

Annual Report 2017

Skat - our mission

Skat is committed to reducing the gap between rich and poor through the promotion of sustainable livelihoods and the improvement of the living conditions of disadvantaged and marginalised people.

Skat Consulting Ltd. is an independent resource centre and consultancy working in the fields of development and humanitarian aid. Skat has provided technical expertise and management support as well as training and research facilities since 1978.

what we do

how we work

Water, Sanitation & Hygiene (WASH)









Backstopping & Technical Advice











Assessment, Monitoring & Evaluation





Knowledge Sharing, Networking,
Training & Capacity Development





Transfer of Technologies & Approaches

Waste Management



Economic Development





In 1978, the organisation Skat – now known as the "Swiss Resource Centre and Consultancies for Development" – was founded in St. Gallen, Switzerland with the aim of providing technical support for international cooperation and humanitarian aid. At this time, there were high expectations in the potential of so-called "appropriate technologies", i.e. technologies which are more adapted to a given local context.

Forty years later, the challenges the world is facing - particularly in developing countries and countries in transition - have not diminished. Indeed, although some progress has been made, much remains to be done.

The world economy has been growing over the last 40 years and many countries have made significant progress in economic development. However, there is still significant inequality in the distribution of the wealth and benefits of economic growth, and billions of citizens continue to live in poverty and are denied a life of dignity. The state of the natural environment is deeply worrying: natural resources are being depleted; environmental pollution is increasing; disposal of waste is an issue in many countries; the oceans suffer from acidification, climate change is accelerating, global temperatures are increasing, which leads to rising sea levels and more droughts resulting in desertification; more extreme weather events and natural disasters are occurring; safe drinking water is still scarce in many places; and there is a dramatic drop in biodiversity.

At the same time, the world has not become more peaceful over the past forty years. On the contrary, military expenditure has reached record levels worldwide; in many places armed conflicts are spreading, as well as violent extremism and terrorism. This results in the forced displacement of people and humanitarian crises in many places.

On a positive note, it also must be mentioned that there are uncountable initiatives at the global, national and local level striving to solve the aforementioned challenges. With the Sustainable Development Goals (SDGs), the global community has for the first time jointly agreed on an agenda for a more sustainable and peaceful world. The Paris Agreement of the United Nations Framework Convention on Climate Change (UNFCCC) has enabled the international community to agree on objectives and efforts to limit and mitigate the impacts of climate change.

Based on its longstanding experience in international cooperation and humanitarian aid, Skat is well positioned for making a significant contribution to the SDGs. Even if this entails challenges, there are many opportunities which can be seized upon with a forward-looking strategy.

With this in mind, Skat, reviewed its strategy in 2017 and formulated its new **Strategy 2022** in a participatory manner with its team and the management board. The guiding principles of the new strategy can be summarised as follows:

Preface

Who we are

Skat is an independent Swiss Consulting Company and Foundation working globally in the fields of international cooperation and humanitarian aid, and providing services in the areas of water management, building, reconstruction and settlements, energy production, and climate change mitigation.

Our vision is of a world where current and future generations have the means to realize their human rights and live in a decent and healthy environment.

Our mission is to contribute to sustainable development and to eradicate poverty through the sustainable management of natural resources.

Areas of expertise

Skat primarily focuses on the following thematic areas of expertise:



Water Management: water supply, sanitation, and hygiene



Building, reconstruction, and settlements



Energy production and climate change mitigation

Today's development initiatives are highly complex and often various thematic areas as well as cross-cutting issues must be addressed for lasting solutions. Due to its longstanding and wide-ranging know-how, Skat can provide integrated services addressing the following **cross-cutting area of expertise**:



Governance of public service delivery

Based on client demand, Skat may also provide services in other areas, if specific competence exists or may be acquired, for instance by collaborating with partner organisations.

Services

In its areas of expertise, Skat provides the following services:



Consultancies: provision of consultancies including backstopping and mentoring, technical advice and expert support; policy and strategy development; assessments, monitoring and evaluation.



Project implementation: implementation of mandates for development initiatives in transition and developing countries.



Knowledge sharing: sharing of our expertise by providing training, facilitating knowledge platforms and networks for developing the capacities of our clients and the development community.

We are convinced that through the new Strategy 2022, its strategic goals and guiding principles, Skat will be able to meet the challenges of the coming years, strengthen its organisation and continue to make a lasting contribution to the Sustainable Development Goals.

With this I would like to thank all our partners and clients for their trust and cooperation. Particular thanks go to the board

members who have substantially contributed to the new strategy as well as shareholders and staff in Switzerland and abroad for their tireless support and hard work.





PROECCO - Promoting Off-farm Employment and Income in the Great Lakes Region through Climate Responsive Construction Material Production

Introduction

Since 2012, Skat Consulting has been implementing the Swiss Agency for Development and Cooperation's programme *Promoting Off-farm Employment and Income in the Great Lakes Region through Climate Responsive Construction Material Production* (PROECCO) programme, aimed at creating permanent non-agrarian jobs for rural youth in rural and peri-urban block and brickyards. The people targeted by the project are young Rwandan labourers and innovative entrepreneurs willing to pioneer an environmently-friendly and modern way of producing bricks, tiles and slab blocks, as well as actors along the supply chain who contribute to making Modern Brick walls and buildings affordable, strong and durable.

The construction sector of most African and Asian urban agglomerations are the key engines of economic growth. In East Africa's Great Lakes Region, the local building material industry is still in its infancy. This has resulted in a reliance on foreign imports and the loss of capital and much-needed jobs. Given the sheer speed of urbanization in the region – nearly twice that of other African nations – the PROECCO project estimates that hundreds of new semi-industrial brick factories would be required to meet the growing demand for building materials, with the potential of creating tens of thousands of direct and indirect jobs in resource-efficient facilities that promote better working conditions, especially for women.

Key Facts about the Building Industry in the Great Lakes

- Hundreds of houses should be built in the region every day, 300 per day in Rwanda alone
- Incomes worth USD 50-80 million are lost every year through the import of cement
- The region has large clay reserves but lime for cement is scarce
- The construction industry could entirely substitute cement imports if they shifted to production and smart construction with Modern Bricks
- Existing demand would allow a hundred profitable brick factories to create tens of thousands of jobs
- Compared to traditional bricks, Modern Bricks require 70-80% less energy and are made using environmently-friendly fuels exclusively





"The coming generations in the world's fastest urbanising region (Rwanda, Burundi, Kivu Area), can grow up in a healthy environment, safe houses and with decent income only if the construction industry succeeds a high-speed-shift towards green and affordable housing supply. Such a shift is highly profitable by nature but requires joint efforts from the private sector, authorities and civil society."

Daniel Wyss Sustainable Building & Settlement Development Specialist, Skat Consulting Ltd.

Economic Development

Brickmaking in the Great Lakes Region

Modern brickmaking has been present in the Great Lakes for many decades. Early mechanically-shaped bricks were produced near Kivu Lake in Rwanda's Ngororero District as early as 1950. With the establishment of the Ruliba Brickmaking facility in Kigali – a project launched by the Swiss Government in the early 1980s – highly mechanized equipment with the most modern firing technology was first introduced to the region. With PROECCO, SDC returns to the Great Lakes Region with the intention of supporting small- and medium entrepreneurs and investors interested in participating in the transformation of the construction industry in Rwanda, Burundi and DRC Congo.

