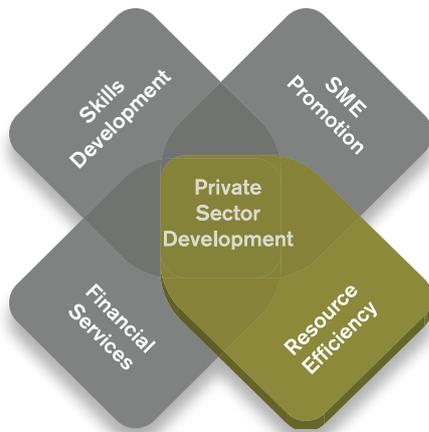




swisscontact

Resource efficiency

Increasing prosperity through efficient use of natural resources



Swisscontact promotes economic, social and ecological development by successfully integrating people into local commercial life. Swisscontact creates opportunities for people to improve their living conditions as a result of their own efforts.

The presence of a developmentally capable private sector is central to sustainable economic development. Through its projects, Swisscontact promotes the creation of functional market structures and establishment of appropriate framework conditions, thereby improving the competitiveness of local businesses. In this way, disadvantaged populations can be integrated productively into the economy and increase household incomes through employment and small business formation.

Swisscontact concentrates on four core areas of private sector development:

- Skills development: enabling access to the labour market and creating the conditions for gaining an occupation and earning an income.
- SME Promotion: promoting local entrepreneurship with the goal of strengthening its competitiveness.
- Financial Services: achieving financial inclusion by creating access to local financial service providers who offer credit, savings, leasing and insurance products.

- Resource Efficiency: promoting the efficient use of resources through production methods that are efficient in their use of energy and materials, and through taking measures to promote clean air and sustainable waste management practices.

As an expert organisation, Swisscontact carries out high-quality project work. The cost-effectiveness and efficiency of its services is proven by well-documented, transparent monitoring and quantification procedures. Recurring internal and external checks provide proof of continued, sustainable development of expertise, skills and practical know-how.

Swisscontact was established in 1959 as an independent organisation by prominent individuals from the worlds of commerce and science in Switzerland. It is exclusively involved in international cooperation and since 1961 has carried out its own and mandated projects. Since it was founded, Swisscontact has maintained close ties with the private sector. In 2013, Swisscontact was active in 27 countries with a workforce of over 800 people. The organisation is based in Zurich.

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Our use of natural resources – today and tomorrow



Resource efficiency

A rubbish dump in Dar es Salaam, Tanzania

In the last 100 years the world's population has increased by nearly five times, reaching seven billion people in 2012. This figure is predicted to reach as many as nine billion by 2050, presenting humanity with enormous challenges and requiring a rethink of how we use our natural resources.

Ever higher quantities of food, training, jobs, and infrastructure for roads, hospitals, schools, and homes are needed. Thus, the requirements for natural resources such as oil, wood, gas, and coal, as well as for potable water, arable land, or clean air, are increasing in tandem.

Increasing population pressures are exacerbating problems associated with urban growth and rural flight. Already today more than 50% of humanity lives in urban centres considered to be engines of growth and development. And here sustainable urban development becomes ever more important, as in the cities, where poverty, pollution, and violence also tend to concentrate.

The excessive consumption of natural resources to meet ever-growing needs of the world's population not only endangers the environment but, at the same time, also increasingly destroys our own livelihoods – through erosion, forest depletion, desertification, ground, water, and air pollution, as well as climate change from greenhouse gas emissions.

If natural resources continue to be consumed at the present rate and humankind is unable to use these finite commodities more efficiently and sustainably, the resulting shortages will create significant social, economic and political pressures worldwide.

So it is also no surprise that the concept of “resource efficiency” has gained traction in recent years. Swisscontact promotes efficient consumption of resources through energy- and material-efficient production methods as well as action to curb air pollution and support sustainable wastewater and rubbish management. By promoting sustainable and transparent resource management, people in developing and emerging economies not only have the opportunity to develop and implement sustainable development practices, but also incorporate them into their business activities. By creating jobs, people are integrated into the local economy, enabling broad segments of society to build resource-friendly prosperity.

