

Tagung der Alpenkonferenz
Réunion de la Conférence alpine
Sessione della Conferenza delle Alpi
Zasedanje Alpske konference

XI

TOP / POJ / ODG / TDR

B5

SL

OL: EN

AKCIJSKI NAČRT ZA PODNEBJE V ALPAH – IZVAJANJE IN SPREMLJANJE

A Poročilo predsedstva in Stalnega sekretariata

B Predlog sklepa

Priologi:

Priloga 1: Monitoring table to follow-up the implementation of the action plan on climate change in the Alps

Priloga 2: National policies on mitigation, extract from Alpine Signals 6

A Poročilo predsedstva in Stalnega sekretariata

X. Alpska konferenca je zahtevala (B6, t. 4), da se na XI. Alpski konferenci opravi prva evalvacija Akcijskega načrta za podnebje v Alpah. To poročilo vsebuje vidike o napredku pri izvajanju različnih točk sklepa, ki ga je sprejela X. Alpska konferenca.

1. točka sklepa X. Alpske konference

Na 44. seji je Stalni odbor sklenil, da bo za spremljanje konkretnih ukrepov v okviru izvajanja Akcijskega načrta za podnebje v Alpah uporabljal tabelo, kot je predstavljena v Prilogi I.

Tabela ponazarja vse dejavnosti, ki so potekale v zvezi z različnimi specifičnimi vprašanji iz 1. točke sklepa X. Alpske konference:

- a. Dokumentacija vplivov podnebnih sprememb v sodelovanju s platformo PLANALP je proces, ki je v teku.
- b. Smernice za spremljanje gorskih gozdov, izpostavljenim podnebnim spremembam, so predmet določenih programov Evropskega teritorialnega sodelovanja, kot je na primer projekt MANFRED.
- c. Ni specifičnih podatkov o turističnih organizacijah, ki ponujajo počitnice in prevoze "z zmanjšano količino ogljikovega dioksida" in o revalorizaciji najboljših že realiziranih projektov preko "ad hoc" pobud.
- d. Vzpostavitev čezalpskega ekološkega omrežja za lažjo migracijo rastlinskih in živalskih vrst je trenutno v teku v okviru dejavnosti Platforme Ekološko omrežje, razvijanja projekta ECONNECT in določanja pilotnih regij.
- e. Smernice za postavitve, optimizacijo in ponovno vzpostavitev majhnih hidrocentral, ki ne bodo obremenjevale vodnega bogastva in biotske raznovrstnosti, se oblikujejo v okviru Platforme "Upravljanje voda v Alpah".
- f. Z izvajanjem zglednih projektov na področju ekološke gradnje, njihovo promocijo v javnosti in prilagajanjem ustreznih predpisov je začel Lihtenštajn, ki je razpisal nagrado za trajnostno gradnjo in prenovo stavb.

Pomembno je poudariti, da je bila tabela oblikovana na podlagi podatkov, ki so jih do sedaj posredovali pogodbenice, opazovalci in drugi zainteresirani deležniki. Zato se tabela v tej fazi lahko šteje le kot poročilo o napredku in jo je treba stalno dopolnjevati.

AC11_B5_sl

AKCIJSKI NAČRT ZA PODNEBJE V ALPAH – IZVAJANJE IN SPREMLJANJE

2. točka sklepa X. Alpske konference (“Züriška skupina”)

Opravljeni so bili uradni stiki. Prva seja marca 2010 v Bernu je bila priložnost za prvo izmenjavo stališč. Na seji usmerjevalnega odbora Züriške skupine 9. februarja 2011 je bilo predstavljeno poročilo “ALBATRAS”, ki obravnava dolgoročne učinke morebitne uvedbe mednarodnih sistemov urejanja prometa vključno s sistemom trgovanja z dovoljenji za tranzit. Usmerjevalni odbor se je dogovoril, da bo poročilo objavil. Seje so se udeležili predsednik delovne skupine Alpske konvencije za promet (ki je tudi član usmerjevalnega odbora Züriške skupine) ter sekretar in namestnica generalnega sekretarja Alpske konvencije.

3. točka sklepa X. Alpske konference (naloge Stalnega sekretariata)

V skladu s 3. točko sklepa X. Alpske konference je Stalni sekretariat:

- g. uredil spletni portal za Akcijski načrt za podnebje v Alpah, kjer so zbrani primeri dobrih praks, center znanja, informacije o projektih, aktivnostih na različnih področjih, kot so turizem in trajnostna mobilnost, informacije, namenjene mladim, multimedijška knjižnica in rubrika z novicami in dogodki;
- h. na spletni strani večkrat na leto redno dopolnil informacije o podnebnih spremembah, postopno razvijal nove rubrike za posredovanje informacij o konkretnih rešitvah, kot so predstavitve lokalnih deležnikov, ki uspešno izvajajo akcijski načrt.

5. točka sklepa X. Alpske konference: študija o možnosti, da bi Alpe do leta 2050 postale ogljično nevtralna regija

Ozadje in postopkovni vidiki

X. Alpska konferenca je med drugim sklenila (t. B6), da “bo opravila študijo o možnosti, da bi Alpe do leta 2050 postale ogljično nevtralna regija”. Od takrat so nekatere pogodbenice, Stalni odbor, predsedstvo in Stalni sekretariat sprejeli določene ukrepe, pojavilo pa se je tudi več vprašanj, ki jih bo treba razjasniti v tem procesu.

AC11_B5_sl

AKCIJSKI NAČRT ZA PODNEBJE V ALPAH – IZVAJANJE IN SPREMLJANJE

Nemčija je financirala in razdelila preliminarno študijo, ki jo je pripravil nemški Inštitut za podnebje, okolje in energijo iz Wupertala z naslovom *“Podnebno nevtralna alpska regija 2050 – povzetek za oblikovalce politike”* (*“Climate neutral alpine region 2050 – Summary for policy makers”*). Študija je izpostavila nekatere probleme, ki jih bo treba obravnavati, če hočemo rešiti vprašanje izvedljivosti cilja ogljično nevtralne regije do leta 2050. V tem smislu je potekala razprava o ideji, da bi oblikovali predlog o teritorialnem sodelovanju v okviru programa Alpski prostor (Alpine Space Programme). Tak predlog se trenutno pripravlja (*ALPSTAR – Carbon Neutral Alps 2050! Make best practice minimum standard!*). Ne glede na ta predlog je tekla tudi razprava o tem, da mora Stalni odbor na XI. Alpski konferenci odgovoriti na vprašanje, ki ga je sprožila X. Alpska konferenca, kar je bilo tudi potrjeno. Stalni odbor je na 43. seji slovenskemu predsedstvu in Stalnemu sekretariatu (v nadaljevanju SSAK) naročil, da o tem vprašanju pripravi poročilo in ga predloži ministrom.

Ob upoštevanju razprav in sporov glede metodologije za izvedbo študije, sta predsedstvo in SSAK 12. julija 2010 v Innsbrucku sklicala sejo pogodbenic in opazovalcev, da bi tako dobila informacije, potrebne za pripravo poročila za ministre. Seji so prisostvovali Francija, Italija, Lihtenštajn in Slovenija. Na podlagi zapisnika seje je bil 23. julija 2010 razposlan predhodni osnutek poročila s prošnjo za posredovanje povratnih informacij do 30. avgusta 2010. Povratne informacije so pisno posredovali samo Lihtenštajn, CIPRA in SSAK. 12. oktobra 2010 sta predsedstvo in SSAK razposlala še eno poročilo za razpravo, ki naj bi potekala na 44. seji Stalnega odbora.

V zadnjem sklepu Stalnega odbora, sprejetem na 44. seji 29. oktobra 2010, Stalni odbor poziva vse pogodbenice, da do konca novembra 2010 posredujejo ustrezne informacije, na podlagi katerih bi dokončno oblikovali poročilo za ministre. Po 44. seji Stalnega odbora je SSAK prejel prispevke Avstrije, Nemčije, Francije, Italije, Lihtenštajna in Švice. Sedanje poročilo in predlog upoštevata vsebino prejetih prispevkov

Oblikovanje definicije ogljične nevtralnosti

Razprava, ki je o tem vprašanju potekala v okviru preliminarne študije inštituta iz Wupertala, kot tudi razprava na seji 12. julija 2010 v Innsbrucku, sta obravnavali vprašanje definicije

pojma "ogljčna/podnebna nevtralnost" in poudarili, da je treba v razpravi o tem vprašanju upoštevati različne vidike.

