Natural resources in Switzerland

environment

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Environmental policy

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Non-governmental organisations (NGOs) also constitute important stakeholders in international environmental policy: green activists from around the world assemble in front of the conference building during the Bali Climate Conference in December 2007.

Swiss Federal Councillor Moritz Leuenberger at the UNO World Climate Conference in Poznan, Poland (2008): "All countries should adopt binding commitments. In the longer term, I believe it would be fair for every citizen of the world to have a personal CO_2 budget: a limited amount of CO_2 which he or she has the right to emit."
Adrian Aeschlimann, FOEN

We are each other's keepers

Most environmental problems don't stop at national borders: the waters leaving Switzerland flow through large parts of Europe and into three different seas. Mercury released from coal-fired power stations is transported over thousands of kilometres and has even been detected in the polar ice caps. Greenhouse gases emitted by industry and traffic are warming the climate worldwide.

This is why Switzerland has been working for decades to further international environmental policy. The climate negotiations scheduled at the end of this year in Copenhagen will represent a milestone in these efforts towards a better environment. At the same time, with its high level of per capita emissions of CO_2, Switzerland is contributing disproportionately to the rapid pace of glob al warming. We ought to be aware that this will lead to an increase in natural disasters not only in this country but also worldwide. Although climate change has mainly been caused by the developed countries of the North, the poorer countries of the South will be much more seriously affected by it. In Africa and Asia, there is a risk of entire regions becoming uninhabitable as a result of droughts or massive floods.

We all have a responsibility to our fellow human beings. The fate of the poorest regions – and also that of our own country – concerns all of us, and we have a duty to join forces with every other country to tackle the climate issue. Under the Kyoto Protocol, important initial steps have been taken to reduce emissions of greenhouse gases. But these agreements will soon expire.

In December, at the UN Climate Change Conference in Copenhagen, the international community will be endeavouring to agree on new, more effective action for the post-2012 period. Switzerland will do its utmost to ensure that climate change can be limited, and that measures for mitigation and adaptation to the impacts of higher temperatures can be funded – for example, via a polluter-pays system which places the greatest burden on major CO_2 emitters. We will once again put forward this idea and explore it in depth with other countries, so that not just the affluent, but all countries are able to protect themselves effectively against climate change. This is a responsibility that we all share.

Federal Councillor Moritz Leuenberger

www.environment-switzerland.ch/mag2009-4-1

Plenary session during the Climate Conference held in Nusa Dua, Bali, in December 2007: how can a finite planet fulfil the growing needs of humanity? For each natural resource, we have to define the maximum permissible level of consumption and agree on its fair distribution.

Keystone/AP, Dita Alangkara

Rules for a finite planet

In a world where the natural resource base is being increasingly depleted, prosperity, justice, democracy and peace cannot be maintained over the long term. The international community needs to develop rules to govern the use, conservation and distribution of limited natural resources.

As every reference book points out, Switzerland is a country almost devoid of raw materials, with no oil or minerals deposits, let alone gold mines. What a country lacks has to be imported from abroad, and anyone who is dependent on others needs to cultivate good relations. Not surprisingly, foreign policy was one of the first tasks facing the young Swiss nation.

But while Switzerland is in many respects resource-poor, it is rich in capital, know-how, and social and political institutions; not least, it has an abundance of certain extremely valuable natural resources – water, attractive landscapes, quality of life.

A country endowed with these riches still has every reason to have a high regard for foreign relations. After all, the environment is no respecter of national borders: climate is a global phenomenon, pollutants are transported by wind, water and in products, while animals and plants spread throughout the world. The technologies humans use to modify their environment are likewise not limited by national boundaries, and the products of these technologies travel around the globe.

Awareness of constraints. In 1972, the publication of a report by the Club of Rome entitled "The Limits to Growth" launched a global debate on the finiteness of natural resources. At that time, discussions were still very ideological, and there was a lack of technical knowledge. However, the core issue has remained unchanged: How can a finite planet satisfy the constantly growing needs of humankind?

The Earth's limits are clearly demonstrated by global warming: the ability of the atmosphere to absorb carbon dioxide and other greenhouse gases is exhausted, and we pay for every

tonne emitted with, among others, a rise in sea levels, an increased risk of natural hazards and a greater likelihood of certain diseases spreading.

The limits to growth are also obvious in our own country, where over 7 million inhabitants – with a wide variety of needs – share an area of just over 40,000 km^2 and face constraints whenever new developments are planned. This is hardly surprising: in the 15th century, the territory of what is now Switzerland was home to about a seventh of today's population.

More people, higher consumption. The limits encountered by humankind are thus due to two factors – expanding populations and ever increasing consumer demands. This is true both in the affluent North and – even more so – in the rapidly industrialising countries of the South, such as China, India, Brazil or South Africa.

Although Switzerland's contribution to global population growth in the 21st century is negligible, levels of consumption are considerable. Our country's ecological footprint – consumption of natural resources in relation to available biological capacity of the earth – is nearly two and a half times greater than is sustainable. On a per capita basis, resource consumption in Switzerland is two to ten times higher than in African countries.

Rules for greater justice. This consumption of energy and goods is neither sustainable nor just. It means that the satisfaction of basic human rights is not assured either for our own or for future generations. Without sufficient resources, no production or other economic activity is possible, and there is no real prospect of alleviating poverty. As is apparent from conflicts over access to water in the Middle East, even peaceful coexistence may be jeopardised as a result.

The international community must therefore develop universally acceptable rules governing the use, conservation and distribution of limited natural resources. The initial aim should be to define the maximum permissible level of consumption for each natural resource. Only then can questions of access and distribution be meaningfully discussed.

Limiting consumption. It will not be easy to determine which institutions can settle these questions reliably and equitably, and how to ensure implementation by individual countries.

However, as a technologically advanced and prosperous nation, Switzerland is well placed to propose pioneering solutions – and to lead by example. As a small country, closely involved in the network of international resource use, we have a duty – and indeed a vocation – to play an active part in elaborating the rules that are needed.

Bruno Oberle,
Director of the Federal Office for the Environment (FOEN)

www.environment-switzerland.ch/mag2009-4-2

Our ecological footprint is nearly two and a half times greater than is sustainable.

The Palace of Nations: many important UN institutions have their headquarters in Geneva.
Keystone/Caro Oberhaeuser

An active, reliable and constructive partner

Switzerland's international environmental policy can be characterised as a pro-active, ambitious but solution-oriented engagement. Strengthening international environmental governance, climate change, biodiversity, and chemicals and waste management are the main priorities.

Switzerland's international environmental policy has benefited for more than a decade from a solid national environmental policy and broad public support. Opinion polls regularly identify environmental concerns among the top ten long term priorities of the Swiss population, and the protection of the natural resource base is one of the five priorities of Switzerland's foreign policy. This supportive environment and the efficient administrative organisation with a clearly identified lead agency for environmental policy, the Federal Office for the Environment (FOEN), have helped Switzerland play an active and effective role in international environmental policymaking. According to a study of the effectiveness of Switzerland's environmental foreign policy commissioned by FOEN in 2007, Switzerland's strong standing in international environmental policy is remarkable for a small nation.

Building on the recognition that environmental policy is (natural) resource policy and that resource policy is economic and social policy, Switzerland has reinforced its economic and cross-sectoral approach and its efforts to mainstream environmental issues into economic policy instruments. At the same time it has maintained ambitious and pro-active positions in core international environmental negotiations over the last years. However, while remaining a leader at the international level, Switzerland is no more the leader in environmental policy at the national level in several areas, as other European countries have adopted similar or even more stringent environmental protection measures.

Strengthening the international environmental regime. Today's global environmental regime is characterised by a fragmentation of institutions and processes, the dilution of the competence and authority of environmental institutions, an imbalance between the environmental regime and other regimes, a lack of institutional leadership within the international environment regime, an inefficient use of limited resources, and a lack of political will and commitment. Strengthening the international environmental regime through increasing coherence, comprehensiveness, efficiency and effectiveness is an overarching objective of Switzerland's international environmental policy. This is why it made proposals how to further strengthen synergies within the international chemicals and waste cluster and launched the idea of developing a list of Global Environmental Goals (see page 21, "Strong institutions and clear goals").

Comprehensiveness, efficiency and effectiveness is an overarching objective of Switzerland's international environmental policy.

Financing the environment. For Switzerland, providing adequate financial and technical support to developing countries and countries with economies in transition for the implementation of environmental policies is a key element of international environmental governance. While traditional development cooperation should support environmental policies that are in the self-interest of recipient countries, the Global

Swiss environmental policy institutions

The **Federal Office for the Environment (FOEN)** *is the federal government's centre of environmental expertise and is part of the* **Federal Department of the Environment, Transport, Energy and Communications (DETEC).** *Head of the DETEC is Federal Councillor Moritz Leuenberger.*

The FOEN is responsible for the long-term preservation and sustainable utilisation of natural resources such as soil, water, forests, air and biological diversity, for the protection of human beings from natural hazards such as avalanches, flooding and earthquakes, and for protection against excessive pollution by noise, harmful organisms and substances, non-ionising radiation and wastes.

Environmental policy, as implemented by the FOEN, is concerned with four main areas: security, health, natural diversity and means of production.

The FOEN is also the lead agency for Switzerland's international environmental policy. The **International Affairs Division** *of the FOEN is responsible for coordinating, preparing and guiding the international environmental negotiations. Therefore, it cooperates closely with the technical divisions inside FOEN and the other relevant ministries and agencies such as the Swiss Agency for Development and Cooperation (SDC), the State Secretariat for Economic Affairs (SECO), the Federal Office of Public Health (FOPH), the Federal Office for Agriculture (FOAG), the Swiss Federal Office of Energy (SFOE) and the Federal Department for Foreign Affairs (FDFA).*

The division comprises three sections. The **Global Affairs Section** *is responsible for the environmental policy within the UN system for the sustainable development and for the thematic areas chemicals, waste, forests and water. Regional, European and bilateral matters and economic, trade and development issues are handled by the* **Europe, Trade and Cooperation on Development Section**. *The* **Rio Conventions Section** *deals with the UN Conventions on Climate Change and Biodiversity. The Division is currently led by the Swiss Ambassador for the environment, Thomas Kolly.*

Franz Perrez, head of the Global Affairs Section at the FOEN (front), and Thomas Knecht (back) from the Private Sector Development Section of the State Secretariat for Economic Affairs (SECO) at a preparatory session for the World Summit on Sustainable Development (WSSD) in Johannesburg, 2002. *FOEN*

Environment Facility (GEF) should cover the incremental costs of activities that provide for global environmental benefits. Switzerland supports the further strengthening of the GEF as the central international environmental financial mechanism (see page 38, "Green funding").

Trade and environment. Switzerland promotes the clarification of the relationship between the trade and environment regimes according to the principles of no hierarchy, mutual supportiveness and deference. As to facilitating market access of environmental goods and services within the WTO Doha negotiations, Switzerland stresses the necessity of also using production and process methods as criteria for judging whether a specific product could be privileged as an "environmental good" (see page 39, "From Marrakesh to Doha – via Johannesburg").

Climate change. Switzerland advocates a climate protection regime that includes commitments by all main emitters. It similarly advocates the idea of developing the concept of sectoral approaches. Such a concept could lead to the reduction of emissions in such areas as the cement, steel or aluminium industries on a global level. Finally, it proposes a global carbon tax to finance climate change adaptation measures.

In the climate change process, Switzerland has established and is chairing the "Environmental Integrity Group" (Mexico, Republic of Korea, Liechtenstein, Monaco and Switzerland). This group has played a crucial role in promoting concrete proposals during the ongoing negotiations.

At the national level, Switzerland has introduced a CO_2 levy on heating fuels and a "climate change cent" on motor fuels and regulated the use of the flexibility mechanisms provided for by the Kyoto Protocol.

