



# Annual Report 2012



Energy is arguably one of the major challenges the world faces today, touching all aspects of our lives. Today around 1.5 billion people, have only an unreliable or intermittent supply. Of the people without electricity for example, 85% live in rural areas or on the fringes of the cities. For those in extreme poverty, the lack of access to modern energy services dramatically affects their health, limits opportunities and widens the gap between rich and poor. The vulnerability of the poor is only worsened with recent challenges from climate change, a global financial crisis and volatile energy prices. The global target date for achieving the Millennium Development Goals (MDG) is around the corner. Whilst there is no MDG on energy, the global aspirations embodied in those goals will not become a reality without massive increases in the quality and quantity of energy services. This is needed to meet the most basic needs of the poor men and women, especially heat for cooking and mechanical power. Also, improved technologies for the very poor can prevent the most of the two million deaths a year attributed to indoor air pollution from fuel use. These have been central messages from UNDP and WHO. However, this process has been painfully slow in expanding access to sustainable and environmentally safe energy services. Policies and national programmes must be drastically enhanced to tackle in any significant way energy poverty. This cannot be done without an effectively clear understanding of the energy access situation in countries including the understanding of regional and national trends, rural-urban disparities and the range of energy sources typically used in developing countries.

It is against this background that this annual report focuses on the topic of Energy and Climate. Skat seeks to interlink climate protection, renewable energies, community empowerment and poverty reduction through holistic approaches, which facilitate equal access to environmentally sound energy technologies to foster productive and income generating activities. It offers a wide range of services related to renewable energies, energy efficiency and other climate relevant

topics with special focus on hydropower, hybrid systems, eco-efficient technologies (e.g. improved brick kilns) and process optimisation. Besides own project development, consulting and engineering services include know-how transfer and capacity building on planning, implementation, operation and management, but also policy and legal advice, concept development and market analysis. We bring broad experience in isolated and grid-connected micro, mini and small hydropower systems and exploitation of hydropower in drinking, irrigation and treated waste water systems. As part of its climate relevant activities, Skat also offers services on process optimisation and eco-efficient technologies. In the wake of the gathering pace of urbanisation Skat Consulting Ltd.'s services related to environmentally sound building materials and improved brick kilns gained importance. Targeting sustainable urban development, Skat Consulting Ltd. is strengthening and extending activities in these climate relevant topics.

It is with these activities and other new projects and consultancies carried out in 2012 we are convinced that Skat has made an important step to fulfilling its vision of reducing the gap between rich and poor through the promotion of sustainable living conditions of disadvantaged and marginalised people.

In this sense I wish to thank all our partners and clients for their trust during 2012 and am looking forward to continuing these productive relationships in the next years. Special thanks go to the Skat board members, shareholders and staff for their tireless support and hard work.

A handwritten signature in black ink, appearing to read 'Juerg Christen', written in a cursive style.

Juerg Christen  
Managing Director  
Skat Consulting Ltd.

## Skat's Mission and Areas of Expertise

Skat Consulting Ltd. is an independent Swiss resource centre and consultancy company 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.

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 applies its expertise in an integrated way, taking technical, social and economic issues into account. Planning, design and implementation of projects are carried out applying a participatory approach that considers the perceptions of all stakeholders.

With its current staff, Skat professionally covers the following areas of expertise:

- water supply and environmental sanitation, including solid waste management
- energy and climate
- building and settlement
- mobility and transport
- governance
- economic development
- environmental management
- knowledge management

## Services and Functions

Within the areas of expertise mentioned, Skat provided the following services Throughout 2012, thus contributing to balanced and sustainable solutions:

- Policy and strategy development
- Assessment, monitoring and evaluation
- Knowledge sharing, capacity building and training
- Backstopping and technical advice
- Project planning, management and implementation
- Transfer of technologies and approaches



## Wastewater feeds Electricity in the Jordan Valley

The KfW financed project is implemented by a Joint Venture of four German consulting companies. Skat is subcontracted by AHT Group and is responsible for all activities concerning the utilisation of the hydraulic energy potential.

Jordan is considered one of the ten most water-scarce countries in the world. To use this rare resource for electricity production does not seem to be a viable option. Nevertheless, Skat studied the possibility of developing a small hydropower station in the Jordan Valley and proposed a design that will exploit the discharge from three wastewater treatment plants of the City of Irbid. The treated wastewater will be used for the irrigation of crops in the agricultural fields of the Jordan Valley. The altitude difference between the wastewater treatment plants in Irbid and the irrigation network is over 300 metres. This scheme has an impressive potential for energy generation in a way that produces multiple benefits.



The water scarcity of Jordan requires a careful handling of this resource and so using treated waste water (mixed with freshwater) is a viable option for reducing fresh water consumption of crop irrigation in the Jordan Valley. The three wastewater treatment plants included in the study are located in the highlands of the region of Irbid, which stand 400 metres above sea level. Their effluent is to be conveyed to the irrigated fields of the Valley located at 250 metres below sea level. The natural topography of the project area is highly suitable for hydropower due to the hydraulic head of over 300 metres together with flow rates of more than 1,000 litres per second. This is a formidable source of energy that can be harnessed by a small hydropower plant.

Today, less than one per cent of electricity in Jordan is produced from renewable energy sources. Thermal power plants dominate because fossil fuels are available at relatively low cost and it is generally straightforward to extend their capacity due to high flexibility, low investment costs and short development times to extend the power production parks. Consequently, each kilowatt-hour of electricity produces about one kilogram of carbon dioxide emissions – which is around 50 times more than the production mix of Switzerland.

Emission-reduction certificates are currently traded at very low prices and therefore do not support the development of renewable energies in the region. Hence, the resulting cost pressure on renewable energy projects is high and only the best available potentials are likely to be exploited. However, because of ever-increasing fuel prices, power distribution companies have expressed a great interest in purchasing electricity from renewable sources. Alternatively, rather than sell to the power distribution companies, the produced electricity could be used for covering a part of the needs of the wastewater treatment and thus, reducing the electricity demand from the grid, costs to the wastewater utility and carbon emissions from the treatment process. These multiple benefits go some way to address the conditions that are not always in favour of hydropower use and which pose challenges to the development of the project.