Ogljična ali podnebna nevtralnost sta znanstvena pojma pa tudi politični cilj za občine, ki si prizadevajo za življenje v nizkoogljčni družbi. Kadar namreč govorimo o podnebni nevtralnosti, mislimo pri tem na cilj zmanjšanja izpustov plinov, ki obremenjujejo okolje, in ki temelji na znanstvenih informacijah. Če obveza "postati podnebno nevtralen" ne bo natančneje opredeljena, bo preveč nedoločna, da bi jo bilo mogoče kdaj izpolniti in ustrezno spremljati. Če se bodo pogodbenice Alpske konvencije odločile za "podnebno nevtralnost", ki naj bi jo dosegle leta 2050, je treba odgovoriti na tri vprašanja. Odgovori pa bodo koristni tudi pri izvajanju Akcijskega načrta:

a) Izpuste katerih plinov je treba zmanjšati? Študija inštituta iz Wupertala predlaga vse toplogredne pline.

b) Za koliko bi bilo treba zmanjšati izpuste? Izpusti CO₂ v Alpah znašajo okoli 100 mio. ton letno (na prebivalca 7,4 t/letno). V najboljšem primeru bi bil cilj zmanjšanje izpustov, ki bi ohranilo dvig globalne temperature pod 2°C in ki s o ga odobrile EU kot tudi alpske države, ki niso članice EU. Večina študij opozarja, da bi bilo mogoče doseči ustalitev globalne temperature na omenjeni ravni, če bi bila dosežena povprečna količina izpustov na prebivalca na svetu 2 toni CO₂ letno (glede na te številke bi se moral letni izpust CO₂ na prebivalca v 40 letih zmanjšati za okoli 5 ton). Pogodbenice bi torej morale zmanjšati "vrzel" pri ogljiku (od 7,4 tone na 2 toni na prebivalca).

c) Kako zmanjšati izpuste? Wupertalska študija predlaga določeno metodologijo, ki naj bi uporabljala sektorski pristop (opredeljena so bila tri glavna področja delovanja: energija, najpomembnejši poslovni sektorji, medsektorska področja, vsak od njih s tremi podsektorji). Sektorski pristop je izbral tudi Medvladni forum o podnebnih spremembah (IPCC) za pripravo scenarija zmanjšanja izpustov toplogrednih plinov (vir: IPCC 2007, str.11), in opozoril na konvergenco med prihodnjo alpsko strategijo podnebne nevtralnosti in mednarodnim okvirjem politike. Ostaja problem definicije za vsakega od "grozdov", še zlasti za medsektorska področja (vendar bi jo bilo mogoče določiti in obravnavati sproti).

Drugo poročilo, ki ga je pripravil inštitut iz Wupertala "*Climate Neutral Alps 2050. Make best practice minimum standard!*", povzema omenjeni problem: "*Priprava definicije pojma "podnebna nevtralnost" ter opredelitev obsega in meje inventarja izpustov predstavljata glavno vsebino preliminarne študije (...). Dokončna definicija za alpsko regijo še ni oblikovana.*"

O tem vprašanju pri pogodbenicah ni soglasja. Vendar pa se zdi, da definicija, kot jo je oblikoval inštitut iz Wupertala, ni nujno potrebna za nadaljevanje aktivnosti. Ta razprava že poteka v svetu znanosti in bilo bi koristno, če bi Alpe tako razpravo izkoristile in ji dodale še nekaj alpske specifikke. In končno naj ne bi tvorila glavne vsebine poročila. V tem smislu obstajajo različne alternative:

- Izbrati mednarodno priznano definicijo, kot predlagata Italija in Lihtenštajn, na primer definicijo Programa Združenih narodov za okolje (UNEP) ali vlade Združenega kraljestva.
- Študija inštituta iz Wupertala predlaga, da "*bi morala definicija podnebne nevtralnosti izpolnjevati določena merila pri vsakem od devetih tematskih grozdov.*" Potrebni so "*določena prožnost glede na posebne okoliščine alpske regije, dostopnost podatkov in pristojnost lokalnih deležnikov za ukrepanje.*" Za to bi bili potrebni nadaljnji sestanki in delovne skupine, ki bi obravnavali to temo v okviru Alpske konvencije. Če upoštevamo ključne elemente preliminarne študije inštituta iz Wupertala, definicijo podnebne nevtralnosti kot proces v okviru Alpske konvencije, obstoječe pobude na nacionalni in regionalni ravni, tekoče izvajanje dejavnosti v okviru Akcijskega načrta za podnebje in delo, ki se opravlja v okviru obstoječih platform Alpske konvencije, bi vse to moralo zadostovati za usmerjanje takega procesa. Če bo izbrana ta možnost, bi morala biti sprejeta "splošnejša" definicija podnebne nevtralnosti, ki bi temeljila na primeru drugih mednarodnih organizacij in bila opredeljena na splošno, kot "proces". Tak pristop bo omogočil:
 - da bo lahko obstajala poleg drugih nacionalnih in regionalnih definicij;
 - da bo obstajala in se povezala z drugimi mednarodnimi mrežami in pobudami za podnebno nevtralnost (kot so mreža UNEP Climate-neutral Network);
 - nadaljnje oblikovanje natančneje opredeljene in kvantitativne definicije podnebne nevtralnosti po sektorjih. V tem smislu se pogodbenice Alpske konvencije za namene izvajanja Akcijskega načrta za podnebje in tudi tekočega poročila lahko dogovorijo, da bodo združile moči in v največji možni meri zmanjšale in nevtralizirale izpuste toplogrednih plinov na območju Alp in po sektorskih področjih ter pri tem upoštevale nacionalne ukrepe blaženja in prilagajanja kot tudi regionalne in lokalne pobude, ki se izvajajo na območju Alp.
- nadaljevanje prizadevanj na osnovi predloga programa Evropskega teritorialnega sodelovanja za poseben projekt, ki bi podprl ta proces z izkušnjami "od spodaj navzgor".

AC11_B5_sl

AKCIJSKI NAČRT ZA PODNEBJE V ALPAH – IZVAJANJE IN SPREMLJANJE

Povzetek nacionalnih politik za blaženje podnebnih sprememb

Da bi prikazali obstoječe skupne cilje kot tudi skupni imenovalec dejavnosti pogodbenic Alpske konvencije (izvajanje, zgodbe o uspehu, dejavniki uspeha in pogoji, politična podpora), navajamo izveček publikacije iz Priloge II. Nacionalne strategije za blaženje podnebnih sprememb bi lahko bile splošna osnova za preusmeritev Alp v podnebno nevtralno regijo.

Cilji nacionalnih strategij

Koristno je, če se spomnimo obstoječih ciljev, ki so si jih zastavile pogodbenice na nacionalni, regionalni oz. lokalni ravni, saj so lahko ti tudi osnova za doseg soglasja o splošni in skupni definiciji koncepta v okviru Alpske konvencije.

AT

Februarja 1994 je Avstrija postala 58. država, ki je ratificirala Okvirno konvencijo Združenih narodov o podnebnih spremembah (UN Framework Convention on Climate Change (UNFCCC)), maja 2002 pa je ratificirala Kjotski protokol. Istega leta je Avstrija sprejela tudi nacionalno podnebno strategijo. Potem ko je bila opravljena celovita evalvacija, je zvezna vlada aprila 2007 sprejela prilagojeno različico strategije (Klimastrategie II, Zvezno ministrstvo za kmetijstvo, gozdarstvo, okolje in upravljanje voda). Glavni cilj sedanje podnebne strategije je zagotoviti, da bodo doseženi cilji o zmanjšanju izpustov toplogrednih plinov (GHG), ki jih predvideva Kjotski protokol. Prilagojena različica (Klimastrategie II) temelji na celi vrsti različnih ukrepov, zlasti na uvajanju prožnih mehanizmov za zmanjševanje emisij CO₂ v industriji in proizvodnji električne energije, spodbujanju energetske učinkovitosti v obstoječih in novih zgradbah, na različnih ukrepih za zmanjšanje izpustov toplogrednih plinov, ki jih povzroča promet, na spodbujanju obnovljivih virov energije in kupovanju emisijskih kuponov od drugih držav do leta 2012.

FR

Francija ima posebno mesto med razvitimi državami in pogodbenicami Okvirne konvencije Združenih narodov o podnebnih spremembah (UNFCCC) in Kjotskega protokola, saj so bili že leta 2007 izpusti toplogrednih plinov 5,6% nižji od ciljev Kjotskega protokola. Zato bi Fran-

cija lahko smatrala, da je s tem izpolnila mednarodne obveznosti in svojo podnebno politiko omejila na najmanjšo možno mero. Vendar pa "Grenelle Environment" – obširen političen proces na področju okoljske problematike, ki je potekal v letih 2007 in 2008 po načelih širokega sodelovanja in soodločanja, in v okviru katerega so zainteresirane skupine sprejele posebne obveze in ki je bil pozneje sprejet kot formalni zakon, - določa, da mora Francija do leta 2020 omejiti izpuste GHG za 22% glede na raven iz leta 1990. Če bodo v prihodnjih letih izpolnjene vse obveznosti, ki izhajajo zakona Grenelle, se predvideva, da bo zmanjšanje izpustov GHG celo večje in tako v skladu s prizadevanji EU, ki si je za cilj postavila zmanjšanje izpustov za 30%, če bo sprejet zavezujoč mednarodni sporazum.

DE

Cilj je zmanjšati izpuste toplogrednih plinov za 40% do leta 2020, 55% do leta 2030, 70% do leta 2040 in 80-95% do leta 2050 (glede na raven iz leta 1990). Do leta 2020 naj bi delež obnovljivih virov energije v končni rabi energije dosegel 18%, in potem postopoma naraščal na 30% do leta 2030 in 60% do leta 2050. Nemčija si celo prizadeva za 80-odstotni delež pri proizvodnji električne energije do leta 2050 glede na raven iz leta 1990. Na področju energetske učinkovitosti je cilj zmanjšanje primarne porabe energije za 20% do leta 2020 in 50% do leta 2050 glede na leto 2008. Delež obnovljenih hiš se bo podvojil od enega na dva odstotka. Na področju prometa je do leta 2020 načrtovano zmanjšanje porabe energije za okoli 10% do leta 2020 in za okoli 40% do leta 2050. Cilj je šest mio. električnih vozil na nemških cestah do leta 2030.

