Climate change will pose major challenges to the economic, environmental, social and security development in Central Asia. The change might be more severe than in average. The latest IPCC report (2007) forecasts that the temperature raise (3.7°C) will be higher in the Central Asia than in general (2.8) by 2100.

Main impact of the climate change will lead to melting of the glaciers. In the last century one third of the glaciers were lost in Tajikistan and 1000 glaciers in Kyrgyzstan only in the last four decades. In mountainous environment this will pose serious risks for natural catastrophes such as floods and landslides as well as shortage of water.

Lack of water will have a considerable impact on agriculture and energy production. It also leads to increasing health and sanitation problems. Moreover girls would have less time for school or drop out totally as they would be needed in water and food supply in families.

As agriculture will encounter serious difficulties and population will increase simultaneously, we may face increasing unemployment, rural poverty, migration, social instability and conflicts.

Why gender matters

Impacts of the climate change are not gender neutral. Therefore also the mitigation and adaptation measures have to be tailored in a gender sensitive way.

1. Climate change will impact more women than men in the country side

Agriculture is an important source of labor. Some 60 percent of the population live in countryside in the Central Asia. With increasing unemployment in agriculture men tend to seek other employment and move to cities.

Some studies indicate that the number of women lead agricultural production and women workers in agriculture has increased significantly in last decade in Uzbekistan, Tajikistan and Kyrgyzstan (Food Security and Climate Change In Central Asia and Caucasus, ICARDA 2009). The number of poor people having no access to land and working for payment in kind or low salaries has been increasing and the majority of these workers are women.
2. **Involve the women in the adaptation measures in agriculture and water management**

As the majority of the rural agricultural workers are women, they have to be involved in the planning, decision making and implementation of the adaptation measures. The central Asian region will have many options for adaptation. The rich variety of crops will allow changing the crops to more drought and salinity tolerant species, altering the crops, getting a better mix including vegetables, fruits and herbs and increasing the value level. Water harvesting, storing and developing water saving irrigation techniques need to be employed. Decreasing pesticides and fertilizers as well as moving to regenerative eco farming would improve the yields as well.

In mitigation women farmers can make a contribution by crowing plants suitable for fuel production. Those plants should, however be produced only in marginal areas.

When women will be included in the planning and decision making they will also become committed and the adaptation and mitigation work will be more effective.

3. **Women have the necessary information and experience**

As women have information on the properties of the various plants, species and local situations, they are better in position to make the necessary changes of crops. Their local knowledge should be used fully in the adaptation decisions.

4. **Changing lifestyles contributes to mitigation**

Foodstuffs consume various amounts of water and energy in the production. E.g. vegetable proteins (beans) are considerably less water and energy intensive than red meat, and then you have a wide variety of cereals, milk, eggs, chicken and coat meat in between of those two extremes. Women make the daily consumption decisions both at the countryside and urban areas. In accordance wit the OECD studies women’s role is decisive as they make 80 per cent of the purchasing decisions. The Central Asian behavioral patterns may not be similar to those of the OECD countries, but they may develop towards similar direction over time.

In urban areas women can play further role in making the daily decisions on water and energy consumption. Water and energy savings will make a contribution in climate mitigation.

The biggest role will, however, be played by moving to renewable energy consumption. Solar and wind energy offer the greatest possibilities. Introducing these sources would also leave more water to other purposes. Women participation should be extended from the family spheres also to important issues of the whole society. It is interesting to note that in cities the women participation is more visible. At district level is does not exceed 25 percent. In average it is estimated to be about 18 (Food Security and Climate Change in Central Asia and the Caucasus, ICARDA 2009).
Due to their social roles and labor tasks, women have potential to participate in the adaptation and mitigation activities. However their capacity, access to knowledge, resources and technology and decision making should be strengthened.

**International cooperation for combating the climate change**

The Kyoto Protocol of the Climate Convention (UNFCCC) will end 2012. International negotiations are going on the new, more ambitious agreement on climate change reflecting the Copenhagen Accord (2009). It will cover extensively the issues of climate change. In addition to introduction and shared vision it will concern mitigation, adaptation, forest issues, finance, technology transfer and capacity building. Women have to make their active contribution on all these areas. This would make the implementation of the new agreement more effective.

Therefore Finland has engaged actively in promoting the integration of gender perspective in the new agreement. For that purpose we have cooperated with the Global Gender and Climate Alliance and other interested partners and promoted extensive awareness campaigns of the political decision makers and training of the climate experts. During the first two years cooperation, we have reached more than 3000 persons through side events, major conferences and training of the delegates in connection of the climate negotiations.

Most rewarding capacity building activity has been the establishment of the Women Delegates Fund, through which we have been able to support the participation of the female delegates of the developing countries. Ten delegates have been supported for most sessions, in Copenhagen the number exceeded 20.