In 2017, the PROECCO project achieved a major milestone with the construction and first firing of a semi-industrial ZigZag Kiln, the first of its type on the African content. With a production capacity of 3 - 3.5 million bricks per year and an energy consumption of less than 75% of that of traditional kilns, the ZigZag is well adapted to the region, which has copious amounts of high-quality clay and kaolin and a high demand for locally produced, resource-efficient building materials.

The Advantages of Modern Bricks

In the Great Lakes Region, the traditional building material sector significantly contributes to deforestation. Although the use of fuelwood for brickmaking is officially banned in Rwanda, it remains the most common combustible in the region since traditional kilns hardly ever reach the temperature required to make strong and durable bricks when fired with alternative fuels.

Sadly, archaic brick-firing methods consume up to 4 times more energy than modern brickyards and leave 30 - 40% of all bricks underfired and weak. Modern brick kilns are well insulated, and therefore bricks are fired with a homogeneous high quality which enables the brickmaker to use legal alternative fuels such as bio-waste – namely sawdust, coffee and rice husk. With the shift to modern brickmaking, the overall energy consumption can be reduced by 50%, while the brick production can actually be doubled.

Machine-shaped and kiln-fired Modern Bricks require up to four times less cement mortar than traditional bricks, which makes the walling costs per m² up to 30 - 40% more



Semi-mechanised brickyards offer improved working conditions, protected from smoke, dust and excessive heat exposure. Workcan be executed by women and men equally. The industrial machines recommended by the project can produce up to 10,000 green bricks per day.



affordable than traditional brick walls. As a result, dozens of thousands of families could potentially afford brick houses instead of informal adobe or substandard cement block houses - resulting in an increase in brick demand and multiplication of jobs in the clay sector.

The 8 Million FRW House

In an effort to draw the link between the demand in the construction industry and a steady supply of thousands of attractive off-farm jobs, the PROECCO project recently designed, constructed and exhibited the 8 Million FRW house (USD 10'000), an affordable housing prototype made of environment-friendly Modern Bricks. **The two-story house demonstrates** the space-optimised design principle known

Key Facts about Modern Bricks

- Modern kilns can consume up to 75% less energy than traditional kilns (1.5MJ/kg vs. 5-6 MJ/kg)
- Up to 50% of the CO₂ emissions related to walls and slabs (generated by the cement industry) would be reduced with complete modernization of the sector
- Perforated modern bricks consume less clay than solid traditional bricks, contributing to an additional energy savings of 20-30% and better quality products. Less clay also means lighter bricks, facilitating transport.
- Alternative fuels such as bio-waste (sawdust, coffee and rice rusks) typically grow in proportion with an urbanizing city

as Swiss Cube (locally named "Smart Tafali-Etage") which is a modular and transformable urban construction system made of nearly 100% local Building Materials, specifically Modern Bricks.

With construction costs below 200 USD per square meter, which is significantly more affordable than common formal housing solutions, the house design won the Rwanda International Trade Fair's 2017 Innovation Award. Since its construction, the Swiss Cube has been visited by more than 50,000 people and continues to serve as a knowledge and resource hub for investors and construction professionals seeking information on green semi-industral brick production methods, cost-effective construction systems and building typologies designed to address the region's substantial demand for urban middle-income housing.

Such has been the interest from real estate investors, brick-makers and private homeowners, that in the 4-5 months since its inauguration, nearly 100 houses using a similar cavity wall system are currently under construction, with more than 6,000 additional dwelling units in the advanced planning stages. In total, 25 developers requested and are currently receiving technical support from the Skat team to design and build "Swiss Cubes," a clear indication of the current momentum for change in the local building industry. Not only has this momentum prompted a growing number of industry investors to accelerate investment into small and medium brick factories, it has also encouraged local governments to update testing, quality standards and procurement guidelines to prioritize locally-produced Modern Brick products and construction technologies.

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The 8M House displays the (missing) link between fast urbanisation and the local building industry which is poised to transform the need for affordable homes into a large numbers of attractive off-farm jobs.

Governance

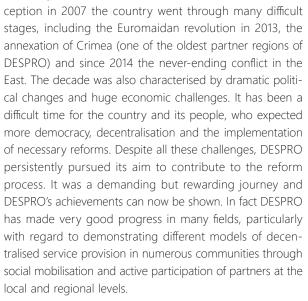


Skat provides technical, managerial and administrative support to community groups, non-governmental organisations, resource centres and local government institutions to strengthen rule of law and human rights, gender equality, appropriate distribution of power and macro-economic stability.

10 years "DESPRO - Decentralisation Support in Ukraine"

On the 10th and 11th of October 2017, more than 100 partners from all over Ukraine – including representatives from regional and local administrations and the national Government – gathered in Kiev to celebrate DESPRO's 10th anniversary.

Skat Consulting Ltd. and its DESPRO team are looking back on ten extremely eventful years. Since its in-



Through these activities, many communities got involved in participative decision-making processes and a large number of people in rural villages and small towns got access to improved quality of Water Supply, Sanitation and Solid Waste Management in five partner regions. An outstanding feature of these projects include the significant contributions of the partners, including communities and local budgets. As a result, these processes have been replicated in many other places.

At the national level DESPRO actively participated in the Decentralisation Reform Process. Unfortunately during the first 2 Phases, our efforts did not enjoy a very favourable political environment for decentralisation. But this fortunately changed drastically in the 3rd Phase, when in early 2014 political changes opened a window of opportunity



for decentralisation and consequently political and fiscal decentralisation started to move ahead. These changes finally opened the doors for DESPRO to effectively support the reform process through various measures and channels. In particular the multilevel panel discussions initiated by DESPRO and SDC yielded good results in terms of better understanding the reform and its various aspects. Substantial efforts were also made to strengthen Local Self-Government Associations' (LGA) capacities through institutional and professional training and capacity development support.

After the amalgamation of communities started in Ukraine, DESPRO also provided assistance to LGAs on strategic planning in several newly established communities.

Building on these achievements and following the recommendations of last years' external evaluation, SDC decided to extend its cooperation and continue to support DESPRO in this ongoing 4th Phase (07.2017 - 06.2020). During this last phase it is planned to consolidate the achievements and lessons learned of the past 10 project years, to document and further disseminate successful lessons learned and continue to work at the national level and strengthen the capacities of national stakeholders to regulate, guide and implement the decentralization reform, and influence sectoral reforms.

Another important objective of this phase is to find feasible mechanisms for DESPRO to support the decentralisation process and provide services independently in another capacity beyond this project.

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One of many success stories: Waste management a problem? Not anymore!

The case of Tulchyn, an inter-municipal project, highlights the impact DESPRO has had in the area of integrated waste management and shows how dedicated the municipalities, government and the programme team works to improve the livelihood of people.

The heroes of our story are from the city of Tulchyn, and the surrounding villages of Kynashiv and Suvorivske located in the centre of Vinnytsia region. The population in these administrative units is 26,000.

