure supercritical conditions of the solvents used, in this case carbon dioxide.



Supercritical extraction of edible oils has several advantages:

- The rest oil content of oil cakes can be reduced when compared to cakes obtained in conventional presses.
- The supercritical extraction technology is an alternative for the currently used hexane extraction, which is tainted by solvent residues, both in the oil and the oilcake.
- The protein quality of the oilcake is substantially higher than in cakes obtained by pressing or hexane extraction.

TULUM is currently preparing an additional process and device patent aiming at improving supercritical extraction and separation of liquid entrained solids, based on totally new concepts.

TULUM has always held the premise that governments, academia and industries are not inventive enough to face the rapidly increasing challenges in human food production and security, energy supply and international trade imbalances, especially for agricultural commodities. By mere observation of nature, TULUM has formulated the working hypothesis that new kinds of crops need to be introduced to alleviate inherent inefficiencies with existing commodity systems such as soybeans. One such crop may be *Moringa oleifera*, botanically a tree,

which holds astounding properties when cropped in high densities, with up to ten cuts per year, under tropical conditions and irrigation. Trials implemented by TULUM and its associates show that dry matter yields per hectare and year are up to six-fold of Alfalfa yields. Protein content of the leaves is around 32%, and the amino acid pattern equals that of soybean meal. In addition, the leaves have very high contents of carotenoids, and two thirds of the lipids (5-7% of leaf dry matter) are made up of Omega-3 fatty acids. With these properties, tropical countries could gain a competitive edge over the giant soybean producers in temperate climates, for a wide array of applications.



Due to its high biomass production potential, *Moringa oleifera* can also be considered as a candidate for providing a cheap feedstock for biomass-derived fuels. The potential for generating biogas has already been ascertained, and other processes, such as Hydrothermal Upgrading (HTU), look promising.

Another innovation generated by TULUM in 2004 is a process for producing bio-certifiable pectin from fresh lemons. This was possible in connection with the Trade Cooperation Program in Bolivia (TCPB), funded by **seco**. The follow-up of this project will be organized together with **seco** and an industry leader in pectin production in Switzerland. This innovation allows installing pectin processing plants near the plantations, hence generating added value in situ.



3. How TULUM works

Seven shareholders are the owners of TULUM. They work as employees or coordinators of program implementation, short term assignments, and in innovation development. The board of directors is composed of the founding partners:

- Ernst Schaltegger, president,
- Dominique Kohli, member,
- Alex Melzer, member,
- Markus Reichmuth, member,
- Franz Thomet, member.

The head of administration at headquarters is Oliver Zasa, assisted by Martina Signorini, accounts, and Ursula Bonacina, human resources and special projects. A dynamic database with search functions contains over 200 CVs of potential associates, and TULUM contracted over a dozen of them for various assignments in 2004. We are particularly in favor of providing opportunities for young professionals.

TULUM follows the policy that there is no need of opening own subsidiaries in countries where we work for institutional clients in international development cooperation.

When a presence in situ is needed for the duration of a program, TULUM concludes service provision contracts with local partners. In one case, we have helped to establish one SME in Belgrade, which will remain in business also after the termination of the specific program assignment of TULUM.

TULUM has a minority stake in the professional association SOLAGRO in Nicaragua, a trusted partner for various programs in Latin America. Via SOLAGRO, TULUM has placed and maintained, since 2001, a permanent advisor with the Ministry of Agriculture, Livestock and Forestry of Nicaragua.

In all cases where TULUM implements programs for institutional clients, it also acts as general entrepreneur. In 2004, TULUM entered into or maintained twenty sub-contracts in seven countries. In the framework of innovation development, TULUM has prepared and/or continued five collaboration arrangements in 2004, with corporate partners and research institutions, mostly on the basis of medium-term confidentiality agreements.

4. Balance sheets and profit and loss accounts

4.1 TULUM – Profit and loss accounts, 2003 and 2004, in CHF

	2003	2004
REVENUES FROM INSTITUTIONAL CLIENTS	2'174'252.05	2'733'524.07
SDC	1'503'110.81	1'481'578.73
seco	671'141.24	1'152'891.39
Others	0.00	99'053.95
REVENUE FROM CORPORATE CLIENTS	46'340.33	41'175.46
GROSS REVENUE	2'220'592.38	2'774'699.53
DIRECT PROGRAM AND PROJECT COST	-1'655'255.62	-2'227'543.14
Institutional clients	-1'553'284.33	-2'150'070.35
Corporate clients and innovation development	-101'971.29	-77'472.79
NET REVENUE	565'336.76	547'156.39
Salaries	-351'852.53	-308'499.48
Other personnel expenses	-107'891.41	-130'019.19
Operating expenses	-64'154.77	-96'744.31
RESULT BEFORE DEPRECIATION	41'438.05	11'893.41
Depreciations and provisions	-9'800.30	-10'505.96
OPERATING RESULT	31'637.75	1'387.45
Non-operating result	-5'979.60	22'192.30
RESULT	25'658.15	23'579.75
TRUST FUND EXPENDITURES FOR INSTITUTIONAL CLIENTS	3'001'265.58	5'969'994.60

4.2 TULUM – Balance sheets, December 31, 2003 and 2004, in CHF

	2003	2004
ASSETS		
Cash and short term assets	317'621.27	212'036.84
Short term receivables	158'793.75	104'978.76
Accrued assets	9'892.20	91'618.39
Equipment and furniture	15'423.96	15'758.92
TOTAL ASSETS	501'731.18	424'392.91
LIABILITIES		
Short term payables	389'582.31	405'089.30
Accrued liabilities	1'699.00	123'538.74
Clients/mandates	-76'782.91	-291'797.82
Tax provisions	5'934.90	9'333.35
VAT	-1'162.90	-83'702.48
Loans	32'437.50	88'328.79
Shareholders' capital	100'000.00	100'000.00
Previous balances carried forward and reserves	24'365.13	50'023.28
Results 2003, 2004, respectively	25'658.15	23'579.75
TOTAL LIABILITIES	501'731.18	424'392.91

Mr. Erich Stöckli, Morbio Inferiore, has audited the TULUM's profit and loss accounts of the financial year 2004 and the balance sheet dated December 31, 2004. In his report dated June 16, 2005, he recommends to the shareholders of TULUM to approve the accounts for the year 2004 and to commend the diligence of the board of directors of TULUM.

Caslano, July, 2005

Ernst Schaltegger, President