IT

Italijanska podnebna politika je v skladu s splošnimi načeli, določenimi na mednarodni ravni in v EU, zmanjšanje izpustov pa v skladu s kjotskimi cilji. Italija se je obvezala, da bo v prvem ciljnem obdobju (2008-2012) zmanjšala izpuste GHG za 6.5% pod raven iz leta 1990, v skladu z Odločbo o prizadevanjih držav članic za zmanjšanje izpustov toplogrednih plinov pa naj bi do leta 2020 zmanjšala izpuste v sektorjih zunaj ETS za 13% glede na raven iz leta 2005. Trend spremljanja emisij na nacionalni ravni nadzoruje medresorski odbor, ki je tudi odgovoren za izvajanje ukrepov za zmanjšanje izpustov GHG in določanje dodatnih ukrepov za uresničevanje kjotskih ciljev. Nacionalni sistem popisov toplogrednih plinov upravlja raziskovalni inštitut ISPRA, ki je tudi odgovoren za posredovanje informacij sekretariatu Okvirne konven-

cije Združenih narodov o spremembi podnebja (UNFCCC) in Evropski komisiji po potrditvi ministrstva za okolje in prostor.

FL

Lihtenštajn je 22. junija 1994 ratificiral Podnebno konvencijo in 3. decembra 2004 Kjotski protokol in se tako zavezal, da bo v obdobju 2008-2010 zmanjšal izpuste toplogrednih plinov za 8% glede na leto 1990. Med procesom, ki je potekal po Kjotu, se je Lihtenštajn odločil, da bo do leta 2020 zmanjšal izpuste toplogrednih plinov za 20% glede na raven iz leta 1990 in do 30% pod pogojem, da se druge razvite države in države v razvoju z najvišjimi izpusti zavežejo, da bodo izpolnile svoje obveznosti v skladu s prihodnjim sporazumom o podnebnih spremembah. Predvideno je zmanjšanje izpustov za 50% do leta 2050 glede na raven iz leta 1990.

MC

Poleg izpolnjevanja obveznosti Kjotskega protokola, namerava Kneževina Monako zmanjšati izpuste toplogrednih plinov za:

- 30% do leta 2020 glede na raven iz leta 1990
- 80% do leta 2050 glede na raven iz leta 1990.

Če upoštevamo, da je njeno ozemlje v večini urbano območje, so najpomembnejši cilji strategije zmanjšanja toplogrednih plinov stanovanja, ravnanje z odpadki in promet

SI

Ker obstaja vse več dokazov o škodljivih učinkih podnebnih sprememb na okolje in o naraščajočih izpustih, so v zadnjem desetletju podnebne spremembe postale prednostna naloga za Slovenijo. Da bi dosegli kjotski cilj zmanjšanja izpustov za 8% (izhodiščno leto 1986), je slovenska vlada decembra 2006 sprejela "Operativni program zmanjševanja emisij toplogrednih plinov do leta 2012". Program je bil revidiran julija 2009. Pred konferenco v Kopenhagenu 2009 je slovenski parlament sprejel deklaracijo o aktivni vlogi Slovenije pri oblikovanju prihodnje mednarodne podnebne politike in zagotovil široka pooblastila podnebni politiki v Sloveniji in na mednarodni ravni. Pomemben korak je bil narejen junija 2009 z ustanovitvijo vladne službe za podnebne spremembe. Omenjena služba pripravlja zakon o podnebnju, nizkoogljično strategijo do leta 2050 in daje pobude v zvezi s sektorskimi politikami in ukrepi za doseganje ciljev blaženja in prilagajanja.

AC11_B5_sl

AKCIJSKI NAČRT ZA PODNEBJE V ALPAH – IZVAJANJE IN SPREMLJANJE

CH

Švica je ratificirala Kjotski protokol leta 2003 in se zavezala, da bo zmanjšala izpuste toplogrednih plinov za 8% v obdobju 2008 – 12 glede na raven iz leta 1990. Na nacionalni ravni zagotavlja zakon o izpustih CO₂, ki je bil sprejet maja 2000, zakonito podlago za zmanjšanje izpustov. Zakon zajema samo izpuste CO₂, povezane s proizvodnjo energije s ciljem zmanjšanja za 10% do leta 2010 glede na raven iz leta 1990, kar je v skladu s ciljem 8% za toplogredne pline, ki ga predvideva kjotski protokol. Kot za druge alpske države tudi za Švico tega cilja ne bo lahko doseči zaradi visoko industrializiranega gospodarstva. Čeprav so si javne oblasti in zasebni deležniki zelo prizadevali za doseg omenjenih ciljev, so skupni izpusti GHG ostali približno na ravni iz leta 1990. Vendar pa Švica podpira proces globalnega podnebnega dogovora iz Kopenhagna in se je sedaj zavezala, da bo do leta 2020 zmanjšala izpuste GHG za 20% glede na raven iz leta 1990, svojo zavezo pa naj bi dvignila na 30%, če bodo to storile tudi druge razvite države in države v razvoju in tako osmislile skupna svetovna prizadevanja.

Izbor primerov dobre prakse na območju Alp po sektorjih, katerih cilj je zmanjšanje izpustov GHG/kazalci kot orodje za spremljanje

Glej tabelo v Prilogi I

Sklepne ugotovitve

Zdi se, da bi po dvoletnem izvajanju akcijski načrt lahko postal konkreten okvir za izvajanje ukrepov blaženja in prilagajanja. Tabela v Prilogi I na zelo pragmatičen način prikazuje ukrepe, ki jih je sprejela vsaka od pogodbenic, da je lahko konkretno, na licu mesta uporabila najpomembnejše komponente načrta. Publikacija "Nizkoogljičnim Alpam naproti" (Alpski signali 6) pokaže jasno sliko o tem, kaj je bilo na območju Alp storjenega na teritorialni ravni. Platforme in delovne skupine Alpske konvencije so se sklicevale na akcijski načrt, ko so posledice podnebnih sprememb postavile v središče svojega delovanja. Vsi ti koraki so spodbudili nastanek tega dokumenta, ki je bil podpisan na zadnji Alpski konferenci in je lahko osnova za nadaljnji razvoj kot tudi za spremembe v ravnanju v zvezi s podnebnimi spremembami. Da bi bilo mogoče doseči napredek, bo študija o možnosti, da bi Alpe do leta

2050 postale ogljično nevtralna regija, morala rešiti temeljna metodološka vprašanja, kot je na primer ideja podnebne nevtralnosti.

B Predlog sklepa

Alpska konferenca

1. se seznanijo s poročilom predsedstva in Stalnega odbora in potrjuje predvidene dejavnosti v okviru Akcijskega načrta za podnebje v Alpah v obdobju do XII. Alpske konference in spodbuja nadaljnje izvajanje Akcijskega načrta za podnebje v Alpah v okviru ukrepov blaženja in prilagajanja;
2. spodbuja pogodbenice, da oblikujejo skupno razumevanje podnebne nevtralnosti, ki bo vključevala alternativne rešitve navedene v tem poročilu.
3. spodbuja pogodbenice, da združijo svoja prizadevanja z namenom zmanjšanja in uporabe potenciala nevtralizacije izpustov toplogrednih plinov na območju Alp, po najboljših močeh in po sektorskih področjih, ob upoštevanju nacionalnih strategij za blaženje podnebnih sprememb kot tudi regionalnih in lokalnih pobud, ki se izvajajo na območju Alp,
4. se seznanijo, da so se določene pogodbenice angažirale pri osnutku projekta ALPSTAR za podnebno nevtralne Alpe do leta 2050, ki je bil predstavljen v okviru programa Alpine Space;
5. se zahvaljuje Liechtensteinu za organizacijo mednarodnega natečaja o trajnostni gradnji v Alpah.



alpenkonvention • convention alpine
convenzione delle alpi • alpska konvencija

MONITORING TABLE TO FOLLOW-UP THE IMPLEMENTATION OF THE ACTION PLAN ON CLIMATE CHANGE IN THE ALPS

Annex I



alpenkonvention • convention alpine
 convenzione delle alpi • alpska konvencija

Thematic fields of the ACTION PLAN	General objectives	Territorial Cooperation & European projects	National initiatives	Local and regional good practices	Alpine Convention working groups & PSAC	Progress /remarks future projects
1. Spatial and Land Planning	<ul style="list-style-type: none"> - Ensure efficient space management - Promote CO2 efficient urbanisation and planning - Promote an integrated approach to adapt Alpine Space to new climatic conditions : - natural hazards - sustainable economic development -sustainable housing 	<p>CLISP</p> <p>CO2 – NEUTRALP</p> <p>“Ecological Alpine Cooperation” Bavaria/Salzburg/Tyrol/Vorarlberg within the scope of the Nature Conservation and Landscape Management Protocol of the Alpine</p>	<p><u>France</u>: Plans Climat Energie territoriaux</p>	<p>Plan Climat énergie Territorial Grenoble Chambéry</p> <p>Salzburg “Sachprogramm Siedlungsentwicklung” (Land planning program with the scope to reduce and concentrate traffic)</p> <p>Autorità di bacino dei fiumi Isonzo, Tagliamento, Livenza, Piave, Brenta-Bacchiglione (TRUST): to adapt the management of underground waters to climate change (http://www.lifetrust.it/cms/)</p> <p>Plan of natural hazards as spatial planning http://www.lebensministerium.at/article/archive/4926/)</p> <p>Raumordnungsgesetz OÖ: Widmungsverbot für Bauland im HW-30 www.wkw.at/docextern/abtwipol/refumwelt/betriebsanlagen/ROG_Bundeslaender-Aufstellung.htm)</p> <p>Klimawandelanpassung der Pflege und Erhaltung öffentlicher Grünanlagen in Großstädten unter Berücksichtigung des Konzepts der Nachhaltigen Entwicklung www.dokne.boku.ac.at/index.php?option=com_content&task=view&id=45&Itemid=87)</p>	<p>PLANALP Introducing Climate change as a factor to consider in natural hazards monitoring.</p>	<p>Mapping Vulnerabilities</p>