Status quo before the integration of a waste management system

Like many small towns in Ukraine, Tulchyn had typical problems related to waste: spontaneous garbage dumps, which necessitated spending considerable funds annually from the budget. Also the lack of a sanitation scheme required by the Law of Ukraine "On Waste", a loss-making utility which had to borrow fuel and default on employees' wages, and that adjacent territories were not provided with containers. Garbage collection in Tulchyn and in some of





the nearby villages was carried out sporadically, once a week, because of the lack of sufficient equipment. The garbage dump (it is important to emphasize that it was a garbage dump, not a landfill or disposal site), built in 1990, with a service life of 20 years, was completely overloaded, and had no monitoring equipment or engineering facilities. Harmful substances seeped through the soil down to the aguifers.

Finding solutions

The local authorities tried to solve the problems that could be overcome independently, but they also looked for investors, donors, partners, and experts in order to solve the problem competently and comprehensively. The city together with the neighboring villages also applied to the State Fund for Local Self-Government Support and international donor organisations. In 2010, the local authorities and the Tulchyn City Council contacted DESPRO with a request to support and provide technical solutions regarding solid waste management.

Cooperation for achieving sustainable results

With the support of local and international experts including Skat experts, the Integrated Solid Waste Management Strategy was developed – a document that has become the technical basis for the modernisation of the waste management system in Tulchyn and the surrounding rural communities. The success of the Tulchyn Inter-Municipal Project of creating the district scale Integrated Solid Waste Management System was possible due to several important factors. There was a strong willingness in the community, the leadership of Tulchyn and the neighboring villages of Suvorove and Kynashiv to resolve the long-standing problem in a systematic way, as well as good collaboration with the regional authorities and involvement of international expertise and additional funding. In the 2012 - 2017 period, the extent of financing for the implementation of the Integrated Solid Waste Management Strategy in the Tulchyn rayon amounted to 18.5 million UAH. About 66% of this funding came from DESPRO, and the rest was financed from the local, district, regional and state budgets. A great result of this cooperation, a new landfill was constructed according to modern engineering rules – with the use of a protective fencing, protective membrane, weighing complex, and a special powerful bulldozer. This is a good example of how success can be achieved step by step in a sector as challenging as the treatment of solid waste.

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Energy and Climate

Energy drives economic development but the production of energy often harms public health and the environment. Through holistic approaches, Skat links climate protection, renewable energies, community empowerment and poverty reduction to facilitate equal access to environmentally sound energy technologies.

Backstopping Mandate for the "Private Sector Participation in Hydropower Development (PSP Hydro)" Project in Rwanda

For many years, GIZ is supporting the development of the mini hydropower sector in Rwanda to improve access to electricity through the "Energising Development Programme". Skat has been mandated to support the programme for specific advice required on technical, economic, and system management as well as processes, such as tendering and bid appraisal. Private investors interested in hydropower projects are attracted by means of a so-called "viability gap financing" which is an investment subsidy to ensure the projects not only recover the costs but even allow for a profit margin. However, this requires a strict control and checking whether and up to which amount this subsidy part is justified and useful. In that respect, Skat provides the indispensable independent assessment of technical designs (hydrological assumptions and calculations, proposed turbine type, etc.) as well as financial reviews.





Backstopping for the "Ghana Electricity Sector Support Project" within the framework of the 3rd phase of the Ghana Energy Development and Access Programme (GEDAP III)

SECO has committed a USD 21 million grant to the 3rd phase of GEDAP covering the period 2015 - 2019. The Project aims to improve the operations and financial situation of the utilities through A) institutional strengthening measures, B) increasing access to electricity via capital investments in electricity distribution infrastructure, and C) supporting the renewable energy sector and promoting energy efficiency measures. Skat professionally assists SECO and the GEDAP Secretariat in all three fields of interventions. This includes the review of Terms of Reference for bid appraisals, planning documents, strategic documents, feasibility studies etc. Technical as well as institutional strengthening of the utilities are also the focus of interest. Skat assists and supports through various monitoring, control and evaluation activities e.g. in the field of network densification as well as mini grids based on renewable energy systems (including hybrids).

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Continuation of Swiss Participation and Share in the IEA PVPS Task 9 Project Leadership



Task 9 is a working group under the Photovoltaic Power Systems Programme (PVPS) of the International Energy Agency (IEA). It focuses on the "Deployment of PV Technologies for Regional Development". Skat Consulting as "Operating Agent" has been managing and coordinating this working group for 2.5 years. This working group aims to adapt and transfer PV-related knowledge and information for emerging and developing countries. Skat's work includes the organisation of expert meetings and documentation, strategy development, support of members' activities (e.g. PV-diesel mini grids, 100% Renewables on small islands, PV development as "prosumers" meaning grid-connected PV-battery combinations), but also communication measures and networking to improve the visibility of Task 9 in the global environment (internationally & nationally).

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Promotion of Small Hydropower (SHP) in Switzerland – Financial contribution to Pre Feasibility Studies and Quality check



The project started in the 1990s with the aim of generating Small Hydropower projects and is under the direction of and managed by Martin Bölli, Skat's Renewable Energy and Energy Efficiency Specialist, since 2005. Since 2012 the project "Promotion of Small Hydropower (SHP)" in Switzerland is developed and coordinated by Skat. Over 600 potential Small Hydropower Sites in Switzerland have since been studied with a financial contribution that allow SHP experts to visit the potential sites and write a short report summarising their assessment, including a recommendation of the next steps. The financial contribution reduces the barrier to tackle a new SHP project. The advantage is that the requirements on the produced report guarantee that the output complies with some minimum criteria. In addition, the approval of the report creates an opportunity of incorporating a third and independent opinion.

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Concept for Hydropower Documentation

The Project "Concept for Hydropower Documentation" structures knowledge related to mini and small hydropower in a consistent manner to allow for easy access. Given that several publications were already out-of-date, the project aims at establishing modules which can be regularly updated.

Within this project, Skat's Energy experts, Martin Bölli and Hedi Feibel, created knowledge on mini and small hydropower available in a module structure which can be easily updated whenever required in the future. The team screened all relevant available publications, defined module content and developed a proposal of 6 modules (with sub-modules). In 2017, these six modules were developed together with several subcontractors and finalised by Skat as general project leader. The six modules have been published by the Swiss Federal Office of Energy (SFOE) on their webpage www.sfoe.admin.ch.

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SolarChill



Up to three billion people live without electricity or without reliable electrical supply. In those regions, maintaining a secure "cold chain" for the delivery of vaccination programmes and preserving the safety and integrity of medicines is extremely challenging. Consequently, in many regions, vaccination programmes and proper health care delivery are very weak or simply do not exist due to lack of reliable electricity.

Skat has been involved as an executing agency for the SolarChill Project, funded by Global Environmental Facility of UNEP. The project aims to tangibly improve the quality of

our environment and human health by delivering affordable, climate friendly, battery-free, solar-powered vaccine cooling and food and small commercial refrigeration to parts of the world without reliable electricity supply. SolarChill thus bridges health, development and environmental issues. It is an iconic example of how humanity can embrace renewable energy. Moreover, SolarChill demonstrates that health, environment and poverty issues are inextricably interrelated and must be tackled together.

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Waste Management



Our experts advise on the development and implementation of Solid Waste Management (SWM) Systems in cooperation with local organisations and government institutions.