In the first phase of the project, different options for exploiting the hydropower potential were analysed and evaluated. Several locations were identified, and for the most promising site a detailed feasibility study and design was developed. The location choice was based on the residual pressure needed for irrigation and with a focus on already existing irrigation infrastructure in the vicinity. With an altitude of 150 metres below sea level, it will be one of the lowest hydropower stations in the world.

The small hydropower plant is designed for a capacity of 1.8 Megawatts, and will produce over 10 million kilowatt-hours per year. This is the equivalent of the annual consumption of about 2,400 Swiss households. The electricity produced will substitute the production from thermal power plants, and offset the emissions of more than 10,000 tonnes of carbon dioxide.

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## Small Hydropower connects West African Countries

2012 was the “International Year of Sustainable Energy for All” and Skat provided technical support to a five-day workshop on Small Scale Hydropower in Monrovia, Liberia. There were more than 60 delegates from a wide range of backgrounds and organisations including: policy makers, regional river basin authorities, practitioners, equipment manufacturers, representatives from utilities, rural electrification agencies, financiers and banks from the Economic Community of West African States (ECOWAS). The workshop succeeded in bringing people together to create a platform for further cooperation. Participants were excited about the professional organisation and moderation of the workshop and the atmosphere which allowed for intensive exchange that transcended language differences.

The Regional Centre for Renewable Energy and Energy Efficiency of ECOWAS in cooperation with the United Nations Industrial Development Organization, the Energy Sector Management Assistance Programme, and the Government of Liberia hosted and organised this event with support from Skat experts.

Compared to many Asian and East-African countries, the hydropower potential in West Africa is hardly exploited, especially Small-Scale Hydropower (SSHP). The main reason is that the topography and hydrology are often unfavourable. This situation requires diligent assessment of potential sites and the right technical know-how for cost-effective planning and implementation of small-scale hydropower projects.

Considering these challenges, the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) prepared the “ECOWAS Up-Scale Programme for Small-Scale Hydropower” (SSHP), by means of a participatory process that involved various stakeholders at initial stages through a needs assessment. A five day workshop was a continuation of that process. Throughout this



process participants had the opportunity to share their experiences and know-how, to develop their capacities on the subject and to discuss the content of the SSHP Programme Document.

This process revealed that the experience of SSHP is very limited in most of the ECOWAS countries but that there is a lot of interest to improve the knowledge and to develop SSHP. Therefore, during the workshop, two days were reserved for **basic training sessions** on technical aspects and challenges regarding SSHP development in West Africa. The training was not meant to provide an in-depth capacity building on turbine types or other technical, financial or policy matters, but rather to create a common understanding of important SSHP-related issues among the participants. Participants had quite different professional backgrounds and experience, so the contents had to cover a broad range of expectations. Two main workshop instructors led the training process complemented by presentations of various speakers from different regions such as East Africa, South East and Southern Asia. Also participants benefited from in-depth explanations on specific subjects, as well as from the broad hydropower experience of speakers representing various organisations. According to participants, "these two days of capacity building really **created a common understanding on options and limitations of small-scale hydropower development**".

Additionally, representatives of the Ministries of Energy were given the opportunity to report on the **status quo, lessons learned and on-going initiatives and projects** in the SSHP sector in the fifteen individual ECOWAS countries. These presentations and the related discussions allowed a deep exchange among the various countries and provided an important input for the finalisation of the project document of the ECOWAS-SSHP Programme. Also, the UNIDO Regional Centre

for Small Hydro Power (Abuja, Nigeria) had the opportunity to report on its activities and lessons learned. Since many participants did not know about the existence of this regional centre, the workshop enabled centre's staff to promote further their work in the ECOWAS countries. There was a site visit to a 4 MW hydropower plant of the Firestone Rubber Plantation Company close to Monrovia, which enriched the workshop and helped bring the issues to life by being, "close enough to touch", in the words of one delegate. Finally, the workshop closed with the **presentation of and discussion on the main components of the Small Scale Hydropower Programme Document**. Working in smaller groups allowed for more in-depth discussions on the priorities of the "5-year ECOWAS - SSHP Programme".

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## Local projects provide electricity to rural communities in Tanzania

The Global Village Energy Partnership (GVEP) has identified six small-scale hydropower project developers in Tanzania to be eligible for assistance. The selected developers receive assistance in preparing and completing comprehensive, bankable feasibility studies, environmental and social impact assessments and business plans. The planned hydropower schemes will supply electricity to the surrounding villages, and feed electricity into the national grid.

Tanzania's current electricity generation mainly relies on hydropower, domestic natural gas and imported oil. The total installed capacity is about 1,200 MW (which is equivalent to a medium sized thermal power station in Europe), of which hydropower contributes around 560 MW. So far, only about 12% of the existing hydropower potential is exploited. Tanzania is a huge country with a low population density; thus, the transmission grid only covers a minor part of the country leaving out particularly western and southern regions. The average electrification rate in rural areas is only about 3% from an overall coverage of 14%. District capitals and other important centres are supplied by diesel generators. On average, poor people spend about 35% of their income on energy. Unsurprisingly, at night much of Tanzania remains in the dark.

A Standardised Power Purchase Agreement exists for projects to feed electricity from small power plants. The subsidy per connected household

and the feed-in tariff make the investment in isolated and grid-connected hydropower systems relatively attractive and have stimulated growth in rural electrification in recent years.

However, a significant number of licences and permits, clearances, registrations, environmental and social impact assessments are required during the development process. These requirements tend to delay the implementation of mini-hydropower projects. Access to finance, coordination among stakeholders and the lack of planning and implementation capacity are considered other significant hindrances.