AC11_B5_en

ACTION PLAN ON CLIMATE CHANGE IN THE ALPS – ANNEX I

		Convention		<p>Möglichkeiten der Anpassung von Raumnutzungen (im Rahmen von ClimChAlp) https://forschung.boku.ac.at/fis/suchen.projekt_ueb333..333333333ersicht?sprache_in=de&id_in=6459</p> <p>Optimierung bestehender und Entwicklung neuer Konzepte für nachhaltige Schutzmaßnahmen gegen Naturgefahren im alpinen Raum (www.alps.at/cms/index.php?id=26&tx_shalps_pi1%5BshowUid%5D=94&Hash=a4ee8b85f3)</p> <p>Herausforderung Klimawandel – mit abgestimmten und robusten Maßnahmen Klima und Bevölkerung bestmöglich schützen (Bezirk Murau) www.cipra.org/competition-cc.alps/phspaeth</p> <p>Herausforderung Wasser (östliche Obersteiermark)(www.cipra.org/competition-cc.alps/Wasserspiel)</p> <p>Hochwasservorhersage für den Tiroler Inn - Ein hybrides hydraulisch/hydrologisches Modell zur Verbesserung von Hochwasserprognosen (www.cipra.org/competition-cc.alps/achleitners)888889</p> <p>Passivhaussanierung der Volksschule St. Leonhard/Arnoldstein (www.cipra.org/competition-cc.alps/kurtbuerger)</p> <p>Passivhauswohnanlage im Herz der Alpen / Innsbruck (www.cipra.org/competition-cc.alps/NHT)</p> <p>Niedrigstoffhaus Villach - Regionaler Partnerpool (www.cipra.org/ccalpsresearch/niedrigstoffhaus-villach-regionaler-partnerpool)</p> <p>Sanierung eines Mehrfamilienwohnhauses auf "Faktor 10" in Rankweill (www.cipra.org/competition-cc.alps/VOGEW)</p> <p>OSI Servicepaket: "Nachhaltig:Bauen in der Gemeinde" Vorarlberg (www.cipra.org/competition-cc.alps/Carolin)</p> <p>Thermografie spart Energie Grödig (www.cipra.org/competition-cc.alps/Groedig)</p> <p>Vision Rheintal (www.cipra.org/competition-cc.alps/tanzania)</p>		
--	--	------------	--	---	--	--

PC45_B5_en

				<p>Land NÖ (www.cipra.org/competition-cc.alps/umweltberatung)</p> <p>Sachprogramm "Standortentwicklung für Wohnen und Arbeiten im Salzburger Zentralraum" (www.cipra.org/competition-cc.alps/cbraumann)</p> <p>Drawing up of the "Bavarian Alps Hazard Map" as a basis for area-wide prevention and assessment of geological hazards</p> <p>Integrated torrent protection concepts for assessing the danger of floods in the Alpine regions and for determining preventive measures</p> <p>Mapping of the existence of permafrost in the Bavarian Alps ("PermaNet" project), Monitoring of slope movements</p> <p>Starting rebuilding the mountain forests in order to fulfil their function as protection against natural hazards</p> <p>Additionally involvement in several transnational projects to reduce uncertainties concerning climate change effects by provision of precise data, design events and innovative methods considering climate change for improved modelling and prediction of natural hazards and its impacts in the alpine space.</p> <p>Improving efficiency of transnational risk management, development of intersectoral hazard maps</p> <p>National building reconstruction Programme (http://www.dasgebaeudeprogramm.ch/index.php/fr)</p>		
2. Energy: heating energy	-Significantly reduce CO2 emission Promote use of renewable energy sources	ENERBUILD	<p>All parties have national funding schemes for refurbishing and new construction using renewable</p> <p><u>Liechtenstein:</u></p> <ul style="list-style-type: none"> - Award for bio-architecture - The State subsidizes such collectors with a contribution of 350 CHF per square meter - Subsidies of up to 	<p>Regional strategies on adaptation and mitigation</p> <p>Multitude of local initiatives concerning local heating using solar energy, biomass (see database GP)</p> <p><u>Austria:</u> Vorarlberg strategy towards autosufficiency</p> <p><u>Italy:</u> Alto Adige: Strategia Clima-Energia 2050</p> <p>Energieautarke Region Rosental (www.cipra.org/competition-cc.alps/mkanzian)</p> <p>Naturnahe Waldbewirtschaftung und Biomassegewinn (www.cipra.org/ccalpsresearch/naturnahe-waldbewirtschaftung-und-biomassegewinn)</p>	SOIA- RSA III (innovation part of the report)	

PC45_B5_en

			<p>75,000 CHF may be granted for subsequent heat insulation</p> <ul style="list-style-type: none"> - Promotion of the Minergy standard: The standard requires buildings to offer a high level of comfort, economic efficiency, and low energy consumption - If the building shell already fulfills the requirements for modern insulation, then residential technical installations with low consumption or operating with renewable energy can further enhance conservation. State subsidies may be granted up to 20,000 CHF - Photovoltaic systems generating electricity are subsidized with a contribution of 2,500 CHF per installed output (kW) - a hydrogeological map will be developed as a foundation for using near-surface geothermal energy for heating purposes - Offer of cooperation to "Energy City for Everyone" municipalities. "Energy City" municipalities are municipalities committed to energy conservation and energy efficiency that submit themselves to annual evaluation 	<p>100 % Erneuerbare Energie (Auland Carnuntum) (www.cipra.org/ccalpsresearch/100-erneuerbare-energie)</p> <p>Autark sein - Unser Weg in die Zukunft (www.cipra.org/competition-cc.alps/daniela1974)</p> <p>Ökostrombörse – Thalgau (www.cipra.org/ccalpsresearch/okostromborse-thalgau)</p> <p>Energievision Murau (www.eao.st/cms/projekte/energievision/default.asp?n=72 Photovoltaikanlagen für alle)</p> <p>Laakirchener (www.cipra.org/competition-cc.alps/laakirchen)</p> <p>Bioenergiekonzept (www.cipra.org/ccalpsresearch/bioenergiekonzept)</p> <p>Biomasse-Versorgungskonzept Tirol 2007- Potenziale aus dem Tiroler Wald (www.cipra.org/ccalpsresearch/biomasse-versorgungskonzept-tirol-2007-potenziale-aus-dem-tiroler-wald)</p> <p>Wohnraumbeheizung mit Erdwärme und Fotovoltaik Oststeiermark ? (www.cipra.org/competition-cc.alps/michaelstrnad)</p> <p>Klimabündnis Wienerwald (www.cipra.org/competition-cc.alps/gorbach)</p> <p>Zwei-achsig nachgeführte Photovoltaiksysteme (www.cipra.org/competition-cc.alps/solonhilber)</p> <p>energie:autark Kötschach-Mauthen, 3e-Gemeinde (www.klimabuendnis.at/start.asp?id=228960)</p> <p>Amstetten 2010 Zukunft aktiv gestalten (www.amstetten.at/Amstetten-2010.346.0.html)</p> <p>Klimaschonend Mobil + Fernwärme Bischofshofen, e5Gemeinde (www.bischofshofen.sbg.at/menu.php?id=1&me2=103 www.klimabuendnis.at/start.asp?id=229827)</p> <p>Ökoregion Kaindorf (www.oekoregion-kaindorf.at/cms/index.php?qnmata3-r4t2-rd6g-5aw0-whv03xab97)</p>		
--	--	--	--	--	--	--

PC45_B5_en

e5- Gemeinde St. Johann im Pongau (Salzburg) (www.stjohannimpongau.at/)

e5- Gemeinde Langenegg (Vlbg) (www.langenegg.at/e5.html)

e5-Gemeinde Mäder (Vlbg) (www.maeder.at/e5-Gemeinde)
Zwischenwasser (Vlbg) (www.zwischenwasser.at/nexus3/WebObjects/nexus3.woa/wa/menu?id=414)

e5-Gemeinde Wolfurt (Vlbg) (wolfurt.info/taxonomy_menu/4/26/76)

Entwicklung und Installation von Solarabsorbern Reutte (www.cipra.org/competition-cc.alps/AST)

Solar-Aktion: 1000 Sonnendächer für Vorarlberg (www.cipra.org/competition-cc.alps/eiv)

energie.bewusst leben (Gemeinde Langenegg) (www.cipra.org/competition-cc.alps/manu)

Biogasanlage Schlitters (www.cipra.org/competition-cc.alps/bioschlitters)

Bioheizungsanlage "gemeinsam statt einsam" (www.cipra.org/competition-cc.alps/longitsc)

Energy regions: Goms, Toggenburg, Emmental, etc. (e.g. <http://www.unternehmengoms.ch>)

SwissEnergy Programme, promotion of renewable energies and energy efficiency (<http://www.bfe.admin.ch/energie/00458/index.html?lang=en>)

Label "Energy city" (<http://www.energiestadt.ch/d/>)

3. Transport

- Significantly reduce CO2 emissions lined to transports
- shift traffic towards more climate friendly means)

[CO₂ NEUTRALP](#)
(exploring eco-mobility & eco-fuels)

Austria : Graz public buses boosted by biodiesel
Italy: Dolomiti bus pilot project for administration and students
Buses in Torino
Slovenia: Electric vehicles for commuters in (Litija)
Local energy powering for alternative skiers and tourists transports

Comune Cortina d'Ampezzo: Traffic limitations in the city centre of Cortina d'Ampezzo
Different permits categories have been set up in Cortina d'Ampezzo in order to limit road traffic in the town centre. Specific permits exist for residents, tourists staying in town hotels, tourists staying in private houses and rooms.

