> Switzerland's International Environmental Policy 2012

State and Outlook

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> Switzerland's International Environmental Policy 2012

State and Outlook

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> Abstracts

The report "Switzerland's International Environmental Policy 2012" provides an analysis of the international environmental regime (negotiations, agreements, institutions and instruments), detailing Switzerland's strategic interests and pinpointing its opportunities to exercise influence. It reaches the conclusion that, given the challenges that must be faced, Switzerland will have to make considerable efforts if it is to achieve its policy goals and maintain its international standing in the environment sector. The report, which is primarily aimed at decision-makers, is structured methodically in the form of an analysis of the various policy fields.

Keywords:
international environmental policy,
multilateral environmental agreements,
environmental financing,
environmental governance,
resources policy

Der Bericht «Internationale Umweltpolitik der Schweiz 2012» liefert eine Analyse des internationalen Umweltregimes (Verhandlungen, Abkommen, Institutionen und Instrumente) und legt die strategischen Interessen und Einflussmöglichkeiten der Schweiz dar. Er gelangt zum Schluss, dass die Schweiz angesichts der bevorstehenden Herausforderungen beträchtliche Anstrengungen unternehmen muss, wenn sie ihre politischen Ziele erreichen und ihre internationale Sichtbarkeit im Umweltbereich erhalten will. Der Bericht verfährt methodisch im Sinne einer Politikfeldanalyse und richtet sich an Entscheidungsträger und Entscheidungsträgerinnen.

Stichwörter:
internationale Umweltpolitik,
multilaterale Umweltabkommen,
Umweltfinanzierung,
Umweltgouvernanz,
Ressourcenpolitik

Le rapport « Politique environnementale internationale de la Suisse 2012 » propose une analyse du système international de l'environnement (négociations, conventions, institutions et instruments) et expose les intérêts stratégiques ainsi que les possibilités d'influence de la Suisse. Il conclut à la nécessité pour la Suisse d'entreprendre des efforts considérables, compte tenu des défis à relever, si elle souhaite atteindre ses objectifs politiques et conserver sa visibilité internationale dans le domaine de l'environnement. Le rapport procède de façon méthodique sur le mode d'une analyse politique sectorielle et s'adresse aux décisionnaires.

Mots-clés:
politique internationale de l'environnement,
accords environnementaux multilatéraux,
financement dans le domaine de l'environnement,
gouvernance internationale de l'environnement,
politique des ressources

Il rapporto «La politica ambientale internazionale della Svizzera 2012» offre un'analisi del regime ambientale internazionale (negoziati, accordi, istituzioni e strumenti) e definisce gli interessi strategici e le possibilità di influenza della Svizzera. Detta analisi giunge alla conclusione che il nostro Paese deve compiere considerevoli sforzi per raggiungere i suoi obiettivi politici e per conservare la sua visibilità internazionale nel settore ambientale. Il rapporto, che utilizza l'approccio metodologico dell'analisi delle politiche pubbliche, si rivolge ai decisori politici.

Parole chiave:
politica ambientale internazionale,
accordi ambientali multilaterali,
finanziamento ambientale,
governance ambientale,
politica di gestione delle risorse

> Foreword

Switzerland pursues an active and successful international environmental policy. In doing so, it contributes to the global protection and sustainable use of our natural resources. For some years, people have been using these natural resources to an extent that cannot be sustained in the long term. We already need the equivalent of one and a half planets to satisfy our consumption. Given demographic growth and the increasing purchasing power of new population groups, this overexploitation is set to continue in the coming decades. Relatively inefficient production techniques cause serious pollution, and when this is combined with unsustainable patterns of consumption, enormous strain is placed on the environment.

Time and again, these trends must be documented, scientifically analyzed and presented to the general public and decision-makers in an understandable way. The international community is being called upon to develop effective and universally acceptable rules that stipulate the maximum permissible level of consumption for natural resources. In addition these rules must guarantee that access to and the use of natural resources is fairly allocated.

Switzerland can assist in these political negotiations by contributing its experience of pursuing an active policy of resource and environmental protection. It can argue credibly that this will not result in a curb on growth. On the contrary, it should lead us on a path of sustainable long-term growth.

The report “Switzerland’s International Environmental Policy 2012” provides an overview of the key international negotiations in the main environment sectors, such as climate, biodiversity, chemicals, waste and sustainable development. Switzerland can achieve breakthroughs in these areas: this is shown, for example, by the implementation of the ban on the export of dangerous wastes from OECD states to other countries, which Switzerland successfully promoted at the Tenth Conference of Parties to the Basel Convention in the autumn of 2011. The report sets out the basic principles from which Switzerland can develop its position coherently and harmonize it with other specialized fields; this will ensure other similar successes. After all, we can only progress into the future if we reduce our ecological footprint. Here again, Switzerland should take the lead and play a pioneering role.

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

> Summary

International environmental policy is one of Switzerland's foreign policy priorities, a fact laid down in the Federal Constitution and confirmed by the Federal Council most recently in its foreign policy report for 2010. In setting this priority, however, Switzerland is not only contributing to the protection and sustainable use of the global environment, it is also very much upholding its *own interests*:

> Environmental pollution does not respect national borders. The global interdependency of ecosystems means that Switzerland has an interest in the international protection of the environment.
> Switzerland has a direct economic interest both in conserving and in gaining access to natural resources in other countries.
> The harmonization of international environmental standards will protect Swiss industry against unfair competition and facilitate international trade.
> The protection and sustainable use of the environment will prevent social problems and conflicts.

International environmental policy is therefore in Switzerland's national interest.

The international environment has changed in recent years. On the one hand, the USA, having pursued a defensive policy for some time, is now playing an increasingly active and constructive role in international environmental negotiations. On the other hand, emerging economies, due to their size, development path and growing political self-confidence, represent a growing challenge for the ambitious approach being taken to international environmental policy. Within the European context, the same issues arise when dealing with the EU and EU law as in all areas that require common regulations. As a consequence, the scope for self-contained Swiss solutions is becoming more limited, and the right to have a say in European solutions must be secured on a case-to-case basis. Switzerland's international environmental policy must take account of these challenges.

The *goals* of Swiss international environmental policy are:

> the protection, maintenance and sustainable and efficient use of natural resources with the aim of stabilizing the quality and quantity of natural resources in the long term;
> a fair and legally binding system for resource use that involves all stakeholders;
> clear, comprehensive, coherent, efficient and effective international rules with corresponding institutions to secure the effective protection of the global environment;
> the protection of the public from adverse health effects due to environmental degradation.

International environmental policy thus contributes to long-term economic performance, fair competition, the fight against poverty, the maintenance of peace and security and respect for human rights, not to mention Switzerland's role as a host country to international organizations.

Switzerland is committed to ensuring that the *standards* and *principles* laid down in the Federal Constitution and in Swiss legislation – primarily the principle of protecting the environment, but also the precautionary principle, the polluter pays principle and the principle of sustainability – are also respected at international level. The protection and sustainable use of natural resources are also addressed in other foreign policy areas. Finally, national and international environment policies have to be coherent.

Thematic *priorities* in Switzerland's international environmental policy are the areas of climate, biodiversity, chemicals, forest and water, environmental governance, trade and environment as well as environmental financing (the latter including the environmental concerns related to development co-operation). Co-operation with the EU forms a further key element of Swiss international environmental policy.

Climate

Switzerland is pursuing the goal of stabilizing the global climate, to minimize any risk to the environment, human health and economic and social prosperity. To this end, Switzerland is calling for reduction targets for all industrialized countries, and also for emerging economies that produce substantial emissions, in accordance with their capacities.

Biodiversity

Switzerland is pursuing the goal of protecting and making sustainable use of global biodiversity and of ensuring an ecological balance and a fair and equitable sharing of the benefits that come from using genetic resources. The conservation and sustainable use of biodiversity is crucial for the functioning and resilience of ecosystems and therefore for the countless vital benefits that they bring. Switzerland is also committed to intensifying synergies and co-operation between the various biodiversity-related agreements.

Chemicals and waste

Switzerland is pursuing the goal of achieving the secure handling of chemicals throughout the world and wants to minimize the harmful effects of hazardous substances on humans and the environment. In order to improve consistency and efficiency, even better and more systematic use must be made of synergies between the instruments in the chemicals and waste regime.

Forest and water

Switzerland is pursuing the goal of protecting and making sustainable use of forests. It plans to implement an integrated approach to water management with the aim of protecting and improving water quality.

Environmental governance

Switzerland is pursuing the goal of a comprehensive, coherent, effective and efficient international environmental regime. Switzerland is committed to institutional reform measures that will help ensure that existing international regulations and processes in the environment sector are implemented more effectively and continue to be developed where necessary.

Economics, trade and environment

Within the framework of the World Trade Organization (WTO) and Swiss bilateral trade policy (free trade, investments), Switzerland is pursuing the goal of achieving a balance between environment and trade regulations. In the interests of free trade, it is committed to harmonizing appropriate environmental standards in the environmental agreements. The initiatives for an ecological economic system launched under the auspices of the United Nations Environment Programme (UNEP) and the Organization for Economic Co-operation and Development (OECD) should lead in the long term to an international regime for the efficient and fair management of natural resources.

Environmental financing

Switzerland is committed to ensuring that the required funding is made available to implement international environmental policies. The polluter pays principle and capacity to pay are the starting points for working out how the burden is to be shared. Switzerland will ensure that multilateral and bilateral development co-operation supports environmental policy goals.

EU

Switzerland is seeking to ensure that environmental concerns form a fundamental element in its bilateral relations with the EU.

Despite successes in individual areas in recent years, the rate at which the global environment is being destroyed has dramatically increased. If essential natural resources are not conserved, it will be impossible in the long term to guarantee welfare, justice, democracy and peace in the world.

This situation brings serious *challenges* as regards the international environmental regime, which is intended to guarantee the conservation of natural resources. This regime must be reinforced, in particular through the continued development and creation of clear and effective rules, and by closing existing regulatory loopholes. Moreover, the efficiency of the regime must be increased, which requires the consolidation of existing instruments in particular. Both now and in the future, the enforcement of regulations and the proper use of instruments will require appropriate political will and more financial resources, especially in developing countries. Switzerland plans to make a specific contribution in this area.

In view of the global nature of environmental challenges and recent political developments, such as the more assertive role played in talks by the emerging economies China, India or Brazil, or the Group of 77 (the G77, mainly comprising developing countries), the success of Switzerland's international environmental policy is dependent on it being intensely, competently and strategically committed to the task. Against this background, Switzerland, lying as it does at the heart of Europe, must evaluate its strategic relationship with the EU. If its international environmental policy is to continue to be a success, Switzerland must also ensure that the required resources (staff and funding) are made available.

> Riassunto

Come sancito nella Costituzione federale e illustrato nell'ultimo rapporto di politica estera pubblicato dal Consiglio federale nel 2010, la politica ambientale internazionale costituisce una delle priorità della politica estera svizzera. Con tale politica la Svizzera non contribuisce soltanto alla protezione e all'uso sostenibile dell'ambiente globale, ma difende anche i suoi *interessi:*

> l'inquinamento ambientale non si ferma alle frontiere. Le interdipendenze degli ecosistemi a livello mondiale costituiscono per la Svizzera un aspetto che giustifica il suo interesse per la protezione internazionale dell'ambiente;
> la Svizzera ha interessi economici diretti nella conservazione e nell'accesso alle risorse naturali di Paesi terzi;
> l'armonizzazione degli standard ambientali internazionali protegge l'industria svizzera dalla concorrenza sleale e facilita il commercio internazionale;
> la protezione e l'uso sostenibile dell'ambiente contribuiscono a evitare problemi e conflitti sociali.

Di conseguenza, la politica ambientale internazionale è per la Svizzera una politica di interessi.

Negli ultimi anni il contesto internazionale è mutato. Da un lato, gli Stati Uniti stanno assumendo un ruolo sempre più attivo e costruttivo nei negoziati internazionali, dopo un periodo caratterizzato da una politica difensiva. Dall'altro, i Paesi emergenti, con la loro grandezza, la rapidità del loro sviluppo e la crescente consapevolezza della loro forza politica, costituiscono una sfida sempre più grande per una politica ambientale internazionale ambiziosa. A livello europeo, il rapporto con l'Unione europea e con il diritto europeo solleva gli stessi interrogativi che sorgono anche in tutti gli altri ambiti in cui sono necessarie soluzioni condivise. Per la Svizzera i margini per soluzioni autonome si riducono continuamente, e ogni qualvolta l'Unione europea è in procinto di adottare soluzioni a livello europeo il nostro Paese deve far valere il proprio diritto di essere interpellato. La politica ambientale internazionale della Confederazione deve tenere conto di queste sfide.

Gli *obiettivi* della politica ambientale internazionale della Svizzera sono pertanto i seguenti:

> la protezione, la conservazione e l'uso sostenibile ed efficiente delle basi naturali della vita e la stabilizzazione a lungo termine della qualità e della quantità delle risorse naturali;
> un ordinamento volto a garantire l'accesso alle risorse naturali che sia equo e vincolante e che coinvolga tutti gli attori;
> una normativa internazionale chiara, completa, coerente, efficiente ed efficace, che preveda istituzioni atte a garantire una protezione efficace dell'ambiente globale;
> la protezione della salute delle persone dalle ripercussioni causate dal degrado ambientale.

La politica ambientale internazionale contribuisce anche alle prestazioni economiche nel lungo periodo, alla concorrenza equa, alla lotta contro la povertà, alla pace, alla sicurezza, alla garanzia dei diritti dell'uomo e alla politica della Svizzera volta a promuovere la propria candidatura per ospitare la sede di istituzioni e organizzazioni internazionali che operano nel settore ambientale.

La Svizzera si impegna affinché i *principi generali* sanciti nella sua Costituzione e nella legislazione federale, in particolare la protezione dell'ambiente e i principi di precauzione, causalità e sostenibilità, siano attuati anche a livello internazionale. La protezione e l'uso sostenibile delle risorse naturali sono parte integrante anche degli altri settori della politica estera. Vi è quindi coerenza tra la politica ambientale nazionale e quella internazionale.

I *temi prioritari* della politica ambientale internazionale della Svizzera sono i settori clima, biodiversità, prodotti chimici, foreste e acqua, governance ambientale, commercio e ambiente come pure il finanziamento ambientale (quest'ultimo considera anche le esigenze ambientali nella cooperazione allo sviluppo). La collaborazione con l'UE costituisce un ulteriore tema centrale della politica ambientale internazionale della Svizzera.

Clima

La Svizzera persegue l'obiettivo della stabilizzazione del clima globale per evitare ripercussioni sull'ambiente, sulla salute delle persone e sulla prosperità economica e sociale. In questo senso, si impegna per la realizzazione degli obiettivi di riduzione delle emissioni inquinanti in tutti i Paesi industrializzati ma anche nei Paesi emergenti con livelli di emissioni elevati (in funzione della capacità finanziaria).

Biodiversità

La Svizzera ha come obiettivi la protezione e l'utilizzo sostenibile della diversità delle specie su scala globale come pure la conservazione dell'equilibrio ecologico e la ripartizione

equa dei vantaggi derivanti dallo sfruttamento delle risorse genetiche. La conservazione e l'uso sostenibile della biodiversità sono di centrale importanza per il funzionamento e la stabilità degli ecosistemi e quindi anche per i numerosi servizi offerti dagli stessi. La Svizzera si impegna infine per rafforzare le sinergie e la collaborazione tra le diverse convenzioni che interessano la biodiversità.

Prodotti chimici e rifiuti

La Svizzera si è data l'obiettivo di rendere sicura a livello mondiale l'utilizzazione dei prodotti chimici e intende ridurre al minimo i danni che le sostanze pericolose causano alle persone e all'ambiente. Per migliorare la coerenza e l'efficienza occorre sfruttare in modo più proficuo e sistematico le sinergie nel regime dei prodotti chimici e dei rifiuti.

Foreste e acqua

La Svizzera ha come obiettivo la protezione e l'uso sostenibile delle foreste. Si propone inoltre di attuare il principio della gestione integrata delle risorse idriche per proteggere e aumentare la qualità delle acque.

Governance ambientale

La Svizzera ha come obiettivo la realizzazione di un regime ambientale internazionale completo, coerente, efficiente ed efficace. Inoltre, si impegna nella promozione di riforme istituzionali che contribuiscano ad attuare con ancora maggiore efficacia e, se del caso, a sviluppare ulteriormente le normative e i processi internazionali che disciplinano il settore ambientale.

Economia, commercio e ambiente

La Svizzera si prefigge l'obiettivo di realizzare un equilibrio tra norme ambientali e regole commerciali sia nell'ambito dell'Organizzazione mondiale del commercio (OMC) che della politica commerciale bilaterale (libero scambio, investimenti). Nell'interesse del libero scambio si impegna anche per l'armonizzazione di standard ambientali adeguati nel quadro delle convenzioni ambientali. Le iniziative per un'economia ecologica lanciate in seno al Programma delle Nazioni Unite per l'ambiente (United Nations Environment Programme UNEP) e all'Organizzazione per la cooperazione e lo sviluppo economico (OCSE) devono condurre all'istituzione di un regime internazionale di gestione efficiente ed equa delle risorse naturali.

Finanziamento ambientale

La Svizzera si impegna affinché vengano messi a disposizione i mezzi finanziari necessari per l'attuazione della politica ambientale internazionale. Alla base del calcolo della ripartizione degli oneri vi sono i principi di causalità («chi inquina paga») e di solvibilità (capacity to pay). Infine, il nostro Paese vigila che la cooperazione allo sviluppo bi- e multilaterale sostenga gli obiettivi di politica ambientale.

UE

La Svizzera mira a una buona integrazione delle esigenze ambientali nei rapporti bilaterali con l'UE.

Nonostante i successi ottenuti in singoli settori, la distruzione dell'ambiente globale si è accentuata in modo drammatico nel corso degli ultimi anni. Benessere, giustizia, democrazia e pace non possono essere garantiti a lungo termine in un mondo che non conserva le basi naturali della vita.

Questo contesto ci pone davanti a grandi *sfide* per quanto riguarda il regime ambientale internazionale, il quale deve garantire la conservazione delle basi naturali della vita. Pertanto tale regime deve essere rafforzato, soprattutto con l'ulteriore sviluppo e l'elaborazione di regole chiare e incisive e con la rimozione delle lacune normative esistenti. L'efficacia del regime deve essere incrementata consolidando gli strumenti già disponibili. Per migliorare, ora ma anche in futuro, il rispetto delle regole e l'applicazione di tali strumenti sono indispensabili una specifica volontà politica e una maggiore disponibilità di mezzi finanziari, soprattutto nei Paesi in via di sviluppo. Al riguardo, la Svizzera deve fornire un contributo concreto.

Tenuto conto della natura globale delle sfide ambientali e degli sviluppi più recenti a livello politico – come il ruolo di primo piano assunto nei negoziati dai Paesi emergenti quali la Cina, l'India, il Brasile o il Gruppo dei 77 (G77), composto soprattutto da Paesi emergenti –, una politica ambientale internazionale svizzera di successo richiede un impegno elevato e competente, anche sul piano strategico. Il nostro Paese, situato al centro dell'Europa, deve inoltre valutare il suo rapporto strategico con l'UE. La continuazione di detta politica ambientale sul piano internazionale presuppone infine lo stanziamento delle risorse necessarie, sia in termini di personale che finanziari.

1 > Introduction and Objective of the Report

All our efforts to defeat poverty and pursue sustainable development will be in vain if environmental degradation and natural resource depletion continue unabated. Kofi Annan, In Larger Freedom, § 57, 2005

In the long term, any guarantee of decent living standards, justice, democracy and peace will be impossible in a world in which the demand for essential natural resources is constantly increasing. Just as the international community is seeking effective, common rules to ensure respect for human rights and to secure living standards, it must also seek to control the exploitation, protection and fair distribution of the world's limited natural resources.

The conservation of essential natural resources is one of Switzerland's foreign policy priorities, as laid down in the Federal Constitution (Art. 2, Art. 54 Federal Constitution[1]) and stated by the Federal Council in its 2010 Foreign Policy Report.[2] Switzerland is therefore committed in international organizations, processes and forums to a strong international environment system and to increased consideration for the protection and efficient exploitation of the environment.

Transboundary co-operation in the environment sector, above all with neighbouring states, began as far back as the 19th century. However, global environmental policy and international environmental law has essentially been developed since the start of the 1970s. Milestones in this development process are the United Nations conferences in Stockholm (1972) and in Rio (1992). The accompanying principles and regulations that were agreed in order to protect essential natural resources have brought considerable success in certain areas and improved the condition of the environment.[3] Furthermore, since 1970, awareness of environmental issues among the general public and policy makers has increased. These developments have been accompanied by scientific advances and institutionalized environmental monitoring.

The globalization of relationships and the increase in the world's population have exacerbated the pressure on natural resources. This has also made it clear that it is not possible to have economic development or to combat poverty without protecting the natural environment. The protection of the environment and the appropriate use and fair distribution of natural resources thus remain important issues in international discussions and negotiations.

It is not only climate change and the shrinking ozone layer that are global problems; pollutants that spread around the world via the atmosphere, air or water, through the food chain or as constituent elements in products also represent a global challenge. Likewise, issues such as the protection of biodiversity or of forests can no longer simply be regarded as a problem in dealing with national resources. It is increasingly recognized that such matters are globally interdependent and are part of humankind's duty to preserve our heritage. And finally the issue of how to deal with natural hazards – sometimes triggered by the reckless exploitation of natural resources or by climate change – has also gained a foothold in international discussions.

Developments also indicate that co-operation on environmental issues and on economic, financial and development matters cannot be tackled separately. In this environment, international policy becomes efficient and successful where it can take equal consideration of the protection and use of natural resources or if it appropriately weighs up and balances interests in protection and interests in exploitation. Environmental policy is resource policy, and as such also influences economic and social policy.

According to the concept of resources policy, adverse impacts on the environment are caused:

> by the excessive extraction or use of natural resources in order to produce goods and provide services;
> by wastage in the production and the use of goods;
> by the improper disposal of goods no longer required after use.

Inefficient production and consumption processes lead to excessive pressure on the environment and adversely affect the quality and quantity of other goods and services. State action must contribute to eliminating these obstacles and create general conditions that encourage innovation. This includes a commitment to effective international environmental regulations and greater integration of environmental and resources policies in other policy areas.

No single country can meet these challenges on its own. If a solution is to be achieved, international co-operation is essential. It is therefore hardly surprising that the environment

sector has steadily gained in importance in recent years at an international level.

The last "Report on Switzerland's co-operation in international environment-related activities" was published by the then Swiss Agency for the Environment, Forests and Landscape (SAEFL) in 1991. Since 1991, in addition to the conferences already mentioned, developments relevant to environmental policy have occurred at all levels – national, bilateral, in relations with the EU, regional and global – which is why there is now the need for a new report from the Federal Office for the Environment (FOEN). The aim is to provide an overview of the fundamentals and priorities of international environmental policy and of its importance to Switzerland. This Report deals with *environmental policy in its stricter sense* – i.e. measures that pursue environmental policy goals directly – and *environmental policy in its broader sense* – i.e. other (foreign) policy measures that have implications for the achievement of environmental policy goals. The aim is to provide an analysis of the current position that will form the basis for formulating the priorities for Switzerland's international environmental policy.

The Report closes by considering the outlook for measures and priorities with which Switzerland can firstly set medium-term trends in international environmental policy and can also exploit its international commitment in the environment sector as a key strength in its foreign policy. To sum up, it can be confidently stated that Switzerland is a credible partner in international environmental policy. The current policy should be continued and consolidated in support of other policies.

[1] SR 101.

[2] Foreign Policy Report 2010 of 10 December 2010, BBl 2011, 1013.

[3] See for example the Global Environment Outlook: Environment for Development (GEO-4, 2007), Europe's Environment – The Fourth Assessment (2007), OECD Environmental Outlook to 2030 (2008), OECD Environment Report on Switzerland (2007), The European environment, state and outlook 2010 (synthesis report).

2 > A Changed International Environment

Various crises in recent years – in particular the food crisis and energy crisis – have shown that current ways of dealing with natural resources and commodities are not sustainable, as they stifle economic growth and reduce general prosperity. Climate change, the global loss of biodiversity, the growing shortage of water, not to mention increased sea levels and flooding in many regions of the Earth or the increasing scarcity of non-renewable resources (e.g. certain metals) have led individual countries to focus their attention on international co-operation.

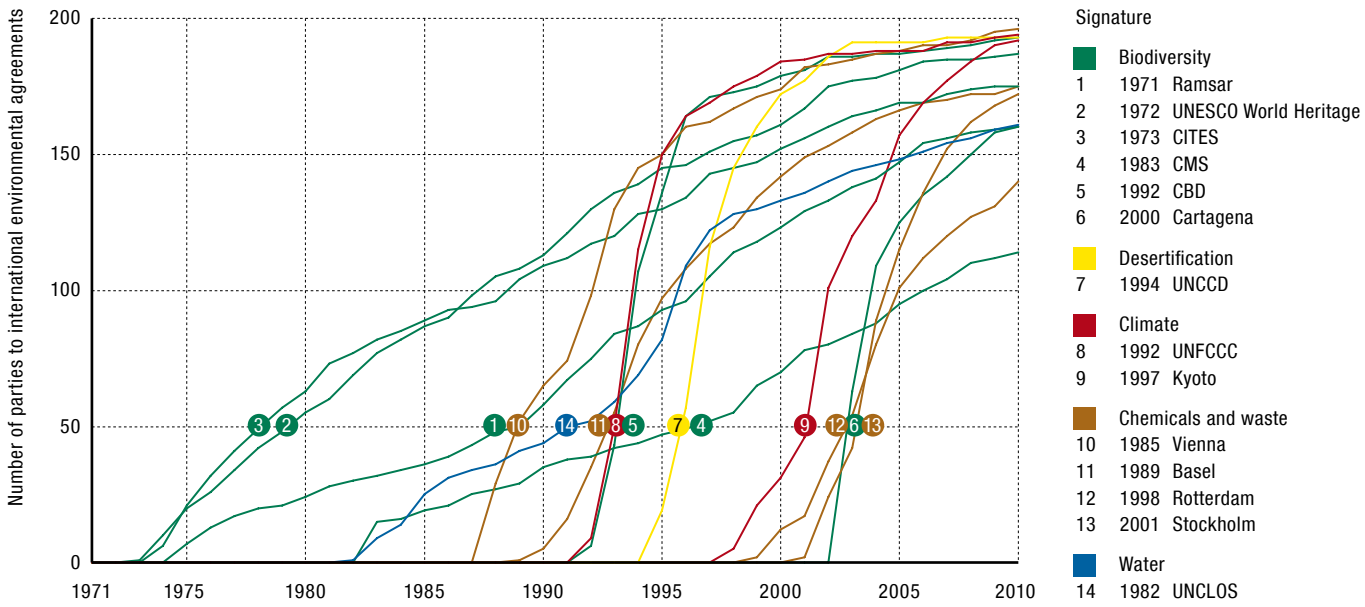
The *emerging economies*, above all the BRICS states (Brazil, Russia, India, China, South Africa), represent a growing challenge for international environmental policy due to their size and the way in which they are developing. Their share of environmental pollution and emissions, the extent of their resources and the pressure they exercise on the world's natural resources as a result of their rapidly growing consumption are having increasingly significant effects on the global environmental situation. As globalization progresses, these states are having a growing influence on the development of the world economy and the international political agenda, not least in the environment sector. Here they pursue a policy which accords higher priority to short-term economic interests than the interest in sustainable development. By contrast, the *USA*, after more than a decade on the sidelines, is back playing a more active role.

Under the Lisbon Treaty (in force since 1.12.2009), the *EU* has new responsibilities in relation to territorial cohesion, environment (climate change), energy policy, fishing, tourism, civil defence, administrative co-operation and humanitarian aid. Energy policy and the guiding objective of environmental policy, "the fight against climate change", are given their own legal basis in the Lisbon Treaty, with the aim of encouraging regional and international co-operation. In addition, the new position of Climate Commissioner has been created, primarily to tackle the issue of climate change. In view of the measures that the EU has taken in the climate sector, and especially its stated goal of achieving the climate-energy package of reducing greenhouse gas emissions by 20 %, the EU Commission is claiming quasi-exclusive powers for the Union in climate matters. Despite the reservations of member states, a shift in power to the EU can thus be observed in this field. The strategic goals of the EU and its member states in environmental policy, and also the corresponding measures taken by the EU – in addition to climate policy, chemicals policy and the resource efficiency strategy are especially worthy of mention – must be regarded as ambitious by global and by OECD comparison. They originate primarily from those member states that accord major importance to the protection of essential natural resources. By setting ambitious goals in environmental policy and attempting to take account of environmental protection in its foreign policy, the EU is seeking to play a pioneering role in the international arena.

In view of this, Switzerland's positioning can play a decisive role in the successful development and implementation of global environmental agreements. In addition, it is a fact that international regulations and – with an eye on Switzerland – European legislation increasingly determine national environmental policy. Formulating an independent national environmental policy – completely separate from the international and European context – is virtually impossible in this day and age. Given its location at the heart of Europe, Switzerland must take appropriate account of the changed international environment when determining its own international environmental policy.

Fig. 2a > Number of parties to international environmental agreements

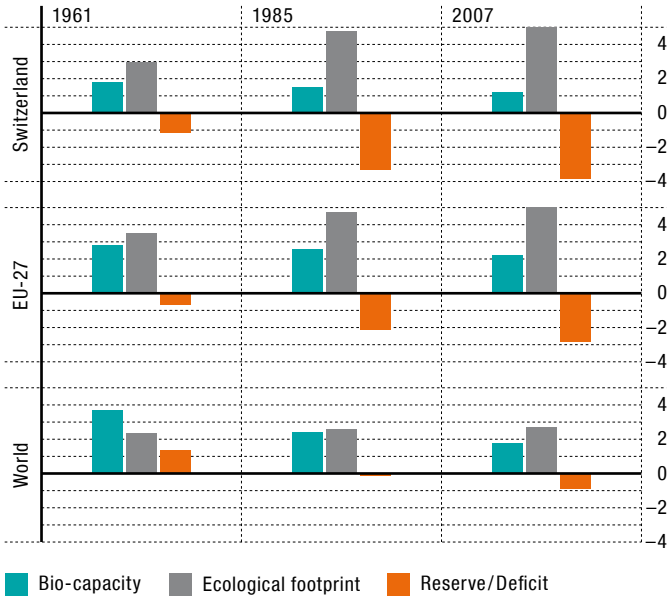
The increase in the number of parties to international environmental agreements shows the increasing importance of international environmental policy.



Source: UNEP 2011; see list of abbreviations and Annex I for the full titles of the agreements

Fig. 2b > Ecological footprints: Switzerland, EU-27 and world

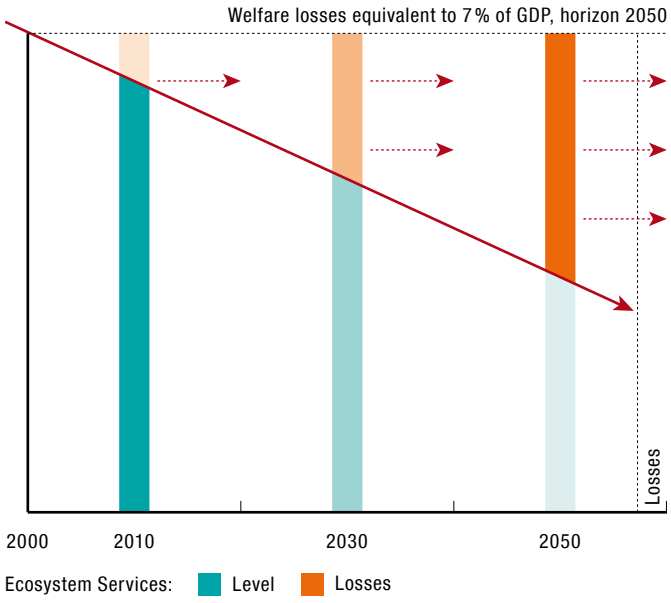
Bio-capacity represents the resources in each case, the ecological footprint shows the extent they are used. Where there is a deficit, an economic system is not sustainable.



Source: Global Footprint Network 2011

Fig. 2c > Welfare loss due to dwindling ecosystem services

Destruction of the environment leads to a fall in the ecosystem service level. By 2050 this will translate into a welfare loss of 7 % of the global gross domestic product (GDP).



Source: TEEB 2008

3 > Switzerland's International Environmental Policy: Interests and Goals

3.1 Switzerland's interests

Through its active international environmental policy, Switzerland not only contributes to the protection and sustainable use of the global environment; even more so, it upholds its own interests, as the following examples illustrate:

> Environmental pollution does not respect national borders. Pollutants reach Switzerland by air, in the food chain or in products. Around the globe, ecosystems are dependent on one another and influence each other, which means that any action or lack of action in relation to the use of ecosystems has an influence on the state of the environment in Switzerland (and in other countries). This means that in many respects Switzerland can only protect its own environment effectively if it co-operates with the international community.
> Switzerland has a direct economic interest in conserving and gaining access to natural resources in other countries.
> A harmonization of environmental standards at an international level will protect Swiss industry against unfair competition and facilitate international trade.
> The protection and sustainable use of the environment prevents social problems and conflicts and encourages sustainable development.

International environmental policy is therefore in Switzerland's national interest. As no country can go it alone if it wishes to meet the most important environmental challenges, it is also in Switzerland's interest to shape and specifically to promote international, and in particular European co-operation and the decision-making process.

3.2 Constitutional principles

Switzerland formulates its interests and goals in international environmental policy on the basis of certain constitutional principles. These principles require Switzerland to conserve essential natural resources and to encourage sustainable development (Swiss Federal Constitution Art. 2 para. 2 and 4, Art. 54 para. 2, Art. 73 ff.).