The Cyprus Recycling Value Chain Project



Dr. Sanjay Gupta explains key elements of site selection for beach cleanup campaigns



Collection of Aluminum cans and PET bottles

North Cyprus is facing a challenge with regard to textile waste, plastic bottles and aluminum cans – but it could be turned into an opportunity. A market exploration showed that the systematic collection of aluminum cans and PET bottles through adequate collection systems is an economic opportunity. Recycling of non-hazardous solid textile waste may be a viable alternative for industries/manufacturer in case they are based in the same city or nearby areas. A value chain study for the PET bottles, aluminum cans and old cloth collection was undertaken for Kyrenia and Nicosia. The objective was to see if these waste materials could be streamlined and made sustainable through the resale of old clothes and recycling of PET and cans.

In the case of North Cyprus, some amount of discarded good quality clothes are picked up by NGOs and reused for different products, or cleaned and sold to customers at a cheaper price than new clothes or products. There is still a lot of textile found in landfills, which is a challenge for the recycling industry. The study concluded that advocacy programmes are needed in order to keep textile waste out of landfills. Furthermore, a campaign strategy and checklists were prepared for a beach cleanup campaign to be initiated by local volunteers, in order to keep inappropriate waste out of landfills.

For more information, please contact Sanjay.Gupta@skat.ch



We are committed to SDG6: Ensure availability and sustainable management of water and sanitation for all and the Human Rights to Water and Sanitation. Skat is a global leader in the WASH sector, particularly in rural and small town water supply and environmental sanitation.

Great Lakes Region: PEPP successfully concluded its Rwandan component and progresses in South-Kivu

Since December 2012, Skat, in partnership with the Swiss Tropical and Public Health Institute (TPH), has been implementing the PEPP: a programme on water supply for the population in the Great Lakes region of Africa, financed by SDC. The PEPP is designed to improve access to sustainable water supply systems and providing equal access to water of good quality for a large number of people in Rwanda (Western districts of Nyamasheke and Rusizi), Burundi (province of Ngozi) and the Democratic Repubic of Congo (province of South-Kivu). It consists of participatory strategic planning, state-of the-art design and implementation of drinking water supply systems and the promotion of improved hygiene practices targeted at households and pupils. Furthermore, it supports the establishment of sustainable management structures for the water sources inventoried and water services put in place, as well as the strengthening of local (water) governance structures and the exchange of best practices.

After having been forced to stop the Burundian component of the PEPP in late 2015 due to the prevailing conflict in the country, the Rwandan component of the programme progressed well during 2016/2017 and is now finalised. Mid-2017, eight rehabilitated, extended or new drinking water supply systems of a total of more than 200 km long and serving today about 94,000 people (with a design capacity of 155,000 people in 2035) were successfully handed over to the district authorities for their management through the respective licensed private operators. In parallel, the population benefitting from this new access to good quality drinking water has been sensitized with regard to its sustainable use. Water users have been organised around water point committees and water system users' associations which act as empowered counterparts to the operators. Finally, the endline surveys conducted have shown that the implementation of the Rwandan Community Based Environmental Health Promotion Programme as part of the PEPP has had an significant positive impact on the population's hygiene behaviour and health in its districts of intervention.

Up to mid-2018, the PEPP is now concentrating its final efforts on the DR Congo component, where the approach focuses on the provision of water supply of a peripheral district called Panzi (population of about 70'000 inhabitants) of the city of Bukavu, in partnership with Mercy Corps. Here the programme implements one of the priority actions of the Technical Master Plan supported by DFID under the IMAGINE project. The infrastructure development, encom-



Handover ceremony for the water supply systems funded by PEPP in Rwanda (districts of Nyamasheke and Rusizi)

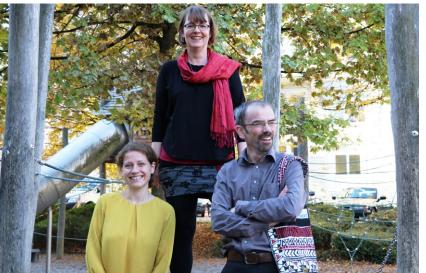


Rock fill of one of the reservoirs for the Panzi water supply systems (Bukavu town, DRC)

passing major spring catchments, reservoirs and mains, as well as the community sensitization activities were launched in autumn 2017 and have progressed up to 45% of physical implementation since.

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Changes in the Rural Water Supply Network Secretariat leadership



The secretariat of the Rural Water Supply Network manages a network of over 10,000 water practitioners and is hosted by Skat.

In 2017, after eight years at the helm of the RWSN Secretariat, Kerstin Danert handed over the role of director of the Secretariat to Sean Furey to transition to more thematic work. Kerstin reflected that it has been a great and incredibly rewarding experience, and Skat has benefited because RWSN was the main reason for Kerstin leaving Uganda and coming to St. Gallen in 2008. However the time is right for a change. Sean Furey is now Director of the RWSN Secretariat, supported by Meleesa Naughton.

Meleesa Naughton (Communications), Kerstin Danert (Sustainable Groundwater Development theme leader), Sean Furey (Director of RWSN) (from left)

Support to Solaqua

Skat provides technical advice to Solaqua Foundation for their programme in Nepal. Solaqua is a public benefit foundation headquartered in St.Gallen that aims to improve access to safe drinking water for people in low-income countries. Skat's role is to identify potential partners and projects, to prepare the analysis of these projects for the board, and to support the projects during their implementation.

The projects currently supported by Solaqua include

- Promotion of the use of ceramic filters in the Midwestern Region, implemented by Helvetas Swiss Intercooperation
- Improving WASH at schools within a rehabilitation project in Sindhupalchok, implemented by CARITAS Switzerland

- Strengthening neighbourhood committees in Lalitpur though capacity development on the operation of water kiosks and the provision of treatment facilities, implemented by the local non-governmental organisation "UEMS"
- Rehabilitation and improvement of a water supply network after the earthquake in the Everest region, in cooperation with Eawag
- Implementation of water kiosks at public schools in Chitwan, in cooperation with WeConnex, a St.Gallen-based company.

This last example showcases an innovative model, custom-designed for Solaqua by Skat and a local partner organisation, which will allow for a learning journey not only for Solaqua and for Nepal but may provide a model of how to bring state-of-the-art WASH installation to schools around the world.

The portfolio of Solaqua Foundation is already diverse, and it will be further expanded throughout 2018. With its clear focus on improving access to safe drinking water in Nepal, Solaqua is contributing significantly to improving livelihoods in the country and to develop and test relevant models for sustainable development. Skat is glad to be part of this partnership and is looking forward to the opportunities and challenges that lie ahead in this dynamic and innovative setting.

For further information, contact Matthias.Saladin@skat.ch



Networks & Knowledge Management

Skat applies practical methods and state-of-the-art tools for effective knowledge and experience sharing among knowledge networks and organisations in many countries. It develops innovative solutions and concepts by producing publications in its fields of expertise and provides knowledge brokering services to different stakeholders in the international development cooperation

Support in the development of concept of a Multi-actor Network on Inequalities

In 2017, Skat supported the GIZ in the development of a concept for the establishment of a Multi-actor Network on Inequalities. Under the framework of the Project "Reducing Poverty – Reducing Inequality", the GIZ, supported by the German Federal Ministry for Economic Cooperation and Development (BMZ), is updating, adapting and applying strategies and concepts to overcome global poverty and to reduce inequalities in developing countries. Various donor agencies and international organisations as well as research institutions are currently working on developing strategies and approaches for reducing inequalities in developing countries, considering that equality can fundamentally contribute to poverty reduction and sustainable development.