Sustainable development – much more than just environmental protection

Energy and resource efficiency today are important drivers of innovation. Higher resource efficiency is a decisive cost and competitiveness factor. At the same time, it also contributes to long-term safeguarding of local natural raw materials, when, for example imported materials can remain in a country's economic circulation longer thanks to appropriate recycling activities.

Since the beginning of the 1990s Swisscontact has initiated and successfully carried out many projects dedicated to economically sustainable, resource-friendly, and socially beneficial economic development. At Swisscontact we are convinced that close collaboration with the private sector in these processes is important for attaining sustainable income generation and prosperity for broad segments of the population through resource-friendly approaches. Including the public sector is also important in order to create the incentives, legal framework and the important control mechanisms for its implementation.

Swisscontact's fields of activity in resource efficiency





Composting market scraps in Santa Cruz, Bolivia

Efficient use of resources – a holistic process approach

System actors are enabled through targeted skills and technology transfer to carry out adapted interventions in the interest of systemic change. Swisscontact's holistic approach in resource efficiency includes five areas of intervention:



Areas	Activities	Results
Situational analyses	<ul style="list-style-type: none"> Identify the potential for increasing energy and resource efficiency Workshops with potential project partners Feasibility studies 	<ul style="list-style-type: none"> More comprehensive understanding of the local situation Intervention strategies and concepts Decision-making basis for further action
Awareness building and environmental education	<ul style="list-style-type: none"> Creation of materials for education and the broader population Implementation of popular campaigns Organisation of technical seminars Management training 	<ul style="list-style-type: none"> Awareness of the subject of resource efficiency increased in the general population as well as in private and public entities Active support to project activities and desired systemic change in policy and society
Capacity building and institutional strengthening	<ul style="list-style-type: none"> Technical consulting Technical training Strengthening dialog and coordination between different actors and civil society 	<ul style="list-style-type: none"> Control mechanisms strengthened Creation of new capacities and skills in the public and private sectors Creation and extension of institutional structures
Technology promotion and knowledge exchange	<ul style="list-style-type: none"> Assistance with technical studies Skills training and transfer of technologies and processes Development of adequate products and services 	<ul style="list-style-type: none"> Existing systems optimised Improved efficiency and thus competitiveness as well Generation of local knowledge and promotion of self-sufficiency New business models in the area of resource efficiency
Legal frameworks	<ul style="list-style-type: none"> Consulting state authorities for political objectives Technical support in creating laws, regulations, and technical standards 	<ul style="list-style-type: none"> Suitable legal framework with clear rules for all Minimum requirements for production and services Certification standards Resource efficiency broadly established

Deal locally – strive for broader effects

Technology and knowledge transfer play an important role in tackling global environmental problems. Thus, capacity building in a particular country is improved and, through coordinated knowledge management, new and safe technical and organisational solutions are implemented.

Swisscontact supports its partners in using resources properly, efficiently, and sustainably. This is done with the objective of creating structures that enable and foster sustainable development. At the point of intersection between environmental and developmental themes, Swisscontact applies the following criteria to its approach: all interventions achieve a broad, large-scale effect, skills are developed, and

innovative interventions can be turned into competitive advantages while active inclusion of the private sector (closely coordinating with the public authorities) remains at the forefront.

This is how Swisscontact integrates local interventions and action into national development plans. Equally important are the strengthening of civil society organisations and awareness building in the general population. Through this process, primary environmental concerns are established firmly in the local context, as it is important that solution implementation, in addition to being globally relevant, be adapted to local needs in a participatory fashion.