Support to hydropower developers in these preparatory activities and in the elaboration of bankable feasibility studies has been provided. Among the six potential mini-hydropower sites, four are located in southern highlands of Tanzania, one in Arusha (in the North) and one in Kigoma (in the West). For each site, a feasibility study has to

show if it is more viable to supply power to surrounding towns and villages through isolated mini grids, or to supply electricity to the national grid or a combination of both. This feasibility work involves engagement with local political leaders, local government and other key stakeholders. For any scheme to be successful there needs to be a strong process of sensitisation and partnership building so that electricity service is embedded in the existing governance and finance structures.

Comprehensive site investigations have been made, including geological, topographical, meteorological and hydrological surveys. These investigations showed that the national hydrological database, which is crucial for the design of a MHP schemes, is not yet sufficiently comprehensive.

The preliminary studies were mainly based on simple spot measurements of flow which are not reliable for robust planning. The local hydrologists, who had already started installing gauging stations and performing flow measurements, are important partners. Supervision of a gauging station and doing flow measurements is a challenging exercise, especially during the rainy season when access to the sites becomes more difficult. Advising these local experts, training them in different methods for water level and flow measurements were part of the field activities. The hydrological data collected provided the basis for the technical planning and design.

Given the diversity of project developers, each project had different priorities and needed a specific approach for giving assistance. Going forward, this makes it challenging to create a standardised package for implementing mini-hydropower that could be rapidly replicated across Tanzania. However,

this project showed the exciting potential of this clean, low impact technology for tackling some of ingrained causes of rural poverty.

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Skat together with two cooperation partners intec-gopa and Entec AG conducted the technical and economic feasibility studies to facilitate the developers' access to finance



## Micro-Hydro Power in Laos can be combined with irrigation and fisheries

The Lower Mekong Basin is characterized by a large number of irrigation weirs and flood protection structures that have been constructed over the last decades to improve irrigated agriculture. The vast majority of these structures, however, have only one purpose: irrigation. Less than half of the Lao population has access to electricity; thus, extending the use of existing structures is an opportunity to be explored. Upgrading single-purpose weirs is particularly important given the high demand for other uses of water resources, especially electricity generation.

The Lao government has declared rural electrification one of its priorities in development, aiming at providing 90% of the households with electricity by 2020. The government therefore emphasises the importance of renewable and local-level energy generation.

Today, less than 1% of the total installed hydropower capacity in Laos comes from hydropower plants smaller than 1 MW. This is even more surprising given the potential opportunities for installing micro hydropower schemes in existing weir structures, which could considerably decrease investment costs. Moreover, small hydropower plants can also provide an important alternative to large-scale hydro projects that come with considerable environmental and social impacts.

Various studies on micro and mini hydropower potential in Laos have been done in recent years

leading to the general conclusion that small-scale hydropower has a very good potential in Laos. Analysing multipurpose options may open up opportunities for cost reductions and for preventing water conflicts. The current Laotian legal framework is not very suitable for small-scale hydropower development. The latter would be facilitated and accelerated by the introduction of incentives, such as simplified and affordable approval and licensing processes, a straightforward Power Purchase Agreement (PPA), and an attractive feed-in tariff.

Furthermore, Fish passage is of special importance in the lower, less hilly wetlands because of the high total number of fish migrating. In upper catchment areas, although the total number of fish is lower, the variety of species is still considerable and deserves to be protected. In European countries for example, the focus of fish protection is more on pristine areas higher

Skat experts were in charge of evaluating the potential for integrating micro-hydropower schemes into existing irrigation weirs and where possible combine it with measures for improved fish passage



upstream, whereas in Laos - and in the Lower Mekong catchment in general - a stronger focus is put on "productivity" rather than on intrinsic biodiversity value.

When refurbishing irrigation weirs for integration of hydropower and fish passage, it has to be noted that in lowlands with high fish potential, the hydropower potential is technically more difficult to exploit. Most of the irrigation weirs in the lowlands have **less than 3 m height**. In addition, a micro-hydropower scheme integrated in such a weir can only make use of the surplus water, which is not used for irrigation. Thus, potential sites were selected in close cooperation with the Irrigation Department. Doing field trips together with staff of the Irrigation Department from Central, Provincial and District levels resulted in raising their awareness of the potential of multipurpose use of existing and planned irrigation structures.

One of the most favourable sites is the existing irrigation reservoir **Nam Seut** with a bottom outlet, where a micro-hydropower scheme could easily be installed at relatively low cost since almost no additional civil structures are required. Besides electromechanical equipment, only about 100 m of transmission line would be required since the MV line ends at the dam. The scheme could be operated by a community based organisation in the nearby village consisting of re-settled people from the area of the big hydropower plant Nam Theun 2. The revenues from electricity sales could be used for the Operation and Maintenance of the micro-hydropower scheme and the irrigation channel.

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GIZ is supporting the organizational reform of the **Mekong River Commission MRC**. Established in 1995, MRC's objective is the sustainable and integrated management of the Mekong River Basin, whereby it is significantly supported by international donor organizations. One of the programs of the MRC is the "**Initiative on Sustainable Hydropower ISH**" which focuses on advancing regional cooperation for the sustainable management of the growing number of hydropower projects within a basin-wide perspective. To analyse the micro-hydropower potential in existing irrigation structures is a specific activity under the ISH.



## Improving renewable energy technology through capacity building in Cameroon

The provision of reliable services such as lighting for households, information and communication technology or small food processing units is critical for determining the quality of life of people in rural communities. In Cameroon, less than 10% of the rural population has access to electrical energy. Grid extension has its own financial and political constraints. The Poverty Reduction Strategy Paper of the Government of Cameroon aims therefore at improving the standard of living in rural areas through the use of decentralized energy systems, which are independent from the national grid. Renewable energy sources have been identified as viable sources for the development of such energy systems.



Cameroon is often referred to as Africa in miniature. It has about 18 million inhabitants and is rich culturally and in biodiversity. It is host to some 200 ethnic groups speaking different languages besides French and English. While about half of the people of Cameroon live in urban areas, the other half, consisting of farmers, live in rural areas. The people follow various religious beliefs - 24% adhere to traditional religions, about 21% follow Islam and the remaining population Christians. Cameroon is divided into 10 administrative units called regions.