This commitment to the effective international regulation of environmental matters is also based on the following principles:

> The *precautionary principle*: environmental pollution must first and foremost be countered using preventive measures, i.e. environmental damage should be prevented rather than repaired. This applies even in cases where there may (still) be some scientific uncertainties as regards certain cause-and-effect relationships. This means that environmental policy measures are also required in situations where there is simply a danger or risk of environmental pollution due to certain conduct. However, in such situations, the principle of *proportionality* must also be observed.
> The *polluter pays principle*: anyone who (potentially) causes environmental pollution should in principle bear the costs of its prevention, reduction or elimination.
> The *integration principle*: environmental policy cannot be pursued in isolation. On the contrary, it can only be effective if its interests are taken into account in other policies (transport, foreign trade, energy, etc.).
> The *principle of sustainability*: (economic) development must proceed in a way that allows the requirements of future generations to be satisfied.

In fulfilling these obligations, conflicts may arise with other constitutionally required goals (such as those relating to the economy and welfare, energy supply, transport, security, agriculture, combating poverty). Switzerland's international environmental policy must take account of these other goals. Likewise, in pursuing these other goals, environmental policy must also be taken into account.

Lastly, Switzerland's international environmental policy is derived from what has been achieved at a national level and is set out in the relevant legislation. At the same time, international agreements must be implemented as national law. The interaction between national and international environmental policy levels is therefore necessary and expedient.[4]

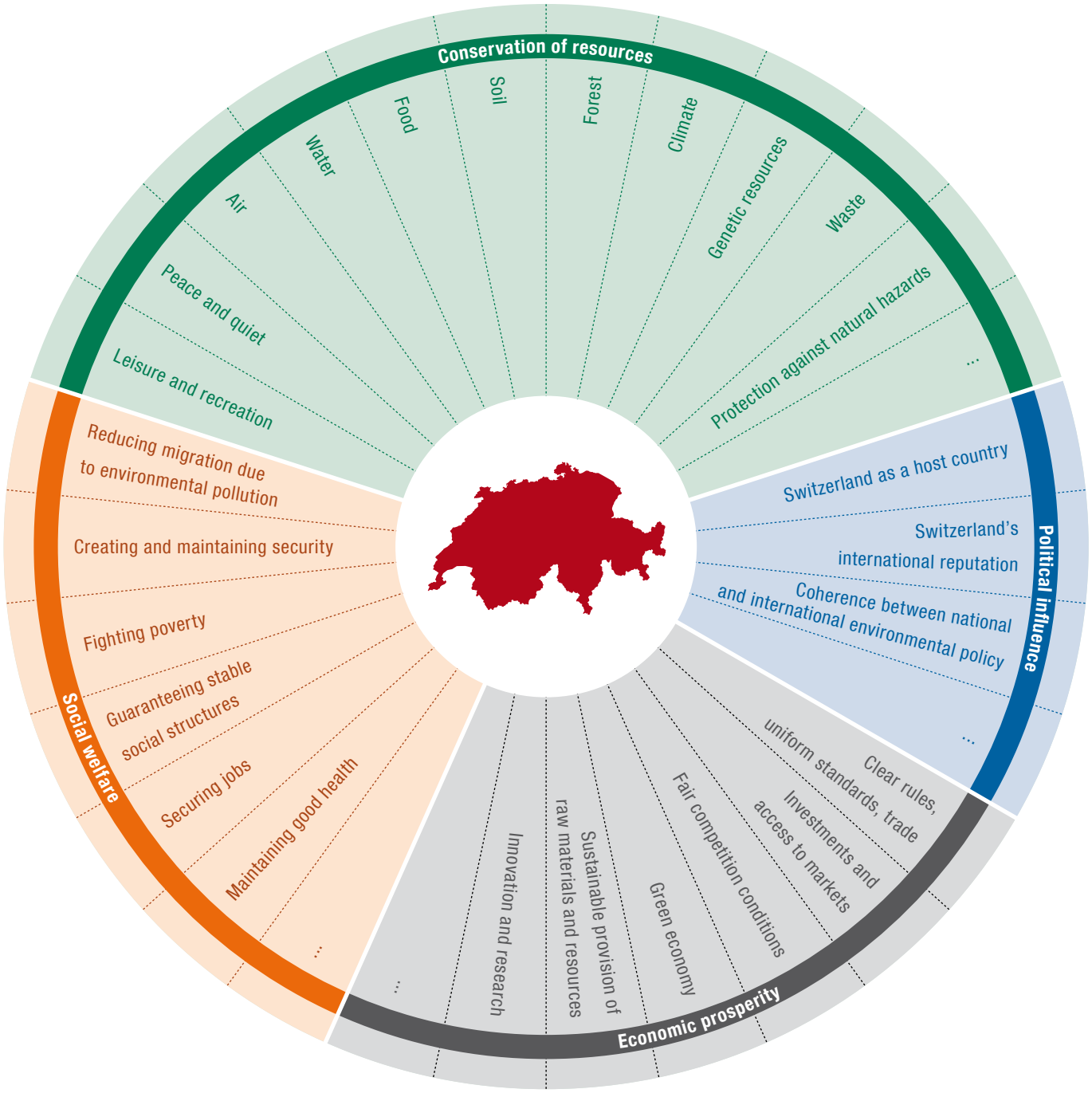
3.3 Switzerland's goals

In view of the above, the following principal goals for Swiss international environmental policy can be identified:

> to protect and maintain the essential natural resources and to use them sustainably and efficiently with the aim of stabilizing the quality and quantity of natural resources in the long term;
> to create a fair, legally-binding resource system that involves all stakeholders;

Fig. 3 > Interests underlying Switzerland's international environmental policy

Damage or risk to the environment often has a negative effect (directly or indirectly) on other assets. A stable environment in the long term, however, guarantees Switzerland's economic and social well-being. Environmental policy is thus in the national interest.



Source: FOEN 2011

> to establish clear, comprehensive, coherent, efficient and effective international rules with corresponding institutions to secure the effective protection of the global environment;
> to protect the public from adverse health effects due to environmental degradation.

3.4 Incorporation in other policies

Environmental policy is an interdisciplinary area whose goals, concerns and requirements must be taken into account in all other relevant policy areas. It goes without saying that this principle applies to international environmental policy as well: an effective and efficient international environmental policy will only succeed if account is taken of environmental protection interests in all aspects of foreign relations. The following policy areas are of particular importance:

> In its *Foreign Economic Policy Strategy* from 2004, Switzerland declared its commitment to creating and complying with international rules in the environment sector, to an internationally harmonized and coordinated course of action, and to striving for the most complete and representative coverage of countries by international environment agreements.[5] In addition, greater account should be taken of the consumption of natural resources in international trade policy and efforts should be made to press ahead with the development of a strategic resources policy.[6] The keynote chapter of the 2009 report on foreign trade shows how the Federal Council upholds ecological responsibilities and social solidarity in its foreign trade policy. In relation to international regulations, the Federal Council pursues the goal of reinforcing international environmental and social security agreements. In addition, it calls for co-operation and coherence among the relevant international organizations and agreements as well as voluntary measures in the private sector.[7] This commitment also brings economic benefits.
> As part of international efforts to achieve a *green economy*, the aim is to develop the framework conditions of economic and environmental policy so that obvious market failures are remedied. Improving resource efficiency, production and consumption should reduce the natural consumption of resources to an ecologically sustainable level, on a world-wide scale. This is also in the interests of the competitiveness of the Swiss economy.
> In relation to *development co-operation*, it must be ensured that projects or measures do not compromise effective environmental protection in general and the sustainable management of environmental resources in particular.
> In other policies with an obvious environmental connection – such as agriculture, transport or energy policy (see Chapter 6.3) – account must be taken of environmental concerns when formulating goals and measures. It may even be necessary to take measures in these policy fields that are primarily environmentally motivated in their objectives, such as the enforcement of the polluter pays principle in the transport sector.

3.5 Contribution to other policies

Switzerland's international environmental policy thus contributes to long-term economic performance, fair competition, the fight against poverty, the maintenance of peace and security, and respect for human rights, not to mention Switzerland's role as a host country to international organizations. This means that in addition to the primary objective – conservation of essential natural resources – environmental policy supports other goals and policies. Here five areas are worthy of special mention:

> *Peace and security*: Environmental degradation, in conjunction with other factors, can constitute a significant threat to peace. This is demonstrated, for example, by conflicts over access to scarce resources.[8] The lives and health of people are also directly threatened where the environmentally damaging activities of humans increase the extent or effect of natural hazards.
> *Economy and society*: Only through the effective protection of essential natural resources can economic and social stability, including food security[9], be guaranteed in the medium to long term. If essential natural resources are exploited beyond their regenerative capacities, the basis for economic activity disappears with them. In the regions affected, a rise in social tensions is regularly experienced. Effective environmental protection thus helps to prevent food crises, fight poverty and establish stable social structures. In addition, international environmental policy should help to bring more equality in commercial competition and thus serve to prevent or at least reduce eco-dumping, i.e. obtaining price benefits by applying lower environmental standards in production. At the same time, harmonizing environmental standards is also in the economic interest, as this can reduce trade barriers and encourage environmental innovation.
> *Migration*: environmental degradation can lead to significant levels of migration. Effective environmental protection can therefore help to curtail migratory flows that are due to environmental pollution.

> *International reputation*: Switzerland's expertise and innovative and dynamic approach to environmental issues can strengthen its standing in other fields.
> Lastly, Swiss international environmental policy supports Switzerland's role as a *host country* to international organizations. As the home to important environmental institutions and organizations, Geneva has furthered its position as a location for international institutions.

3.6 Switzerland's role

As the Federal Council has reiterated in its reports, the protection and sustainable use of natural resources are a priority of Swiss foreign policy and foreign trade policy. In taking this line, Switzerland is upholding its essential interests. This also defines Switzerland's role in the international environment: the fundamentals for success in Swiss environment and resources policy are coherence and persistence. An active commitment is important when setting goals (how much protection, how much use), when selecting instruments (regulations, free-market instruments, contributions) and when negotiating and implementing international rules. Coherence is also necessary with a view to making efficient use of federal funding and strengthening the competitiveness of the Swiss economy. Thanks to its active and ambitious approach, Switzerland has been able to initiate and exert a decisive influence on important processes (e.g. in the chemicals sector) and is regarded as a credible partner.[10] High domestic environmental standards (e.g. in air pollution control, forest and waters management, prevention of natural hazards, biogenic fuels) and technical expertise testify to the pioneering role that Switzerland plays and bring international credibility.

This pioneering role and Switzerland's innovative power may pay dividends for the environment and the economy. When called on to do so in the past, the Swiss economy has adapted to the strict requirements and thus established high environmental standards in the relevant industrial sectors. This has had positive effects, not least on Switzerland's standing as a production location and on its competitiveness. In return, Swiss proposals on international environmental policy gain additional weight and attention. In Geneva, Switzerland lastly can offer environmental institutions and organizations an attractive and globally recognized location close to numerous other international institutions.

Switzerland can effectively contribute its strengths and expertise to meet global environmental challenges. Switzerland's status as a credible partner in international environmental policy is also due to its financial commitment, which must keep pace at least with the commitment of other comparable countries and in particular with that of the EU.[11]

[4] With this in mind, in addition to the conventions and agreements concluded at an international level (Annex I), Annex II lists the most important constitutional provisions, acts and ordinances relevant to international environmental policy.

[5] See Report on Foreign Economic Policy 2004 of 12 January 2005, BBl 2005 1089, in particular No. 1.3.2.

[6] See Report on Foreign Economic Policy 2008 of 14 January 2009, BBl 2009 727.

[7] Report on Foreign Economic Policy 2009 of 13 January 2010, BBl 2010 479.

[8] See also in this connection the relevant remarks in the Report on Swiss Foreign Policy in the 1990s of 29 November 1993 (BBl 1994 I 153) and in the Foreign Policy Report 2000 (Aussenpolitischer Bericht 2000. Präsenz und Kooperation: Interessenwahrung in einer zusammenwachsenden Welt, of 15 November 2000, BBl 2001 261).

[9] In 2009 the Federal Council approved the Report on the Scarcity of Resources and Raw Materials requested by parliament. It used this assignment as an opportunity to examine the reasons for food crises and shortages in detail and to show how provisioning can be guaranteed in Switzerland. This involves careful management of resources and raw materials and increasing international co-operation: www.news.admin.ch/NSBSubscriber/message/attachments/16536.pdf

[10] See Interface/Büro Vatter (2007): Evaluation der Umweltaussenpolitik der Schweiz. Lucerne. This external impact study was commissioned by the Federal Office for the Environment (FOEN) and came to the conclusion that Swiss environmental policy not only enjoys a high level of credibility and achieves more than one would expect for a country of Switzerland's modest size, but that it also has a positive effect on other political areas. The study noted additional strengths in the widespread acceptance of Swiss expertise, good co-operation with partners outside the administration and Switzerland's high degree of flexibility in international negotiations.

[11] The 2007 external impact study pointed out an imbalance between the growth in importance of international environmental policy and the resources made available to implement it, and recommended that new human resources be provided for Swiss environment-related foreign policy.

4 > Instruments and Institutional Framework

4.1 International environmental policy instruments

The instruments of international environmental policy are many and varied: they range from issuing regulations to using free-market measures, and also include financial contributions.

Particular importance must be accorded to legally binding *international agreements*. In recent years, a large number of such agreements have come into existence. According to information from the United Nations Environment Programme (UNEP), there are over 500 global and regional environmental agreements.[12] In addition to these, there are agreements that affect environmental policy in the broader sense. On the one hand this is evidence of the dynamics of this legal field, but on the other it leads to a certain fragmentation among the sources of international environmental law. This brings a risk of incoherence and makes a global vision for international environmental policy rather more difficult. Nevertheless, the conclusion, development and enforcement of such agreements represent the key instrument in international environmental policy.

In addition, there are numerous sources of international environmental policy in various *declarations, resolutions, recommendations, conference decisions* or even *declarations of intent*. The formulation and enforcement of such declarations and conference decisions is thus another important pillar of Switzerland's international environmental policy.

Instruments that Switzerland uses in its international environmental policy include:

> *environmental rules and regulations*
> *market-based instruments, environmental impact assessments* or *strategic environmental assessments* of programmes, projects, plans and agreements (such as trade agreements);
> the *funding, support and conduct of environmental projects* within the framework of the funding mechanisms of the agreements and multilateral and bilateral development co-operation.

The methods used in the interests of Switzerland's international environmental policy and in international regulations include:

> *partnerships* with selected states;
> *Swiss participation or membership* in offices or executive bodies, decision-making bodies of organizations and institutions or processes;
> *dialogue* and exchange at a high level, also making use of the external network of the Federal Department of Foreign Affairs (FDFA); co-operation with representatives of interest groups;
> the establishment of *secretariats* in Switzerland.

4.2 Institutional framework

Within the ambit of *global* or *multilateral co-operation*, of equal importance to involvement in agreements is involvement in the UN Environment Programme (UNEP)[13] and in the Global Environment Facility (GEF)[14]. More broadly speaking, co-operation under the auspices of the World Bank and the World Trade Organization (WTO) is also important to international environmental policy.[15]

Regional environmental co-operation takes place primarily through the UN Economic Commission for Europe (UNECE), the Organization for Economic Co-operation and Development (OECD) and the Council of Europe.

At a *bilateral level*, Switzerland essentially co-operates on three levels:

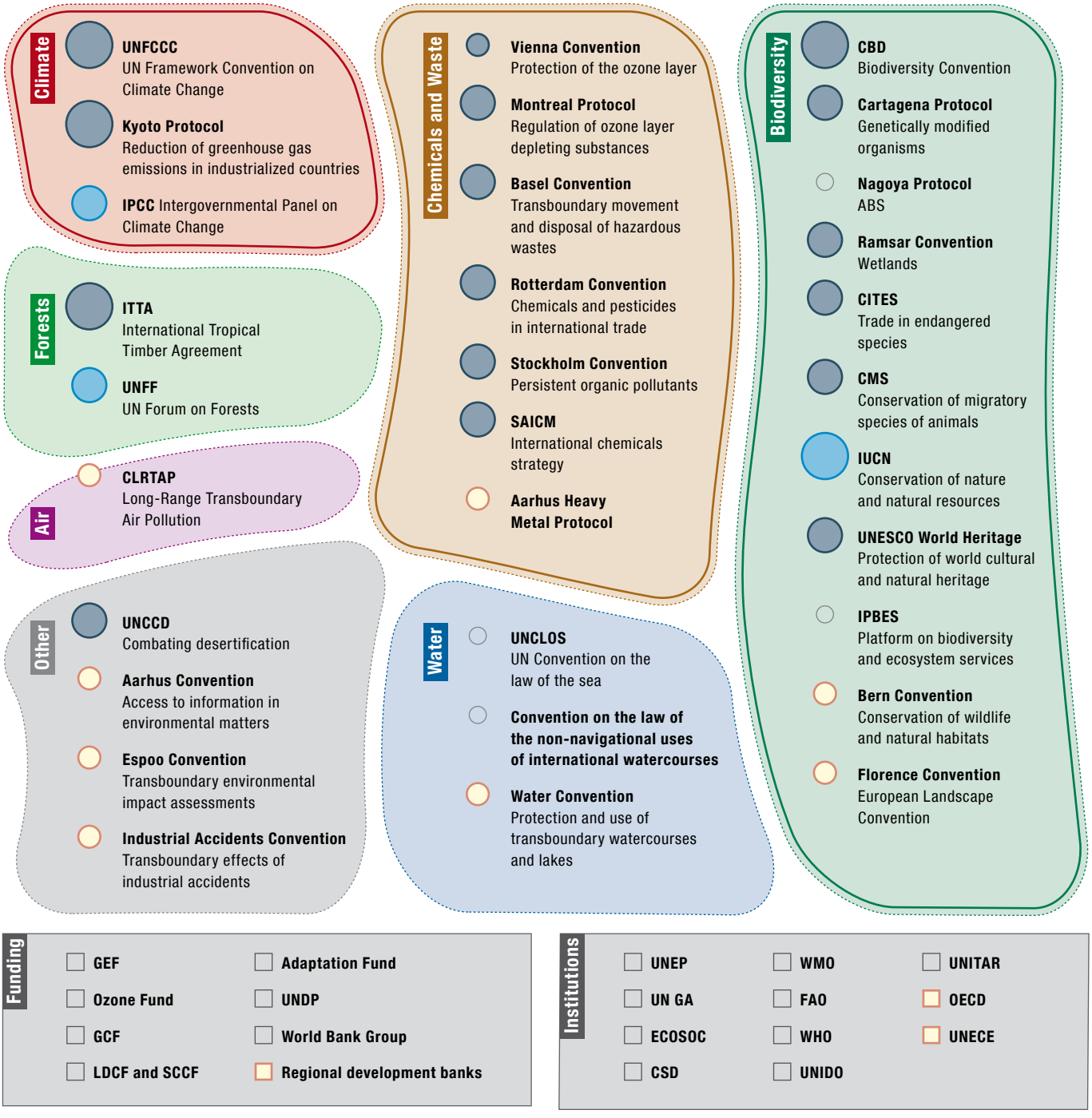
> environmental aspects in various *bilateral agreements with the EU*;
> *treaties with neighbouring countries* on specific environmental problems, for example on issues relating to the use of resources (in particular water);
> *bilateral agreements*, (under international law, in principle non-binding) *memoranda of understanding* (MoU) or specific *co-operation projects*, which essentially further political dialogue, the exchange of experiences and / or technology transfer.

Agreements or MoUs already exist with Uruguay (2005), China and Indonesia (2009).[16]

In a broader sense, environmental policy interests can be asserted when negotiating and concluding free trade agreements, when making direct investments abroad and when entering into investment protection agreements, when granting export risk insurance[17] and in the mixed economic affairs committees of the Federal Department of Economic Affairs (FDEA) and the State Secretariat for Economic Affairs (SECO). The institutionalized political dialogue of the Federal Department of Foreign Affairs (FDFA) is also used to assert environmental policy interests, as are measures of the Swiss

Fig. 4a > Clusters and actors in the international environmental regime, with a secretariat's budgets

With over 500 agreements, the international environmental regime is highly dynamic. At the same time, there is a risk of fragmentation and incoherence. As regards funding, some agreements, in addition to secretariats, which in certain cases administer two or more agreements, also have funding mechanisms and work programmes.



Source: Diagram FOEN 2011, based on UN 2006 and FOEN 2009; see list of abbreviations and Annex I for the full names of actors and agreements

Agency for Development and Cooperation (SDC) and of SECO's Economic Co-operation and Development Division.

For the sake of completeness, it should be pointed out that there are additional, in some cases rather *informal co-operation forums*, of which the following are of particular importance:

> The *Ministerial Conference on the Protection of Forests in Europe (MCPFE)*[18] – whose first meeting was held in 1990 – comprises regular meetings at ministerial or expert levels of representatives of around 40 European states including the EU and formulates recommendations aimed at the sustainable use and protection of forests.

> At Switzerland's instigation, the *German-speaking environment ministers* of Germany, Austria, Liechtenstein and Switzerland have been meeting regularly since the 1980s to exchange information on current environmental issues. The meetings assist in preparing for and following-up important conferences.

[12] See Annex I.

[13] See www.unep.org

[14] The GEF is the funding instrument for a variety of global environmental agreements that support projects on global environmental protection in developing and transition countries.

[15] An overview of the most important international institutions and organizations in the environment sector can be found in Annex III.

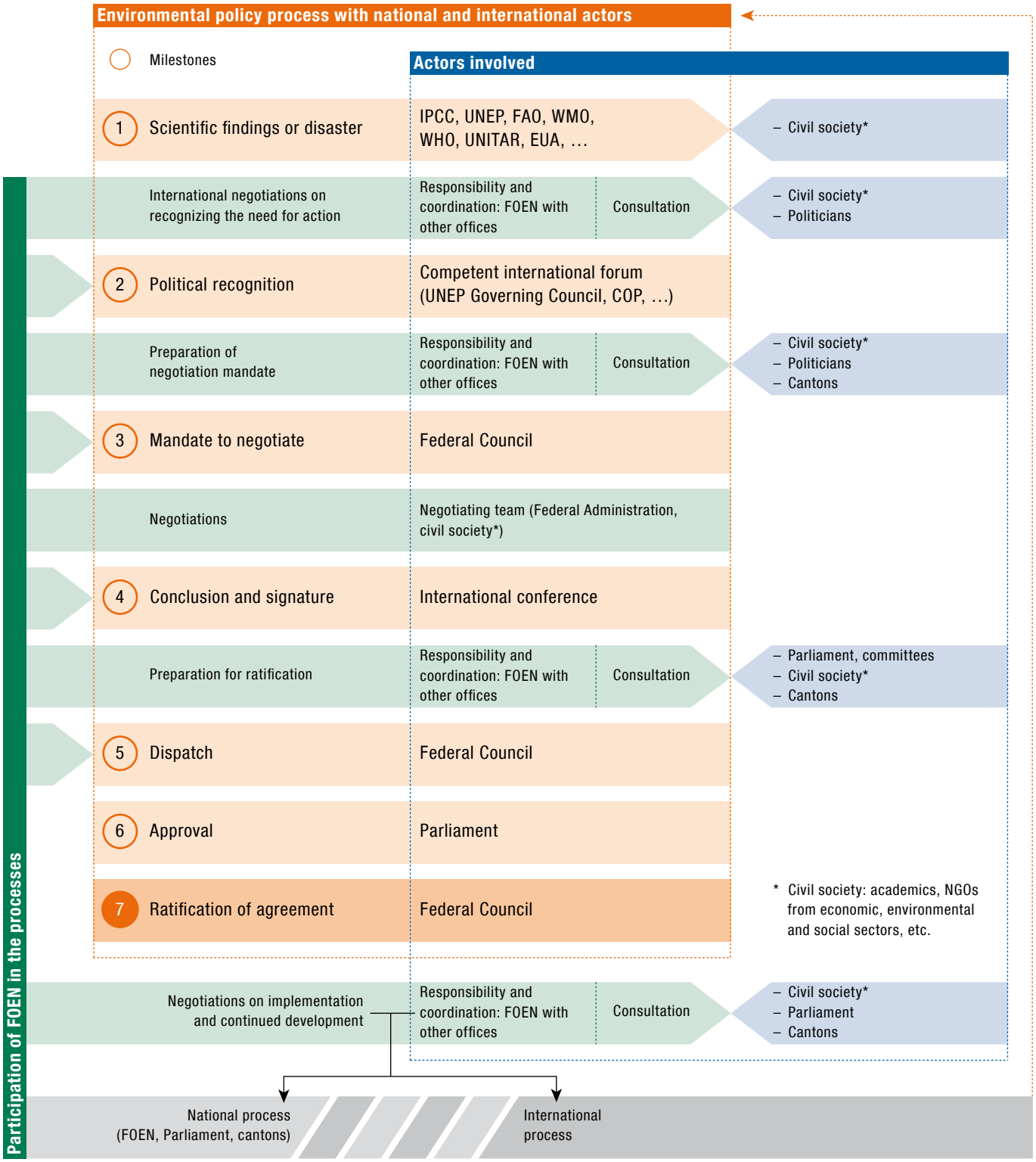
[16] An agreement made with the former USSR in 1989 and adopted by Russia has yet to be implemented (SR 0.814.097.721).

[17] Switzerland supports the export activities of domestic industry, and here the export risk insurance is of special importance. When deciding on whether to offer such support, consideration should also be given to whether the relevant projects comply with the required environmental standards, as formulated in the corresponding OECD recommendation. See the Federal Act on Swiss Export Risk Insurance of 16 December 2005 (SERIA), SR 946.10. See also the Federal Act on the Promotion of Exports, SR 946.14.

[18] See www.mcpfe.org

Fig. 4b > How an international environment agreements is created

New international environment agreements are normally created based on scientific findings, often following a catastrophic incident. In Switzerland, it is usually the FOEN that manages the process all the way through the planning, implementation and further development of a agreement.



Source: FOEN 2011; see list of abbreviations for the full names of the actors

5 > International Environmental Policy in the Stricter Sense

5.1 Climate

Principles

Since the industrial revolution, human activities have led to an increased concentration of greenhouse gases in the atmosphere, and this has caused a rise in temperature on all continents with the exception of the Antarctic. The perceptible consequences of this are a rise in sea level since the middle of the 20th century, changes in the global circulation of the winds and the paths of extra-tropical storms, as well as more frequent episodes of heavier rainfall and more severe drought since the 1970s.

If the harmful effects of climate change are to be prevented, the average temperature of the atmosphere must not rise by more than 2°C above the pre-industrial level. To achieve this, the Intergovernmental Panel on Climate Change (IPCC) has calculated that by 2050 global emissions of greenhouse gases will have to be reduced to 50 – 85 % of their level in the year 2000.[19]

Climate change is a global phenomenon that demands a solution involving all the world's countries. With the 1992 United Nations Framework Convention on Climate Change (UNFCCC), the required multilateral institution was created, which was reinforced by the adoption of the Kyoto Protocol in 1997.

Climate change is a global problem. However, the responsibilities of states and the degree to which they are affected vary enormously. While most countries that underwent industrialization at an early stage have emitted large volumes of greenhouse gases for a long time, newly industrialized countries have only recently become significant emitters. Although most industrialized countries still have higher per-capita emissions than most developing countries, the significance of emissions from developing and transition countries is rapidly growing. China has now overtaken the USA as the largest emitter. Within the UN Framework Convention on Climate Change, this issue is tackled through its key principle of joint but differentiated responsibility.

In order to mitigate climate change, therefore, a far greater contribution is demanded from industrialized countries than from newly industrialized and developing countries, because the former are generally responsible for higher emissions and also have more financial resources and the technologies required to reduce emissions. However, an effort to reduce emissions must be made by newly industrialized and developing countries as well, as their share of emissions already exceeds that of established industrialized countries and is expected to continue to rise.

The UN Framework Convention on Climate Change places the emphasis on mitigating the effects of climate change by reducing greenhouse gases and by introducing a requirement to increase the absorption of these gases in CO_2 sinks, such as the rainforests. The Kyoto Protocol also creates obligations for industrialized countries. However, the USA, which did not ratify the Protocol, is not bound by such obligations. The fight against climate change is not however limited to reduction, as the effects are already ominous and make adaptation necessary. The vulnerability of newly industrialized and developing countries to the effects of climate change is greater, due to their geographical location and their limited financial resources. The Convention therefore provides that industrialized countries support developing countries in their efforts to adapt to the consequences of climate change.

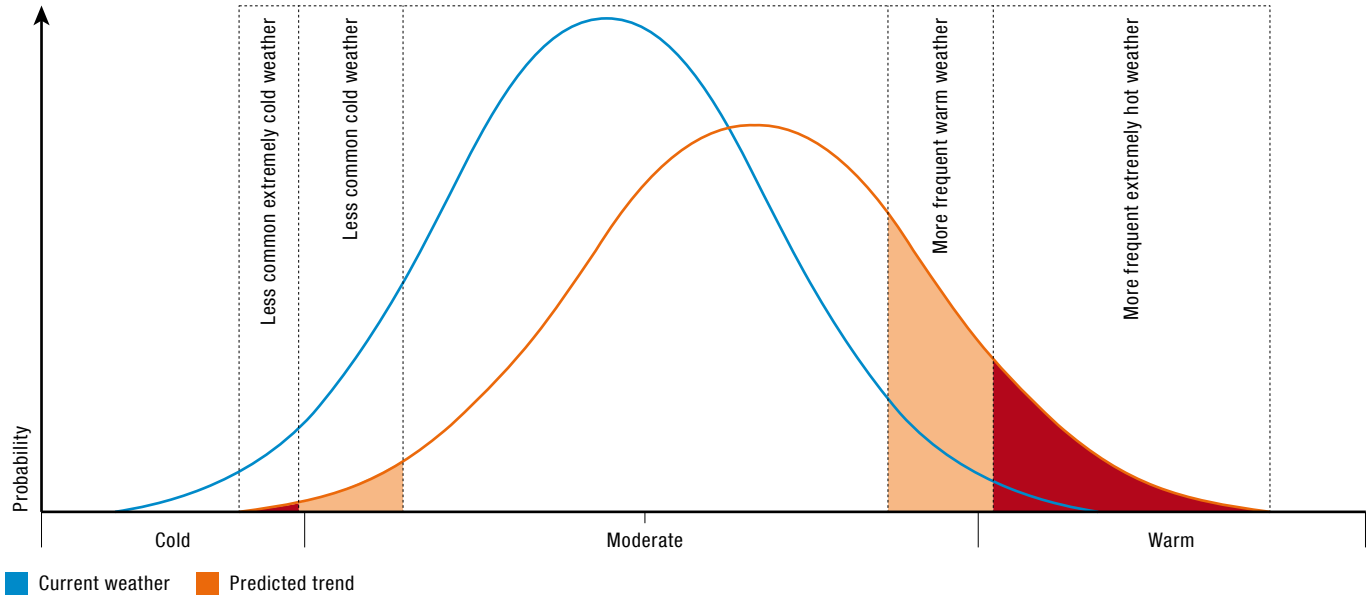
These multilateral negotiations are often characterized by a divide between industrialized and developing countries: whereas industrialized countries demand a commitment from newly industrialized countries to monitor and reduce their greenhouse gas emissions, the group of developing countries demand similar legal obligations for industrialized countries only. Within both blocs there are differences: in contrast to the other industrialized countries, the USA, which has not ratified the Kyoto Protocol, takes a critical view of clear joint regulations. Among the developing countries, China, India, Brazil and Saudi Arabia are especially critical of legal commitments, while the African countries and small island states in particular demand a comprehensive and binding international climate regime.

The Bali Action Plan, which was adopted at the 13th Conference of Parties to the UNFCCC at the end of 2007, gave new impetus to international climate talks. Since then, discussions have focused on future reduction efforts following the expiry of the Kyoto Protocol in 2012 and the long-term commitment of the USA and newly industrialized countries. In addition, the Bali Action Plan provides a framework for discussions on adapting to the consequences of climate change and the financial resources, technologies and capacities required to do this in the developing countries.

At the 15th Conference of Parties to the Convention in Copenhagen 2009, the international community initially acknowledged the Copenhagen Accord as a political decision for

Fig. 5.1a > Switzerland's future climate

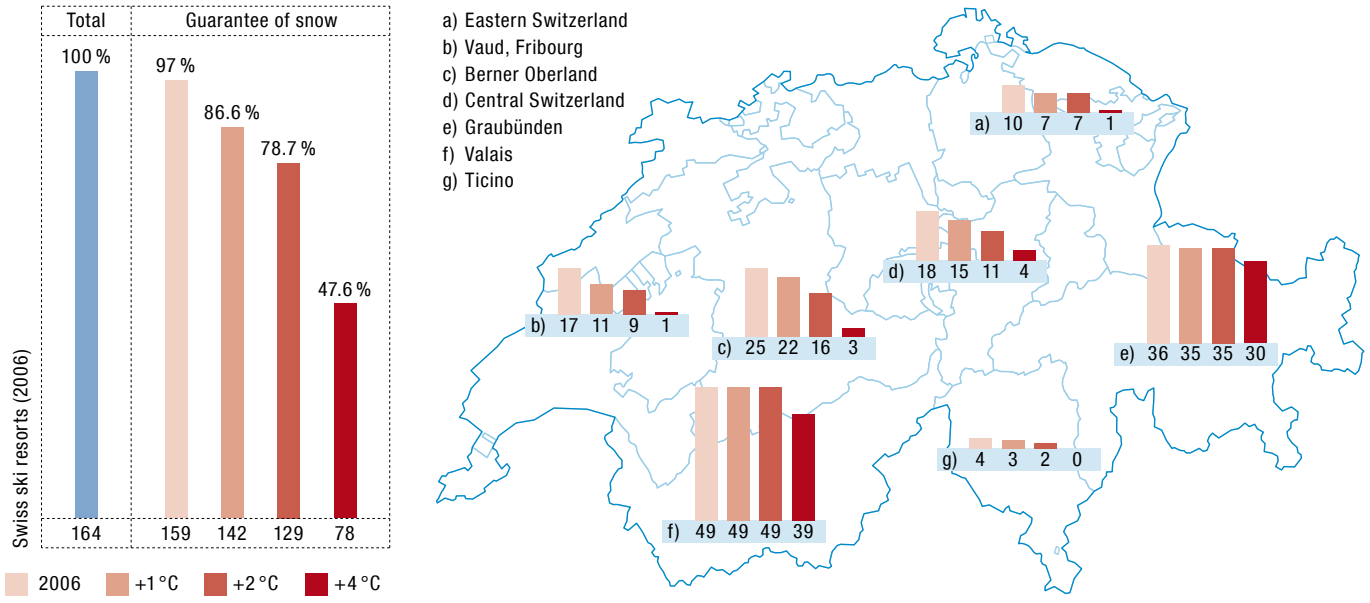
The effects of climate change are most readily seen in the temperature extremes: in Switzerland in the future, extremely hot weather will be more frequent and exceptionally cold weather far less common.