With this view, Skat was mandated by the GIZ/BMZ to assess the need for a Multi-stakeholder network on inequalities in the development cooperation. Various actors working in this sector were interviewed; as a result, there seems to be an agreement that exchange and collaboration between a broad spectrum of organisations and individuals on the topic of inequalities can add value to the current initiatives. Skat has developed a concept note proposing different options for the establishment of a multi-stakeholder network on inequalities. The concept note was finished in November 2017 and the main results were presented to staff of GIZ and BMZ.



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Support to the Hygiene, Sanitation and Water Supply (HYSAWA) fund in Bangladesh

The Hygiene, Sanitation and Water Supply (HYSAWA) is a non-profit financing organization established in Bangladesh in 2007 with the aim of supporting local governance through the implementation of Water, Sanitation and Hygiene interventions.

Since January 2013, HYSAWA has been implementing a project aimed at improving access to drinking water, sanitation and hygiene behaviour (WASH) in the coastal South West region of Bangladesh with the financial support of the Swiss Agency for Development and Cooperation (SDC). HYSAWA has a unique approach whereby the lowest tier of government, the Union Parishad, is supported to undertake WASH improvements across their Union, with a particular focus on hard-to-reach households, women and ethnic minorities.

At the beginning of 2017, the SDC Cooperation Office in Bangladesh requested Skat to conduct an external review of this project. The review assessed the relevance, performance, and management arrangements. It also documented the potential impact and lessons learned of project activities on local government institutions and beneficiaries. The recommendations of the review were used by HYSAWA to improve the design of a project exit-phase.

In September, Skat was again requested by SDC in Bangladesh to support HYSAWA to develop a Project Document for the exit project phase. Using the recommendations of the review, this Project Document will aim to ensure the future sustainability of HYSAWA and its interventions.

For more information, contact Bertha.Camacho@skat.ch



Building & Settlement



Skat works in the sectors of housing, social infrastructure (education and, health facilities etc.) as well as settlement development in rural, urban, and peri-urban zones. Our expertise includes participatory and impact-oriented methodologies for strategic and sustainable outcomes based on the needs of the citizens.

Rehabilitation of earthquake affected schools in Sindhuplachok, Nepal

A destructive earthquake of magnitude 7.8 struck Nepal on 25 April 2015. Caritas Switzerland is rehabilitating 31 schools in 6 VDCs in Sindhupalchok district, to provide students and teachers with earthquake-safe as well as child- and teacher-friendly learning environments. 15 of these schools are complete and have been handed over to the respective communities.

With the support of the Swiss Red Cross, Caritas will rebuild another five schools.

Caritas Switzerland is rehabilitating 31 schools in 6 VDCs in Sindhupalchok district

By the end of the project in June 2019, the project will have rehabilitated a total of 36 schools for more than 6,500 school children. The total funding requirement amount to CHF 15.5 million

In addition to the school buildings, the project is also providing toilet facilities and equipping the schools with water supplies.

To ensure that the school infrastructure is maintained for as long as possible, each school community is supported in developing an operation and maintenance plan.

Daniel Schwitter, Senior Architect at Skat, is supporting and advising Caritas Switzerland in the planning, design, implementation and monitoring of the school rehabilitation programme and actively contributing to technically and conceptually sound solutions. For this purpose, four specific design modules were developed for single story buildings (regular type), double story buildings (mainly secondary schools), reduced size classrooms (small units in little villages), and refurbishing schools (existing steel structures). Further contributions also include remote technical backstopping, such as checking working and detail drawings against Nepali and Swiss Solidarity standards.

Site assessments, identification and development of improved and appropriate building practices, frequent quality controlling as well as phasing review missions are carried out in the field.

For further information, contact Daniel.Schwitter@skat.ch



By the end of the project in June 2019, the project will have rehabilitated a total of 36 schools for more than 6,500 school children

As backstopping is one of Skat's longstanding services, we are looking at how backstopping changed over the years and which role Skat playes in connecting people and knowledge.

The example of Backstopping services by Skat's Building Department

History

The provision of backstopping services by Skat goes back to the 1980's, when under the BASIN project (Building Advisory Service Information Network), a Q&A service was offered for free to anyone interested in the application of appropriate building materials. Up to 1000 inquiries per year coming in from Asia, Africa and Latin America were handled by the construction specialists of Skat. In those days support was of course provided by answering typewritten letters and dispatching them by airmail. The first backstopping mandates in the field evolved out of these types of technical desk support (e.g. the war reconstruction project of Caritas in Tajikistan (1993 - 1996)) where Skat was involved in the production of MCR tiles. In the late 1990's, backstopping services shifted from building materials to providing integrated solutions, whereby a range of architectural services from project design to site management and quality controlling was offered.

Guiding principles of Skats backstopping services

Over time, Skat's architects have gained a wealth of experience particularly in education and basic health infrastructure as well as housing. Key criteria of sustainability such as environmentally-friendly approaches, safety, affordability, social acceptance, ownership, maintenance and facility management are consequently applied. For example, a school may not just be an juxtaposition of classrooms, but a motivating learning environment for students and teachers, including a disability-friendly approach and the promotion of gender equality.

Typical Infrastructure Backstopping mandates in the building sector

In Laos, the World Bank-financed Education Development Project (1996 -2002) was one of the first long-term infrastructure backstopping mandates of Skat. It was succeeded by a similar project financed by the ADB (Asian Development Bank) from 2002 – 2008. More than 1500 primary schools were built over the 12-year period according to the plans and implementation directives of Skat. The Swiss Agency for Development and Cooperation (SDC) and Swiss NGOs (HEKS, Helvetas, Swiss Red Cross and Caritas) have since become the main clients for backstopping mandates. The nature of the projects varies from reconstruction to development interventions. Typical mandates included the reconstruction of tsunami-affected houses in India and Sri Lanka between 2005 and 2008, when more than 2200



families were supported with new houses financed by SwS (Swiss Solidarity) and implemented by Swiss Res Cross (SRC) and Helvetas. Skat contributed to the architectural design, budgeting, construction monitoring and quality control. At present, the main backstopping project is the reconstruction of 35 earthquake-affected schools in Nepal, implemented by Caritas, where Skat is responsible for site assessment, architectural design and support quality monitoring.

Requirements for a backstopper

The provision of infrastructure backstopping services in the building sector requires highly qualified, experienced and respected senior staff. His or her services include plenty of field work (project approach, site assessments, project design, quality control) as well as desk work (development of architectural and structural designs, monitoring systems, budgets, maintenance concepts, etc.). Even though a backstopper is mostly working as an advisor, he or she has to be able to make fast decisions, often without having the chance to consult other professionals. A strong network in the sector is also necessary.

In contrast to water and sanitation backstopping projects, construction infrastructure mandates are usually smaller and they are not full-time jobs. Often, one expert has to handle three and more projects at a time. Multi-tasking, the ability to work under pressure, the need to be available at any time, and dedication to the project's objectives are also necessary. Thus, it is difficult for young professionals to break into this market. Nevertheless, there is a high potential for the provision of backstopping services in the years ahead for Skat Consulting with its experienced and qualified staff.