The topography of the Mountain Regions of Cameroon is characterized by mountainous terrains and active tectonics creating many fast-moving rivers with picturesque falls and isolated

crater lakes. These rivers follow a Cameroon regime, experiencing a period of high waters during the wet season and a period of low waters in the dry period. The rivers all form part of the Atlantic basin. The resulting hydropower potential is enormous. Many of potential hydropower sites are found in the rural areas and could be used to improve the standards of living of the rural populations.

However, there are insufficient actions taken to develop such energy sources. Government initiatives to development renewable energy sources for rural energy services are very slow and bureaucratic. Market mechanisms to encourage and promote the development of natural energy resources for the provision of reliable basic energy



services in the rural areas of Cameroon still need improvement. The rural populations lack sufficient finances to develop the abundantly available micro hydropower for basic energy services that will promote their socio-economic development, improve their quality of life and move them out of poverty. The rural population also lacks basic technological know-how to operate and maintain micro hydropower plants.

More than ten years ago, "Action pour un Développement Equitable, Intégré et Durable" (ADEID) initiated a renewable energy program through which 12 micro hydropower plants have been constructed, biogas plants, solar, as well as wind energy systems have been installed in some communities of rural western Cameroon. Training sessions and sensitization campaigns in climate change adaptation and mitigation are also part of the program.

However, the need for technical capacities of the ADEID local staff is still evident especially in the planning and construction of dams, in the fabrication of turbines and other energy infrastructure. A capacity building process was led by Skat to improve renewable energy technology of ADEID and the quality of their construction schemes.

Instead of theoretical training sessions in the classroom, Skat's activities focused on punctual training directly on site, based on ADEID's designs, work progress and specific experience. With this close and practical cooperation, some of the recommendations were implemented directly on site, and others were prepared to get implemented later. The design of the new micro

hydropower plants has been reviewed, based on the experience of the completed projects, and based on the specific know-how of Skat's experts. Skat's training focused less on the specialization on single disciplines, but much more in a better understanding of the nature interdisciplinary of technology. This led to improving the system at the point where the cost/benefit ratio is the best. Furthermore, other Cameroonian and international actors working with micro hydropower in Cameroon were identified. This collaboration allowed the use of synergies, and gave a perspective for co-funding and faster electrification of rural villages.

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Misereor and EED have financed the electrification of three villages in Cameroon. The project is implemented by ADEID, a Cameroonian NGO. Skat was mandated to technically assist and train ADEID for a successful commissioning of the three Micro Hydropower Plants.



In 2012 the staff of Skat has also been engaged in short term consultancies. In this section selected ones are presented.

## Water and Environmental Sanitation

### Project name

#### **Drinking Water Supply for the population of the Great Lakes**

### Project summary

In 2012, Skat has been entrusted to implement the project "Drinking Water Supply for the population of the Great Lakes" with the objective that around 400,000 people living in Burundi, Rwanda and DR Congo have improved access to sustainable drinking water supply systems and sanitation, including better hygiene practices. The project will support in the technical planning and implementation of the projects, will support capacity building on different levels of intervention, and will work on sensitisation, mobilisation and knowledge sharing among people, communities and local organisations in the three countries.

### Location

Rwanda, Burundi, DR Congo

### Period

2012 – 2016

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### Project name

#### **Support to the Swiss Development Cooperation (SDC) to follow up the trust Fund of the Rural Water Supply and Sanitation Initiative (RWSSI)**

### Project summary

With the aim of ensuring the achievement of SDC's strategic objectives in the framework of the RWSSI, since 2012, Skat supports SDC in policy dialogue with the African Development Bank and with other RWSSI Steering Committee members in the implementation of the strategic business plan for RWSSI. Skat also provides technical advice and training support to SDC Country Offices on specific Water, Sanitation and Hygiene related topics and facilitates experience and knowledge sharing between SDC and RWSSI actors.

### Location

Different countries in Africa and Switzerland

### Period

2012 – 2015

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Project name

**WASHTech**

Project summary

The Water, Sanitation and Hygiene Technologies (WASHTech) project, a three year European Union (EU) funded initiative aims at facilitating cost-effective investments in technologies for sustainable WASH services. Through action-research and through the development of a set of methodological tools and participatory approaches, WASHTech embeds the practice of multi stakeholder learning, sharing and collaboration. In 2012, Skat completed the draft Technology Applicability Framework (TAF) and provided training to the piloting teams in Burkina Faso, Ghana and Uganda. The TAF was then applied to several WASH technologies in each country. The feedback and information from this testing was then used by Skat to update the TAF and the supporting documentation and manuals.

<b>Location</b>	<b>Period</b>	<b>For more information contact</b>
Ghana, Uganda, Burkina Faso	2011 – 2013	andre.olschewski@skat.ch



Project name

**Operational Regional Direction of the Water and Sanitation Programs of SDC in Central America**

Project summary

Skat was mandated by the Swiss Cooperation Office in Central America to support in the steering of its regional Water and Sanitation Programmes with an expert consultant for the position of the Operational Regional Director and with targeted backstopping support. The support consists of supervising and ensuring the efficient implementation of the programmes and promoting knowledge management with other water and sanitation programmes in the region.

<b>Location</b>	<b>Period</b>	<b>For more information contact</b>
Nicaragua, Honduras, Central American Region	2012 – 2013	florian.klingel@skat.ch

Project name

**Water Source Protection Framework and Guidelines**

Project summary

The overall objective of this assignment is to provide support to the Ministry of Water and Environment in Uganda in development and implementation of water source protection guidelines. The framework and guidelines are intended to help the owners/operators of water infrastructure identify and work with stakeholders in the catchment areas that supply them water so that problems of siltation, pollution, over-abstraction, erratic river flows can be addressed. The aim is to create a partnership approach whereby both upstream and downstream water and land users benefit from better catchment management.