Biodiversity. The main priorities of Switzerland's engagement concern access and benefit sharing, forest biodiversity, agricultural biodiversity, as well as the emerging issue of biofuels and biodiversity. Switzerland implemented pioneering regulations that promote the use of biofuels which have been produced in a sustainable manner and which respect certain ecological criteria. For this, Switzerland set out clear sustainability criteria requiring that biofuels must generate at least 40 per cent less greenhouse gas emissions than fossil fuels over their entire lifecycle. Moreover, feedstock cultivation for biofuels must not jeopardise biodiversity and rain forests, and core labour standards enshrined in the Interna-

tional Labour Organization (ILO) conventions must be respected in the production process.

Chemicals and waste management. Switzerland promotes the better coordination, cooperation and integration and the better use of synergies within the international chemicals and waste cluster. Together with Indonesia, Switzerland has initiated a "Country-led Initiative" to develop in an informal, open-minded, dynamic, and non-dogmatic manner proposals in view of ensuring that transboundary movements of hazardous wastes do not result in their unsound management (see page 17, "Mediation in a political stalemate"). Switzerland supports the combination of legally binding and voluntary approaches. It has thus initiated and led the Basel Convention Mobile Phone Partnership Initiative (MPPI) on the management of used and end-of-life telephones. This public-private partnership involves mobile phone manufacturers, telecom operators, countries, recycling and refurbishment industry, environment NGOs and industry associations.

Switzerland supports a dynamic further development of the international chemicals regime. Thus, all substances that have been recommended by the Chemicals Review Committee for inclusion in the annex of the Rotterdam Convention on the Prior Informed Consent Procedure (PIC) should be listed in that convention. Switzerland is deeply concerned about the impossibility to reach consensus on the listing of endosulfan and chrysotil asbestos, as this is clearly contrary to the objectives and purpose of the Convention. Together with Norway, Switzerland has achieved that UNEP launch negotiations for a new convention on mercury and other substances of global concern (see page 30, "Persistence makes a breakthrough possible"). At the last meeting of the International Conference on Chemicals Management in May 2009, Switzerland successfully championed the adoption of a decision to address nanotechnology and manufactured nanomaterials.

Forests and water management. Switzerland continues to share its specific experience and the lessons learnt concerning forest governance and decentralisation. Together with other like-minded countries it pursues the idea of an international legally binding forest instrument (see page 35, "What Switzerland and Indonesia have in common"). It also promotes the integrated water resources management, including through the introduction of payments for ecosystem services schemes (see page 32, "The value of clean water").

Franz Perrez

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The challenges of Copenhagen

To combat climate change, there is a need for concerted action by all the major emitting countries. The UN Climate Change Convention is therefore to be further developed at the Copenhagen Conference from 7 to 18 December 2009. Solutions are to be sought for adaptation and for the reduction of global greenhouse gas emissions.

For decades, developed countries in particular have been releasing vast quantities of CO_2 and other greenhouse gases into the atmosphere, causing global warming. Humanity now faces one of its most significant challenges: it must adapt to the warming that is now inevitable and at the same time dramatically reduce emissions of heat-trapping gases.

To this end, the United Nations Framework Convention on Climate Change (UNFCCC) was adopted at Rio in 1992. Under the 1997 Kyoto Protocol, developed countries committed themselves to cutting their greenhouse gas emissions, with only the US remaining outside this framework. As the Protocol expires at the end of 2012 and the Climate Change Convention needs to be adapted to the latest developments, the signatories to both agreements are to meet in Copenhagen in December 2009.

"Bali Roadmap". The Copenhagen Conference marks the conclusion of a series of negotiations launched in Bali in 2007 – the so-called Bali Roadmap. This process comprises two negotiating tracks:

- The first, known as the Bali Action Plan, brings together all the parties to the UNFCCC – i.e. almost every country in the world. The Action Plan is concerned with emission reductions and adaptation to the impacts of climate change, together with the financial and technological resources that are required in both of these areas.

- The second track involves only those countries that have ratified the Kyoto Protocol. The goal is to set national reduction targets for greenhouse gas emissions in the period beyond 2012.

Switzerland proposes to commit itself to reducing emissions to at least 20% below 1990 levels by 2020. The EU appears to be prepared to accept commitments along similar lines.

Cutting emissions. As regards greenhouse gas emissions, the challenge is twofold – firstly, getting the US to accept substantial reduction commitments and, secondly, convincing major emitters among the developing countries (e.g. China, India and Brazil) that they also need to control increases in their emissions or even reduce them.

Bringing the US and developing countries on board. The US are likely to join in efforts to cut emissions, without, however, ratifying the Kyoto Protocol. For this reason, at Copenhagen, a new instrument is to be negotiated (and ideally adopted), which is open to all countries that wish to participate in reduction efforts in accordance with their possibilities.

At present, developing countries are not bound by any reduction commitments, although their emissions are growing rapidly. Collectively, these countries' emissions are already higher than those of all developed countries. While certain developing countries are implementing numerous reduction measures on a voluntary basis, they are not yet prepared to undertake commitments at the international level.

In a coalition recently established with South Korea and Mexico – the Environmental Integrity Group – Switzerland is seeking to persuade these two partners to accept commitments of this kind. As with other developing countries, their hesitation can be put down to two main factors: on the one hand, they accord top priority to socioeco

nomic development, and on the other, as a prerequisite, they expect greater efforts on the part of developed countries. Accordingly, the latter need to forge ahead with ambitious reduction goals, pointing the way towards a low-emission future. If developing countries are also to take this path, however, they will need support from the North – e.g. in the form of reduced barriers to imports of green technologies, or assistance in combating deforestation.

Adapting to the impacts of climate change. Climate change is already producing appreciable impacts to which societies will need to adapt. This is particularly challenging for developing countries, as they are exposed to increased risks, and their capacity to cope with these risks is limited. For these countries, which are already struggling to alleviate poverty, adaptation imposes an additional burden.

Here, too, therefore, they expect developed countries to offer financial and technological assistance. Within what framework should this be provided? This is the key question that needs to be answered in Copenhagen. Switzerland argues that national action plans for adapting to the consequences of climate change should be integrated into development strategies. Developed countries will need to make additional funding available so that development cooperation and humanitarian aid can support the implementation of national action plans. To this end, Switzerland has proposed the introduction of a global levy on CO_2 emissions. In Copenhagen, the parties will need to adopt a financing architecture that addresses the challenges of both adaptation and reducing emissions.

Success factors. The differences of opinion between developed and developing countries are numerous and in many cases profound. If the negotiations in Copenhagen are to be successful, mutual understanding and trust will be required. The aim is to raise the dozens of billions of dollars in funding that will be needed each year to mitigate climate change, while distributing the financial burden equitably. This will entail the participation of the private sector as well as the state.

Ultimately, in the face of climate change, only one development model is viable for every country around the world – that of sustainability. The 2009 financial crisis offers all nations an opportunity to restructure their economies along more sustainable lines.

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The CO_2 levy in Switzerland

tx. *The CO_2 Act, which came into force in 2000, is designed to bring about a 10% reduction in carbon dioxide emissions by 2010, compared with 1990 levels. Among the targets specified are a 15% cut in emissions from heating fuels and 8% from motor fuels. The Act provides for the introduction of a CO_2 levy if voluntary measures prove inadequate. A levy has been charged on heating fuels since 1 January 2008, and it is to be increased from CHF 12 to CHF 36 per tonne of CO_2 as of 1 January 2010.*

Although the country still has a long way to go to achieve its reduction target, the introduction of a levy on motor fuels has so far failed to gain majority support in Parliament. However, a "climate cent" is levied on petrol and diesel imports at a rate of 1.5 centimes per litre. The revenues are used to finance emission-cutting projects abroad and – to a lesser extent – in Switzerland.

The new commitments undertaken by Switzerland under the Kyoto Protocol for the post-2012 period will necessitate a revision of the CO_2 Act.

Switzerland's key positions on climate change

- *Switzerland supports a comprehensive and effective climate change regime that includes commitments to limit emissions by all major emitters.*
- *Switzerland is ready to commit itself to reducing its emissions to at least 20 per cent below 1990 levels by 2020. If other industrialised countries commit themselves to comparable efforts and emerging countries also share in the common endeavour to stabilise and reduce GHG emissions, Switzerland will strive towards a reduction of 30 per cent.*
- *To be successful, the future climate-change regime will need to provide adequate financial support for both mitigation and adaptation measures implemented by developing countries and countries with economies in transition. Switzerland therefore proposes that:*

– *mitigation measures be financed to a large extent by private actors, with public funds playing an important role in creating an enabling environment for these investments;*

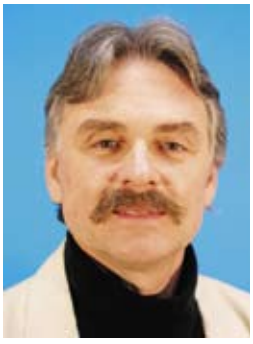
– *new and additional public resources be generated to finance adaptation measures (for example with a global CO_2 levy), supplementing the public development assistance already provided.*

Reducing our dependence on fossil fuels: considered on a long-term basis, the potential of renewable energies is high. Switzerland has introduced a surcharge of 0.45 cents per kilowatt hour to fund the production of electricity from renewable sources: photovoltaic panels on the roof of the exhibition centre in Basel.

Keystone/Branko de Lang

“Our goal is still a long way off”

Robert Lamb works for the Rio Conventions Section of the FOEN, focusing on the preservation and sustainable use of biological diversity. environment spoke to him about the achievements of global biodiversity policy – and about the obstacles it faces. What goals is Switzerland pursuing in this area, and how is it contributing?



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environment: You represent Switzerland on a number of official bodies in the international biodiversity field, don't you?

Robert Lamb: Yes, they're mainly organs of the UN Convention on Biological Diversity – specifically, the Conference of the Parties and various working groups. Together with a delegate from an EU country, I was appointed to serve until 2010 as a representative of the Western European and Others Group (EU and non-EU OECD members) in the COP Bureau. The Bureau advises the CBD Secretariat on political matters in the course of preparations for COP meetings. The next meeting is to be held in Nagoya (Japan) in October 2010.

In addition, I serve as president of the Bureau of the Pan-European Biological and Landscape Diversity Strategy. This is the only platform for the exchange of information and coordination at the European level in this area.

To what extent have the goals of the Biodiversity Convention been achieved?

The goal defined at the World Summit on Sustainable Development (WSSD) in Johannesburg in 2002 was to halt the loss of biodiversity by 2010. We're still a long way away from that. The proportion of known species that have become extinct over the past century is estimated to be more than 100 times higher than the natural rate of extinction, determined on the basis of the fossil record. According to the Red List of the International Union for Conservation of Nature and Natural Resources (IUCN), nearly a quarter of mammal species, nearly a third of amphibian species and 12% of bird species are globally threatened. In Switzerland, too, at least 40% of all animal species are considered to be at risk.

In Nagoya next year, the international community will have to assess the situation and take on more extensive political and financial commitments in support of biodiversity. We need to develop strategic planning and encourage countries to adopt more concrete measures on various levels.

How would you explain these difficulties?

The problem with the Biodiversity Convention is that it contains few binding requirements and gives the parties a lot of latitude in exercising their rights and fulfilling their obligations. Still, countries that have ratified the Convention are required to report on the status of biological diversity and the steps taken to ensure that it is conserved and used sustainably, and to develop a national biodiversity strategy. They also have to establish a system for monitoring biodiversity, as has been done in this country with “Biodiversity Monitoring Switzerland”.

But the difficulties in implementing the Convention are also due to the fact that it concerns a wide variety of economic activities – ranging from agriculture and forestry, through spatial

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Ecological compensation areas are a means for agriculture to promote biodiversity in cultivated areas. Farmers receive direct payments for this service. The photo shows an extensive meadow blooming with meadow sage, field scabious and oxeye daisies.
Markus Jenny

planning, water management and biosafety, to trade in genetic resources.

Another problem is that there is no readily detectable indicator for biological diversity as there is for the climate, with CO_2 emissions. Biodiversity is much more multifaceted and complex, encompassing the totality of biological resources and their habitats.

In what areas has progress been made?

Well, thanks to the Convention, a political dialogue and international cooperation has been initiated. The Convention has also stimulated numerous activities in areas relevant to biodiversity in all the countries concerned – including Switzerland.