Air pollution prevention – refreshing the quality of life



Sensitisation campaign for children in La Paz, Bolivia

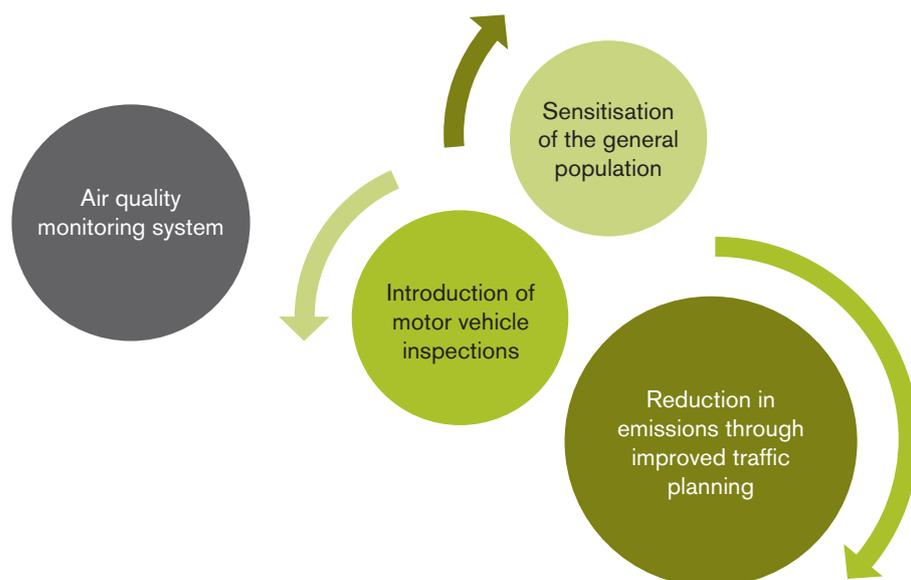
Around 10 million people live in Bolivia. 90% of air pollution in urban centres is attributed to vehicle traffic. The “Aire Limpio” (“Clean Air”) project has been fighting this environmental issue since 2003 on various levels.

In taking action, Swisscontact typically informs politicians, media, and the general public of the reasons why reducing air pollution is necessary. Project staff members support the relevant state authorities and public institutions to create and implement strategies and guidelines for air pollution control. Local universities conduct studies on the consequences for health and economy of air pollution and assess alternatives (e.g. converting to low-emission gas engines).

Swisscontact emphasises the importance of generating concepts of urban mobility for private and public transportation as well as technical consulting to state authorities in planning and improving urban transit systems.

The project has improved air quality in Bolivia’s four largest cities – La Paz, El Alto, Cochabamba, and Santa Cruz – as well as in the department capitals of Oruro, Sucre, Potosi, Trinidad, and Tarija, thereby rendering these urban areas more liveable.

Air pollution prevention, urban transportation and public transport – a Swisscontact intervention model





Drinking water kiosk in Achocalla, Bolivia



Waste water treatment and drinking water supply – improved hygiene

The population of communities around the periphery of large cities is growing at a dizzying rate. Water sources are rare and the water that is available gets transported to these areas through mains, thanks to the downhill gradient. Intensive agriculture and animal husbandry, in addition to the lack of sewer systems for waste water, result in the water not being potable, which contributes to the high rates of gastrointestinal infections in the general population.

Drinking and waste water projects demonstrate solutions that improve water quality and thus hygiene conditions in the populace. To this end, local businesses receive support to be able to offer technical and organisational solutions to households at affordable prices. For example, water filters are manufactured out of local clay-based materials. Access to clean drinking water is ensured through indigenous water kiosk owners organised into cooperatives. The goal of this intervention is to implement the successful measures in other regional communities as well.