<b>Location</b>	<b>Period</b>	<b>For more information contact</b>
Uganda	2012 – 2013	sean.furey@skat.ch



Project name

**External Review of the Regional Rural Water Supply and Sanitation Project (RRWSSP)**



Project summary

Skat was mandated by SDC to review activities and results of RRWSSP and propose the outlook for the consolidation of the project, as well as suggest scenarios and approaches for scaling the project's rural water supply and sanitation experience in other regions of the countries. The review underlined that the project in both countries is highly relevant due to the critical situation in the WES sector. The community based approach to drinking water supply and hygiene promotion contributes to improved quality of life and public health of the rural population. The project has a positive impact on local governance by increasing community participation through social mobilisation. However, without Rayon and Oblast involvement in participatory planning long-term impact will be limited.

Location	Period	For more information contact
Fergana Valley: Uzbekistan and Tajikistan	2012	juerg.christen@skat.ch

Project name

**Project to Develop Secondary Legislation for the new Water Law in Moldova**

Project summary

SDC entrusted Skat the mandate to draft three regulations as part of secondary legislation for the new Water Law in Moldova. Within this framework, priority regulations regarding water sources quality that comply with the new water law of the country and that are coherent with European legislation were developed: Regulation on Monitoring of the Status of Surface Water and Groundwater; Regulation on Ground Water Protection; Regulation on Prevention of Water Pollution from Agricultural Activities; Regulation on Quality Requirements for Surface Water.

Location	Period	For more information contact
Moldova	2012 – 2013	florian.klingel@skat.ch

## Building and Settlements

Project name

**Support to the Reform of the Agriculture and Forestry College (SURAFCO) in Laos - Phase 2**

Project summary

A first phase of SURAFCO was successfully implemented in 2009-2012. The project has achieved tangible outcomes in all components, due to a strong involvement of local staff, teachers and students in the project. Based on this success, SDC has approved a 2nd phase of SURAFCO ending in 2016. The aim of the infrastructure component is to provide adequate physical and gender sensitive resources, which are managed in an efficient and effective manner. To achieve this goal, two more dormitories accommodating 128 students and one academic bloc including eight classrooms will be built. Skat is again mandated to plan and guide the construction activities. On top of this, Skat is providing assistance to create a modern, effective, transparent and gender-sensitive management and maintenance system.

Location	Period	For more information contact
Laos	2012 – 2016	daniel.schwitter@skat.ch



Project name

**Myanmar: National School Construction Guidelines**

Project summary

Since 2008, SDC is active in Myanmar in two large school construction projects. The physical facilities for both of them have been designed by Skat. They are innovative and highly appreciated as they combine disaster preparedness with improvement of basic education and health facilities that respond to the needs of the beneficiaries. Skat was also mandated by SDC-HA to develop a concept for the establishing of National School Construction Guidelines, as successfully done in the neighbouring countries Laos and Cambodia. These guidelines are intended for policymakers and planners of local, regional and national government bodies and all other organizations interested or engaged in creating a motivating learning environment for students and enhancing their safety through improved hazard resistant construction and retrofitting of schools buildings.

Location	Period	For more information contact
Myanmar	2012	daniel.schwitter@skat.ch



Project name

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

Project summary

Mandated by SDC, Skat has established the Skat Consulting Rwanda Ltd., which acts as Regional Building Material Knowledge HUB in Kigali and opens two field offices in Rwanda and Burundi. The first out of four project phases will be implemented between November 2012 and October 2015. The Programme supports the creation of permanent non-agrarian jobs in rural block- and brickyards, firing alternative fuels. The people targeted for this project are the rural young, who are currently labouring seasonally in farm-side brickyards. Innovative entrepreneurs offering stable village employment shall be supported with technical and management knowhow and access to investment capital shall be facilitated. In cooperation with vocational training centres, occupational health hazards, especially for women shall be reduced and trainings modules for labour and production managers shall be developed. Relevant administrative offices shall further be equipped with maps and data infrastructure and its officers trained sustainable management of natural resources for identifying suitable building material production zones.

Location	Period	For more information contact
Rwanda, Burundi, DR Congo	2012 – 2015	juerg.christen@skat.ch daniel.wyss@skat.ch



## Waste Management

### Project name

#### Development of a Strategy for Integrated Solid Waste Management (ISWM) in Bhutan

### Project summary

Skat supported the National Environment Commission (NEC) of the Royal Government of Bhutan in developing a strategy and strengthening the regulatory and organisational framework, as well as identifying capacity building measures for Integrated Solid Waste Management. The process of developing the strategy followed a stepwise participatory approach consisting of mobilising stakeholders, data collection, establishing the strategic planning framework, identifying and evaluating technical and organisational options and developing a capacity building and implementation plan. Skat in collaboration with the NEC working group is in the process of developing the national strategy based on which the waste regulation will be reviewed for wider consultation.

### Location

Bhutan

### Period

2012

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## Network Management

### Project name

#### Network Management Course for WHO Networks

### Project summary

In February - March 2012, Skat was mandated by the World Health Organisation to conduct two courses on Network Management on the following topics: Key concepts of Networking including concepts of Knowledge Management and its role in Network Management; Principles of network governance, its structure and roles and functions of different stakeholders and members; including types and forms of membership, membership criteria and roles and responsibilities of members and communication challenges of knowledge networks including tools and approaches to enhance communication in knowledge networks (virtual and non-virtual tools). The two courses were followed by individual coaching sessions to WHO Staff, who requested further training on the topics addressed in the courses. A total of 50 WHO staff members participated in the courses and 10 participated in follow up sessions.