Agency for the Atmosphere of the Independent Province of Bolzano: Early warning SMS on traffic limitations and traffic stop due to atmospheric pollutants.
Early warning SMS on traffic limitation" is a service that inform the inhabitants of some towns in Alto adige directly on their mobile phones on traffic limitations due to atmospheric pollution. SMS service is an advanced information system. The system involves a wide public of car users. Atmospheric pollution is a major problem in Bolzano and its surroundings for the particular geographical features of the area and this system can be easy implemented in other areas with similar features and pollution problems

Regione Valle d'Aosta: Public transport CARD in Valle d'Aosta.
VDA electronic card allows to travel using public transport on the whole regional area. VDA card makes easier to use public transport. VDA tariffs benefit heavy users of public transport. The system is at a pilot stage.

Bolzano and Province: Integrated Transport System (STI) for bus, trains (local and national) and cableway.
STI is a tariff system that allows the use of buses, cableways and local and national trains with a single ticket in all the Bolzano province. There are different tickets types on the basis of the different users needs and there is an online timetable and information system easy to use.

Strategy game on transport challenges in the Alps/Schools (awareness-raising)

ALPARC Brochure on soft mobility

Alpine Awareness (www.cipra.org/ccalpsresearch/alpine-awareness)

Alpine Crossing - sanft-mobile Winterreise durch die Perlen der Alpen (www.cipra.org/competition-cc.alps/alpineperlen)

Sanfte Mobilität Werfenweng (Alpine Pearls) (www.tourismus-werfenweng.at/de/home/)

plan-b: andere Wege von a nach b (Rheintal) (www.cipra.org/competition-cc.alps/planb)

Gemeinden Mobil in Tirol und Südtirol (www.gemeindenmobil.at/)

Compano – Fahrplatzvermittlung (www.cipra.org/competition-cc.alps/compano)

Schwaz mobil (Schwaz mobile) (www.cipra.org/competition-cc.alps/r_kaufmann)

FAHR RAD Wettbewerb Land Vorarlberg (www.cipra.org/competition-cc.alps/Energieinstitut)

CO2-neutrals und autofreies Almenland (www.cipra.org/competition-cc.alps/almenland)

Elektroauto mit Photovoltaik gespeist (Gerasdorf) (www.cipra.org/competition-cc.alps/SMetz)

Landschaftsschutz durch Tälerbus Lungau Vermeidung (www.cipra.org/competition-cc.alps/Taelerbus)

Intermodale Verkehrsplanung Ennstal - Kooperation von Ennstaler Gemeinden, Bürgerinitiativen, Landwirten und Gewerbetreibenden (www.cipra.org/competition-cc.alps/haraldfrey)

Das österreichische Umweltzeichen für Reiseangebote (www.cipra.org/competition-cc.alps/cweichselbaumer)

minus99 - CO2 neutrale Mobilität in Vorarlberg (www.cipra.org/competition-cc.alps/kairos)

Mobilito Salzburg (www.cipra.org/ccalpsresearch/mobilito-

PC45_B5_en

			<p>die-mobilitatzentrale-in-salzburg)</p> <p>Xeismobil (www.cipra.org/ccalpsresearch/xeismobil)</p> <p>Perpetuum Mobile Alpinensis (www.cipra.org/competition-cc.alps/postalm)</p>	
4. Tourism	<p>Reduce Co2 emissions produced by tourist activities and ensure travel professionals offer the option of sustainable transports</p> <ul style="list-style-type: none"> - Promote alpine holidays offers that are climate neutral - Adapt winter tourism - Diversify 	CLIMALPTOUR	<p><u>France</u>: Electric buses to transport skiers to ski stations or to summer activities (Safari Parc de Peaugres)</p> <p>Argentière la Bessée: diversification</p> <p>Allo p'ti bus (Savoie)</p> <p><u>Alpine Pearls</u></p> <p><u>Ökoinstitut Südtirol/Alto Adige : Stream</u> STREAM è un progetto di mobility management che mira a promuovere trasporti i energeticamente più efficienti o attraverso lo sviluppo di nuove soluzioni di trasporto e campagne mirate (http://www.iee-stream.com/)</p> <p><u>Compagnia del buon cammino</u> : Le montagne in cammino Creazione di un sistema turistico integrato per uno sviluppo attento alla sostenibilità e ai cambiamenti climatici delle aree montane. L'adesione prevede la firma di un protocollo.</p> <p><u>Parco naturale Adamello Brenta</u> : Il Parco senz'auto (http://www.pnab.it)</p> <p><u>Schladming : Klimawandel und Wintersport</u> Strategien zur nachhaltigen Raumentwicklung von Tourismusregionen unter dem Einfluss der globalen Erwärmung am Beispiel der Wintersportregion um Schladming (http://www.klimawandel-wintersport.at/)</p>	<p>Super Alp! Yearly awareness raising campaign about sustainable transports in the Alps.</p> <p>Climate Portal</p>
5. Mountain forests	<p>Favour adaptation:</p> <ul style="list-style-type: none"> - Keep Alpine forests in a good ecological state - Develop forestry so 	<p>MANFRED</p> <p>ALP-FFRS</p>	<p><u>Germany</u>: Bavaria Research on Biomass and Climate & Information campaign: <i>Biomass is more</i></p> <p><u>France</u>: Alpes de Haute Provence (Pays A3V4) : Valorisation of forestry & biomass production</p> <p>Österreichisches Waldprogramm (Waldschutz, Schutzwälder für Objektschutzwirkung) (www.walddialog.at/article/archive/17654)</p>	<p>Contribution to the European Forest Strategy draft process, expressing the interest of alpine mountains.</p>

	that wood can be used as a material and local energy source -Protection functions			"ADAPT - Assessment of vulnerability to climate change for forests of the Austrian Federal Forests and development of adaptive management strategies" Analyse von Waldbewirtschaftungsstrategien unter Klimaänderungsbedingungen (https://forschung.boku.ac.at/fis/suchen.projekt_uebersicht?sprache_in=de&menue_id_in=300&id_in=5651) Unterstützungsprogramm der Länder für Forstbauliche Maßnahmen; Bsp. Oö. (www.land-oberoesterreich.gv.at/cps/rde/xchg/SID-A537468C-6712D505/ooe/hs.xml/15324_DEU_HTML.htm) Protective measures in the mountain forest as well as accompanying mountain forest research (mountain forest offensive)		
6. Biodiversity	- Create and ecological continuum - Preserve protected areas biodiversity - Ensure habitat preservation for Alpine species - Maintain peatlands as CO ₂ sinks and biodiversity reservoirs	E-CONNECT		<u>France</u> : Réseau écologique du département de l'Isère	Ecological Network Platform ALPARC (Task Force Protected Areas, Chambéry) : not only work on ecological network, but also specific work on climate change Brochure on prevention & adaptation of protected areas to Climate change	
7. Water	- Reinforce WFD implementation - Prevent water	SHARE Alp- WATER SCARCE SILMAS		"Nachhaltige Flussgebietsentwicklung Untere Salzach" (www.sanierung-salzach.info) Wasserverband Verbundschiene Lavanttal (www.wasserwerk.at/lavanttal.htm) Kärntner Wasserstiftung (www.ktn.gv.at/27987_DE)	Draft / Guidelines for small hydropower plants	Finalize the draft and adopt the guidelines

PC45_B5_en

ACTION PLAN ON CLIMATE CHANGE IN THE ALPS – FOLLOW-UP AND IMPLEMENTATION OF THE POINT "SURVEY ON THE ALPS CARBON NEUTRAL REGION BY 2050"

	<p>shortage</p> <p>-Steer development of hydropower plants according to ecology of water streams</p>			<p>HORA - Hochwasserrisikozonierung Austria (www.hochwasserrisiko.at)</p> <p>Hochwasserschutz mit Mobilelementen (wasser.lebensministerium.at/article/articleview/20076/1/5720/)</p> <p>Absiedlung als passiver Hochwasserschutz (www.lebensministerium.at/article/articleview/23134/1/8705/)</p> <p>Mur(er)leben - LIFE Natur "Inneralpines Flussraummanagement Obere Mur" (wasser.lebensministerium.at/article/articleview/45142/1/1469/)</p> <p>Hochwasserschutzfrühwarnsystem Aschachtal (Oberösterreich) (www.hws-aschachtal.at/system/web/news.aspx?menuonr=50326032&detailonr=50329278)</p> <p>Mobile Trinkwasserabpackanlage (www.oewasser.at/sitex/index.php/page.145/)</p>		
8. Mountain farming	<p>Support mountain farming as a contribution to the environment the maintenance and the attractiveness of Alpine territories</p>	<p>European Charter of Sustainable Farming for Alpine region as result from IMALP</p>		<p>AGRIDEMA - Introducing tools for agricultural decision-making under climate change conditions by connecting users and tool-providers (www.agridema.org)</p> <p>ADAGIO - Anpassung der Landwirtschaft europäischer Regionen an Umweltrisiken aufgrund des Klimawandels (www.adagio-eu.org)</p> <p>AMARA - Adequacy of Mitigation and Adaptation Options for a Case Study Region in Austria (www.uni-graz.at/igam7www/igam7www_forschung/igam7www_transland/igam7www_transland_projekte/igam7www_amara.htm)</p> <p>CLIM-LAND - Seasonal climate impact on alpine land-use development (www.oeaw.ac.at/home/thema/thema_200804_4.html)</p>		
9. Applied research	<p>Improve knowledge to better understand</p>	<p>PARAMOUNT (reliability of alpine transport infrastructure related to mountain</p>		<p>- Regione Lombardia Kyoto Desk: Quality promotion in production processes, raising awareness in business for Kyoto Protocol and EU Directive 87/2003/CE. (www.lom.camcom.it/)</p>	<p>Climate Portal</p> <p>Leaflet "The Action Plan on a nutshell"</p>	