Our country made a decisive contribution to the successful conclusion of the Cartagena Protocol. This Protocol, which was negotiated within the framework of the Biodiversity Convention, regulates the exchange of information for the approval of imports and exports of genetically modified organisms.

We are also actively involved in the areas of access to genetic resources and sharing of the benefits arising from their use. Switzerland played a key role in the formulation of the Bonn Guidelines, which were adopted by the parties to the Convention in 2006. These offer recommendations on good practice in this area. These provisions will have to be further elaborated in Nagoya. We need to have an international regime that secures access to genetic resources and at the same time ensures that the countries which make these resources available, particularly developing countries, receive an equitable share of the benefits.

How can downward trends in biodiversity be reversed?

Tangible progress will only be possible if all stakeholders can be persuaded to intensify their efforts. Commitment is required at every level. Biodiversity concerns need to be integrated into the various sectoral policies – tourism, transport, raw materials, forests, construction, fisheries, seabeds, spatial planning. The economic value of biological diversity needs to be quantified so that a sound case can be made for its preservation. In Switzerland, hopes are being pinned on the national biodiversity strategy which is currently being prepared. This is to be presented to Parliament in 2011.

In addition, it would be extremely useful if policymakers had the benefit of an international scientific framework. Just as the Intergovernmental Panel on Climate Change is consulted on questions of climate mitigation, an Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) would bring together all the information on biodiversity which at present is only available in a fragmented form, and establish a scientific consensus to serve as a basis for decision-making.

Interview: Cornélia Mühlberger de Preux

www.environment-switzerland.ch/mag2009-4-5

"Tangible progress will only be possible if all stakeholders can be persuaded to intensify their efforts. Commitment is required at every level." Robert Lamb

Switzerland's key positions on biodiversity

- *Switzerland supports a further strengthening of the regime established by the Biodiversity Convention.*
- *Switzerland supports the establishment of an Intergovernmental Panel on Biodiversity and Ecosystem Services as an independent authority providing the scientific basis for the future policy on the protection and sustainable use of biodiversity.*
- *A fair and effective regime on access and benefit sharing should be established, building on the experience and lessons learnt from the utilisation of the Bonn Guidelines.*

Mediation in a political stalemate

The international community is at odds over how transboundary movements of hazardous waste should be regulated. Switzerland wishes to find a way of resolving the conflict in a constructive and forward-looking way. To this end, it has joined forces with Indonesia.

In 1976, the Italian town of Seveso was the scene of a disastrous chemical accident. Dioxins were released from a factory owned by ICMESA – a subsidiary of the Swiss company Hoffmann-La Roche – causing poisoning and environmental contamination. After the site had been cleaned up, 41 barrels of toxic waste were entrusted to a disposal company. Shortly afterwards, the hazardous waste disappeared – the chemical company had been tricked. Eight months later, the barrels were rediscovered in a shed in northern France, and in 1985 they were finally safely disposed of in a special waste incinerator in Switzerland.

Dumped in Africa. But this was not the only toxic waste scandal to occur in that period. No less scandalous and dangerous to health and the environment was the then-widespread practice of illegally dumping hazardous waste on beaches in Africa. According to a study carried out by the Swiss environmental expert Katharina Kummer Peiry – now Executive Secretary of the Basel Convention (see Box: Basel Convention) – the disposal of a tonne of toxic waste in 1988 cost between USD 2.5 and 50 in developing countries and between USD 100 and 2000 in OECD countries.

This disparity and the resultant environmental problems were the starting point for the development of the Basel Convention, an international agreement to control movements of hazardous wastes. For some countries, however, the controls did not go far enough. At their instigation, the Ban Amendment, prohibiting exports of hazardous wastes from developed countries to non-OECD countries, was added to the Convention in 1995. The proponents of the ban argued that developing countries and countries with economies in transition lacked the necessary expertise, supervisory capacity and treatment facilities to ensure environmentally sound disposal of hazardous wastes.

Non-binding ban. However, the Ban Amendment has one major deficiency: it has not yet come into force due to the insufficient number of ratifications by Parties to the Basel Convention. To date, it has been ratified by most OECD countries – including the EU and Switzerland, which already apply the export ban – but only by 32 non-OECD countries.

As a result of disagreements over the Ban Amendment, negotiations under the Basel Convention have been polarised for many years, and several projects have stalled. The opposing positions appear to be irreconcilable: one group wishes to impose an absolute ban on exports of hazardous wastes from OECD to non-OECD countries in accordance with the Ban Amendment, while the other group calls for greater flexibility and would permit exports under certain conditions.

"The situation is completely deadlocked," says Gabriela Eigenmann of the FOEN Global Affairs Section. "So we decided to try and revive the negotiation process." In order to mediate between the opposing positions, Switzerland and Indonesia launched a country-led initiative (CLI). This duo has gained the support of 25 other countries for the idea of developing a new attitude to the underlying problem. As Gabriela Eigenmann

"We see our role as that of a bridge-builder." Gabriela Eigenmann

Basel Convention

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was adopted in 1989 and now has 170 parties. The Convention regulates transboundary movements of hazardous wastes, aiming to ensure that they are minimised and safely recycled or disposed of. Movements of toxic waste across international frontiers are only permitted if the exporting country, any transit countries and the importing country have given their written consent and it is demonstrated that the waste will be recycled or disposed of in an environmentally sound manner in the destination country.

explains, "We see our role as that of a bridge-builder and driving force for a new approach."

Sought-after materials and source of income. The situation is complex. On the one hand, many developing countries and countries with economies in transition essentially support the Ban Amendment and wish to implement it for certain types of waste, such as used oil, scrap tyres or medical wastes. On the other hand, developing countries wish to permit imports of certain categories of waste – even if it is contaminated – that is in demand as a raw material and represents an important source of income for them. An UNCTAD study cites the case of a Philippine smelter that recycles lead-acid batteries and accounts for 80% of the country's recycled lead. If the plant was required to do without imports of raw materials from developed countries, it would be forced to close down.

In addition, the situation has changed since 1995. Two thirds of all imports and exports of hazardous wastes now take place between non-OECD countries. The Ban Amendment is not applicable in such cases, but the transboundary movements regulations of the Basel Convention do apply. Switzerland therefore calls for a stricter implementation of the foreseen control measures. As Gabriela Eigenmann says, "An agreement only makes sense if it is actually implemented. Voluntary agreements on the part of certain countries are not enough to protect people and the environment from toxic waste that is not appropriately disposed of."

Searching for compromise solutions. It will not, however, be easy to find compromises that satisfy the supporters and the opponents of the Ban Amendment. It is clear that the Basel Convention is not to be undermined, but strengthened. The aim must be to ensure, for all countries worldwide, that waste is only treated in facilities that are in line with the current state of the art and guarantee environmentally sound recycling or disposal. Summing up, Marco Buletti, the waste expert responsible for the Basel Convention in the FOEN Consumer Goods and Life Cycle Assessment Section, says: "What we need are internationally binding standards, independent certification of treatment facilities and reliable controls in the countries concerned."

There is no doubt that placing the hazardous-waste trade on a broader international legal basis, adapted to current realities, represents a major challenge for Switzerland. But the initial results of the first meeting of this initiative chaired by Franz Perrez, head of the FOEN Global Affairs Section, and Emma Rachmawaty, Assistant Deputy Minister responsible for management of hazardous substances and wastes in the Indonesian Environment Ministry, are encouraging. At the first informal meeting of the CLI in June 2009, the mood was forward-looking. Gabriela Eigenmann says: "The members of the group were speaking in their personal capacity as waste management specialists, so it was possible to enumerate the problems that countries are now confronted with. The fact that this topic could be discussed in an informal setting, free of rigid dogmas, was a novelty and marks the first step towards the development of a solution."

Kaspar Meuli

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Switzerland's key positions on the Basel Convention

- *Switzerland, together with Hungary, was one of the initiators of the Basel Convention, and continues to be a strong supporter both of its substance and present implementation, and of its future reinforcement.*
- *Efforts towards ensuring the sound management of materials throughout their lifecycle should be pursued and intensified.*
- *An appropriate mechanism must be developed to make sure that no hazardous wastes are exported to countries that cannot guarantee their sound disposal. Switzerland has always followed the policy of not exporting hazardous wastes to non-OECD countries.*
- *Finally, the partnership approach developed by the Basel Convention should be continued. Switzerland has taken the lead in the development and implementation of the Basel Convention Mobile Phone Partnership Initiative, and is similarly committed to engage in other partnership initiatives, on computing equipment and other e-wastes.*

Recovering copper from toxic computer waste: in Guiyu, China, migrant workers sort the copper out from electronic waste after it has been incinerated on site, releasing poisonous fumes, including dioxins, in the process.

Basel Action Network (BAN) 2008

Headquarters of the UN Environmental Programme (UNEP) in Nairobi. UNEP is the only UN entity that has its seat in a developing country.
UNEP

Strong institutions and clear goals

Several hundred multilateral agreements and international organisations are dedicated to the protection of the environment – but degradation of the global environment continues. This is due partly to a lack of political will, but also to institutional shortcomings within the environmental governance system. What can be done to make the machinery more effective and efficient?

In 1794, the United Kingdom signed the Jay Treaty with its former colony, the United States of America, thereby resolving a number of issues left over from the American War of Independence. One issue of concern was the Great Lakes that formed the border between the US and Canada, which remained under British rule. Here, rudimentary water protection provisions were introduced. It was the first time that environmental matters had been regulated by an agreement between two nations.

Similar agreements, also concerned with questions of water law, were concluded in the 19th century. In each case, they covered only a limited area and involved only a small number of countries.

Stockholm 1972. This limited approach remained the case until well into the 20th century. However, at this time the global dimension and interdependence of the environmental challenges became increasingly recognised. This awareness was reflected by the UN Conference on the Human Environment held in Stockholm in 1972. That same year, the United Nations Environment Programme (UNEP) was established, with headquarters in Nairobi.

The first global environmental agreements also date back to this period: thus, the Convention on Wetlands of International Importance especially as Waterfowl Habitat was signed in the Iranian city of Ramsar in 1971. And, in recognition of the need for global action to protect the stratospheric ozone layer, the Montreal Protocol, in which it was agreed to phase out the production of ozone-depleting CFCs, was signed in 1987.

Rio 1992. A milestone in the further development of the international environmental regime was the 1992 UN Conference on Environment and Development, held in Rio de Janeiro, where Conventions on Climate Change, Biological Diversity and Desertification were signed and the Commission on Sustainable Development (CSD) was established.

Today, several hundred multilateral environmental agreements (MEAs) exist, as well as other agreements relevant to the environment. In 2001, the total number was reported by UNEP to be 502. They were developed on an ad hoc basis, without reference to other existing agreements and in an uncoordinated manner.

Proliferation of agreements and institutions. Each agreement has its own secretariat, technical working groups and regular sessions of the Conference of the Parties (COP). In addition, numerous other environmental organisations, bodies and programmes have emerged – again, largely in the absence of a coherent strategy.

The result is a system that is bewildering even for specialists. Franz Perrez, head of the Global Affairs Section of the FOEN, says: "Today's envir-

onmental regime has become overcomplicated while at the same time gaps still remain. There is no overall perspective and a lack of a strong authoritative central pillar that could ensure coherence."

The shortcomings of the system can be summarised as follows:

- **The environmental regime is fragmented, with a plethora of agreements and institutions:** This causes unnecessary costs and leads to duplication, contradictions and turf battles. In addition, given the large number of international meetings, effective participation has become almost impossible, particularly for developing countries: in 2006, the three Rio Conventions alone had 230 meeting days.

- **There is a dilution of authority, and many decisions affecting the environment are taken outside of the core environmental regime:** The decisions of the World Trade Organization (WTO), the World Bank or the United Nations Development Programme (UNDP) often have a greater impact on environmental sustainability than decisions taken by many bodies within the core environmental governance system.

- **There is an imbalance between the environmental regime and other international regimes:** The environmental regime establishes typically weaker and less precise obligations than, for example, the international trade regime established by the WTO, and effective dispute settlement or compliance procedures are missing. Moreover, UNEP lacks the resources that are available to the World Bank or the UNDP, and it has not succeeded in establishing itself as the central forum for decision-making processes in the environmental field.