### Location

Geneva

### Period

2012

### For more information contact

[bertha.camacho@skat.ch](mailto:bertha.camacho@skat.ch)

### Project name

#### First face-to-face meeting of the Eastern Europe Sub-RésEau

### Project summary

In March 2012, 23 sector practitioners gathered in Prishtina (Kosovo) under the umbrella of the RésEau (SDC Water Network) in an exchange workshop among SDC projects/programs on rural water and sanitation in Eastern Europe. The event provided the NPOs of the Swiss Cooperation Offices in Bosnia & Herzegovina, Moldova, Kosovo and Ukraine, as well as representatives of the respective implementer teams of Gov-Wade, ApaSan, RWSSP and DESPRO and their backstoppers with the opportunity to share knowledge on technical and project management issues and to network among each other. Next to individual project and program presentations, a knowledge cafe tackled the issues around operational models for rural water supply systems and various open space sessions addressed topics such as (waste) water treatment, social mobilization, strategic sector planning, national CoPs, policy dialogue, M&E systems and backstopping support. Furthermore an action plan for the sub-RésEau was developed. The workshop was rounded-off by an excursion to RWSSP project sites in North-East Kosovo. Skat was in charge of facilitating this event.

### Location

Kosovo

### Period

2012

### For more information contact

[bertha.camacho@skat.ch](mailto:bertha.camacho@skat.ch)

### Project name

## Support to set up a service portfolio to GIZ alumni networks

### Project summary

With the aim establishing independent and autonomous “alumni networks”, GIZ organised in November, 2012 a workshop in Berlin to discuss new directions for its alumni networks seeking to achieve the following objectives: (a) activate the professionalism and expertise of alumni for ensuring future action on sustainable development, (b) learning and sharing with and from each other; (c) initiate and implement joint activities and projects. Participants are representatives from over 60 networks and alumni associations worldwide. Skat was invited to present an input on how networks can set up a service portfolio and was further engaged in developing a check list of success factors for developing a service portfolio to be used by alumni networks wishing to become financially sustainable.

Location	Period	For more information contact
Germany	2012	bertha.camacho@skat.ch

## Mobility

### Project name

## Trail Bridge Capacity Building Programme (TBCBP)

### Project summary

Skat was in charge of the elaboration and formulation of the key elements for the continuation of the Trail Bridge Capacity Building Programme in Ethiopia. The assignment included overall planning and preparation of the programme document for a three-year operational framework to be negotiated between the donor and the Rural Roads Authorities and the Ethiopian Roads Authority. Strategically the TBCBP is considered a national programme with a regional focus, i.e. integrating and anchoring the trail bridge technology and the processes in few demonstration regions complemented by targeted capacity development and institutional strengthening. The main elements and focus was on the development of bottom-up inclusive participatory planning processes; the design of mechanisms for demand-oriented collection and prioritisation of bridges as well as defining roles of actors involved; governance aspects such as participation, transparency and accountability, decentralisation, social inclusion and gender mainstreaming; and the creation of institutional capacities anchoring the technology at federal and regional levels as well as in educational institutions, the private sector and the civil society.

Location	Period	For more information contact
Ethiopia	2012	juerg.christen@skat.ch



## Organisational Set-up

Since January 2005, Skat Consulting Ltd. has been operating with an organisational set-up characterised by a lean management structure and the full operational integration of the Skat Foundation in the overall organisation. This structure has proven to be not only efficient but also cost-effective.

In 2011, Skat included Energy and Climate as the new area of Expertise, seeking to interlink climate protection, renewable energies, community empowerment and poverty reduction through holistic approaches. These approaches will facilitate equal access to environmentally sound energy technologies to foster productive and income generating activities.

### Personnel and Staff News

In 2012, three new team members joined Skat supporting the work in the fields of water and environmental sanitation and energy.

**Martin Bölli** joined Skat in February 2012 as Renewable Energy and Energy Efficiency Specialist. He is Electrical and Environmental Engineer and works as an expert on renewable energy and environmental technologies since 2004. His main activities are planning, design, capacity building, technical and environmental assessments of renewable energy systems (with a strong focus on small hydropower) and the improvement of frame conditions for an increased utilisation of renewable energy resources.

**Hedi Feibel** joined Skat in March 2012 as Renewable Energy and Water Expert. She has a diploma in hydrology, interdisciplinary PhD (Civil Engineering / Political Economics) and has worked on a broad spectrum of renewable energy-related assignments in Africa, Asia, the Caribbean and Europe with a special focus on mini hydro. She has broad experience in project design, planning, management, implementation, monitoring and evaluation, participatory development concepts and impact analyses.

**Stefan Diener** joined Skat in November 2012 as Water and Environmental Sanitation Specialist. His professional background is in Biology (MSc, ETH Zurich) and Environmental Sciences (PhD, ETH Zurich) with several years of experience as project manager, researcher and consultant in the field of solid waste management and environmental sanitation in low and middle-income countries. He has worked and lived in India and Costa Rica and has been involved in projects in Senegal, Ghana, Uganda and Indonesia. His specialization includes grey water management, faecal sludge value chains and bioconversion of organic waste. Critical review and writing of reports, project proposals and scientific publications belong also to his core competencies and he is an interdisciplinary and intercultural team player. He was involved in teaching activities at ETH Zurich and Lausanne and has (co-)supervised several MSc and PhD students in Switzerland, Senegal, Uganda and Costa Rica.

With 22 collaborators, approximately 16 full-time positions were staffed. The envisaged growth of the staffing level will gradually be realised over the next years.



