

**Address made  
by**

**H.E. Ato Meles Zenawi**

**Prime Minister of the Federal Democratic Republic of Ethiopia**

**At the**

**Conference of Hydropower for Sustainable Development 2011**

**March 31, 2011  
Addis Ababa**

**Excellencies,**

**Ladies and Gentlemen,**

I would like to welcome you all to Hydropower for Sustainable Development 2011, a conference organized to chart a new course for power sector development in our country and our region and to build consensus among key stake holders on the way forward. I would also like to thank all the participants for taking time to attend this important conference and the organizers and sponsors of the conference.

**Excellencies,**

**Ladies and Gentlemen,**

It seems everyone is convinced that infrastructural constraints constitute the major bottleneck for sustained growth in Africa. The World Bank has carried out a study which not only confirms this conclusion but suggests that Africa will need to invest more than 90 billion dollars per year to overcome the gap, a key aspect of which is the acute shortage of electric power across the continent. The AU, the ECA and the African Development Bank have all come up with similar findings and have begun to take concrete steps to address the challenge. The G-20 in its last summit in Seoul not only endorsed these findings but has taken concrete steps to mobilize the necessary fund for public and private investment in infrastructure in general and power generation in particular. It is therefore difficult to imagine any other issue on which there is such a global and overwhelming consensus.

Power generation as a key aspect of the infrastructure gap in the continent has its own peculiarities because of its potential negative impact on the environment. The threat of global warming is such that Africa must generate its electricity not only from clean but also renewable sources to the maximum extent possible. Clean but not renewable sources such as nuclear power, as well as carbon based sources should not therefore be vital parts of Africa's Energy future. The state of development of technology in the power sector is such that hydropower will have to be at the center of Africa's Energy future. The fact that

Africa has significant potential in hydropower and has only used 5-7% of its potential as compared to Europe which has used over 75% of its potential and North America which has used over 69% of its potential means it has a lot of catching up to do in the sector.

While thus hydropower as clean and renewable source of energy with huge untapped potential cannot but be central to our investment in power generation there are other concerns that need to be addressed if we are to use our hydropower potential sustainably and to maximize its benefit for all. First there is the issue of transboundary rivers that requires a win-win arrangement wherever possible. The fact that hydropower generation is a non-consumptive use of water means that this is the least controversial use of transboundary rivers. There are also other environmental and social concerns that need attention. Displacement of people must be minimized and adequate redress for those displaced must be made available. The impact on the flora and fauna of such projects should also be minimized. All of these considerations can and should be easily taken care of to enable us to develop our hydropower potential sustainably, to avoid damage to our environment through massive carbon emissions or potential nuclear melt-downs.

**Your Excellencies,**

**Ladies and Gentlemen,**

Ethiopia is sometimes characterized as the water tower of Africa. This characterization is used to indicate not only the huge surface water resources of our country but also the fact that these resources flow from our highlands through steep ravines and gorges making our country ideal for hydropower generation. Ethiopia with its over 45 thousand MW potential of hydropower is indeed second to only the DRC in this regard.

Our government has decided to exploit Ethiopia's abundant resources to generate electricity from renewable sources not only to relieve the acute shortage of electric power that we currently face in our country but also to export power to neighbouring countries which are less endowed in renewable sources of energy. Indeed Ethiopia has developed

plans to achieve zero net emissions of carbon by 2025, an ambitious and noble target set by only a handful of countries in the world partly because it is aware of its potential.

Our plan for 2025 is based on three pillars. The first pillar is to generate virtually all of our electricity from clean and renewable sources centered on hydropower but one that also includes wind, geo-thermal, and biogas from sugar plantations as important supplementary sources of power. The second pillar of our plan is to maximize the use of electricity and bio-fuels for transport and other energy needs. The third and final pillar is to carry out a massive re-forestation programme of degraded land to, among other things, serve as a huge carbon sink. In this regard we plan to re-forest over 15 million hectares of degraded land in the coming years. In other words our ambitious plans to build up to 8000 MW of additional capacity from hydropower in the next five years would not only contribute to filling the infrastructure gap in our region that everybody agrees needs to be removed expeditiously but does so in a manner that would help reduce our carbon emission to zero and help neighbouring countries to reduce their emissions significantly.

The topography of our country is such that our hydropower dams have to be built across deep gorges. As a result their adverse impact on the flora and fauna of the vicinity of the dams is very limited. As few people live in these gorges the impact of the dams in terms of displacement of people is also very limited. Nevertheless we have decided that each and every dam we build should be based on thorough studies of their environmental and social impact with the view to reducing any negative impact to the maximum extent possible. The dams we have built so far have shown that we are indeed able to reduce the negative social and environmental impacts of hydropower dams to the extent that such impact could be characterized as negligible, certainly in comparison with dams elsewhere in the world.