- **There is no authoritative institution capable of providing environmental leadership:** While UNEP does excellent work in monitoring and assessment, and in developing environmental agreements, it is not in a position to manage policy processes in a coherent and coordinated manner. Its authority is weakened by the fact that it has only limited formal membership as its Governing Council has a rotating membership of 58 countries elected by the General Assembly. Its human and financial resources are also limited.

- **The resources available for environmental protection are inadequate:** There is generally inadequate financial and technical support for the implementation of effective environmental policies. Moreover, resources are often inefficiently managed as a result of duplication and a lack of synergies within the environmental governance system.

- **There is a lack of political will:** Despite universal and repeated expressions of general commitments to environmental protection and the principle of sustainability, policymakers and society still lack a willingness to set the priorities accordingly and to take concrete action. Agreements are often not ratified or inadequately implemented. This problem cannot be eliminated by reforming the environmental governance system alone. Nevertheless, a strong and effective system of international environmental governance could help to promote the political will for action.

Reform programme. These problems have been recognised, and a number of solutions have been proposed. In 2002, the Global Ministerial Environment Forum (GMEF) in Cartagena (Colombia) adopted a package of measures designed to strengthen international environmental governance, which was endorsed the same year at the World Summit on Sustainable Development (WSSD) in Johannesburg. This included the following measures:

- improving coherence in international environmental policymaking by strengthening UNEP, including by considering universal membership of UNEP's Governing Council;
- securing more financial resources for UNEP;
- improving coordination among and the effectiveness of MEAs;
- supporting technology transfer, capacity building and country-level coordination;
- enhancing coordination across the UN system.

A strong and effective system of international environmental governance could help to promote the political will for action.

Improving environmental governance. The Cartagena decision represented the most substantial reform effort yet undertaken. Switzerland was

Overview of the International Environmental Regime

The United Nations system

UN General Assembly

UN world summits and conferences on environment and sustainable development

- United Nations Conference on the Human Environment Stockholm 1972
- United Nations Conference on Environment and Development UNCED Rio de Janeiro 1992
- World Summit on Sustainable Development WSSD Johannesburg 2002
- Stockholm+40/Rio+20 Conference Rio 2012?

Specialised agencies

- Food and Agriculture Organization of the United Nations FAO
- World Meteorological Organization WMO
- World Health Organization WHO
- United Nations Educational, Scientific and Cultural Organization UNESCO
- World Intellectual Property Organization WIPO
- United Nations Industrial Development Organization UNIDO
- World Bank Group
- International Monetary Fund IMF

UN Economic and Social Council ECOSOC

Functional commissions and other UN bodies

- UN Commission on Sustainable Development CSD
- United Nations Forum on Forests UNFF

Research and training institutes

- UN Institute for Training and Research UNITAR

Programmes and funds

- UN Environment Programme UNEP
- UN Development Programme UNDP
- UN Conference on Trade and Development UNCTAD

International organisations outside the UN system

- Organisation for Economic Co-operation and Development OECD
- Environment Policy Committee EPOC
- World Trade Organization WTO
- Committee on Trade and Environment CTE

Global Environment Facility GEF

Global level

Regional level

Regional players outside the UN system

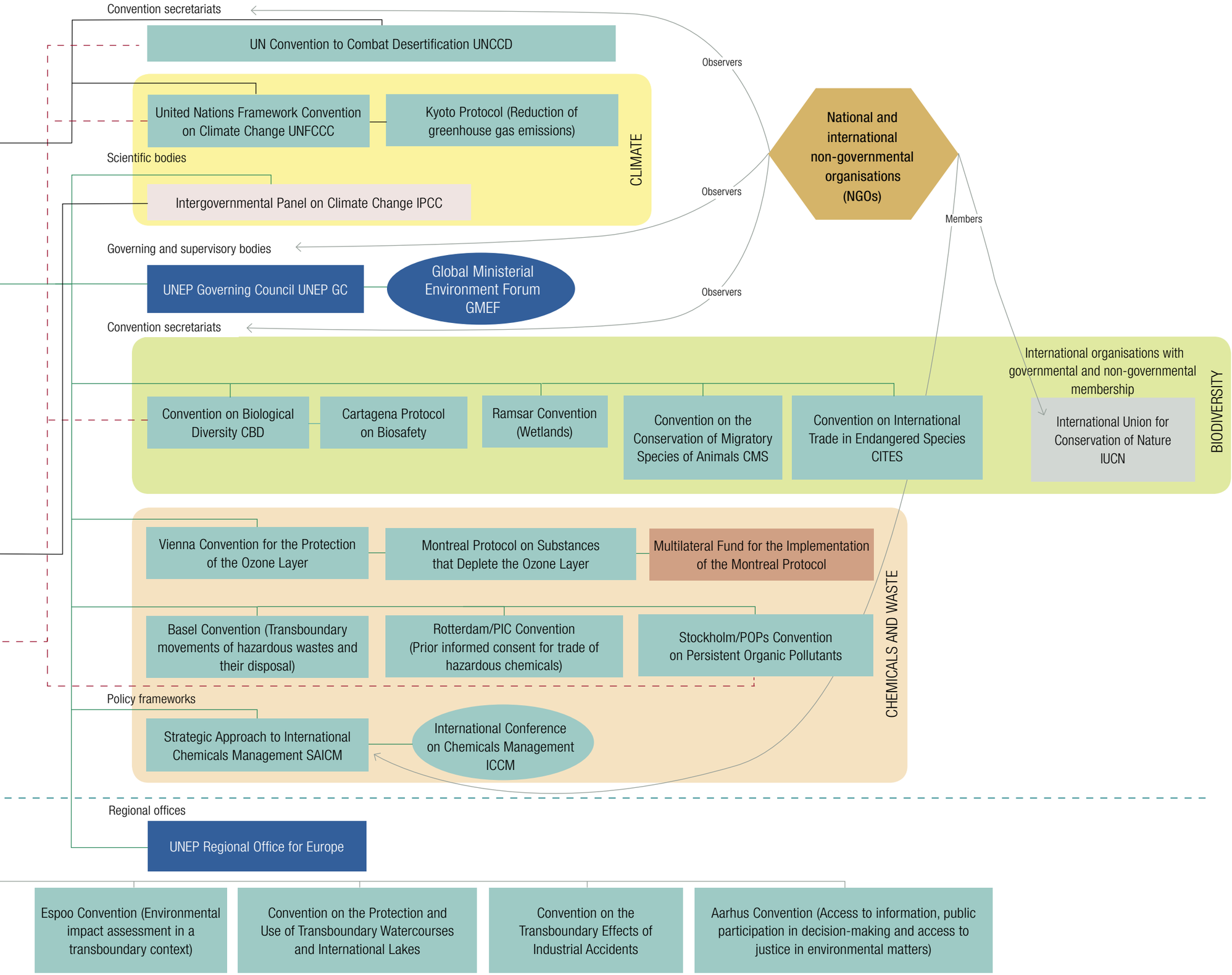
- The European Free Trade Association EFTA
- Council of Europe
- European Union EU
- Convention on the Conservation of European Wildlife and Habitats
- European Environment Agency EEA

Environment for Europe process

Regional economic commissions

- United Nations Economic Commission for Europe UNECE
- Committee on Environmental Policy CEP

Convention on Long-Range Transboundary Air Pollution



Financing of the international environmental regime

Institution	Funds for environmental activities
World Bank Group	5000 mio USD
UNDP	1200 mio USD
GEF	561 mio USD
Multilateral Fund for the Implementation of the Montreal Protocol	150 mio USD
IUCN	94 mio USD
UNEP	85 mio USD
UNFCCC	18.5 mio USD
CBD	13.2 mio USD
CITES	6 mio USD
Vienna Convention (incl. Montreal Protocol)	4.5 mio USD
Basel Convention	4.2 mio USD
PIC Convention	3.7 mio USD
POPs Convention	3.5 mio USD
Ramsar (Wetlands)	2.4 mio USD
CMS	1.5 mio USD

Source: Najam, Adil; Papa, Mihaela; and Taiyab, Nadaa: "Global Environmental Governance: A Reform Agenda„ (IISD, 2006), p. 91.

Important locations and clusters of the international environmental regime (Global level)

Seat	Cluster	Conventions/Institutions
Nairobi	Chemicals and waste	• Vienna Convention (incl. Montreal Protocol)
	Others	• UNEP • GC/GMEF ***
Geneva	Biodiversity	• CITES • IUCN * • Ramsar *
	Chemicals and waste	• Basel Convention • PIC Convention • POPs Convention ** • SAICM
	Climate	• IPCC • WMO
	Others	• ECOSOC *** • UNCTAD • UNITAR • WHO • WIPO • WTO (incl. CTE)
Bonn	Biodiversity	• CMS
	Climate	• UNFCCC (incl. Kyoto Protocol)
	Others	• UNCCD
Montreal	Biodiversity	• CBD (incl. Cartagena Protocol)
	Chemicals and waste	• Multilateral Fund for the Implementation of the Montreal Protocol
New York	Others	• CSD • ECOSOC *** • UNDP • UNFF • UNGA

** Gland is considered part of Geneva. / ** Part of the secretariat is located at the FAO in Rome. / *** Every second year at this venue.*

Swiss Federal Councillor Moritz Leuenberger talks to journalists after the UN Summit on Climate Change, at the United Nations in New York (USA), Tuesday, September 22, 2009.
Keystone/Dominic Favre

the main promoter of the package of measures aimed at promoting coherence and cooperation. It also contributed to various other decisions, especially with regard to the political strengthening of UNEP and the improvement of its financial basis. However, after a promising start, efforts to implement the measures began to founder.

This coincided with an initiative launched by the French President Jacques Chirac at the 2003 UN General Assembly, proposing that UNEP should be expanded to form a World Environment Organisation – along the same lines as the UN organisations concerned with health (WHO) or food and agriculture (FAO). For many countries, this proposal went too far. While Switzerland essentially supports this vision, it has always stressed that the transformation of the Programme into an Organisation would not in itself solve the actual problems.

Enhancing synergies. Bottom-up approaches appear to be more promising. Progress in this respect has been achieved with a successful Swiss initiative to co-locate the secretariats of all the chemicals and waste conventions in Geneva – the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (PIC), the Stockholm Convention on Persistent Organic Pollutants (POPs) and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

Switzerland went on to call for further integration, with the goal of a joint management structure of

Clearly defined goals are a good way of securing greater commitment from the international community.

the three secretariats in the chemicals and waste cluster and enhanced coherence and synergies in decision-making and implementation. These efforts have borne fruit: in 2010, the three conventions will be holding a simultaneous extraordinary Conference of the Parties for the first time, thereby creating a precedent for international environmental governance. Franz Perrez comments: "The chemicals and waste cluster is now regarded as a model for effective, efficient and coherent international environmental policy."

Establishing global goals. To be effective, environmental governance requires more than smoothly running institutions with adequate authority – clearly defined goals are equally indispensable. At the 2006 Global Ministerial Environment Forum in Dubai, the Swiss President and Environment Minister Moritz Leuenberger suggested that global environmental goals should be established, with the Millennium Development Goals (MDGs) serving as a model. These goals are to be achieved by 2015.

Although it is foreseeable that the MDGs will not be achieved within the specified time frame, they have had an impact on development policy. They have focused global attention on the most pressing social problems and helped to prioritise and give a coherent orientation to development efforts.

As Daniel Ziegerer of the FOEN Global Affairs Section emphasises, global environmental goals would not need to be newly defined: "They can be found in the resolutions of environmental conferences held in recent years, or in the articles stating the purpose of multilateral environmental agreements. What's lacking is their crystallisation in a consistent political programme." The general goals of a programme of this kind would need to be pertinent and comprehensible. These goals would be broken down into targets, giving rise to measures and obligations. The targets would require quantifiable indicators for monitoring progress in implementation, and if possible a time frame should also be specified.

Specific targets are also already contained in existing agreements and other commitments – for example, the objectives of halting the loss of biodiversity by 2010, or achieving sound management of chemicals worldwide by 2020.