# Skat Staff 2012

## Staff and Functions

	Name	Function
<b>Management:</b>		
1	Juerg Christen (100%)	Managing Director, Specialist, Water and Environmental Sanitation, Governance
<b>Professional Staff:</b>		
2	Anne Sophie Aublet (40%)	Specialist, Water and Environmental Sanitation
3	Martin Boelli (80%)	Renewable Energy and Energy Efficiency Specialist (from January)
4	Bertha Camacho (70%)	Specialist, Knowledge Management
5	Kerstin Danert (100%)	Specialist, Water Supply, Quality Management
6	Stefan Diener (100%)	Water and Environmental Sanitation Specialist (from November)
7	Hedi Feibel (60%)	Renewable Energy and Water Expert (from March)
8	Sean Furey (100%)	Specialist, Water and Environmental Sanitation
9	Urs Hagnauer (100%)	Operational Director of the SDC AGUASAN Programmes
10	Jonathan Hecke (100%)	Team Leader, ApaSan Project Moldova
11	Florian Klingel (100%)	Specialist, Water and Environmental Sanitation
12	Martin Laeng (100%)	Specialist, Communication, Desktop Publishing, ICT
13	André Olschewski (100%)	Specialist, Water and Environmental Sanitation
14	Roger Schmid (100%)	Specialist, Water and Environmental Sanitation, Mobility/Transport
15	Claudia Schneider (80%)	Specialist, Sustainable Building and Settlement Development (until December)
16	Daniel Schwitter (90%)	Specialist, Sustainable Building and Settlement Development
17	Rod Stickland (66%)	Team Leader, RRRSDP, Nepal
18	Karl Wehrle (60%)	Specialist, Water and Environmental Sanitation
19	Daniel Wyss (100%)	Specialist, Sustainable Building and Settlement Development
<b>Support Staff:</b>		
20	Laura Neuweiler (100%)	Office Manager
21	Norolalao Robson (40%)	Assistance
22	Violeta Zivanovic (100%)	Commercial Apprentice

## Clients and Geographical Experience

In 2012, Skat carried out about 60 assignments for the following clients:

- bilateral development agencies from Austria, Germany, the Netherlands, Norway, Sweden, Switzerland, and the United Kingdom
- multilateral agencies including the Asian Development Bank, the World Bank, IFAD, UNEP, UNICEF, UNDP, WFP, WHO and European Union
- non-governmental organisations such as Practical Action, Swiss Red Cross, Caritas, HELVETAS Swiss Intercooperation, HEKS, Swiss Solidarity, ICRC, and IFRC, and many NGOs abroad

Skat staff have experience in numerous countries throughout the world:

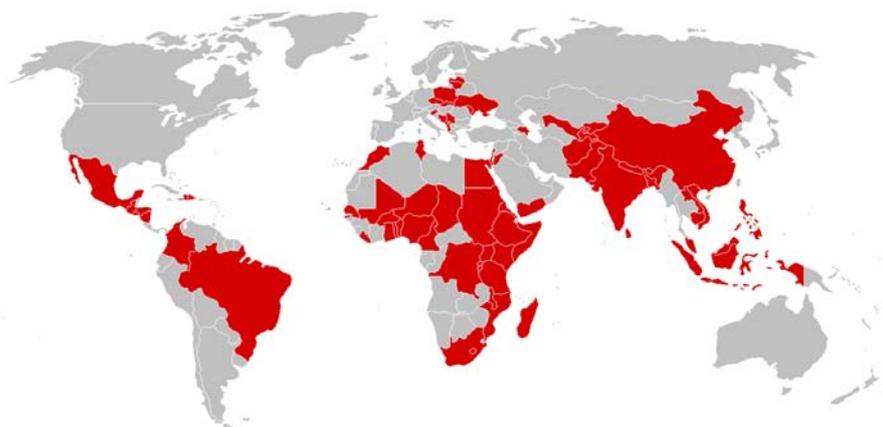
**Africa:** Benin, Burkina Faso, Burundi, Cameroon, Cap Verde, Chad, DR Congo, Eritrea, Ethiopia, Ghana, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Morocco, Mozambique, Niger, Nigeria, Rwanda, Senegal, Somalia, South Africa, Sudan, Tanzania, Tunisia, Togo and Uganda

**Asia:** Afghanistan, Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Laos, Malaysia, Nepal, Pakistan, Philippines, Sri Lanka and Vietnam

**Latin America and the Caribbean:** Brazil, Dominica, El Salvador, Colombia, Guatemala, Haiti, Honduras, Mexico, Nicaragua

**Eastern Europe and CIS:** Albania, Azerbaijan, Bosnia and Herzegovina, Czech Republic, Kosovo, Kyrgyzstan, Latvia, Lithuania, Moldova, Montenegro, Poland, Serbia, Slovakia, Slovenia, Tajikistan, Ukraine and Uzbekistan

**Middle East:** Egypt, Jordan, Lebanon, Palestinian Territories and Yemen



## Partners

In 2012, Skat further expanded its partnerships with national and international organisations. A number of close partnerships exist with associated consultants and other Swiss NGOs such as Swisscontact, Caritas, the Swiss Red Cross, HELVETAS Swiss Intercooperation and HEKS, but also with various organisations internationally,

such as Netwas in Kenya, CREPA in Burkina Faso, Development Alternatives in India and AproCon in Nepal, to mention but a few. These partnerships have greatly enhanced our understanding of local contexts and therefore further improved the quality of our work in 2012, too.

## Financial Report

### Profit and Loss Account / Balance Sheet 2012

As reflected in the tables below, the 2012 accounts closed with a profit of CHF 153,000. With this result, the positive trend of the previous years

continued. Altogether, again about 2/3 of the overall capacity of Skat collaborators could be sold. Due to new project activities, the balance sheet total has increased whilst shareholders' funds remained stable.