<p>& Awareness Raising</p>	<p>the impact of climate change at local level</p> <p>Reinforce cooperation</p> <p>Reinforce public awareness</p> <p>Natural Hazards</p>	<p>hazards in a changing climate)</p>		<p>- Environmental Agency of Bolzano (APPA Bolzano): “School - Climate” initiative Information exhibition “Together for the climate”, educational projects “The climate for ours” and “In school without the car” for eco-sustainable mobility, linked to Alliance for the Climate Program. (www.energie-sparen.it/it/kids.html)</p> <p>- ARPA Valle d'Aosta: Communicating Climate Change and consequent environmental effects In the “Envie d’Environnement” initiative experts narrate, illustrate, analyse, the main environmental themes on climate change, by means of educational laboratories, games, conferences, informative panels, videos, theatres, cinema, etc.</p> <p>Systematic reorganisation of the Schneefernerhaus Environmental Research Centre (UFS) into an internationally networked centre for climate and altitude research. The objective is an integral form of risk management in the Alpine region that optimally coordinates the possibilities for prevention, execution of measures and regeneration.</p> <p>Reporting (http://www.bafu.admin.ch/climatereporting/index.html?lang=en)</p>	<p>Joint Publication on climate Change Presidency/PSAC</p>	
<p>Miscellaneous</p>				<p>A tale of two valleys - zwei Täler zwei Geschichten: Die konträren Strategien von zwei benachbarten Alpentälern mit Klimavariabilität und Klimawandel umzugehen (www.zamg.ac.at/a-tale-of-two-valleys/)</p> <p>future.scapes - Globaler Wandel und seine Auswirkungen auf Landschaft und Gesellschaft. Szenarien künftiger Entwicklung und Lösungsstrategien zur Minderung negativer Effekte (systemsresearch.ac.at/projects/futurescapes/)</p> <p>Bioland Salzburg (www.cipra.org/competition-cc.alps/hechtfish)</p> <p>Bio-Heu-Region Trumer Seenland (www.cipra.org/competition-cc.alps/BioHeuRegion)</p> <p>e5- Gemeinde Virgen (Osttirol)</p>		

			<p>(www.virgen.at/index.cgi/55)</p> <p>neuartige Solar-Wärmepumpen-Heizung in Gölfis (www.cipra.org/competition-cc.alps/othmarmaeser)</p> <p>Thermische Verwertung von Naturschutzheu Süd-Oststeiermark ? (www.cipra.org/competition-cc.alps/Breuss)</p> <p>Thermoholz Weissbach (www.cipra.org/competition-cc.alps/HerwigFormanek)</p> <p>sonnenklar-erneuerbar Kärnten (www.cipra.org/competition-cc.alps/sidonia)</p> <p>Elaboration of the technical basics for the Climate Action Plan of the Alpine Convention by the "Climate Adaptation Balance of Nature and the Alps" research programme (INTERREG projects "ClimChAlp", "AdaptAlp", "CLISP")</p> <p>CO2 Tax, emission trading (http://www.bafu.admin.ch/klima/index.html?lang=en)</p>		
Evaluation		<p>☺ All fields are covered by some ETC project</p>	<p>Most countries have adopted or are developing national strategies on adaptation ☹</p>	<p>Most regions in the Alps have also adopted or are adopting Programs, Plans, strategies on climate change; Good Practices are increasing ☹</p>	<p>Most tasks given to the Secretariat have been fulfilled, or are in progress ☺</p>



NATIONAL POLICIES ON MITIGATION, EXTRACT FROM ALPINE SIGNALS 6

Annex II

3. NATIONAL STRATEGIES

3.1. AUSTRIA

In February 1994 Austria became the 58th nation to ratify the UN Framework Convention on Climate Change (UNFCCC) and in May 2002 it ratified the Kyoto Protocol. In the same year Austria adopted a National Climate Strategy. After a comprehensive evaluation an adapted Strategy was adopted in April 2007 by the federal government (Climate Strategy II, BMFLUW). The current Climate Strategy's main focus is to ensure that the Greenhouse Gas (GHG) reduction targets set out in the Kyoto Protocol are met. Climate Strategy II relies on a wide range of different measures, in particular the implementation of the EU emissions trading scheme for industry and electricity production, the promotion of energy efficiency in existing and new buildings, various measures to reduce greenhouse gas emissions from transport, the promotion of renewable energy sources and the purchase of CO₂ emission credits from other countries until 2012. In 2007 the Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW) announced the development of a National Adaptation Strategy (NAS) with the aim of reducing the negative impacts and building resilience to climate change. In 2008 the Ministry asked "AustroClim" – a climate research initiative set up in 2002– in cooperation with the Environment Agency Austria (Umweltbundesamt) and the Upper Austrian Academy for Environment and Nature (OO Akademie für Umwelt und Natur) to prepare a study on the status of adaptation to climate change in Austria. At the end of 2008, AustroClim published another study called *Identification of recommendations for action on adaptation to climate change*. This study recommended initial adaptation measures for five sectors (agriculture, forestry, water, tourism and electricity) based on regional scenarios and on a vulnerability study. A consequent policy paper titled *Towards a national adaptation strategy* was issued in June 2009. In 2010 and 2011, AustroClim and the Environment Agency Austria are preparing initial recommendations for the sectors of natural hazards, natural ecosystems/biodiversity, health, housing and construction and transport infrastructure. All the results will be continuously integrated into the policy paper. A participatory process accompanies the strategy from summer 2008 until summer 2011. The main objective of the participation process is to discuss the adaptation options identified in the policy paper with relevant stakeholders. The discussion focuses on topics such as responsibilities for implementation, financial resources, knowledge gaps and open research questions. All stakeholders relevant for the implementation of adaptation activities are involved in this process, including national and provincial government, special interest groups, and academic institutions. Furthermore, in 2009 citizens had the opportunity to present their views on adaptation and experiences in an online survey. All results gained from the participation process will be considered in the development of the national adaptation strategy. The final NAS can be expected early in 2012.

MELTING GLACIERS AND RISING OCEANS: The most recent documentation and data on the mountain cryosphere are of special significance because melting mountain glaciers are considered to be second major contributors to sea level rise in the 20th century. (Austrian 5th National Communication to the UNFCCC, p.141)

A FAIR WIND FOR RENEWABLES: In 1990, biomass (including bio-waste) contributed 8% to heat production in district heating systems, but this share has increased to 41% (figure 2007). This is to a large extent due to existing public support schemes, granted both by the federal government and the Länder, and in many cases co-funded by the EU. Growth rates of wind power and electricity from biomass will be higher than the growth of other electricity sources. (Austrian 5th National Communication, p.77)

3.2. FRANCE

France holds a particular position among developed nations and parties to the UNFCCC and the Kyoto Protocol in that its GHG emission levels in 2007 were already 5,6% below its Kyoto target. France thus could consider its international obligations fulfilled and limit its climate change policy to the strict minimum. Yet, the "Grenelle Environment", a major political process regarding the environmental problems - carried out in a largely participatory way during 2007 and 2008, resulting in specific commitments by stakeholders and later adopted as formal law establishes that by 2020 France has to reduce its GHG emissions by 22% compared to 1990 levels. If all the Grenelle commitments are met in the coming years, GHG reductions are estimated to be even greater, thus being in line with the EU ambition of a 30% reduction target in case of an international binding agreement.

The Grenelle process selected a complementary set of measures to achieve the GHG emission reduction: regulatory measures are complemented by market-based measures and fiscal incentives as well as information and training for all sectors. Thus, for example, an ambitious target of minus 38% by 2020 concerning the existing buildings' energy consumption has been set. Regarding transportation sector, a new infrastructure will be put in place to reduce road transport and a large share of efforts is devoted to the production of renewable energies, not to mention the full implementation of the Emission Trading System directive for the industry. The French government expects to reach these targets by maintaining a high momentum in the renovation of existing buildings (supported by incentives, by specific training of the professionals of the sector), by mobilizing all sectors of society and all levels of authorities. France has been working steadily on adaptation issues since the creation of the National Observatory on the Impact of Climate Change (ONERC), a public body that reports to the Prime Minister and the Parliament and publishes reports on regional scenarios, including one on the Alps, and since the adoption in 2006 of the first national adaptation strategy (p. 95). A working group was set up to consider the impacts and costs of climate change and this currently finances more than 20 research projects. In February 2009, the National Strategy was confirmed and a wide-ranging (Grenelle-like) consultation to elaborate the national action plan, including adaptation and regional plans, was proposed. The whole process should ultimately lead to the National adaptation plan in 2011.

THE CREATION OF A RENEWABLE HEAT FUND of € 1 BILLION (2009-2011). It aims to sharply develop heating production in the tertiary and industrial sectors from renewable sources and to improve and diversify the heating sources in collective housing. This fund will enable financing dedicated to these energies to be increased by four or five.