Daniel Ziegerer comments: "Clearly defined goals are a good way of securing greater commitment from the international community, focusing joint efforts, raising public awareness of the issues, highlighting progress and deficiencies, and also generating new means of implementation. They would help to strengthen the institutions of the global environmental regime and effectively improve governance."

Switzerland's key positions

- *Switzerland supports a comprehensive, coherent, effective and efficient international environmental governance with the following functions:*
  - *providing adequate scientific information;*
  - *providing policy guidance;*
  - *catalysing and supporting implementation.*

This requires:

- *strong institutions, including an authoritative central pillar able to provide overarching policy guidance;*
- *more and stronger institutional and political cooperation, coordination and synergies within the different thematic clusters such as chemicals and waste;*
- *strengthened political and financial support for the further development of the international environmental regime and its implementation;*
- *the formulation of a set of clear goals, targets and indicators to assess progress.*

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Raising the flag for climate protection: the «Alliance for a responsible climate policy» used a gigantic Swiss flag to urge industrialised countries to commit to ambitious reduction targets and to contribute to the costs of climate change in developing countries, as required by the polluter-pays principle.

Keystone/Alessandro della Valle

Persistence makes a breakthrough possible

International environmental negotiations involve hard work: they require lobbying among government agencies and close coordination with like-minded countries. In the case of mercury, Switzerland has successfully initiated and pursued the call for an international legally binding instrument.

In Switzerland, mercury is prohibited with the exception of a few specific applications. However, according to Georg Karlaganis, head of the Substances, Soil, Biotechnology Division of the FOEN, "Trade in electronic devices is so extensive that, despite the cantons' efforts, imports of small amounts of mercury cannot be prevented. It would be much easier and more effective if the use of this substance was regulated not just in our own small country, but globally."

Norway is also concerned about the large quantities of this metal that are released into the environment year after year as a result of industrial processes. Since mercury is almost ubiquitous and accumulates in fish via the food chain, the Norwegians – with annual fish consumption of over 50 kg per capita – are particularly affected by this environmental contaminant.

As non-EU members, Norway and Switzerland have established a close working partnership in the chemicals field.

Partnership with Norway. As non-EU members, Norway and Switzerland have established a close working partnership in the chemicals field. In 2001, the two countries supported within the Governing Council of the United Nations Environment Programme (UNEP) the call for a global assessment of mercury. The assessment not only confirmed the risks posed by mercury but also proved long-range transport by air all over the world. On the basis of these findings, Norway and Switzerland – again within the UNEP Governing Council – first requested in 2003 that negotiations should be commenced on a convention to limit global mercury emissions. As Franz Perrez, head of the Global Affairs Section of the FOEN, recalls, "We were well aware that the proposal for a global mercury convention would not be accepted at the time – but the idea had to be launched at some point."

However, the UNEP GC explicitly acknowledged the global dimensions of the issue, and the need for measures to be taken at the international level. In addition, as a first step, a voluntary action plan was adopted.

An issue that would not go away. Three years later, at the 2006 session of the Intergovernmental Forum on Chemical Safety (IFCS, Forum V), Switzerland once again managed to place the issue on the international agenda. However, as it was not possible to make mercury a main discussion point, Switzerland proposed that it should be dealt with at a side event. While these occasions normally take the form of low-key, often poorly attended, lunchtime discussions, the event organised by Switzerland was a full-day conference on heavy metals, held on the eve of Forum V itself. The substantial investment of human and financial resources paid off: the African group in particular unanimously supported the call for a mercury convention. In addition, the Forum expressly stated that the measures taken so far at the international level to address the risks were inadequate.

Thanks to these efforts, a growing number of countries expressed support for a legally binding agreement. Accordingly, at the 2007 session of the UNEP Governing Council, a working group was established to review the options of a strengthened voluntary approach and a convention.

Convention supporters united. At this delicate stage of the process, there was a risk of a split in the pro-

convention camp: some countries argued that mercury should be regulated via a protocol to the existing Stockholm Convention on Persistent Organic Pollutants (POPs). Other countries, including Switzerland, favoured a new, free-standing agreement, as this would make it also possible, in the medium term, to addess regulations on other toxic heavy metals, such as lead and cadmium.

Once again, negotiating skills were required. Switzerland contacted the main supporters of a convention from every continent in order to develop a common position and approach. Perrez, who led the negotiations, says: "We managed to bring together a balanced and influential group of countries. Our strategy worked."

But that left the five major mining nations – Australia, the US, Canada, India and China – which were still firmly opposed to a convention. Without these countries, there was no prospect of gaining the unanimous approval that was required. One ray of hope was the fact that, in the summer of 2008, then-Senator Barack Obama had introduced a bill to ban exports of mercury. After Obama's election as US President, NGOs brought the international negotiations to the attention of his administration. The winds blowing from Washington then changed dramatically: as late as December 2008, the US delegation in the UNEP Governing Council had rejected the idea of a convention. When the Governing Council met again in February 2009, the US was among the supporters. Canada then also switched camp, and Australia likewise dropped its opposition to a mercury convention.

If at first you don't succeed … India and China still opposed internationally legally binding rules on mercury. A number of pro-convention countries contacted China in an effort to explain the importance of a legally binding approach. Switzerland began this process and, as Perrez comments, "It was worth the effort to travel to China just for the sake of this issue." The Swiss delegation seems to have established a basis for a shift in the Chinese position. At the UNEP GC, India ultimately also accepted the idea of a convention. At the UNEP Governing Council meeting in February 2009, 147 countries and 110 environment ministers agreed that negotiations on a convention on mercury should be commenced. The first round of discussions will be held in the autumn of 2010. In 2013, a treaty could be officially adopted. There are plans for the convention to be signed at Minamata – the Japanese coastal town where, in the 1950s, 3000 people died of mercury poisoning after eating contaminated fish.

Pieter Poldervaart

www.environment-switzerland.ch/mag2009-4-7

Coal: a major source of mercury emissions

pp. *Mercury – the only heavy metal that is liquid at room temperature – is highly toxic to humans and animals if it is inhaled or ingested. Worldwide, 2000 tonnes of mercury enter the environment every year from anthropogenic sources. Of this total, 45% come from the burning of coal, and a quarter from gold mining, with artisanal miners accounting for a large proportion. Other sources of mercury emissions are metal processing, the cement industry and waste incineration. In Switzerland, the most important products containing mercury, such as compact fluorescent lamps, batteries and dental amalgam fillings, are recycled as far as possible.*

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Switzerland's key positions on international chemicals and waste policy

- *Switzerland supports a comprehensive international chemicals and waste regime that effectively addresses all chemicals of global concern.*
- *Switzerland supports a combination of voluntary and legally binding approaches: voluntary measures such as public-private partnerships are most effective if embedded in and supported by a legally binding framework.*
- *Switzerland supports an international chemicals and waste regime that ensures, on the one side, a balance between clear commitments with regard to chemicals management and financial and technical support and, on the other, effective mechanisms to overview and support compliance.*
- *Switzerland supports the further strengthening of coherence, coordination and synergies within the international chemicals and waste cluster. Therefore, the new convention on mercury should be integrated institutionally in the existing regime, e.g. by attaching it to the same secretariat as one of the existing conventions.*
- *Finally, Switzerland remains committed to the Strategic Approach to International Chemicals Management (SAICM) as an overarching framework of international chemicals and waste policies. SAICM should be further developed to effectively address new and emerging issues such as nanotechnology. Moreover, a mechanism to ensure its mid- and long-term financing must be rapidly developed.*

The value of clean water

For drinking water supplies to remain clean implies careful land use in the watersheds. This ecosystem service does not come free. Switzerland is working at the international level to obtain that those benefiting from this service contribute to its costs.

New York is a thirsty metropolis. Its more than 8 million residents consume 3.78 million m^3 of drinking water per day. Most of this water comes from two reservoirs that collect water from springs and rivers in the heavily forested Catskill Mountains. Lying just under 200 km to the north of New York City, these mountains are part of the Appalachian chain.

For decades, the drinking water sourced from this watershed – covering an area of around 5000 km^2 – was so pure that the water suppliers only needed to add chlorine as a disinfectant. In the 1990s, however, the untreated water was increasingly contaminated with microbial pathogens and nutrients. As a result, the Environmental Protection Agency stipulated that if there was any further deterioration in quality, all surface water would have to be filtered by the New York water utility. Faced with estimated construction costs of USD 6–8 billion for a filtration plant and annual operating costs of at least USD 300 million, the city authorities decided to pursue the significantly less expensive option of effective watershed protection.

Pilot watershed protection programme. The picturesque gorges, waterfalls and lakes in the forested hinterland of the East Coast cities make the sparsely populated Catskill Mountain area (between the source of the Delaware river and the Mid-Hudson valley) a popular destination for visitors. Outside the nature reserves, the area has therefore been subjected to ever increasing pressures. Holiday homes were built without adequate sewage treatment facilities. Over the years, uncontrolled development and more intensive management of pastureland and forests have impaired the natural filtration capacity of the soil and with this, the quality of the percolating water.

In the mid-1990s, with support from the EPA and the state authorities, New York City launched a pilot programme to improve management of the watershed. Over a period of 10 years, it invested USD 1.5 billion in measures designed to maintain and optimise water quality. For example, wastewater treatment regulations were tightened across the state. In addition, the city purchased land in pollution-prone areas around wetlands, watercourses and reservoirs. The authorities retired this land from production and granted local dairy farmers the right to use less sensitive areas if they agreed to adopt good management practices over the long term. Farmers, landowners and foresters received financial compensation for costs associated with the protection of water resources. Reductions in property taxes of up to 80% were also granted, as well as additional logging permits.

This programme was originally financed with funds from the city and state of New York and the federal government. It is now paid for directly by consumers through a tax included in water bills. The watershed protection measures cost just under 11 cents per cubic metre of drinking water – much less than multi-step water treatment.

Payments for ecosystem services. According to Sibylle Vermont of the FOEN Global Affairs Section, "The question of sharing the costs fairly for water-friendly land use practices arises in virtually all major watersheds where most of the land is privately owned." In her view, if the quantity and quality of water resources is to be preserved, it is important that ecosystem services such as

Pelican colony in the Danube delta. From its source to its mouth in the Black Sea, the Danube flows through ten different countries. Preserving this unique ecosystem is a common responsibility of all these states. Transboundary management must not only apply to the waters, but also to the land use practices in the Danube's watershed.

Adrian Silisteanu/AFP

natural filtration and replenishment should be recognised as economic contributions in the interest of the community as a whole. If headwater areas such as wetlands, forests or grasslands are to continue to fulfil these functions, other types of land use – e.g. farming and forestry – must involve sound management practices.
As Sibylle Vermont points out, "Protecting our water resources means higher costs and less revenue for the land owners. Setting up partnerships between drinking water providers and the people who use the land could help avoid the further degradation or destruction of the forests and marshlands which filter the water, store it and slowly release it again."

Switzerland has experience with compensation payments for water-friendly land use. For example, in agriculture, the conversion of arable land to grassland is subsidised. The agricultural environmental performance record (ökologischer Leistungsnachweis, ÖLN) also contains requirements that further the protection of water bodies.
Thus, Switzerland is once more at the vanguard, this time in the development of models that both provide for a careful use of ecosystems and offer payments for the services that these ecosystems render. Within the UN Economic Commission for Europe (UNECE), for example, it initiated the drafting of recommendations on the payment for ecosystem services in water management, which in 2006 were adopted by the parties to the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes. Models and pilot projects such as those that proved successful in New York are now to be implemented as widely as possible.

Balancing different interests. Ecosystems in the watershed need to be sustainably managed and safeguarded over the long term through spatial planning instruments. The goal should be integrated management of water resources, which recognises in good time any conflicting interests among different types of land use – irrigation, provision of drinking water, abstraction of cooling or process water for industry, power generation or natural water functions – and seeks to achieve a fair balance between competing interests.
The fact that this type of water resource management can stand the test of time is demonstrated by numerous international water agreements, some of which have even survived armed conflicts. In Southeast Asia, the 1957 agreements on water resource development in the Lower Mekong basin were observed during the Vietnam War. Likewise, the Permanent Commission on Indus Waters has survived two wars between India and Pakistan. Sibylle Vermont explains: "In Europe alone, there are more than 150 shared river basins and 50 international lakes. In fact, five countries are dependent on upstream riparian states for 75% of their water resources. In this situation, it is vital to have transboundary and cross-sectoral cooperation, ensuring equitable regulation of access and water use."

