

# Financing of reinforcement of dam infrastructure in developing countries

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The Committee on Development adopted the own-initiative report by Nirj DEVA (ECR, UK) on financing of reinforcement of dam infrastructure in developing countries.

Members highlight that water is a scarce natural resource which gives rise to equity consideration in its allocation. Its management is undoubtedly a key challenge facing the world. They also point out that there has been a documented increase in the frequency of serious floods throughout the second half of the 20th century, that flooding will prove a critical issue in the coming decades and that the least developed countries (LDCs) are the most vulnerable to the effects of flooding.

They consider it essential to adopt **a multi-pronged flood strategy** in regions where there is a critical threat of floods posed by unstable glacial lakes, exacerbated by the effects of global warming on precipitation patterns and by black carbon deposits, proved to accelerate glacial retreat. They deplore the utter lack of flood prevention measures in many LDCs but **warn against relying on large dams to prevent flood damage**, especially in a context of climate change, in which extreme precipitation events are likely to increase the intensity and frequency of flash floods, thereby raising concerns about dam safety.

**Use of dams:** Members stress that dam construction must be assessed in terms of its impact on river flows, the rights of access to water and river resources, and whether the dam will uproot existing settlements, disrupt the culture and sources of livelihood of local communities, or deplete or degrade environmental resources. They recall that floods in LDCs threaten not only lives but also the areas' development. They cite, in particular, South Asia where an estimated 1.3 billion people rely on the 10 identified perennial river systems, which are fed by rainfall and runoff from melting snow and glaciers in the Himalayas.

**Investments:** Members consider that balanced investment in demand-side management measures, land management, improved water capture and storage methods and institutions is needed to increase the sustainable and efficient use of water, to mitigate the effect of recurrent floods and droughts. Priority should be given to investments that focus on growth, reduce rural poverty and build climate resilience. They take the view that **investment in capacity building** is necessary as sound water management institutions can ensure sustained returns on water efficiency investments and optimize the allocation and use of water by multiple economic sectors and across administrative and political borders. They strongly support the recommendations of the World Commission on Dams (WCD) according to which **priority should be given to optimising the performance of existing infrastructure** before building any new projects. They consider that periodic participatory reviews should be carried out for existing dams to assess issues including dam safety and the possibility of dam decommissioning.

**Design of dams and climate change:** Members note that most dams are designed on the basis of historical data of river flows, with the assumption that the pattern of flows will remain the same as in the past. They point out that climate change has introduced huge uncertainties in the basic parameters affecting dam projects and that climate change is likely to exacerbate further the problems connected with sedimentation, whose accumulation behind these dams also deprives downstream plains of nutrients that are essential to soil fertility. They note that small water storage facilities can increase **climate resilience** by providing cost-effective solutions to water supply and drought mitigation and improve food security by increasing agricultural productivity. Small storage options include off-stream reservoirs, networks of

multipurpose small reservoirs and groundwater storage. Furthermore, they stress that there is **little evidence to establish that big dams are the only, the best or the optimal solution** to the electricity question as they do not necessarily improve access to power for the poor and vulnerable sections of society. They stress that constructing and reinforcing dams in LDCs is not enough to safeguard vulnerable areas and call for a concerted effort in dealing with the root of the problem, not merely the symptoms, **thus preventing the wasteful spending of EU taxpayers' money.**

**Dams and electricity production:** Members call on the EU, in addressing the root causes of the increased frequency and intensity of floods, to make further commitments in greenhouse gas reductions so as to meet its objective of limiting climate change to 2°C above the preindustrial level. They urge the EU to widely implement and promote emission reduction measures targeting black carbon, such as the recovery of methane from coal, oil and gas extraction and transport, methane capture in waste management and the use of clean-burning stoves for residential cooking, which will contribute to combating climate change and to reducing glacial retreat. Convinced that small hydropower dams are more sustainable and economically viable than large hydropower; in particular, they stress that decentralised, small-scale options (micro hydro, home-scale solar electric systems, wind and biomass systems) based on local renewable resources are more appropriate in rural areas far away from centralised supply networks. They urge immediate action be taken with a view to **reducing black carbon and methane emissions**, mainly through the promotion of research and investments in technology aimed at reducing polluting emissions.

Other recommendations include:

- the establishment of a global early warning system for floods, landslides and tsunamis;
- the formation, as a matter of urgency, of a cross-border agency, established under the auspices of the United Nations, with the express purpose of sharing available data, addressing the problems and causes of transboundary water-related hazards;
- the comprehensive, transparent and participatory evaluation of the full range of options available to reduce the impacts of floods and meet water and energy needs, with priority given to ecosystem-based solutions and to making existing systems more effective and sustainable.

Members suggest, furthermore, that dam projects could easily be implemented as so-called 'fast-win' projects, provided that a number of social, economic and environmental criteria are met.

Members stress that any **planning of dams should be evaluated according to five values:** equity, efficiency, participatory decision-making, sustainability and accountability. They urge, more broadly, that the decision-making process on dams take fully into account the notion of human rights and that there is a full evaluation of the environmental and social costs to be conducted in a transparent manner, with public participation, prior to the approval of any dam project.