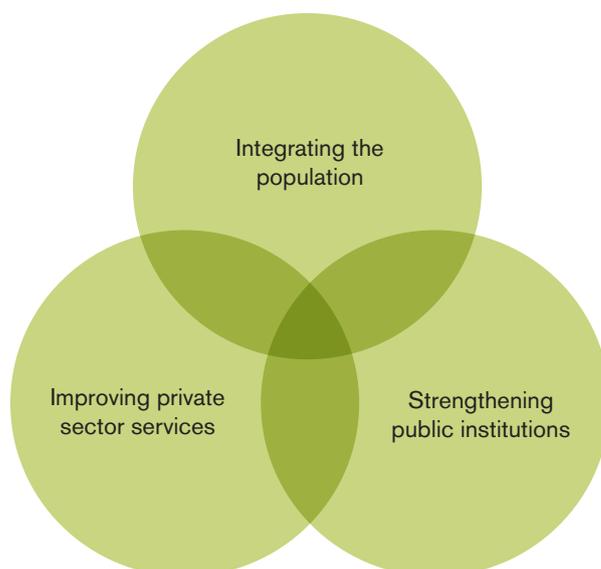


Waste management – creating jobs with eco-communities

Every day Bolivia produces around 4,000 tonnes of solid waste, 87% of which is in urban areas. This is one of the main problems in growing urban centres, because there are no efficient collection systems, nor is there appropriate final treatment or disposal, which results in massive environmental pollution and hygiene problems. With the “Ecovecindarios” (“Eco-communities”) project broadly supported by the general population, together with the state authorities, new jobs are created in the sectors of waste management, recycling, and environmental services. This systemic change helps minimise the risks to health as well as reduce environmental pollution and greenhouse emissions. By recovering raw materials the project contributes to the efficient use of natural resources.

Swisscontact offers technical support to community administrators and urban populations in creating community-based collection systems for recyclable waste. Commodities such as paper, carton, plastic, or metals are collected, sorted, and sold to recycling companies. In this way the market for recycling materials can grow, while at the same time the costs associated with waste removal decrease. And the men and women collecting the waste earn a job and steady income, in addition to higher social status.

Swisscontact's integrated waste management approach





Renewable energies – exploiting locational advantages

Multiple industry branches, such as tourism, for example, consume an enormous amount of energy and suffer from the costs. Electricity is produced mostly through diesel generators.

The goal is not only to decrease dependency on oil as the main source of energy, thereby reducing CO₂ emissions, but also to promote a sustainable, efficient, and diversified energy mix. The favourable climactic conditions in southern countries provide the basis for promoting technologies that exploit solar energy, such as introducing solar power systems for heating water.

Together with local project partners, vocational training institutions and national energy entities, Swisscontact facilitates sustainable and long-term skills transfer. Here our activities focus on the provision of training, consulting, and marketing support to companies as well as promotion of legal frameworks in the energy and raw materials sectors. Publications, training materials, and seminars support and sensitise the companies in responsible energy use.



Installing solar panels in a hotel, Dominican Republic



Efficient production – for a better environment and quality of life

Greenhouse gas emissions throughout the developing world, are, in part, attributable to the widespread use of outdated kilns used in the traditional brickmaking industry.

Therefore, the goal of one of Swisscontact's largest climate protection projects has been to introduce efficient brickmaking kilns in seven Latin American countries through the "Energy Efficiency of artisanal brick units to mitigate climate change" (EELA) initiative. Following a successful pilot project in Cuzco the new and more efficient kilns were introduced in hundreds of communities through Central and South America. The UN Framework Convention on Climate Change recognized the EELA project at its 2012 Doha Meeting.

Reduced deforestation, less air pollution, improved technologies, and higher quality of life for brick-makers are additional benefits from this project.

The introduction of energy-efficient measures, such as installing vents in traditional brick-making kilns and converting from traditional to more efficient kilns are components of this climate protection project. The new technologies result in fuel savings (especially in wood) and emission reductions of up to 50%, equal to about 80,000 tonnes of saved CO₂, or the emissions from around 33,000 cars per year!



Traditional brickmaking in Cuenca, Ecuador



Training construction workers in Bogotá, Colombia



Sustainable, safe building and living

Slum dwellers often live in unsafe and barely isolated homes. The lack of training possibilities in the informal construction sector has negative consequences on the quality of the buildings: many homes are improvised, offer insufficient protection from earthquakes and the elements, and cause considerable health problems to the people living in them.