For further information, contact Daniel.Schwitter@skat.ch

Present-day perspective on the backstopping of SDC and SECO water projects at Skat

New backstopping mandate to support the Swiss water programme in Tajikistan

The year concluded with a successful bid for a very exciting mandate in Tajikistan: Skat will support the Swiss cooperation in Tajikistan in the management of its large portfolio of water projects, the largest Swiss water programme worldwide. The Swiss Agency for Development and Cooperation (SDC) in Tajikistan supports the water, sanitation and hygiene sector with four programmes in different regions of the country,

from the densely populated Fergana valley to the remote Pamir Mountains. SDC also supports a programme on Water Resources Management. The State Secretariat for Economic Affairs (SECO) supports six projects on urban water supply and sanitation. All projects include strong policy components.

In the coming years, Skat will provide backstopping support to staff of the Swiss Cooperation Office in Tajikistan, SDC and SECO staff in Bern, as well as to the different implementing partners in Tajikistan. Skat's support will include thematic and technical advice, support on programme development and planning, support steering and coordination for ensuring coherence and quality of approaches, and support SCO staff in national policy dialogue.



The successful bid for the Tajikistan mandate was grounded in Skat's long-standing experience in backstopping of water programmes of the Swiss Cooperation.

Skat's cooperation with SDC's Global Programme Water dates back to 1996 and has evolved – after many institutional changes and repeated public tenders – to the current comprehensive backstopping mandate, which supports the Global Programme in a wide range of its highly ambitious and complex portfolio of innovative global water projects.

Kosovo is another strong pillar of Skat's backstopping expertise. Since 2011, Skat supports SDC's Rural Water and Sanitation Support Programme (RWSSP). RWSSP has had a significant impact on increasing the coverage of water services in Kosovo up to 95 %, and consolidating Kosovo's sector reform with the operation of rural water services by regional utilities and strong regulatory bodies. The mandate complements Skat's second project in Kosovo, the SECO-funded support to Kosovo's Inter-Ministerial Water Council (IMWC). Through this mandate, Skat works with the Swiss Cooperation Office in Kosovo and IMWC advisors since 2009 on sector reform and policy issues. Both mandates will continue after 2017, by supporting the exit phases of the RWSSP and IMWC programmes.

With the new backstopping contract in Tajikistan, Skat succeeded in consolidating its strong position as a partner of the Swiss development cooperation—jointly working for better quality and efficiency of Swiss cooperation in water.

For further information, contact Florian.Klingel@skat.ch





ST.GALLEN-BASED

Management



Jürg Christen (100%), Managing Director Specialist: WASH, Waste Management, Governance

Professional Staff



Anne Sophie Aublet (40%) Specialist: Water & Environmental Sanitation



Bertha Camacho (70%) Specialist: Knowledge Management



Daniel Schwitter (90%) Specialist: Sustainable Building & Settlement Development



Florian Klingel (90%) Specialist: Water & Environmental Sanitation



Dr Hedi Feibel (60%) Specialist: Renewable Energy & Hydrology



Julie Smolnitchi (100%) Specialist: Water Governance



Dr Kerstin Danert (100%) Specialist: Rural Water Supply



Martin Bölli (100%) Specialist: Renewable Energy & Energy Efficiency



Martin Läng (100%) Specialist: Communication, Desktop Publishing, ICT, Webinar Hosting



Matthias Saladin (80%) Specialist: Water & Sanitation



Meleesa Naughton (60%) Specialist: Water Resources Management



Roger Schmid (100%), Deputy Managing Director Specialist: Water & Environmental Sanitation, Mobility/Transport



Sean Furey (100%)
Specialist: Rural Water Supply, Water Resources,
Knowledge Brokering



Stephanie Theis (100%)
Specialist: Knowledge Management and Communication



Dr Sanjay Gupta (100%) Specialist: Water, Sanitation and Solid Waste Management



Laura Neuweiler (50%) Office Manager

Support Staff



Norolalao Robson (50%) Office Manager Assistant



Violeta Zivanovic (100%) Office Manager Assistant



Sheryl Sierra (100%) Commercial Apprentice

INTERNATIONAL-BASED

Nicaragua



Urs Hagnauer (100% until mid 2017) Operational Director of SDC AGUASAN

Moldova



Jonathan Hecke (100%) Team Leader: ApaSan Project

Rwanda / Burundi / DRC



Daniel Wyss (100%)
Team Leader: PROECCO project

Specialist: Sustainable Building & Settlement Dev.



Fatou Dieye (100%)

Specialist: Architect and Urban Planning



Heidrun Simm (100%) Specialist: Geographer/GIS; PROECCO project



Luc Olivier Patenaude (100%) Specialist: Economics; PROECCO project



James Racicot (100%) Team Leader: PEPP project (2015-)

Cyr Franck Ahononga (100%) Specialist: Water and Sanitation; PEPP project

Skat recognises the tremendous efforts of the many project staff in Ukraine (DESPRO), Moldova (ApaSan), Rwanda/Burundi/DRC (PEPP & PROECCO)

Staff News

Kerstin Danert receives the 2017 Distinguished Associate Award from the International Association of Hydrogeologists

We would like to congratulate our colleague Kerstin Danert for receiving the 2017 Distinguished Associate Award.

The International Association of Hydrogeologists (IAH) Distinguished Associate Award is presented annually to a person who is not a groundwater professional but has made an outstanding contribution to the understanding, development, management and protection of groundwater resources internationally. This award is timely as Kerstin plans to concentrate her efforts and energy on her thematic work. She will continue to bring good groundwater resources management and groundwater development much closer to non-hydrogeologists. These include practitioners in government and the private sector, as well as project managers, political leaders and the general public. With this award, IAHhave given her an incredible boost for this challenging task. We wish her all the best for her future endeavours in her professional life within our team.

Our clients and partners in 2017

We would like to thank our clients and partners who have supported us during 2017, and beyond:

ADC Austrian Development Cooperation

ADPC Asian Disaster Preparedness Center

ADPC Asian Disaster Preparedness Center

AfDB African Development Bank

Caritas Switzerland

DFID Department for International Development (UK)

Eawag Swiss Aquatic Research Centre

ESRC Economic and Social Research Council (UK)

GIZ German Agency for International Cooperation

GVEP Global Village Energy Partnership

HE Hydropower Evolutions

HEKS Relief Fund of the Protestant Churches of Switzerland

HSI Helvetas Swiss Intercooperation

ISKB Association of Swiss Small Power Plant Owners

ISW International Secretariat for Water
KfW Kreditanstalt für Wiederaufbau

Mastercard Foundation

NERC National Environmental Research Council (UK)

OU Oxford University

Posch & Partners

REPIC Renewable Energy & Energy Efficiency Promotion in International Cooperation