### Profit & Loss Account from 1.1.2012 – 31.12.2012

Description	(CHF) 2012	(CHF) 2011	(CHF) 2010
Consulting revenue	7,115,351	7,344,335	8,349,955
Skat Project Fund	140,300	35,994	13,682
Other revenue	3,935	3,259	1,680
Reductions of revenue	16,972	-21,931	-41,306
<b>Operating revenue</b>	<b>7,276,558</b>	<b>7,361,658</b>	<b>8,324,011</b>
Materials	-9,322	-10,900	-26,535
Other chargeable costs	-19,050	-21,562	-30,531
Consultants	-922,839	-856,561	-904,374
Direct project costs	-3,001,165	-3,480,528	-4,068,515
Travel- und working costs	-251,767	-186,456	-248,749
<b>Total Materials/Costs third parties</b>	<b>-4,204,142</b>	<b>-4,556,008</b>	<b>-5,278,704</b>
<b>Profit contribution 1</b>	<b>3,072,415</b>	<b>2,805,650</b>	<b>3,045,306</b>
Salaries	-2,060,914	-1,973,261	-2,016,772
Other personnel costs	-417,007	-405,637	-456,927
<b>Total personnel costs</b>	<b>-2,477,921</b>	<b>-2,378,898</b>	<b>-2,473,699</b>
<b>Profit contribution 2</b>	<b>594,494</b>	<b>426,752</b>	<b>571,607</b>
Office rent	-68,689	-68,990	-68,439
Maintenance and repairs	-15,750	-9,527	-10,877
Energy costs	-3,224	-2,628	-2,514
Office and administration costs	-201,369	-159,830	-178,190
Advertising and PR	-13,306	-13,058	-19,647
Other operating expenses	-3,293	-3,235	-2,434
<b>Total administration expenses</b>	<b>-305,632</b>	<b>-257,267</b>	<b>-282,100</b>
<b>Profit contribution 3</b>	<b>288,863</b>	<b>169,485</b>	<b>289,507</b>
Interest income	3,443	1,744	562
Interest expenses and bank charges	-2,212	-1,529	-1,916
Exchange gain/loss	1,055	-8,046	-23,044
<b>Financial income/expenses</b>	<b>2,287</b>	<b>-7,831</b>	<b>-24,398</b>
<b>Profit contribution 4</b>	<b>291,149</b>	<b>161,654</b>	<b>265,109</b>
Depreciation	-16,459	-15,824	-19,463
Extraordinary income/expenses	808	2,837	6,231
Allocation /reversal of accruals	-90,335	-22,940	-66,025
Taxes	-31,995	-21,215	-31,363
<b>Operating profit</b>	<b>153,169</b>	<b>104,513</b>	<b>154,489</b>

## Balance Sheet as of 31.12.2012

Description	(CHF) 2012	(CHF) 2011	(CHF) 2010
<b>Assets</b>			
Cash and bank accounts	6,383,400	3,168,735	3,781,895
Securities	-	1	1
Accounts receivable	1,481,641	1,447,450	933,350
Work in progress	2,645,000	1,490,000	2,846,000
Accrued income/deferred charges	-	454	13,595
<b>Total current assets</b>	<b>10,510,041</b>	<b>6,106,640</b>	<b>7,574,841</b>
Securities	20,000	20,000	20,000
Tangible assets	29,302	27,932	32,502
<b>Total fixed assets</b>	<b>49,302</b>	<b>47,932</b>	<b>52,502</b>
<b>Total assets</b>	<b>10,559,343</b>	<b>6,154,572</b>	<b>7,627,343</b>
<b>Liabilities</b>			
Accounts payable	229,785	172,027	333,985
Prepayments	8,471,796	4,226,240	5,560,822
Deferred income/accrued charges	314,344	258,951	286,640
General accruals	541,404	488,509	431,563
<b>Total liabilities</b>	<b>9,557,328</b>	<b>5,145,727</b>	<b>6,613,011</b>
Share capital	200,000	200,000	200,000
Compulsory reserve	70,000	67,000	56,000
Complimentary reserve	500,000	500,000	500,000
Profit brought forward	78,845	137,333	103,843
Years profit	153,169	104,513	154,489
<b>Total shareholders, funds</b>	<b>1,002,014</b>	<b>1,008,845</b>	<b>1,014,333</b>
<b>Total liabilities</b>	<b>10,559,343</b>	<b>6,154,572</b>	<b>7,627,343</b>

## Budget 2013

On the basis of ongoing and planned projects, with an assumed capacity of 20.5 full-time positions, it is estimated that approximately 160 person months will be sold in 2013. Contracts or firm commitments already exist for more than 85% of the expected turnover.

With the current staffing situation in 2013, the operating revenue will increase substantially compared to the previous year thanks to relatively big implementation projects. This statement is also based on the assumption that, again, about 67% of the productive hours can be sold. This estimate translates into an operating profit of about CHF 170,000.

# Report of the External Auditor



## REPORT OF THE STATUTORY AUDITORS ON THE LIMITED STATUTORY EXAMINATION

To the general assembly of  
skat\_consulting AG, St. Gallen

As elected statutory auditors, we have examined the financial statements (balance sheet, income statement and notes) of skat\_consulting AG for the year ended on 31<sup>st</sup> of December 2012.

The financial statements are the responsibility of the board of directors. Our responsibility is to verify these financial statements. We confirm that we meet the legal requirements concerning professional qualification and independence.

Our examination was conducted in accordance with the Swiss Standard on the limited statutory examination. This standard requires planning and performing the examination in order to detect material misstatements in the financial statements. A limited statutory examination mainly consists of inquiries of personnel, analytical procedures and detail examination on test basis of documents available within the company. On the other hand, examination of operational sequences and internal controls as well as inquiries and other procedures to detect fraud are not included in this examination.

During our examination, nothing came to our attention that causes us to believe that the financial statements and the proposed appropriation of available earnings do not comply with Swiss law and the company's articles of incorporation.

Kern Treuhand AG

  
Roland Scheibler  
Executive Auditor

March 6, 2013

Enclosures:

- Financial Statements (balance sheet, income statement and notes)
- Proposal on the allocation of profits

# Management Bodies

## Management Board

- Karl Wehrle, Skat Consulting, St.Gallen, (President)
- Esther Oettli, Beringen (Vice President)
- Walter Kraehenbuehl, Weinfeld
- Kaspar Grossenbacher, Helvetas, Zuerich
- Roger Schmid, Skat Consulting, St.Gallen
- Juerg Christen, Skat Consulting, St.Gallen

## External Auditor (Accounts)

- Kern Treuhand AG, Wangen

## Executive Management

- Juerg Christen, Managing Director

**skat**\_foundation

## **Annual Report 2012**

The Skat Foundation publishes a separate annual report.

If you don't find a copy here, please order one per email: [publications@skat.ch](mailto:publications@skat.ch)

## Contact

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## Imprint

Skat Annual Report 2012  
Layout and photographs: Skat  
St.Gallen, May 2013