Swisscontact improves the possibilities for training in the construction sector. Methods that offer better safeguards against earthquakes and are healthier and more sustainable for inhabitants are identified, tested, and integrated into the training curricula of construction workers. Sustainable development of the informal construction sector in marginalised urban communities is promoted through the creation of appropriate conditions and mobilisation of target groups. This reduces the pressure on the environment produced by the construction sector, improving the quality of life for people living in these communities, and offers disadvantaged populations access to a recognised training program in the construction sector.



Energy-efficient brickmaking in Jeffreys Bay, South Africa

Project overview

Air pollution control	Results
Clean Air Bolivia, 2003–2013	<p>The overarching goal of Swisscontact's air pollution control projects is to protect the health of the populace and environment from air pollution caused primarily by vehicle emissions. The projects help key stakeholders to develop and implement measures for reducing the risks associated with air pollution from vehicle traffic, within the scope of comprehensive clean air policy.</p> <ul style="list-style-type: none"> ▪ Air quality monitoring systems enable readings on air quality and offer prognoses for future developments ▪ Promotion of measures such as the introduction of lead-free petrol, higher quality fuel, improved emissions standards, and technical vehicle inspections ▪ Filter systems in the energy and industrial sectors ▪ Introduction of energy-efficient and low-emission vehicles, especially in public transportation ▪ Sustainable urban development through reductions in traffic and therefore planning in urban, settlement, and traffic; optimisation of traffic planning and infrastructure for public transit systems ▪ Strengthened abilities and capacities of environmental authorities ▪ Awareness of environmental policy in the general population
Clean Air Peru, 2003–2009	
Clean Air Vietnam, 2004–2008	
Clean Air Indonesia, 1997–2006	
Clean Air Costa Rica, 2002–2005	
Clean Air Central America Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama, 1993–2003	
Clean Air Lima-Callao, Peru 2000–2001	

Industry and production	Results
<p>Energy efficiency in brick production (EELA) Peru, Bolivia, Ecuador, Colombia, Argentina, Brazil, Mexico, 2010–2016</p>	<p>Reduced pressure on the environment from industrial production, improved competitiveness of firms, jobs saved and new jobs created.</p> <ul style="list-style-type: none"> ▪ Material and energy savings ▪ Introduction of new technologies and environmentally-friendly raw materials ▪ Integrated production methods implemented ▪ Support in modifying projects ▪ Optimised process controls ▪ Development and implementation of efficiency and environmental standards ▪ Implementation of energy-saving measures ▪ Evaluation and development of company-internal recycling ▪ Access to scientific and technical information ▪ Support to public and private service providers in expanding their consulting and training products
<p>Vertical shaft brick kilns (VSBK) South Africa, 2009–2013</p>	
<p>Reduction in ozone-depleting coolants Bolivia, 1999–2008</p>	
<p>Emissions from stationary sources Costa Rica, El Salvador, 2003–2007</p>	
<p>Environmentally-friendly cooling appliances HIDECOR India, 2001–2004</p>	
<p>Reduction in ozone-depleting coolants Costa Rica, 1993–1998</p>	

Waste and recycling	Results
Eco-communities Bolivia, 2009–2016	Health and environmental protection, income generation and job creation, effective and sustainable use of resources, reduction in greenhouse gases.
Small enterprises for waste management Bolivia, 2011–2014	<ul style="list-style-type: none"> ▪ Exchange fostered between scientific institutions and local actors
Biogas Cochabamba Bolivia, 2012–2013	<ul style="list-style-type: none"> ▪ Support in integrating environmental aspects into local development planning and defining environmental indicators, norms, and standards
Waste management for hospitals Peru, 2009–2012	<ul style="list-style-type: none"> ▪ Creation and development of capacities of local civil society organisations ▪ Awareness building and safeguarding broad participation of the general population, especially women
PET recycling Guatemala, 2008–2009	<ul style="list-style-type: none"> ▪ Promotion and development of integrated waste management systems
PET recycling Costa Rica, El Salvador, Bolivia 2006–2008	<ul style="list-style-type: none"> ▪ Planning and guiding the construction and operation of recycling and waste facilities
Waste management in the healthcare sector Bolivia, 2001–2008	<ul style="list-style-type: none"> ▪ Optimised waste collection: logistics, handling, and storage ▪ Regulated, environmentally-friendly disposal and recycling
Reduction in industrial waste Ecuador, 1997–2008	<ul style="list-style-type: none"> ▪ Maximum use of recycling potential
Waste oil recycling Costa Rica, 1994–1995	<ul style="list-style-type: none"> ▪ Fostering the local recycling sector as a formal economic branch ▪ Production of compost and biogas from organic waste