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"Setting up partnerships between drinking water providers and the people who use the land could help avoid the further degradation or destruction of the forests and marshlands which filter the water, store it and slowly release it again."

Switzerland's key positions on international water policy

- *Switzerland supports the development of an effective institutional framework at the global level to discuss and further develop water policy.*
- *Switzerland promotes the use of integrated water management policies at all levels.*
- *Switzerland also promotes the implementation of policies that ensure a fair and adequate compensation for ecosystem services, not only in the context of water management but also as a general policy approach.*

What Switzerland and Indonesia have in common

The destruction of forests worldwide is partly a result of conflicting rights of tenure and use. To address this problem, there is a need for legal certainty and the involvement of more than a billion people who rely on forests for their livelihood or survival. Over the centuries, Switzerland has gained valuable experience in this area – which it is now contributing to international conservation efforts.

Interlaken in the Bernese Oberland is a leading tourist destination. Everyone has at least seen photographs of the Alpine panorama, and visitors from all over the world have ascended the icy heights of the Jungfraujoch.

Forest workshop at Interlaken. Less well known but of great interest is the Little Rugen hill where, 150 years ago, Karl Kasthofer (1777–1853) began to implement the principles of sustainable forest management. In April 2004, this site was visited by an international group of forest experts who had gathered at Interlaken for a workshop on decentralisation in the forest sector. The event also included excursions to the communal forests of the Bernese Alps to study the traditional system of communal use of forests by mountain farmers. How are rights and responsibilities to be distributed among all stakeholders – from village community to national government – so that sustainable forest management becomes possible? This question was the focus of the experts' discussions – on the field trips and also in the meeting rooms.

Answers to this question are required urgently. Between 2000 and 2005, according to FAO figures, the forest area in developing countries declined by 78,600 km^2 per year – an area almost twice the size of Switzerland. Investigations of the causes of deforestation frequently point to uncertainties and conflicts in relation to tenure and use rights. Legal ownership of three quarters of the world's forests is claimed by central or regional governments, even though more than a billion people are directly dependent on forests and forest products.

The Interlaken workshop was a timely event, which generated enormous interest. To make the proceedings accessible to foresters, forest owners and authorities in their home countries, the Indonesian, Chinese and Russian delegates had the English summary report translated into their national languages.

The meeting was the result of a country-led initiative in support of the United Nations Forum on Forests (UNFF), launched by Switzerland and Indonesia. These two countries are linked by a shared forest history – despite differences in the chronology.

The mountain dwellers and the Bernese patricians. In the early 19th century, the forest was a vital resource for farming families in the Bernese Oberland. Here, they cut fuelwood and timber, grazed their cattle, harvested leaf fodder, and gathered litter for the stables and much else besides to meet their daily needs. This traditional use was strictly regulated at the local level and more or less sustainable.

Problems only arose when the city of Bern's demand for wood began to make serious inroads into the mountain forests. The patricians claimed sovereignty over all the forests within the city's domain. Local communities were given to understand that their rights were restricted to use, rather than ownership. As a result of their dispute with the city, the mountain dwellers became less concerned about careful forest management. Who will bother to plant a tree if he cannot be sure that it will benefit himself or his descendants?

Acacias for the paper industry instead of rainforest: since the beginning of the century, some 2 million hectares of forest have been destroyed each year in Indonesia, to make way for plantations for the timber or food-processing industry.
Ahmad Zamroni/AFP

It was only with the adoption of a liberal cantonal constitution in 1831 that forest ownership was decentralised and transferred to the communes. However, although the constitution guaranteed equal rights for all, the rural upper class prevailed in many areas. Swathes of communal forest were privatised – and often immediately clear-cut for profit. Those who had lost out were forced to look elsewhere for fuelwood. Wood theft became rife.

"At the local level communities are also required to take responsibility, which in turn requires that they profit from the benefits arising from forest use."

Christian Küchli

The situation improved with the introduction of the Federal Forest Act in 1876. Christian Küchli, head of the FOEN Forests Products and Services and Forest Quality Section, and an expert on the forest history of Bern, explains: "The federal approach – with a framework law at the national level combined with the Forests Act of the Canton of Bern – made a significant contribution to sustainable forest management. At the local level communities are also required to take responsibility, which in turn requires that they profit from the benefits arising from forest use."

History repeating itself elsewhere. When the Dutch in the early 17th century established control over what is now Indonesia, this tropical territory was largely forested. The colonial power saw itself as the legal owner of all the natural resources – including the forests. In 1949, when Indonesia gained its independence, ownership of the forests passed to the central government. Nonetheless, the indigenous population continued to live in and off the forests, using them in accordance with time-honoured rules and rights.

The conflict between traditional rights and the claims of central government became particularly acute when, during the regime of President Suharto (from 1967 to 1998), huge swathes of forest were sold to logging companies. Local customary rights were ignored in this process.

Hasty decentralisation. After the fall of Suharto, political pressure for rapid decentralisation increased. However, the situation of the forests was not improved as a result. On the contrary, each year, at the beginning of this century, 60 million m^3 of timber was felled without official approval and 2 million hectares of natural forest land was converted to industrial tree plantations or plantations for oil palms and other agricultural products. Christian Küchli says: "The destruction of forests has been driven by high demand from the logging industry established under Suharto and also by the fuzziness of the decentralisation laws and the associated lack of legal certainty. A transparent, democratic forest governance system with a federalist character is a key requirement for the conservation of forests in developing countries, too."

Forest governance and climate mitigation. To work out the details of this approach, regional conferences have been held in Asia and in Africa as a follow-up to the Interlaken workshop. A similar event is now being jointly planned by Mexico and Switzerland for Latin America.

This issue is also relevant to the climate change debate. The destruction of rainforests today accounts for at least 17% of man-made greenhouse gas emissions. The REDD approach (Reducing Emissions from Deforestation and Degradation) calls for a global system of incentives for sustainable forest management, to be financed under the Climate Change Convention. Christian Küchli explains: "This means funds are provided in return for guarantees that they will be used to conserve forests and promote sustainable management. That depends crucially on a well working forest governance."

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Switzerland's key positions on international forest policy

- *Sustainable forest management is crucial to ensure that the multisectoral services and values provided by forests at the global level can be maintained.*
- *Governance at the national level is crucial to provide an enabling environment for sustainable forest management.*
- *Finally, there is a clear need for a legally binding framework to secure sustainable forest management at the global level. This is the only way to ensure strong commitment and adequate support based on a fair sharing of the burden.*

Green funding

For Switzerland, the replenishment of the Global Environment Facility (GEF) represents a sound investment in a sustainable future.

The East African Rift Valley, extending from the Red Sea to Mozambique, is a "hotspot" – the term used by geologists to describe a centre of volcanic activity. The natural heat of the earth's crust makes hotspots an excellent source of renewable energy. Geothermal energy already meets around 11% of Kenya's electricity requirements, providing emission-free and climate-friendly power.

As yet, however, only a fraction of the total potential is being exploited. This is estimated at 2000 megawatts, which is twice the output of the Gösgen nuclear plant, or more than 1.5 times Kenya's existing power generation.

But tapping this source is expensive, requiring costly drilling operations with no guarantee of hitting steam. There is thus a risk of achieving no return on investments of several million Swiss francs.

Inexhaustible resource. This is where the Global Environment Facility (GEF) can help: together with other partners, it is financing the use of improved exploration and drilling techniques in Kenya to permit more accurate identification and cheaper development of geothermal resources. The results are promising: the combined geothermal potential of the countries in the East African Rift Valley is estimated at 7000 Megawatts – enough to provide secure power supplies for 12 countries in this area.

The GEF, established in 1991, is the funding mechanism for several international environmental agreements, including the Climate Change Convention. In this capacity, it provides assistance to developing and transition countries for projects in the areas of renewables, energy efficiency and sustainable transport, and for adaptation to the impacts of climate changes.

It is estimated that reducing global greenhouse gas emissions to 25% below 2000 levels by 2030 will cost USD 200 billion annually. This would cover the necessary changeover to renewable sources and improvements in energy efficiency, with around half of the total costs arising in developing countries. In addition, the costs of adaptation are estimated at between USD 10 and 100 billion per year. Obviously, the sums required could never be provided by developing countries.

Saving 5% of greenhouse gas emissions. A viable financing architecture is to be negotiated at the Climate Change Conference in Copenhagen (see pp. 11 ff). Public funding will be an important component, and contributions will be sought from the GEF. To date, the GEF has ploughed USD 2.4 billion into climate-related projects, triggering investments of another USD 14 billion from other sources. As a result, emissions of greenhouse gases have been cut by around 1 billion tonnes of CO_2-equivalent per year – or 5% of current global emissions.

The GEF is a global partnership among 178 countries, international institutions and the private sector. Investments to date have totalled USD 9 billion, with co-financing amounting to USD 36.

The next replenishment of the GEF is due in 2010. The Federal Council takes the view that major donors in particular should boost their commitments. It will request Parliament to increase Switzerland's contribution, provided that European countries do likewise.

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Switzerland's key positions on the GEF

- *The GEF should be further strengthened as central pillar of the financial architecture supporting the implementation of activities that result in global environmental benefits.*
- *The GEF should expand its activities to the support of general chemicals management.*

From Marrakesh to Doha – via Johannesburg

In Switzerland's view, the international trade and environmental regimes should be mutually supportive. But achieving consistency among UN systems, the WTO and free trade agreements is no easy matter.

The background is complex: while the UN environmental system was being strengthened, restrictions on trade were increasingly lifted, and duties and tariffs were reduced under the GATT treaty. Efforts to liberalise international trade culminated in the establishment of the WTO in 1995 under the Marrakesh Agreement. The preamble to this agreement states that trade must be conducted in accordance with the objective of sustainable development.

However, as Karine Siegwart, head of the Europe, Trade and Cooperation on Development Section of the FOEN, points out: "The preamble defines the general direction, but it remains controversial to what extent this is legally binding or at least imposes political obligations. So far, at any rate, consideration of the environmental concerns and social aspects that belong to sustainable development has taken a back seat to trade."

Dolphins and turtles. A striking example of this is the so-called tuna-dolphin affair. In the early 1990s, the US banned imports of tuna from Mexico because the fish were harvested with purse seine nets, leading to the death of dolphins. Alleging discrimination, Mexico immediately lodged a complaint under the GATT procedure. Since neither the GATT panel nor (later) the WTO recognised distinctions based on the origin of products or the production process, the US was obliged to lift the embargo on tuna from Mexico.

The facts in the "shrimp-turtle case" followed a similar pattern: endangered sea turtles can also be killed as by-catch when shrimps are harvested, and so the US banned imports of shrimps from four Asian countries where shrimpers used nets without turtle excluder devices. The import ban was challenged by Pakistan, India, Thailand and Malaysia. In 1998, the WTO Appellate Body ruled that production methods can be taken into consideration, thereby creating an important precedent. However, the prohibition had been implemented in a way that breached the fundamental WTO principle of non-discrimination and so the US nevertheless lost the case.

Swiss proposal at Johannesburg. The conflict between free trade and the environmental regime also emerged at the World Summit on Sustainable Development (WSSD) in Johannesburg. Many participants took the view that environmental agreements should be subordinated to free trade, with the priority being to ensure WTO consistency.

This position was opposed by Switzerland and Norway, who stressed the need for coherence, rather than a hierarchy, between free trade rules and environmental agreements. The two countries' advocacy of this principle was successful. The wording adopted in the WSSD Plan of Implementation calls for states to "promote mutual supportiveness between the multilateral trading system and the multilateral environmental agreements, consistent with sustainable development goals ... [while] ... maintaining the integrity of both sets of instruments".