Source: OcCC 2003, CH2011

Fig. 5.1b > Decline in the reliability of snow cover at Swiss ski resorts

The number of ski resorts with guaranteed snow cover will fall by more than half in comparison with 2006 if Switzerland's climate warms up by an average of 4 °C. This may, however, already occur with global warming of only 2 °C. With certain exceptions, only ski resorts in the Valais and Graubünden will then be guaranteed snow.



Source: Diagram FOEN 2011, based on OECD 2006

the time being. As a consequence, industrialized countries have for the first time disclosed their reduction targets for the period after 2012 and developing countries have revealed their measures to reduce emissions. However, these goals, as they are formulated, fall short of the IPCC requirement to stabilize global warming at 2°C above the pre-industrial level. In order to support developing countries, the Copenhagen Accord also includes a "Quick Start" programme of 30 billion dollars for 2010–2012 and long-term support of 100 billion dollars up to 2020.

At the 16th Conference of Parties to the Convention in Cancún in December 2010, elements of the Copenhagen Accord were successfully integrated into a formal climate policy regime. At the same time, the decision was taken to draw up modalities for monitoring the reduction of emissions. The Kyoto contracting states also undertook to conclude talks on a second commitment period under the Kyoto Regime as quickly as possible, in order to avoid a gap following 2012. In addition, decisions were taken on various institutions to reinforce climate policy regime. In particular a new climate fund (the Green Climate Fund) was set up and it was agreed to establish a committee on adaptation issues as well as a mechanism for technology transfer.

Interests

Switzerland, with its complex and vulnerable mountain ecosystem, has a very keen interest in finding effective solutions to the problem of climate change. It could also be very seriously affected by climate change: if the global temperature rises by 2°C in comparison to its pre-industrial level, IPCC scenarios predict that this could mean a temperature increase of 3 to 4°C in Switzerland. The effects in Switzerland would be far more serious than in other countries.

Climate change in Switzerland has led to a reduction in snow cover and in permafrost, melting glaciers and an increase in heavy precipitation. Inhabited areas of the Alps are increasingly exposed to rock avalanches, debris flows and landslides. Countless economic sectors are affected: changes in the rainfall levels and the volume of water retained probably mean that changes will have to be made in relation to electricity generation and water supply. Winter tourism could face serious difficulties, as ski resorts at altitudes between 1200 and 1600 metres are no longer guaranteed sufficient snow and, depending on the extent of climate change, higher regions may also be affected. Agriculture and forestry will have to contend with considerable losses due to drought and storms.[20]

Switzerland has shown solidarity with the international community in combating global warming. As an industrialized country and signatory to the Kyoto Protocol, it is fulfilling its responsibilities in the fight against climate change and reacting with measures to mitigate and adapt to the consequences of climate change.

However, Switzerland is also keen to ensure that the global economy operates efficiently. Climate change could pose a risk to this[21] and cause an increase in refugees fleeing from its effects. In addition, Switzerland, with its capacity for innovation, also has an interest in being able to export its clean, low-CO_2 technologies.

Goals

Switzerland's international climate policy is based on a commitment to developing an effective and comprehensive global climate policy regime in accordance with the UN Framework Convention on Climate Change. Switzerland advocates ambitious and binding reduction targets, not only for all industrialized countries, but also for newly industrialized countries that produce high emissions in comparison with their capacities. In order to encourage the most efficient form of emissions reduction, Switzerland is also committed to an international framework involving flexible mechanisms.

When determining the level of financial support given to developing countries, Switzerland favours the application of the polluter pays principle.

Switzerland's priorities are therefore:

> to agree on a legally binding regime with quantitative reduction targets for industrialized countries and newly industrialized countries;
> to expand and bolster existing flexible mechanisms for achieving these reduction targets;
> to create an effective mechanism to ensure that the emission reduction measures formulated are implemented.

Switzerland also wants to guarantee that the new climate fund established in Cancún in 2010 is developed as part of the Convention's financing mechanism and as an addition to the existing sources of funding. It is also committed to efficient and environmentally sound regulations on emission reductions based on sustainable forest management. Lastly, it is ready to continue its commitment to insurance systems to support developing countries in adapting and reducing the harmful effects of climate change.

It has the opportunity to raise its profile through its involvement in the Swiss-founded Environmental Integrity Group (EIG), which comprises representatives of both industrialized countries and newly industrialized countries[22], and also in the Cartagena dialogue between progressive countries.

In addition, Switzerland is seeking to join the EU Emissions Trading System.

Next steps

> Negotiation of the future international climate policy regime for the period after 2012. Essentially, the aim is to

continue the commitments of industrialized countries to the Kyoto Protocol and to include other major emitters who are not bound by the Protocol.
> 2013: Fifth IPCC Assessment Report, which will focus on regional aspects of climate change and will evaluate the findings on accelerated climate change. Based on this report, it is planned to review and if need be modify the 2°C goal.
> Start of talks on the commitments for the period following 2020.

5.2 Biodiversity

Principles

The conservation and sustainable use of biodiversity is vital for the function and stability of ecosystems and accordingly also crucial to the numerous benefits that ecosystems bring. For example, intact biodiversity at a local level is important for maintaining soil fertility, providing clean water or protecting against climate change. At a global level, the genetic pool holds enormous potential for businesses (medicines, foodstuffs, chemical products), food security and the avoidance of climate change or the adaptation to such change. Many species are reliant for their long-term survival on a network of ecological niches that extends beyond national borders. Various business sectors such as tourism, trade or agriculture have a considerable impact on biodiversity.

In the multilateral system, the Convention on Biological Diversity (CBD) plays a key role. It tackles biodiversity at the level of ecosystems, species and genetic diversity. Its three goals, which are of equal importance, are:
> the conservation of biological diversity;
> the sustainable use of its components;
> the fair and equitable sharing of the benefits arising from the utilization of genetic resources.

The Biodiversity Convention was expanded in 2003 to include the Cartagena Protocol on biosafety in relation to genetically-modified organisms (GMOs). In 2010, agreement was reached on adding the Nagoya Protocol, which has yet to come into force, and which regulates access to genetic resources and the fair and equitable sharing of benefits arising from their utilization and related traditional knowledge.

In addition, there are further conventions covering specific species or natural milieus, such as the Bonn Convention on the Conservation of Migratory Species of Wild Animals, the Ramsar Convention on Wetlands, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Bern Convention on the Conservation of European Wildlife and Natural Habitats. Further conventions such as the UN Framework Convention on Climate Change or the Convention to Combat Desertification also relate to the protection of ecosystems.

Lastly there are agreements and organizations concerned with the use of natural resources in forestry, agriculture or trade that have a significant influence on biodiversity.

At the 10th Conference of the Parties to the CBD in Nagoya in 2010, it was decided that existing in harmony with nature should be achieved by 2050. Accordingly, it was resolved that immediate measures be taken to stop the decline in biodiversity, to protect it and ensure its sustainable use. Twenty far-reaching and measurable targets were agreed for 2020.[23]

[19] See IPCC (2007): 4th Progress Report. The IPCC is the main international body responsible for compiling and evaluating the results of climate research from the physical data to the socio-economic effects.

[20] OcCC / ProClim (2007): Klimaänderung und die Schweiz 2050: Erwartete Auswirkungen auf Umwelt, Gesellschaft und Wirtschaft. Bern.

[21] OECD (2009): The Economics of Climate Change Mitigation.

[22] The members are Switzerland, Mexico, South Korea, Monaco, Liechtenstein.

These include targets on protected areas, on the reduction of harmful subsidies and on protection of endangered species.

In order to implement these measures, additional financial resources are required. An international strategy to mobilize financial resources should encourage innovative international funding systems. In addition, needs should be prioritized and the sources of funding identified. The CBD should also devise clear guidelines that build on the vision, and develop performance indicators to be used by the Global Environment Facility (GEF).

The numerous scientific findings on biodiversity and the ways in which ecosystems operate are currently too fragmented for us to gain a general overview and devise political measures. The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) should remedy this and act as an intermediary between scientists and policy makers.

Interests

Switzerland has an interest in the preservation of global biodiversity for a variety of reasons:

> *Ecological reasons*: Biodiversity preserves the equilibrium and the adaptability of the ecosystem.
> *Economic reasons*: As far as natural resources are concerned, Switzerland is largely an importing country. Accordingly, it is interested in long-term access to natural resources and their benefits for agriculture, industry and research.
> *Ethical reasons*: Future generations should also be able benefit from the diverse and essential functions of ecosystems.
> *Political reasons*: In order to maintain its credibility as an industrialized country, Switzerland has an interest in playing an active role in global efforts to maintain biodiversity. Commonly the least developed countries more than any others are heavily dependent on biodiversity.

Goals

Switzerland intends to develop and consolidate effective measures to protect and benefit from biodiversity. It supports a robust biodiversity regime with the CBD as the main instrument under the control of the United Nations Environment Programme (UNEP) and wants to increase its coherence and effectiveness. The strategic plan devised at the 10th Conference of Parties in Nagoya should serve as a guideline for all biodiversity-related institutions and agreements.

Coordination between the CBD and other biodiversity-related multilateral environmental agreements should be increased and synergies exploited. In addition, coherence should be encouraged between the CBD and other organizations and forums (Framework Convention on Climate Change UNFCCC, UN Convention on Combating Desertification UNCCD, Food and Agriculture Organization FAO, World Trade Organization WTO, UN Commission on Sustainable Development CSD) that have an influence on the global use of natural resources.

Switzerland supports the implementation of the global Strategic Plan for Biodiversity 2011 – 2020. Accordingly, global biodiversity targets must be coordinated with the relevant sector policies and strategies (above all agriculture, forest policy, tourism). In addition to national measures, Switzerland supports the implementation of the Strategic Plan at a global level, in particular in countries in the southern hemisphere, through financial aid, development co-operation and the exchange of knowledge.

As part of its commitment to the CBD, Switzerland is encouraging research into funding needs. It is therefore looking to ensure that the Global Environment Facility receives the resources required in relation to biodiversity and that the effectiveness of the Fund is increased. More account should be taken of biodiversity criteria in the activities of other funding mechanisms or development institutions (such as the World Bank, UN Development Programme UNDP, REDD+). Switzerland advocates internalizing the costs of conserving biodiversity in order to encourage investment by private and public players in natural capital. It is supportive of innovative incentive systems such as payments for ecosystem services and participates in exchanging experiences. It also supports the "The Economics of ecosystems and biodiversity TEEB" study, which provides guidelines on evaluating biodiversity and ecosystem services. The impact of the CBD recommendations on the modification, abolition or reallocation of subsidies harmful to biodiversity (above all in agriculture and forestry) should be reinforced through co-operation with the United Nations Conference on Trade and Development (UNCTAD).[24]

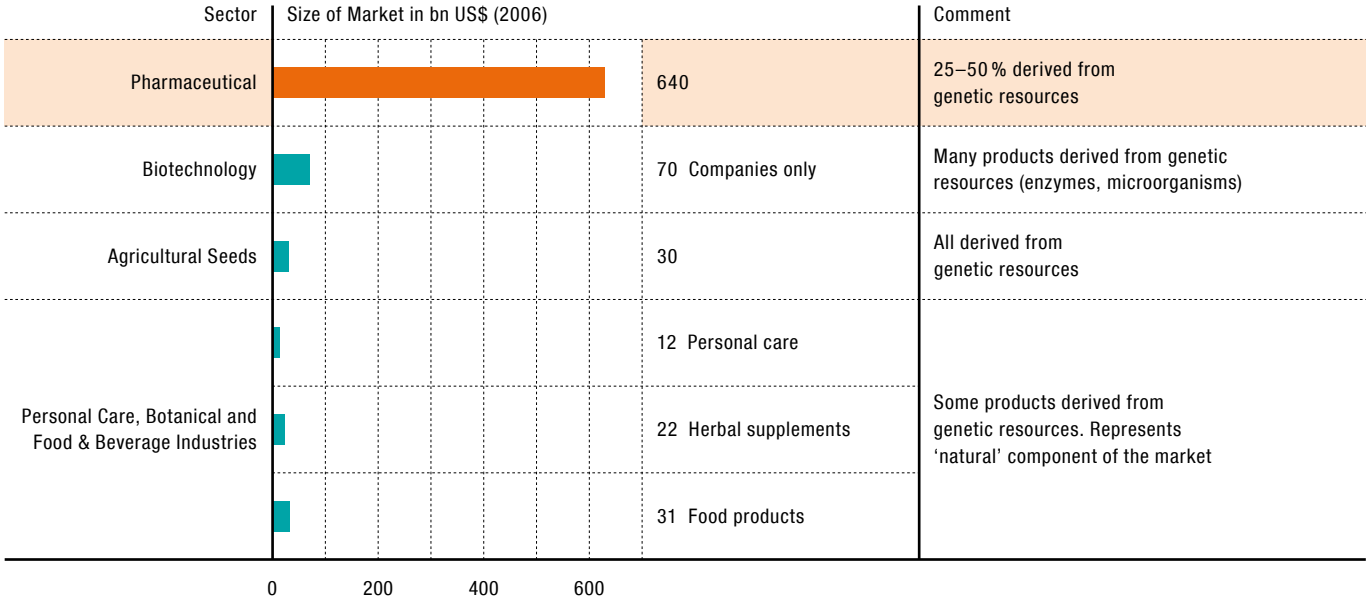
Switzerland supports the establishment of the Intergovernmental Science Policy Platform for Biodiversity and Ecosystem Services (IPBES). IPBES should play a key intermediary role between the worlds of science and politics and provide information to political decision-makers and international forums on the latest condition of and developments in biodiversity and on the action that is required. Switzerland takes the view that suitable indicators should be devised through IPBES that will allow the progress towards reaching the global targets for 2020 to be measured.

Next steps

> Geneva's position as a centre for environmental organizations will be strengthened by the expansion of the biodiversity cluster.
> Switzerland is encouraging the synergy process in the biodiversity sector. In addition to its work in formal negotiations (conferences of parties, scientific sub-

Fig. 5.2a > Market sectors reliant on genetic resources

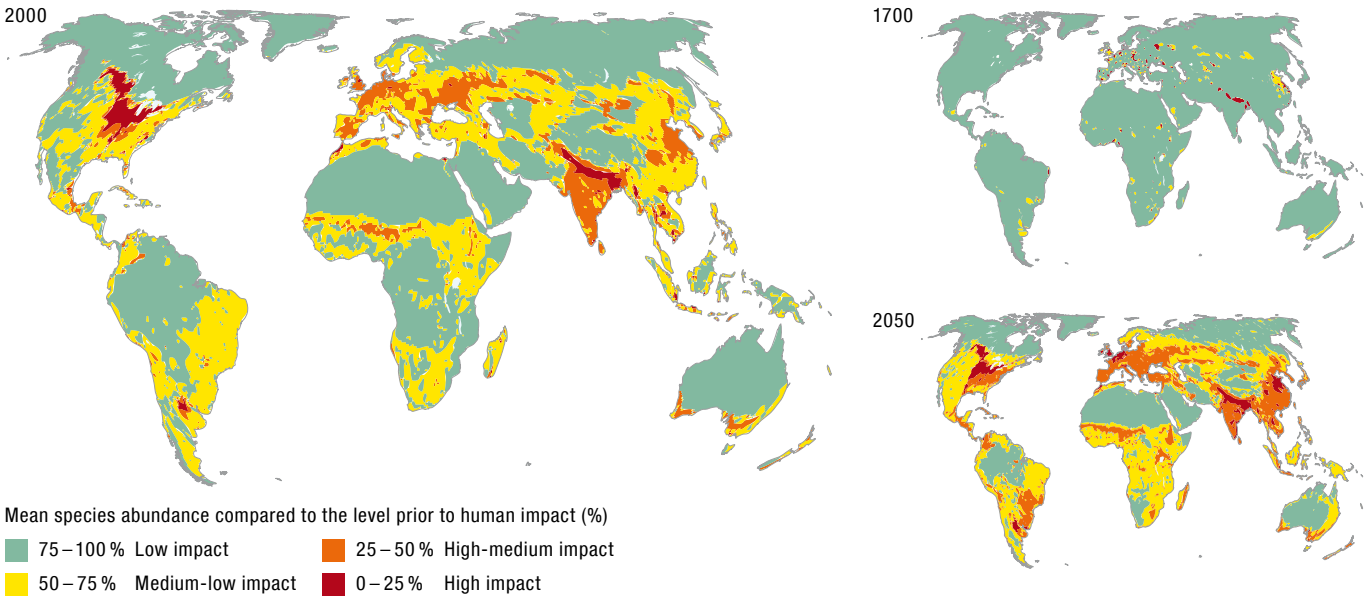
Various market sectors rely on genetic resources, including industries that are very important for Switzerland, such as the pharmaceutical industry or biotech facilities.



Source: CBD Secretariat 2008

Fig. 5.2b > The negative impact of humans on mean species abundance

Since the 18th century global human activities have had an increasingly negative impact on mean species abundance. Since the 1970s, abundance has fallen by around 30 %: every fourth mammal species is endangered. This trend looks likely to continue, particularly in South America and Southeast Asia.



Source: GLOBIO 2009

committees), Switzerland is also acting informally by holding meetings, in particular the Ministerial Meeting in Bogis-Bossey in the Canton of Vaud, and joint events with other agreements.

> Active involvement in the development of IPBES. This includes drafting a broad-based Swiss position and participating through IPBES in the development of indicators to measure success in implementing the goals of the CBD Nagoya Conference of Parties.
> Active Swiss commitment to ensuring appropriate financial support, in particular by increasing the financial resources of the GEF in relation to biodiversity and by creating innovative new sources of funding.
> Ratification and implementation of the Nagoya Protocol and its rules on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization.
> Implementation of the Strategy Plan for Biodiversity 2011 – 2020 on the protection of biodiversity including continued development of existing rules on species protection and the extent and quality of conservation areas.

[23] The full text of the Strategic Plan and the goals is available on the following website: www.cbd.int/decision/cop/?id=12268

[24] See the implementation of the Strategic Plan 2020 for biodiversity in accordance with Decision X/2 of the CBD COP-10.

5.3 Chemicals and waste

Principles

Chemicals are essential to humankind's well-being and are used in virtually every area of life. A multitude of chemicals has become prevalent throughout the world in the air and the water, the food chain, through trade in products and also as waste. Effective protection from dangerous chemicals for humans and the environment, as well as the fair distribution of opportunities and risks thus requires international coordination and co-operation.

The development of the global chemical and waste regime over the past three decades is one of the success stories in international environmental policy. At a global level, several important agreements have been concluded and instruments developed that help protect human beings and the environment against dangerous pollutants and waste. The most important global agreements include:

> the Vienna Convention for the Protection of the Ozone Layer (1985);
> the Montreal Protocol (1987), which calls for the phasing out of the production and consumption of substances that deplete the ozone layer;
> the Basel Convention (1989), which regulates the transboundary movement of hazardous and other forms of waste and their environmentally sustainable disposal, and also in principle calls for a reduction in the production of hazardous and other waste;
> the Rotterdam Convention (2008), which requires the prior consent of importing states for certain hazardous chemicals in international trade;
> the Stockholm Convention (2001), which aims to phase out the production and use of certain persistent organic pollutants.

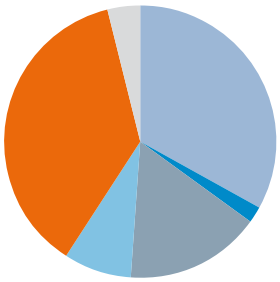
Other important instruments include the UN's global harmonized system on the classification and marking of hazardous chemicals (2002) and the Strategic Approach to International Chemicals Management (SAICM 2006), which provides a politically binding framework for all agreements. All organizations responsible for the aforementioned agreements and instruments – with the exception of the Vienna Convention and the Montreal Protocol – have their headquarters in Geneva.

The most important organizations for the international chemicals and waste regime are the United Nations Environment Programme (UNEP) and its Chemicals Branch, which is based in Geneva, the United Nations Institute for Training and Research (UNITAR), the Food and Agriculture Organization (FAO), the World Health Organization (WHO) and the International Labour Organization (ILO). The most important institutions that deal with chemicals and waste policy at a global

Fig. 5.3a > Switzerland's most important export industries

Chemicals and pharmaceutical products account for the largest share of Swiss exports in turnover terms. Switzerland thus has a special interest in the global harmonization of the related environmental and safety standards.

	CHF bn	
Food, beverages, tobacco	7.4	4 %
Chemicals and pharmaceuticals	75.9	37 %
Watches	16.2	8 %



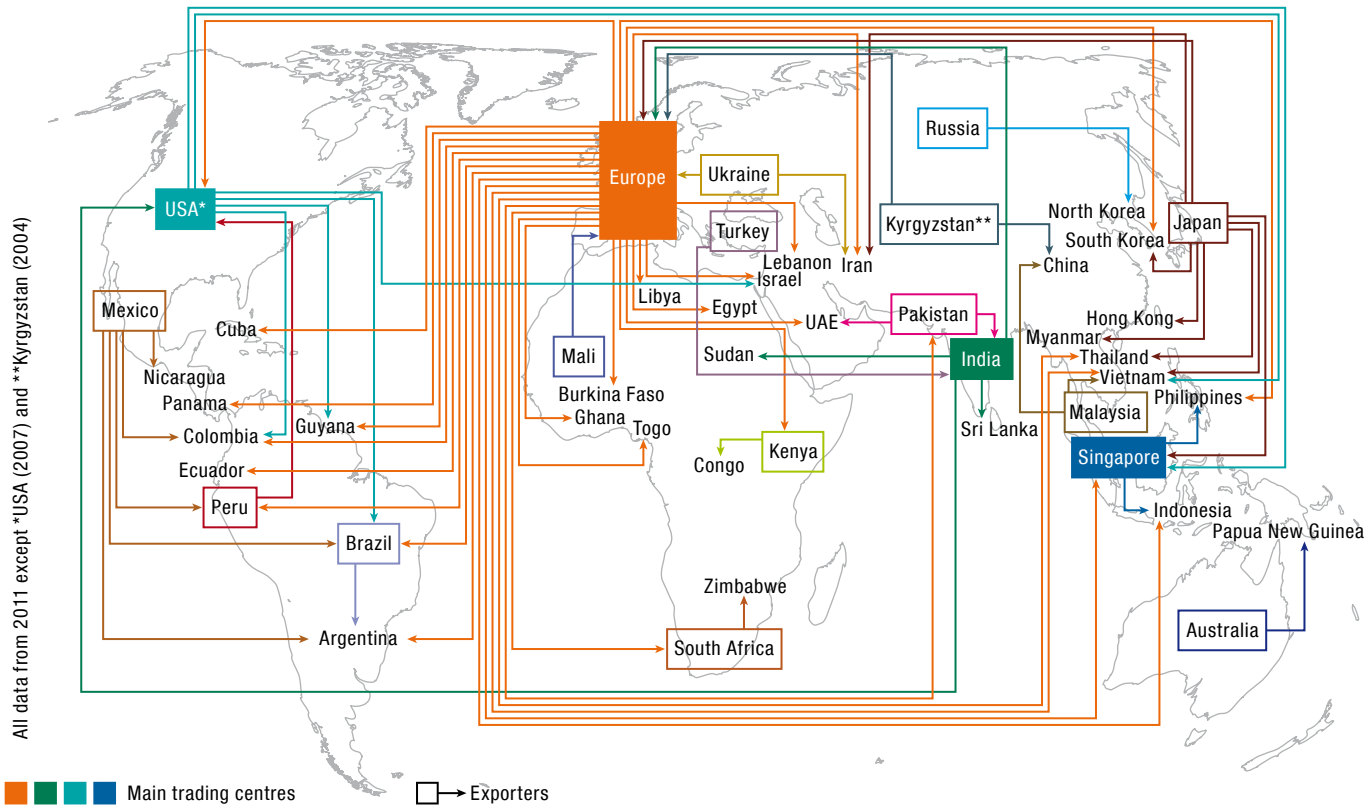
	CHF bn	
33 %	67.6	Metals and machinery
2 %	3.4	Textiles and clothing
16 %	33.0	Others

Total Swiss exports: CHF 203.4 bn (2010)

Source: OZD 2011

Fig. 5.3b > Global trade flows in mercury

Chemicals like mercury are traded globally. Uniform regulations thus have a major influence on the protection of the environment and on fair trade.



Source: Diagram FOEN 2011, based on ZOÏ Network 2011 and UN Comtrade 2011

level are united within the Inter-Organization Programme for the Sound Management of Chemicals (IOMC).

At a regional level, there are further important agreements and instruments such as the Protocol on Persistent Organic Pollutants (1998) of the UN Economic Commission for Europe (UNECE) or the Protocol on Heavy Metals (1998),[25] the EU's REACH regulation[26] and the chemicals programme of the Organization for Economic Co-operation and Development (OECD).

Thanks in part to Switzerland's considerable contribution, it was decided in 2009 at the 25th meeting of the UNEP Governing Council to draw up a new convention on mercury. The negotiations on the new convention began in June 2010 and should be completed by 2013.

Given the increasing density of regulations and institutions, Switzerland has initiated a process at international level to make better use of synergies in the chemicals and waste disposal regime. In 2010, the three central conventions, Stockholm, Rotterdam and Basel, held a joint conference of contracting parties, deciding to establish a joint secretariat and common services.

One new global challenge has arisen in the form of artificial nanomaterials, which are now used in countless product areas. The risk posed to human beings by the manufacture of nanomaterials and the question of how to dispose of them environmentally remain unsolved problems. The first steps towards developing a global approach to this issue are being taken at Switzerland's behest as part of the global chemicals strategy. In relation to waste, the question of how to treat electronic and electrical waste sustainably is currently a serious problem. Public-private partnerships may provide a successful approach to this challenge, by involving players from the private sector on a voluntary basis under the Basel Convention, for example to assist in drawing up guidelines for the manufacturers of certain electronic products.

In addition, discussions are ongoing on expanding the Montreal Protocol to cover climate-relevant gases that also deplete the ozone layer.

Interests

Switzerland is an important location for the chemicals industry and chemicals-related research.[27] In the interests of this location and its reputation, Switzerland is keen to make an active contribution to an effective and comprehensive international chemicals and waste disposal regime. The aim is to protect humans and the environment from the harmful effects of chemicals and waste. This also includes mandatory general conditions for the safe use of chemicals throughout their life-cycle. In addition to this life-cycle approach, the precautionary principle and the polluter pays principle are especially important.

As the host state for the key institutions and administrative offices of the global chemicals and waste regime, Switzerland bears a special international responsibility.

As effective environmental standards apply in Switzerland that are strict by international comparison, it is also in Switzerland's interests to limit distortions of competition by means of international regulations.

Goals

Switzerland is pursuing the goal of establishing a comprehensive, coherent, effective and efficient international chemicals and waste disposal regime. To achieve this, the existing rules must continue to be developed and loopholes in the system must be closed:

Additional hazardous substances should be included in the Rotterdam and the Stockholm Conventions, in the Montreal Protocol and the UNECE Protocol on Persistent Organic Pollutants. Switzerland also wants to raise the issue of *nanotechnology* and *nanoparticles* in the SAICM. It is committed to the global regulation of *heavy metals*, which could be achieved by extending the mandate of the Mercury Convention to include heavy metals.

In the waste sector, Switzerland is seeking to further develop the Basel Convention from what is purely a "waste convention" into an instrument for *sustainable resource and materials management* and is introducing specific partnership initiatives in relation to *electronic and electrical waste*. Switzerland is supporting the package of measures that it has initiated jointly with Indonesia (a "country-led initiative") in order to effectively end the practice of exporting hazardous waste to countries that are unable to handle such waste safely.

In order to *improve coherence and efficiency*, contradictions between the instruments in the chemicals and waste disposal regime should be reduced and better and more systematic use should be made of synergies. The strategic goal is to coordinate and render coherent policy development and policy implementation under the Basel, Rotterdam and Stockholm Conventions. The synergy process should also be extended beyond the existing conventions. Switzerland is therefore calling for the new Mercury Convention to be incorporated into the existing chemical and waste clusters. In relation to this, it is also important that relevant policy areas such as health, agriculture, economic and development policy make a contribution towards chemicals and waste policy.

In order to achieve an effective chemicals and waste disposal regime, it is essential to implement existing agreements and make use of the instruments available. This process is often incomplete, above all in developing and emerging countries. An important aspect to this is funding. Switzerland is therefore committed to increasing the share of the new chemicals window in the Global Environment Facility (GEF) in

order to fund programmes in the chemicals and waste sector. Lastly, a more far-reaching implementation of REACH is being discussed.

Next steps

> At the conferences of parties to the Stockholm, Rotterdam and Basel Conventions as well as the meeting of UNEP Governing Council, further steps should be introduced towards the consistent implementation and development of decisions on strengthening the synergies between the three key conventions. In addition, Switzerland will call for the synergy process to be extended beyond the existing conventions to include further instruments and institutions in the chemicals and waste sector.

> In the negotiation process for the new Mercury Convention, Switzerland is calling for comprehensive and effective regulations on mercury and for an expansion of the synergy process to include this new convention. To this end, Switzerland is heading a group of like-minded states.

> At the third meeting of the International Conference on Chemicals Management (SAICM) in 2012, it is planned to raise the issue of nanotechnology and to make it a permanent element of the work programme. In addition, a solution for the long-term funding of the SAICM should be found.

> In 2013, the conferences of the parties to the Stockholm, Rotterdam and Basel Conventions will most probably be held simultaneously in Switzerland.

[25] Both Protocols form part of the UNECE Convention on long-range transboundary air pollution (1979).

[26] REACH stand for the Registration, Evaluation, and Authorization of Chemicals.

[27] Chemical products are Switzerland's second largest export sector. In 2009, the global turnover of Switzerland's ten largest chemical and pharmaceutical companies amounted to 149 billion francs. This means that the chemicals and pharmaceutical sector makes the second highest contribution to Switzerland's GDP, behind the metal and machine industry.

5.4 Water

Principles

A basic natural resource, water is a key factor in sustainable development. Without counting lakes and groundwater catchment areas, there are over 260 transboundary river catchment areas that cover 40 % of the Earth's landmass, reaching 40 % of the world's inhabitants and providing 60 % of our drinking water. Industrialized countries import goods and services from developing countries to an ever-increasing extent and in doing so outsource the problems that are tied to the continually growing water footprint (the total virtual water content of all goods and services that are consumed or used by any player). In this way, they are partly responsible for the exacerbated water crisis in many developing countries.

The water crisis is caused in part by incorrect management of the hydrological cycle. This includes the failure to protect water-producing ecosystems adequately, overexploitation, waste, pollution by chemicals, the failure to treat waste water and unfair distribution. A further important cause is population growth. By 2025, 1.8 billion people will live in regions with severe water shortages and two thirds of the world's population will live in areas with water stress. In addition, flooding and landslides caused by rainfall bring death and destruction. The management of transboundary waters also brings major conflict potential: it can lead to disputes between countries and is also a cause of migration. Climate change will affect water more than any other natural resource and the water crisis is set to worsen.

The majority of international environmental agreements have an influence on water. However, the Ramsar Convention on Wetlands is the only global convention in force that is at least in part directly related to water. The UNECE Water Convention (Convention on the protection and use of transboundary watercourses and international lakes of the UN Economic Commission for Europe (UNECE)) is the most important regional instrument. The related Protocol on Water and Health is a unique global instrument, as it aims to reduce water-related diseases by protecting the hydrological cycle, allowing better access to drinking water and by introducing formal commitments in relation to waste water treatment.