FORESTRY AND CLIMATE CHANGE: In the short to medium term (up to 2030 or 2050 depending on the scenario), the impact of gradual climate changes on wood production will be more or less positive, with economic benefits that could reach € 150M per year. Nevertheless, in the long term (up to 2100), the effect will be clearly negative because of more frequent extreme events and the spread of Mediterranean forest. (FRANCE 5th UNFCCC National Communication; 2009)

3.3. GERMANY

In 2010 the German government has adopted a long-term, cross-sectoral Energy Concept (Energy Concept 2050) that paves the way for the age of renewable energies (www.bmu.de/energiekonzept/doc/46394.php). With its Energy Concept the German government has formulated guidelines for an environmentally sound, reliable and affordable energy supply to reach its ambitious climate protection goals. The aim is to develop and implement an overall strategy for the period up to 2050. This approach takes account of the long investment cycles in the energy industry and the building sector and gives all players sufficient time to take appropriate steps. The Energy Concept contains a concrete vision for the year 2050 with ambitious reduction targets for greenhouse gases, ambitious expansion targets for renewable energies and targets for tapping the considerable efficiency potential, a specific programme of measures for achieving these targets, a sound financing plan for implementation that is reliable for the long term and scientifically founded monitoring to review whether targets are being achieved.

- The **greenhouse gas emissions** are to reduce by 40% by 2020, 55% by 2030, 70% by 2040 and 80-95% by 2050 (compared with 1990 levels).
- By 2020, the **share of renewables in final energy consumption** is to reach 18%, and then gradually increase further to 30% by 2030 and 60% by 2050. Germany is even striving for an 80% share in **electricity production** by 2050.
- **Energy efficiency:** It is aimed to reduce primary energy consumption by 20% by 2020 and 50% by 2050 compared with 2008.
- The **building renovation rate** will be doubled from 1% to 2%.
- It is planned to cut energy consumption in the **transport sector** by around 10% by 2020 and around 40% by 2050. The goal is to have six million electric vehicles on Germany's roads by 2030.

The German Strategy for Adaptation to Climate Change (Deutsche Anpassungsstrategie an den Klimawandel – DAS) was adopted in December 2008 by the national government. This first strategic document offers a common base for understanding and a framework for national adaptation in Germany and it takes a close look at contributions of the federal level. The German Adaptation Strategy lays the foundation for a medium-term, step-by-step approach undertaken in close cooperation with the federal states ("Länder") and other civil groups. On regional level, the Climate Programme Bavaria 2020 has been adopted in 2008 aiming at both, reducing the greenhouse gas emissions and adapting climate-sensitive and vulnerable areas to the inevitable consequences of climate change by the year 2020 in the best way possible. Actions in the fields of water management, agriculture, forestry, georisks and soil protection, town, regional and spatial planning, building and tourism as one of the main industrial sectors of the Alps are of particular interest. The next step in the national adaptation process is the elaboration of an Adaptation Action Plan until summer 2011.

Finally, special note should be made of the results of the pilot study *The Alps- Climate Neutral in 2050: Executive summary for policy-makers* which was initiated by Germany contributing to the Action Programme of the Alpine Convention and which was carried out by the Wuppertal Institute for Climate, Environment and Energy.

1990-1999 was the warmest decade of the 20th century in Germany. In addition, the first years of the 21st century were considerably warmer than the average for the latest climate normal period (1961-1990). The temperature increase observed since 1901 has been especially pronounced in south-western Germany. (Germany UNFCCC 5th National Communication)

The main pillars of Germany's national climate protection strategy include saving energy, improving energy efficiency, achieving a balanced mixed of energy sources and expanding use of renewable energies.

3.4. ITALY

Italian climate change policy is consistent with the general principles set at international and EU level, and the emissions' reductions are in line with its Kyoto targets. Italy is committed to reduce its GHG emissions by 6.5% below 1990 levels over the first commitment period (2008-2012) and, under the Effort Sharing directive, to reduce non-ETS sector emissions by 13% from the 2005 level by 2020. The monitoring of emissions' trend at national level is overseen by an inter-ministerial committee that is also in charge of implementing measures for GHG reduction, including the identification of additional measures to meet the Kyoto targets. The National GHG Inventory System is managed by ISPRA, also in charge of transmitting the information to the UNFCCC's Secretariat and to the European Commission, after endorsement by the Ministry for the Environment, Land and Sea.

Guidelines for national policies and measures for the reduction of GHG and the related National Action Plan (2003-2010) have been in existence since 2002.

These documents identify policies and measures already in place and additional measures envisaged to meet the Kyoto commitments. A further update of the 2002 Guidelines and the related national action plan is being prepared according to the principles set by the Interministerial Committee for Economic Planning. Implemented or adopted policies and measures which had or are expected to have a large impact on GHG emissions in Italy can be read in the 2009 Italian biannual report for the European Commission. The analysis was developed according to UNFCCC's guidelines and examines the following sectors: Energy, Transport, Industry, Agriculture, Forestry, Waste, Buildings' sector and cross-sectoral policies.

Both national and regional institutions in the Italian Alps have made substantial efforts to research, monitor and report on the impacts on climate change. A crucial role in identifying the regional trends is played by regional authorities ("Regioni") and regional environmental agencies (ARPA) which provide a reliable and abundant flow of data and information concerning climate variability in the alpine regions of Italy.⁴ Alpine regions are increasingly interested in adaptation to climate change. Due to their powers in land planning and energy, regions can define governance measures and procedures relating to the energy certification of buildings and guidelines for technical planning of generation, distribution and use of energy. Often the regions also deliver energy plans, which establish the objectives to be pursued in order to meet the Kyoto targets and provide for a proper development of the regional energy system, improved energy efficiency in several economic sectors and in distribution networks. A remarkable role has been played by regional governments in the Alps in the field of renewable energy, energy savings and control, and the availability of energy supply for industrial and civil installations. Worth noting is the increased interest in climate change by municipalities.

A first attempt to assess the economic costs of climate change for Italy show that aggregate GDP losses induced by climate change in the first half of the 21st century are likely to be small, in the order of 20-30 billion €. Nevertheless, some economic sectors, such as tourism and the economy of the Alpine regions will suffer significant damages. (UNFCCC Italian 5th National Communication, 2010, p.7)

Budget Law 2008 established that, for the period 2008-2010, the minimum quota of renewable electricity to be fed in the grid has to be increased every year by 0,75%. It also introduces a specific support scheme for renewable energy from biomass. (UNFCCC Italian 5th National Communication, 2010, p. 68)

⁴ Studies and reports focusing on climate change in the alpine territory tend to reflect the territorial scope of administrative boundaries (mainly region and province). This fact is also a consequence of the assignment of most planning competences to the regions, especially after the reform of the Constitutional Law in 2001. It should also be mentioned that often these studies focus on a portion of land wider than the alpine area strictly delimited by the Alpine Convention, which is mostly due to the fact that the territory of Italian regions is not entirely falling within the Alpine Convention perimeter, with the exceptions of Valle d'Aosta and the Autonomous Province of Trento and Bolzano. The study provided by Piemonte refers to the entirety of its mountainous territory.

3.5. LIECHTENSTEIN

One could think that the Principality of Liechtenstein, being among the smallest nations of the world, and having a minor contribution to GHG emissions, could easily skip the responsibility of fighting climate change. Nothing is less true. Liechtenstein contributes in a noticeable way to the global efforts against climate change. Liechtenstein ratified the UNFCCC in 1994 and the Kyoto Protocol in 2005. The measures to fulfill its international obligations are not only taken by public actors. The Government makes an effort to involve the private sector by stimulating the flow of private investments into more climate friendly technologies. The slogan of its climate policy is "think global, act local", and cross-border cooperation with other States is crucial to it: Having a Customs Treaty with Switzerland and by thus being included in the Swiss economic area, Liechtenstein associates itself with the Swiss efforts on CO₂ reduction and mirrors some important measures of Swiss legislation. Within the framework of Clean Development Mechanism projects, Liechtenstein has established a firm cooperation with the Swiss-based organization "myclimate".

Liechtenstein is a member of the EEA (European Economic Area) and therefore fully participates in the EU-Emissions Trading Scheme through the work of the organization "LIFE Climate Foundation Liechtenstein". This initiative became a non-profit foundation in 2009. LIFE makes an important contribution to raising awareness of climate protection and sustainability. It cooperates with the University of Liechtenstein and together they work on topics such as alternative investments funds, emissions trading market, connectivity of climate protection and the market. Liechtenstein fully supports efforts aimed at enhancing the global carbon market and the Clean Development Mechanism.

The National Climate Protection Strategy, passed in September 2007, established a 10-point framework for the future development of the national, as well as a credible international climate policy. The comprehensive climate protection strategy adopted by the Liechtenstein government defines and regulates state-operated purchase of carbon credits and GHG reduction measures. It sets criteria for the use of Kyoto mechanisms and emphasises the need to harmonise development in the field of environment, energy, transport, forestry, agriculture and fiscal policies. Similar to other European countries, Liechtenstein has endorsed the target of a 20% reduction of GHG emissions from 1990 levels by 2020 and announced an intention to move beyond 20% (to 30%), if certain conditions are fulfilled.

The Energy Concept 2013 and the Energy Efficiency Act provide the framework for a sustained promotion of emissions cuts and renewable energy production. Within the framework of the Alpine Convention, Liechtenstein initiated an architectural competition for best practices in the building sector, aimed at combining good architecture and climate efficiency ("Constructive Award"). Covering all the Alpine states, this award is of an international character. An important objective related to energy saving is the increase in the share of renewable energies to over 10% of total energy consumption by 2013. The main emphasis has been laid on usage of domestic biomass, also biogas for example, and as in many other states, increased use of solar energy.