Most of the dams in our country have to be built on cross-boundary rivers particularly the Nile. We have therefore been guided by the principle of doing no appreciable harm to downstream users when we build dams. In any case hydropower dams use water to generate electricity but do not consume it. Hence they cannot possibly do any appreciable harm on downstream users. Indeed in the case of Ethiopia's dams

downstream users benefit a lot. Dams in Ethiopia prevent flooding in lower riparian countries. They prevent siltation of dams downstream. They generate clean energy that would be used by downstream countries. Last but not least our dams actually increase the flow of water in the rivers. This is so because our dams built as they are in deep gorges of our cool and wet highlands lose a lot less water to evaporation as the surface of water exposed to the sun is much lower than in the lower riparian countries and as the rate of evaporation here is much lower than in the hot and arid environments of the lower riparian countries.

If hydropower dams are to be built anywhere on earth, then Ethiopia is a prime candidate. Hydropower dams in Ethiopia address acute power shortages in the country and the sub-region, an acute shortage that all and sundry agree is a major bottleneck in the fight against poverty in our country and region. Hydropower generation in Ethiopia is part of a most ambitious and environmentally sustainable path of development with zero net carbon emission in the country and significant reductions of emission in the sub-region. Hydropower projects in Ethiopia have been shown to have negligible deleterious social and environmental impact compared to virtually anywhere else on Earth. Hydropower dams on transboundary rivers in Ethiopia not only cause no appreciable harm to lower riparian countries but actually increases the benefit they derive from these rivers.

**Your Excellencies,**

**Ladies and Gentlemen,**

Given this facts the average Ethiopian would be excused if he/she were to conclude everyone in the world would support our ambitious plans for the sustainable development of our hydropower resources. Indeed most informed parties are supportive of our plan. There are only two small but important constituencies which are the exception.

On the one hand we have what I would call hydropower extremists who would oppose hydropower development in poor countries because according to them such projects inevitably impact the environment negatively. In the words of President

Museveni these people are concerned that butterflies will be disturbed by such projects and they will not allow the disturbance of butterflies even if this means millions of people have to be subjected to the deadliest killer diseases of all, poverty, in order not to disturb the butterflies. Indeed the best of hydropower dams like virtually every human endeavor are bound to have some negative social and environmental impact however negligible. The rational question to ask is not whether such impact can be reduced to zero but whether it can be reduced to the maximum extent possible and whether adequate redress and compensation is available for that which cannot be reduced. But these extremists who are based and financed from Europe and North America are not amenable to rational arguments. Their holier than though attitude is all the more ironic because these groups who have done virtually nothing to stop their countries from building all the dams they can build while at the same time single handedly subjecting our planet to the threat of catastrophe because of global warming are trying to stop projects in poor countries such as Ethiopia that are infinitely more environmentally and socially responsible than the projects in their countries, past and present. I am not a believer in conspiracy theories but if I were I would conclude that these people want Africa to remain as it currently is with all its misery and poverty so that they can come and visit nature in its pristine state in the winter every so often. Beyond conspiracy theories I believe the position taken by such groups is not only irrational but also bordering on the criminal.

Equally irrational is the position taken by some politicians in Egypt to oppose virtually every project in the Nile in upper riparian countries including hydropower projects that have no consumptive use of water and have beneficial impacts on all.

**Your Excellencies,  
Ladies and Gentlemen,**

I have dealt with these issues at length and in a brutally frank manner because a lot is at stake. The future of millions of people in Ethiopia and elsewhere in the continent is at stake. We all agree that we have to fight and conquer poverty and to do that we have to make massive investments in infrastructure including in power generation. Our investments in power generation must be environmentally and socially responsible. The key means of achieving that is to develop our highly undeveloped hydropower potential

for sustainable development. We are able and ready to use our hydropower potential responsibly and sustainably. Ethiopia's own ambitious plans in this regard are indications of Africa's readiness and eagerness for the sustainable development of hydropower.

We need the support of all our partners to build the dams as our savings are inadequate. If our partners are deterred from doing so because of the noisy campaign of environmental extremists and some politicians with old fashioned ideas, they will in effect be condemning millions of Africans to poverty. That cannot be just. That cannot be fair. It certainly cannot be environmentally or socially responsible. Indeed at a time when we are being told to reduce carbon emissions and at a time when the risks of nuclear power are visible to everyone, it would be doublespeak of the highest type for our partners to turn their back on the environmentally and socially most responsible programmes for power generation in our Continent.

In conclusion I would like to state, that while Ethiopia is very grateful to all our partners for their support of our hydropower projects so far and hopes that this will continue in the future, it will never stop its programme because of lack of external support. We are so convinced of the justice of our cause, so sure of the strength and rationality of our arguments, so convinced of the role of our hydropower projects in eliminating poverty in our country that we will use every ounce of our strength, every dime of money that we can save to complete our programme.

**I thank you for your kind attention!**