Nepal's Approach and Swedish policies to combat Climate Change

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Nepal *(South Asia)*	Sweden *(Northern Europe)*
Latitude: 26°22' to 30°27'N	
Longitude: 80°04' to 88°12'E	
Population: 23.2 million	8.9 million
Total Area: 56,812sq.miles	173,730 sq miles

Background

The increasing threat to humanity and the eco-system of climate change due to anthropogenic emissions of Greenhouse Gases (GHGs) to the atmosphere was recognized by the global community with the adoption of the United Nations Framework Convention on Climate Change (UNFCCC) in June 1992. As far as possible, though a Non-Annex I Party to UNFCCC, Nepal has realized the obligation to the Convention and is making effort towards reducing emissions of GHGs likes to participate and cooperate in all possibilities within the Framework Convention in international and regional activities dealing this climate change issue.

Nepal has reasons to be concerned about climate change. Being an under developed country it is more vulnerable to the effects of climate change due to its high dependence on climate-sensitive sectors like glaciers, agriculture and forestry, and its low financial adaptive capacity. Human induced climate change is already taking place, showing its effects and certain to proceed in future decades. Annual GHG emission of Nepal is about 0.025% with less than 0.4% of the world population which is negligibly small. Nepal's vulnerability to damage from climate change due to increasing temperatures are more in high mountain areas as glaciers and snow fields will recede and may even disappear, reducing Nepal's dry season river water source. This will impact on irrigation and drinking water supply as well as reliability of hydroelectricity. Furthermore, retreating glaciers often leave behind growing glacier lakes that can break through terminal moraines causing catastrophic floods. There is likely shift in monsoon precipitation patterns that will threaten current agricultural practices, in addition to threaten infrastructure. Biodiversity, especially in mountain areas, are vulnerable to changing temperature and moisture patterns due to restriction in migration of species.

Nepal's Strategies for Environment problems

Nepal has prepared its Inventory of Greenhouse Gases on the twelve month period beginning July 1994 and ending June 1995 in line with the Revised IPCC guidelines of 1996 were followed as the methodological basis for estimating GHG emissions and sinks while making the First Initial National Communication to the Conference of the Parties of the United Nations Framework Convention on Climate Change. Nepal has enforced a variety of strategies and has to

imply different policies owing the long term climatic change affects. The 9th and 10th Plan has emphasized several alternative energy sources to reduce the domestic use of wood and fossil fuels with more use of hydropower and bio-gas. Most recently, Interim Government of Nepal has decided to promot CDM projects under the UNFCCC and alternative energy system in rural communities in Three Years Interim Planning (Basic Paper 2007/08-2009/10). Policies have also been implemented to import Euro-1 standard vehicles and ban the registration of two stroke vehicles to increase the efficiency and reduce pollution from the transport sector. Now there is specification of Ambient air quality standard and different monitoring stations (PM10, TSP, NO2, SO2, Benzene) functioning 24 hrs daily. As forests are important carbon sink and important natural eco-system, Local Community Forests (Forest Act 1993) have to manage under sustainable forest management principles. National Parks, non-Hunting Areas and Wildlife Sanctuaries comprising 18% of total land areas have also been declared as conservation forests and various measures have been employed to protect the conservation forests. Since the sources of water have to be protected; the plan should also pay attention to the protection of the upper watershed in the country as Climate Change mitigation. A policy should link construction of tube well in Kathmandu and Terai region to monitor indiscrimination of ground water. Particular attentions should be placed on breeding strong drought/paste/diseases resistant varieties and the development of measures for soil and water conservation. It is also essential that adequate fund needs to be provided for conducting research to address the climate change in agriculture.

Swedish Polices and Efforts

According to Swedish national policies and its efforts to contribute to an international future climate regime post 2012, climate change is a major environmental and political challenge.. Sweden has to set an example by decreasing GHGs by four percent lower than 1990 levels from combined proactive climate policies and economic growth. Sweden has one of the lowest emissions levels per capita among industrialized countries and already lowered GHGs by seven percent in 2005 than in 1990 with economic growth of 36%.

In 1991, Sweden introduced carbon dioxide tax to limit climate impact in a socially and economically efficient manner. Swedish climate policy is based on the use of economic instruments. Hydro and nuclear power, largely carbon neutral, are means for production of electricity and has a system of green electricity certificates to stimulate the production of electricity from renewable sources, such as wind power, hydro power and combined heat and power production (CHP) based on biofuels. To reduce emissions from transportation investments are made to research and development of green cars and has introduced a rebate is granted to purchase a new green car. Sweden has a system of green electricity certificates to stimulate the production of electricity from renewable sources, such as wind power, hydro power and combined heat and power production (CHP) based on biofuels.

Without having broader and deeper cooperation with business and industry, the research community as well as the political sphere it is impossible to mitigate the impact of climate change so different initiatives like setting up of a Commission on Sustainable Development, a Scientific Council on Climate Issues and a Climate Committee to review climate policy has been

established by Sweden to increase involvement of the entire society. In 2008, the Government of Sweden has planned to produce climate policy bill to the parliament as one scheme.

Sweden works to achieve national climate policy for the national target for the period 2008-2012 and to shed light on what additional action may be required. With a population of some 9 million, Swedish contribution to annual global emissions of greenhouse gases is nearly negligible. Therefore, Sweden believes that international co-operation is of decisive importance in the effort to combat climate change.

In an informal meeting in Riksgransen on June 11-14, 2007, the Swedish Government along with some 27 Environment Ministers discussed climate change and a new climate regime where Sweden suggested measures to all countries particularly for poor and vulnerable developing countries;

- More ambitious and legally-binding emission reduction targets for all developed countries;
- Enhanced mitigation actions by developing countries;
- Further action on the deforestation issue;
- Management of unintended consequences of adaptation and mitigation policies;
- Technology development, diffusion and commercialization, in order to support mitigation, adaptation, and more generally, decarbonisation of our economies.
- Investment, incentives, financing, capacity-building, awareness and education.

Conclusion

Everyday human induced and natural GHGs are increasing in the atmosphere. The industrial countries emits enormous amount of GHGs from their industries every hour and blame the developing nations for deforestation and burning of firewood. The global temperature will rise between 1.5° to 4.5° Celsius by sometime in 21st Century (IPCC 2001) and UN has declared that the world has only eight years left to save climate (Climate Today, May 8, 2007).

Both Nepal and Sweden produce negligible rate of GHGs but diverge in most of the aspects like climate, geography, development etc. Sweden is serious in making and following policies both in the short and long term. Sweden's policies are significant in the Nepalese context as well though strategies and policies exist already. Nepal desires to acquire support equally from social and political sector to build capacity to respond to the problem. The political sustainability highly alters the policies to combat climate change else the Greenhouse Gas Emissions Inventory and Mitigation Options remain unconvinced, though doubts and arguements continue in the timing and precise extent. The Nepalese Government has to set out obligatory contribution to international efforts like Swedish policies to address climate change issues. . Until this occurs, Nepal lacks the capacity to address climate change problems, and discussion on sustainable environment management remain insignificant.

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