The mean annual temperature of Liechtenstein is currently 10.4°C, which mean that it has increased from 1980 to 2007 by 1.3°C. According to the mean estimate, temperatures will increase in Liechtenstein and northern Switzerland by 1.8°C in winter and 2.7°C in summer. (Liechtenstein 5th UNFCCC National Communication, 2010, p. 15)

Natural hazard: Liechtenstein has established so called "Geological Risk Maps" with a special focus on residential areas. These maps provide regional information on the specific risks regarding avalanches, rock and landslides and flooding. (Liechtenstein 5th National Communication, p. 16)

3.6. PRINCIPALITY OF MONACO

The Principality of Monaco joined the global effort on climate change by signing the UNFCCC in 1998 and by ratifying the Kyoto Protocol in 2006. The Principality also joined the UNEP Climate Neutral Network, a worldwide network of countries, regions, companies and organisations that have publicly committed to reduce their carbon footprint. The objectives of the climate policy of Monaco were presented during the 15th UNFCCC Conference of the Parties in Copenhagen in 2009: a 30% reduction in GHG direct emissions in comparison to the 1990 levels by 2020, and an 80% reduction by 2050 to achieve climate-neutrality. So far, the Principality of Monaco has succeeded in reducing its GHG emissions by 9% in comparison to 1990 levels.

For the Monegasque authorities, tackling climate change is also an opportunity to progress towards shifting the energy supply sources and securing the energetic future of the country. Therefore, an important dimension of climate policy concerns energy supply and efficiency: improving the energy efficiency by at least 20% by 2020 and obtaining a 20% share of renewable sources in the final consumption of energy in the Principality. Subsidies to replace fossil heating by solar heating are being offered and the building sector targeted: energy performance diagnosis will be realized in all public buildings, and HQE® Standards will be applied in new public building projects. Specific agreements on sustainable development will be worked out with energy distributors, in particular to create a smart system to measure energy consumption, and a special fund on sustainable development will contribute to financing actions under the Energy and Climate Plan.

Monaco is trying to reduce emissions from the transport sector by: increasing commuter trains with neighbouring regions, improving public buses and facilitating walking in town, subsidising the purchase of electric vehicles and hybrid cars. The publicly owned vehicle fleet is turning electric as well. Monaco actively promotes electric mobility; the EVER Exhibition on Electric Vehicles and the JEUN'ELEC are held annually at the Grimaldi Forum and also the country's tradition and passion for motor vehicles is turning green thanks to the Monte-Carlo Rally of Alternative energy Vehicles.

Last, but not least, the global efforts supported by the Prince Albert II Foundation must be mentioned; the Foundation gives financial support to projects that propose solutions in the fields of biodiversity, water and specifically climate change.

"We, scientists who met in Monaco to review what is known about ocean acidification, declare that we are deeply concerned by recent, rapid changes in ocean chemistry and their potential, within decades, to severely affect marine organisms, food webs, biodiversity and fisheries. To avoid severe and widespread damages, all of which are ultimately driven by increasing concentrations of atmospheric carbon dioxide (CO₂), we call for policymakers to act quickly to incorporate these concerns into plans to stabilize atmospheric CO₂ at a safe level to avoid not only dangerous climate change but also dangerous ocean acidification."

MONACO DECLARATION (2008)

3.7. SLOVENIA

With increasing evidence of impacts and growing emissions, climate change has become an important priority for Slovenia over the last decade. To achieve the Kyoto target of an 8% reduction of emissions (base year 1986), in December 2006 the Slovenian government adopted the "Operational programme for reduction of greenhouse gas emissions until 2012". This programme was revised in July 2009. Before the Copenhagen Conference in 2009 the Parliament adopted the Declaration on the Active Role of Slovenia in Shaping the Future International Climate Policy, providing a broad mandate for climate policy in Slovenia and internationally.

An important step was made by establishing the Government Office of Climate Change in June 2009. The Office is preparing the Climate Act, Low Carbon Strategy till 2050 and takes initiatives in relation to sectoral policies and measures towards achieving mitigation and adaptation objectives. It also works with government, civil society and business stakeholders at different levels to implement programmes and measures. It promotes educational and training programmes to raise awareness about climate change.

The draft Climate Act and the long-term (low-carbon) strategy currently under preparation represent a part of the Slovenia's exit strategy from the global economic crisis 2010-2013. "Green growth" is therefore becoming an important element of a more sustainable economic development. Towards this goal, Slovenia funds research and development in low carbon technologies. Feed-in tariffs and subsidies for renewable energy have already spurred a rapid growth of photovoltaic installations and related business. New building standards are pushing for more energy efficient buildings and the Slovenian Eco-fund provides subsidies and loans for energy efficiency and renewable energy supply in new and existing buildings. Since 2009 energy accounting is mandatory for all public buildings and the Government has introduced a voluntary programme of environmental and energy efficiency in the public administration. EU cohesion funds are being used to improve energy efficiency in hospitals and schools. In the year 2011 Slovenia will prepare the program of subventions for electric vehicles, the goal of which is to put on the street at least from 800 to 900 electric vehicles until the year 2014 as well as develop the necessary infrastructure in partnership with municipalities and electricity distributors.

Another initiative is to improve the utilization of wood from Slovenian forests both as a low carbon material and a source of renewable energy. In order to secure the long terms stability of the forests, which cover 60% of the territory, the harvest is to be increased to 75% of the annual increment of wood biomass, thereby providing both an increased resource base of wood and a carbon sink in the future. In 2008 the government adopted the "strategy of adaptation of agriculture and forestry to climate change", stressing the importance of acquiring new knowledge, as well as awareness-raising and education in this field.

Another aspect that is key to both adaptation and mitigation is spatial planning. The major strategic document in this field is the "Spatial development strategy of Slovenia" issued in 2004. Climate change is addressed indirectly through general guidelines on rational and hazard safe spatial development and through more detailed ones on design of urban areas. Both should be followed by lower planning levels.

A draft proposal for a Climate Act has been under broad public consultation since June 2010. The Act will provide for the long term climate objectives of Slovenia in line with the Copenhagen Accord, a carbon budget for the non-ETS sector, methodology for carbon footprint, integration of sectoral policies and funding of measures in developing countries.

There are between 15 and 20 companies in Slovenia involved in projects related to electric vehicles. Companies that are active in the field of electric drives (engines), various components, mechatronic components and systems for construction of light vehicles, have the total annual export of 1,2 billion €. Currently, 50% of the electric vehicle could be produced in Slovenia.

As a result of Slovenia joining the European Union in 2004 and the Schengen area in 2007, and the development of the highway network, greenhouse gas emissions from transport have increased by more than 50% between 2003 and 2008.

3.8. SWITZERLAND

Switzerland ratified the Kyoto Protocol in 2003, committing itself to an 8% reduction in its GHG emissions by 2008-12 compared to 1990 levels. At national level, the CO₂ Act, which was adopted in May 2000, provides the legal basis for emission reductions. The Act covers only energy-related CO₂ emissions, with a reduction target of 10% by 2010 compared to 1990, which corresponds to the 8% target for GHG as set out in the Kyoto Protocol. Like other alpine countries, such a commitment is not easy to meet due to a highly industrialized economy, and whilst many efforts have been made by the public authorities and voluntarily by private actors, the total GHG emissions have remained approximately at the level of 1990. Yet Switzerland is supportive of the Copenhagen process and has now committed to a reduction of 20% in GHG emissions by 2020 compared to 1990, and may upgrade the commitment to 30% if other developing and developed nations commit as well, thus giving meaning to a globally shared effort. The origin of GHG emissions in Switzerland is mostly concentrated in three sectors (percentages for 2008): Transport (31%), Residential (20%) and Industry (19%); other important sources are Agriculture (11%), Commercial (9%) and Waste (8%).

Through the CO₂ Act and supporting legislation (e.g. Energy Act) Switzerland aims to implement Kyoto and post-Kyoto commitments through a series of combined strategies and policy measures among which the following should be emphasised:

- the introduction of the Energy Act, an Energy Programme and the second edition of the "SwissEnergy" programme (2006-2010), pursuing the efforts of the first one (2000-2005). The objectives are to reduce the consumption of fossil fuels, to slow down the growth of electricity demand and to increase the contribution of renewables to energy supply.
- the introduction of a CO₂ levy on fossil fuels for stationary users in 2008, at 12 CHF/tonne CO₂ (approx. 11\$/tonne of CO₂). The rate has been increased in 2010 to 36 CHF/tonne CO₂ (approx. 35\$/tonne of CO₂), as intermediary 2008 targets were not met.
- the introduction in 2005 of a special levy called the climate cent ("Klimarappen") on fossil transport fuels, which is fed into the Climate Cent Foundation, an initiative of the private sector. The climate cent (1,5 cents per litre) raises 100 million \$ per year and the revenues are invested cost-effectively in offset projects in Switzerland and abroad. Switzerland considers some crucial lessons have been learned in regard to mitigation: More stringent measures are needed for the transport sector, and additional incentives and regulations may be necessary. Finally, adaptation is also a dimension of climate change policy, and a National Adaptation Strategy is currently being prepared.

The Swiss GHG inventory is managed according to a quality management system (QMS), designed to comply with the quality objectives of the good practice guidance of IPCC (2000), i.e. to ensure and continuously improve transparency, consistency, comparability, completeness, accuracy and confidence in national GHG emission and reduction estimates. The NIS quality management system complies with the ISO 9001:2008 standard and has been certified by the Swiss Association for Quality and Management Systems. (Swiss 5th National Communication to the UNFCC, 2009, p. 17)

Various sectors of the Swiss economy are likely to be affected by progressing climate change. In particular, the tourism industry will be hard hit, as the potentially beneficial effects for summer tourism will not compensate for the loss of income in mountain resorts during winter due to scarcity of snow. (Swiss 5th UNFCC National Communication, 2009, p.22)