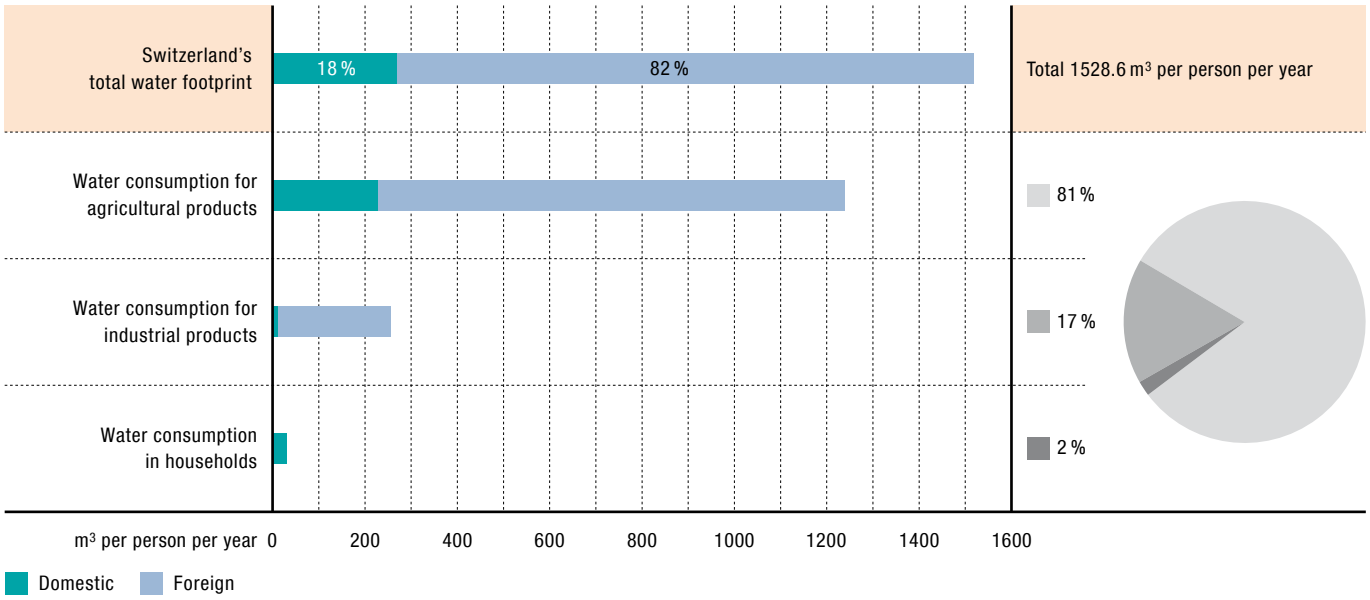
Interests

International water policy has as its main goal the integrated water resources management of national and transboundary waters and their catchment areas. As "Europe's reservoir", where the four largest rivers in Europe rise, Switzerland has an interest in fulfilling its responsibilities and protecting the water that flows into neighbouring countries.

However, Switzerland is also interested in ensuring that water is protected sustainably, both on a regional and a global

Fig. 5.4 > Switzerland's water footprint and virtual water consumption

The water footprint indicates the entire water consumption of a society. It takes account of the water used to manufacture consumer goods (virtual water). In the case of agricultural products like cotton or foodstuffs, Switzerland imports considerable quantities of virtual water from abroad.



Source: Mekonnen and Hoekstra 2011

basis. A global study has shown that around 80 % of Switzerland's virtual cumulative water consumption is imported (often from developing countries).[28] As a consequence, Switzerland bears a certain responsibility for ensuring improved water resources management beyond its borders. In addition, it has an interest in protecting and making sustainable use of the biodiversity of the seas – in part to keep fish stocks at sustainable levels.

As a member of the relevant committees, Switzerland also implements regional agreements with neighbouring countries on transboundary waters (e.g. in the Joint Rhine Commission, or in the international commissions for the protection of Lake Geneva, Lake Constance and Lake Lugano). International processes such as the World Water Forum, the water-related work of the Commission on Sustainable Development of the United Nations Environment Programme (UNEP), the World Meteorological Organization (WMO), the Organization for Economic Co-operation and Development (OECD) as well as the European water directors allow Switzerland to participate in the international political debate and to exchange information and experiences.

Goals

The international water regime and the synergies with other agreements, institutions and processes must be reinforced by means of a coherent water policy. Switzerland encourages the inclusion of players who deal with related issues such as spatial planning and the various ecosystems in the catchment area.

For Switzerland, the priorities in the international processes are:

> integrated water management;
> the adaptation of water resource management to take account of drought and flooding due to climate change;
> underground waters in terms of both quality and quantity;
> micro-pollution and nutrient pollution.

In order to place the issue of water permanently on the agenda at the highest political level, Switzerland is calling for the establishment of a global intergovernmental process for water under the auspices of the UN ("the United Nations Water Forum"). This should also be open to non-governmental organizations (NGOs) and help to encourage exchanges between the regions.

In order to protect and make sustainable use of interdependent ecosystems (soil, forests and wetlands), Switzerland advocates the implementation of an approach based on catchment areas. Economic instruments such as payments for eco-

system services and a partnership with the private sector are important in this connection. In addition, water resource management, particularly in transboundary regions, must be adapted to the effects of climate change.

Switzerland is calling for the expansion of the UNECE Water Convention at a global level. It also supports its ratification and implementation in Central Asia, a move that should reduce political tensions in that region. It is encouraging co-operation between UNECE countries and countries in the catchment area outside the UNECE Region.

Switzerland is showing solidarity with developing countries. It is committed to a harmonized, united and effective international water policy. Switzerland has a wealth of expertise in water resource management, which it is happy to pass on to other countries. In addition, Switzerland provides high-quality data for international reports.

Next steps

> During its presidency of the UNECE Water Convention from 2009 to 2012, Switzerland is organizing regional and global seminars on payments for ecosystem services, which should give rise to pilot projects.
> As part of the UNECE ministerial process known as "Environment for Europe", Switzerland is calling for a water strategy for the pan-European region.
> At the global Water Forum and in the meetings of the Commission on Sustainable Development, Switzerland is committed to having its main concerns addressed.
> Switzerland is also urging that the Secretariat for the Ramsar Convention be hosted in the near future by UNEP instead of the International Union for the Conservation of Nature (IUCN).
> At a bilateral level, the focus is on both co-operation within transboundary committees and practical co-operation, for example with China, in terms of the Memorandum of Understanding concluded in 2009.

[28] Mekonnen, M. M. and Hoekstra, A.Y. (2011): National water footprint accounts: the green, blue and grey water footprint of production and consumption. Value of Water Research Report Series No. 50, UNESCO-IHE, Delft.

5.5 Forests

Principles

Forests are one of the cornerstones of ecological stability and of economic and social development. They are crucial for the conservation and sustainable use of natural resources, good governance, social equilibrium, the fight against poverty, and for generating income and work.[29]

A decrease in forest vegetation cover increasingly leads to natural disasters, disturbs the hydrological cycle, reduces biodiversity and increases the effects of climate change. Deforestation contributes around 25 % to global greenhouse gas emissions. The global over-exploitation and destruction of forests is a growing threat that could lead to rising levels of poverty among local populations, and to social problems and migration.

Deforestation primarily affects the rainforests (200 000 km^2 per annum). The reasons for deforestation are the desire to export tropical timber and to convert forests to arable land in order to cultivate foodstuffs, biofuels or other export products, and the lack of any alternative to timber as an energy source. In many countries, the main obstacle to the protection and sustainable management of forests is inadequate governance: a lack of clarity as to rights of ownership and use, a lack of coordination at local, sub-national and national levels, and a lack of involvement on the part of the local population.

A significant portion of the Swiss population wants Switzerland to make an active international commitment towards the protection and sustainable use of forests around the globe. This is demonstrated by the considerable number of parliamentary motions relating to protecting the rainforests, the levels of CO_2 stored in timber products, the trade in illegally harvested timber or the obligation to declare the origin of timber, as well as the many letters from members of the public on such issues.

The multilateral system includes a variety of global agreements and some international forums and processes that also apply to the protection and exploitation of forests. At a global level, Switzerland is involved in the United Nations Forum on Forests (UNFF), the International Tropical Timber Organization (ITTO), the United Nations Convention to Combat Desertification(UNCCD), the Ramsar Convention on Wetlands, the Convention on International Trade in Endangered Species (CITES), the Forests Committee of the United Nations Food and Agriculture Organization (FAO), and at regional level it participates in the ministerial conference on the protection of forests in Europe, now known as Forest Europe, the Timber Committee of the United Nations Economic Commission for Europe (UNECE) and the European Forestry Commission of the FAO.

Interests

Switzerland has a major interest in achieving an effective international forest regime that promotes and guarantees the sustainable use of forests. The multiple functions that forests serve provide not only developing countries but also Switzerland with a wide variety of goods and services in the areas of water resource management, energy (firewood), agriculture (agroforestry) and the maintenance of the soil, biodiversity, and climate. Forests also serve as a recreation area. Ensuring the multifunctionality of the forests helps to alleviate poverty and prevents social unrest and migration.

It is important for Switzerland to be able to import timber that has been produced legally and sustainably. As the Swiss timber industry has to fulfil high national environmental standards, international standards are important to its competitivity. Guaranteed access to local genetic resources in the forests is important for Swiss pharmaceutical research.

Goals

The international forest regime and the synergies between the relevant agreements, institutions and processes must be reinforced in order to further a coherent forest policy at global and regional levels. Legally binding instruments such as regional and global agreements are important ways of achieving this. Switzerland is firstly aiming for a pan-European forests convention under the auspices of the UNECE. The global forested area must be maintained and managed sustainably (Sustainable Forest Management (SFM)) in order to ensure that the forests can provide their various eco-services. Switzerland is also committed to decentralized forest management and a better guarantee of land-use rights, which encourages sustainable forest management.

Next steps

> Under the auspices of the UNFF, Switzerland is holding seminars in all regions of the world on decentralized forest management and on the reduction of greenhouse gas emissions due to deforestation, and will report on the results.
> Switzerland will defend the sustainable management of forests and the guarantee of land-use rights at the UNFF summit when discussing forest-related issues in the Commission on Sustainable Development (CSD).
> Switzerland is representing its position on forests in the climate negotiations on arrangements following the expiry of the Kyoto Protocol, on REDD+ and the work of the Convention on Biological Diversity.
> Switzerland is actively involved in negotiations on a possible European forests convention as part of the Forest Europe process and as part of UNECE activities. In regional and global seminars, Switzerland is calling for inter-sectoral co-operation on forestry and water matters, for example as part of the debate on payments for ecosystem services.
> In the forthcoming UNFF review, Switzerland will call for a global forest convention.

[29] See FAO (2011): The State of the World's Forest. Rome www.fao.org/docrep/013/i2000e/i2000e.pdf

Fig. 5.5a > Forest ecosystem services

The forest ecosystem produces many goods and services: some of these benefit us directly, while others make further services possible. In addition to direct economic benefits, forests protect us against natural hazards, pathogens and erosion. They also help to clean water and are locations for leisure and education.

Provisioning services
Products obtained from ecosystems

- Food
- Building materials
- Fuel
- Medicines, cosmetics
- ...

Regulating services
Benefits from regulation of ecosystem processes

- Clean drinking water
- CO_2 sinks
- Protection against erosion
- Protection against disease
- Protection against natural hazards
- ...

Cultural services
Non-material benefits obtained from ecosystems

- Leisure and recreation
- Education and training
- Aesthetics
- Spirituality
- ...

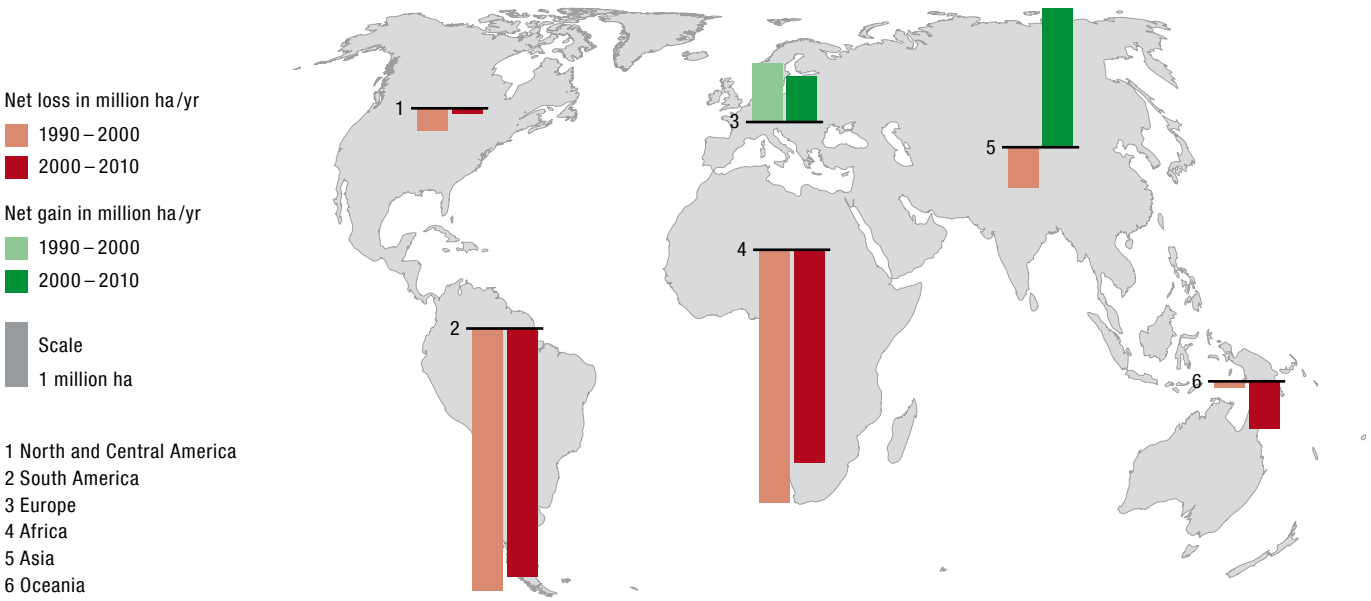
Supporting services
Services necessary for the production of all other ecosystem services

- Soil formation
- Nutrient cycling
- Primary production

Source: Millennium Ecosystem Assessment 2005

Fig. 5.5b > Change in forested area according to continental region

Deforestation is progressing through South America, Africa and Oceania to an alarming degree. Rainforests are especially badly affected. While in South America they must often give way to agricultural production areas, in Africa timber is in many places used as a primary energy source.



Source: FAO 2011

5.6 Air

Principles

The policy on air pollution control is intended to guarantee the health of the population by ensuring that the air is clean, to reduce the congestion of ecosystems due to nitrogen compounds or heavy metals in the air and to keep atmospheric pollution to a minimum as a precautionary measure. These effect-related goals are dependent on air pollutants being reduced at source, both at national and international level.

Measures at national level have led to significant reductions in primary air pollutants (such as sulphur, lead, nitrogen oxides or volatile organic compounds). In order to reduce secondary pollutants such as ozone, which result from the chemical conversion of primary pollutants, agreement is however needed at continental level.

In relation to air pollution, the World Health Organization (WHO) is especially active globally. At a regional level, the main players are the UN Economic Commission for Europe (UNECE) and – within the EU – the European Environment Agency (EEA).

The only legally binding agreement in the field of air pollution control is the regional UNECE Convention on Long-Range Transboundary Air Pollution (CLRTAP) from 1979.[30] It covers 48 European states together with the EU, the USA and Canada, and has been implemented through eight protocols, which prescribe measures to reduce emissions of sulphur, nitrogen oxides, ammonia, volatile organic compounds, heavy metals and persistent organic pollutants. Switzerland has ratified the Convention and all its protocols.

As the EU states and the European Commission co-operate through the UNECE, Switzerland as a UNECE member is able to contribute to the development of air pollution control in Europe and to support the introduction of coordinated measures to reduce emissions of air pollutants.

Interests

Switzerland has a serious interest in an efficient international regime for limiting air pollution in Europe, as it is affected directly by emissions from other countries that are harmful to human health. For Switzerland it is essential that all European countries make binding commitments to reduce excessive air pollution in summer due to particulate matter and ozone. The same applies to nitrogen compounds such as the ammonia used in agriculture, which can be detrimental to biodiversity. Internationally binding regulations in this area ultimately guarantee fair general conditions for Swiss businesses and the sensible promotion of innovation.

As a scientific basis in support of the Geneva Convention on Transboundary Air Pollution, seven international co-operation programmes have been set up to research the effects of air pollutants in various areas affected by damage (forests, waters, materials, ecosystems, etc.). Switzerland is very actively represented in these programmes and thus receives useful data to evaluate the success and need for development of national and international policies on air pollution control.

Goals

The main objective of Switzerland's international policy on air pollution control is to achieve a large-scale reduction in secondary air pollutants (ozone, PM10 and nitrogen compounds) by implementing the Geneva Convention on Transboundary Air Pollution and its eight protocols. Under these agreements, the emissions of air pollutants will be reduced throughout Europe, and this will also have a positive effect on air quality in Switzerland.

In addition, Switzerland is actively involved in the revision of the Gothenburg Protocol of 1999 to abate acidification, eutrophication and ground-level ozone. In a new move, it is planned also to include particulate matter and short-lived climate-active substances such as carbon black. In addition, new national maximum emission levels for sulphur compounds, nitrogen oxides, ammonia, volatile organic compounds and particulate matter must be drawn up by 2020. The emission limits for stationary and mobile sources must be adapted to the state of the art.

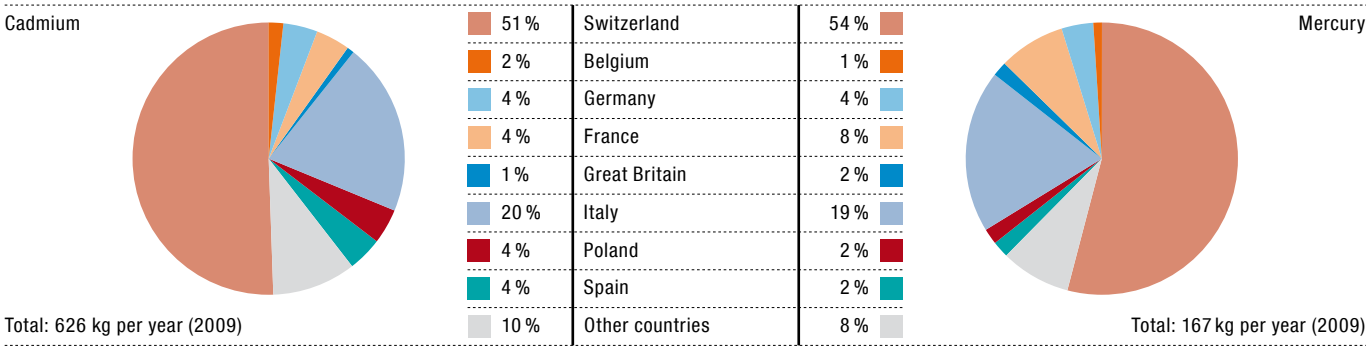
Next steps

> Step-by-step revision and extension of the Protocol on Persistent Organic Pollutants from 1998. Ratification of the first amendment to the Protocol of December 2009, which includes seven new substances. Talks on concluding a second amendment, relating to five further substances, are planned for 2012.
> Revision of the Protocol on Heavy Metals of 1998 by the end of 2012. This relates to stricter emission limits and restrictions on the use of products containing mercury.
> Revision of the Gothenburg Protocol of 1999 to abate acidification, eutrophication and ground-level ozone.

[30] See Convention on Long-Range Transboundary Air Pollution (CLRTAP), concluded in Geneva on 13 November 1979, which came into force in Switzerland on 4 August 1983, SR 0.814.32

Fig. 5.6a > Analysis of the origin of cadmium and mercury deposits in Switzerland

Heavy metals like cadmium and mercury are often transported over national borders in the atmosphere. For example, the prevailing winds carry emissions from industrial centres in North Italy towards the Southern Alps, where they are deposited in precipitation.

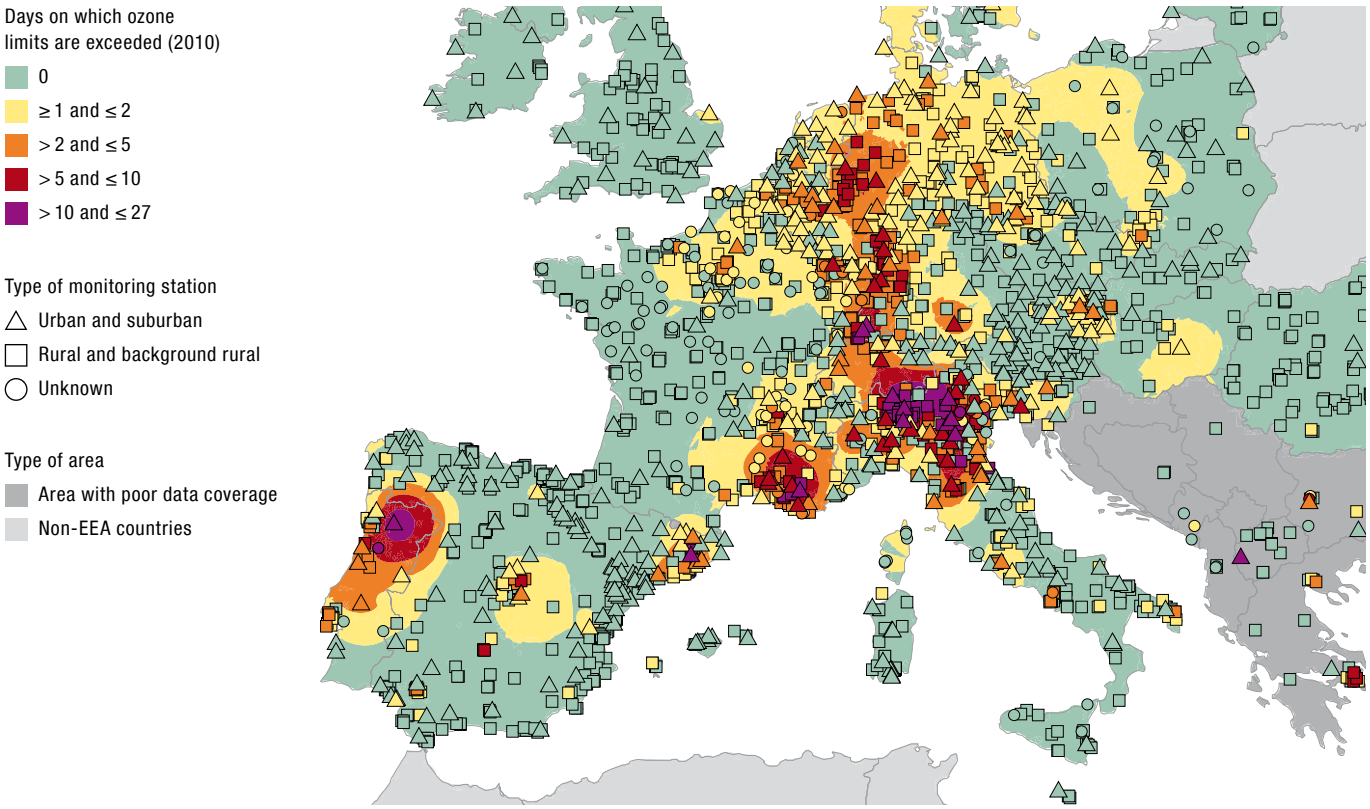


Cadmium		Mercury
51 %	Switzerland	54 %
2 %	Belgium	1 %
4 %	Germany	4 %
4 %	France	8 %
1 %	Great Britain	2 %
20 %	Italy	19 %
4 %	Poland	2 %
4 %	Spain	2 %
10 %	Other countries	8 %

Source: MSC East, UNECE CLRTAP 2011

Fig. 5.6b > Exceedances of the ozone limit in Europe in summer 2010

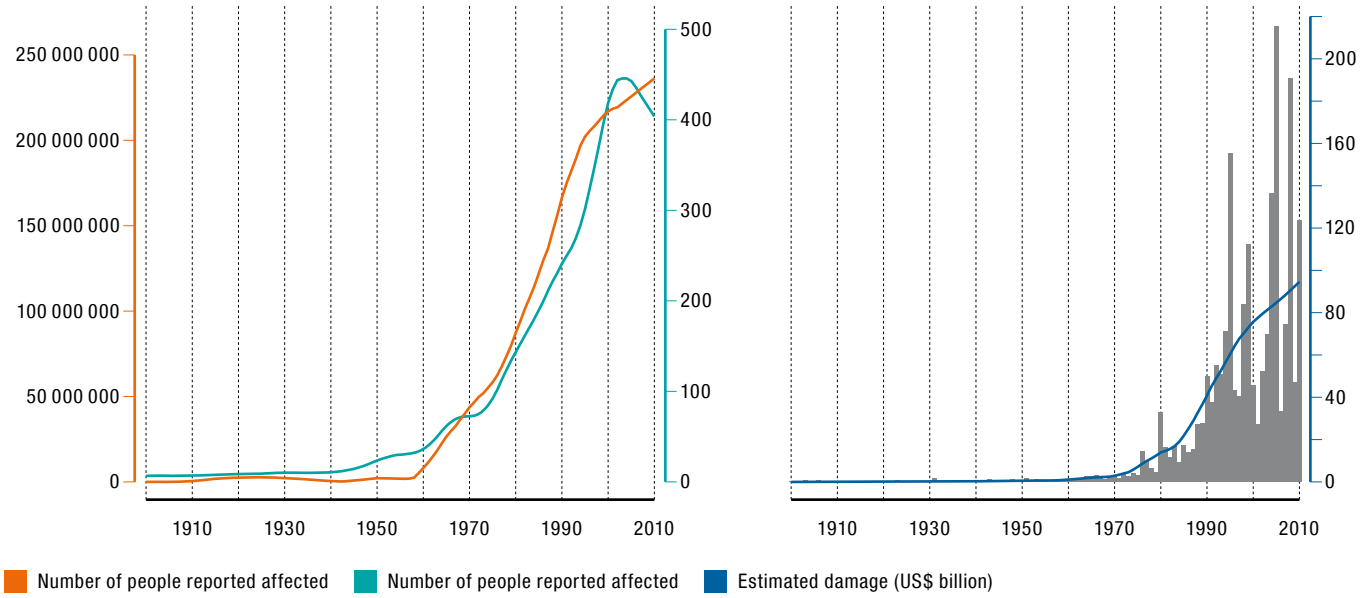
In summer, the concentration of ozone regularly exceeds the critical limit, particularly in the Southern Alps. The causes are longer periods of solar irradiation and proximity to the conurbation of Milan. Increased quantities of ozone can lead to respiratory problems and reduce life expectancy.



Source: EUA 2010

Fig. 5.7 > Increase in the number of natural disasters and the damage caused

The number of natural disasters reported world-wide has doubled since the 1980s. In the 21st century, disasters have affected over 200 million people a year. In addition, the average annual cost of the damage reaches almost US$ 100 billion.



Source: EM-DAT 2011

5.7 Safety and hazard prevention

Principles

The effects of natural phenomena such as flooding, storms or earthquakes have clearly worsened in recent decades. In industrialized countries, these events often lead to considerable financial losses. In developing and transition countries, they also bring substantial loss of life. In 2008 alone, a total of 235 000 people died in meteorological and hydrological natural phenomena such as floods, cyclones and droughts around the globe and at least 214 million people were in some way affected.[31] The associated economic losses amounted to over 190 billion dollars. In Europe, natural and technical disasters claimed over 100 000 human lives over the ten years or so between 1998 and 2009 and cost more than 112 billion euros.[32]

When it comes to susceptibility to damage and vulnerability to natural phenomena, population growth, migration to urban areas and the related settlement of endangered locations play a crucial role. Due to their poverty, some people are unable to protect themselves adequately against natural disasters. Incorrect land use practices and the pressure to build housing lead to the exploitation of natural resources in a way that may, for example, lead to landslides or drought; insufficient communication and command structures within governments and administrative authorities make it more difficult to carry out preventive or response measures; lastly, global climate change increases the risk posed by extreme natural phenomena and their consequences.

Natural phenomena frequently have transboundary effects or their results are not simply experienced in a single area, as in the case of a flood on the plains caused by heavy rain in the mountains. For an efficient protective strategy, international co-operation on mitigating damage is therefore essential. This co-operation should not be limited simply to neighbouring states, as an exchange with other countries with a similar geographical make-up, even when far away, is also important.

At an international level, the Hyogo Framework for Action offers a strategy to reinforce countries' ability to withstand disasters. Under the UN Framework Convention on Climate Change, there are a variety of agreements and programmes on adapting to climate change (Copenhagen Accord, Bali Action Plan, Nairobi Work Programme) in which the prevention of natural hazards has been recognized as an important instrument.

At a regional level, the Taskforce on Water and Climate of the United Nations Economic Commission for Europe (UNECE) is tackling the issue of transboundary flood manage-

ment and the need to adapt it to the effects of climate change; the UNECE Convention on the transboundary effects of industrial accidents encourages active international co-operation between its contracting parties in preventing, preparing for, responding to and recovering from such accidents. The Organization for Economic Co-operation and Development (OECD) has issued general guidelines on the prevention of accidents, which cover all aspects of prevention, management and regeneration in relation to chemical accidents. The EU has created sector-specific initiatives and guidelines on various areas of hazard prevention. The Community Framework on Disaster Prevention within the EU requires its member states to take greater action in various areas of disaster prevention (regional co-operation, exchanges of data, information, experiences, needs assessments, risk maps, early warning systems, measures to increase awareness and exchanges between scientists and decision-makers). The Flood Directive aims to reduce flood risks in the EU.[33]

Interests

Switzerland is seriously exposed to a variety of natural hazards, as there are large altitude differences within its limited area, the levels of precipitation are relatively high, and many areas at risk are densely populated. In addition, Switzerland is also affected by climate change. Adaptation to climate change is a new aspect to hazard prevention; as a result, an international exchange in this field is of particular interest for Switzerland.

Co-operation with the EU is regarded as especially important, as trend-setting decisions are taken there whose effects will sooner or later be felt in Switzerland. Switzerland should use this opportunity to assist in shaping important processes so that they point the desired way forward.

Switzerland has adopted the Hyogo Framework for Action and like other countries has declared itself prepared to offer financial and technical support to developing countries, particularly those that are exposed and vulnerable to risks, and to press ahead with the implementation of the Hyogo Framework by means of knowledge transfer.

Goals

Hazard prevention and risk management in an international environment is an area that is becoming increasingly important for Switzerland. Nowadays a variety of national players are active, but so far their efforts have not been especially coordinated. In order to improve the efficiency and impact of their efforts, they must increase the level of exchange among their group.

Switzerland will seek to support less well-developed countries through exchanges of knowledge and technology transfers in order to deal with the consequences of climate change and natural hazards. Here the FOEN can contribute a wealth of experience in dealing with natural hazards, above all in mountain areas.

Next steps

> Efforts towards bilateral co-operation with individual countries should be pooled wherever possible. Institutionalized co-operation with existing international and regional networks will also be encouraged.
> Increased co-operation at international level should make sustainable and efficient safety measures possible in Switzerland and in other countries. In this process, it is important to make the most of synergies between the international climate process and other relevant processes.
> A suitable institutional framework should be set up for exchanges of experiences and information. For the FOEN, the priority is co-operation with neighbouring countries and at European level; this should continue to be developed.
> Switzerland is closely monitoring the work of the United Nations International Strategy for Disaster Reduction (UNSDR), work within the UN Framework Convention on Climate Change related to the risks of climate change, as well as the work of the Global Framework for Climate Services, which was established at the 16th Conference of the World Meteorological Organization.

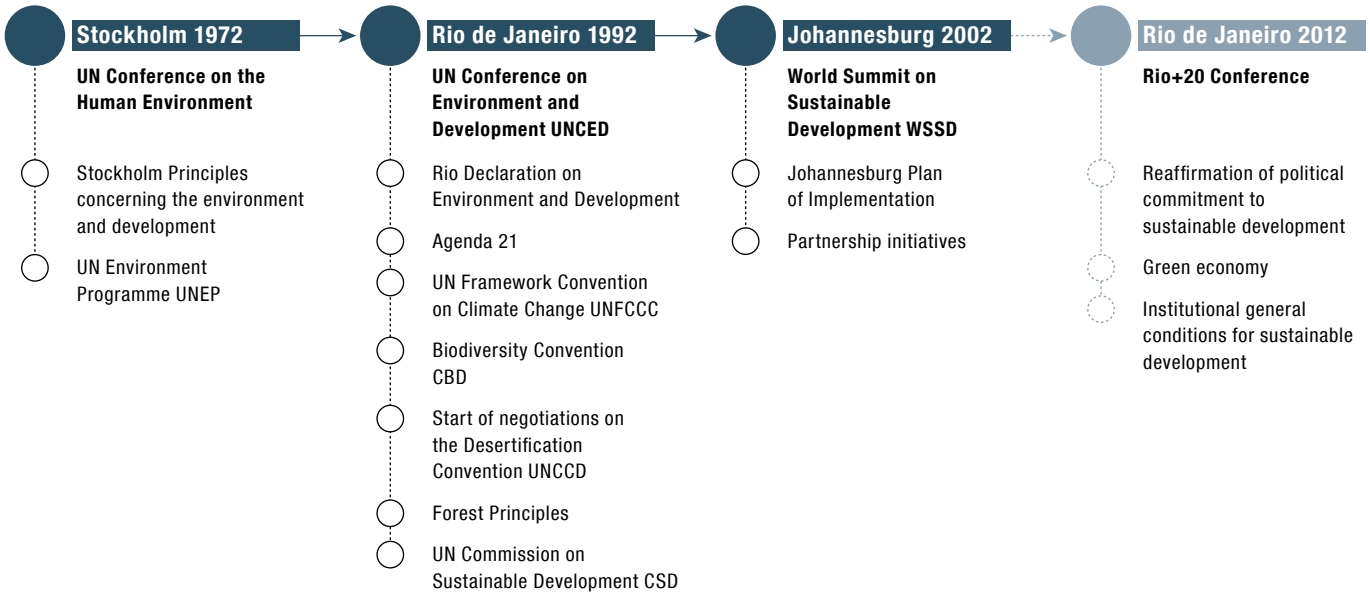
[31] ECOSOC (2009): Substantive Session of the Economic and Social Council (ECOSOC), 6 – 31 July. Geneva www.un.org/en/ecosoc/julyhls/2009newsroom.shtml

[32] European Environment Agency EEA (2010): Mapping the impact of recent natural and technological disasters in Europe. An overview of the last decade. Copenhagen.