RWAG Resources and Waste Advisory Group Limited

SDC Swiss Agency for Development and Cooperation

SECO Swiss State Secretariat for Economic Affairs

SFOE Swiss Federal Office of Energy

SNSF Swiss National Science Foundation

Solaqua Foundation

SRK Swiss Red Cross

Swiss Malaria Group

UNEP United Nations Environment Programme

UNICEF United Nations Children's Fund

UPGro Unlocking the Potential of Groundwater for the Poor

Volkart Foundation

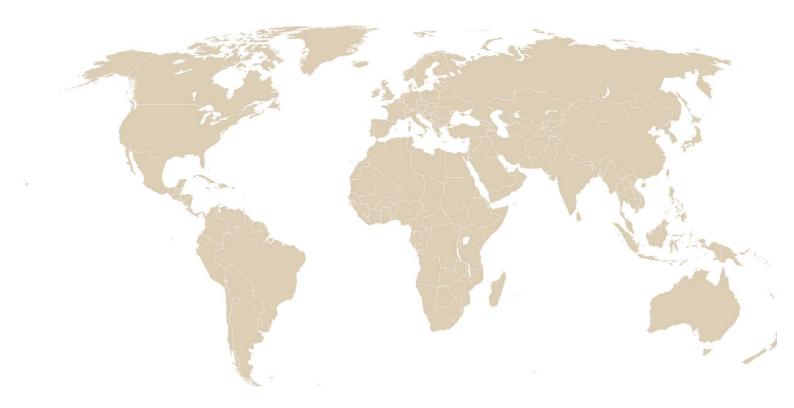
WaterAid

WVS World Vision, Switzerland

ZH2O - drink & donate, Zurich



Global





Unlocking the Potential of Groundwater for the Poor (UPGro)

DFID, NERC, ESRC



SDC Water and Sanitation **Backstopping Mandate** 2015-2017 (Phase VIII)

SDC



RWSN Phase 2015 to 2017 Support to Secretariat Support to Sustainable Groundwater Development Support to Self-Supply

SDC, Skat Projektfonds, University of Oxford, Volkart Foundation, WaterAid, World Vision, ZH2O