In the Doha round of negotiations, the equal value of environmental protection and WTO rules is now to be clarified, with a view to enhancing mutual supportiveness. Here, Switzerland and the EU are seeking explicit acceptance of the principle of a non-hierarchical relationship. In addition, Switzerland is part of the


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group of countries known as Friends of Environmental Goods which has proposed a list of 153 products for liberalisation. The aim is to eliminate tariff barriers to trade in industrial products such as solar panels. However, it is proving difficult to agree on a definition of environmental goods. For example, should this term apply to biofuels? (Only if they are sustainably produced, in Switzerland's view.)

Reforming dispute settlement. Switzerland also sees a need for clarification and in some cases adjustment of WTO mechanisms. In particular, the procedure for resolving disputes is considered to require reform. The existing Dispute Settlement Body involves experts on trade law. Recommendations are made by panels, whose deliberations are conducted behind closed doors. Switzerland and the EU wish to make sure that the relevant environmental expertise is duly taken into account by these panels.

The WTO dispute settlement procedure allows member countries to impose punitive sanctions unilaterally on other countries in the event of infringements. Such action was taken, for example, by the US in response to what it considered an unjustified EU import ban on hormone-treated beef. This dispute has now been resolved amicably.

Since the establishment of the WTO, Switzerland has been represented on its standing Trade and Environment Committee. However, as a result of conflicting interests among the organisation's 153 members, progress has been limited. Moreover, the Doha Round is currently deadlocked, mainly because of disagreements on agricultural issues.

Switzerland's key positions on trade and environment

- *The international trade and environmental regimes are to be seen as complementary frameworks pursuing the common objective of efficient use of natural resources and sustainable development. Therefore, the relationship between the international trade and environment rules has to be governed by the principles of no hierarchy, mutual supportiveness and deference.*
- *High environmental standards should be seen as an opportunity, as a catalyst of innovation and progress and not as an obstacle to international trade.*
- *The Ministries of Environment in each country have to ensure that definition and treatment of environmental goods and services comply with high environmental standards.*

Growing importance of EFTA free trade agreements. According to Martin Zbinden, who is responsible for Free Trade Agreements and EFTA at the State Secretariat for Economic Affairs (SECO), "Switzerland and the EU are seeking a model relying on dialogue, cooperation and technical support rather than on sanctions and punitive duties." He emphasises that, while debates within the larger WTO setting may be contentious,"Results can often be achieved much more rapidly within the more "intimate" circle of the EFTA."

A working group set up by the EFTA Ministerial Meeting in 2008 is exploring how environmental concerns can be more effectively integrated into free trade agreements. The Swiss delegation is led by Martin Zbinden, with the FOEN represented by Karine Siegwart. As part of this process, the FOEN has commissioned a study from the Center of International Environmental Law, which should contribute to the drafting of a template for an environmental chapter to be used in future EFTA Free Trade Agreements.

Karine Siegwart says that the EFTA model, taking social as well as environmental concerns into consideration, should also help to shape Switzerland's bilateral free trade agreements. To date, Switzerland has concluded three such agreements – notably with the EU, most recently with Japan, and also with the Faroe Islands. Further agreements are in preparation; for example, Switzerland and China are jointly to produce a study on the feasibility of a bilateral free trade agreement.

Environmental standards: an opportunity for a green economy. In most cases, however, Switzerland enters into free trade agreements within the EFTA framework. Around 20 such agreements exist, the latest of which was concluded in June 2009 with the countries of the Gulf Cooperation Council (Saudi Arabia, Bahrain, United Arab Emirates, Qatar, Kuwait and Oman). Currently in preparation are EFTA agreements with Algeria, Albania, Serbia, Thailand Peru, Russia, Ukraine, India, Hong Kong, Indonesia and Vietnam.

Just as SECO promotes coherence as a goal of Swiss trade policy, the FOEN pursues the comprehensive and effective implementation of Switzerland's environmental concerns within the UN system and in other global forums. As Karine Siegwart says, "In both cases, success depends on environmental standards no longer being perceived as unacceptable barriers to trade, but as an opportunity for a green economy."

Viera Malach, InfoSüd

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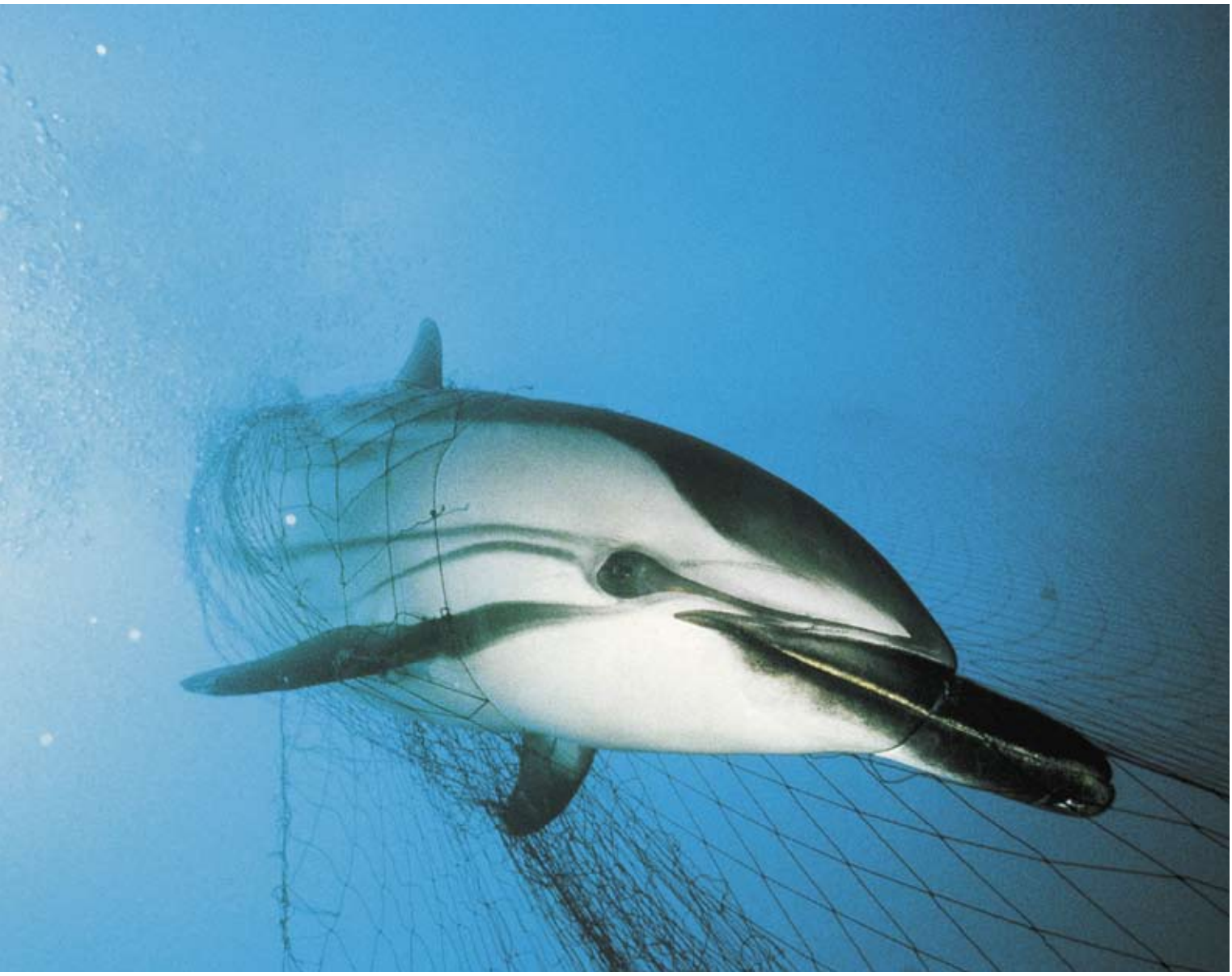

A striped dolphin (Stenella coeruleoalba) drowned in a fishing net: tuna fishing with nets that were a hazard to the dolphins caused a trade conflict between the USA and Mexico in the 1990s. Since then, more gentle methods have become the norm.

Getty Images

Less scope for going it alone

Not so very long ago, Switzerland played a pioneering role in European environmental policy. It was the first country in Europe to introduce the catalytic converter – 7 years before the EU. Today, it is more difficult for the country to press ahead alone, as shown by the example of the new standard for exhaust emissions.

Since September, stricter limits on exhaust emissions from light vehicles have been applicable in the EU and in Switzerland: particulate filters are now required for diesel cars. In fact, Switzerland would have liked to introduce the Euro 5 standard in 2007, as part of the measures adopted to control particulate matter. However, when these plans were announced to the EU and the World Trade Organization in the summer of 2006, they encountered substantial opposition.

Pressure from car-making countries. Switzerland's plans were opposed by countries with major car industries – not only the EU, but also Japan and South Korea. They argued that early introduction of the emissions standard would create a technical barrier to trade and contravene international agreements. The Federal Council consequently decided to withdraw its plans.

"Compared with EU countries, Switzerland is in a more difficult position," says Karine Siegwart, head of the FOEN Europe, Trade and Cooperation on Development Section. Member countries, she concedes, cannot simply adopt stricter environmental regulations than the EU either. But Switzerland has much less room for manoeuvre given the constraints imposed by the bilateral agreements, which are mainly concerned with economic relations.

Since 2006, Switzerland has been a member of the European Environment Agency. However, as Karine Siegwart points out, there is (as yet) no bilateral environmental agreement covering the most important topics in this area and giving due consideration to environmental concerns in relation to trade and economic policy.

Swiss contribution to Euro 5 standard. But the example of the exhaust emissions standard does not only illustrate the limited scope for environmental action in the European context: although Switzerland is not a member of the EU, Swiss experts were involved in the development of the Euro 5 standard. Karine Siegwart explains: "Europe is more than just the EU, and that is also the case for European air pollution control policy. Switzerland can certainly contribute its ideas and expertise, and it can even help to shape EU legislation."

The Euro 5 standard was elaborated, not by an EU committee, but under the aegis of the UN Economic Commission for Europe (UNECE). With its own environmental programme, the UNECE promotes sustainable development in its member states, on a pan-European basis which includes Central Asia. The US and Canada are also represented. Switzerland is seeking to strengthen the UNECE so that it can serve as an additional institution for environmental governance across Europe.

> "Switzerland can certainly contribute its ideas and expertise, and it can even help to shape EU legislation."
>
> Karine Siegwart

The recommendations issued by the UNECE can be integrated into national law by its member countries. But UNECE standards can also be adopted by the EU for its own members, as occurred in the case of the Euro 5 standard. As Karine Siegwart says, "This shows how important the UNECE is."

"Environment for Europe". The "Environment for Europe" Ministerial process is also a UNECE initiative, launched at the 1991 pan-European Ministerial Conference held at Dobris Castle in what was then Czechoslovakia. As Martine Rohn-Brossard of the FOEN Europe, Trade and Cooperation on Development Section emphasises, "The current aim of the process is to focus environmental protection efforts and to improve environmental quality, especially in countries of the former Soviet Union. Crucial to this process is the implementation of the five UNECE environmental conventions and their protocols throughout the region." In addition to the 56 UNECE member countries, international organisations, funding bodies and NGOs are involved in the

"Environment for Europe" process. The next Ministerial Conference, to be hosted by Kazakhstan in 2011, will focus on the state of the environment and environmental challenges in Central Asia.