[33] Also see Council Directive 96/82/EC of 9 December 1996 on the control of major accident hazards involving dangerous substances (Seveso Directive).

Fig. 5.8 > The most important UN sustainability summits and their main results

The Stockholm Conference in 1972 focused on environmental issues for the first time at global level. 20 years later in Rio de Janeiro, the concept of sustainable development was enshrined in international environmental policy. A ground-breaking conference (Rio+20) will be held in the same city in 2012, and will consider issues such as the green economy.



Source: FOEN 2011; see list of abbreviations and Annex I for the full names of the agreements and actors

5.8 Sustainable development

Principles

Sustainable development is understood to mean social development that meets current needs without harming the chances of future generations of satisfying their own needs. In particular, this demands that in satisfying current needs, economic, social and ecological interests are weighed up against each other so that business, society and the environment are preserved for the long-term.

Nowadays the basic concept of sustainable development is recognized at global, regional and national levels. However, in some cases there are serious discrepancies in views on its implementation, in particular when it comes to balancing the concerns of environmental protection and economic development. Generally speaking, actual implementation at all levels is still inadequate: humankind is still a very long way from achieving the ideals of sustainable development.

As far back as the first United Nations Conference on the Human Environment in 1972, the question was discussed of how environmental protection and economic development can be reconciled with each other. The concept of sustainable development, however, was introduced in 1987 in the report entitled "Our Common Future" by the World Commission on Environment and Development (also known as the "Brundtland Commission"). At the United Nations Conference on Environment and Development (UNCED) in 1992 in Rio de Janeiro, the concept of sustainable development was made a fundamental principle of international co-operation. This was expressed at a normative level in the Rio Principles that formed part of the Rio Declaration on Environment and Development, and at operational level in the "Agenda 21" action plan.

Since 1992, the international community has been engaged in the implementation phase. In order to monitor and support this phase, the Commission on Sustainable Development (CSD) was established following the Rio Summit. Since then, specific issues and aspects related to the implementation of sustainable development have been discussed at annual meetings. At the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg, an interim assessment was made and new priorities for the next phase of implementation were defined.

An important follow-up process that emerged from the WSSD involves encouraging sustainable consumption and production patterns. As part of what is known as the Marrakesh Process, it is planned to draw up a ten-year programme. In addition, a variety of issues have been examined in detail by international working groups. Switzerland has assumed

overall responsibility for the field of sustainable public procurement and heads the international working group (Marrakesh Task Force on Sustainable Public Procurement). The instrument developed by the Task Force for promoting sustainable public procurement is currently being tested in pilot countries by the United Nations Environment Programme (UNEP). Switzerland is also supporting other UNEP activities in this field, in particular to encourage an integrated policy on products and the life-cycle approach, and is also involved in the Green Economy Initiative, which was begun in 2008.

Alongside the CSD, which was specifically created to implement the policy of sustainable development, following the Rio Summit all the relevant international institutions and processes committed themselves to this overall goal. The concept of sustainable development is omnipresent. In international environmental institutions, development institutions and financial and economic institutions, it has become an express or implied element in the instruments that set out their political and strategic orientation. Sustainable development can now be regarded as a generally recognized principle of international environmental law, even though its precise definition and legal scope have not yet been fully clarified.

In 2009, the UN General Assembly resolved to hold a UN conference on sustainable development in Brazil again, 20 years after the Rio Summit. The Rio+20 Conference in 2012 is intended to see a renewal of the political commitment to the concept of sustainable development. In addition, it is planned to review the extent to which the results of previous major conferences have been implemented and to consider future challenges in achieving sustainable development. The main issues will be the "Green Economy" and the general institutional framework for sustainable development.

Interests

The non-sustainable use of natural resources endangers the balance and conservation of essential natural resources. In the short to medium term, this will cause both environmental problems, such as transboundary pollution, and social problems, such as migration. In the long-term, the non-sustainable use of natural resources may even put the very survival of humankind on our planet at risk. Switzerland has a crucial interest in ensuring that social and economic development follows a sustainable path as soon as possible, not only in Switzerland, but in all countries.

Goals

In order to guarantee the sustainable development of society, Switzerland plays its part in all the relevant international institutions and processes for promoting sustainable development as part of its international environmental policy. In doing so, it generally pursues the aim of conserving essential natural resources for future generations at least to the extent that they may benefit from these resources in the same way as the current generation. This means that Switzerland is especially committed to taking efficient and effective measures to protect essential natural resources as a contribution to the ecological dimension of sustainable development.

The institutional structures specifically created in the form of the CSD to implement the results of Rio have largely failed to achieve any practical effect and require urgent reform. In institutional respects, Switzerland is therefore committed to further practical reforms of the CSD's working methods so as to enable a genuine dialogue and improved exchange of experiences and thus increase the CSD's political relevance. In principle, though, Switzerland is also open to a more fundamental reform of the general institutional conditions for sustainable development policies.

Next steps

> A variety of formal and informal preparatory meetings ahead of Rio+20, and in particular intensive negotiations in the first half of 2012.
> The 2012 World Conference on Sustainable Development in Brazil (Rio+20).
> CSD work cycle for 2013/2014 on the issues of forests, biodiversity, biotechnology, tourism and mountains.
> CSD work cycle 2015/2016 on the issues of oceans marine resources and island states as well as disaster management and vulnerability.
> General review of progress in implementing sustainable development since 1992, planned for 2017/2018.[34]

[34] Whether the planned CSD work cycles and the general review will be carried out depends on the decisions of Rio+20 regarding the reform of general institutional conditions for sustainable development.

5.9 International environmental governance

Principles

The international environmental regime has seen relatively rapid and dynamic development over recent decades. This process has generally been characterized by ad hoc and problem-related developments and has not been based on an overarching strategy. Separate agreements, processes and institutions have been created for virtually every newly recognized environmental problem. Although these tailor-made instruments bring enormous flexibility to the international environmental regime, the downside is that there is fragmentation and a large number of institutions, agreements and processes that are not or not properly coordinated with each other, as well as serious regulatory inadequacies in important areas such as fresh water, heavy metals or forests.

In addition, the international environment system, when compared with other regimes, has weak institutional structures and is underfunded. In particular the United Nations Environment Programme (UNEP), founded in 1972 by the UN General Assembly, has neither the required authority nor the resources to be truly able to fulfil its intended role as the cornerstone of the global environment system. Contributions to the UNEP budget are not made on the basis of a binding contribution scale and are therefore not sufficiently predictable for it to be able to make long-term plans. This means that the international environmental regime has no single powerful institution that can either set out clear political and strategic terms of reference within the environmental regime or provide a suitable counterbalance to institutions from other fields such as trade, economics and development. This imbalance is also exacerbated by the lack of effective dispute resolution mechanisms, such as those available under the World Trade Organization (WTO).

A variety of initiatives have already been tried in order to deal with the weaknesses of the international environmental regime. In particular, over the past twenty years or so, several attempts at reform have been made through the United Nations and processes to bolster international environmental governance have been introduced.

So far the most significant reform initiative came in 2002 at the Global Ministerial Environment Forum in Cartagena, at which a comprehensive package of measures designed to improve international environmental governance was adopted. These relate primarily to strengthening UNEP's political and normative function as well as its financial base, improving cooperation and coordination on environmental issues within the UN system, and increasing the exploitation of synergies among existing instruments within the same subject area (in particular chemicals and biodiversity) as well as aiming to provide better support to developing countries in implementing international environmental policy. Unfortunately these measures have not been adequately implemented and have not brought the desired improvements.

As a consequence, the international community at the meeting of the UNEP Board and the Global Ministerial Environment Forum in 2009 decided to set up a group of ministers or high-ranking government representatives which was given one year to devise new proposals for strengthening international environmental governance. In an initial phase, an agreement on the core functions of international environmental governance was achieved. In addition, measures were identified that can be implemented under the existing UNEP mandate. At the Ministerial Environment Forum in 2010, the process was extended for a further year in order to consider more far-reaching reform options. In a decision at the 2011 Ministerial Environment Forum, the results of the process were finally made part of the preparatory process for the UN Conference on Sustainable Development (Rio+20) of 2012. Strengthening the general institutional framework for sustainable development will be one of the two priority issues at the Conference.

Interests

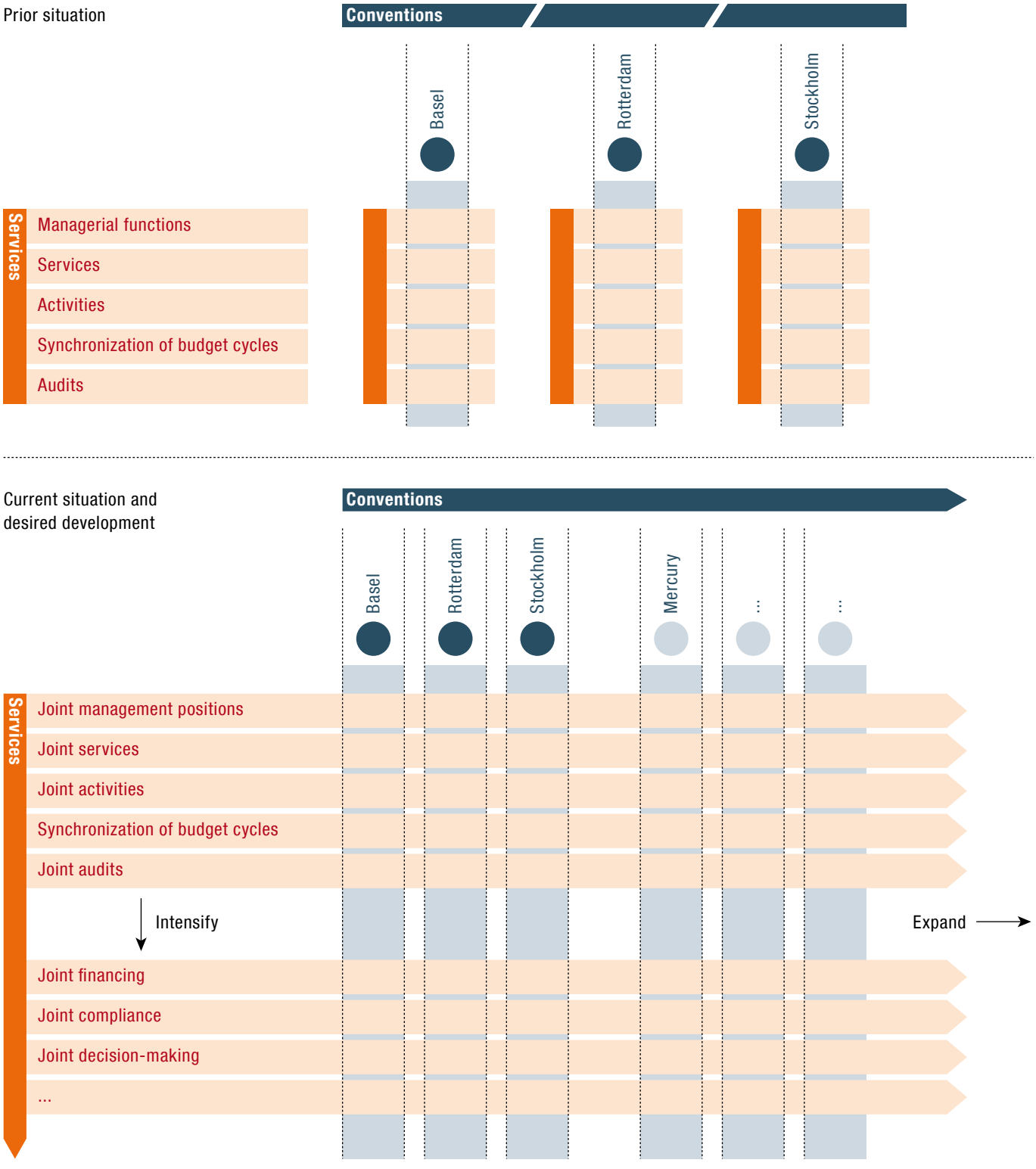
As a relatively small country that is committed to the well-being of its population and to the preservation of a healthy environment, Switzerland has an interest in a strong international legal system and thus in a more comprehensive, coherent, effective and efficient international environmental regime. The regime should be *comprehensive* in encompassing all the important environmental threats whose resolution requires an international strategy, and should be without serious omissions; *coherence* ensures that the various initiatives do not contradict each other; *effectiveness* should ensure that international regulations and procedures actually improve the environmental situation; *efficiency* should guarantee that a cost-effective approach to solving problems is chosen.

Competent and strong institutions that have a clear mandate, efficient structures and organization, sufficient authority and appropriate resources and instruments to enable the comprehensive, coherent, effective and efficient development and implementation of policy at international level to protect the environment are therefore in Switzerland's interest. Mechanisms and institutions that guarantee a coordinated course of action are also necessary.

Various state and non-governmental institutions acting to protect the environment and international instruments, that have been created by the international community for this purpose, are based in Switzerland. For this reason too, Switzerland has an interest in an international environmental regime that functions well.

Fig. 5.9 > The synergy process in relation to chemicals and waste

Various administrative aspects of the Basel, Rotterdam and Stockholm Conventions are dealt with by a joint secretariat. In future, these synergies could be further exploited. In addition, the joint services could be expanded to include other agreements such as the Mercury Convention, currently under discussion.



Source: FOEN 2011; see Annex I for the full names of the conventions

Goals

Switzerland supports measures which ensure that the international environment system can fulfil its key governance functions. Switzerland's vision and goal is a comprehensive, coherent, effective and efficient international environmental regime.

Switzerland is calling for institutional reform measures that help to implement the existing international regulations and processes in the environment sector even more effectively and, where necessary, to develop these further. It is therefore committed to a more efficient organization and to the strengthening of existing structures.

The international environment system must also be able to tackle new and as yet unresolved environmental problems efficiently and effectively. In specific terms, this should, in Switzerland's view, primarily be achieved by strengthening UNEP. This could also be tied to upgrading UNEP's status from a programme to an organization. However, Switzerland regards improving governance functions as the priority.

At the same time, Switzerland is also committed to ensuring that the synergies between the existing institutions and instruments of international environmental policy are better used and continue to be developed. In particular, the synergy process begun at Switzerland's initiative in the areas of chemicals and waste that should be successfully implemented and expanded. In addition, an examination should be made of the extent to which the findings made in this process can be applied to institutions and instruments in other areas such as biodiversity.

Switzerland is also pursuing non-institutional approaches in order to improve environmental governance. For example, it is promoting the idea of creating a system of Global Environmental Goals (GEGs), following the example of the Millennium Development Goals, to achieve a better orientation and focusing of the international environmental regime.

Next steps

> International environmental governance will be an important element in the discussions and negotiations undertaken in preparation for the 2012 UN Conference on Sustainable Development (Rio+20) in Brazil. From Switzerland's point of view, it is essential to ensure that the preparatory process for Rio+20 takes full account of the preliminary work carried out by the group appointed by UNEP.

5.10 Multilateral environmental financing

Principles

Financial resources are required if the goals set out in the multilateral environmental agreements are to be achieved in developing and transition countries. In contrast to traditional development co-operation, where the countries most in need and the fight against poverty take priority, the financial mechanisms established in the multilateral environmental agreements for this purpose pay their contributions to developing and transition countries that are parties to the relevant environmental agreements in order to support them in implementing these agreements. They are thus encouraging developing countries in their efforts to improve the global environment. In this way they also contribute to strengthening competences in the environment sector. These multilateral environmental financial mechanisms also form part of the multilateral environment talks and are important (and one of the few) levers that industrialized countries can use in such negotiations. They fall into the areas of responsibility of the Federal Office for the Environment (FOEN).[35] They are closely related to general development policy, with the result, however, that close co-operation with the federal agencies concerned (in particular the State Secretariat for Economic Affairs (SECO) and the Swiss Agency for Development and Cooperation (SDC)) is vital for the coherent pursuit of the various interests involved.

The financing – normally via funds – thus guarantees that the environmental measures set out in the agreements can also be implemented in developing countries, that appropriate consideration is given to the related environmental goals, and that a balance is thus achieved between environmental and development goals or between global and national priorities. The statutory basis for the contributions Switzerland makes to these funds is Article 53 of the Environmental Protection Act (EPA).[36]

The *Global Environment Facility* (GEF)[37], together with the Montreal Fund, which finances the implementation of the Montreal Protocol on the protection of the ozone layer, is the most important global financial vehicle originating from the agreements and protocols in the environment sector. According to the guidelines set out in the environmental agreements, the GEF funds projects with global environmental benefits in the areas of climate change, biodiversity, chemicals, desertification, international waters and forests. The GEF makes contributions in the form of non-repayable grants, which balance out additional costs incurred in taking account of the global environmental benefits (incremental costs). For this reason, the Facility requires regular replenishment, which takes place every four years. The distribution of the burden is based in each case on a key, which is derived from the percentage share of the donor countries in the replenishment of the World Bank's International Development Association (IDA). The most recent GEF replenishment negotiations (GEF 5) were held in May 2010, when it was decided to increase the total volume by around 50 % to a new level of 4.2 billion US dollars. In spring 2011, the Swiss Parliament agreed to an increase in the Swiss contribution to the GEF for 2011 – 2014 to 124.93 million francs.[38] Switzerland has held a seat on the GEF Council since its foundation in 1991 and has a say in all strategic matters, such as the allocation of funding or the organization of the focal areas, as well as in plans for reform. Switzerland is the only country in the 32-member GEF Council that represents a mixed voting group made up of donor (Switzerland) and recipient countries (five Central Asian states and Azerbaijan).

Further financial mechanisms related to the Climate Convention and its Kyoto Protocol are *specific climate funds* such as the Special Climate Change Fund (SCCF)[39] and the Least Developed Countries Fund (LDCF)[40], the *Adaptation Fund*[41] and lastly the *Green Climate Fund* (GCF),which was established in Cancún but which has still to come into operation. In the first two of these funds – the SCCF and LDCF – Switzerland is involved to the tune of CHF 9 million.[42] In relation to forests, the *REDD+ Partnership*[43], which is closely related to the climate talks, must also be mentioned.

In connection with the Biodiversity Convention, the *Nagoya Protocol Implementation Fund* (NPIF) is worthy of mention. This Fund was created for a limited period under the GEF and serves to support the ratification of the Nagoya Protocol, which was approved in 2010 at the conference of parties to the Biodiversity Convention and relates to access to genetic resources and the fair and equitable sharing of benefits arising from their use (Access and Benefit Sharing ABS)[44] in developing and transition countries.

In the chemicals sector, the GEF is also the designated financial mechanism for the Stockholm POPs Convention on Persistent Organic Pollutants and serves also to finance measures to protect the ozone layer in transition countries. The funding of measures to protect the ozone layer in developing countries on the other hand is the task of the Montreal Fund (*Ozone Fund*)[45], which was set up under the Montreal Protocol. The Ozone Fund supports developing countries in their implementation of the Montreal Protocol. The aim of this Protocol is to gradually reduce and ultimately prohibit the manufacture and consumption of the most important pollutants (CFCs, HCFCs, halons, carbon tetrachloride and methyl bromide) that deplete the ozone layer. The Ozone Fund is also periodically replenished, on the next occasion in 2012; Switzerland will contribute a maximum of CHF 12 million.[46] A *quickstart fund* has been set up to support the first implementation phase of the SAICM. The implementation of the Basel Convention and the Rotterdam PIC Convention is in each case

supported by a general and a *voluntary trust fund*.[47] At Switzerland's behest, the GEF created a general chemicals window as part of the 5th replenishment. This paves the way for the GEF to be available for funding the SAICM and the Mercury Convention at a later date. The specific trust funds are replenished either on a continuous basis or when specific projects so require.

In relation to desertification, reference must be made not only to the GEF but also to the *Global Mechanism*[48]: this is not a fund with its own resources, but rather an instrument designed to better coordinate the various sources of funding. Lastly, mention must be made of the *Earth Fund*[49] under the GEF, which promotes projects that include the private sector. In addition, it is worth noting that the World Bank in particular has markedly developed its climate programme. In this connection, the Climate Investment Funds (CIF), Scaling-Up Renewable Energy Program for Low Income Countries (SREP) or the Forest Carbon Partnership Facility (FCPF) should be mentioned, which Switzerland is involved in as part of its general development co-operation programme.

The challenges facing multilateral environmental financing may be summarized as follows:

> The need for financial resources for measures to protect the global environment and to implement the agreements has increased drastically. In Cancún in 2010, the international community formalized the decision to increase international climate funds by 2020 to US$ 100 billion per annum (i.e. on a much greater scale than any other existing climate financing instruments) and resolved to set up a new fund, the Green Climate Fund. Switzerland will also have to contribute to this fund. The Nagoya decisions on biodiversity in 2010 call for the expansion of the existing international strategy on mobilizing financial resources. Needs should be prioritized and sources of funding identified. This means that an increase in financial requirements is expected if the biodiversity targets are to be achieved. International chemicals policy will ultimately rely on long-term funding from the SAICM, and the donor community will have to provide sufficient financial resources for the Basel Convention and the Mercury Convention.
> Although expenditure on public development aid (PDA) has increased, the percentage of such expenditure that has gone to environmental projects has stagnated or even fallen (Section 6.2).
> A large number of developing countries have made rapid advances. In the course of this process, they have in certain cases acquired significant financial reserves and technical capacities but at the same time serious harm has been done to the global environment. The countries concerned include the group of newly industrialized countries, and most particularly the BRICS (Brazil, Russia, India, China and South Africa). However, numerous developing countries have totally inadequate financial resources and technical capacities.
> It is a difficult task to separate the costs incurred to protect the global environment from those needed for the sustainable use of national resources.

Interests

Without specific support, many developing countries are not able to implement the measures required to protect the global environment. The effective implementation of environmental measures, including implementation by developing countries, is thus in Switzerland's interest. By ratifying various environmental agreements, Switzerland has made a legal commitment to pay contributions for the benefit of developing and transition countries. As a donor country, it should have a say in the most important decision-making bodies for the financial mechanisms and in the continued development of the environmental agreements and environmental governance. In related negotiations, Switzerland will want to maintain its influence and help shape bilateral and multilateral processes. It is also in Switzerland's interest as a financial donor that, against this background of an increasing proliferation of funds, existing institutions are used, the various instruments complement each other and transparent reports are provided both on payments and on the use of funding.

The constituency that Switzerland represents on the GEF Council gives it a special voice in the Council and requires it to show special commitment, e.g. by organizing regular meetings of the constituency. It is in Switzerland's interests to maintain or raise its profile in the region. Accordingly, further (pilot) projects in the environment sector should be started in these countries, which could later develop into GEF projects. It is also necessary to exploit synergies with the Swiss constituencies in other institutions such as the World Bank and IWF and to encourage co-operation with Swiss representations on the ground.

Goals

The goals and environmental standards laid down in the environmental agreements, to which Switzerland is committed, must be achieved and built on, even in developing and transition countries. To this end, at least in the climate sector, agreement has been reached on the provision of funding (US$ 100 billion annually from 2020), while it has been agreed to investigate what is required in relation to biodiversity and chemicals, i.e. adequate resources must be made available. At the same time, Switzerland must consolidate its status and influence under the agreements and in the institutions responsible

Fig. 5.10a > Overview of various environmental agreements and their financial mechanisms

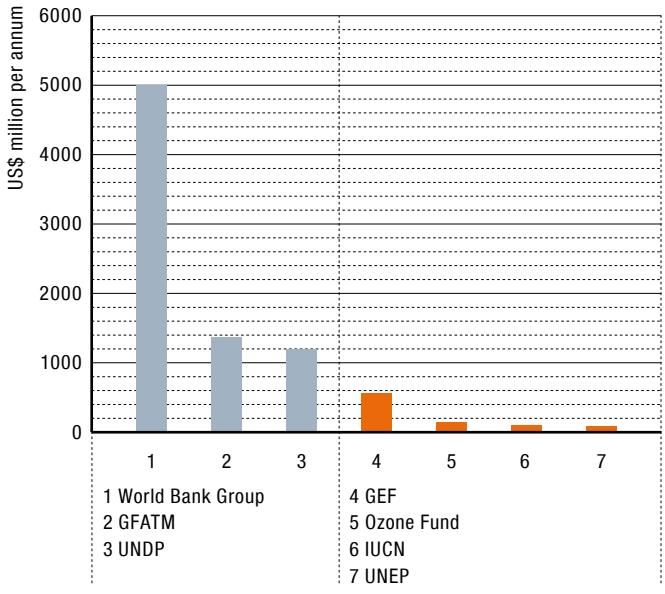
Environmental agreements normally specify the financial mechanism that should support their implementation in developing countries. Often this is the Global Environment Facility (GEF). The advantages of a central financial mechanism are greater coherence, the coordinated use of resources and the avoidance of duplication.

Topics	Conventions	Financial mechanism
Climate	Framework Convention on Climate Change UNFCCC	GEF, Climate LDCF, SCCF, GCF, REDD+
	Kyoto Protocol	Adaptation Fund
Biodiversity	Biodiversity Convention CBD	GEF
	Cartagena Protocol	GEF
	ABS Protocol	GEF
Chemicals and waste	Stockholm Convention	GEF
	Basel Convention	General Trust Fund, Special Trust Fund
	Rotterdam Convention	General Trust Fund, Special Trust Fund
	Montreal Protocol	Ozone Fund
Desertification	Desertification Convention UNCCD	GEF, Global Mechanism
Multiple focus		GEF

Source: FOEN 2011; see list of abbreviations and Annex I for the full names of the agreements and the funding mechanisms

Fig. 5.10b
> Budget comparison between various international institutions

Institutions with a core task in the environment sector have comparatively small budgets.

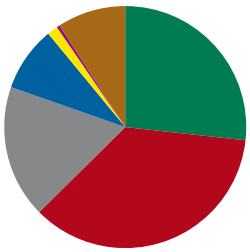


Source: Graph FOEN 2011, based on Najam et al. 2006 (IISD); see list of abbreviations for the full names of the institutions

Fig. 5.10c
> Allocation of GEF funds according to topic (2008 – 2010)

As the main financial mechanism in the environment sector, the Global Environment Facility (GEF) covers the additional costs of projects with global environmental benefits in developing countries.

	US$ million	
Climate Change	851	36 %
Biodiversity	635	27 %
Chemicals and waste	217	9 %
Desertification	34	1 %
Multi Focal Area	422	18 %
Water	206	9 %
Air	10	< 1 %
Total: 2375		



Source: GEF 2011

for managing the funding mechanisms. The aim is to create a coherent multilateral environmental financing architecture. As a result, and within the framework of the conventions, Switzerland has a seat at the talks on the relevant financing architecture. The following points in particular must be dealt with from an environmental point of view:

> reinforcing the GEF as the key financial mechanism of the multilateral environmental agreements;
> continuing and expanding current climate financing and making additional resources available for the Green Climate Fund (GCF);
> continuing and expanding current financial mechanisms for biodiversity, including access to genetic resources and the fair sharing of benefits (Access and Benefit Sharing (ABS)) and participating in the further advancement of the international strategy for resource mobilization in support of global biodiversity;
> continuing and expanding current financial mechanisms related to chemicals and waste (SAICM, Basel Convention, Rotterdam Convention, Mercury Convention);
> continuing and expanding current forest financing;
> ensuring that Switzerland has a seat and a say in the relevant decision-making bodies;
> ensuring a fair sharing of burdens, in particular by means of clear rules on calculating funding shares according to the polluter pays principle and capacity to pay;[50]
> prioritizing relevant needs and identifying additional public and private sources of funding;
> clearly regulating the relationship that existing and new financial mechanisms have with the conference of parties and guaranteeing that existing and new financial mechanisms complement each other[51];
> clarifying UNEP's role;
> transparent reporting on the payment and application of financial resources.

Public funds should primarily be used where private investments have not (yet) been made, for example in sectors such as biodiversity or to create favourable conditions for private investment (for example by increasing legal certainty or establishing instruments that reduce investment risks). In the medium term, market mechanisms and incentive systems will play a more significant role in international environment financing. The progress made in negotiations at the Biodiversity Conference in Nagoya on the funding of ecosystem payments is evidence of this, for example.

To this extent it is also crucial that multilateral environmental financing focuses not only on climate protection, but also on achieving the goals of other environmental agreements.

Next steps

> Within the framework of the conventions, Switzerland is involved in the negotiations on the new climate financing architecture and in ascertaining the financial needs and making suitable funding mechanisms available for biodiversity, chemicals and waste, as well as forests. It will advocate the fair sharing of burdens based on the polluter pays principle and capacity to pay and seek active representation and a say in all relevant bodies.
> Switzerland is participating in the negotiations on replenishing the Ozone Fund for the period 2012 – 2014.
> Efforts are being made to intensify co-operation between the FOEN with the agencies responsible for Swiss development policy, the SDC and SECO, in order to establish the strategic orientation of projects with environmental benefits and to ensure the consistency of such projects with environmental and development goals and transparent reporting.
> At the next replenishment of the GEF and individual climate funds for the period 2014 – 2017, Switzerland will call on developed countries to contribute to appropriate multilateral environmental funding.
> The GEF Constituency meeting will continue to be held on a regular basis. To this end, synergies with the Swiss constituencies in other institutions such as the World Bank and IWF will be exploited and co-operation with Switzerland's representations on the ground will be encouraged.

5.11 Environmental monitoring

Principles

Environmental monitoring is a key element in sustainable development. The data from environmental monitoring forms the basis for the measures and regulations devised by environment ministries or international organizations to protect the environment. The more complete and reliable this data is, the more effective environmental measures can be. The data from environmental monitoring also serves as an early warning system for natural disasters and is therefore important for public safety.

The most important challenges facing environmental monitoring are obtaining the required financial resources, covering all the relevant issues and geographical areas, the quality of data, a clear division of responsibilities between the various services, the availability of and access to the data and services as well as the continuity and comparability of data and the compatibility of systems and databases.

The most important organizations involved in environmental monitoring at global level are the World Meteorology Organization (WMO) and the Food and Agriculture Organization (FAO), both of which collect and evaluate data in their respective fields. The United Nations Environment Programme (UNEP) publishes the most comprehensive global environmental report, the Global Environmental Outlook (GEO). The FAO coordinates the Global Forest Resources Assessment (GFRA) and the European Forest Sector Outlook, which are produced in collaboration with the United Nations Economic Commission for Europe (UNECE). In order to encourage the coordination of global environmental monitoring, an intergovernmental mechanism was initiated in 2003 known as the Global Earth Observation System of Systems (GEOSS), hosted by the WMO, which aims to coordinate all earth observation systems and develop a "system of systems for global Earth observation". The UNEP also coordinates Earthwatch, a United Nations initiative, which is intended to better coordinate, harmonize and consolidate the activities of all UN agencies, so that it is possible to conduct integrated evaluations.

At regional level, the European Environment Agency (EEA) is active in all the important fields. The EEA's environmental reports and the "Environment for Europe" reports[52], issued jointly by the UNECE and the EEA, are the most important publications in this area.

Interests

Because it lies in the centre of Europe and has close ties with the EU, it is vital for Switzerland to be integrated into European and global networks and involved in research and modelling. Switzerland benefits from access to environmental data

[35] See the Dispatch on a Framework Credit for the Global Environment of 23 June 2010, BBl 2010 4779, 4818.

[36] SR 814.01.

[37] See www.thegef.org/gef and the Dispatch on a Framework Credit for the Global Environment of 23 June 2010, BBl 2010 4779.

[38] BBl 2011 2937.

[39] www.thegef.org/gef/SCCF

[40] www.thegef.org/gef/LDCF

[41] www.adaptation-fund.org

[42] BBl 2011 2937.

[43] www.reddpluspartnership.org/en

[44] Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization. The Protocol itself provides for the GEF as the financing mechanism.

[45] www.multilateralfund.org/default.aspx as well as the remarks in the Dispatch on a Framework Credit for the Global Environment dated 23 June 2010, BBl 2010 4779.

[46] BBl 2011 2937.

[47] The General Trust Fund to support the Secretariat and the conferences of parties, the Special Trust Fund for projects.

[48] www.global-mechanism.org

[49] www.thegef.org/gef/PPP

[50] BBl 2010, 4817: Taking the example of climate policy, the share of emissions (0.3 %) and the capacity to pay (0.8 %) forms the calculation basis for the Swiss share of Fast Start funding among OECD states. With regard to the weighting of these two criteria, Switzerland is calling for more weighting to be given to the polluter pays principle (75 %).

[51] BBl 2010, 4792.

at European level in particular and contributes its own observation network, analysis of data, technology and expertise.

At a global level, Switzerland works closely with the UNEP and in particular its European Centre for Data and Information Processing, which is mandated to process regional data for the GEO report. In addition, Switzerland also participates in the Global Earth Observation group, GEOSS.

At regional level, since joining the EEA in 2006, Switzerland has had unrestricted access to the European Environment Information and Observation Network (EIONET). At the same time, Swiss data also appears in EEA publications and thus indirectly influences EU policy in the environment sector.

In addition, Switzerland participates in the European Network of the Heads of Environment Protection Agencies (EPA Network) and in the European Network of Heads of Nature Conservation Agencies (ENCA Network). It is also, via the EEA, a member of the European Commission's and the European Space Agency's Global Monitoring for Environment and Security (GMES) initiative. Lastly, it is involved in environmental monitoring activities funded by the EU's framework programme for research.

Goals

First of all Switzerland must define the role of national players in environmental monitoring, as a basis for strengthening international co-operation on environmental monitoring and improving reporting and the availability of and access to data. Switzerland wants to increase its participation in the work of the EEA and in the European networks for environmental monitoring and to participate in the studies conducted in Europe. In addition, it wants to simplify access to and the availability of environmental data and services for the interested Swiss parties and to contribute to the harmonization of environmental monitoring at international and European level.