RWSN Cost Effective Boreholes Phase IV, Guidance Note

UNICEF, Skat Project Fund



SolarChill-Technology Transfer and Outreach

UNEP



Evaluation of the Energising Development Programme EnDev

GIZ





REACH – improving water security for the poor

Oxford University



Professional Borehole Drilling -Phase V

UNICEF and Skat Projektfonds



Swiss Water Partnership: Secretariat

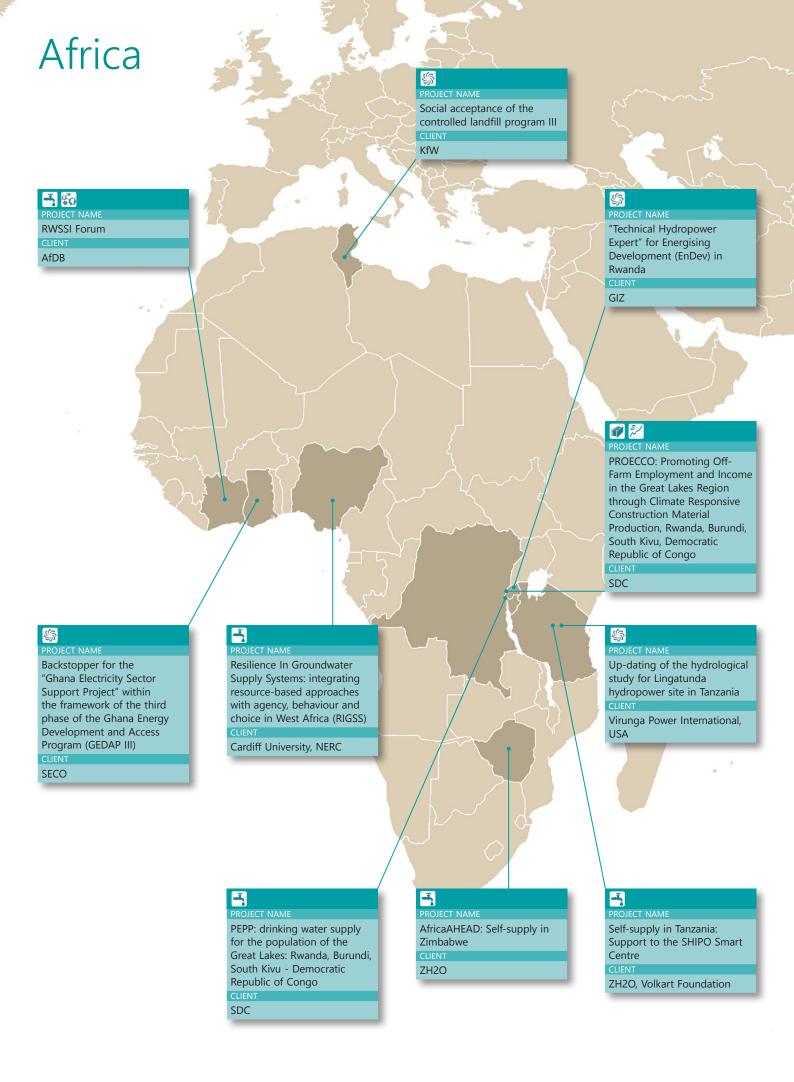
SDC, HIS

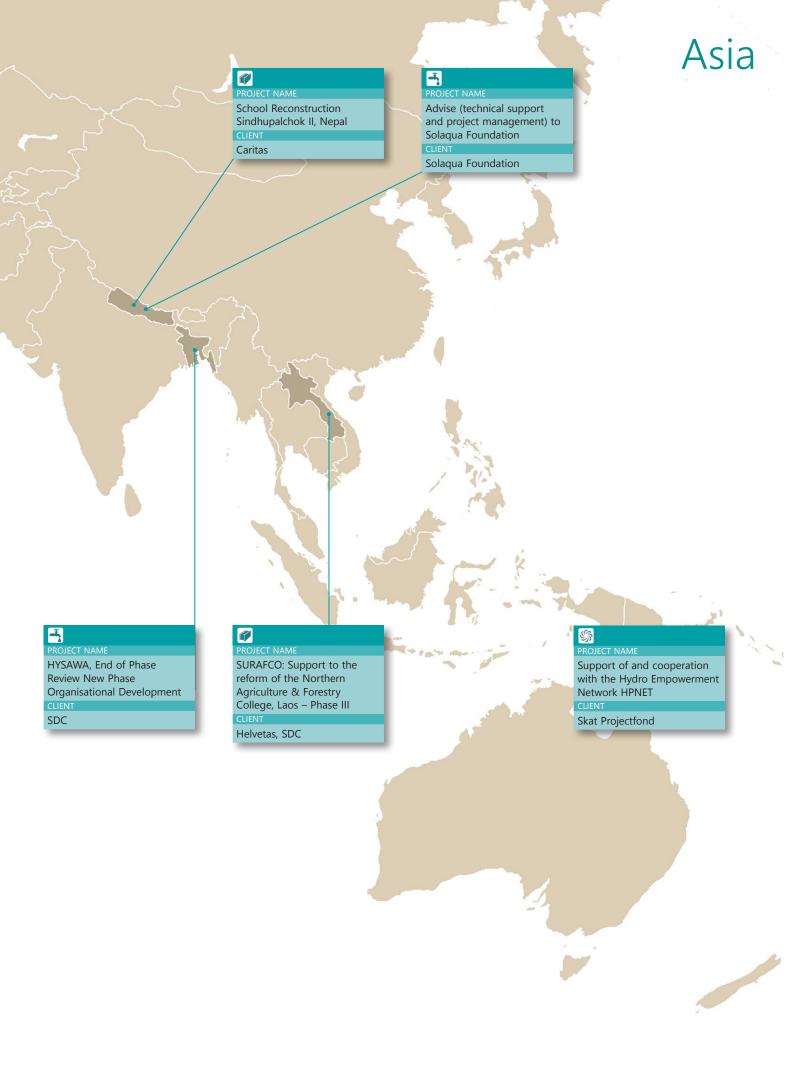


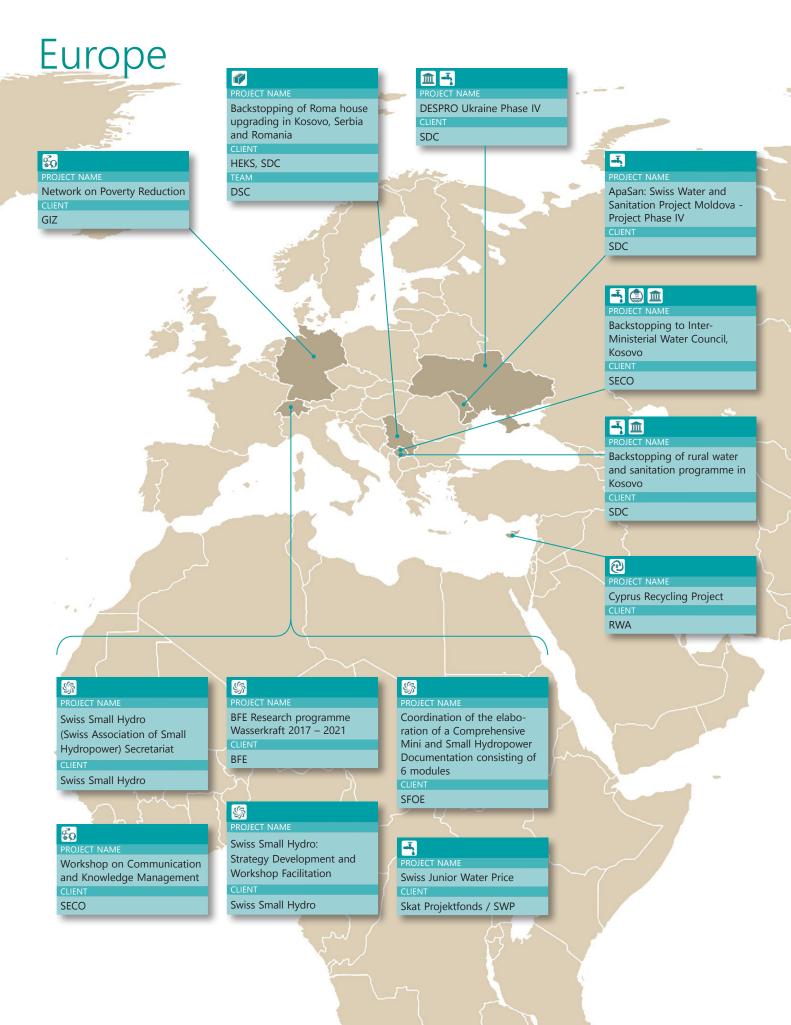
International Energy Agency IEA PV Power Systems Program, Task 9 Project Leadership "Deployment of PV Technology in Developing Countries

REPIC

Symbols can be found on inside cover, clients on page 21









Financial Report

Profit and Loss Account / Balance Sheet 2017

As reflected in the tables below, the 2017 accounts closed with a positive result. With this, the trend of the previous

years continued. Due to ongoing and new project activities and resulting profits, the shareholders' funds as well as the balance sheet total have been relatively constant.

Profit & Loss Account from 1.1.2017 – 31.12.2017

Description	(CHF) 2017	(CHF) 2016
Consulting revenue	13,185,852	13,583,878
Revenue from Loan Staff	-	-
Other revenue	2,166	1,681
Reductions of revenue	5,766	11,303
Inventory change of work in progress	694,000	454,700
Operating revenue	13,887,784	14,051,562
Materials	-	-
Other chargeable costs	-81,032	-53,628
Consultants	-586,735	-368,728
Direct project costs	-9,597,018	-9,627,022
Travel- and working costs	-152,313	-352,247
Total Materials/Costs third parties	-10,417,098	-10,401,625
Profit contribution 1	3,470,686	3,649,937
Salaries	-2,852,218	-3,103,680
Total personnel costs	-2,852,218	-3,103,680
Profit contribution 2	618,468	546,257
Office rent	-70,349	-70,844
Maintenance and repairs	-15,494	-16,238
Energy and disposal costs	-6,765	-4,158
Donation to Skat Foundation	-50,000	-25,000
General Donation	-	-
Office and administration costs	-153,952	-149,872
Advertising and PR	-20,495	-17,067
Other operating expenses	-62,405	-41,545
Total administration expenses	-379,460	-324,724
Profit contribution 3	239,008	221,533
Depreciation	-3,058	-4,076
Total Depreciation	-3,058	-4,076
Profit contribution 4	235,950	217,457
Interest expenses and bank charges	-2,138	-4,229
Interest income	1,300	11,267
Exchange gain/loss	27,367	-10,393
Extraordinary income	-18,163	14,502
Financial income/expenses	8,366	11,147
Profit contribution 5	244,316	228,604
Taxes	-65,849	-42,094
Operating profit	178,467	186,510

Balance Sheet as of 31.12.2017

Description	(CHF) 2017	(CHF) 2016
Assets	0.402.567	0.020 555
Cash and bank accounts	8,492,567	9,939,555
Trade accounts receivable	133,575	179,734
Other current receivable	1,736,460	1,800,797
Work in progress	4,949,400	4,255,400
Accrued income/deferred charges	8,444	18,153
Total current assets	15,320,447	16,193,639
Securities	1	20,000
Tangible assets	5,047	7,617
Intangible assets	736	1,224
Total fixed assets	5,784	28,841
Total assets	15,326,231	16,222,480
Liabilities & shareholders, funds		
Trade accounts payable	242,256	284,150
Other current liabilities	12,792,971	13,773,317
Deferred income/accrued charges	306,990	265,489
Current accruals	123,750	111,345
Total current liabilities	13,465,967	14,434,301
Long-term accruals	636,283	512,665
Total long-term liabilities	636,283	512,665
Total liabilities	14,102,250	14,946,966
Share capital	200,000	200,000
Compulsory reserve	100,000	93,000
Complimentary reserve	500,000	500,000
Profit brought forward	260,514	311,004
Years profit	178,467	186,510
Own shares	-15,000	-15,000
Total shareholders, funds	1,223,981	1,275,514
Total liabilities & shareholders, funds	15,326,231	16,222,480

Budget 2018

With the current staffing situation with approx. 22 full-time positions in 2018, the operating revenue will remain at the same level as in the previous year thanks to ongoing implementation projects. This statement is also based on the

assumption that, again, about 65-70% of the productive hours can be sold. This estimate will translate again into a positive result in 2018.

Management Bodies

Management Board

- Karl Wehrle, Skat Consulting, St.Gallen, (President)
- Esther Oettli, Beringen (Vice President)
- Walter Kraehenbuehl, Weinfelden
- Roger Schmid, Skat Consulting, St.Gallen
- Juerg Christen, Skat Consulting, St.Gallen
- Urs Egger, St.Gallen

External Auditor (Accounts)

Rietmann & Partner, St.Gallen

Executive Management

Juerg Christen, Managing Director



Anniversary Brochure

Contact

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