Switzerland and the EU: bilateral environmental policy. Relations between Switzerland and the EU are largely governed by the 1972 Free Trade Agreement and by the two sets of bilateral agreements (1999 and 2004). Cooperation on various environmental matters was agreed on in an exchange of letters between the Swiss Federal Council and the European Commission in December 1975, and issues of environmental policy and law were also considered in relation to the Agreement on the European Economic Area (EEA). As Switzerland did not ratify this Agreement, it did not have any concrete result in the end. So this can be said that Swiss-EU relations remained focused on trade and economic questions. However, environmental topics are now playing an increasingly important role, notably in the following areas:

- **Electricity agreement:** Negotiations on an electricity agreement between Switzerland and the EU have been under way since November 2007. As well as cross-border trade and improved market integration, the discussions also tackle environmental aspects, e.g. environmental impact assessments and nature and landscape protection.
- **EU Ecolabel:** The EU is currently revising its Ecolabel Regulation. The Ecolabel is awarded to products and services from EU member countries – excluding food and cosmetics – which meet strict environmental criteria. The Federal Council has approved a mandate for negotiations aimed at enabling Switzerland to participate in this scheme.
- **CO_2 emissions trading:** Since 2008, it has been possible to trade CO_2 emission allowances in Switzerland. The EU revised its Emissions Trading Scheme directive in the spring of 2009. Emissions trading is now regarded as a key instrument for the achievement of climate targets. Switzerland and the EU are currently discussing ways of linking the two schemes.
- **REACH:** The EU Regulation on chemicals and their safe use (Registration, Evaluation, Authorisation and Restriction of Chemical substances/REACH) came into force in 2007. Existing substances have to be tested for their effects on health and the environment and to meet tighter safety requirements. New substances are also subject to stringent requirements. The European Chemicals Agency is responsible for implementation of this legislation. REACH will have a considerable impact on the Swiss economy: the EU accounts for two thirds of Switzerland's chemical exports. Switzerland and the EU are discussing whether, to what extent and when REACH should also be implemented in this country.
- **Agreement on free trade in agricultural and food products:** Negotiations with the EU on free trade in the agricultural sector were commenced in November 2008. The aim is to open up markets for agricultural and food products to both parties. As agriculture and food production are important sources of pollution, a new agreement on free trade in this area will give due consideration to environmental impacts and concerns.

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Switzerland's key positions on the UNECE

- *Switzerland recognises the importance and usefulness of the Environment for Europe process as a framework for multilateral and bilateral cooperation in the UNECE region and supports work aimed at facilitating the implementation of the five UNECE environmental conventions. The process should focus its activities on specific needs, especially on those of the EECCA countries, some of which (Central Asian countries and Azerbaijan) are represented by Switzerland in the GEF Council (GEF Constituency). Furthermore, the process is also relevant for Switzerland as a non-EU member country.*
- *The process should continue to address pertinent issues such as governance, biological and landscape diversity, climate change, chemicals, air, water, sustainable consumption and production, sustainable energy, education for sustainable development, etc. The process should also be used to promote the transfer of environmentally sound technologies.*

Switzerland's key positions on issues relating to the EU

- *The bilateral path on which Switzerland and the EU have embarked has proven its worth and resulted in a dense network of bilateral agreements to further mutual interests – so far mainly economic and trade interests. These agreements must not result in lower environmental standards. It is therefore essential that the environmental dialogue between the two partners be strengthened.*
- *Though the environmental policy agreed on between the EU and Switzerland is already ambitious in itself, Switzerland remains free to implement and if necessary further develop its own environmental regulations in areas that are not covered by the bilateral agreements.*
- *The Swiss enlargement contributions to reducing social and economic disparities in Europe shall also be used for environmental protection, in particular nature and biodiversity protection.*

“Small countries can make a big difference”

How is Switzerland’s international environmental policy perceived around the world? What are its strengths and weaknesses? And in what way is the country expected to help to resolve global environmental problems? environment **asked Achim Steiner, Executive Director of the United Nations Environment Programme (UNEP), about Switzerland’s role on the environmental policy stage.**

environment: Switzerland is a minnow in the international community: we represent little more than a thousandth of the world’s population. Can such a small country really achieve anything on the global environmental policy stage?

Achim Steiner: International environmental policy is an area where small countries can actually make a big difference – in two ways. Firstly, by setting an example. In the 1970s and 1980s, Switzerland was ahead of Europe in matters of environmental protection and thus earned a reputation as a pioneer. It has already tried out many of the components of a modern environmental policy, not always successfully, but it has gained a great deal of experience which it can now contribute to international efforts.

Secondly, Switzerland makes constructive contributions to negotiations on international agreements. Here, it is also helped by the fact that it is not a member of an economic bloc – either the EU or the Group of 77. If the country adopts a strategic approach, it can act as an intermediary and sometimes even as a driving force.

On top of that, Switzerland is not a poor country. It can certainly make its presence felt in international cooperation and environmental policy through targeted funding and support mechanisms.

Can you give us an example?

On the climate issue, Switzerland has developed new ideas for funding mechanisms – prompted not least by the domestic debate on the CO_2 levy. These ideas have moved the discussion forward. In other areas, too, I have found time and again that Switzerland’s commitment to international environmental policy is open and, at the same time, sensitive.

In connection with Switzerland’s international environmental policy and the efforts of its actors, is there anything which from your perspective could be improved?

For a UN official, it’s always very difficult to give a member country advice. I’m sure that in negotiations a point is sometimes reached where certain principles that are taken for granted in Switzerland are not necessarily perceived in this way internationally. So sometimes there are tensions between viewpoints. But that doesn’t just apply to Switzerland.

The other point is that, as an affluent country, Switzerland has a major responsibility. Climate policy, in particular, is a yardstick by which it is measured. The more the country is able to agree on significant action at the national level, the more it will be able to influence international environmental policy too.

On the specific question of climate policy: the industrialised countries are required to define new targets for cutting greenhouse gas emissions. What reduction measures do you expect Switzerland and the other industrialised countries to take?

For the UN, the starting point is the report of the Intergovernmental Panel on Climate Change (IPCC). And this report calls for a response that

Achim Steiner has been UNEP Executive Director since 2006. Prior to this appointment, Steiner – who was born in 1961 and spent the first ten years of his life in Brazil – served as Director General of the World Conservation Union (IUCN). He holds an MA in development economics and regional planning.
AFP/Stringer

would make it possible to stabilise emissions by 2015. We can all see at the moment that we are a long way from reaching that goal – on the contrary, emissions are still rising. Which means we're at a point where the industrialised countries need to take resolute action. We can't go on stressing the need for global action while industrialised countries drag their feet. For developing countries, that's a situation which calls into question international climate policy in its entirety. Several countries, such as Germany, the UK or the Scandinavian countries, have now pledged to cut their greenhouse gas emissions by up to 40% by 2020. That should also be the model for Switzerland.

Having been the main cause of the environmental crisis, industrialised countries have a responsibility towards developing countries. They must help them to escape from poverty without plundering natural resources in order to do so. What do you expect from Switzerland – or from the industrialised world in general – in terms of commitment to sustainable development in the South?

I think the industrialised countries have now accepted that they bear a historical burden and that they need to make certain concessions to promote an equitable international settlement. They have an interest in reducing developing countries' CO_2 emissions through a financial partnership. The aim should be, under the Climate Change Convention, to offset the additional costs that are incurred when a developing country cuts its emissions more rapidly than it would if it pursued the normal development path. The volume of funding required as a result will be between 100 and 200 billion dollars per year. Firstly, to help these countries to invest in new sources of energy and energy efficiency, and secondly to support them in adapting to climate change. For we must already address the reality that over the next 30 to 50 years we will have millions of climate refugees: rising sea levels will inundate large parts of Bangladesh, the melting

of glaciers in the Himalayas is threatening water supplies in a region inhabited by 250 million people, and droughts in Africa will make whole regions uninhabitable and unusable for farming. We need to start tackling these problems today. That's why the funding question will be a key issue at the UN World Conference on Climate Change in Copenhagen in December 2009.

We're currently in the throes of a global economic crisis. Is there a risk that economic challenges will push environmental issues into the background?

That is a major risk, but there are also enormous opportunities. An economic crisis triggers processes that change existing structures. Whole sectors of industry are having to deal with questions of technology and innovation. The 3000 to 4000 billion dollars that are being pumped into stimulus programmes represent a huge opportunity – as long as they are not used to stabilise yesterday's economy, but to accelerate the transition to tomorrow's.

> "Countries that get through the economic crisis by stimulating the green economy will have much better chances on the global market in 5 or 10 years' time."
>
> Achim Steiner

Countries that get through the economic crisis by stimulating the green economy will have much better chances on the global market in 5 or 10 years' time. It's no coincidence that Indian and Chinese companies are the third and fourth biggest suppliers in the field of renewable energy technologies. These companies were created in less than 10 years.

This is the thinking behind the 5-point programme developed by the UNEP under the heading of a "Green New Deal". What exactly does the initiative involve?

First of all, it's concerned with energy efficiency and renewables. Then there's a need for reform of the transport sector, which accounts for a fifth of all CO_2 emissions. We need new mobility concepts and more public transport for short journeys. The programme also deals with what we call the ecosystem infrastructure: forests, soil and water. And not least we need to support sustainable agriculture, so that it's possible to feed 9 billion people in the future.

What steps can and should Switzerland take to help resolve the economic crisis which would also represent an advance in terms of sustainability?

Switzerland faces a twofold challenge. On the one hand, the economy is heavily dependent on services, notably in the financial area. The question is: is it possible, as part of a stimulus programme, by offering incentives and specifying certain conditions, to get the financial sector to invest a greater proportion of its capital in the green economy? For ultimately, of course, the Swiss public is paying to help private-sector financial service providers out of the crisis. That should create an incentive for discussing higher-level goals to be served by the banks' activities – goals that are supported by a large part of the Swiss population. The second point is that stimulus programmes should also promote investment in innovation in the transport, infrastructure and industry sectors.

Some people say that the present crisis also marks a turning point in the development of society and lifestyle models. What do you think about that?

Protection of the environment is often associated with the idea of self-denial and a less pleasant future for society. I'm opposed to this view. I believe we can indeed promote an affluent society through future economic development. But in the process, we need to combine affluence with responsibility. That can sometimes cost more money, but it can also save us a great deal of money.

In Switzerland, for example, farmers have for many years now been viewed not just as producers but as landscape and resource managers. That kind of approach is fundamental to a sustainable economic policy. However, there's certainly much more scope for action there, and that will continue to be a matter for public debate. But people should be bold rather than hesitant, because the future belongs to those who invest in tomorrow today!

Interview Hansjakob Baumgartner

www.environment-switzerland.ch/mag2009-4-14

“Countries that get through the economic crisis by stimulating the green economy will have much better chances on the global market in 5 or 10 years’ time.” State-of-the-art green technology from Switzerland: Meyer Burger is one of the leading manufacturers of high-precision saws for the production of very fine silicon wafers, only 0.12 to 0.16 mm thick, used in solar cells.

Pius Amrein

Publication details 4/2009 / The FOEN publication “umwelt”, on which this special English-language edition is based, appears quarterly in German and French; subscription available free of charge / **Published by** the Swiss Federal Office for the Environment (FOEN). The FOEN is the federal government’s centre of environmental expertise and is part of the Swiss Federal Department of the Environment, Transport, Energy and Communications (DETEC). / **General project management:** Bruno Oberle, Thomas Göttin / **Concept, editing, production, marketing:** Georg Ledergerber (project manager/managing editor), Kathrin Schlup (deputy managing editor), Martine Rohn-Brossard (keynote), Franz Perrez (keynote), Hansjakob Baumgartner (co-ordination of keynote and English-language edition), Cornélia Mühlberger de Preux, Beat Jordi / **External collaborators:** Viera Malach, Kaspar Meuli, Pieter Poldervaart, Charlotte Walser / **English translation:** Jeff Acheson, Bottmingen, and FOEN Language Services / **Production and layout:** Atelier Ruth Schürmann, Lucerne / **Editor’s contact details:** FOEN, Communications Division, Redaktion umwelt, CH-3003 Bern, phone +41 (0)31 322 93 56 / fax +41 (0)31 322 70 54, e-mail: magazin@bafu.admin.ch / **Internet:** The editorial content of the magazine is available on the FOEN web site: www.environment-switzerland.ch/mag / **Paper:** Cyclus Print, 100% recycled paper from sorted printer’s off-cuts and office waste / **Circulation of special English-language edition:** 4000 copies / **Orders:** FOEN, Orders, CH-3003 Bern, phone + 41 (0)31 322 89 99, fax +41 (0)31 324 02 16, e-mail: docu@bafu.admin.ch, order number: MAG-0904-E. Download website: www.environment-switzerland.ch/mag-0904-e /

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