Switzerland is committed to a coherent system of international environmental monitoring. Data should be clearly presented and understandable. At the instigation of Switzerland and other countries, the next UNEP GEO Report will focus on environmental goals. The link between a solid scientific basis and political implementation should be reinforced. Switzerland regards institutions such as the Intergovernmental Panel on Climate Change (IPCC), which provides broadly established scientific data in the climate sector from which it derives politically relevant recommendations, as desirable in other fields.

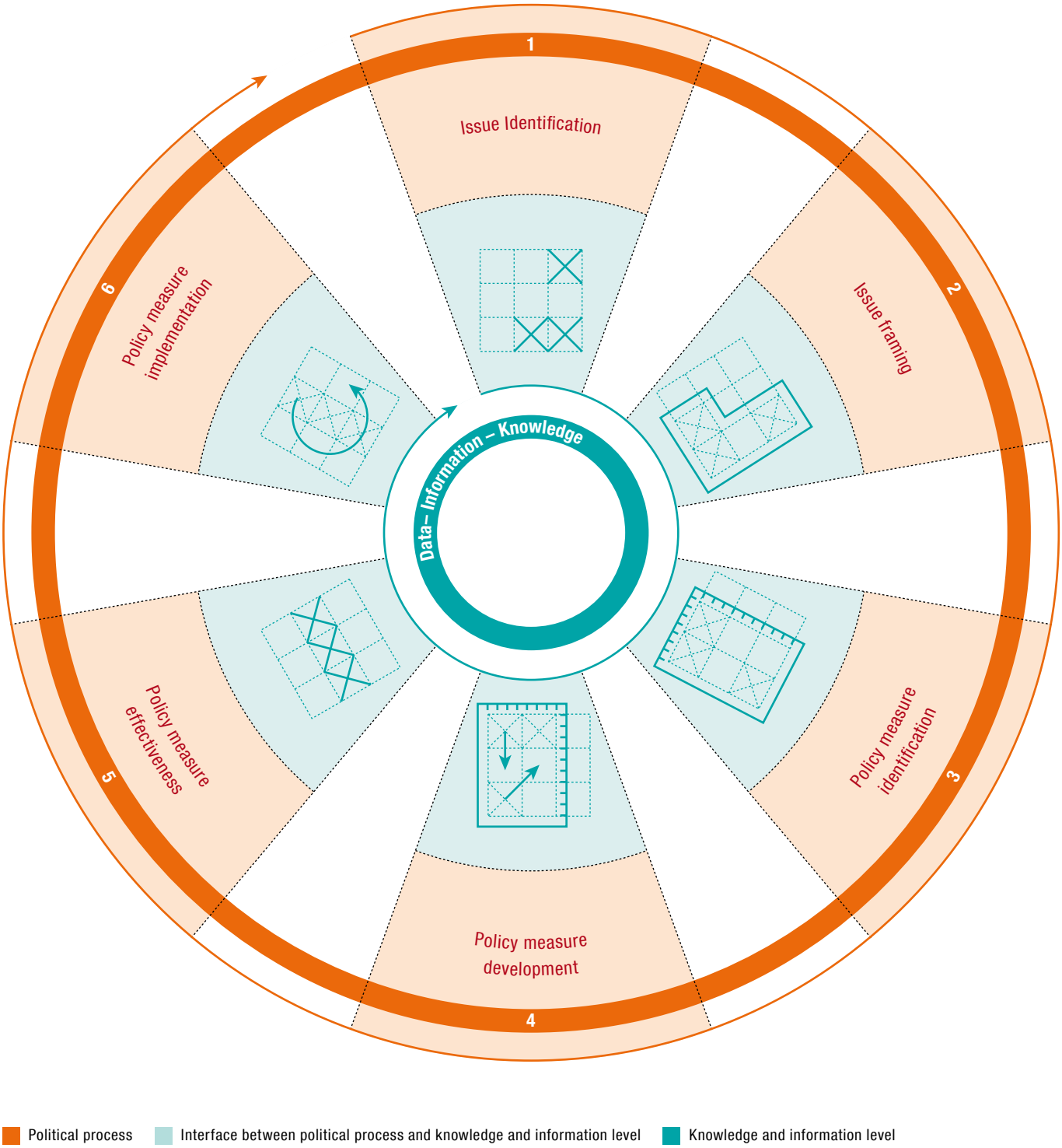
Next steps

> The fifth GEO Report is planned for 2012, also the year in which the Conference on Sustainable Development is being held in Rio.

[52] See the European Environment Agency (2010): The European Environment – State and Outlook 2010. Copenhagen.

Fig. 5.11 > The role of scientific findings in environmental policy measures

Scientific data and findings play a vital role in all the key stages of the environmental policy decision-making and implementation process – from the recognition of the problem to checking the effectiveness of the political measure.



Source: Diagram FOEN 2011, based on EEA

5.12 Other sectors

Switzerland is involved internationally in further environment sectors, though not to the same extent as in the sectors mentioned previously.

Although the reduction of *noise pollution* is usually a local issue, in order to overcome technical barriers to trade, Switzerland has a particular interest in harmonizing noise emission regulations for vehicles, machines and equipment with the EU.[53] In order to protect its own population, Switzerland also participates in exchanges of knowledge and experiences at international level, for example in the relevant committee of the World Health Organization (WHO) and the United Nations Economic Commission for Europe (UNECE).

The *soil* is also a matter that is primarily regulated at national level. Nevertheless, Switzerland has an interest in exchanging knowledge and experiences, and collaborates for example with the EU's Joint Research Centre. In addition, the multifaceted nature of soil protection means that it has a close relevance to international regulations relating to climate, biodiversity, desertification, waters and forest.

Desertification and soil degradation represent a serious problem, primarily for countries in the south. The phenomenon of desertification is closely connected with the forest, water, agriculture, climate and biodiversity sectors. The United Nations Convention to Combat Desertification UNCCD is the most important multilateral instrument. Various international organizations play an important role: the United Nations Environment Programme (UNEP) is mainly active in relation to inventory taking, the United Nations Development Programme (UNDP) in supporting developing countries in implementing the UNCCD, the World Meteorological Organization (WMO) through assessment methods, and the Food and Agriculture Organization (FAO) in guaranteeing the food security that is reduced as a consequence of desertification, while the Consultative Group on International Agricultural Research (CGIAR) is conducting research into drought-resistant plants. Combating desertification is a key assignment for Swiss Agency for Development and Cooperation (the SDC) in its priority countries.

International environmental regulations are more readily respected when the inspection and sanction mechanisms are particularly effective. The latter are a weak point in international environmental agreements. Accordingly, the ability to exercise an influence over civil society is of particular importance, but it is dependent on having access to information. In the environment sector, the *Aarhus Convention*[54] is an instrument binding under international law that imposes regulations with regard to access to information, public participation and legal protection in environmental matters. The Convention reinforces the trend towards granting the general public access to official information, in principle. In Switzerland, the public has had a legal right to information on administrative matters at federal level since 2006. Most cantons also recognize this right. However, although Switzerland has signed the Aarhus Convention, it has not yet ratified it – first of all, a suitable legal framework and related institutions must be created.

In relation to projects that could have considerable effects on the environment, it is important to inform neighbouring states and any other countries that will be affected and allow them to respond in a formal procedure. The Espoo Convention[55] requires its contractual parties to conduct an *environmental impact assessment* for projects that could have significant adverse effects on the environment. Notification includes details of the planned project, including information on its transboundary effects on the environment, and provides an indication of the possible decision.

[53] See for example the Agreement of 21 June 1999 between the Swiss Confederation and the European Community on the mutual recognition of conformity assessments, or the road and rail transport or air transport agreements between Switzerland and the EU.

[54] Aarhus Convention on access to information, public participation in decision-making and access to justice in environmental matters.

[55] SR 0.814.06. Convention on the environmental impact assessment in a transboundary context, signed in Espoo on 25 February 1991. Switzerland has yet to ratify the related Protocol of 21 May 2003 on strategic environmental assessments (SEAs).

6 > A Broader View of International Environmental Policy

6.1 Trade and economic policy

Principles

Switzerland is closely involved in the global economy. It earns every second franc abroad and its proportion of foreign trade is constantly growing. As a consequence, the country is affected by the dynamics and development of the global economy and must react accordingly.

Key economic activities such as production, trade, consumption and investment activities have a major influence on the global environmental situation. The international trade in goods and services shifts the burden of environmental problems to other countries: while importing countries are the main consumers of products, the environmental problems associated with their manufacture remain in the countries of origin. About sixty percent of the environmental impact caused by consumption in Switzerland occurs abroad.[56]

At an international level, the connection between trade and environmental policy is dealt with principally within the framework of the World Trade Organization (WTO) and in bilateral and regional free trade agreements. The link between economic and environmental policy is dealt with in particular within the Organization for Economic Co-operation and Development (OECD) and the United Nations Environment Programme (UNEP). The green economy was also a topic of discussion at the ministerial meeting in Astana 2011, as part of the "Environment for Europe" process of the United Nations Economic Commission for Europe (UNECE) and will be one of the two main topics at the UN Conference on Sustainable Development Rio+20 in 2012.

The *WTO Committee on Trade and Environment* (in particular under the Doha mandate[57]) will clarify the relationship between WTO rules and multilateral environmental agreements (MEA) and work towards abolishing trade barriers for environmental goods and services. In addition to these negotiations, discussions are taking place on the extent to which environment-relevant technical regulations or environmental standards that act as barriers to trade are justified, and how conditions can be created under which trade and the economy can flourish without damage to the environment. The EU and Switzerland in particular are committed to finding far-reaching solutions that take account of sustainability in trade processes. On the other hand, many developing countries fear that, in the discussion about environmental standards in the trade sector, the real issue may actually be a disguised form of protectionism for the industrialized countries.

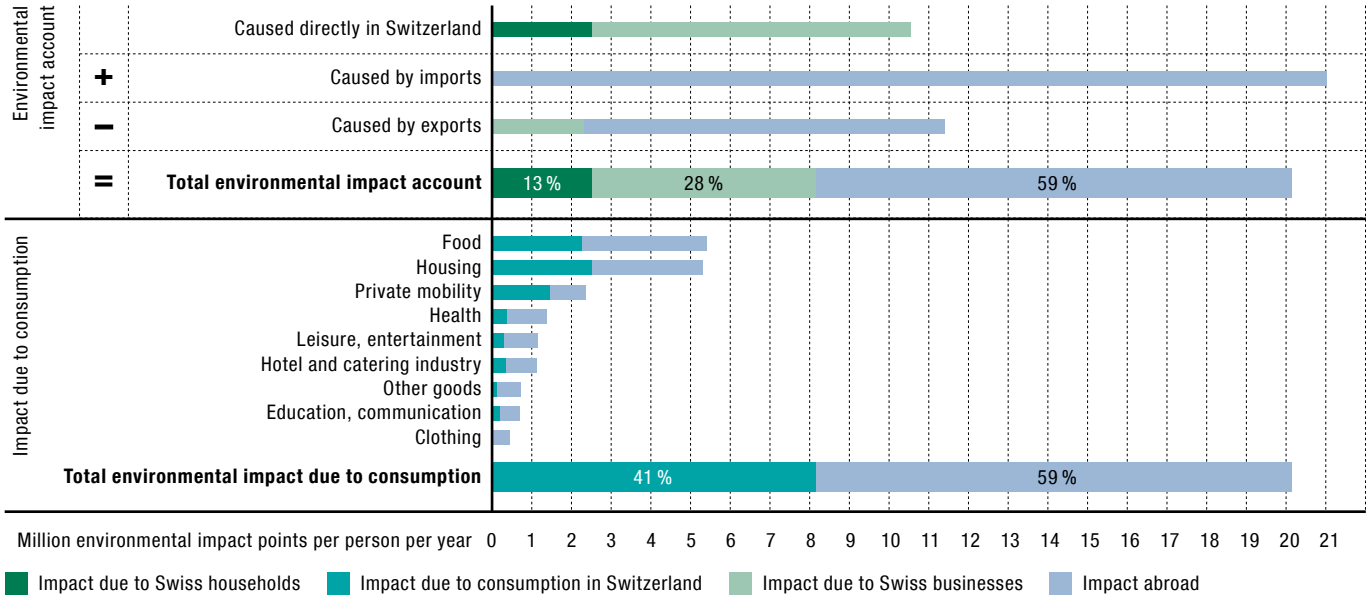
Various states have begun to take account of environment considerations in trade agreements at a bilateral and regional level. As there is no generally recognized practice at international level, individual states are pursuing different approaches in this respect. In its Joint Working Group on Trade and Environment, the OECD has analysed the various approaches and drawn up relevant guidelines[58]. In environment chapters in corresponding agreements or in Memoranda of Understanding (MoU), mention is made, for example, of provisions on the sustainable use of resources, promoting high environmental standards, support for environmental projects in partner countries, consultation and exchange of information on environmental issues, regulation of the relationship of trade agreements to MEAs, provisions on the enforcement of national environmental legislation and in some cases, specific dispute resolution mechanisms and sanctions (for example, the USA). Since June 2010, Switzerland and its partners in EFTA have also been proposing new and additional model provisions on trade and sustainable development to their negotiating partners, and Switzerland does so also in bilateral *free trade negotiations*. These model provisions are based on the conclusions of the EFTA working groups on Trade and Environment and Trade and Labour Standards. A comparable course of action is also being considered for investment protection agreements.[59]

Besides the interfaces between trade and environment, the relationship between economic and environmental policy is also increasingly being considered in political circles. A competitive, resource-efficient economy ensures that we treat the natural world in a sustainable manner and thus that the natural resources required for economic activities will be available to us long-term. Research, innovation and technological progress all contribute to a resource-efficient economy and therefore to a competitive economy. A green economy is therefore in the interests of all economic players.

The UN Environment Programme's (UNEP) *Green Economy* initiative and the OECD *Green Growth Strategy* are currently the most important processes at international level. The UNEP Green Economy initiative will help governments to run their national economies ecologically. The recommended measures concern, in particular, the areas of environmental technology, renewable energy, water, transport, waste management, buildings, agriculture and forest management. The three central constituent elements of the UNEP initiative

Fig. 6.1a > Overall environmental impact of consumption in Switzerland

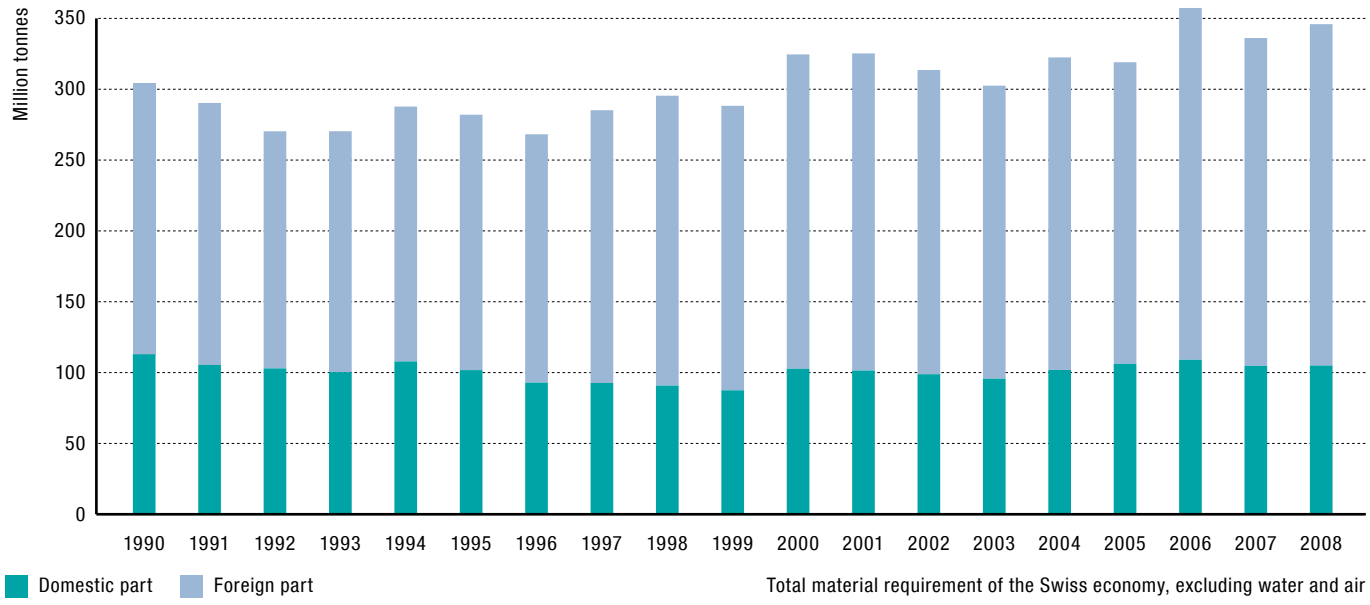
Consumption is an important factor in pollution. The food, housing and mobility sectors contribute more than any others. As Switzerland imports almost two thirds of its consumer goods, the impact of domestic consumption is mainly felt abroad.



Source: FOEN 2011

Fig. 6.1b > Switzerland's use of resources

Switzerland's consumption of resources has risen by 14 % since 1990 and amounts to around 44 tonnes per person per annum. While the volume of imported raw materials fell by 2 % over the same period, imports of finished products rose by 61 %. By using resources from abroad, Switzerland exports its environmental pollution.



Source: FSO 2011

are the Green Economy Report, the Report on the Economics of Ecosystems and Biodiversity and the Report on Green Jobs. The OECD's Green Growth Strategy aims to make all economic sectors more ecological. In this, the OECD is concentrating on its core competencies, policy analyses and policy recommendations. The consolidated report on the strategy was approved at the ministerial meeting in May 2011.

Finally, following a broad public consultation process, at the beginning of March 2010 the EU Commission presented its new growth strategy to 2020 ("EU 2020: strategy for smart, sustainable and inclusive growth"). One of the three priorities of the strategy is sustainable growth to promote a low-resource, more environmentally friendly and more competitive economy. The EU also proposes a reorganization of the economy by means of targeted regulation and incentives. Furthermore, the EU's Action Plan on Sustainable Production and Consumption is a further step towards the development of a green economy.

Instruments for a greener economy also being discussed in this context are ecological market transparency, ecological tax reform and specific state programmes to support green technologies.[60]

An important role of the state is to create suitable general conditions so that an ecological market economy can develop. A comprehensive indicator of prosperity provides decision-makers with a key basis to do this. Various international forums are attempting to add ecological and social indicators to a definition of gross domestic product. For example, in September 2009 the Commission on the Measurement of Economic Performance and Social Progress, set up by France and headed by Joseph Stiglitz, produced a report identifying indicators which take account of ecological and social factors.

The framework conditions required to create a green economy established by the international community and in national strategies must also be applied in trading systems. In shaping the latter, account must therefore be taken of the relationship between trade and environmental agreements.

Development co-operation and business development at bilateral level are further ways in which Switzerland is working towards a green economy.[61]

Interests

International agreements in the trade sector have a considerable influence on Switzerland's bilateral, regional and global trade. By exercising influence on the way these international rules are drawn up, Switzerland is able to make trade more sustainable. In particular, Switzerland is interested in ensuring that its relatively high environmental standards are not viewed as being in conflict with international trade rules. Furthermore, it is to Switzerland's advantage if other countries also enforce high environmental standards; otherwise the country's competitiveness is affected. Because Switzerland has few natural resources and is therefore heavily dependent economically on other countries, it has an interest in ensuring that scarce natural resources are used sustainably and remain accessible at an international level. Lastly, resources should also be used efficiently and sustainably in the interests of economic prosperity. Clear and fair rules and incentive systems provide an important foundation for a stable economic environment.

Goals

The main objective of Swiss foreign trade policy (the responsibility of the Swiss State Secretariat for Economic Affairs, SECO) is to represent the interests of its economy abroad. Its main focus lies on gaining access to markets and removing barriers to trade. Favourable conditions encouraging competition and sustainable growth for businesses must be created and jobs secured. Switzerland therefore promotes free trade within the framework of the WTO and by means of free trade agreements with major economic partners.[62]

At the same time, Swiss environmental policy (the responsibility of the Swiss Federal Office for the Environment, FOEN) is geared towards making lasting use of natural resources. Resource efficiency in the economy and in trade must be improved and the global consumption of resources reduced. Trade policy and economic policy are therefore important instruments in enforcing environmental policy; environmental interests must consequently be considered in international trade and economic agreements. Switzerland therefore wants to use these instruments to promote ecological innovation, the exchange of environmental technologies and harmonized high environmental standards. Furthermore, information such as how the lifecycle of products and services can damage the environment should be clearly communicated, so that this can also influence economic decisions. Information at company, sectoral and national level should lead to economic and political decisions which take account of environmental issues.

Switzerland is seeking to ensure that negotiations under the Doha Mandate are pursued in the WTO Committee on Trade and Environment and in its Special Session (CTE-SS). The relationship between the WTO and multilateral environmental agreements must be made clear and take equal account of the interests of both the environment and the economy. From an environmental perspective, transparent environmental criteria which take account of the full lifecycle of goods and services and all relevant environmental influences that affect them should be taken as a basis for determining how trade in these goods and services can be liberalized. The UNEP and OECD initiatives for running economies ecologically should, in the long term, lead to the efficient and fair exploitation of

natural resources at an international level and help to create ecological market transparency.

Next steps

> The WTO Committee on Trade and Environment and its Special Session (CTE-SS) form part of the WTO Doha Round, which is of open-ended duration. Switzerland will represent its interests in the environment sector at the appropriate meetings.
> In future and existing regional and bilateral free trade agreements, Switzerland will introduce and implement the EFTA free trade agreement's standard chapter on sustainable development. Before negotiations on a free trade agreement are begun, it should be standard practice to assess the impact of such an agreement on the environment.
A comparable course of action in relation to investment protection agreements should also be considered.
> The green economy will be one of the two topics discussed at the World Conference on Sustainable Development (Rio+20), which will take place in Brazil in 2012. Sustainable trade regulations will form a part of this discussion.[63]
> The OECD will pursue the Green Growth Strategy announced at the Ministerial Council Meeting (MCM) 2011 and discuss its implementation at the EPOC ministerial meeting in March 2012. In these bodies, Switzerland will advocate the measures announced by the Federal Council in its strategy document on the green economy (i.e. for indicators to better measure welfare, ecologization of the tax system, environmental information and labels, promotion of green technologies and innovation, better use of synergies between environmental and economic concerns).
> In a project led by the Directorate General for the Environment, the EU Commission has defined a roadmap for a resource-efficient Europe. Switzerland will contribute its opinion to this, primarily as a member of the EEA.

[56] See Jungbluth N., Nathani C., Stucki M., Leuenberger M. (2011): Gesamt-Umweltbelastung durch Konsum und Produktion der Schweiz: Input-Output Analyse verknüpft mit Ökobilanzierung. Federal Office for the Environment, Bern.

[57] See: www.wto.org/english/tratop_e/envir_e/envir_negotiations_e.htm
The Doha-mandate is negotiated in the Committee on Trade and Environment in its Special Session (CTE-SS).

[58] See OECD study: Environment and Regional Trade Agreements.

[59] Direct investment in developing und transition countries is undoubtedly extremely important in order to achieve the Millennium Goals. At the same time, environmental considerations should play a role in the process for direct investments and when relevant agreements are drawn up; they also form an aspect of various OECD and UN guidelines.

[60] On 13 October 2010 the Federal Council set out for the Federal Administration six main areas of action for creating a green economy, designed to improve the way in which natural resources can be used in the interests of the environment and economy. The six areas are cleantech, information and communication technology, the environmental impact of products, ecologization of the tax system, environment information, wealth indicators and assessing new legislation with respect to resource efficiency and compatibility.
See: www.bafu.admin.ch/bundesrat-gruenere-wirtschaft

[61] See SECO (2010): Environment Policy Paper. Umweltaspekte in der wirtschaftlichen Entwicklungszusammenarbeit. Bern, and SDC (2008): Klima und Entwicklung – Was macht die DEZA? Hintergrundpapier. Bern.

[62] See Report on foreign economic policy 2009, BBl 2010, 479 ff.

[63] Cf. Swiss Submission, of 1 November 2011:
www.uncsd2012.org/rio20/index.php?menu=115

6.2 Development policy

Principles

Considerable advances have been made in integrating the environmental dimension into development co-operation over the past two decades, a process begun in 1992 at the World Summit in Rio. At that time, intensive reflection on the environmental dimension of development had begun. Methods were analysed and numerous new programmes conceived to solve urgent environment and resource management problems. The concept of sustainable development demonstrates how ecological, economic and social needs can be integrated: economic development can only be successful long term if natural resources are protected. Poverty reduction and food security depend to a large extent on a stable climate, preserving biodiversity, good soil fertility and clean drinking water. Environmental concerns therefore form part of Swiss development co-operation, which strives to strengthen the capacity of developing countries to protect the environment. At national level, this process finds form in the North-South model.[64]

The Declaration on the Millennium Development Goals[65] in 2000 ("halving global poverty by 2015") pays particular attention to treating the environment sustainably in its Goal 7. It calls on all countries to restrict the loss of natural resources (forests, biodiversity, sources of energy, clean air and water). A summit on the status of the Millennium Development Goals took place in 2010 under the auspices of the UN General Assembly. Following on from this event, Switzerland published its own interim report.[66] If the Millennium Development Goals are actually to be achieved, it will become increasingly urgent to discuss how they will be continued with after 2015.

Nonetheless, the primary aims of Switzerland's development co-operation are a reduction of poverty in the "focus countries" and globalization which promotes development. The Swiss Agency for Development and Cooperation (SDC) concentrates on this main objective primarily in the fields of climate, water, food security and migration. The economic development co-operation of the State Secretariat for Economic Affairs (SECO) helps partner countries towards greater integration in the global economy and encourages sustainable economic growth with a focus on energy, climate and environmental issues in general[67]. The statutory basis for this work is Article 5 of the Act on Development Aid, under which Switzerland promotes the creation and preservation of the ecological and demographic balance in developing countries.

The most important global or regional institutions in development co-operation with a strong link to international environmental policy are the United Nations Development Programme UNDP[68], the World Bank[69] and regional development banks. Environment and energy is one of the UNDP's six focus areas, whereby the programme gives support to developing countries in building up their capacities. The UNDP and UNEP have signed a Memorandum of Understanding designed to encourage joint programmes. In the last five years about 10 % of World Bank financial support went into the environment sector, whereby three quarters of the money went to projects with an environmental dimension. Key financing institutions are also the regional development banks and the OECD, which provides important political bases and guidelines in its environment and development committees. The instruments used here are the OECD environment reports or environmental policy peer reviews.[70]

A special challenge for development co-operation will be the efforts of the international community – in the OECD or within the framework of the World Conference on Sustainable Development 2012 in Brazil (Rio+20) – to create a more resource efficient economy (green economy).

Interests

Switzerland has an interest in ensuring that development and environmental policy are mutually supportive. Development policy that puts too great a strain on natural resources destroys the basis for long-term development and is neither in the interests of the population of the recipient country nor of Switzerland as the donor. Furthermore, Switzerland has an interest in ensuring that the whole spectrum of environmental issues is considered, not merely climate protection measures. Close co-operation between the federal agencies involved can ensure that the various interests are taken into account. Increased co-operation between the FOEN and the main operators in Swiss development policy, the SDC and SECO, will lead to greater synergies between the various organizational units and the implementation of sustainable development policy to protect our essential natural resources.

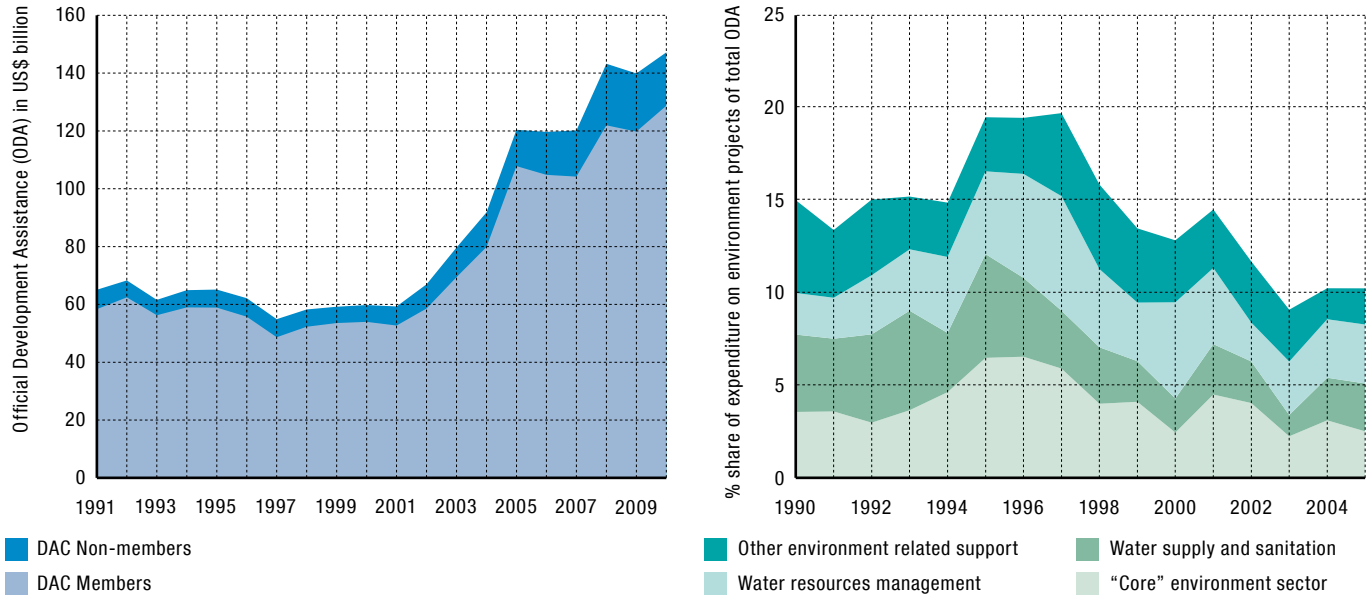
In the dynamic field of international environmental policy in particular, Switzerland can strengthen its position if multilateral policies and bilateral commitment displays a high degree of coherence. Priority must be given to increasing the coherence of development co-operation and multilateral processes, in particular negotiating and developing environmental agreements so that they can be implemented to greater effect and Switzerland's credibility in international environmental policy can be underlined. This is also important in view of Geneva's significance as an international centre for environmental organizations and institutions and a focal point for green politics at global level.

Goals

Switzerland is pursuing sustainable development objectives in its development and co-operation policy. This should contribute to a rise in the standard of living, sustainable use of natural resources, security and democracy in its partner countries as

Fig. 6.2a > Increase in expenditure on development assistance, relative decline in expenditure on environment projects

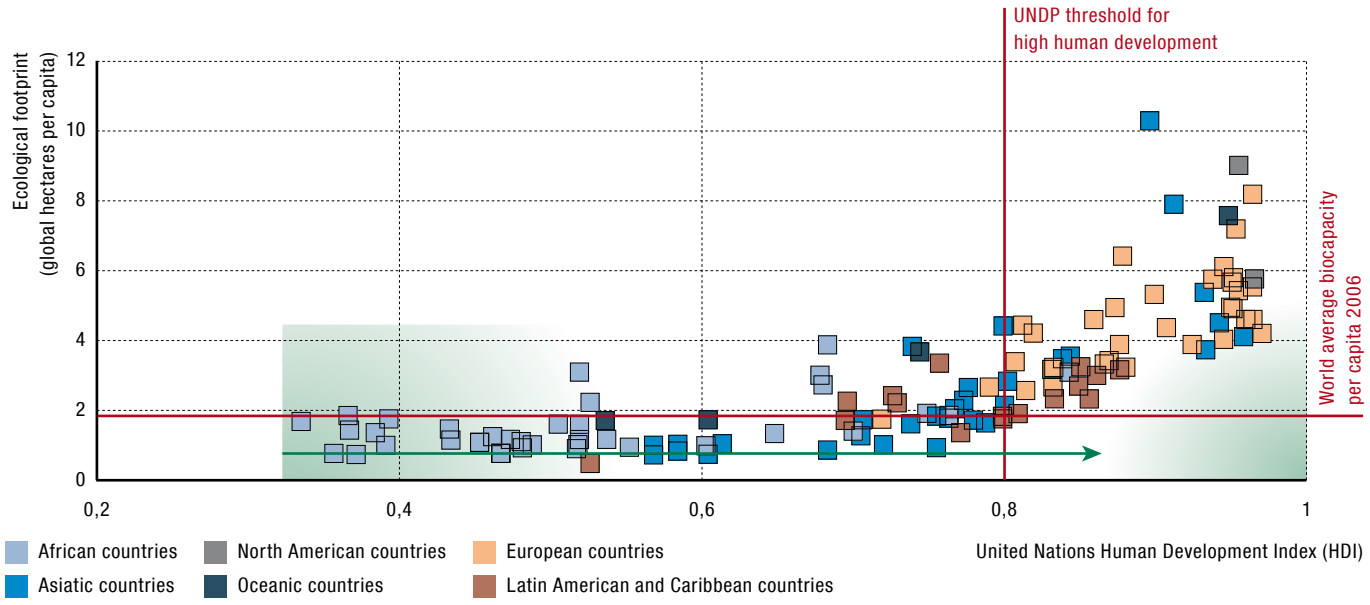
Since 2001 expenditure on development assistance has doubled (Official Development Assistance ODA). However, up to 2005, the percentage share of ODA given to environment projects fell by a third.



Source: OECD 2008

Fig. 6.2b > The challenge of sustainable development policy

The challenge for developing countries is to achieve social and economic progress without further increasing pressure on natural resources (decoupling of environmental pollution and development). Highly developed countries however must reduce their excessive consumption of resources.