The awareness raising and increased participation of the women was reflected already summer 2009 in the proposals of countries or group of countries on the new agreement. 34 proposals were made on the integration of gender in the new agreement. During the negotiations overappings have been cleaned out and the present text has eight references to gender.

We do not expect the new agreement to be reached yet at the 16th session of the Conference of the Parties in Cancun. However, important decisions could be agreed if all Parties show political will as well realistic and pragmatic approach. Processes leading to the establishment of the green fund, technology transfer, adaptation framework, capacity building and forestry issues, so called REDD+ could be developed further by a COP decision.

**Support for the developing countries on mitigation and adaptation**

The existing arrangements under the UNFCCC and other relevant international cooperation offer already well functioning support for developing countries for their action against climate change.

National data collection and communication as well as preparation of national action plans provide good tools for planning of concrete action. Global
Environment Facility (GEF), the financing mechanism of the Climate Convention is financing the national communications and implementation national mitigation and adaptation measures. A special Adaptation Fund has been established to finance the preparation of adaptation plans, NAPAs and their implementation. These NAPAs have been prepared by 44 countries, but not yet by any Central Asian countries. In connection of the GEF, there are also Least Developed Countries Fund and a Special Climate Change Fund. Nairobi Work Programme on the assessment of vulnerabilities is providing support to countries analyzing their situation.

All these arrangements should be more open for women as well. GEF has taken a decision to integrate better gender perspective in its financing activities last May. These arrangements should provide the necessary funding and capacity building for increased participation of women.

Cooperation within the Climate Convention is supplemented by other multilateral and bilateral activities. European Union is the biggest aid donor, and since 2002 Johannesburg Summit on Sustainable Development it has cooperated through its Water and Energy Partnerships. It has also launched a Climate Partnership.

Cooperation in the ECE and with the OECD will provide the Central Asian countries good information and knowledge base. Next Environment Ministers Conference of the ECE will be convened here in Kazakhstan in Astana next year. Its main themes, Green Economy and Water Management, are most relevant also to the climate change.

Finland is cooperating with the Central Asian countries trough a Wider Europe Initiative. This includes water, environment, energy and meteorological programmes.

In accordance with the OECD statistics, the Central Asian countries receive some 3 billion USD annually for their development activities. 27 percent of these funds are for water, agricultural and energy sectors. Climate considerations should be integrated in all this cooperation.

The Copenhagen Accord will bring further 30 billion dollars for fast start cooperation and 100 billion dollars by the 2020 for climate cooperation. These resources have to be used in an integrated way also for the sustainable agricultural, water, energy and forest management.

These resources will also be available for the Central Asian countries and support their own development towards a more prosperous future. It will be very important the women will have a say and participate more actively in shaping the future of their societies.
CLIMATE CHANGE AND GENDER

1. The climate change will have very severe impacts in Central Asia as the rise of the temperature will be higher than the average and the mountainous environment will make the situation very vulnerable. The impact will mean smelting of the glaziers bringing natural catastrophes and water scarcity. This will lead to difficulties in agriculture and energy production. It will also bring about increasing problems in health care and drop outs of girls in education. Decreasing crops in agriculture will further lead to unemployment, increasing rural poverty and migration which will mean social conflicts.

2. The impact will not be gender neutral. 60 per cent of the population is living in the countryside, majority of the farmers and rural workers will be women. Due to their social and labor roles women will be affected more. Due to their roles, women can also make a major contribution to the mitigation and adaptation.

   • Having knowledge of the properties of local species and situations women would have expertise in participating in the selection of heat and drought resistant crops, their alteration and proper mix for increasing the value level.
   • Women should also participate in the development of water saving irrigation techniques as well as decreasing the chemical fertilizers and pesticides.
   • Likewise the women can contribute in energy and water saving in urban areas.
   • Women make the daily consumption decisions in families both on the food stuffs and other house hold purchases and can change consumption and production patterns.

3. In order to make meaningful contribution both in adaptation and mitigation, women need the necessary information, capacity building, access to financial resources and technology as well as full participation in the planning, decision making and implementation of the measures related to the climate change.

4. It will be important that the gender perspective will be included in the ongoing negotiations on the new and more ambitious climate agreement. Women should participate more actively in the negotiations. Finland has together with the like-minded parties promoted wider contribution of women in all climate activities.

5. The present cooperation within the Climate Convention, UNFCCC and the Kyoto Protocol as well as other multilateral and bilateral cooperation offers a variety of options to obtain relevant information, capacity building, resources and technology to plan and implement national measures against climate change.

6. In accordance with the OECD statistics the Central Asian countries are receiving some 3 billion dollars aid for their development annually. 27 percent of these resources support agricultural, water and energy development. Combating climate change should be integrated in these development efforts. Further resources will be provided through the Copenhagen Accord implementation.

7. Development of agriculture, energy and water sectors in environment and climate friendly way will play a central role in the development of prosperous Central Asian societies. Women should participate fully in this work.