Various projects	Results
Construya – Sustainable and safe construction and living Colombia, 2010–2014	<ul style="list-style-type: none"> ▪ Improved quality of life thanks to energy efficiency and earthquake safety in urban housing ▪ Improved hygiene through treatment of drinking water and simple water filters for rural households ▪ Integration of energy-saving and environmentally-friendly technologies, especially for heating water ▪ Fostering a sustainable, efficient, and diversified energy mix ▪ Reduction in the dependence on fossil fuels ▪ Climate protection thanks to reduced CO₂ emissions
Clean water for Achocalla Bolivia, 2011–2013	
Energy efficiency in the tourism sector Dominican Republic, 2010–2012	
Solar Costa Rica, El Salvador, 1993–2001	



PET transport in Cochabamba, Bolivia



Doing the right thing together

Swisscontact is the ideal partner for companies seeking to invest in the productive capacity or access markets in developing countries. With a longstanding commitment to private sector and market-led development, Swisscontact's track record in the various target countries is based upon a keen understanding of regional business interests, strong local networks and alignment with the development goals of international cooperation.

These synergies from business and international cooperation provide leveraging opportunities and create dynamic options for collaboration. Private sector partnership commitment concentrates on

joint projects that serve entrepreneurial objectives related to development policy. Consequently there are benefits for all involved, with a positive spin-off, in particular, for local people – whether in vocational training, the efficient use of resources, the strengthening of local SMEs or in the financial services sector.

We welcome you to join us in developing and emerging markets. By working together we can achieve sustainable progress for local people while simultaneously creating new opportunities for your company.



Collecting PET bottles in the city of Quillacollo, Bolivia

Benefits for the economy

Companies can trade and invest responsibly by developing and implementing production and value creation processes sustainably, fairly and in accordance with standards and general international conditions. Strategic partnerships between commercial enterprises and international cooperation and development agencies strengthen the private sector and support the growth of new markets globally.

Companies are offered opportunities not only to invest in the economic development of the global South, but also to promote broad-based growth over and above their primary business goals.

Swisscontact offers internationally-active companies, especially in Switzerland, but also throughout Europe, Asia and the Americas, the opportunity for mutual investment with a skilled partner. Swisscontact has been working as an expert organisation in a multitude of business sectors in developing countries around the world for over 50 years.

We Create Opportunities

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Cover picture: panorama of the city of La Paz as seen from the Southern District (Bolivia)

Photos: Swisscontact staff

Layout: Pierre Smith Creative, South Africa

Swiss NPO code: The structure and management of Swisscontact conforms to the Corporate Governance Regulations for Non-Profit Organisations in Switzerland (Swiss NPO-Code) issued by the presidents of large relief organisations. An audit conducted on behalf of this organisation showed that the principles of the Swiss NPO-Code are adhered to.

ZEWO seal of quality: Swisscontact was awarded the Seal of Approval from ZEWO. It is awarded to non-profit organisations for the conscientious handling of money entrusted to them, proves appropriate, economical and effective allocation of donations and stands for transparent and trustworthy organisations with functioning control structures that uphold ethics in the procurement of funds and communication. Swisscontact is regularly audited on the adherence to these criteria. (Source: ZEWO)

Société Générale de Surveillance (SGS): Swisscontact has been awarded the Certificate of the International Inspection Agency Société Générale de Surveillance (SGS) within the NGO Benchmarking Programme.

December 2013