Source: Global Footprint Network 2010, UNDP 2009

well as to overcoming global problems. Switzerland is also contributing actively to achieving the Millennium Development Goals (MDGs) and aims to strengthen environmental sustainability (Goal 7).

Against this background, the integration of environmental considerations in the strategies, programmes and projects of development co-operation should be encouraged, at the same time regularly assessing their relevance to the environment, as proposed in the OECD report on development co-operation.[71] Furthermore, the alignment of bilateral activities in the field of development co-operation with multilateral policies should be encouraged. This will improve the basis upon which international environmental agreements can be implemented globally, underline Switzerland's credibility in international environmental policy, and improve the practical application of multilateral policies.

The aim is to better integrate environmental aspects into development co-operation and vice versa. This would suggest that a more systematic application of environmental impact assessments in programmes and projects is required.

Next steps

> Participation in the World Conference on Sustainable Development (Rio+20) 2012 in Brazil. The discussions and any decisions will also have an effect on Swiss development co-operation.
> Pursuing a broad spectrum of policies (not only climate).
> Assessment of the extent to which a more systematic application of Environmental Impact Assessments would be of use in projects and development programmes of a wide range of institutions. The aim is to take account in a coherent manner of the environmental benefits in the development goals.
> Increasing co-operation between the FOEN and the main operators in Swiss development policy, the SDC and SECO, in order to set the strategic orientation of projects with environmental benefits, coordinate these projects with environment and development goals and ensure transparent reporting.
> Participation in the interest group on development co-operation in the Network of Environment Protection Agencies (EPA Network). This group draws up, for example, a matrix of all bilateral environmental projects in the different European countries in order to avoid future duplication and enable a better exchange of specific experiences.

[64] Report of 7 March 1994 on Switzerland's North-South relations in the 1990s. BBl 1994 II 1214.

[65] www.un.org/millennium/declaration/ares552e.htm

[66] www.deza.admin.ch/ressources/resource_de_193398.pdf

[67] See in general the explanations on the different credit facilities in federal dispatches, most recently BBl 2008 2959 (SDC), BBl 2008 3047 (SECO) and BBl 2010 6751 (‘”0.5 % dispatch”) and the SDC and SECO annual reports: www.sdc.admin.ch/annualreport

[68] See UNDP (2010): “Evaluation of UNDP Contribution to Environmental Management for Poverty Reduction: The Poverty-Environment Nexus”. www.undp.org/evaluation/documents/thematic/pen/Eval_PEN.pdf

[69] The World Bank is involved in the implementation of environment projects, also as a GEF implementation organization. It has also drawn up its own climate and biodiversity strategy: The World Bank, Biodiversity, Climate Change and Adaptation, Washington, D.C., 2008. See also The World Bank, Convenient Solutions to an Inconvenient Truth: Ecosystem-based Approaches to Climate Change, Washington, D.C., 2009 (www.worldbank.org > Publications > Documents and Reports: “Convenient solutions”). It occasionally attaches the granting of credit to environment policy requirements, for example in the case of dams for power generation.

[70] See for the environment reports: www.oecd.org > About > Departments > Environment Directorate > Environmental Country Reviews. See for the environment policy peer reviews: www.oecd.org > About > Departments > Development Co-operation Directorate > Peer Reviews of DAC Members

[71] SDC and SECO are encouraged by the OECD to “formulate a joint approach to environment and climate change. This should build on their positive work on sustainable development and environment, rather than taking a narrow climate change approach that neglects other environmental concerns.” See OECD (2009): Switzerland, Development Assistance Committee (DAC), Peer review, p. 89.

6.3 Environmental aspects in other sectoral political fields

Human health will be adversely affected by environmental problems, above all air, water and soil pollution. An effective international framework to protect public health is in Switzerland's interests and of crucial importance. Switzerland is therefore working with the World Health Organization (WHO), the EU and the UNECE, organizations which coordinate important processes relating to health matters and have drawn up related guidelines and agreements.

Agricultural activities have a considerable effect on land, water, air, climate, biodiversity and landscape. They contribute 15 % of global greenhouse gas emissions and in many developing countries large areas of forest are giving way to arable land. Switzerland aims to make agriculture sustainable in order to avoid unfairness due to stricter social and ecological requirements. The role of agriculture in protecting biodiversity is similarly accorded great importance. Switzerland is also trying to combat competition in food production resulting from oil-rich crops being increasingly grown for fuels.

Due to our use of fossil *energy sources*, energy policy has a considerable influence on the climate and on air and water pollution. Energy generation and transport also affect flora, fauna and the landscape. Switzerland is currently negotiating with the EU regarding access to electricity markets, security, renewable energy sources and the mutual recognition of certificates.

Overland transport causes air and noise pollution and often leads to changes in land use. Switzerland wants to meet the mobility needs of its public while at the same time maintaining an intact environment. In order to achieve this, the country needs to maintain good co-operation with its neighbouring countries and the EU. Furthermore, Switzerland also has an interest in a globally sustainable transport policy which conserves natural resources as far as possible while at the same time making it possible for persons and goods to be moved around at reasonable cost. Swiss transport policy has frequently played a pioneering role in Europe (New Rail Link through the Alps (NRLA), heavy goods vehicle charge (LSVA)).

Emissions from *air transport* contribute significantly to climate change; nevertheless, they are not covered by the Kyoto Protocol. They also contribute to the reduction of the ozone layer and on a local level to acidification, eutrophication and the formation of ground-level ozone. The International Civil Aviation Organization (ICAO) is the main global institution dealing with these issues.

Through *environmental research and environmental technology*, instruments to protect and use natural resources more efficiently can be made available. International exchange encourages these efforts. For Switzerland, involvement in relevant EU programmes is a key issue in this respect, and something which should be encouraged in future. The most important programmes are the Framework Programme for Research and Technological Development, the European Research Area Network (ERA-NET), which promotes the exchange of experiences between national and regional research programmes, and the European technology platforms.

Environmental changes such as desertification may trigger *migration*. The UN Environment Programmes (UNEPs), the UN High Commission for Refugees (UNHCR) and the International Organization for Migration (IOM) have addressed this issue at international level. It is in Switzerland's own interests to address the problem of environmental migration and contribute to finding solutions.

7 > Relations with the European Union (EU)

Links between Switzerland and the EU in the environment field are constantly developing. In certain areas, Switzerland has to a large extent harmonized its environment legislation with that of the EU, primarily because the EU is Switzerland's most important trading partner.

7.1 Environmental policy in the narrower sense

Principles

The EU's environment and resource policy is based on three strategic objectives:

> to protect and conserve essential natural resources,
> to increase competitiveness,
> to create a first-class knowledge society.

In the environmental field, responsibilities are split between the EU and its member states, (Art. 4 Treaty on the Functioning of the European Union, TFEU), so member states are only responsible for areas in which the EU is not (Art. 2 para. 2 TFEU). As a result of the principle of subsidiarity (Art. 5 Treaty on the European Union, TEU), the Union only exercises its responsibility if the goals cannot be sufficiently achieved by the member states themselves. The EU's environmental policy is regulated in Title XX of the Treaty on the Functioning of the European Union (Art. 191 ff. TFEU, ex-article 174 ff. Treaty Establishing the European Community, TEC). This allows the member states to decide if they wish to maintain or introduce more stringent protective measures (Art. 193 TFEU, ex-article 176 TEC). This principle is expressed in a rather more restrictive fashion in the Chapter on the approximation of laws (cf. Art. 114 TFEU, ex-article 95 TEC). Furthermore, environmental protection is a cross-disciplinary concern that must be considered in all European policies (Art. 11 TFEU, ex-article 6 TEC).

Since 1972, the strategic orientation of EU environmental policy has been set in Environmental Action Programmes. The current action programme is the sixth such programme, and defines the focus for 2002 – 2012 in its title: "Environment 2010: Our Future, Our Choice".[72] This sets out the principles of EU environmental policy: to provide clear and comprehensive information, involve all stakeholders and take the best available scientific knowledge as a basis. Besides this Environmental Action Programme (EAP), the strategies on sustainable development and sustainable resource use and management approved in 2001[73] and 2005[74] are the most important documents relating to European environmental policy. Finally, Life+ is the EU's financial vehicle designed to encourage implementation of its environmental policy (action programmes) and application of environment law. At the start of 2012, the EU Commission should draw up a proposal for a seventh EAP that will be submitted to the EU Council and Parliament.

The greatest challenges facing the EU in the environment field are: managing natural resources sustainably and efficiently (resource efficiency, decoupling) as the basis of a green economy, maintaining biodiversity and ecosystems, climate protection and improving the integration of environmental considerations in other policy areas (economy, trade, agriculture, energy and fiscal policy). Other key issues are health and environment (air and water quality, chemicals, nanotechnology), water resources management, waste management, soil protection, the regulatory framework and implementing comprehensive legal regulations.[76]

Climate

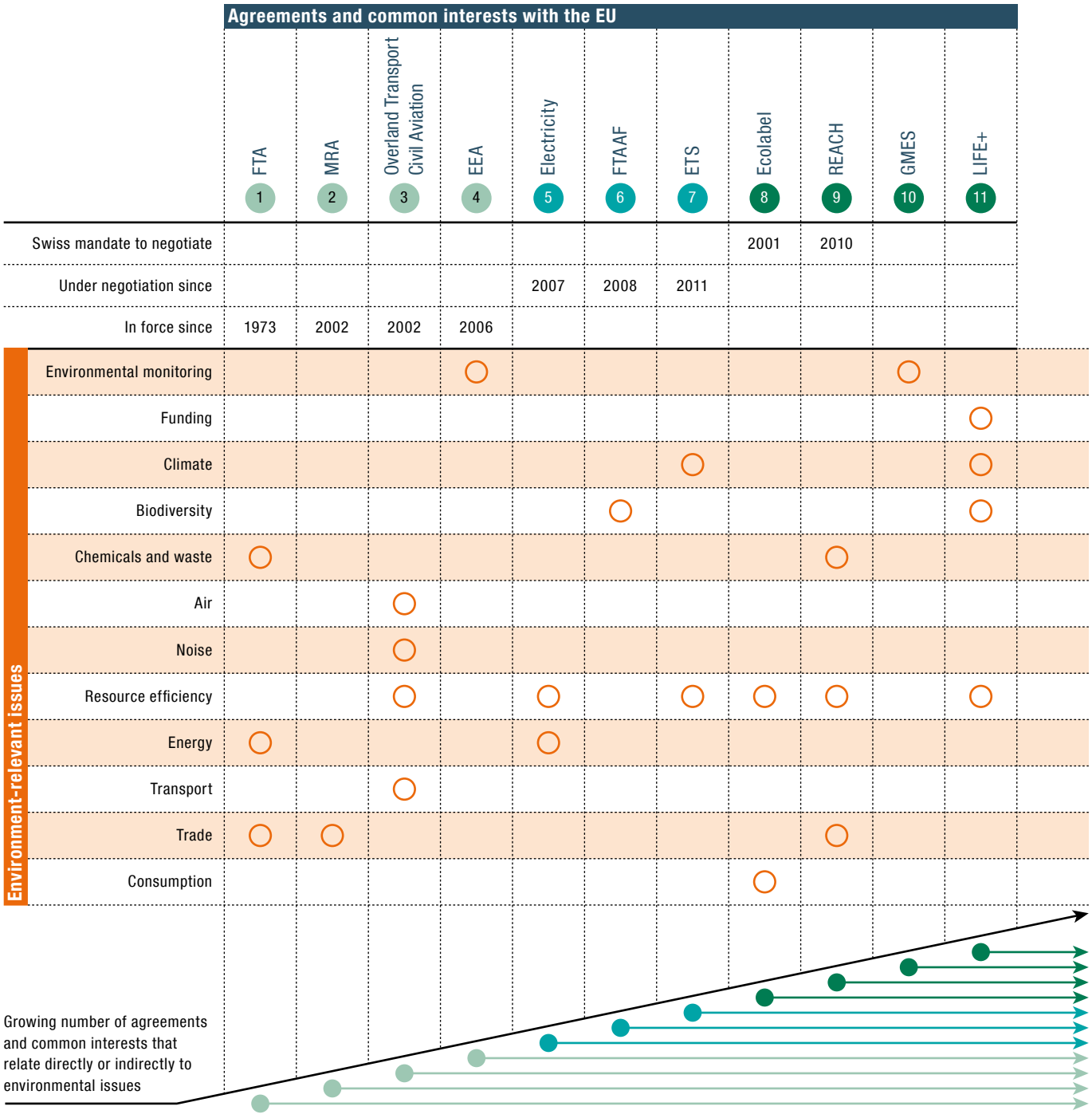
EU climate policy is based on the Climate and Energy Package, namely Directive 2009/29 on Trading Emissions, Directive 2009/28 on the promotion of the use of renewable energy sources, Directive 2009/31/EC on the geological storage of carbon dioxide and Decision no. 406/2009/EC on the effort of member states to reduce their greenhouse gas emissions.[77] In May 2010 the EU Commission published an analysis of options to move beyond 20 % greenhouse gas emission reductions and assessing the risk of carbon leakage[78] and in March 2011 a roadmap for moving to a competitive low carbon economy in 2050.[79]

Biodiversity

In May 2011 the EU commission presented a new basis for EU biodiversity policy, entitled 'Our life insurance, our natural capital: an EU biodiversity strategy to 2020' (COM(2011) 244). Further important legislation is: Directive 1979/409 on the conservation of wild birds, Directive 1992/43 on the conservation of natural habitats and of wild fauna and flora, Regulation 348/81 on common rules for imports of whales or other cetacean products and Regulation 338/97 on the protection of species of wild fauna and flora by regulating trade therein.

Fig. 7 > Environment-relevant aspects of relations between Switzerland and the EU

As important trading partners, Switzerland and the EU have an interest in harmonizing their environmental standards, thus countering inequalities in competitive conditions. This interest is reflected in a growing number of agreements that relate directly or indirectly to environmental issues.



1 **FTA:** Free trade Agreement
2 **MRA:** Mutual Recognition Agreement
4 **EEA:** European Environment Agency
6 **FTAAF:** Free Trade Agreement (agricultural and food industry)
7 **ETS:** Emissions Trading System
8 **Ecolabel:** European environment label
9 **REACH:** Law on chemicals
10 **GMES:** Global Monitoring for Environment and Security
11 **LIFE+:** EU Environment financing instrument

Agreements in force | Ongoing negotiations | Common interests | Issues directly or indirectly affected

Source: FOEN 2011

Chemicals and waste

The EU has practised a fairly differentiated policy on chemicals and waste for some time. The main reason for this is the relevance of these policies for the single market. However, the environment is an increasingly important consideration. Of particular relevance in this context is the recent revision of chemicals legislation in the form of Regulation 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and on the Creation of a European Chemicals Agency (ECHA). The following legislation is also of significance: Directive 2008/98 on waste (Waste Directive), Directive 94/62 on packaging and packaging waste, Directive 1999/31 on the landfill of waste, Directive 2000/53 on end-of-life vehicles, Directive 2002/95 on the use of certain hazardous substances in electrical and electronic equipment, Directive 2002/96 on waste electrical and electronic equipment, Regulation 1013/2006 on shipments of waste, Directive 98/8 on the placing of biocidal products on the market, Regulation 2037/2000 on ozone depleting substances and Regulation 304/2003 on the export and import of dangerous chemicals.

Water

Swiss water policy is also increasing modelled on EU water policy[80], which includes the directive on water policy framework[81], various guidelines on quality requirements for certain waters[82] and the framework directive for a common strategy in the field of marine environmental policy.[83]

Air

There are numerous pieces of EU legislation on combating air pollution. Besides product related regulations, this also includes exhaust requirements for motor vehicles in particular. A range of emissions standards are of importance in this respect, which are now summarized in Directive 2008/50 on ambient air quality and cleaner air for Europe, as well as production standards regarding emissions from combustion plants.[84] Switzerland has also entered into a co-operation agreement on the development of new measurement methods for vehicle emissions with the EU's Joint Research Centre (JRC) in Ispra, Northern Italy.

Resource efficiency

The flagship initiative for a resource-efficient Europe is part of the Europe 2020 Strategy[85]. The flagship initiative aims to uncouple economic growth from resource use, encourage the transition to a low-emission economy, promote the use of renewable sources of energy and energy efficiency and to modernize the transport sector. It takes a transversal approach and affects all environmental fields (climate, biodiversity, soil, air, water, waste/chemicals etc.). It sets out indicators for a green economy and makes use of a range of instruments: charges, subsidies, incentives, regulations, prohibitions/bans, the liberalization of environmental products and services, investments, environmental information and labels, innovation and research. As part of this flagship initiative, the European Commission has adopted a Resource Efficiency Roadmap, which will also involve amendments to legislation (inter alia in the areas of the EU Ecolabel[86], EU ecodesign[87], access to information (Aarhus)[88], environment management EMAS[89], REACH, nanomaterials[90]). The Commission is also focusing on the sustainable use of natural resources[91] in budget discussions in general and in particular in the context of the reform of the Common Agricultural Policy, measures to be taken in energy infrastructure[92] and energy efficiency[93] as well as future transport policy.[94]

European Environment Agency (EEA)

The EEA in Copenhagen collects and analyses data on the state of the environment in the European states. In order to ensure comparability, the EEA compiles this data according to common criteria. This is done by the European Environment Information and Observation Network EIONET, to which member states provide their data.

The Environment Agency also acts as an important advisory and expert body and supports the European Commission in drafting environmental legislation. Membership is also open to non-EU states provided they share the same goals of environmental protection and sustainable development. At present the EEA has 32 members: the 27 EU member states, Turkey and the four signatory states of the European Free Trade Association (EFTA).

Interests

The bilateral agreements between Switzerland and the EU frequently require Switzerland to adopt EU legislation (e.g. civil aviation agreement) or adapt Swiss provisions to those of the EU according to the principle of equivalence (e.g. agreement on trade in agricultural products, overland transport agreement). However, Switzerland also adopts provisions of EU law in areas which are not regulated by bilateral agreements. It does this autonomously and mainly with the aim of breaking down trade barriers. The Federal Act on Technical Barriers to Trade[95] provides that technical regulations should be aligned with those of Switzerland's main trading partners, the EU being the most important of these.

> Switzerland has been a member of the *EEA* since the relevant agreement[96] came into force on 1 April 2006. It plays an active role in the work of the Environment Agency (although it only has an advisory role on the Management Board) and has direct access to all data and information disseminated via EIONET. Its environmental data is published in EEA reports and thus contributes

to the development of environmental protection measures at European level. In addition Switzerland benefits from the opportunity of being able to send employees to the agency. In return, Switzerland makes a contribution of around 2 million francs annually. The co-operation between Switzerland and the EEA was evaluated by the Federal Council in its report on the relationship between Switzerland and the European agencies.[97]

> As a member of the European Space Agency (ESA) and through its participation in the EU Research Framework Programmes[98] as well as (new) its membership in the EEA, Switzerland is currently taking part in the development of the EU's and ESA's Global Monitoring for Environment and Security (*GMES*) initiative.[99] This initiative was launched in 1998 and is designed to ensure that existing data is collated and used to as great an advantage as possible, to provide targeted services to user groups such as authorities, humanitarian organizations and private companies in the environment and security fields. The EU has been running its own programmes on this infrastructure project since 2011.[100] It is so far planned for third-party countries to have the opportunity to take part under bilateral agreements.

> EFTA countries which are also members of the EEA are able to participate in the programmes financed by *Life+*. This arrangement needs to be regulated in Memoranda of Understanding (MoU); these have not yet been concluded, however. Individual Swiss institutions were able to benefit from funding distributed under the previous LIFE programme, when the conclusion of an MoU was not yet a requirement.

> The network of heads of the European Environment Protection Agencies (*EPA network*) and the network of heads of the Nature Conservation Agencies (*ENCA network*) are informal structures of the EEA members with secretariats. Within these structures, the states form thematic interest groups, for example on adapting to climate change, the green economy, noise, genetically modified organisms (GMO) and international development co-operation. Switzerland regularly takes part in their meetings and heads two such interest groups (GMO and, together with Poland, noise).

> Since joining the EEA, Switzerland has been regularly invited by the EU presidency to participate in the six-monthly *informal meeting of the Environment Council*. These meetings are devoted to a specific topic and provide the opportunity to exchange opinions at a high level and mutually exert some political influence.

> The EU's *Emissions Trading Scheme* (ETS)[101], which started operating in 2005, will be extended to Civil Aviation[102] in 2012. From 2013 onwards, an emission cap will apply throughout Europe. This will be lowered each year, so that by 2020 a 21 % reduction in emissions will have been achieved compared to 2005.[103] Since 1 January 2008, Switzerland has also distributed emission allowances to companies which commit themselves to reducing their carbon emissions in return for an exemption from the CO_2 tax on fuel.[104] With the total revision of the CO_2 Act[105], participation in this system could become compulsory for certain sectors and an absolute emission cap may be adopted. The mutual recognition of each party's emission allowances and the possibility of acquiring emission credits from other parties could be regulated in an agreement. Negotiations started on 8 March 2011.

> In October 2008 the Federal Council decided to investigate the possibility of co-operating with the European Chemicals Agency (ECHA), which was set up under *REACH*, should Swiss legislation be closer aligned with REACH. Without such co-operation and without compensatory measures, there is a danger that the protection of the environment and the people of Switzerland will become steadily poorer in comparison with the EU. Following exploratory talks, on 18 August 2010 the Federal Council approved a mandate to negotiate.

> Switzerland has decided not to create its own official environment label, as it sees greater advantage in an association with the European Ecolabel. Swiss companies can already acquire this ecolabel; to do so, they must apply to the authorities of an EU member state. In 2009 the EU issued a regulation designed to reinvigorate the EU Ecolabel.[106] In specific terms, it will extend the Ecolabel's functional scope of application, encourage harmonization with other labels, speed up the establishment of awarding criteria, simplify the testing and evaluation procedure and reduce costs. Back in 2011 the Federal Council approved a mandate for Switzerland to participate in the EU Ecolabel; this mandate to negotiate may be revived in view of the far-reaching measures planned by the EU in connection with the Resource Efficiency Roadmap.

7.2 Environmental policy in the broader sense

A series of agreements concluded between Switzerland and the European Union, or its predecessor the European Community (EC), are not concerned specifically with environmental policy, but are closely associated with such due to the subject matter of the regulations and the transversal character of environmental policy, e.g. the free trade agreement (FTA) between Switzerland and the European Union of 1972.[107] Possible

future agreements should also be mentioned here, e.g. an agreement on transboundary electricity transmission, negotiations for which were begun on 8 November 2007[108], and a free trade agreement in the agricultural and food industry, negotiations for which were begun on 4 November 2008.[109]

In addition the unilateral introduction of the "Cassis de Dijon" principle[110] in the Federal Act on Technical Barriers to Trade, as well as the Agreement on Overland Transport[111], the Civil Aviation Agreement[112], the Agreement on Dismantling Technical Barriers to Trade[113], the Agreement on Trade in Agricultural Products[114] and the Agreement on Processed Agricultural Products[115] all have consequences for the environment or deal with environmental issues.

7.3 Challenges and next steps

Switzerland played a pioneering role in drawing up environment legislation and in environment politics for a long time. In comparison with the EU, this is no longer necessarily the case. To a large extent the EU now pursues the same targets as Switzerland. Although there are sometimes differences in the instruments and procedure, the subject matter is essentially the same.

As a result of the bilateral path pursued by Switzerland, its relations with the EU are regulated in sectoral agreements. The sectors are in some cases affected by wide-ranging Community environmental legislation. Future market access agreements with the EU could well contain horizontal provisions in the environmental field. The EU encourages this primarily in order to guarantee a level playing field and to avoid distortions in competition. However, such an approach could lead to Swiss environmental law becoming fragmented, a risk which should not be underestimated and which would be undesirable for reasons of coherence from the Swiss point of view.

In its report on the evaluation of Swiss policy on the European Union 2010[116] the Federal Council acknowledged this danger and considered investigating the issue of a comprehensive environmental agreement. Besides determining the material scope of application of such an agreement, clarification would also be needed on the extent to which it would be possible to participate in the working groups or committees or be involved in negotiating specific issues, for example retaining or introducing stricter environment measures in terms of Article 193 TFEU, ex-article 176 TEU.

Next steps

> In the ongoing negotiations with the EU, attention is being paid to achieving coherence in environmental issues. In order to avoid too great a fragmentation of environmental legislation and make it easier to implement individual environmental agreements, it may be necessary to examine the pros and cons of a comprehensive environmental agreement.
> Participation in the EU Ecolabel, for which a mandate to negotiate exists on the Swiss side, should be considered. However, any investigations would need to be made in the context of the Commission's Roadmap for Resource Efficiency. Here it should also be asked whether other legislation should be taken into account, for example the Directive on the environmentally acceptable design of energy-using products (Ecodesign Directive 2005/32/EC).
> The GMES initiative will be pursued in the context of Swiss membership of the EEA.

[72] Decision no. 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme.

[73] COM(2001) 264.

[74] COM(2005) 658.

[75] Regulation (EC) No 614/2007 concerning the Financial Instrument for the Environment (LIFE+).

[76] See also main results of the Council of 22.12.2010, www.consilium.europa.eu > Press > Press releases > Search > Official number: "18120/10"

[77] There are two further pieces of legislation passed at the same time as the package: Regulation (EC) no. 443/2009, under which CO_2 emissions for new passenger cars must be reduced in stages to 95 g/km by 2020, and an amendment to the Directive on fuel specifications (Directive 2009/30/EC), under which fuel suppliers must reduce greenhouse gas emissions in the production chain by 6 % by 2020.

[78] COM(2010) 265.

[79] COM(2011) 112.

[80] See FOEN study www.bafu.admin.ch/wasser/01444/01995/index.html?lang=de (not available in English).

[81] Directive 2000/60/EC establishing a framework for Community action in the field of water policy.

[82] See e.g. Directive 2006/44 on the quality of fresh waters needing protection or improvement in order to support fish life; Directive 2006/113 on the quality required of shellfish waters.

[83] Directive 2008/56 establishing a framework for community action in the field of marine environmental policy.

[84] E.g. see Directive 2001/80 on the limitation of emissions of certain pollutants into the air from large combustion plants and Directive 2001/81 on national emission ceilings for certain atmospheric pollutants.

[85] COM(2011) 21.

[86] Regulation (EC) no. 66/2010 on the EU Ecolabel.

[87] Directive 2009/125/EC establishing a framework for the setting of ecodesign requirements for energy-related products.

[88] Directive 2003/35/EC providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending Council Directives 85/337/EEC and 96/61/EC with regard to public participation and access to justice.

[89] Regulation (EC) No 761/2001 of the European Parliament and of the Council of 19 March 2001 allowing voluntary participation by organizations in a Community eco-management and audit scheme (EMAS).

[90] European Parliament Resolution of 24 April 2009 on regulatory aspects of nanomaterials (2008/2208(INI)).

[91] See Commission Work Programme 2011, COM(2010) 623

[92] See Communication from the Commission, Energy infrastructure priorities for 2020 and beyond – A Blueprint for an integrated European energy network. COM(2010) 677.

[93] See Commission proposal for a directive on energy efficiency. COM(2011) 370.

[94] White paper: Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system. COM/2011/144.

[95] Federal Act of 6 October 1995 on Technical Barriers to Trade SR 946.51. Art. 4 para. 2.

[96] Agreement of 26 October 2004 between the Swiss Confederation and the European Community on the participation of Switzerland in the European Environment Agency and the European Environment Information and Observation Network (EIONET). SR 0.814.092.681.

[97] Federal Council report on the relationship of Switzerland to the European agencies (in fulfilment of the David postulate [08.3141]). www.europa.admin.ch/dokumentation/00437/01553/index.html?lang=de

[98] SR 0.420.513.1.

[99] www.gmes.info

[100] Regulation (EU) No. 911/2010 on the European Earth monitoring programme (GMES) and its initial operations (2011 to 2013).

[101] Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC.

[102] Directive 2008/101/EC amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community.

[103] Cf. Directive 2009/29/EC amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community (art. 9 amended Directive 2003/87/EC and recitals 9 and 14 Directive 2009/29/EC).

[104] Federal Act of 8 October 1999 on the Reduction of CO_2 Emissions SR 641.71; Ordinance of 8 June 2007 on the CO_2 Tax. SR 641.712; Ordinance of 22 June 2005 on the Crediting of Foreign Emission Reductions. SR 641.711.1.

[105] Dispatch on Swiss climate policy after 2012 (Revision of the CO_2 Act and federal popular initiative 'For a healthy climate'), BBl 2009 7433 ff.

[106] Regulation (EC) No. 66/2010 on the EU Ecolabel.

[107] SR 0.632.401. The FTA creates a free trade area for industrial products. It allows bans or restrictions to be imposed to protect the health and life of humans, animals and plants, but not arbitary discrimination or a disguised restriction on trade (art. 20).

[108] The main objective of this agreement is to secure power supply by opening up the markets.

[109] This agreement is intended to regulate the mutual opening of agricultural and food markets and lead to the removal tariffs and other trade barriers. Current Swiss environmental and agricultural standards will be preserved.

[110] The Cassis-de-Dijon principle states that in areas for which no EU regulations exist, goods can be moved freely provided they comply with the regulations of the country in which they originated.

[111] SR 0.740.72.

[112] SR 0.748.127.192.68.

[113] SR 0.946.526.81.

[114] SR 0.916.026.81.

[115] SR 0.632.401.23.

[116] Federal Council report on the Evaluation of Swiss policy on the European Union (in reply to the Markwalder postulate [09.3560] "Policy towards Europe. Evaluation, priorities, immediate measures and next steps towards integration"). BBl 2010 7239 (7307).

8 > Challenges, Strategic Focus Elements and Outlook

International environmental policy can celebrate several considerable successes, such as in protecting the ozone layer or prohibiting certain hazardous pollutants and chemicals. Without these achievements, even greater damage would have been done to the environment. However, in recent years the overall condition of the global environment has continued to decline rapidly. Yet welfare, justice, democracy and peace can only be maintained long-term if the world's essential resources remain intact.

Switzerland is particularly active in the areas of international environmental policy in which it has special expertise and has specific interests. It advocates the protection and sustainable use of natural resources and enforcement in particular of the polluter pays principle and of the precautionary principle. It actively promotes these key stances in negotiations authoritatively, realistically and consistently. Switzerland is a member of relevant decision-making bodies and although small, is a country with a relatively large amount of influence. It is keen to promote the following central strategic issues in particular:

> Consolidation and development of existing instruments and elimination of loopholes, in particular by:
  – extending the legally binding emissions reduction commitments regarding climate to all large-scale emitters, combined with effective mechanisms to ensure these commitments are met;
  – initiating a synergy process and effectively implementing the Strategic Plan 2011 – 2020 for *biodiversity*, including developing existing rules concerning species protection and the extent and quality of protected areas, continuing to implement regulations on access to genetic resources and ensuring that the benefits arising from their utilization are fairly and equitably shared; protecting the world's biodiversity from the possible harmful effects of genetically modified organisms;
  – extending the lists of prohibited and regulated pollutants in the *chemicals and waste sector*, approving and applying new rules for mercury, other heavy metals and nanotechnology; intensifying the synergy process;
  – promoting and implementing sustainable global *forest management*, drawing up an international forests convention and encouraging integrated *water management*;
  – helping to create, in the area of *trade and economic policy*, an environmentally compatible international trade system in all important bodies such as the World Trade Organization (WTO), the United Nations Environment Programme (UNEP) and the Organisation for Economic Co-operation and Development (OECD), but also in bilateral free trade and investment protection agreements; consolidating a mutually advantageous relationship between environment regulations and trade and economic regulations;
  – adopting a global *green economy* strategy and putting suitable instruments to effect.

> Strengthening international *environmental governance* by:
  – improving synergies within the individual topic areas;
  – strengthening UNEP politically;
  – improving overall vision (drawing up global environment goals);
  – establishing institutions such as the Secretariat of the Mercury Convention in Geneva.

> Ensuring effective *implementation* by making the required resources available by:
  – strengthening the Global Environmental Facility (GEF) as the main international environmental financing mechanism in relation to multilateral agreements;
  – putting the Global Climate Fund into operation;
  – expanding the funding mechanisms for biodiversity and chemicals;
  – improving the use of innovative financial mechanisms in particular in the area of biodiversity, reducing emissions by means of sustainable forest management and involving the private sector;
  – considering environmental concerns in development policy instruments and showing commitment to bilateral and multilateral development co-operation to support international environmental policy.

> Embedding and raising the profile of environmental concerns in the *bilateral relations with the EU*.

The challenge of eliminating the weaknesses of the international environmental regime, closing loopholes and ensuring a comprehensive, coherent, effective and efficient international environmental policy is extremely wide-ranging. Proliferation

and fragmentation of agreements and institutions is increasingly characteristic of the global environmental regime; there is no coherence or central political authority, there is an imbalance with other regimes, and the mechanisms for ensuring adequate financial support are insufficient. As large negotiating blocs and partners assert themselves – the G77 group of developing countries, the EU and the USA, not to mention the four big newly industrialized countries Brazil, India, China and South Africa – it is becoming increasingly difficult to develop ambitious and effective international policies.

Switzerland's achievements so far in international environmental policy have been impressive: the country has contributed considerably to various initiatives and processes, e.g. the ratification of the Kyoto Protocol on greenhouse gases, the Cartagena Protocol on Biosafety and the Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization, improved co-operation in the chemicals and waste sector, the launch of negotiations to establish a mercury convention and the establishment of a global chemicals strategy.

However, the extent, complexity and rhythm of international environmental policy processes and negotiations are steadily increasing. If Switzerland is to maintain its influence in international decision-making processes and bodies, it must make the necessary resources available (human and financial). An active, targeted and transparent international environmental policy benefits Switzerland in many ways, not only promoting the protection and sustainable use of natural resources, but also ensuring a fair competitive framework and sustainable economic growth. Furthermore, it contributes to the fight against poverty, social stability and peace. Switzerland's reputation as a responsible member of the international community is therefore strengthened.

> Annex I: International Treaties

Most important multilateral environmental agreements ratified by Switzerland

a. Climate

> United Nations Framework Convention of 9 May 1992 on Climate Change (with annexes, SR 0.814.01).
> Kyoto Protocol of 11 December 1997 of the United Nations Framework Convention on Climate Change (with annexes, SR 0.814.011)

b. Biodiversity

> Convention of 2 February 1971 on Wetlands of International Importance especially as Waterfowl Habitats (Ramsar Convention, SR 0.451.45)
> Convention of 23 November 1972 concerning the Protection of the World Cultural and Natural Heritage, SR 0.451.41
> Convention of 3 March 1973 on International Trade in Endangered Species CITES, SR 0.453
> Convention of 23 June 1979 on the Conservation of Migratory Species of Wild Animals (Bonn Convention), SR 0.451.46
> Convention of 5 June 1992 on Biological Diversity, (with annexes, SR 0.451.43)
> Cartagena Protocol of 29 January 2000 on Biosafety to the Convention on Biological Diversity (with annexes), SR 0.451.431
> International Treaty of 3 November 2001 on Plant Genetic Resources for Food and Agriculture, SR 0.910.6

c. Chemicals and Waste

> Vienna Convention of 22 March 1985 for the Protection of the Ozone Layer (with annexes, SR 0.814.02)
> Montreal Protocol of 16 September 1987 on Substances which Pollute the Ozone Layer (with annex, SR 0.814.021)
> Basel Convention of 22 March 1989 on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (with annexes, SR 0.814.05)
> Rotterdam Convention of 10 September 1998 on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (PIC Convention) (with annexes, 0.916.21)
> Stockholm Convention of 22 May 2001 on Persistent Organic Pollutants (POP Convention) (with annexes, SR 0.814.03)

Conventions concluded under the auspices of the UNECE

Convention of 13 November 1979 on Long-Range Transboundary Air Pollution (Geneva; SR 0.814.32)

This convention aims to improve the quality of air. Since it entered into force in 1983, eight protocols[117] have been signed, whose purpose is to address specific ecological problems such as acidification and eutrophication or specific pollutants such as sulphur, nitrogen (nitrogen oxides and ammonia), volatile organic compounds, ozone, persistent organic pollutants and heavy metals.

Convention of 25 February 1991 on Environmental Impact Assessment in a Transboundary Context (Espoo; SR 0.814.06)

This convention promotes a system of information and consultation between neighbouring countries for projects which are likely to have a significant transboundary impact on the environment. It is also ensures that the environmental impacts of such projects are assessed both for the original party and the party affected. The *Protocol of 21 May 2003 on Strategic Environmental Assessment* (Kiev)[118] has not yet been ratified by Switzerland.

Convention of 17 March 1992 on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki; SR 0.814.20)

This Convention strengthens national measures to protect and manage both surface and subterranean transboundary watercourses and lakes[119]. It requires the parties to prevent, control and reduce water pollution. The *Protocol of 17 June 1999 on Water and Health* (*London*; SR 0.814.201) was developed on the basis of this Convention, and has the aim of protecting human health by managing water more effectively, protecting ecosystems and preventing, controlling and reducing water-related diseases. The *Protocol of 21 May 2003 on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters*[120] relates to this Convention and to the Convention on the Transboundary Effects of Industrial Accidents (see below). It pro-

vides a legal framework by which individuals affected by the consequences of an industrial accident in transboundary waters can claim compensation. Switzerland has not yet ratified this protocol.

Convention of 17 March 1992 on the Transboundary Effects of Industrial Accidents (Helsinki; SR 0.814.04)

This Convention allows countries to share their experiences more readily. It aims to prevent industrial accidents and promote transboundary co-operation so that countries are better prepared to act collectively should an accident occur. The *Protocol of 21 May 2003 on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters*[121] relates to this convention and to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (see above).

Convention of 25 June 1998 on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus)[122] (not yet ratified by Switzerland)

This Convention aims to reinforce the laws and practices relating to access to information, public participation and access to justice. It not only relates to environment protection, but also promotes more democratic, transparent and responsible administration. A *Protocol on Pollutant Release and Transfer Registers* (Kiev; SR 0.814.08) was also signed on 21 May 2003.

Conventions concluded under the auspices of the Council of Europe

Convention of 19 September 1979 on the Conservation of European Wildlife and Natural Habitats in Europe (Bern Convention; SR 0.455)

This is an internationally binding legal instrument on nature conservation. It protects the entirety of the European continent's natural heritage and that of some African states. The convention aims to conserve wild flora and fauna and natural habitats and to promote European co-operation in this field.

Convention of 4 November 1998 on the Protection of the Environment through Criminal Law[123]

This convention proposes a model of harmonization and co-operation. In particular it includes a list of acts considered to be offences, and mutual rules concerning responsibility and criminal procedure. This convention has not yet entered into force and has not been signed by Switzerland.

European Landscape Convention of 20 October 2000[124] (Florence Convention)

This convention focuses on landscapes as a part of the versatile living and cultural heritage of Europe and as an aspect of the essential socio-cultural and economic resources of the European people. It is the only instrument under international law to be concerned with all dimensions of the landscape. Switzerland has not yet ratified this convention. Parliament will discuss in the near future whether or not to do so (see BBl 2011 8673).

[117] SR 0.814.321, SR 0.814.322, SR 0.814.323, SR 0.814.324, SR 0.814.325, SR 0.814.326, SR 0.814.327, SR 0.814.328.

[118] www.unece.org/fileadmin/DAM/env/eia/documents/legaltexts/protocolenglish.pdf

[119] www.unece.org/env/water.html

[120] www.unece.org/env/civil-liability/protocol.html > PDF

[121] www.unece.org/env/civil-liability/protocol.html > PDF

[122] www.unece.org/env/pp/documents/cep43g.pdf

[123] See www.conventions.coe.int > Search > Treaties > CETS number > "172"

[124] See www.conventions.coe.int > Search > Treaties > CETS number > "176"

> Annex II: Constitutional and Legal Principles

The constitutional principles are found in the following articles of the Swiss Federal Constitution[125]: Article 2 paragraph 2 and 4 (aims); Article 10 (right to life and personal freedom); Article 54 (foreign relations); Article 73 to 80 (environment and spatial planning); Article 84 (Alpine transit traffic); Article 89 (energy policy); Article 94 (principles of the economic system); Article 97 (consumer protection); Article 101 (foreign economic policy); Article 104 (agriculture); Article 118 (health protection); Article 120 (non-human gene technology) and Article 197 paragraph 7 (moratorium on the use of genetically modified organisms in agriculture).

The principal legislation relating to international environmental policy is:

- the Environmental Protection Act (EPA)[126] (Art. 53 deals in particular with international co-operation for the protection of the environment);
- the Federal Act on the Protection of Nature and Cultural Heritage (NCHA)[127]; the Federal Act on the Swiss National Park[128]; the Forest Act (ForA)[129];
- the Gene Technology Act (GTA)[130];
- the Spatial Planning Act (SPA)[131]; the Agriculture Act (AgricA)[132];
- the Waters Protection Act (WPA)[133];
- the Hydraulic Engineering Act[134];
- the Fish and Fisheries Act (FFA)[134] and the Hunting Act (HuntA)[136];
- the CO_2 Act[137], complemented (to some extent) by the Federal Decree on the Compensation of CO_2 emissions in Combined Cycle Gas Power Plants[138];
- the Chemicals Act (ChemA)[139];
- the Federal Act on Railway Noise Abatement Measures[140] and the Radiological Protection Act (RPA)[141].

Also the following ordinances:

- air pollution: Air Pollution Control Ordinance (APCO)[142], Ordinance on the Incentive Tax on Volatile Organic Compounds (OVOC)[143] and the Ordinance on the Technical Requirements for Road Vehicles (RVTRO)[144];
- noise pollution: the Noise Abatement Ordinance (NAO)[145] and the Ordinance on Noise Emissions from Machines[146];
- soil pollution: the Ordinance on Pollution of Soil (SoilPO)[147];
- organisms: the Release Ordinance (RO)[148] on the release and trade (including import) of genetically modified, pathogenic or alien organisms and the Ordinance on the Transboundary Movements of Genetically Modified Organisms (Cartagena Ordinance)[149];
- environment information: the Ordinance on the Register relating to Pollutant Release and the Transfer of Waste and of Pollutants in Waste Water (PRTRO)[150];
- development co-operation: the Ordinance of 14 August 1991 on Conducting Programmes and Projects of Significance to the Global Environment in Developing Countries[151];
- forests: the Forest Ordinance (ForO)[152];
- protection of nature, landscapes and biodiversity: the Hunting Ordinance (HuntO)[153], the Ordinance to the Federal Act on Fish and Fisheries (FFA)[154], the Ordinance on Water Birds and Migratory Birds of International and National Importance (WMBO)[155], the Ordinance on the Preservation of Species (SpecPO)[156] and numerous other ordinances, in particular on the protection and inventory of biotopes and landscapes[157];
- agriculture: the Direct Agricultural Subsidies Ordinance (DSO)[158], in particular relating to ecological proof of performance;
- health: the Air Pollution Control Ordinance (APCO)[159], the Noise Abatement Ordinance (NAO)[160], the Ordinance Protection against Non-Ionizing Radiation (NIRO)[161], waste ordinances (TWO[162], CSO[163], OMW[164], ORDEA[165], BCO[166]), the Waters Protection Ordinance (WPO)[167], the Ordinance on Risk Reduction related to certain chemicals (ORRChem)[168] and the PIC Ordinance (ChemPICO)[169];
- climate: the CO_2 Ordinance[170], the CO_2 Crediting Ordinance[171], the Ordinance on Compensation of CO_2 Emissions in Combined Cycle Gas Power Plants[172] and the DETEC Ordinance on the National Emissions Trading Register[173];
- waters protection: the aforementioned Waters Protection Ordinance (WPO), in particular relating to requirements on water quality and waste water removal (with

special requirements in the case of water purification plants in the Rhine catchment area in order to meet international obligations);

> environmental impact assessment: Ordinance on the Environmental Impact Assessment (EIAO)[174], which relates in particular to transboundary environmental impact assessment in accordance with the Convention of 25 February 1991 on Environmental Impact Assessment in a Transboundary Context (Espoo Convention).

[125] Federal Constitution of the Swiss Confederation of 18 April 1999, SR 101.

[126] Federal Act of 7 October 1983 on the Protection of the Environment, SR 814.01.

[127] Federal Act of 1 July 1966 on the Protection of Nature and Cultural Heritage, SR 451.

[128] Federal Act of 19 December 1980 on the Swiss National Park in the Canton of Graubünden, SR 454.

[129] Federal Act of 4 October 1991 on Forest, SR 921.0.

[130] Federal Act of 21 March 2003 on Non-Human Gene Technology, SR 814.91.

[131] Federal Act of 22 June 1979 on Spatial Planning, SR 700.

[132] Federal Act of 29 April 1998 on Agriculture, SR 910.1

[133] Federal Act of 24 January 1991 on the Protection of Waters, SR 814.20.

[134] Federal Act of 21 June 1991 on Hydraulic Engineering, SR 721.100.

[135] Federal Act of 21 June on Fish and Fisheries, SR 923.0.

[136] Federal Act of 20 June 1986 on Hunting and the Protection of Wild Mammals and Birds, SR 922.0.

[137] Federal Act of 8 October 1999 on the Reduction of CO_2 Emissions, SR 641.71.

[138] Federal Decree of 23 March 2007 on the Compensation of CO_2 Emissions in Combined Cycle Gas Power Plants, SR 641.72.

[139] Federal Act of 15 December 2000 on Protection against Dangerous Substances and Preparations, SR 813.1.

[140] Federal Act of 24 March 2000 on Railway Noise Abatement Measures, SR 742.144.

[141] Federal Act of 22 March 1991 on Radiological Protection, SR 814.50.

[142] Ordinance of 16 December 1985 on Air Pollution Control, SR 814.318.142.1.

[143] Ordinance of 12 November 1997 on the Incentive Tax on Volatile Organic Compounds, SR 814.018.

[144] Ordinance of 19 June 1995 on the Technical Requirements for Road Vehicles, SR 741.41.

[145] Noise Abatement Ordinance of 15 December 1986, SR 814.41.

[146] DETEC Ordinance of 22 May 2007 on Noise Emissions from Machines used in Open Spaces, SR 814.412.2.

[147] Ordinance of 1 July 1996 on the Pollution of Soil. SR 814.12.

[148] Ordinance of 25 August 1999 on the Handling of Organisms in the Environment. SR 814.911.

[149] Ordinance of 3 November 2004 on the Transboundary Movements of Genetically Modified Organisms. SR 814.912.21.

[150] Ordinance of 15 December 2006 on the Register relating to Pollutant Release and the Transfer of Waste and of Pollutants in Waste Water. SR 814.017.

[151] Ordinance of 14 August 1991 Conducting Programmes and Projects of Significance to the Global Environment in Developing Countries. SR 172.018.

[152] Ordinance of 30 November 1992 on Forest. SR 921.01.

[153] Ordinance of 29 February 1988 on Hunting and Protection of Wild Mammals and Birds. SR 922.01.

[154] Ordinance of 24 November 1993 to the Federal Act on Fish and Fisheries. SR 923.01.

[155] Ordinance of 21 January 1991 on Water Birds and Migratory Birds of International and National Importance. SR 922.32.

[156] Ordinance of 18 April 2007 on the Preservation of Species. SR 453.

[157] Cf. SR 451.1 – 451.37.

[158] Ordinance of 7 December 1998 on Direct Agricultural Subsidies. SR 910.13.

[159] Ordinance of 16 December 1985 on Air Pollution Control. SR 814.318.142.1.

[160] Noise Abatement Ordinance of 15 December 1986. SR 814.41.

[161] Ordinance of 23 December 1999 on Protection against Non-Ionizing Radiation. SR 814.710.

[162] Technical Ordinance of 10 December 1990 on Waste. SR 814.600.

[163] Ordinance of 26 August 1998 on the Remediation of Contaminated Sites. SR 814.680.

[164] Ordinance of 22 June 2005 on Movements of Waste. SR 814.610.

[165] Ordinance of 14 January 1998 on the Return, Taking Back and Disposal of Electrical and Electronic Appliances. SR 814.620

[166] Ordinance of 5 July 2000 on Beverage Containers. SR 814.621.

[167] Waters Protection Ordinance of 28 October 1998. SR 814.201.

[168] Ordinance of 18 May 2005 on Risk Reduction related to the use of certain particularly dangerous Substances, Preparations and Articles. SR 814.81.

[169] Ordinance of 10 November 2004 on the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Chemicals in International Trade. SR 814.82.

[170] Ordinance of 8 June 2007 on the CO_2 Tax. SR 641.712.

[171] Ordinance of 22 June 2005 on the Crediting of Foreign Emission Reductions. SR 641.711.1.

[172] Ordinance of 21 December 2007 on the Compensation of CO_2 Emissions in Combined Cycle Gas Power Plants. SR 641.721.

[173] DETEC Ordinance of 27 September 2007 on the National Emissions Trading Register. 641.712.2.

[174] Ordinance of 19 October 1988 on the Environmental Impact Assessment. SR 814.011.

> Annex III: Organizations and Institutions in International Environmental policy

1. United Nations (UN)

The United Nations (UN) is made up of 193 member states. The organization's most important duties include ensuring world peace and compliance with international law, protecting human rights and promoting international co-operation. Environmental protection is dealt with in the main organs of the UN: the General Assembly, Secretariat, Economic and Social Council (ECOSOC), the International Court of Justice and, in cases where environmental degradation may be a threat to peace, it may also be discussed in the Security Council.

The *United Nations Environment Programme* (UNEP)[175], with headquarters in Nairobi, Kenya, was set up by the UN General Assembly in 1972 following the environment conference in Stockholm. Its mandate is to collect and assess global, regional and national environmental data, develop political instruments for environmental protection and, as the main pillar in the environmental regime, to play a coordination and policy guidance role.

The *Commission for Sustainable Development* (CSD), which was founded in 1992 following the United Nations Conference on Environment and Development (Rio Conference), should also be mentioned. This is the most important body in the UN system which deals with sustainable development across the board and it is a functional commission of ECOSOC. The CSD's main task is to monitor the implementation of environment and development policy action programmes defined in Agenda 21 on a national and international level.

The United Nations Economic Commission for Europe (UNECE) – which is made up of 56 member states (Europe, North America, Central Asia and Israel) – was set up primarily to promote sustainable economic growth and sustainable economies in the member states. Since it was founded, the UNECE Commission has become increasingly concerned with environmental policy and developing environment law in Europe, taking account of the economic development of its member states. Under the UNECE, environmental agreements and protocols[176] have been drawn up relating to transboundary air pollution, water, industrial accidents, environmental impact assessment and access to information and public participation. There are some further United Nations organizations or programmes to be mentioned in this context:

> Created in 1965, the *United Nations Development Programme* (UNDP) is the most important United Nations institution dealing with (technical) development co-operation. The programme's activities relate to technical co-operation in the field of environment and energy policy, as well as, in particular, strengthening democratic structures, fighting poverty, crisis prevention, crisis management and fighting AIDS. Since 2000 the programme has been responsible for overseeing the implementation of the Millennium Goals which involve aspects of sustainable development.

> Founded in 1945, the *Food and Agriculture Organization* (FAO) deals with issues concerning agriculture and forestry, fishing, animal husbandry and food. In terms of environmental policy, the FAO plays a role in activities relating to the Convention on Biological Diversity (CBD) in particular. The FAO's challenge is to develop coherent policies for the sustainable use of natural resources and coordinate them with those of other organizations and institutions.

> The *World Health Organization* (WHO) coordinates activities in the field of health; this involves health prevention, developing international standards and crisis management, e.g. in the case of epidemics.

> There are further United Nations institutions which are concerned with environmental issues, both in the research field and in the implementation of environmental measures. These include inter alia *UNITAR* (United Nations Institute for Training and Research), *UNCTAD* (United Nations Conference on Trade and Development), *UNIDO* (United Nations Industrial Development Organization), *UNESCO* (United Nations Educational, Scientific and Cultural Organization), *UNFF* (United Nations Forest Forum), *WIPO* (World Intellectual Property Organization) and the *UN* University.

2. Funding mechanisms, in particular the Global Environment Facility (GEF)

The Global Environment Facility (GEF), created in 1991 (initially in a pilot phase under the auspices of the World Bank), is a multilateral fund which provides financial assistance to developing and transition countries for projects in the field of global environmental protection. This, in essence, involves the transfer of financial resources from nations in the North to those in the South. Nowadays, the GEF is the official financial mechanism for a range of global multilateral environmental

agreements (in particular the UN Framework Convention on Climate Change, the Biodiversity Convention and the Stockholm Convention). Switzerland has a seat on the 32-member executive board. Here it represents a constituency made up of Uzbekistan, Turkmenistan, Kazakhstan, Azerbaijan, Tajikistan and Kyrgyzstan. Besides the GEF, there are other multilateral funds with a more modest capacity for funding environmental projects in development and transition countries.These include the *Ozone Fund*, as well as two climate funds managed by the GEF. The development of new or additional funding mechanisms is currently under discussion, in particular in the climate field. However, it is not yet clear what their exact role will be, what their relationship to existing funds will be or how they will be managed.

3. The Bretton Woods Institutions

Bretton Woods Institutions is the designation given to the finance organizations which were created at the end of the Second World War. The World Bank and the International Monetary Fund are the main institutions in this system. Switzerland is a member of the boards of both organizations, on which a total of 24 members sit.

The *World Bank Group*, based in Washington D.C. (USA), was originally set up to provide financial assistance for the reconstruction of states which had been devastated during the Second World War. Nowadays its task is to promote economic development in less developed member states by providing financial assistance, advice and technical help.

The *International Monetary Fund* (IMF) is a sister organization of the World Bank Group and is also headquartered in Washington D.C. At present there are 187 member states, whose voting rights are proportional to their capital quota. The IMF's tasks include fostering international monetary co-operation, facilitating international trade, stabilizing exchange rates, awarding credits, monitoring financial policy and providing technical assistance.

4. World Trade Organization (WTO)

The World Trade Organization (WTO) is an international organization concerned with regulating trade and economic relations. Its headquarters are in Geneva and it was founded in 1994 in the Uruguay round, succeeding the General Agreement on Tariffs and Trade (GATT) but not replacing it. The WTO's main task is to work towards the removal of all forms of technical barriers to trade. The WTO also has highly developed dispute resolution procedures, similar to court proceedings.

Back in 1947 when the GATT was first established, it was agreed that there must be exceptions to free trade in order to protect the environment. These were set out in Article XX of GATT, a provision which has regularly been the subject of decisions by the WTO/GATT dispute resolution body. The 1994 Agreements on Sanitary and Phytosanitary Measures (SPS) and on Technical Barriers to Trade (TBT) also include similar exception clauses. Furthermore, the preamble to the WTO Agreement states that trade will be conducted in accordance with the principles of sustainable development, seeking both to protect and preserve the environment. A permanent Committee on Trade and Environment (CTE) also exists, but due to the opposing political sensibilities of the member states, this committee has had modest achievements so far.

The EU, Switzerland and Norway pushed for the issue of trade and environment to be included in the negotiating mandate of the Doha Round, which has not yet been concluded. Under paragraph 31 of the Doha Mandate, negotiations on this issue relate to the following three areas:

- establishing the relationship between WTO rules and specific trade obligations set out in multilateral environmental agreements (MEAs) with the aim of providing mutual supportiveness;
- enhancing the exchange of information between the WTO and MEA Secretariat and the observer status of the MEA Secretariat in the WTO;
- reducing trade barriers for environmental goods and services.

Environmental concerns should also be a cross-disciplinary consideration in the activities of other WTO bodies such as those dealing with agriculture and industrial goods and services.

5. Organization for Economic Co-operation and Development (OECD)

Founded in 1961 as a successor to the Organization for European Economic Co-operation, the Organization for Economic Co-operation and Development (OECD) now has about 30 developed nations as members.

Its main activities involve co-operating with member states in the field of economic development. To this end, it compiles studies and issues guidelines designed to harmonize standards, particularly in areas relating to environmental policy. Environmental policy guidelines are set out in a corresponding strategy approved by the OECD Environment Ministers in 2001.[177] On an institutional level, the Environmental Policy Committee (EPOC) deals with issues relating to environmental policy, in particular implementing the above strategy and environment aspects of the OECD's two-year

programme. Under EPOC there is a range of working groups looking at environmental issues such as chemicals, biotechnology, waste, biodiversity, climate, etc. The OECD also carries out regular environment assessments in the member states, analysing their environment policies for coherence and effectiveness and issuing OECD environmental assessment reports on this basis.

6. Council of Europe

Lastly, the Council of Europe should be mentioned. Its main concern is to protect human rights, democracy and the rule of law. It is also active in other areas relating directly to environmental policy, for example in drawing up international environmental agreements on the protection of species or landscapes.[178] In collaboration with the European states and non-government organizations, the Council of Europe has also created the *Pan-European Biological and Landscape Diversity Strategy* (PEBLDS), which is currently being integrated into the institutional framework of the UNEP.

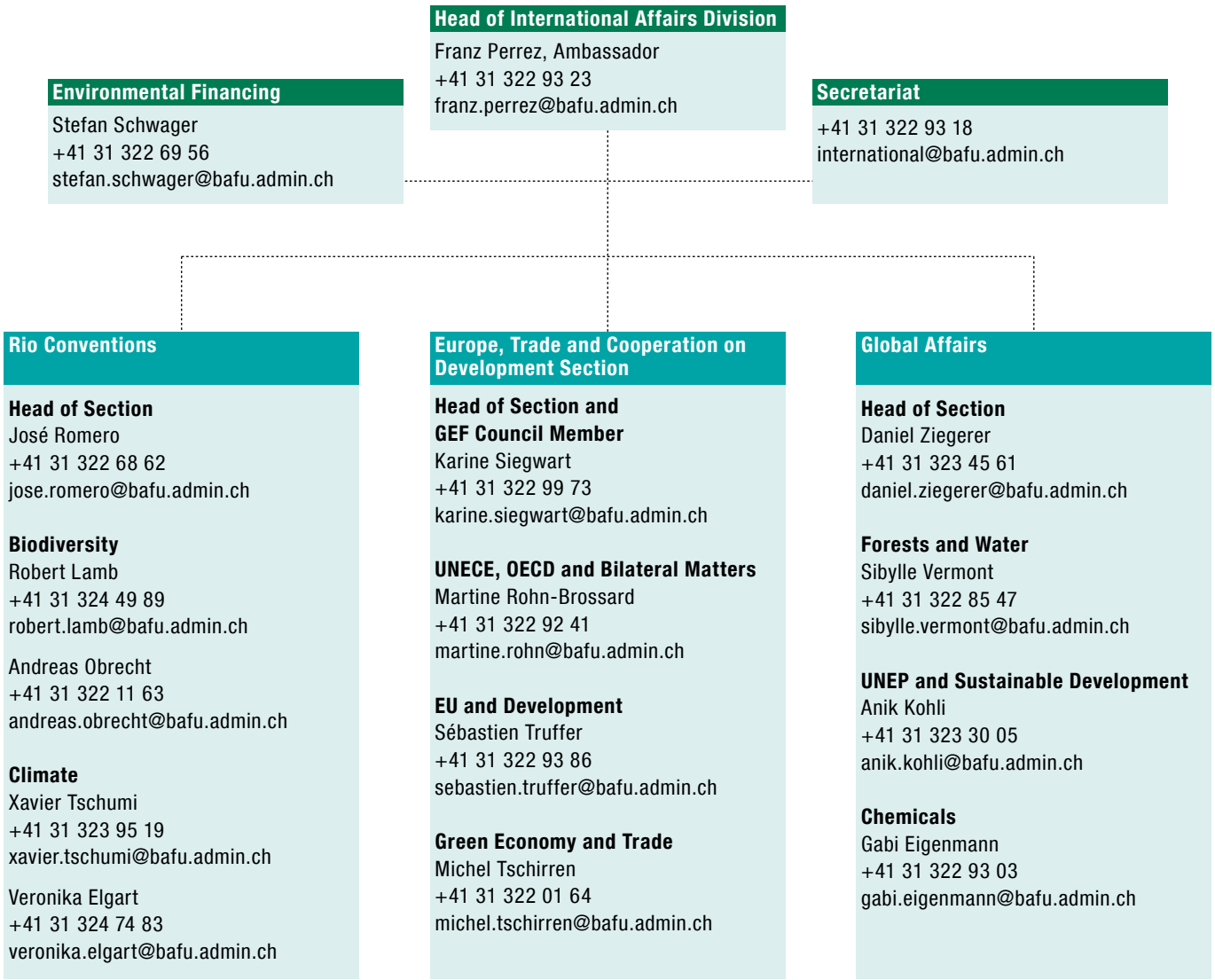
[175] See www.unep.org

[176] See Annex 1.

[177] See OECD (2001): Environmental Strategy for the First Decade of the 21st Century.

[178] See Annex 1.

> Annex IV: Organization chart of the International Affairs Division of the FOEN



> List of Abbreviations

A

ABS
Access and Benefit Sharing

B

BRICS
Brazil, Russia, India, China, South Africa

C

C2SM
Center for Climate Systems Modelling

CBD
Convention on Biological Diversity; Biodiversity Convention

CFC
Chlorofluorocarbon

CGIAR
Consultative Group on International Agricultural Research

CH2011
Swiss Climate Change Scenarios (published by C2SM, MeteoSwiss, ETH, NCCR Climate and OcCC)

CIF
Climate Investment Funds

CITES
Convention on International Trade in Endangered Species of Wild Fauna and Flora

CLI
Country-Led Initiative

CLRTAP
Convention on Long-Range Transboundary Air Pollution

CMS
Bonn Convention on Migratory Species of Wild Animals

COP
Conference of the Parties

CRED
Centre for Research on the Epidemiology of Disasters

CSD
Commission on Sustainable Development

CTE
Committee on Trade and Environment

D

DAC
Development Assistance Committee (OECD)

DGC
Directorate General of Customs

E

EAP
Environment Action Programme

EC
European Community

ECHA
European Chemicals Agency

ECOSOC
United Nations Economic and Social Council

EEA
European Environment Agency

EFTA
European Free Trade Association

EIA
Environmental Impact Assessment

EIG
Environmental Integrity Group

EIONET
European Environment Information and Observation Network

EMAS
Eco-Management and Audit Scheme

EM-DAT
Emergency Events Database (OFDA and CRED)

ENCA Network
European Network of Heads of Nature Conservation Agencies

EPA
Environment Protection Agency

EPA
Environmental Protection Act

EPA Network
European Network of the Heads of Environment Protection Agencies

EPOC
Environmental Policy Committee (OECD)

ERA-NET
European Research Area Network

ESA
European Space Agency

ETH
Federal Institute of Technology, Zurich

ETS
Emissions Trading Scheme

EU
European Union

F

FAO
Food and Agriculture Organization

FCPF
Forest Carbon Partnership Facility

FDEA
Federal Department of Economic Affairs

FDFA
Federal Department of Foreign Affairs

FOEN
Federal Office for the Environment

FSO
Federal Statistical Office

FTA
Free Trade Agreement

FTAAF
Free Trade Agreement in the agricultural and food industry

G

GA
General Assembly

GATT
General Agreement on Tariffs and Trade

GCF
Green Climate Fund

GEF
Global Environment Facility

GEG
Global Environment Goals

GEO
Global Environmental Outlook, (UNEP environment report)

GEOSS
Global Earth Observation System of Systems

GFATM
Global Fund to Fight AIDS, Tuberculosis and Malaria

GFRA
Global Forest Resources Assessment

GMES
Global Monitoring for Environment and Security

GMO
Genetically Modified Organisms

H

HCFC
Partially halogenated chlorofluorocarbon

HDI
Human Development Index

HFA
Hyogo Framework for Action

I

ICAO
International Civil Aviation Organization

IDA
International Development Association

IISD
International Institute for Sustainable Development

ILO
International Labour Organization

IMF
International Monetary Fund

IOM
International Organization for Migration

IOMC
Inter-Organization Programme for the Sound Management of Chemicals

IPBES
Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

IPCC
Intergovernmental Panel on Climate Change

ITTA
International Tropical Timber Agreement

ITTO
International Tropical Timber Organization

IUCN
International Union for Conservation of Nature

L

LDCF
Least Developed Countries Fund

LIFE+
L'instrument finacier pour l'environnement (EU financial instrument for the environment)

LSVA
Leistungsabhängige Schwerverkehrsabgabe (heavy goods vehicle charge)

M

MCPFE
Ministerial Conference on the Protection of Forests in Europe

MCM
Ministerial Council Meeting (OECD)

MDGs
Millenium Development Goals

MEA
Multilateral Environmental Agreement

MeteoSwiss
Federal Office of Meteorology and Climatology

MoU
Memorandum of Understanding

MRA
Mutual Recognition Agreement

MSC
Meteorological Synthesizing Centre (CLRTAP)

N

NCCR Climate
National Centre of Competence in Climate Research, University of Bern

NGO
Non-governmental organization

NPIF
Nagoya Protocol Implementation Fund

NRLA
New Rail Link through the Alps

O

OcCC
Advisory Body on Climate Change

ODA
Official Development Assistance

OECD
Organization for Economic Co-operation and Development

OFDA
Office of Foreign Disaster Assistance (USA)

P

PEBLDS
Pan-European Biological and Landscape Diversity Strategy

PIC
Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides

POP
Persistent Organic Pollutants

R

REACH
Registration, Evaluation, Authorization and Restriction of Chemicals

REDD
Reducing Emissions from Deforestation and Degradation

S

SAEFL
Swiss Agency for the Environment, Forests and Landscape

SAICM
Strategic Approach on International Chemicals Management

SCCF
Special Climate Change Fund

SDC
Swiss Agency for Development and Cooperation

SECO
State Secretariat for Economic Affairs

SFM
Sustainable Forest Management

SPS
Agreement on the Application of Sanitary and Phytosanitary Measures (WTO)

SREP
Scaling-up Renewable Energy Programme for Low Income Countries

T

TBA
Federal Act on Technical Barriers to Trade

TBT
Agreement on Technical Barriers to Trade (WTO)

TEC
Treaty Establishing the European Union

TEEB
The Economics of Ecosystems and Biodiversity

TEU
Treaty on the European Union

TFEU
Treaty on the Functioning of the European Union

U

UNCCD
United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa; Desertification Convention

UNCED
United Nations Conference on Environment and Development

UNCLOS
United Nations Convention on the Law of the Sea

UN Comtrade
Commodity Trade Statistics Database

UNCTAD
United Nations Conference on Trade and Development

UNDP
United Nations Development Programme

UNECE
United Nations Economic Commission for Europe

UNEP
United Nations Environment Programme

UNESCO
United Nations Educational, Scientific and Cultural Organization

UNFCCC
United Nations Framework Convention on Climate Change

UNFF
United Nations Forum on Forests

UNHCR
United Nations High Commissioner for Refugees

UNIDO
United Nations Industrial Development Organization

UNITAR
United Nations Institute for Training and Research

UNO
United Nations Organization

UNSDR
United Nations International Strategy for Disaster Reduction

USA
United States of America

W

WHO
World Health Organization

WIPO
World Intellectual Property Organization

WMO
World Meteorological Organization

WSSD
World Summit on Sustainable Development

WTO
World Trade Organization